

House of Commons  
Science and Technology  
Committee

**SHORT-TERM  
RESEARCH CONTRACTS  
IN SCIENCE AND  
ENGINEERING**

Eighth Report of Session 2001–02

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*Report, together with  
Proceedings of the Committee,  
Minutes of Evidence and Appendices*

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A list of Reports of the Committee in the present Parliament is on the inside front cover of this volume.

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### Footnotes

In the footnotes of this Report, references to oral evidence are indicated by 'Q' followed by the question number. References to written evidence are indicated by the page number as in 'Ev 12'.

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## SUMMARY

Over 40,000 researchers in Britain's universities are employed on short-term contracts, some as short as one month. In science and technology around half of all researchers are on short-term contracts. This Report examines how this situation arose; the effects it has on the researchers themselves, the higher education institutions and on the research undertaken; considers what is being done to address any problems; and seeks to establish what still needs to be done.

We found widespread dissatisfaction and demoralisation among contract researchers, some of whom have been employed on 20 different contracts in as many years. For many researchers there is no career structure and little hope of obtaining a permanent position. The research in our universities suffers in such a climate. Many researchers are either new in position or searching for their next contract. Research is left unfinished or unpublished.

In recent years the proportion of research income for universities that has come through short project grants has increased. The financial pressures faced by universities mean that it is risky for them to employ researchers for longer than the research grant. But universities have deflected the risk onto the researchers; this bad management has added to the plight of contract researchers. In this respect, universities have failed their research workforce and the UK's science base.

The Research Councils, from whom much of the project funding is derived, have failed to take responsibility for the researchers they fund. Many contract researchers are denied the right to apply for research grants in their own name, a policy that leaves them unable to take charge of their careers.

The Roberts Review's proposals are disappointing. It fails to appreciate the demoralisation of contract researchers and its solutions simply address symptoms not causes.

Successive Governments have failed to recognise that allocating its research funding in short grants creates instability in the research base. Research funding in the UK needs to be balanced, regardless of the level of expenditure.

We need imaginative solutions challenging the way research is managed in universities and its relationship to teaching. The higher education review must provide solutions that embrace all the staff employed in universities.



# EIGHTH REPORT

**The Science and Technology Committee has agreed to the following Report:**

## **SHORT-TERM RESEARCH CONTRACTS IN SCIENCE AND ENGINEERING**

### **INTRODUCTION**

1. Around half of all science and technology researchers working in UK universities are employed on fixed-term contracts as contract research staff. We were concerned that this situation might undermine the productivity and enthusiasm of researchers and make a research career in science or engineering an unattractive option. We felt that this issue would have to be resolved if the quality and reputation of UK research in science, engineering and technology were to be maintained and if universities were to be the drivers of their local economies as the Government wished.

2. There have been a number of policy initiatives in recent years that have addressed this issue but we were concerned that the focus had been on managing the situation rather than tackling the underlying causes. We decided to conduct a short inquiry to identify some of the problems faced by contract researchers, scrutinise efforts made by Government and universities and suggest a productive way forward. While this inquiry will focus on researchers, we are aware that there are similar issues that apply to support staff, in particular technicians. We also appreciate that the flow of PhDs into research careers impacts on the issue but it is outside the scope of this inquiry.

3. The Committee received 87 submissions of written evidence and held a single oral evidence session on 3 July 2002, from contract researchers at various stages of their careers; the Association of University Teachers and NATFHE, the university and college lecturers' union; Universities UK; and Sir Gareth Roberts, President of Wolfson College, Oxford, Chairman of the Research Careers Initiative and author of a recent review for Government on the supply of scientists (the Roberts Review). We are grateful to all those who have assisted with the inquiry, in particular to our Specialist Adviser, Professor Michael Elves, formerly Director of the Office of Scientific and Educational Affairs, Glaxo Wellcome plc.



## BACKGROUND

4. Most public sector research in the UK is conducted in higher education institutions (HEIs). The remainder is conducted in public sector research establishments (PSREs), either owned and run by Government directly, or owned or supported by the Research Councils. This report is primarily concerned with research staff in HEIs but will consider researchers employed directly by the Research Councils.

### Public sector research funding

5. Public sector research funding comes from a ranges of sources. In HEIs, the infrastructure funding, including salaries of academic staff on open-ended contracts, is provided by the Higher Education Funding Councils in England, Northern Ireland, Scotland and Wales (known together as the Funding Councils) by means of a block grant.<sup>1</sup> This is one half of what is known as the Dual Support System. The other half comes in the form of project grants, primarily from the six grant-awarding Research Councils and the Arts and Humanities Research Board. These grants typically provide the funding for equipment and the salaries of staff employed for specific and defined research projects which are not funded by the HEIs' block grant. Project funding is also provided by government departments, the European Union, charities (notably the Wellcome Trust) and industry. These external funders pay varying proportions of the project's indirect (overhead) costs. In a research-intensive university, there is likely to be a 50:50 mix of Funding Council and project funding (for example, from Research Councils).<sup>2</sup>

6. Over the past 20 years the proportion of Funding Council funding relative to project funding has dropped.<sup>3</sup> As a result a higher proportion of a university's research income comes from short project grants and more researchers have been employed on short contracts for the duration of the project only.

### Research careers

7. A typical university research group consists of one or more 'principal investigators' (PIs) (usually a member of academic staff who leads the research and co-ordinates the activities of the group), one or more postdoctoral researchers (postdocs), and a number of PhD students. Postdocs conduct research on a specific topic under the supervision and direction of the PI. Often they are also involved in informal mentoring and instruction of PhD students and undergraduate teaching.<sup>4</sup>

8. Scientists and engineers working in universities can be divided into two main groups: academic staff or academic-related staff.<sup>5</sup> The first group are involved in teaching or research, or a combination of the two. Academic-related staff are employed on a short-term contractual basis and are principally involved in research. These are known as contract research staff (CRS), or sometimes as postdocs where the researcher has a doctorate.

<sup>1</sup> Since education is devolved, there are four separate funding councils: the Higher Education Funding Council for England, Higher Education Funding Council for Wales; Scottish Higher Education Funding Council and Department for Education and Learning Northern Ireland.

<sup>2</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts' Review), April 2002, paragraph 5.2

<sup>3</sup> Second Report from the Science and Technology Committee, Session 2001-02, The Research Assessment Exercise, HC 507, Ev 9

<sup>4</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts' Review), April 2002, para 5.4

<sup>5</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts' Review), April 2002, para 5.1

9. In the traditional scientific career, a doctorate would be followed by one or two postdoctoral positions, funded by project grants. Often one of these positions would be overseas, the USA in particular. After this, with the researcher in his or her early 30s, an established permanent lectureship would be sought. The researcher would then embrace teaching as part of his/her duties and continue up the university career ladder, culminating in some cases in a professorship.

10. For the lucky or talented few this is still the case, but from the swelling numbers of CRS it is clear that postdocs find it increasingly hard to find a permanent university position. In 2000-01 there were around 140,000 teachers and researchers working in UK HEIs. Of these, 43,000 were exclusively engaged in research, of whom 41,000 were engaged on a fixed term contract.<sup>6</sup> This compares with 30,000 on fixed-term contracts in 1994-95. The number of women CRS has risen faster than the number of men (an increase of 58% against 20%). Across all disciplines in 1999-2000, 28% of full-time research staff were CRS but in science and engineering it was 42%, and in the biosciences in particular the figure is well over 50%.<sup>7</sup> Between 1994-95 and 2000-01 the number of permanent academic positions increased but less quickly (from 67,000 to 76,000).<sup>8</sup> Only the catering industry employs a higher proportion of fixed term contract workers than higher education.<sup>9</sup>

11. In the title of this report we use the phrase “short-term research contracts”. Fixed-term contracts can vary from one month to five years, with most between two and three years. Our phrase embraces all such contract lengths.

12. Two thirds of a university’s Funding Council block grant is based on the amount and type of teaching it undertakes. Hence it is teaching that largely determines the number of academic staff appointed on open-ended contracts in most HEIs. Since the block grant has failed to keep pace with the growth of research project funding there are insufficient permanent positions for CRS to apply for. At the same time as the growth in public sector research, there has been a reduction in the number and size of UK corporate research laboratories, reducing the options for a researcher unable to secure a permanent academic position.<sup>10</sup> In an Institute of Physics survey conducted in 1999, only 20% of researchers who commenced their first postdoc position between 1988 and 1993 had achieved a permanent faculty position, while a further 20% had remained in higher education in fixed-term positions.

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<sup>6</sup> Ev 49

<sup>7</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts’ Review), April 2002, para 5.6

<sup>8</sup> Ev 43, 49

<sup>9</sup> Ev 96

<sup>10</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts’ Review), April 2002, para 5.5

## FIXED TERM CONTRACTS – THE CONSEQUENCES

### Advantages

#### *Mobility for researchers*

13. A series of short-term research contracts for a young postdoc is considered by many to be a positive thing. The Roberts Review, a Government-commissioned report on the supply of science, engineering and technology skills, sees this as similar to the formal job rotation seen in many industrial graduate training schemes or in medicine.<sup>11</sup> Many would consider it unhealthy for a researcher to remain in the same institution for the first part of his or her career. Researchers who do short contracts abroad benefit from an international perspective and broaden their experience. The postdoc system allows time to assess whether the individual is capable of conducting independent research.<sup>12</sup> The system also ensures regular injections of ‘new blood’,<sup>13</sup> although some argue that there would still be a reasonable level of staff turnover if all researchers were appointed on open-ended contracts.<sup>14</sup> Increased researcher mobility also ensures that there are large numbers of openings available to new postdocs. The John Innes Centre at Norwich claims the preponderance of short-term contracts leads to a ‘vibrant research environment’ because of high staff turnover.<sup>15</sup> We note that the CRS at the Centre do not share the enthusiasm of their management for the present system.<sup>16</sup>

#### *Lack of financial risk for universities*

14. The employing university benefits from short-term contracts in that it employs a researcher only for the duration of the external research grant. It need make no predictions about its ability to attract funding for future research for which an individual researcher is qualified. Put simply, the university places all the risk over its future research income onto the researcher. At a time when universities face a range of financial pressures, employing most of its researchers on a contract is an attractive option.

#### *Research volume*

15. There is an argument that a high proportion of CRS in a department enhances its research output. There is certainly a strong and positive association between the Research Assessment Exercise (RAE) ranking of a university and the proportion of CRS that it employs.<sup>17</sup> Yet it may be that this merely reflects top institutions’ ability to attract project funding and researchers on short contracts. Scientists for Labour believes that the funding mechanisms that lead to a large number of short-term contracts have been “relatively successful in generating high quantity and quality research, which is value for money”.<sup>18</sup>

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<sup>11</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts’ Review), April 2002, para 5.12

<sup>12</sup> Ev 156

<sup>13</sup> Ev 51

<sup>14</sup> Ev 55

<sup>15</sup> Ev 75

<sup>16</sup> Ev 109-110

<sup>17</sup> Ev 104

<sup>18</sup> Ev 150

## Disadvantages

16. Disadvantages can be grouped into those suffered by the individual researcher, those experienced by the institution, and the negative impact on the research being conducted.

