



House of Commons
Science and Technology
Committee

Director General for Higher Education: Introductory Hearing

Seventh Report of Session 2003–04

*Report, together with formal minutes and oral
evidence*

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The Science and Technology Committee

The Science and Technology Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Office of Science and Technology and its associated public bodies

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Committee staff

The current staff of the Committee are: Chris Shaw (Clerk), Emily Commander (Second Clerk), Alun Roberts (Committee Specialist), Hayaatun Sillem (Committee Specialist), Ana Ferreira (Committee Assistant), Robert Long (Senior Office Clerk), and Christine McGrane (Committee Secretary)

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Contents

Report	<i>Page</i>
Introduction	3
Role and suitability	3
Bologna process	4
HEFCE	5
Vetting of students and researchers	5
Evidence-based policy	6
University funding	6
Science departments	7
Conclusion	7
Conclusions and recommendations	8
Formal Minutes	9
Witnesses	9
Reports from the Science and Technology Committee since 2001	10

Introduction

1. At the beginning of the Parliament we undertook, as one of our core tasks, “To scrutinise major appointments made by the Secretary of State for Trade and Industry” within our remit. This is in line with the Liaison Committee’s Core Task 8 for Select Committees.¹ We envisaged that this would take the form of a single evidence session with new incumbents a few months after taking up the post. The sessions are intended to be analogous to the Congressional confirmation hearings in the United States, although we have no power to ratify or veto any appointment. Our purpose is to satisfy Parliament that the post has been filled with someone of sufficient calibre, establish the views and principles that he or she brings to the job, to alert them to our interests and concerns and to heighten awareness of our role in scrutinising each individual’s performance and that of their divisions or organisations.

2. So far we have held four such sessions, with Professor Ian Diamond, Chief Executive of the Economic and Social Research Council; Mr David Hughes, Director General of Innovation at the Department of Trade and Industry; and Professor Colin Blakemore, Chief Executive of the Medical Research Council. On 22 October 2003, Professor Sir Alan Wilson was appointed as the first Director General for Higher Education (DGHE) at the Department for Education and Skills (DfES). While his role is primarily within the remit of the Education and Skills Committee, many of his responsibilities are of direct relevance to our work, in particular the research component of the university block grant. We were keen to establish his views on a range of issues and invited him to give evidence to us on 22 March 2004. The transcript of the session is published with this report.

Role and suitability

3. The DGHE is the senior civil servant responsible for advising Ministers on the overall development of higher education policy and for ensuring that processes, systems and people are in place to convert policy into action. The DGHE is a member of the DfES Board, reporting to the Permanent Secretary, and is responsible for the new Higher Education Directorate, which has 268 staff. The role of DGHE was created since the Directorate of Lifelong Learning was deemed to be covering too wide an area.² Responsibilities include:

- a) Developing and implementing a long-term strategy for investment and reform in higher education;
- b) Leading relationships with key players in Whitehall and beyond;
- c) Presenting Government policy on higher education;
- d) Implementing a package of measures to improve student finance ;
- e) Strengthening university research; and

¹ First Report of the Liaison Committee, Session 2002–03, *Annual Report for 2002*, HC 558, para 13

² Q 4

f) Implementing approaches to improve reward and recognition for high quality teaching, and promoting professional standards.

4. Sir Alan Wilson joined DfES from the University of Leeds, where he had been Vice-Chancellor since 1991. His research interests cover many aspects of mathematical modelling, especially the use of models in all aspects of city and regional planning. He told us that he hoped that his administrative and management experiences would be as useful as a knowledge of the sector in his new job.³ Nevertheless, if the Department was looking to appoint an external candidate, the obvious choice would be a current or former vice-chancellor from a large and established university. The timing of the appointment is a concern to us. It should have been clear before the Higher Education White Paper was published in January 2003 that the structures within DfES were inadequate and the White Paper could only have been improved with a strong steer from an experienced university administrator. **The creation of the position of the Director General for Higher Education is welcomed and Sir Alan Wilson has the right credentials for the job. Our only disappointment is he joins the Department after the publication of the Higher Education White Paper. An earlier appointment would have been preferable, to enable the incumbent to help shape the Higher Education Bill which the Department is required to implement.**

Bologna process

5. The Bologna Process is an intergovernmental European (not EU) initiative which aims to develop a European Higher Education Area. A key element, and one of the most contentious, is the harmonisation of degree structures. The preferred option is a 3 year bachelor + 2 year masters + 3 year PhD system. This has caused concern in the UK since the UK masters is generally one year and there has been a growing trend to run four-year integrated bachelor/master courses, particularly in engineering and the physical sciences.

6. The Institute of Physics (IOP) and the Royal Society of Chemistry (RSC) are particularly concerned that these four-year courses will not be recognised across Europe, threatening the employability of UK graduates and the market for overseas students. They have written to the Minister of State for Lifelong Learning, Further and Higher Education, Alan Johnson, whose response indicates, they say, that he thinks Europe is moving towards the UK model and that little action is required. The IoP and the RSC maintain that while the UK will need to move less far than other countries, some action is still required. They are concerned that the universities are taking little interest or do not wish to change their degrees unilaterally. The RSC and the IOP argue that universities and the Government need to engage more actively in the debate and that Government needs to provide the impetus. They also express concern that Europe was not mentioned once in the Higher Education White Paper.⁴

7. Sir Alan admitted that he was not an expert on the Bologna Process but that he understood that the UK was closer to compliance than many other countries.⁵ He said he

³ Q 7

⁴ Institute of Physics, Bologna process threatens UK physics degrees, press release, 29 October 2003

⁵ Q 60

hoped that the four year integrated courses were not threatened. We agree that the model proposed does not require major change but that is not the same as saying that no change is needed. At the very least we would expect him to be more familiar with the issues. We share his hope that 4–year courses are not threatened by the process but hoping alone will not make it less likely. **We are concerned that the Director General for Higher Education knew so little about the Bologna Process. The science community is looking for leadership from the Government on this issue, and on the evidence of Sir Alan’s comments, it is unlikely to be forthcoming in the near future. We recommend that he take steps to initiate a national debate among universities, ensure that the issues are well understood in the higher education sector and press for action where necessary.**

HEFCE

8. The Higher Education Funding Council for England (HEFCE) is an NDPB under the DfES. It distributes public money for teaching and research to universities and colleges, primarily as a block grant to institutions. Its freedom to allocate its funds independently of the Department and Ministers has been a concern of ours. In 2002, during the Committee’s inquiry into the Research Assessment Exercise, the then Minister of Higher Education, Margaret Hodge, said that funding decisions based on the RAE were a matter for HEFCE but that she supported them.⁶ More recently, there have been signs that the Department has been playing a bigger role in determining the allocation of funds. Appearing before the Education and Skills Committee on 5 March 2003, the Chief Executive, Sir Howard Newby, described as “broadly accurate” the statement that the Government had ignored his advice over how the funding should be shared out and required him to cut £30 million funding to departments rated 4 in the 2001 Research Assessment Exercise. A further example was the announcement by the Department, in the Higher Education White Paper, of the introduction of 6* departments, in effect further increasing the concentration of research funding in the top universities.⁷ **We are concerned that the relationship of the DfES, and in particular the Director General for Higher Education, with HEFCE is not clear and that there could be confusion over HEFCE’s ability to make decisions on the allocation of its grants. Subtle shifts in funding by HEFCE can have a big effect on universities. The Director General for Higher Education needs to be clear about what his role is in intervening.**

Vetting of students and researchers

9. During our inquiry into the Scientific Response to Terrorism, it became apparent that the Voluntary Vetting Scheme, intended to curb the proliferation of chemical, biological and nuclear weapons, was not functioning as it should. Under the scheme, university institutions are invited, on a voluntary basis, to refer to the Government for advice on any applications from potential students from certain countries seeking to undertake research in particular disciplines, who might in the future engage in the proliferation of dangerous technology.⁸ We gathered that many universities were not taking part and that this

⁶ Second Report of the Science and Technology Committee, Session 2001–02, *The Research Assessment Exercise*, HC 507, Qq 184–185

⁷ Department for Education and Skills, *The future of higher education*, Cm 5735, para 2.15

⁸ Eighth Report of the Science and Technology Committee, Session 2002–03, *The Scientific Response to Terrorism*, HC 415–I, paras 200–205

included several large research universities. The level of participation with the scheme has not been made public. Sir Alan told us that “It is not a scheme that I have been directly involved with but it is probably true in my case that one of my colleagues [at Leeds University] may have been”.⁹ It is a pity that Sir Alan is not better acquainted with the scheme – and its shortcomings – as we believe that the DGHE should play a valuable role in reforming the scheme. **We are concerned that the Director General for Higher Education knew little about the Voluntary Vetting Scheme. A successful scheme that helps to prevent the UK becoming a training ground for terrorists needs a coordinated approach from UK universities and Sir Alan must play an active part. We recommend that he takes this up with the Foreign Office.**

Evidence-based policy

10. We were pleased to hear that Sir Alan is an advocate of evidence-based policy, and indeed that this was an area of his academic interest.¹⁰ We were interested to know how it would be implemented in practice. When we raised the issue of student debt and its potential impact on undergraduate applications from poorer families, he retreated behind the imperfections of social science in which “you often find evidence that points in different directions and what is necessary at the end of the day is to make a judgment about effective ways forward”.¹¹ We appreciate that political judgements need to be made and they are ones that Sir Alan is not in a position to make. Nevertheless, we would have preferred to hear him insist that he would be pressing his political masters to take account of evidence rather than implying that if the evidence does not support your position it can be easily disregarded.

11. One element of applying evidence-based policy is ensuring that the appropriate research data are available. It is reasonable that the role of DGHE should include the commissioning of research studies to inform policy development. Sir Alan told us that this was not “directly my responsibility at the present time”. We think it should be. **We are pleased that Sir Alan is an advocate of evidence-based policy. If he is to bring this to bear on Government higher education policy he should be in a position to ensure that appropriate and reliable data are gathered, which cannot be airily dismissed as a result of the many and serious imperfections of social science.**

University funding

12. While university funding is not central to our remit, the health and vitality of the science and engineering base certainly is, and this necessarily leads us to comment on its funding environment. We are currently engaged in an inquiry into the Research Assessment Exercise and the wider issue of dual support and we do not wish to prejudge our Report here. We detected some complacency at the current level of research selectivity. In recent years research funding there has an increasing concentration of research funding in the Russell Group universities. Sir Alan’s analysis was that this was “where there is more

⁹ Q 17

¹⁰ Q 22

¹¹ Q 25

research capacity”.¹² Of course there is greater capacity in them if they receive more money. There is nothing special in the soil in the so-called Golden Triangle. If significant funds were, for example, made available to the new Bolton University, we have little doubt that it would attract the talent and create a research environment to rival the best.

Science departments

13. The closure of several university science departments in recent years, particularly in the physical sciences, has been a worrying trend. We were interested to hear if Sir Alan had any practical solutions. He said he had faced the problems of low student demand in certain subjects but that he had addressed this by putting an extra effort into student recruitment.¹³ We were delighted that the University of Leeds has managed to solve the problem but it is clear that many of his former vice-chancellor colleagues have not been as successful. We recognise that falling A level enrolment needs to be tackled but we do not accept his view that it is difficult to “manage student choice in any directed way”.¹⁴ There is nothing difficult about intervening in the market to support subject areas crucial to future economic performance. We accept that the long term solution is to encourage more young people into these subject areas, but until trends in student demand have been reversed this intervention is essential. This is the responsibility of the Government and cannot be left largely to universities, as Sir Alan suggests.¹⁵ **We are disappointed that Sir Alan does not see a greater role for Government intervention to maintain university research and teaching capacity in key disciplines.**

Conclusion

14. We have no doubt that Sir Alan Wilson’s experience and talents makes him well-qualified for the job of Director General for Higher Education at the Department for Education and Skills. We do have concerns, however, about certain gaps in knowledge and awareness. Sir Alan offered to come back to see us in six months’ time.¹⁶ We welcome this and look forward to discussing progress.

¹² Q 38

¹³ Q 46

¹⁴ Q 47

¹⁵ Q 48

¹⁶ Q 74

Conclusions and recommendations

1. The creation of the position of the Director General for Higher Education is welcomed and Sir Alan Wilson has the right credentials for the job. Our only disappointment is he joins the Department after the publication of the Higher Education White Paper. An earlier appointment would have been preferable, to enable the incumbent to help shape the Higher Education Bill which the Department is required to implement. (Paragraph 4)
2. We are concerned that the Director General for Higher Education knew so little about the Bologna Process. The science community is looking for leadership from the Government on this issue, and on the evidence of Sir Alan's comments, it is unlikely to be forthcoming in the near future. We recommend that he take steps to initiate a national debate among universities, ensure that the issues are well understood in the higher education sector and press for action where necessary. (Paragraph 7)
3. We are concerned that the relationship of the DfES, and in particular the Director General for Higher Education, with HEFCE is not clear and that there could be confusion over HEFCE's ability to make decisions on the allocation of its grants. Subtle shifts in funding by HEFCE can have a big effect on universities. The Director General for Higher Education needs to be clear about what his role is in intervening. (Paragraph 8)
4. We are concerned that the Director General for Higher Education knew little about the Voluntary Vetting Scheme. A successful scheme that helps to prevent the UK becoming a training ground for terrorists needs a coordinated approach from UK universities and Sir Alan must play an active part. We recommend that he takes this up with the Foreign Office. (Paragraph 9)
5. We are pleased that Sir Alan is an advocate of evidence-based policy. If he is to bring this to bear on Government higher education policy he should be in a position to ensure that appropriate and reliable data are gathered, which cannot be airily dismissed as a result of the many and serious imperfections of social science. (Paragraph 11)
6. We are disappointed that Sir Alan does not see a greater role for Government intervention to maintain university research and teaching capacity in key disciplines. (Paragraph 13)

Formal Minutes

Monday 14 June 2004

Members present:

Dr Ian Gibson, in the Chair

Dr Evan Harris
Dr Brian Iddon
Mr Robert Key

Bob Spink
Dr Desmond Turner

The Committee deliberated.

Draft Report (Director General for Higher Education: Introductory Hearing), proposed by the Chairman, brought up and read.

Ordered, That the Chairman's draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 14 read and agreed to.

Resolved, That the Report be the Seventh Report of the Committee to the House.

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

[Adjourned till Wednesday 23 June at half past Nine o'clock.]