### *For researchers*

#### *Career progression*

17. Researchers, often some of the most active in a department, can be on short contracts for over 20 years.<sup>19</sup> Senior CRS become increasingly expensive to hire as they progress up the pay scales and may be priced out of the market.<sup>20</sup> If they are taken on, it can be for a shorter period than for the duration of the research grant which may not provide for a CRS above a certain grade.<sup>21</sup> Dr Bryn Jones from Nottingham University told us that he had accepted a job at a lower grade to his previous job to allow him sufficient time to get results and prove his capabilities as a researcher.<sup>22</sup> As one researcher has put it, “I have qualified myself out of employment and security”.<sup>23</sup>

18. The lack of continuity is the most widespread complaint among CRS. Professor Colin Bryson, a researcher into employment in higher education at Nottingham Trent University, argues that retention from one contract to the next is based more on chance than merit, exacerbating the frustration among CRS.<sup>24</sup> Drs Robson and Allison from the Institute of Grassland and Environmental Research in Aberystwyth claim that it is not necessarily just the high-calibre scientists who get lectureships, merely those whose careers have more readily facilitated such an appointment.<sup>25</sup> There is concern that recruitment decisions are largely reliant on publication record, which is not always a good indicator of ability.<sup>26</sup> Dr David Stevenson, a CRS at the University of Leicester, points out that the continuation of fixed contracts beyond the early stages of a career prevents the consolidation of a chosen career path: “Unless you can get a lectureship ... you are basically stuck with no career ... Once you reach 30 you are in serious trouble.”<sup>27</sup> Matt Hill, a former CRS at Bradford University, told us his career “is one that I have completely designed myself. I have gritted my teeth and got on with it”.<sup>28</sup> The lack of continuity may affect the CRS’s ability to publish their work since they may be forced to move to a new research post at a time when a research project is close to fruition.<sup>29</sup>

19. CRS are often in a position where they have to take what contract is offered to them by their department and are denied the opportunity to develop expertise in a particular field. Dr John Sawyer, a postdoc at Imperial College, London said that while he had papers in five or six different areas, “I do not have a considerable publication list in one area. Whilst that can be argued to be a good thing, at the same time I cannot ever be a reputable person on a particular topic”.<sup>30</sup> Matt Hill said “Perhaps because I was not able to become specialised through searching around for the next contract, that was detrimental to my successfully winning a permanent contract”.<sup>31</sup>

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<sup>19</sup> Ev 156, Q32

<sup>20</sup> Ev 157-158

<sup>21</sup> Ev 146, 110

<sup>22</sup> Ev 77

<sup>23</sup> Memorandum from Frances Moore, University of Oxford [not printed]

<sup>24</sup> Ev 54

<sup>25</sup> Ev 127

<sup>26</sup> Ev 109-110

<sup>27</sup> Ev 154

<sup>28</sup> Q 78

<sup>29</sup> Memorandum from Susan Cooper [not printed]

<sup>30</sup> Q 22

<sup>31</sup> Q 79

20. Many contract researchers have complained about their inability to apply for Research Council grants, saying that this prevents them from taking control of their careers and leaves them open to abuse by senior academics.<sup>32</sup> CRS may seek a “tame” academic who will agree to sign the grant application but may be wary of bringing an idea to an academic for fear of losing credit for it.<sup>33</sup> The system makes CRS dependent on senior academics and prevents young researchers from getting experience of project management.<sup>34</sup> Dr John Sawyer felt that “a short term contract means I do what someone else wants to do, I have no opportunity to do what I want to do or even suggest what I want to do”.<sup>35</sup> Dr Clare Goodess, who has been on a succession of contracts for 20 years at the University of East Anglia, complained that she is coordinating a €2 million project funded by the European Union, but she cannot even be named on a £30,000 Research Council grant.<sup>36</sup>

### *Inadequate training*

21. Although the Roberts Review compares the postdoc system to graduate training schemes in industry, there is concern that little training is given, either to enhance an individual’s role as a researcher and a potential teacher and university administrator, or to develop more general transferable skills that would enable CRS to move easily into other professions, such as staff and resource management.<sup>37</sup> The Roberts Review presents evidence that the amount of training received by postdocs is in decline.<sup>38</sup> The University of Leeds concedes that there is little incentive to provide training beyond that required for the duration of the contract.<sup>39</sup> Robert Patten from Imperial College told us that “The training that is available tends to be part of the university standard personnel training packages, nothing too specific”.<sup>40</sup> Physics postdocs who moved into industry have complained of a mismatch between the skills they acquired as postdocs and those that are required by the private sector.<sup>41</sup> Dr Christine Knott from Imperial College feels that CRS do acquire transferable skills but that there should be some means for gaining accreditation for these to make it easier to move to another career.<sup>42</sup>

### *Salaries*

22. Starting salaries for postdocs have remained unchanged in real terms over the past 15 years, while the average figure for all graduates has risen substantially in this period.<sup>43</sup> Most researchers are driven by intellectual curiosity rather than the desire for high financial reward, yet many feel undervalued and face difficulties as a result of their low pay.<sup>44</sup> We have heard that CRS can be severely disadvantaged in terms of pension arrangements, performance-related pay or other benefits.<sup>45</sup> Researchers may have to face working for a

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<sup>32</sup> Ev 155

<sup>33</sup> Ev 105

<sup>34</sup> Ev 94

<sup>35</sup> Q 20

<sup>36</sup> Q 47

<sup>37</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts’ Review), April 2002, figure 5.3.

<sup>38</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts’ Review), April 2002, para 5.24.

<sup>39</sup> Ev 62

<sup>40</sup> Q 49

<sup>41</sup> Ev 74

<sup>42</sup> Memorandum from Dr Christine Knott [not printed]

<sup>43</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts’ Review), April 2002, para 5.29.

<sup>44</sup> Ev 107

<sup>45</sup> Ev 116

reduced salary funded from ‘soft money’ while awaiting the results of a grant application. Moving from contract to contract can hamper salary progression. Robert Patten told us “For a period of about five years I was stuck at the same grade due to jumping from one short-term contract to another and not being part of an incremental process”.<sup>46</sup> In 1998 NATFHE compared the spending power of academic staff in 15 countries: the UK came tenth.<sup>47</sup> The 2002 Spending Review will increase postdoctoral salaries by £4,000 per year.<sup>48</sup>

23. We were told that many CRS do not receive a redundancy payment. Sir Gareth was under the impression that “most universities have now abandoned that redundancy waiver that we talked about. Certainly the ones that I am associated with have abandoned that some time ago”.<sup>49</sup> He seemed shocked by the experiences of the CRS who gave evidence to us who had to sign redundancy waivers. We have no reason to believe they were not representative.

### *Sex discrimination*

24. While women are underrepresented at senior levels in academia (the Higher Education Statistics Agency estimated in 2000 that 8.9% of professors in science subjects in UK universities were women<sup>50</sup>), 44% of CRS are women.<sup>51</sup> In higher education, women are more likely than men to be working on a fixed term contract.<sup>52</sup> In 2000-01 51% of all women academic staff were on fixed term contracts against 44% of men.<sup>53</sup> The imbalance has deteriorated in recent years: between 1994-95 and 2000-01 the number of CRS rose by 34% but the increase for women was 58%. This suggests discrimination although it could reflect a welcome influx of women into academia in recent years, since newer recruits are more likely to be employed on a fixed-term contract. Dr Elizabeth Griffin, a former postdoc at Cambridge University, thinks that there is an entrenched attitude that “women [are] more suitable for short-term contracts than for the high road of respectable careers” and that since a career on a succession of contracts is not viable, women are “forced out by the short-term contract system”.<sup>54</sup>

25. Sally Hunt from the AUT reports that some women CRS dare not tell their boss that they are pregnant and some find that they have no job to return to after the birth as the “type of research has magically changed”.<sup>55</sup> The evidence we have received suggests that most women CRS qualify for maternity pay, on the same basis as permanently employed staff. However, given that CRS move from institution to institution, frequently they do not qualify since women will not have been employed at one place for long enough.<sup>56</sup> Although not exclusively a problem for women, we have heard that there are few mechanisms for re-entry into research after a career break.<sup>57</sup>

26. Universities UK said at the oral evidence session that they had no data on the availability of maternity leave nor on why women were more likely to work as a contract researcher and less likely to be employed indefinitely. Professor Breakwell felt that it

<sup>46</sup> Q 50

<sup>47</sup> Ev 100-101

<sup>48</sup> HM Treasury, 2002 Spending Review, Cm 5570, p 144

<sup>49</sup> Q 138

<sup>50</sup> Fifth Report of the Science and Technology Committee, Session 2001-02, *Government Funding of the Scientific Learned Societies*, HC 774-I, para 87

<sup>51</sup> Ev 173

<sup>52</sup> Ev 38

<sup>53</sup> Ev 49

<sup>54</sup> Ev 66

<sup>55</sup> Q 99

<sup>56</sup> Supplementary memorandum from the Association of University Teachers [not printed]

<sup>57</sup> Ev 107

might reflect a recent influx of women into scientific research and that there were more jobs available at the lower grades.<sup>58</sup> In writing, after appearing before us, Universities UK identified four further areas which militate against the progression of women researchers from fixed term onto open-ended contracts.<sup>59</sup>

- Mobility: domestic and caring responsibilities inhibit women from moving to where the best jobs are available.
- Grant allocation: women are just as likely to be successful in having their grant applications funded, but they make fewer applications.
- Organisational culture: women's achievements do not get the same level of recognition as men's.
- Reduction in reputation capital: researchers' careers are built on reputation and career breaks will reduce publication output and weaken their ability to establish networks in their field.

### *Management*

27. According to Professor Colin Taylor from Cambridge University, the short-term contract leaves staff "vulnerable to exploitation by host departments".<sup>60</sup> Some senior academics appear to think that large numbers of CRS are a good thing as "it ensures there are plenty of fish in the pool to select from".<sup>61</sup> It has also been reported to us that employing researchers on a contract places pressure on them to complete research projects in unrealistic time periods.<sup>62</sup> We have heard that the system alienates CRS, who become disengaged and therefore disinclined to get involved in the life of the department.<sup>63</sup>

28. A 1999 survey found that 60% of young British researchers felt that they did not receive full credit for the research they undertook.<sup>64</sup> It seems that the principal investigator (PI), who is responsible for the grant and the management of the CRS funded by that grant, is also the person who receives the credit for the success of the research.<sup>65</sup> Postdocs have complained to us that they have no ownership over the system in which they work.<sup>66</sup> Dr Clare Goodess fears that academic staff "deliberately use fixed term contracts in order exert control" over CRS.<sup>67</sup>

### *Insecurity*

29. The lack of job security may make it difficult to get a mortgage and the need to keep moving can have a detrimental effect on the family and on a spouse or partner's career. Even if a contract researcher can get a mortgage, there are large costs associated with buying and selling a house every time a new contract necessitates a geographical move.<sup>68</sup> Mike Ahern, a new CRS, told us that he was fortunate that he did not have a family or a mortgage but if he did he would not be in academia.<sup>69</sup> One researcher tells us that his ageing parents would like to move closer to him but dare not risk him having to relocate.<sup>70</sup> The lack of

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<sup>58</sup> Q 116

<sup>59</sup> Ev 173

<sup>60</sup> Ev 156

<sup>61</sup> Ev 66

<sup>62</sup> Memorandum from Dr Diane Wensley [not printed]

<sup>63</sup> Ev 93

<sup>64</sup> Nature (1999), 397, 640-641

<sup>65</sup> Ev 105, 135

<sup>66</sup> Ev 105

<sup>67</sup> Ev 64

<sup>68</sup> Ev 130

<sup>69</sup> Q 8

<sup>70</sup> Memorandum from Laurence Jones [not printed]

security has an effect on morale. Mike Ahern said he was about to embark on his fourth contract inside 18 months and he had found the experience “pretty demoralising”.<sup>71</sup> Amicus felt that short-term contract employment had “a detrimental effect on the health and well being of researchers and support staff”.<sup>72</sup>