Witnesses

Monday 29 March 2004

Page

Professor Sir Alan Wilson, Director General for Higher Education

Ev 1

Reports from the Science and Technology Committee since 2001

Session 2003-04

First Report	Annual Report 2003	HC 169
Second Report	Chief Executive of the Medical Research Council: Introductory Hearing (<i>Reply HC 629</i>)	HC 55
Third Report	The Work of the Biotechnology and Biological Sciences Research Council (<i>Reply HC 526</i>)	HC 6
Fourth Report	Office of Science and Technology: Scrutiny Report 2003 (<i>Reply HC 588</i>)	HC 316
Fifth Report	<i>Too Little too late?</i> Government Investment in Nanotechnology (<i>Reply HC 650</i>)	HC 56
Sixth Report	Within REACH: the EU's new chemicals strategy	HC 172

Session 2002-03

First Report	The Work of the Particle Physics and Astronomy Research Council (<i>Reply HC 507</i>)	HC 161
Second Report	Annual Report 2002	HC 260
Third Report	The Work of the Medical Research Council (<i>Reply Cm 5834</i>)	HC 132
Fourth Report	Towards a Non-Carbon Fuel Economy: Research, Development and Demonstration (<i>Reply HC 745</i>)	HC 55
Fifth Report	The Work of the Natural Environment Research Council (<i>Reply HC 1161</i>)	HC 674
Sixth Report	UK Science and Europe: Value for Money? (<i>Reply HC 1162</i>)	HC 386
Seventh Report	Light Pollution and Astronomy (<i>Reply HC 127, 2003-04</i>)	HC 747
Eighth Report	The Scientific Response to Terrorism (<i>Reply Cm 6108</i>)	HC 415
Ninth Report	The Work of the Engineering and Physical Sciences Research Council (<i>Reply HC 169, 2003-04</i>)	HC 936

Session 2001-02

First Report	Cancer Research – A Follow-Up (<i>Reply Cm 5532</i>)	HC 444
Second Report	The Research Assessment Exercise (<i>Reply HC 995</i>)	HC 507
Third Report	Science Education from 14 to 19 (<i>Reply HC 1204</i>)	HC 508
Fourth Report	Developments in Human Genetics and Embryology (<i>Reply Cm 5693</i>)	HC 791
Fifth Report	Government Funding of the Scientific Learned Societies (<i>Reply HC 53</i>)	HC 774
Sixth Report	National Endowment for Science, Technology and the Arts: A Follow-Up (<i>Reply HC 276</i>)	HC 1064
Seventh Report	The Office of Science and Technology: Scrutiny Report 2002 (<i>Reply HC 293</i>)	HC 860
Eighth Report	Short-Term Research Contracts in Science and Engineering (<i>Reply HC 442</i>)	HC 1046

Oral evidence

Taken before the Science and Technology Committee

on Monday 22 March 2004

Members present

Dr Ian Gibson, in the Chair

Dr Evan Harris
Dr Brian Iddon
Mr Robert Key

Mr Tony McWalter
Bob Spink
Dr Desmond Turner

Witness: **Professor Sir Alan Wilson**, Director General for Higher Education, examined.

Q1 Chairman: Sir Alan, you can bring a crowd with you and you have not started the job yet! Can I congratulate you on behalf of the Committee. You will know something of the Committee's work, having read some of the results of our inquiries and so on.

Professor Sir Alan Wilson: Yes, indeed.

Q2 Chairman: We are delighted to see you here. We know you have not taken up your position yet.

Professor Sir Alan Wilson: If you will forgive me for saying so, Chairman, I took up the position half time on 1 February, so you can talk to me on that basis. I have six weeks' experience half time.

Q3 Chairman: It is early days yet. We are pleased to see you, thank you for coming along. If there is anything you cannot answer please say so and you can let us know later on.

Professor Sir Alan Wilson: That is fine.

Q4 Chairman: Why was your job created? There you were working away, beavering away at Leeds, why was this job created and tempting for you?

Professor Sir Alan Wilson: I think it was created because if you look at the structure of the Department, the Directorate of Lifelong Learning had a very, very wide brief. It embraced skills, adult learning, everything concerned with FE colleges, the Learning and Skills Council. I think there was a concern that higher education had something of a back seat. I think part of the reasoning was to give higher education a higher profile and, indeed, in my case, to seek to bring somebody in with experience of the sector who could offer something in those terms.

Q5 Chairman: It implies that something was not right, was not going well, something was missing, does it not, and it needed this appointment? Not you, but the appointment.

Professor Sir Alan Wilson: If you look at what has happened in the Department I think it reflects a restructuring process which has been going on for a year or two in terms of bringing people into the Department at board level. In fact, I think it is true to say now that five of the eight members of the

board actually came from outside the Civil Service. They are bringing skills that represent the sector that they are now working in in the Department.

Q6 Chairman: Where do you sit in the Government circle, as it were? Are you a representative of the universities or are you a bridge between the universities or are you your own man?

Professor Sir Alan Wilson: I have to say, I have entirely changed positions, or I will have done on 1 June when I move full-time into this job. I have moved from being Vice-Chancellor in the University of Leeds to being a full-time civil servant in the senior Civil Service. I will have exactly the roles that you would expect of a senior civil servant in a Director General position.

Q7 Chairman: I am not interviewing you for the job, you understand. Is this position best filled by an ex-vice chancellor with that experience of all the vicissitudes of higher education over the last 10/20 years? Do you think that is a great advantage for this job and position? Does it position you well in understanding the problems?

Professor Sir Alan Wilson: I am not sure it is for me to answer that question, Chairman, but I can attempt to do so. From my perspective it works perfectly well. I hope what I actually bring to the job are administrative and management experiences as well as knowledge of the sector. I am very conscious that it is a very different kind of job and that is one of the challenges for me, it is one of the interests in the job.

Q8 Chairman: I realise this job was re-advertised. Were you head-hunted?

Professor Sir Alan Wilson: Yes.

Q9 Chairman: You were head-hunted the second time round?

Professor Sir Alan Wilson: Yes.

Q10 Chairman: Why did they not get anybody the first time, do you think? Did nobody apply?

Professor Sir Alan Wilson: Again, I do not think that is my question, Chairman. I was not involved in the first round.

22 March 2004 Professor Sir Alan Wilson

Q11 Mr McWalter: Might it be that you are there to then take the blame so that when things go wrong there is a Director of Higher Education, whereas when things go right ministers will claim that? That might be why nobody else bothered to apply.

Professor Sir Alan Wilson: I am not sure it works that way, Chairman. I am happy to take whatever responsibility I am given.

Q12 Mr McWalter: Including being the whipping boy?

Professor Sir Alan Wilson: I do not see myself as a whipping boy, Chairman.

Q13 Chairman: Can I just ask you two specific questions and then I will pass on. The e-university is quite interesting to me. I remember it being put forward several years ago and lots and lots of money being put up for it. What has happened to that in your experience? Has it failed?

Professor Sir Alan Wilson: It would be wrong to say it has failed. I think what has happened is that the Funding Council, who are the main funders of it and were the agency for carrying the Government money into that experiment, are seeking to restructure it. My take on it would be that it is a big job still to be done. They have not recruited quite the number of students that they expected at an early stage.

Q14 Chairman: About 900 across the world.

Professor Sir Alan Wilson: If you look at the bigger picture, it was set up as a private sector organisation, or it was intended to be a private sector organisation, to attract more than 50% of private equity in order to run it, but it was actually launched, and one has to say in all fairness from the Funding Council's point of view by accident, at exactly the time that the Stock Exchange was turning down seriously on high tech companies and no-one wanted to invest in it except some through the platform. It now looks more like a public agency which I think the Funding Council will seek to use to drive their e-learning strategy. I do not see it as a failure, I would see it at this stage as a major investment in e-learning.

Q15 Chairman: It will not be your function to drive it?

Professor Sir Alan Wilson: It is the Funding Council's role.

Q16 Chairman: But £30 million down the drain is the implication.

Professor Sir Alan Wilson: I think it is far too early to say anything like that.

Q17 Chairman: My last question is, it is implied because of the terrorism interest just now that universities, being part of that, are having to smarten up some of their procedures about recording biological and chemical substances and so on, but there is also some vetting going on of students from abroad. Is that true in your experience from Leeds?

Professor Sir Alan Wilson: There has been a Government voluntary vetting scheme. It is not a scheme that I have been directly involved with but it is probably true in my case that one of my colleagues may have been.

Q18 Chairman: As Vice-Chancellor, surely you must have discussed that at council meetings?

Professor Sir Alan Wilson: I think what has been discussed is whether the university, like most universities in this country, would take part in a voluntary vetting scheme.

Q19 Chairman: Which students from which countries are being vetted, the "axis of evil"?

Professor Sir Alan Wilson: That I cannot answer, I am afraid.

Q20 Chairman: Not from Leeds' point of view, you have left Leeds behind now?

Professor Sir Alan Wilson: Yes.

Q21 Dr Harris: Before I ask you the meat of my question, I want to ask you whether you are interested in evidence-based policy advice.

Professor Sir Alan Wilson: Yes, absolutely.

Q22 Dr Harris: By which I mean looking at what the research says about a certain thing and applying scientific method. The Secretary of State said this morning that he was a fan of this. How important do you see that as a factor in the advice you give and, indeed, the policy in higher education generated by the Department?

Professor Sir Alan Wilson: I am a great believer in evidence-based policy, it happens to be my academic background before I was Vice-Chancellor in Leeds. Academically I am a geographer and have an interest in the planning of cities and such things. That is very much an area where evidence-based policy is extremely important. The fact that the Government has taken that up, I think through the Cabinet Office, as Government policy, as it were, is very helpful. I think within the Department for Education or, indeed, any Government department, the more you can assemble the relevant evidence to support policy the better.

Q23 Dr Harris: Let us look at the Higher Education Bill. There is a proposal there to get more people from poorer backgrounds into higher education by making them poorer, giving them more debt. Are you aware of the research background that suggests that that counterintuitive suggestion is backed by the evidence?

Professor Sir Alan Wilson: I am aware of Clare Callendar's research on the fear of debt.

Q24 Dr Harris: That showed that debt aversion was a bigger problem for poorer students and would be a big factor in deterring them from going to university.

Professor Sir Alan Wilson: That showed that debt aversion could be a substantial problem. In fact, what I would say on that is that the evidence in other

22 March 2004 Professor Sir Alan Wilson

countries, and Australia in particular, is that kind of debt aversion has not deterred poorer students from going to university.

Q25 Dr Harris: What you are saying is that you are happy to see evidence cited—I have not seen the worldwide review to which you are referring—from abroad trumping the evidence that is funded and organised and commissioned by the Government itself on this particularly thorny issue.

Professor Sir Alan Wilson: I think, Chairman, in this kind of territory I go back to say that I am in favour of evidence-based policy. By academic profession I am a social scientist and I am well aware that social science is a highly imperfect science and you often find evidence that points in different directions and what is necessary at the end of the day is to make a judgment about effective ways forward. I do not think one piece of research necessarily says that the policy contradicts evidence.

Q26 Dr Harris: The alternative is that the evidence points one way but, nevertheless, a harsh, political, economic decision has to be made and that is just what politics is like. Would you say that is a better description, or a possible description of what is happening here? Are you going to stick to the view that despite the evidence of the Government's own work, there may be some evidence out there that suggests this is a good thing to do in respect of access?

Professor Sir Alan Wilson: There is some such evidence but in terms of the Department's policy on this, I would say that the Department, as you implied initially, does its best to support evidence-based policy. In terms of the politics of this, Chairman, that is probably a question for the Secretary of State rather than for me.

Q27 Dr Harris: We are a science committee obviously and we are interested in science careers and we will come on to that later, but one of the questions around this particular issue is whether you think there is something that has to be handled, given that it looks like we are going to have this policy of top-up fees and, therefore, greater indebtedness, about whether that is going to be a problem in promoting people to go into science research, public sector jobs versus, in the alternative, better paid jobs and the higher the debt is at the end. Is that something that you think the Government is dealing with, or going to deal with?

Professor Sir Alan Wilson: It is a policy question to be dealt with. I think in terms of attracting people into different professions there will come a time when these questions have to be addressed and different bodies will address them. In part, of course, this is why the Department invited Alan Langlands to do a Gateway Review in terms of entry into the professions and you could actually take science as being a part of that.

Q28 Dr Harris: Given what we have been discussing, do you think there is an argument for the DfES to commission research now to bolster the evidence-base to give more information, or at least to monitor how this is introduced in terms of impact on career choices and impact on access compared to better controlled groups than Australia, such as the Scottish system? Do you think that is a good idea and are you doing it?

Professor Sir Alan Wilson: I would be surprised if the Department and, indeed, many others did not do that over a period in future. I think this is a long-term issue. It is a potential longitudinal study.

Q29 Dr Harris: I am asking you will you be recommending that or is it not your responsibility to recommend research projects around this area?

Professor Sir Alan Wilson: It is not directly my responsibility at the present time but I will happily say that it is important to monitor these kinds of changes.

Q30 Bob Spink: I want to question you on the dual support system for research and the RAE. Do you think the RAE has been successful as a measure of quantity of research?

Professor Sir Alan Wilson: I am sure the RAE has been successful in improving the quality of research. It is very difficult in this kind of territory to produce absolute measures of value. What is clear is that no-one in the scientific community has been able to suggest a better method than peer review. I think the outputs of Research Assessment Exercises over the years, and the exercise, as you know, has been continually refined, have been broadly accepted by the community and that is one kind of test as to whether it works or not. Nothing in that kind of territory can be absolutely objective but, broadly speaking, I think everybody accepts that the outputs are consistent.

Q31 Chairman: Do you think it skews the whole activity within the university complex that everything is geared to that RAE and to hell with teaching, to hell with good administration and so on? What is your experience at that level because promotions and so on depend so much on research and not on your teaching function?

Professor Sir Alan Wilson: Because of the Research Assessment Exercise, research has certainly been given a very high priority, there is no question about that, it has had that kind of impact on promotion. It has been part of the policy in the White Paper to recognise that and to seek to enhance the standard of teaching, for example. I think we are in very difficult territory here because the Research Assessment Exercise in many ways has been amazingly successful in actually driving up the quality of scientific research and the quality of scientific research, so it has had that effect on both dimensions. If I can refer to my experience in Leeds, my own experience is that it has not had an adverse effect on teaching quality. Insofar as Teaching Quality Assessments, there is the same question, do they work, actually effectively measuring teaching

22 March 2004 Professor Sir Alan Wilson

quality, and the broad consensus is that research universities like Leeds have actually done very well. If you would like my own opinion on this, I share it with no less than the President of the Royal Society, Lord May. He gave a talk in Leeds in the summer, which I happened to be chairing, and if you will allow an anecdote, Chairman, he said he liked to come to research conferences and talk to people about what they were not doing or was not on the agenda, and he produced three or four research topics that were not on the agenda, but then said “and you never have teaching on the agenda”. I think coming from the President of the Royal Society that was very important. I have cited that in several speeches.

Q32 Bob Spink: Lord May called for a fundamental review of the dual funding, but we will come to that in a moment. On the RAE, this Committee agrees with you that it actually helped to drive up the quality standards but also there were some question marks as to whether it had run its full course of usefulness and whether 2008 might be the final exercise. What is your view on that?