### ***For research***

#### *Timescales*

30. Research timescales cannot always be easily mapped onto the duration of a grant.<sup>73</sup> Given a three-year grant, say, there is no guarantee that the research will be completed in this period. The uncertainty faced by CRS means that long before either the external funding has run out or the research has been completed, they will probably be seeking new employment. This will be a distraction from their research. The research project is likely to suffer from the loss of key personnel at critical times, in some cases making it impossible to proceed with the project, leaving the research ‘in limbo’.<sup>74</sup> We have been told of a CRS who left a post having generated data worth £120,000. The data remain untouched.<sup>75</sup>

31. It may take six months of a three-year grant for a new CRS to settle into a new location. CRS are likely to start applying for the next grant 12 months before the end of their contracts. If staff move when there are only a few months to run on the grant, the university will find it difficult or impossible to recruit a replacement for the short time remaining. A survey of CRS at the John Innes Centre in Norwich found that 46% started looking for a new position a year before their contracts ran out and a further 40% were constantly looking for a new job.<sup>76</sup>

#### *Research management*

32. The lack of career structure has implications for the research being undertaken. As Professor Colin Taylor points out, while the current system may be a good way of identifying the research leaders of the future, technical and other support staff on permanent contracts are becoming a thing of the past, eroding an important part of the management structure.<sup>77</sup> There is a danger that the research is largely being conducted by inexperienced researchers.<sup>78</sup>

#### *Subject shortages*

33. The high proportion of CRS may cause particular problems in less popular, and so less well funded disciplines. Fewer posts in a field can mean that suitable positions can be harder to come by, with the result that discontinuity in employment is more of a problem. Young researchers may be dissuaded from entering certain subject areas, such as systematics.<sup>79</sup>

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<sup>71</sup> Q 5, 7

<sup>72</sup> Memorandum from Amicus-MSF Section [not printed]

<sup>73</sup> Ev 80

<sup>74</sup> Ev 134, Memorandum from the Engineering Professors’ Council [not printed]

<sup>75</sup> Memorandum from the Dr DL Clements [not printed]

<sup>76</sup> Ev 109

<sup>77</sup> Ev 156

<sup>78</sup> Ev 157-158

<sup>79</sup> Memorandum from the Systematics Association [not printed]



*Loss of researchers*

34. It is suggested that the CRS system leaves researchers so disenchanted that they abandon their research careers. While there has been little attempt to measure the loss of researchers by research funders and universities, few doubt that this occurs. We took evidence from Matt Hill, who had 13 contracts over nine years before moving to industry, despite a 22% cut in wages. He told us:

“Now I have left [academia] and work in the private sector I have a permanent contract. I have direct input to the management of the company and I can apply for research funding in my own name under the Department of Trade and Industry’s Small Business Research Initiative.”<sup>80</sup>

The Association of Researchers in Medicine and Science suggests that CRS will jump at the first opportunity of a permanent job, even if it is outside research or in a post-1992 university where the scope for research is more limited.<sup>81</sup>

35. There may be an assumption that there is healthy natural selection and that the system prunes away the less able, that is ‘if you are good enough you’ll get on all right’. The evidence we have received from CRS suggests otherwise.<sup>82</sup> Dr Robert Bradburne has left research after only two years as a CRS:

“I have become increasingly fed up with being told by everyone ... that I am too good to leave bench science, and I turn around to them and say ‘Fine, give me a job then’ and they cannot. They can say ‘Well I am sure we can find you some funding for the next three years’. Fine. Then what do I have at the end of it? No guarantee at all, even though I might be the best scientist in the world”.<sup>83</sup>

As with many other professions it is the most able who are able to find alternative careers. This is supported by evidence showing that fewer graduates with firsts or 2.1s are continuing in science, suggesting that it has become a less attractive career option.<sup>84</sup>

36. We have heard that it is difficult to fill some CRS positions<sup>85</sup> which suggests that researchers are leaving despite a demand for their services or that potential new young researchers are not coming forward. A failure to fill research posts is likely to hamper the research being undertaken. Dr John Sawyer from Imperial College told us that there was no shortage of funding in his department, just a shortage of willing candidates.<sup>86</sup> The loss of researchers can impact on the science base. As Dr Robert Bradburne put it:

“Short term researchers are the ones who do the work. The group leaders are usually so tied up fighting for money that they do not do much science any more, or a lot of them do not because they cannot. People like us are the ones who end up doing the science. If you scare those people away ... then simply you are not going to get the high quality science done”.<sup>87</sup>

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<sup>80</sup> Q 70

<sup>81</sup> Ev 33-34

<sup>82</sup> Ev 110, 111

<sup>83</sup> Q 71

<sup>84</sup> Ev 70

<sup>85</sup> Ev 157

<sup>86</sup> Q 10

<sup>87</sup> Q 75

### *High turnover*

37. The lack of continuity of staffing may slow research progress. At Cambridge University, in 2001, 40% of the postdocs employed by the university were appointed that year.<sup>88</sup> Research Council data show that turnover is two to three times higher for CRS than for researchers on permanent contracts.<sup>89</sup> As Dr Christine Knott points out, the PI will have to invest time in recruiting and training new researchers, which can be a complete waste of time if the CRS moves on after a time for a longer appointment.<sup>90</sup> If a researcher moves to a new position working in a new field, the training investment will be greater with a consequent loss of research efficiency.<sup>91</sup>

### *Short-termism*

38. The need to publish in order to stay employed encourages CRS to select projects in which the likelihood of rapid publication is high. Thus the system encourages short-termism, stimulating “a brain-drain from risky to safe research areas”.<sup>92</sup> We have been told that the contract research system focuses the attention on short-term goals and creates instability that hampers scientific advances that usually require a long-term commitment to research.<sup>93</sup> Dr Eva Link, formerly of University College, London, told us:

“If you have a two or three or one year contract it is absolutely impossible for young people to develop their skills, to develop their intellectual capacity and become independent and, of course, for senior people who are employed on short term contracts: it is absolutely killing the system of long term research”.<sup>94</sup>

### *For institutions*

39. In some areas of research recruitment is difficult and it is hard to retain good staff.<sup>95</sup> CRS are always on the lookout for their next contract or a permanent position outside research. The rules of some Research Councils on CRS can force them to move on. We have learnt of a researcher who was not eligible to apply for a grant because there were only three months left on his contract and no-one was available to front a bid from the university. He found another institution where there was a cooperative academic, made an application, and secured the grant.<sup>96</sup> The high turnover of CRS must place a huge administrative burden and cost on the university.<sup>97</sup> A large proportion of the time of university personnel departments is devoted to CRS. Academics’ time must be consumed equally wastefully.

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<sup>88</sup> Ev 104

<sup>89</sup> Ev 116-117

<sup>90</sup> Memorandum from Dr Christine Knott [not printed]

<sup>91</sup> Ev 76

<sup>92</sup> Ev 106

<sup>93</sup> Memorandum from Dr D Fletcher-Holmes and Ms J Ewins [not printed], Ev 114

<sup>94</sup> Q 89

<sup>95</sup> Ev 115, Q 10

<sup>96</sup> Ev 80

<sup>97</sup> Ev 92, 93

## POLICY DEVELOPMENTS

40. The plight of CRS has been recognised for several years. A number of initiatives and reviews have addressed the problem.

### **Concordat and the Research Careers Initiative**

41. In 1996 the major UK research funders – but not the Higher Education Funding Councils signed “A Concordat to Provide a Framework for the Career Management of Contract Research Staff in Universities and Colleges”. It set “standards for the career management and conditions of employment of researchers employed by universities and colleges on fixed-term or similar contracts and funded through research grants or analogous schemes”.

42. The Research Careers Initiative (RCI) was set up in 1997 to monitor progress towards meeting the commitments of the Concordat and to identify and to encourage good practice in the career management and development of CRS. The secretariat of the RCI is shared between OST (for the funders) and Universities UK (for the institutions). Sir Gareth Roberts chairs the board.<sup>98</sup> We have heard criticism that the board is comprised of director generals, chief executives and vice chancellors who are too far removed from the problems faced by CRS.<sup>99</sup> An interim report of the RCI, published in September 2001, found that progress had been made:

- there was top-level commitment;
- there was greater attention to human resource development;
- measures were being tested to enable institutions to evaluate their performance in managing staff;
- institutions’ policies, practices and provision provided a good basis for the further push that was needed;
- a clearer, stronger career structure for research staff, with pathways leading inside and outside higher education, was emerging.

The final report of the RCI will, we understand, be published in November 2002.

43. The more positive comments on the RCI say that results have been patchy but that they are steps in the right direction. There is an appreciation by some researchers that career guidance has improved.<sup>100</sup> Many CRS have never heard of the Concordat and the RCI, though of course this does not mean that they have not benefited.<sup>101</sup>

44. At the other end of the spectrum, the Concordat and the RCI are accused of having no effect or failing to address the underlying problems. Dr M Salter maintains that the RCI “is merely a smoke screen to suggest that something is being done” and that responding to the RCI questionnaire is like “a kind of research groundhog day”.<sup>102</sup> The Royal Geographic

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<sup>98</sup> Ev 124; The Board members, as of September 2001, were: Dr John Taylor, Director General of Research Councils; Sir Brian Fender – Chief Executive, Higher Education Funding Council for England; Professor John Sizer – Chief Executive, Scottish Higher Education Funding Council; Dr Mike Dexter, Director of The Wellcome Trust Professor Dame Julia Higgins, Chair of Athena Steering Group; Professor Sir Alan Wilson, Vice-Chancellor of University of Leeds and Chairman of Universities UK’s Research Policy Sector Group; Mr David Triesman – General Secretary, AUT; Professor Leela Damodaran – Director HUSAT Research Institute, and representing the Association of Research Centres in the Social Sciences; and Professor Gus Pennington – Chief Executive, Higher Education Staff Development Agency

<sup>99</sup> Ev 108

<sup>100</sup> Memorandum from Dr Joanna Poulton [not printed]

<sup>101</sup> Memorandum from Dr Diane Wensley [not printed]

<sup>102</sup> Ev 147

Society argues that the RCI has failed as it has never been properly funded.<sup>103</sup> One CRS describes it as “a thinly dressed recipe for telling people without permanent jobs that they were unlikely to get one within the university and should look elsewhere for a proper career”.<sup>104</sup> Colin Bryson argues that the RCI has failed as it did not “change any of the key parameters and forces that maintain the current system”.<sup>105</sup> This has been recognised by the University of Leeds: while the RCI and Concordat “help to alleviate some of the problems associated with the preponderance of fixed-term research staff, they do not help to solve them”.<sup>106</sup> The Prospect union tells us that the RCI has made useful progress in universities but that little impression has been made on public sector research establishments, where it represents many researchers.<sup>107</sup> **The Concordat and the Research Careers Initiative have focused on managing the problem rather than solving it.**

45. Sir Gareth Roberts does not try to overplay its achievements. In the Roberts Review, he says the RCI “has led most universities to review and *to some extent improve* [our italics] their procedures and their pattern of employment of CRS”.<sup>108</sup> It has been established that some institutions are not implementing the RCI and Sir Gareth professed himself “frustrated” at the lack of progress so far.<sup>109</sup> Professor Breakwell, Vice Chancellor of Bath University, said “We are rewarded through HEFCE for developing effective human resource strategies [to be compliant with the RCI]. There is a big incentive to universities to do this well. It baffles me, the suggestion that universities would not be responding to that incentive. It makes no sense. It makes no business sense”.<sup>110</sup> We can only conclude that there are quite a few universities run by people with no sense. Professor Breakwell told us that Bath University is now fully compliant with the RCI.<sup>111</sup> Others, it seems, have only acted under the “dripping tap pressure” applied by RCI coordinators.<sup>112</sup> Sir Gareth accepted that there needed to be a degree of compulsion: “I really do believe ... that the secret is the EC directive making sure that universities do comply by [the RCI] and having the funding councils having this stick that says, ‘If you do not manage staff properly there will be a penalty’”.<sup>113</sup> **It seems that some universities will do little positive to address the issue of CRS unless forced by law or financial penalty. Unless those failing to comply with the Research Careers Initiative are named and shamed, it will continue to lack the teeth it needs to make a real difference.**

46. We understand that action on CRS will continue after the RCI has finished. The proposal that a subgroup of the Science and Engineering Base funders’ forum, announced in the strategy for science, should take over the role of the RCI seems sensible. **Any new body set up to tackle the issue of research careers must include the contract researchers themselves. The group must not be divorced from the reality of their situation.**

47. Sir Gareth suggested to us that there should be a “Concordat Mark II” which “covers high level principles for human resource development in research, covering not only CRS but all university staff from postgraduates through to established academics”.<sup>114</sup> Since not much has changed since 1996, we are unclear what the purpose of this would be unless it recognised the need to reduce the numbers of CRS and placed an obligation on all parties

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<sup>103</sup> Ev 135

<sup>104</sup> Ev 67

<sup>105</sup> Ev 55

<sup>106</sup> Ev 63

<sup>107</sup> Ev 118

<sup>108</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills.* (Report of Sir Gareth Roberts’ Review), April 2002, page 147

<sup>109</sup> Q 137

<sup>110</sup> Q 122

<sup>111</sup> Q 122

<sup>112</sup> Q 137

<sup>113</sup> Q 156

<sup>114</sup> Q 156, Ev 125

to work towards this end. In reality the efforts of UCEA and the unions to get together to resolve the issue is much more valuable. We will of course await Sir Gareth's suggestions for a new Concordat with great interest. **Any new Concordat must build on the best aspects of the first but it must not be simply a funders' charter. Its signatories must come from all the key players, including government, unions, the funding councils and the researchers themselves, and its fine words must be backed up with a clear implementation strategy to make sure things really do change this time.**

### The Dearing Report

48. The National Committee of Inquiry into Higher Education (the Dearing Committee) considered the issue of CRS in 1997, stating that "this practice may have a detrimental effect on the quality of higher education institutions' activities".<sup>115</sup> It did not make detailed proposals but stated: "We recommend to the higher education employers that they appoint, after consultation with staff representatives, an independent review committee to report by April 1998 on the framework for determining pay and conditions of service".<sup>116</sup>

### The Bett Report

49. In response to the Dearing Report's recommendation, the Independent Review of Higher Education Pay and Conditions, chaired by Sir Michael Bett, was set up by the Universities and Colleges Employers Association. Its report was published in June 1999. The report argued that there was scope for universities to reduce their use of fixed-term employment and that they should offer redundancy pay on contracts of longer than one year.<sup>117</sup> It recommended more competitive salaries for young lecturers and a review of the procedures used by pre-1992 universities to deal with disciplinary and redundancy issues.

### Excellence and Opportunity

50. The Government's science White Paper *Excellence and Opportunity*, published in July 2000, acknowledged the problem of CRS.<sup>118</sup> It stated "Young people need to be able to see that jobs in university research lead somewhere – whether within academia or to careers outside". It encouraged the Funding and Research Councils to develop:

- "targets for, and better monitoring of, institutional performance in managing contract staff;
- recognition and reward schemes for the development of researchers;
- promotion of relevant evaluation and best practice models; and
- better provision and co-ordination of career guidance and staff development resources."

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<sup>115</sup> *The National Committee of Inquiry into Higher Education* (the Dearing Committee), 1997, para 14.32

<sup>116</sup> *The National Committee of Inquiry into Higher Education* (the Dearing Committee), 1997, recommendation 50

<sup>117</sup> *Independent Review of Higher Education Pay and Conditions*, Report of a Committee Chaired by Sir Michael Bett, 1999, paras 217-218

<sup>118</sup> Department of Trade and Industry, *Excellence and Opportunity: a science innovation policy for the 21<sup>st</sup> century*, July 2000, Cm 4814, para 34

## Our predecessor Committee

51. Our predecessor Committee considered the research career issue in its 2001 report *Are We Realising Our Potential?*<sup>119</sup> It concluded that the lack of career path for postdoctoral researchers was damaging: “The Government can no longer afford to ignore the problem of low pay and poor job security for these researchers and support staff. A shortage of skilled personnel threatens to undermine its commitment to strengthening the science base”. It also called for research career paths and more research-only professorships.

## SET for Success (The Roberts Review)

52. In March 2001, Sir Gareth Roberts was asked by the Chancellor of the Exchequer and the Secretaries of State for Trade and Industry and for Education and Skills to undertake a review into the supply of science and engineering skills in the UK. Part of his report, *SET for Success*, which was published on 15 April 2002, considered the issue of contract research staff.<sup>120</sup> It proposed:

- the development of a range of career trajectories and clear career structures for those employed as CRS, including greater use of permanent contracts for researchers;
- the inclusion of earmarked funding for training and professional development in all grants or contracts that provide for the employment of CRS;
- enhanced salaries for CRS funded by Research Councils, particularly in disciplines where there are shortages due to high market demand, and greater possibilities for salary progression within contract research; and
- more market-related salaries for key academic staff, which should benefit scientists and engineers, particularly those engaged in research of international quality.

53. The Roberts Review identifies three kinds of CRS:

- career starters, typically in their first or second contract, who enter contract research to gain experience leading to a continuing academic position or a more permanent research career, and typically stay as CRS for only a short period;
- career researchers, who have worked as CRS over a longer period and wish to remain in research, ideally in an academic environment; and
- job entrants, who may enter contract research as a job, but not explicitly to make a career in research, and who may or may not remain in research or in related academic work.

54. Three career trajectories are suggested by the Roberts Review. After the first contract, a researcher chooses which path to follow.

- The *industrial* trajectory. After a short period of contract research in academia, the researcher would move to employment in industry. This is the Review’s preferred ‘default option’.
- The *academic* trajectory. Appraisal at an early stage would identify the minority suitable for an academic career in a research-active teaching role. It might require universities to underwrite salaries to retain such researchers.
- The *research* associate trajectory. This is for those who do not want an academic career but not for those who fail in this pursuit. Such researchers would be awarded permanent positions as researchers, supported by external research contracts.

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<sup>119</sup> Sixth Report of the Science and Technology Committee, Session 2000–2001, *Are We Realising Our Potential?* HC 200-I

<sup>120</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts’ Review), April 2002

55. While, the Roberts Review's attempt to define career trajectories has been welcomed by some,<sup>121</sup> Dr John Sawyer's view was that "I think it pretty much legitimises the status quo. I do not think it changes anything."<sup>122</sup> Dr Alan Williams of the AUT, despite welcoming the Review's analysis of the issues, argued that its solutions were misconceived as "its underlying model is trying to keep a separate identity for what CRS do and what academic staff do".<sup>123</sup> Sir Gareth wants the industrial trajectory to be the default option,<sup>124</sup> but as Colin Bryson points out "it is the academic research that is the desired objective, not a post in industry".<sup>125</sup>

56. Research Councils UK suggests that there would need to be more flexibility with the trajectories since many CRS aspire to being independent researchers and would not view the "research associate" trajectory as a career option, feeling that they would be considered as "methodologists" or "technologists".<sup>126</sup> Dr Clare Goodess feels that while the trajectory offers the advantage of offering permanent employment, "it does not match the reality of what senior contract researchers do".<sup>127</sup> Dr Eva Link points that out "These people even today are offered permanent contracts from the university because they are a technical part of the research".<sup>128</sup> The Roberts Review maintains that researchers following this trajectory could still go on to become lecturers or heads of department but is unclear how they would get the experience and the opportunity to make this step. As Dr Bryn Jones from Nottingham University points out, this is already a problem for postdocs who are unable to apply for grants.<sup>129</sup>

57. Sir Gareth mentioned to us the decline of the corporate research laboratory and the poor investment in research and development by UK industry.<sup>130</sup> His wish that the industrial career become the default option for a researcher must be based on the hope that this trend in industry will be reversed. We note the Government's introduction of an R&D tax credit and hope that it has the desired effect. While we are unconvinced that many of our CRS will jump at the chance of working in a corporate laboratory, we see the value in having this option open to them.

### **Fixed Term Employees (Prevention of Less Favourable Treatment) Regulations**

58. The Government has transposed the European Commission Fixed Term Work Directive into UK law through the Fixed-Term Employees (Prevention of Less Favourable Treatment) Regulations 2002. These were approved by Parliament on 16 July 2002 after the 2002 Employment Bill had received Royal Assent, and came into force on 1 October 2002. The Regulations aim to prevent fixed term employees being less favourably treated than comparable permanent employees and the abuse of successive fixed term contracts. This will give CRS the right to treatment equal to that of permanent staff doing the same or broadly similar work, in matters such as redundancy payments and the right to claim unfair dismissal.

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<sup>121</sup> Ev 103

<sup>122</sup> Q 17

<sup>123</sup> Q 109

<sup>124</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts' Review), April 2002, para 5.15

<sup>125</sup> Ev 54

<sup>126</sup> Ev 120

<sup>127</sup> Ev 65

<sup>128</sup> Q 82

<sup>129</sup> Ev 77

<sup>130</sup> Q 152

59. The Regulations are not designed to eliminate the use of fixed term appointments. They place no limit on the length of the first fixed term appointment; but any further contract awarded four years or more after the first must be considered open-ended, *unless* there are objective reasons why this should not be the case. As the regulations are not retrospective this provision will come into effect only for those contracts reaching their four year point in 2006. What constitutes an ‘objective reason’ may have to be tested in the courts. The four-year limit can be varied by workplace or collective agreements. The Regulations will have financial implications for universities since CRS will no longer be able to waive their right to statutory redundancy payments.

60. An effect of the Employment Regulations 2002 will be to make redundancy payments a right for all fixed term researchers when their contracts come to an end. This will have an impact on universities who will have to make provision for these payments. **Universities will have to make financial provision for redundancy payments and this must be taken into account by both public and private funders of research.**

61. There is scepticism among researchers about the implementation of the Employment Regulations. Dr Clare Goodess told us that they would be a good thing if they were not misused by universities: “There is a lot of unease among researchers because they feel that universities will use any excuse they can. I think there is a concern that people will be pushed out after two years or four years. Hopefully the universities will apply it seriously”.<sup>131</sup> Mr Andrew Pike of NATFHE felt that the EU Directive was being transposed reluctantly, claiming that: “The protection afforded to employees under the new regulations is far less than you will find in other EU states”.<sup>132</sup> Not surprisingly, there is a cynical attitude among CRS towards the universities.<sup>133</sup> If progress is to be made HEIs will have to build the trust of CRS.

62. The Institute of Biology and its affiliated societies are concerned that the Employment Regulations will not benefit CRS, since it may simply mean that HEIs will not renew a contract, when previously it would have done, for fear of having to employ the researcher on an open-ended contract and the financial obligation that that entails.<sup>134</sup> **Universities must not see Employment Regulations 2002 as an excuse to refuse to renew existing contracts or to award a researcher a new one so that the four-year limit is not reached.**

### **Fixed-Term and Casual Employment: Guidance for Higher Education Institutions**

63. The Joint Negotiating Committee for Higher Education Staff (JNCHES), comprised of the University and Colleges Employers’ Association and the nationally recognised unions,<sup>135</sup> published *Fixed-Term and Casual Employment: Guidance for Higher Education Institutions* in June 2002 in response to the Draft Employment Regulations. The document’s purpose is to:

- To provide guidance in implementing the Regulations by reducing the existing number of researchers on fixed term contracts
- To encourage institutions to employ staff on indefinite contracts
- To identify and assist the development of good practice.