Professor Sir Alan Wilson: I think there are going to be some interesting experiments in train between now and 2008. Probably what everybody will be aware of is there has been an increasing interest over the last two or three years in developing metrics for measuring research quality with things like the Citation Indices, with measures of Research Council grant attracted, that kind of thing. There are people who argue—Lord May is one and Professor Roger Williams is another one—that you could actually use these metrics and allocate the funds and produce an outcome that was not very different from the Research Assessment Exercise. I think between now and 2008 there will be more research on these metrics and that will be examined, I am sure, for the RAE after 2008.

Q33 Bob Spink: On the dual funding, do you think that has had its day or do you think that will continue?

Professor Sir Alan Wilson: The position at the moment is that both sides of the dual funding structure, the Research Councils and OST and DTI, and DfES and HEFCE on the other side, support the continuation of the dual support system. I happen to be in the position of coming from two sides.

Q34 Bob Spink: They would.

Professor Sir Alan Wilson: Not necessarily because there have been rumours in the past about people wanting to support different positions. I think the position is actually very solid at the present time. It is widely recognised that the QR, the quality research funding coming from the Funding Council, supports activity in universities that it would otherwise be extremely difficult to support. Then there is another part of the argument and discussions that I have been involved with recently that you will all be fully aware of, which is the introduction by 2005 of the full economic cost regime in research. Research in

universities does have costs that have to be funded from different sources because if the research group is actually trying to attract research funding from a Research Council but has to say that it has certain infrastructure or the well-founded lab in place before it can do that then somebody has to fund the well-founded lab in the first place. That is what the HEFCE side of the dual support would deliver and, indeed, the permanent staff who could apply for the grants. I would actually argue that it is a system that has worked well and I would see that it still has a long life.

Q35 Chairman: I wanted to clear up something about tuition fees. Variable fees exercised some of us quite a lot and I wonder what effect you think that might have on science and technology and engineering courses if it goes through next Wednesday? They have been singled out, of course, as perhaps to get people into them we should charge nothing for them.

Professor Sir Alan Wilson: That argument has been put. I have also heard another argument from vice chancellor colleagues of what might become quite an interesting market in bursaries, that the rate at which bursaries might be offered might vary by course. It is obviously very important. It would be extremely important to me in Leeds to maintain departments like physics and chemistry and I am sure that vice chancellors around the country in universities with these departments will seek to attract people in. I am not sure that it has a lot to do with variable fees. Some universities may charge less or introduce bursaries to encourage people in but I still think it remains more of a low demand issue that between us, whether it is universities working in schools or universities seeking to produce more science teachers, which is now beginning to happen, or whether it is in the schools itself and the colleges, we can increase the demand for science. I think if that happens, whatever the fee in a typical university is for physics or for history, I do not see that someone is going to choose to read history because of it having the same fee as physics.

Q36 Chairman: So it is irrelevant to the real issue of getting people to do things at university that are relevant?

Professor Sir Alan Wilson: Yes.

Q37 Chairman: Do you think the DfES will ever offer bursaries, or should offer bursaries, like the Institute of Physics is doing for example?

Professor Sir Alan Wilson: The Institute of Physics has chosen to offer £1,000 bursaries. There are no plans to my knowledge, in the Department, for subject specific support. Obviously it is an issue that we should all monitor because we need to support science in schools, colleges and universities. What the Department does have is a whole range of policies to support that.

Q38 Chairman: Do you think the concentration of research funding is skewed to Russell Group universities, the South of England and so on?

22 March 2004 Professor Sir Alan Wilson

Professor Sir Alan Wilson: It is skewed to Russell Group universities because that is where there is more research capacity and to an extent that is reinforced by the RAE. I think that leads to interesting questions. The Department's policy, and I think OST's policy, is to fund good research wherever it is, so there is nothing in the funding mechanism as such. There might be something in the evaluation mechanism, which takes us back to the RAE, which skews things in Russell Group terms. The evidence is beginning to be that it is much less skewed in regional terms. There is often a lot of talk about the golden triangle of London, Oxford and Cambridge but, again, if I can call on my own experience, as you will know, the Universities of Leeds, Sheffield and York collaborate through the White Rose Consortium and my vice-chancellor colleagues there are very fond of producing the arithmetic which shows that the research income of those three universities actually exceeds either Oxford or Cambridge. In terms of research capacity in that research triangle in Yorkshire, it is as big as either Oxford or Cambridge. I think that is part of what could be the solution if we were worried about what might be an increase in regional concentration, although I do not think we have got to that point yet. That is more collaboration in research networks in the regions to actually deliver the capacity that you can see in White Rose, you can see in the North West, you can see in the North East.

Q39 Mr McWalter: I am still very confused about what your job is. I might be being a bit thick. It seems to me that this is the sort of conversation we could be having about education with pretty much anyone with a vice chancellor background and so on. We have lost 22 physics and chemistry departments in six years, 1994–2000. Is it not the case that if you are Director General of Higher Education and you are concerned about that, you should be making recommendations for changes in funding if those subjects are really important to ensure that those subjects no longer suffer that degree of atrophy and that degree of neglect or whatever? Is that your job or is it not?

Professor Sir Alan Wilson: I am very happy to return to discussing the job.

Q40 Chairman: We will come back to that. This question is coming up later, I know.

Professor Sir Alan Wilson: Let me respond in these terms: my job is to advise ministers on all the policy questions that affect higher education and the one you have just articulated is one such important question. Yes, I would see it as part of my job to advise ministers on that. The implementation of higher education policy is in many ways through the Funding Council and you might return later to the relationship between my job and my colleagues in the Department and the Funding Council. I am not saying that to avoid the question.

Q41 Chairman: We will come back to that.

Professor Sir Alan Wilson: Ministers will be responsible for these kinds of policies. The short answer to your question is yes. The longer answer in relation to what should we be doing about is something that has yet to be addressed. What has happened is there has been a decline, for example, in the number of chemistry departments from 80-odd to 70-odd, or something of that sort, and you may or may not say that represents crisis level. My guess is it is a long way from crisis level, as it were. One of the things that will have to be continually monitored is the adequacy of provision. Again, as in many of these things, there is a regional dimension. Would we want to take one of the UK regions that we have just been talking about and find that there is no chemistry department? I think that is an important question for the Department and for the Funding Council. Whether it is a matter of funding for those departments is then a different question again. If there were to be an argument that in effect students would be funded at a much higher rate in, let us say, physics and chemistry, for the sake of argument, in order to make departments financially viable in certain universities then it means that you are taking the funding away from somebody else. What the Funding Council is doing at the moment is actually making judgments about costs and how to distribute funds across subjects. What universities have to do within the system with demand for different subjects is to manage that and what we are all facing, as I know you have explored, is a decline in the number of students taking A levels in subjects of this kind. I think that is still the root of the problem. What I would argue is that it is not a rate of funding question, it is actually a demand question.

Q42 Chairman: Just to finish off on the Higher Education Bill. Your old colleague, Sir Richard Sykes, who is well-known for his work in the pharmaceutical industry, who I see today is making quite a tidy sum from his share options, and he might help the university out of these problems at the rate he is getting it, said that the money would be better going to certain universities than, indeed, lower mortal universities like Luton. Do you agree with that?

Professor Sir Alan Wilson: No.

Q43 Chairman: He is just off the wall, is he?

Professor Sir Alan Wilson: It is not for me to say whether Richard Sykes is off the wall.

Q44 Chairman: He has got more money than sense, as my mother would say.

Professor Sir Alan Wilson: What I would say is that higher education in this country is represented by a very diverse set of universities that actually do different things in different parts of the system and I very happily support that. I come from a research university background myself and I support the sector. My record in Universities UK has always been to support the whole sector.