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<sup>131</sup> Q 66

<sup>132</sup> Q 100

<sup>133</sup> Q 66

<sup>134</sup> Ev 71

<sup>135</sup> Amicus, Association of University Teachers, British Dental Association, British Medical Association, EIS-ULA; General and Municipal Boilermakers Union, NATFHE, the University and College Lecturers’ Union, the Transport and General Workers Union, Unison



The Guidelines recommend that all possible sources of external and internal funding are investigated and that redeployment should be explored before redundancy is considered.

64. The JNCHES Guidance has been described by Colin Bryson, a researcher into higher education employment at Nottingham Trent University, as expressing “stronger sentiments than any previous agreement on the regulation of employment in universities”.<sup>136</sup> However, he is concerned by the breadth of the objective justifications used not to transfer a CRS to an open-ended contract:

“The problem of allowing such scope is that given the current poor quality of management systems and the resilience of cultures inimical to good employment practices, widespread use of fixed term contracts and serial abuse is likely to continue”.

Professor Bryson is concerned that in “institutions that already have reasonable systems they will not make a great deal of difference and in those with the worst practices (sadly the majority) they are quite likely to be ignored”.<sup>137</sup>

### A revised Model Statute

65. Mandatory disciplinary, grievance, redundancy and appeals procedures for academic, research and other related staff in all pre-1992 universities are set down in the Model Statute procedure. These were introduced by the Government at the time under sections 202-208 of the Education Reform Act 1988 in order to dispose of academic tenure while continuing to protect academic freedom and fair treatment of staff.<sup>138</sup> The procedures have proved to be prescriptive, legalistic, lengthy and expensive to operate. As a result, universities rarely use them and instead, where posts are funded by short-term monies, use a short-term contract that matches the duration of the funding.<sup>139</sup> The Bett Report recommended that universities update their model statute procedures in order to reduce the number of fixed-term posts.<sup>140</sup>

66. A revised Model Statute has been drafted to encourage universities to make more use of permanent contracts in the knowledge that normal and fair procedures could be used at the end of a grant or the completion of the project. It also includes a separate procedure for the expiry of fixed-term contracts. These procedures would include looking for alternative funding to continue the work or, if the work is ended, redeployment for staff. The reasons for not renewing the fixed-term appointment must fall within prescribed grounds. If the revised Model Statute is agreed by the Privy Council, individual universities will be expected to amend their own statutes in accordance with it and then to apply to the Privy Council for individual approval. Having an agreed model to follow should mean that individual approval is quick and efficient. We are disappointed that this reform has taken so long. **If the Model Statute has been an obstacle to reducing the number of CRS, it begs the question as to why universities have made no attempt to reform it before.**

67. Colin Bryson is concerned that the revised Model Statute goes too far in facilitating the redundancies of CRS, suggesting that it offers “staff on fixed term contracts much less protection from dismissal than staff on open ended contracts”. He maintains that “the employer can avoid any obligation to renew or convert the contract, or to seriously address redeployment or mitigation of loss of employment issues by invoking a wide range of justifications which arguably could be used on almost every occasion”.<sup>141</sup> **We recommend**

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<sup>136</sup> Ev 56

<sup>137</sup> Ev 56

<sup>138</sup> Ev 152-154

<sup>139</sup> Ev 152-153

<sup>140</sup> *Independent Review of Higher Education Pay and Conditions*, Report of a Committee Chaired by Sir Michael Bett, 1999, paras 221-222

<sup>141</sup> Ev 55

**that the Government monitor the effect of the revised Model Statute and consider the use of safeguards to prevent its abuse.**

## **2002 Spending Review and Investing in Innovation**

68. In the 2002 Spending Review<sup>142</sup> and *Investing in Innovation – A strategy for science, engineering and technology*, both published in July 2002,<sup>143</sup> the Government broadly accepts the findings of the Roberts Review and expresses the need to increase the attractiveness of scientific careers. The strategy for science outlined three areas of policy relevant to CRS:

- better salaries for postdoctoral researchers;
- clear career paths for postdoctoral researchers into business R&D and academia;
- improved conditions of employment.

69. It set out three specific measures:

- to increase the average Research Council postdoctoral salary by around £4,000 by 2005-06;
- to provide additional funding to the Research Councils to deliver additional training for CRS;
- to create 1,000 new academic fellowships over five years to provide more stable and attractive routes into academia.

70. The 2002 Spending Review also announced extra funds for the Research Councils to enable them to pay a higher proportion of the indirect costs of the research they fund (currently 46%), as an attempt to rebalance the Dual Support system.

**71. The Spending Review and the Strategy for Science contain some commitments to positive action to address the problems of contract researchers. We will monitor their effectiveness with interest.**

**72. The number of written submissions to the inquiry and the strong views held by contract researchers who appeared before us demonstrates that initiatives have failed to solve the problem. The announcements in Spending Review 2002, the new Employment Regulations, the JNCHES guidance and the prospect of a revised Model Statute all give us hope that a resolution to the issue of CRS is possible. Nevertheless, we feel that more positive action is needed.**

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<sup>142</sup> HM Treasury, *Opportunity And Security For All: Investing in an enterprising, fairer Britain*. New Public Spending Plans 2003 – 2006, July 2002, Cm 5570

<sup>143</sup> HM Treasury, Department for Education and Skills, Department of Trade and Industry, Office of Science and Technology, *Investing in Innovation: A strategy for science, engineering and technology*, July 2002

## RESPONSIBILITY FOR ACTION

73. We believe that despite the attention given to the issue of CRS in recent years, the problem remains. There are many interested parties and all will need to play a part.

### The researchers

74. CRS have been criticised for not taking control of their careers and needing to take a more active interest in their own broad career development.<sup>144</sup> There must be concern that many look no further than their next contract and that little over half take up the formal training opportunities offered to them.<sup>145</sup> (Professor John Fisher of Leeds University argued that only this lack of foresight is the only thing that keeps CRS working as researchers.<sup>146</sup>) We have been told that few CRS have heard of the Concordat and the Research Careers Initiative (RCI), which demonstrates a lack of awareness of the wider issues associated with their profession. An Institute of Physics survey in 1999 found that there was lack of awareness among physics postdocs of their chances of securing a permanent faculty post.<sup>147</sup> In mitigation, it might be argued the system does not encourage career planning. Also, the lack of training in transferable skills makes it hard for researchers to move to other careers or professions. **Contract researchers are taken for granted and badly treated but too many seem to embark on a career and hope for the best. They need to look ahead and evaluate their prospects. Ultimately, researchers must take responsibility for their own careers.**

### The principal investigators and senior management

75. There is a widespread feeling that the fate of young researchers lies in the hands of senior academics, yet management of CRS appears to be poor in many places, even when the university has made attempts to improve it. At Cambridge, we understand that the appraisal guidelines in the staff handbook are not implemented in many departments<sup>148</sup> and that few postdocs are encouraged to take up training opportunities.<sup>149</sup> We have heard that senior academics are not always sympathetic. Robert Bradburne told us:

“too many times I have heard from our senior management ‘that is not a problem. It did not affect us. We managed’. Because the people who are at the top now got through with this system, they do not realise that we are now 20/30 years on, mortgages have changed, career structures have changed, family structures have changed. If you want to be a successful scientist it is a lot harder to find that niche to become permanent”.<sup>150</sup>

76. Sally Hunt of the AUT highlighted the management issue in her evidence: “though you may be an extremely good academic that of itself does not necessarily make you a good manager and there is need for better support, better training, better monitoring of what is going on at a more devolved level so that those at the bottom tiers, those coming through, are able to feel that they are being supported and developed”. She also made the point that

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<sup>144</sup> Ev 124-125

<sup>145</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills*. (Report of Sir Gareth Roberts’ Review), April 2002, para 5.25

<sup>146</sup> Ev 63

<sup>147</sup> Ev 74

<sup>148</sup> Ev 106

<sup>149</sup> Ev 106

<sup>150</sup> Q 87

there are “very good academics out there who are struggling very hard with systems which are not enabling them to manage their staff well”.<sup>151</sup>

**77. While we have sympathy with academics who have a passion for their subject and simply want to do research, the truth is that they have a managerial responsibility to the researchers in their team. Too many, it seems, take the view that if they survived so can everyone else. Times have changed.**

## The universities

78. Universities are the principal employers of most CRS. They are represented nationally by Universities UK, formerly the Committee of Vice-Chancellors and Principals. A second body, the University and Colleges Employers’ Association, “provides a framework within which representatives of institutions can discuss salaries, conditions of service, employee relations and all matters connected with the employment of staff and employees”.<sup>152</sup>

79. Baroness Warwick of Universities UK said that universities had not been able to implement the Bett Report’s recommendation to universities to reduce their use of fixed term contracts because of lack of funds. When asked how much it would cost, she responded that it had not been calculated.<sup>153</sup> Given that they had costed a £9.94 billion submission to the 2002 Spending Review at a time when the new Employment Regulations were known to be on the horizon, it is curious that Universities UK had not given more attention to this issue. The Wellcome Trust, the UK’s largest funder of biomedical research, agrees that little progress can be made without more money for universities.<sup>154</sup> We share the view held by the AUT that the present system could well be costing universities as much money as it saves.<sup>155</sup> **We find it hard to take seriously universities’ claims that they cannot afford to reduce their use of short-term contracts, if they have not even calculated how much it would cost.**

80. We have received much criticism of universities. Dr Clare Goodess laid the blame for her predicament on the universities for being “poor managers both of money and of people”. She described how her department is bringing in £5 million a year, which, if pooled, could support a good team of researchers rather than having individuals tied to individual contracts.<sup>156</sup>

81. Baroness Warwick admitted that, even if given the money to eliminate fixed term contracts, universities would still not rule out using fixed-term contracts: “I do not think we can stop the problem associated with uncertain funding and the risks for an institution of seeking to use monies not for that purpose in order to try to shore up research teams or to provide resources for research teams where there is no prospect of future funding for them”.<sup>157</sup> No-one is asking the universities to shore up research teams where there is no prospect of future funding. **In the commercial world businesses have to make predictions about their future income and productivity, and plan accordingly. Universities reserve the right to look no further than the end of the current research grant and place the entire burden of risk onto researchers. CRS can be thankful that the Employment Regulations are forcing universities to act.**

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<sup>151</sup> Q 100

<sup>152</sup> See <http://www.ucea.ac.uk>

<sup>153</sup> Q 111-112

<sup>154</sup> Ev 173

<sup>155</sup> Supplementary memorandum from the Association of University Teachers [not printed]

<sup>156</sup> Q 39

<sup>157</sup> Q 14

82. Baroness Warwick said that “I do not think it would be responsible of [universities] as employers to continue to employ people whom they know they cannot fund”.<sup>158</sup> The important point is that there seem to be a large number of CRS who have had their contract renewed on numerous occasions. How long does it take to convince a university that it can be confident of an individual’s ability to continue to attract funding and worthy of a permanent academic appointment? Five, 10, 15, 20 years?