22 March 2004 Professor Sir Alan Wilson

Q45 Mr Key: Just on that point, is there a gender imbalance problem here? Would there be less of a problem if there were a higher proportion of half the population, namely the female half, pursuing science courses?

Professor Sir Alan Wilson: That is an interesting question and I am afraid I cannot give you chapter and verse because I do not know the statistics on that. Certainly there is a gender imbalance in science. In my experience, in many departments it is changing but slowly. What is changing very rapidly is the gender balance in universities. In my own university, statistics that I happened to see the other day showed that it reversed from 45% female/55% male in a 10 year period, so it is now 55% female. If you look at subjects like medicine, I think 60% of our intake is now female. It is changing but it is part of the solution.

Q46 Dr Iddon: As you have probably gathered, Sir Alan, this Committee is rather worried about the closure of engineering and physical science departments. I think the figure for chemistry that you gave of 75 is out of date because since that figure was put into the literature, King's Queen Mary College in London has gone, as good as, and a department at Swansea has announced potential closure despite the fact that it is a centre of excellence in two subjects, green chemistry and mass spectrometry, and despite the fact that it is not having any trouble recruiting numbers. Why do you think a vice chancellor would want to close a department that is viable? Is he or she looking at the cost of running the university and science is seen to be too expensive and not funded adequately by the Government?

Professor Sir Alan Wilson: It is not for me to comment on particular cases, so I would rather not seek to do that. What I can say in general is what vice chancellors and my colleagues have to do is to balance costs and demand for courses and you can have departments that are very successful in research terms but if they are not attracting enough students to the cost base which is there they will find that they may be running very large deficits and you then get within a university a version of the issue we were talking about earlier of subsidising one set of subjects relative to another and I think most universities would seek not to do that. The best way forward, as is the case nationally, is obviously to seek to increase demand. I have faced this kind of situation in my own university and we have always managed to do well enough, often by putting an enormously extra effort into the process of student recruitment to avoid the problem that has obviously occurred in some of the universities. I am not trying to say that effort everywhere will solve the problem because it actually goes back to the problem of falling A level enrolment in subjects like chemistry and the only long-term solution is to turn that back up again.

Q47 Dr Iddon: Some departments are doing quite well, archaeology and astronomy are growing significantly, whilst others which we have just

mentioned are depressed significantly. Do you think it is right that students should be allowed to choose whatever subject they want to read in the sciences or engineering subjects at university or should we have some kind of differential to attract them to the subjects which lead to national wealth?

Professor Sir Alan Wilson: I can only give a personal opinion on that. It would be difficult, and not something that I would like to think of, to actually manage student choice in any directed way, so I think the short answer to the question is students should choose to do what they want to do. If from the point of view of Government policy that is not providing the person power necessary to support the chemical industry or whatever it would be then obviously some other kind of action is needed and one falls back again to saying it is how to encourage demand. In the areas where demand is not good, and between us we understand some of the reasons—lack of teachers with the appropriate qualifications or whatever it is—we have to put a policy package together in that case at the schools level that actually turns it around.

Q48 Dr Iddon: Until that demand is recreated, which I believe and you believe it should be recreated, can we let departments like the University of Salford disappear which, when I went there, earlier, had one of the best chemistry department libraries in this country, and I have worked in places like Durham and Hull as well. What happens to the huge amount of investment in the university library in such situations or indeed the heavy machinery, like nuclear magnetic resonance spectrometers. As a nation can we afford to let all that crumble only to have to pick it up again later when all of those resources have disappeared?

Professor Sir Alan Wilson: I take the point of your question. In some cases there are short run solutions. In general it would be the university, very occasionally it would be a funding Council, who would support that kind of situation. It would have to be for a short period otherwise you are diverting funds on a continuing basis from other subjects. I think the other possibility is to explore whether the collaborative research networks that are now being explored and were supported and recommended in the White Paper would actually begin to solve some of these problems.

Q49 Dr Iddon: The question I am really asking is, do we let the market take its full effect? Does it really matter how many science and engineering departments we have?

Professor Sir Alan Wilson: I am sure it matters. I am sure all of these situations have to be monitored very carefully. I do not think what anyone would like to support is some kind of pure market system that would then allow key facilities to disappear. Whilst the Department's responsibility is to monitor I am sure the Funding Council does this anyway on a continuing basis.

22 March 2004 Professor Sir Alan Wilson

Q50 Dr Iddon: With increasing fees and maintenance of students at universities will you be recommending that because more students are having to live at home, not wanting to live at home, in the light of an earlier question that you answered that there should be a subject within travel distance of everybody's home in the country they that could reach conveniently?

Professor Sir Alan Wilson: Chairman, I am certain that cannot be done. Forgive me for putting it in the extreme case, there is a *reductio ad absurdum* argument there because if you take the real minority subjects which are supported by the Funding Council you are going to have one in the country. If I use my own university as an example, we teach Mongolian so if you want to read Mongolian you have to go to Leeds because there is nowhere else to go. I am not being facetious, there is a spectrum from universal provision. I would want to argue as somebody who was brought up with mathematics there should be universal provision of mathematics. You are certainly not going to have a chemistry department everywhere. That is why earlier I was trying to put it differently and say you might explore the policy question as to whether you should have at least one chemistry department in every region, that does not necessarily put it in commuting distance.

Q51 Dr Turner: Sir Alan, can we turn to Lambert's critical review on the relationships between business, industry and universities. Were you surprised by any of his conclusions? Do you think it is an accurate portrayal of the relationship between universities and business?

Professor Sir Alan Wilson: I think it was broadly accurate. I think he did an excellent job in tackling a problem which is genuinely a very, very complicated one. Industry is complicated, the university system is complicated and we are talking about how to join up the two most effectively.

Q52 Dr Turner: We now look with varying degrees of success to the RDAs to stimulate innovation relationships, how do you see the relationship between universities and the RDAs developing?

Professor Sir Alan Wilson: I think that is going to be a very important dimension of regional policy. Different kinds of universities have different roles in regions. Some of the newer universities have very well defined roles for students within the region. If you look at research universities they can offer something else, as well as teaching some of the students in the region they can offer two things, they bring students into the region from a wider area and a good proportion tend to stay in the region, more than you would expect on average. In some cases we can supply the research base to support the region's economic strategy, which are usually presented these days as cluster strategies. These are the main roles I would see for business relationships within the region, which the RDAs can then mediate.

Q53 Dr Turner: Lambert made various recommendations as to how universities could play their role in encouraging businesses to make more

use of the knowledge and research resources of universities, will you be playing a part in modelling the Government's response to those recommendations?

Professor Sir Alan Wilson: Yes, certainly. It is the subject of joint work between the Department for Education and Skills and the DTI at the present time.

Q54 Dr Turner: Do you have any thoughts that you would like to share with us as to how you would like to improve your business university links?

Professor Sir Alan Wilson: I think it is extremely important that the Higher Education Investment Funding stream is continued. In fact that was one of Richard Lambert's recommendations, that that should be increased. A second recommendation is that there should be a separate business research funding stream, the implementation of these and how they would work are yet to be explored. If I had a personal comment on this, Chairman, it would be to be supportive, indeed very supportive of these links and enterprises but to say for the universities to fully achieve their potential in what is often called the third arm, teaching research and a bundle the third arm activities, we still need to achieve a critical mass, which we have not properly achieved yet. It is the scale of activity and in some senses the quality of it.

Q55 Dr Turner: There are two ways of exploiting the commercial potential of research findings either by patents and licensing the patents or by developing spin-off companies. In recent years there has been a lot of attention focused on spin-off company development, do you think we are over-emphasising the role of spin-out companies and do you think there is more than that we can do using the licensing route?