83. A number of universities have recognised that there are benefits in reducing their dependency on research contracts. In June 2002, Robert Gordon University in Aberdeen announced that following negotiations with the local AUT branch, all staff currently on a fixed contract would be transferred to an open-ended contract on 1 August 2002. The university employed relatively few contract researchers. It ranked 88<sup>th</sup> in terms of the amount of Research Council funding received in 1999/2000, attracting £247,000,<sup>159</sup> so the decision will not have been a costly one to make. Dr David Briggs, Director of Human Resources at the university, says that this is intended to make it a more attractive employer but he does concede that this move would not be appropriate for all universities.<sup>160</sup>

84. The Wellcome Trust believes that the Prestigious Fellowship Scheme launched in June 2002 by the University of Wales College of Medicine is a useful model that allows short-term contracts to be embedded within institutional career paths.<sup>161</sup> The university has a scheme that aims “to provide a clear developmental plan and a supportive environment for College staff who are awarded ... fellowships from a recognised external body”. On successful review, senior fellowship holders will have their posts made “on-going”. Junior or intermediate fellowships holders will be encouraged and helped to apply for more senior fellowships or agree other career options.

85. The Institute of Transport Studies at the University of Leeds employs 35 research staff, of whom 34 are on temporary contracts.<sup>162</sup> Confident of its research income, the Institute places its more junior CRS on rolling two-year contracts, following a probationary period. More senior researchers are placed on open-ended contracts. At the same time it reports a healthy turnover of researchers. It recommends that all departments that are ranked 5 or 5\* in the RAE adopt this policy.

86. We understand that Edinburgh University has attempted to restrict the use of short-term contracts. An agreement was reached with the unions whereby staff could only be employed on fixed-term contracts if one of eight criteria were met:<sup>163</sup>

- Restricted funding;
- Cover for absence;
- Post created for a specific purpose;
- Training or career development purposes;
- Clearly established likelihood of a decrease in the continued funding for, or requirement for the work associated with the post in the foreseeable future;
- Require recent experience outwith the university;
- Rotational duties;
- Appointee has retired or does not wish to commit to an open-ended contract.

87. The recent moves made by some HEIs are welcome and shows that they can take positive steps to reduce their reliance on short research contracts, such as offering permanent positions at the end of academic fellowships. The 2002 Spending Review announced the

<sup>158</sup> Q 127

<sup>159</sup> Data supplied by the Office of Science and Technology

<sup>160</sup> Ev 56

<sup>161</sup> Ev 172

<sup>162</sup> Ev 92

<sup>163</sup> Memorandum from Amicus - MSF Section [not printed]

creation of a further 1,000 academic fellowships over five years, similar to those operated by the Royal Society and the Royal Academy of Engineering.<sup>164</sup> **We believe that the awarding of academic fellowships should be based on a commitment from the host institution, where possible, to provide permanent positions.**

88. **We are amazed that so little attention has been given by universities to the disproportionately high level of women CRS relative to permanent academic staff.** Helen Walker suggests that women should always be present on selection and promotion panels to allow them to consider better “alternative lifestyles and working patterns”.<sup>165</sup> This would certainly be start. The Higher Education Funding Council for England is undertaking an investigation into women in research, which will look at the reasons for the underrepresentation of women in higher education.<sup>166</sup> The Athena Project, part of the Equality Challenge Unit, aims to improve the advancement of women in science, engineering and technology.<sup>167</sup> Baroness Warwick spoke glowingly of the work of this Project, the progress of which we will watch with interest. We also eagerly await Baroness Greenfield’s overdue report on the participation of women in science, engineering and technology. **We welcome these initiatives and recommend that they address the disproportionately high number of women researchers working on short-term contracts.**

89. We have been given no evidence to suggest that any attention has been given to ethnic monitoring of CRS. We are pleased to see that NESTA has funded the African-Caribbean Network for Science and Technology to “advance the educational achievements and career aspirations of black youth within the fields of science, mathematics and technology”.<sup>168</sup> We are aware that the Research Councils have monitored the ethnic profile of the postgraduates they fund.<sup>169</sup> **We recommend that the Funding Councils and the Research Councils work together to establish the ethnic profile of contract researchers and to take action to tackle any bias or discrimination.**

### **The Higher Education Funding Councils**

90. The Higher Education Funding Councils fund the block grants to universities for teaching and the indirect costs of research. Although CRS are not generally funded from this source, HEIs may use their own funds to bridge two project grants (leading in some cases to researchers being employed on contracts as short as one month).<sup>170</sup> Although, the Funding Councils are not directly responsible, they do take an interest in staffing and management issues more generally and have addressed the CRS issue. The Higher Education Funding Council for England (HEFCE) has funded the Contract Research On-line Survey. The first pilot ran in January and February 2002 involving 16 HEIs and reaching 3,000 CRS (around 10% of the total). The 2003 survey aims to double this figure. Sir Gareth Roberts told us that he will be heading the Funding Councils’ review of research assessment, which he will be heading, will consider whether to withhold some funding if an HEI “cannot demonstrate that they are managing not just contract researchers but young research students, young lecturers, in a good way”.<sup>171</sup> **We are encouraged that the Funding Councils are considering mechanisms to reward universities with good employment practice.**

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<sup>164</sup> Ev 138-139

<sup>165</sup> Memorandum from Dr Helen Walker [not printed]

<sup>166</sup> Ev 5

<sup>167</sup> STC 56

<sup>168</sup> <http://www.nesta.gov.uk>

<sup>169</sup> [http://www.ost.gov.uk/research/funding/postgrad\\_survey/sample\\_16.htm](http://www.ost.gov.uk/research/funding/postgrad_survey/sample_16.htm)

<sup>170</sup> Ev 76

<sup>171</sup> Q 137

91. The RAE, administered by the Funding Councils, has disadvantaged CRS, according to several witnesses. It is argued that CRS should be better represented in the RAE.<sup>172</sup> At present there is a disincentive to nurture independent researchers and academics to co-hold grants with CRSs. The Institute of Biology and its affiliated societies argue that the RAE actually encourages short-term contracts.<sup>173</sup> The Royal Geographic Society reports that the RAE may have contributed to the low status of CRS since they are invisible in the process.<sup>174</sup>

**The current review of higher education research assessment must ensure that whatever follows the Research Assessment Exercise does not disadvantage contract researchers.**

92. Sir Gareth told us that the Funding Councils were considering whether to make an element of the research component of a university's block grant dependent on its good management of CRS, along similar lines to those that we suggested in our report on the Research Assessment Exercise.<sup>175</sup> Recognising that there may be higher costs from employing a lower proportion of CRS, the Institute of Biology and its affiliated societies suggest that departmental funding could depend on the proportion of CRS it employs.<sup>176</sup>

**The Funding Councils should consider using the proportion of researchers on fixed-term contracts in a department as a basis for calculating the university block grant.**

### The Research Councils

93. The Research Councils' grants provide the main basis for the employment of CRS, forming 38% research income to universities via the dual support system in 1999/2000.<sup>177</sup>

But they take the view that the "terms of employment for these staff [employed under Research Council grants] are the responsibility of the employing institution and not the Research Councils".<sup>178</sup> The Research Councils vary in whether they allow CRS to apply for their grants in their own names. Some of them employ researchers directly, largely in their own institutes, and they vary in the extent to which they employ CRS. We invited the Research Councils to outline their policies and they are summarised in Table 1.

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<sup>172</sup> Ev 64

<sup>173</sup> Ev 71

<sup>174</sup> Ev 135

<sup>175</sup> Second Report of Science and Technology Committee, Session 2001–02, *The Research Assessment Exercise*, HC 507, para 87

<sup>176</sup> Ev 71

<sup>177</sup> Data supplied by the Office of Science and Technology

<sup>178</sup> Ev 119

**Table 1. Policy of Research Councils on CRS.**<sup>179</sup>

Research Council	CRS application for grants	Researchers employed by RC	Features of grant
BBSRC	No	Contracts to be phased out with few exceptions	Not provided
ESRC	Yes	No employed researchers	Supports research centres for up to 15 years
EPSRC	No	No employed researchers	Groups with a large portfolio of research grants will have these consolidated into a single grant of 5 years
PPARC	No	No employed researchers	Offers 4-year rolling grants
NERC	From next year	Reduced from 23% in 1999 to 6% in 2002	Not provided
MRC	Yes	Only for new postdocs	Over half of grants are for five years
CCLRC	Not applicable	Limited use of CRS	Not provided

94. The University of Leeds argues that the Research Council grants should include overheads to cover training and career development.<sup>180</sup> Grants could also contribute to redundancy costs incurred by universities; the Research Councils accept that they may have to discuss with universities whether they should contribute to these costs.<sup>181</sup> The Institute of Employment Studies suggested to us that Research Councils, among other funders, should make good management of CRS a condition of a grant.<sup>182</sup>

95. We share Sir Gareth's disappointment at the lack of action on the part of the Research Councils. He cites the enlightened attitude displayed by the Wellcome Trust: "You will not find many people funded by Wellcome who are complaining too much".<sup>183</sup> Baroness Warwick felt that "the researchers themselves are answerable to the funders, so you have no flexibility in the way in which you use that money". She said that departments were using their Funding Council money as bridging loans to aid continuity.<sup>184</sup> Despite the announcement of training grants for postdocs in the 2002 Spending Review, there is more the Research Councils could be doing in this area. They should use evidence of coherent long-term research strategy as a basis for funding grant applications. **We welcome the training grants for Research Council-funded CRS announced in the Spending Review but there is more that the Research Councils should be doing. It is not clear to us why**

<sup>179</sup> The data in the table were supplied at our request - see Ev 122-124. 'Not provided' indicates that no information was presented to the Committee.

<sup>180</sup> Ev 63

<sup>181</sup> Ev 121

<sup>182</sup> Ev 73

<sup>183</sup> Q 146

<sup>184</sup> Q 113



**the Research Councils cannot treat their grants as much as investments in people as in research. Their insistence on passing the buck to the universities is shameful.**

96. The Royal Society of Chemistry told us of a scheme piloted by the EPSRC which provided “postdoctoral equivalents of the Research Councils Graduate Schools”. We gather there has been no follow-up to this pilot, which seems a shame. The RSC advocates a voucher system whereby postdocs funded by the Research Councils can buy courses of approved training.<sup>185</sup> **This idea of a training voucher system for postdocs has merit and should be pursued.**

97. We were dismayed to hear Professor Ian Halliday, Chief Executive of PPARC, state in evidence to us in June 2002 “I think it is very dangerous ... to let people who do not have a permanent contract apply for grants, in particular grants to fund themselves”.<sup>186</sup> His argument seemed to be that many CRS in his field were already employed on PPARC grants and that to give them another grant would be double funding. Surely this could easily be resolved. The point is that CRS should be able to apply for a grant to cover their next grant and not their existing one. His claim that few PPARC-funded CRS are affected is irrelevant: it is a point of principle. We note the view of the Royal Society that rather than allow all CRS to apply for Research Council grants, there should be more fellowships available, the holders of which could apply for grants.<sup>187</sup> We were heartened that Professor Halliday has been discussing with universities how to formalise the position of long-term CRS.<sup>188</sup> We urge the Research Councils to make their grants dependent on good practice, as the Roberts Review recommends.<sup>189</sup> Sally Hunt of the AUT said the Research Councils “are actively undermining a significant proportion of the academic community in this country to an extent that it is going to seriously impact on the economic security of this country in the next five or ten years”.<sup>190</sup> **To prevent contract researchers, particularly the more senior ones, from applying for Research Council grants is demeaning and stifles good ideas. If one Research Council can allow this then they all can. We recommend that all the Research Councils allow contract researchers to apply for their grants without delay.**

98. Research Councils UK tells us that the Research Councils “allow grant applicants to seek funds to meet the higher costs of a more experienced researcher where the research project requires it”.<sup>191</sup> This may be possible in theory but CRS have described to us how by reaching a high grade they have priced themselves out a job. This suggests that the Research Councils are less than keen to pay the extra cost of experienced researchers. We agree with Scientists for Labour when they say that “funding bodies, in partnership with employers, should work to ensure that, where appropriate, funding for projects is sufficient to cover the salaries of experienced scientists and not simply newly qualified post-doctoral researchers”.<sup>192</sup> **The continued excellence of the science base requires that we fund the best people available for the duration of a grant. We recommend that the Research Councils reassess their practices to ensure that their grants fund the best people available and not the cheapest.**

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<sup>185</sup> Ev 143

<sup>186</sup> Science and Technology Committee, Minutes of evidence, Particle Physics and Astronomy Research Council, 26 June 2002, Q 55

<sup>187</sup> Ev 140

<sup>188</sup> Science and Technology Committee, Minutes of evidence, Particle Physics and Astronomy Research Council, 26 June 2002, Q 54

<sup>189</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills.* (Report of Sir Gareth Roberts’ Review), April 2002, Recommendation 5.3

<sup>190</sup> Q 106

<sup>191</sup> Ev 123

<sup>192</sup> Ev 151

99. Prospect argues that publicly funded research contracts should include a component earmarked for long-term research.<sup>193</sup> This is an interesting idea but any funds allocated in this manner would have to be monitored.

### Government

100. **Ultimately the responsibility for funding the researchers in universities lies with Government.** It sets the amount of, and the balance between, funding streams. Universities UK's claim that universities are suffering severe financial problems has been supported by the Cross-Cutting Review of Science and Research.<sup>194</sup> Dr John Taylor, Director General of the Research Councils, said in evidence to us in May 2002 that "There is a serious level of under funding".<sup>195</sup> It has been reported that a number of well known research-intensive universities, such as University College London, are running large deficits.<sup>196</sup> Mr Andrew Pike of NATFHE told us that "successive governments are responsible also and to blame for the exploitation that many contract researchers will tell you about".<sup>197</sup>

101. We were pleased to note that the Spending Review 2002 announced that Research Councils will pay a higher proportion of indirect costs associated with the research funded by their grants and that the research budget of the Higher Education Funding Council for England. This should ease (but not solve) the financial problems that exacerbate the CRS issue. We fail to understand, however, why this will not be introduced until 2005-06 since the Transparency Review has proved that HEIs are failing to recover the full costs of externally funded research. We are sympathetic to the view expressed by Save British Science that universities have too few unencumbered funds to allow them to manage their research with discretion.<sup>198</sup> If the Funding Council budget for research is maintained then there should be more flexible funds available for the development of new fields of research in the HEIs and/or for bridging funding between grants to allow stability of the research group – provided it is successful and productive. **Research Council funding, regardless of the level of overheads it pays, is directed and gives universities little room to manoeuvre in the way it employs its staff. The anticipated higher education budget must provide more money for research and at least start to rebalance the dual support system.**

102. We are pleased that the modest submission to our inquiry from the DTI and DfES recognised that "we" should not take researchers for granted.<sup>199</sup> Increases in graduate starting salaries in other professions have made an academic scientific career less competitive. However, evidence from CRS sends out a clear message: they do not expect to be paid as much as City analysts for something they love doing. It is our impression that salary levels are a factor in the disillusionment of many CRS but less of an issue than job security for many.<sup>200</sup> This is supported by the Scottish Higher Education Funding Council's study on Academic Careers in Scotland.<sup>201</sup> We note that one of our witnesses, Matt Hill, took a pay cut when he left university for industry.<sup>202</sup> **The salary increases for researchers announced in the Spending Review are welcome, but the Government must realise that unless it funds measures to give CRS a rewarding and secure career, a mere pay rise will not be enough stop Britain's best researchers turning their backs on science and engineering or on the UK.**

<sup>193</sup> Ev 114

<sup>194</sup> HM Treasury, Department for Education and Skills, Office of Science and Technology and Department of Trade and Industry. *Cross-Cutting Review of Science and Research*. Final report, March 2002.

<sup>195</sup> Eighth Report of Science and Technology Committee, Session 2001–02, The Work of the Office of Science and Technology, HC 860, Q 29

<sup>196</sup> Palace coup rocks University College, *The Guardian*, 2 August 2002.

<sup>197</sup> Q 100

<sup>198</sup> Ev 149

<sup>199</sup> Ev 25-26

<sup>200</sup> Ev 146

<sup>201</sup> Memorandum from Dr DL Clements [not printed]

<sup>202</sup> Q 73

## THE WAY FORWARD

103. **To resolve the problem of huge numbers of research staff working on short contracts, it is clear to us that university management must change radically, not just at the top level but in the way individual departments and research teams are managed.**

104. Few of the inquiry's submissions to the inquiry included a judgement on what would be the right proportion of researchers on short-term contracts, although most considered it to be too high. The Systematics Society believes that no more than half of researchers should be on fixed-term contracts (and preferable only 25%).<sup>203</sup> The Royal Geographic Society argues that only 25-30% of researchers should be CRS<sup>204</sup> while Save British Science puts the figure at 30% on the basis that when the figure was this in the past no problems were reported.<sup>205</sup> The AUT insists that all researchers should be on permanent contracts with only a few exceptions.<sup>206</sup> Jonathan Bates, from Swindon, argues that the focus should not be on the proportion of CRS but on getting the right level of researcher turnover to maintain a healthy research community.<sup>207</sup> Others suggest that it is the numbers of senior CRS that is the principal problem.<sup>208</sup> Dr Helen Walker, now on an open-ended contract at the Rutherford Appleton Laboratory after 15 years as a contract researcher, argues that it depends on the research environment and that while universities may need a higher percentage of CRS, research laboratories need more permanent staff. **The proportion of researchers working on fixed-term contracts is too high. The starting point for any policy should be to reduce this proportion.**

105. **The larger research groups should engage in better financial planning to ensure continuity of their research programmes and to avoid the excessive use of short-term contracts. They should be supported in this by the Funding Councils and the Research Councils.**

106. The new Employment Regulations and the JNCHES agreement should decrease the numbers of researchers on fixed-term contracts but this must not be seen as the only criterion for success. It is clear to us that a research career needs to provide a coherent path from PhD to professorship that does not involve the quantum leap from lowly ranked and insecure contract research to the cosy blanket of academic permanence. We have been told how the research base needs to be dynamic, bringing in new blood and new ideas. Dr Alan Williams of the AUT argues that if this is the case, it is true for all tiers in the research hierarchy, including senior academics on permanent contracts.<sup>209</sup> Cambridge postdocs argue for a restructuring of all academic employment with an element of contract funding in all academics' salaries.<sup>210</sup> **We must end the damaging distinction between permanently employed academics and CRS. We must aim for security for all higher education staff even if this means that none is entitled to a job for life.**

107. We were astonished to hear Baroness Warwick say "I do not think anybody believes that every contract research member of staff either wants to or should become a permanent member of staff".<sup>211</sup> Not every CRS wants to be employed permanently in one institution but this is not the same as not wanting to be employed on an open-ended contract. The CRS who do move on would still like the assurance of an open-ended contract so that they can

<sup>203</sup> Memorandum from the Systematics Association [not printed]

<sup>204</sup> Ev 135

<sup>205</sup> Ev 149

<sup>206</sup> Ev 40

<sup>207</sup> Ev 52

<sup>208</sup> Memorandum from Roger Flower [not printed]

<sup>209</sup> Q 96

<sup>210</sup> Ev 108

<sup>211</sup> Q 130

plan ahead and move on at a time that suits their career – and their family if they have one – and not when their contract is up.

108. A radical argument, although not one with which we are sympathetic, is that there is no place in academia for open-ended contracts. It maintains that the problem for CRS is not the fact that their contract is fixed term but that there are others who are on open-ended contracts. Some believe that a better alternative would be 5-10 year rolling contracts for all researchers and teachers in HEIs or at least a blurring of the distinction between CRS and permanently employed academics.<sup>212</sup> **This inquiry is focused on the problems created by huge numbers of contract researchers but it is clear to us that a resolution must embrace all academic staff employed in higher education.**

109. The Association of Research Centres in the Social Sciences advocates the creation of autonomous research centres in which better management could flourish.<sup>213</sup> The Institute of Employment Studies makes a similar point. It argues that the use of short-term research contracts can be reduced “if research is concentrated in centres which have sufficient critical mass to support scientific endeavour, and which can invest in appropriate facilities and staff development”.<sup>214</sup> This has its attractions but we believe – and we have made clear before – that university teaching benefits from a close association with research.<sup>215</sup> Any reorganisation along these lines would need to recognise this.

110. Colin Bryson argues that the way forward is to break the direct link between the research grant and the employment of the researchers.<sup>216</sup> A research group would operate as a unit, funded by multiple grants. This would allow more flexibility in labour division and, should the grant income decline, retention would be based on an individual’s ability rather than which individual’s contract had come to an end.<sup>217</sup> Grants are usually restricted to a particular project for which they are awarded and look to get results from it. Funders would therefore probably object to their money being diverted into other projects but could be asked to consider this if the second project is closely related.

111. Another option would be to decouple researchers and research group leaders. Researchers could provide research services for different projects. A department could charge the services provided by such people to a project as an overhead, as used to be the case when HEIs had permanent technical staff.

**112. We have received ideas on how to remodel the management of research in our universities. We now need a Government that will listen to them and is bold enough to act.**

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<sup>212</sup> Ev 107, 94

<sup>213</sup> Ev 32

<sup>214</sup> Ev 73

<sup>215</sup> Second Report of Science and Technology Committee, Session 2001–02, *The Research Assessment Exercise*, HC 507, para 51

<sup>216</sup> Ev 55

<sup>217</sup> Ev 113

## CONCLUSION

113. There are welcome signs that the number of CRS will fall and their conditions will improve in the future but the fact is that the stimulus for significant change has come externally, in the form of an EU Directive. Sir Gareth Roberts' comments that universities would not change unless they were forced by the rule of law paints a depressing picture of their attitude towards their employees. **It reflects poorly on all concerned that the problems caused by the increasing number of CRS were identified many years ago but so few of them have been solved.**

114. **It is hard to identify a single culprit for the continuing mistreatment of our research workforce, but top of the list must be a management culture in some of our research-intensive universities, which is callous and shortsighted. The universities are underfunded, but that is not an excuse for poor management.** The Institute of Employment Studies regards the preponderance of short term contracts as “unnecessary and counterproductive. It is a product of history, a fragmentation of research capacity, and a failure of management to understand that they can manage in a different way”.<sup>218</sup> **Reviews, financial investment and changes in the law can only achieve so much without tackling the fundamental underlying attitudes and behaviours.**

115. Second must be the ostrich-like behaviour of the Research Councils, who seem to see the research base as a production line operated by automatons. Although it is universities who employ the contract researchers, Research Councils must accept that CRS funded under their grants are their responsibility too. **Although, some of the Research Councils have good policies in some areas, these are not enough. We recommend that Research Councils UK identify best practice among the Research Councils and harmonise their policies towards contract research staff.**

116. Government has for too long sat back and left universities and the funding bodies to regulate themselves. **The current crisis in science and engineering research careers has arisen in part because the Government has failed to recognise that the way in which it funds research in universities impacts on the employment of contract researchers. The situation demands an urgent rebalancing of the dual support system.**

117. We are concerned that the Roberts Review, while making a valuable contribution in highlighting the problem of short-term research contracts and making the case for more funding, fails to contemplate radical change. We have been told too often that something is not possible: that not all contract researchers can aspire to permanent academic positions;<sup>219</sup> or that a research career track would not work.<sup>220</sup> Too many assumptions underlie claims such as these. **We await the higher education review, more in the hope than in the expectation that it will provide some original and innovative thinking which tackles the management of research in universities.**