Professor Sir Alan Wilson: That was one of Richard Lambert's recommendations, that we might give more attention to the licensing route than we have. Again I think I would just be very happy to say at this stage that that is clearly something which should be seriously explored. It is like a number of the other questions we have been talking about today, one would like lots of evidence so that we can say that evidence-based policy suggests that 80% of what we do should be in licensing and 20% should be in spin-outs. I think between us we have relatively little experience, I think the evidence base has to grow. Certainly in the case of my own university we lean towards spin-out companies rather than licensing. I would probably say now I would be happy to see the balance move in the other direction or at least extend the kind of activity we are undertaking in licensing.

Q56 Chairman: These two routes have been round for a long time, a life-time, why has it not happened?

Professor Sir Alan Wilson: I partially said it, I said it was the scale of activity, probably the scale of activity in licensing. Again, Chairman, at this stage I can only offer a personal comment, I think what is needed to be successful from the university perspective in either of these areas is a person with

22 March 2004 Professor Sir Alan Wilson

very special skills, and the person I am thinking of is often characterised as an academic entrepreneur. You need somebody who understands the academic research side of the business and its potential but who is also entrepreneurial enough and business like enough to find a way of taking it forward at least in its early stages, and there are relatively few such people about. The challenge is to grow more academic entrepreneurs.

Q57 Chairman: You mean grow a clone?

Professor Sir Alan Wilson: I mean grow, Chairman. It is difficult. I think this is one of the challenges of HEIF funding that we all have to engage with, typically what universities can offer with HEIF funding are fixed term appointments at academic salaries. The entrepreneur end of the academic entrepreneurs I am talking about are probably working in successful industries on career paths where it is difficult for universities to attract them out.

Q58 Chairman: We are coming back to that.

Professor Sir Alan Wilson: You will have to think about secondment or something of that kind.

Q59 Dr Turner: Going back to the vexed question of the university funding gap, trying to compare British universities, even our most successful, with international comparators like Harvard, Yale and MIT it is very difficult because you are not comparing like with like. The major American universities are getting a lot more financial benefit from their links with industry and through the much larger scale of innovation work that is going on, do you see this as a potential route for fulfilling some of the funding gap in British universities if it is fully exploited?

Professor Sir Alan Wilson: The short answer has to be yes. It was not so much a Lambert recommendation but a Lambert observation, he thought that demand for university research in the broadest sense from industry was lower than it ought to be, in other words there were two sides to this question it was not simply universities not engaging with industry effectively enough it was also the other way round. I am sure that the situation could be developed and improved, and that is something which we would need to support.

Q60 Mr Key: Sir Alan, could I turn to the question of the development of a European higher education area, the so-called Bologna Process. What are the implications of that for United Kingdom universities?

Professor Sir Alan Wilson: I have to say I am not an expert on the Bologna Process so I should start with that disclaimer. My understanding of it is that it seeks to standardise the nature and qualifications for different kinds of degrees across Europe. Again I would say that my understanding of the United Kingdom side of that is that while there may be issues with certain kinds of prograduate degrees in general this country is probably nearer to setting the standard, in other words there are other countries

that would like to have good three year honours degrees where students are currently taking very much longer to achieve that.

Q61 Mr Key: Is it not the four year integrated bachelor/masters degrees that are a threat in British universities?

Professor Sir Alan Wilson: Which are a threat?

Q62 Mr Key: Yes.

Professor Sir Alan Wilson: I am not aware of that, you may well be right. I would have to say I hope not.

Q63 Mr Key: It terms of funding it was suggested one answer to the funding problem is simply to have lots more foreign students paying full fees, would that be a good thing?

Professor Sir Alan Wilson: I think it is a good thing for this country that we have lots of international students paying full fees. I personally do not see it as a substitute for providing places for home and EU students. I think it is healthy as an export industry for the United Kingdom and it is healthy for university campuses to be international but I do not see the two things as being contradictory. I know I am contradicting some of my vice-chancellor colleagues.

Q64 Mr Key: They see it as an international market in higher education, mostly in the English language, often in science and technology. I was in Amsterdam last summer and I was very interested in the approach of those universities where they offer parallel English language courses with a specific science bent in order to attract students from all over the world, we simply do not seem to bother.

Professor Sir Alan Wilson: We are attracting students in large numbers, Chairman, so I would argue that we are bothering.

Q65 Mr Key: Are you familiar with the impact of the Export Control Act on science education in this country?

Professor Sir Alan Wilson: I am sorry, that is not an area where I would claim any expertise.

Q66 Mr Key: It is actually very significant, as we have discovered, and many vice-chancellors do not realise that for some technical functions they require an export licence.

Professor Sir Alan Wilson: I am happy to take that away and look at it.

Mr Key: Perhaps you would be kind enough to.

Chairman: It is UK on *en bloc*!

Q67 Mr Key: You may have seen there has been some concern expressed about the implications for particular science students in this country of tapping their phones and reading e-mails by security services which the university authorities are complicit in, do you have any comment on this?

Professor Sir Alan Wilson: All I can say is that I have no experience of that and this is not something that I—

22 March 2004 Professor Sir Alan Wilson

Chairman: You never tapped a phone in your life. Would you know how to?

Q68 Mr Key: It is a serious issue.

Professor Sir Alan Wilson: I understand that and I am not intending to be flippant. I have no experience of it.

Mr Key: I just hope you will look at this because it could be very serious for some universities if they are not giving sufficient attention to it. Indeed our Chairman has trenchant views on this as being diametrically opposed to the tradition of academic freedom in this country, I take a more pragmatic approach.

Chairman: From one phone tapper to a non-phone tapper.

Q69 Dr Iddon: Can I go back to the Bologna Process, the Bologna participants are arguing for a (3 (bachelor) + 2 (masters) + 3 (PhD)), so there is a pull to extend our three year degrees to longer, whether it is an integrated masters or a euro bachelor plus two years to allow our graduates to practice whatever they have practising across Europe, harmonised higher education. On the other end there is a push from the Tomlinson Committee who have just reported that students should go into universities with a much broader range of subjects. We have talked for a long time of three to five A-levels. With the push at one end and the pull at the other to extend the three year bachelor degrees are you concerned about that? Will you be expressing your concerns to the Government if that is the case?

Professor Sir Alan Wilson: I am not an expert on Bologna so I will have to explore that. Three plus one plus three seems to me to have worked or even three plus three seems to work very well for many people in this country. To seek to extend the range for core qualifications through to doctorates I would not instinctively feel comfortable with. I appreciate what Tomlinson is arguing and I feel, and I can only offer a personal view of this, that the question to be addressed is something which is very fundamental to teaching and learning, which is the balance between breadth and depth. One of the things I have always been interested in as a teacher is the extent to which you can have it both ways, you can introduce your students to a wide range of topics but to ensure that for at least some of them great depth is achieved, which means battling through difficulty, which is not always a fashionable thing to say, but learning difficult things is an achievement to be applauded for many of our students who are engaging with maths and science at the highest level. I do not think you necessarily solve the depth problem by very early specialisation. I think these things can be squared. Again, my instinct is that you can legitimately take some topics out of the curriculum in order to keep lengths down to something sensible. I think we have argued for a number of years now that one of the consequences of the knowledge explosion, which we all perceive, particularly from the perspective of a Committee like yours in science and technology, is to produce pressures for all courses to be lengthened

so that students can be taught everything about physics or whatever it is. I think in the end we will have to learn to teach and learn differently.

Dr Iddon: Thank you.