118. Sir Gareth said that his advice to any young researcher was “You have got to position yourselves to be lucky in this world”.<sup>221</sup> **We would like a world where good researchers were successful on merit and less subject to an academic lottery.**

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<sup>218</sup> Ev 73

<sup>219</sup> Ev 138

<sup>220</sup> HM Treasury, *SET for success: The supply of people with science, technology, engineering and mathematical skills.* (Report of Sir Gareth Roberts' Review), April 2002, para 5.18

<sup>221</sup> Q 161

## LIST OF CONCLUSIONS AND RECOMMENDATIONS

1. **The proportion of researchers working on fixed-term contracts is too high. The starting point for any policy should be to reduce this proportion. (paragraph 104).**
2. **It reflects poorly on all concerned that the problems caused by the increasing number of CRS were identified many years ago but so few of them have been solved (paragraph 113).**
3. **We would like a world where good researchers were successful on merit and less subject to an academic lottery (paragraph 118).**

### *The Concordat and the Research Careers Initiative*

4. **The Concordat and the Research Careers Initiative have focused on managing the problem rather than solving it (paragraph 44).**
5. **It seems that some universities will do little positive to address the issue of CRS unless forced by law or financial penalty. Unless those failing to comply with the Research Careers Initiative are named and shamed, it will continue to lack the teeth it needs to make a real difference (paragraph 45).**
6. **Any new body set up to tackle the issue of research careers must include the contract researchers themselves. The group must not be divorced from the reality of their situation (paragraph 46).**
7. **Any new Concordat must build on the best aspects of the first but it must not be simply a funders' charter. Its signatories must come from all the key players, including government, unions, the funding councils and the researchers themselves, and its fine words must be backed up with a clear implementation strategy to make sure things really do change this time (paragraph 47).**

### *Universities*

8. **Universities will have to make financial provision for redundancy payments and this must be taken into account by both public and private funders of research (paragraph 60).**
9. **Universities must not see Employment Regulations 2002 as an excuse to refuse to renew existing contracts or to award a researcher a new one so that the four-year limit is not reached (paragraph 62).**
10. **If the Model Statute has been an obstacle to reducing the number of CRS, it begs the question as to why universities have made no attempt to reform it before (paragraph 66).**
11. **We find it hard to take seriously universities' claims that they cannot afford to reduce their use of short-term contracts, if they have not even calculated how much it would cost (paragraph 79).**
12. **In the commercial world businesses have to make predictions about their future income and productivity, and plan accordingly. Universities reserve the right to look no further than the end of the current research grant and place the entire**

**burden of risk onto researchers. CRS can be thankful that the Employment Regulations are forcing universities to act (paragraph 81).**

- 13. We believe that the awarding of academic fellowships should be based on a commitment from the host institution, where possible, to provide permanent positions (paragraph 87).**

#### *The Government*

- 14. Ultimately the responsibility for funding the researchers in universities lies with Government (paragraph 100).**
- 15. We recommend that the Government monitor the effect of the revised Model Statute and consider the use of safeguards to prevent its abuse (paragraph 67).**
- 16. The Spending Review and the Strategy for Science contain some commitments to positive action to address the problems of contract researchers. We will monitor their effectiveness with interest (paragraph 71).**
- 17. The number of written submissions to the inquiry and the strong views held by contract researchers who appeared before us demonstrates that initiatives have failed to solve the problem. The announcements in Spending Review 2002, the new Employment Regulations, the JNCHEs guidance and the prospect of a revised Model Statute all give us hope that a resolution to the issue of CRS is possible. Nevertheless, we feel that more positive action is needed (paragraph 72).**
- 18. We await the higher education review, more in the hope than in the expectation that it will provide some original and innovative thinking which tackles the management of research in universities (paragraph 117).**
- 19. The current crisis in science and engineering research careers has arisen in part because the Government has failed to recognise that the way in which it funds research in universities impacts on the employment of contract researchers. The situation demands an urgent rebalancing of the dual support system (paragraph 116).**
- 20. Research Council funding, regardless of the level of overheads it pays, is directed and gives universities little room to manoeuvre in the way it employs its staff. The anticipated higher education budget must provide more money for research and at least start to rebalance the dual support system (paragraph 101).**
- 21. The salary increases for researchers announced in the Spending Review are welcome, but the Government must realise that unless it funds measures to give CRS a rewarding and secure career, a mere pay rise will not be enough stop Britain's best researchers turning their backs on science and engineering or on the UK (paragraph 102).**

#### *Researchers*

- 22. Contract researchers are taken for granted and badly treated but too many seem to embark on a career and hope for the best. They need to look ahead and evaluate their prospects. Ultimately, researchers must take responsibility for their own careers (paragraph 74).**

23. **While we have sympathy with academics who have a passion for their subject and simply want to do research, the truth is that they have a managerial responsibility to the researchers in their team. Too many, it seems, take the view that if they survived so can everyone else. Times have changed (paragraph 77).**
24. **We are amazed that so little attention has been given by universities to the disproportionately high level of women CRS relative to permanent academic staff (paragraph 88).**

*Research Councils and Funding Councils*

25. **Although, some of the Research Councils have good policies in some areas, these are not enough. We recommend that Research Councils UK identify best practice among the Research Councils and harmonise their policies towards contract research staff (paragraph 115).**
26. **We welcome [the Athena Project and the Higher Education Funding Council for England's investigation into women in higher education] and recommend that they address the disproportionately high number of women researchers working on short-term contracts (paragraph 88).**
27. **We recommend that the Funding Councils and the Research Councils work together to establish the ethnic profile of contract researchers and to take action to tackle any bias or discrimination (paragraph 89).**
28. **We are encouraged that the Funding Councils are considering mechanisms to reward universities with good employment practice (paragraph 90).**
29. **The current review of higher education research assessment must ensure that whatever follows the Research Assessment Exercise does not disadvantage contract researchers (paragraph 91).**
30. **The Funding Councils should consider using the proportion of researchers on fixed-term contracts in a department as a basis for calculating the university block grant (paragraph 92).**
31. **We welcome the training grants for Research Council-funded CRS announced in the Spending Review but there is more that the Research Councils should be doing. It is not clear to us why the Research Councils cannot treat their grants as much as investments in people as in research. Their insistence on passing the buck to the universities is shameful (paragraph 95).**
32. **[The] idea of a training voucher system for postdocs has merit and should be pursued (paragraph 96).**
33. **To prevent contract researchers, particularly the more senior ones, from applying for Research Council grants is demeaning and stifles good ideas. If one Research Council can allow this then they all can. We recommend that all the Research Councils allow contract researchers to apply for their grants without delay (paragraph 97).**
34. **The continued excellence of the science base requires that we fund the best people available for the duration of a grant. We recommend that the Research Councils reassess their practices to ensure that their grants fund the best people available and not the cheapest (paragraph 98).**



*Management*

- 35. We must end the damaging distinction between permanently employed academics and CRS. We must aim for security for all higher education staff even if this means that none is entitled to a job for life (paragraph 106).**
- 36. This inquiry is focused on the problems created by huge numbers of contract researchers but it is clear to us that a resolution must embrace all academic staff employed in higher education (paragraph 108).**
- 37. We have received ideas on how to remodel the management of research in our universities. We now need a Government that will listen to them and is bold enough to act (paragraph 112).**
- 38. It is hard to identify a single culprit for the continuing mistreatment of our research workforce, but top of the list must be a management culture in some of our research-intensive universities, which is callous and shortsighted. The universities are underfunded, but that is not an excuse for poor management (paragraph 114).**
- 39. Reviews, financial investment and changes in the law can only achieve so much without tackling the fundamental underlying attitudes and behaviours (paragraph 114).**
- 40. To resolve the problem of huge numbers of research staff working on short contracts, it is clear to us that university management must change radically, not just at the top level but in the way individual departments and research teams are managed (paragraph 103).**

**PROCEEDINGS OF THE COMMITTEE RELATING TO THE REPORT**

WEDNESDAY 6 NOVEMBER 2002

Members present:

Dr Ian Gibson, in the Chair

Dr Brian Iddon

Dr Desmond Turner

Dr Andrew Murrison

The Committee deliberated.

Draft Report (Short Term Contracts in Science and Engineering), proposed by the Chairman, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 118 read and agreed to.

*Resolved*, That the Report be the Eighth Report of the Committee to the House.

*Ordered*, That the Chairman do make the Report to the House.

*Ordered*, That the provisions of Standing Order No. 134 (Select committees (reports)) be applied to the Report.

Several papers were ordered to be appended to the Minutes of Evidence.

*Ordered*, That the Appendices to the Minutes of Evidence taken before the Committee be reported to the House.—(*The Chairman.*)

Several papers were ordered to be reported to the House.

[Adjourned till Wednesday 13 November at Four o'clock.]

## LIST OF WITNESSES

*Wednesday 3 July 2002*

Dr John Sawyer, Department of Mechanical Engineering, Imperial College, Mr Mike Ahern, London School for Hygiene and Tropical Medicine, and Dr Clare Bamba, Department of Public Health, Liverpool University ..... Ev 1

Dr Clare Goodess, University of East Anglia, Mr Robert Patton, Imperial College, and Dr Liz Rugg, Queen Mary, University of London ..... Ev 4

### JOHN INNES CENTRE, NORWICH

Dr Eva Link, Mr Matt Hill and Dr Robert Bradburne ..... Ev 7

### ASSOCIATION OF UNIVERSITY TEACHERS

Mrs Sally Hunt, General Secretary, and Dr Alan Williams, Manchester University and former Chair of AUT Contract Research Staff Committee ..... Ev10

### NATIONAL ASSOCIATION OF TEACHERS OF FURTHER AND HIGHER EDUCATION (NATFHE)

Mr Tom Wilson, Head of Universities Department, and Mr Andrew Pike, Higher Education National Official ..... Ev 10

### UNIVERSITIES UK

Baroness Warwick of Undercliffe, Chief Executive, and Professor Glynis Breakwell, Vice-Chancellor of the University of Bath and member of the Universities UK Research Strategy Committee ..... Ev 14

Sir Gareth Roberts ..... Ev 19

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Additional written evidence has been received from the following and has been reported to the House, but to save printing costs it has not been printed and copies have been placed in the House of Commons Library where they may be inspected by Members. Other copies are in the Record Office, House of Lords, and are available to the public for inspection. Requests for inspection should be addressed to the *Parliamentary Archives*, Record Office, House of Lords, London, SW1P 0PW (Tel 020 7219 3074). Hours of inspection are from 9.30am - 5.30pm on Mondays to Fridays.

Engineering Professors' Council  
Laurence Jones  
Frances Moore, University of Oxford  
Dr Joanna Poulton  
Dr Diane Wensley  
The Systematics Association  
Roger Flower, University College, London  
Dr Elena Notarianni  
Neil Donovan  
Professor Susan Cooper, University of Oxford  
Dr Fletcher-Holmes and Ms J Ewins  
Dr Helen Walker  
Dr D L Clements, Imperial College  
Dr Gareth Glass  
Dr Rade Durbaba, Imperial College  
Dr N A F Campbell  
Dr Stuart M Booker, University of Dundee  
Dr Claire Reeves, University of East Anglia  
Dr R Calvert and Dr B Sutton  
Dr Dan Sillence  
Dr Alana M Thackray, University of Cambridge  
Drs C B and A J Hayward-Costa  
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Dr E M Link  
The University of Sheffield  
Amicus - MSF Section  
The Science Council  
Association of University Teachers (AUT) (Supplementary)