Q70 Mr McWalter: We have the Higher Education Funding Council and we have the Department for Education and Skills, how does your job change the relationship between those, if at all? Where do you sit in that? Do you order them about? Do you listen attentively to their instructions? What happens?

Professor Sir Alan Wilson: I think, Chairman, the best thing to say is that we listen carefully to each other and we work together. I think the formal position is that the Secretary of State is clearly responsible for higher education policy and in the broadest sense for the implementation of that policy. The Funding Council is responsible for the implementation end of that. You actually have a highly skilled body with some very talented people and if there was a flow of ideas back in the other direction that would be welcomed by me, as I am sure it would be welcomed by the Secretary of State. I think we have a good working relationship but essentially that is it, policy is at the Department end and implementation is at the Funding Council end. There is a good working relationship between us.

Q71 Mr McWalter: When the Funding Council have taken some decisions which we believe have been rather prejudicial to science and technology and we raised that issue with the Secretary of State he said, "It is very much an arm's length thing, they make up their own mind", should that be the case? Should they go their own sweet way? Have you some sharp teeth to occasionally sink into them to stop them doing things that will upset us?

Professor Sir Alan Wilson: I think the Secretary of State can have sharp teeth if he needs them. When the Department's funding for higher education is distributed to and through the Funding Councils it is accompanied by a letter from the Secretary of State which says, "These are the policies I would like you to be responsible for implementing". Guidance or indeed instruction could be given at that level. On the other hand I think one has to acknowledge that it is the Funding Council from the way they work that actually has in-depth knowledge of what is happening in particular universities. From time to time it is appropriate they take their own actions.

Q72 Mr McWalter: HEFCE does have a tradition or history of being very even-handed between subjects, if there happens to be huge numbers of people wanting to do business studies (without maths) and very few people want to do foreign languages or physics, they just say, "That is the way the Department goes there is nothing we can do". Is your view that you possibly get a sort of Gresham's law in this case, as with currency the bad drives out the good, so with education as well, easy courses drive out the harder ones? Should HEFCE, yourself or the Secretary of State, whoever, not be more proactive about this?

22 March 2004 Professor Sir Alan Wilson

Professor Sir Alan Wilson: It is an important policy issue like the subjects we were tackling earlier on distribution of subjects and the number of students in each subject. It is certainly something there should be a policy view about or can be a policy view about.

Q73 Mr McWalter: Do you get in with other people and discuss it with them and you then form a joint view? What happens?

Professor Sir Alan Wilson: Typically that is what would happen and indeed the issue of subject provision by region is something that HEFCE and ourselves are exploring together at the present time. In very many cases where we have these explorations we will agree with the output and I may make some recommendations on policy to the Secretary of State and he may or may not agree. I think the ultimate responsibility rests with the Secretary of State and he will be interested in this kind of question.

Q74 Mr McWalter: If you want to do business studies (as little maths as possible) you can do that pretty much anywhere but if you want to do chemistry there is a real problem about whether it is going to be available to people in large areas of the country. I cannot believe that you have this laid lack approach of saying, all subjects are equal, all activities are equally valuable we are not going to worry about whether we have over-provision in area X and under-provision in area Y (where Y is crucial to the wealth of the country, its future and its gross national product). If HEFCE has never been proactive and we see you coming along, are you on a white charger, going to pull your sword out and start chopping the heads off the people who have not been doing any thinking?

Professor Sir Alan Wilson: I understand the questions which are being put. I would prefer to say in this case "watch this space" and perhaps invite me back in six months' time.

Mr McWalter: Your white charger is currently being shoe-ed at the farrier, is it?

Chairman: We will see you in six months' time and ask that question.

Q75 Mr McWalter: In the meantime we have the Chief Executive of HEFCE and there is you, is there a danger of overlap between those two jobs? Is there any tension between those two jobs?

Professor Sir Alan Wilson: They are different jobs. My job is to advise the Secretary of State and ministers on policy and to advise them on how to instruct, if you like, the Funding Council on the Department's policy. I think there are, as it were, reasonable ways of conducting that business and we can do that without our roles becoming muddled. I am confident that can be done.

Q76 Mr McWalter: You will promote the cause of science, will you?

Professor Sir Alan Wilson: I was brought up as a scientist so I have biases in that direction.

Q77 Dr Turner: To take the specific policy area where HEFCE proposals are potentially dereterious towards science facilities, the changes in the funding formula, downgrading the cost weighting given to bio-sciences, and so on, do you have a view on these proposals from HEFCE? Is this an area where you are in a position to intervene or advise the minister to intervene if you think that these proposals are wrong?

Professor Sir Alan Wilson: The short answer, Chairman, is yes I am sure I could advise the minister to intervene. We are back again into the territory of evidence-based policy. What HEFCE are trying to do as part of their job in determining rates of funding by subject is actually to base that on evidence of costs. I would not actually expect them to be getting that very wrong. I think we are back to the question, which is a very serious one, which underpins much of what we have been talking about, it may well be which HEFCE are right on costs but many universities do not have the student to support the cost base that they have.

Q78 Dr Iddon: We have some figures here which show that in the consultation that HEFCE underwent on the teaching funding formula they laid a formula down which would have removed some money away from life sciences to the benefit of the physical sciences which we have all been concerned about this afternoon and they seem to have lost that argument and seem to have gone back to one for humanities and arts, 1.7 for most science and engineering subjects and four for medicine. It seems as if the engineering sciences have lost out again in that argument quite frankly. I was due to go and see Charles Clark about this tomorrow with the Institute of Physics and the Royal Society for Chemistry but unfortunately the meeting has been postponed.

Professor Sir Alan Wilson: I am sure the meeting will take place in due course. I cannot comment on those figures in detail, there are obviously important. These kind of figures always face at least two rounds. The Funding Council makes these decisions in terms of its grants, letters and awards to universities because the money then arrives in the university's grants. If I can wear my vice-chancellor's hat for a minute, universities face a greater or exactly the same problem, we have to consider whether to vary those rates either in relation to local costs or to sustain departments in the way we were talking about earlier. I know exactly how difficult it is to do this, it is not easy.

Q79 Dr Iddon: A couple of quick questions on teaching in higher education, my brief says the number of firsts awarded by universities has risen dramatically.

Professor Sir Alan Wilson: Yes.

Q80 Dr Iddon: Why is that?

Professor Sir Alan Wilson: I have seen that. I am afraid I do not know enough about the basis of the story, I have only seen the headlines. Whether it is another version of improving A Level grades every

22 March 2004 Professor Sir Alan Wilson

year I do not know. What I would say is at times in the past it does not necessarily follow that people do not deserve firsts or standards are in some sense falling. There are two sides to that question.

Q81 Dr Iddon: Do you think the quality of teaching in higher education is audited adequately by the QAA as the research was previously by the RAE?

Professor Sir Alan Wilson: I personally do. As a vice-chancellor I have welcomed the audit procedures for teaching that we have had in the past—forgive me, I keep coming back to that experience rather than talking about my new post, but it may be relevant in this context. The first round of teaching quality assessment was very detailed and it was a very heavy load on universities. Most, if not all, universities were not teaching badly, that was not an outcome of the exercise. I think it encouraged many universities to be much more disciplined about their internal procedures, and I think that was helpful. Probably, as with the RAE, through that there probably has been an overall improvement in the quality of teaching. I think the fact that QAA has now shifted to what is now called institutional audit, where the whole university is looked at rather than subject by subject with a lighter touch, I think is highly appropriate. My guess is it is about right. There is a tremendous amount of wrangling to produce the agreement of the system which is now in place and obviously different interests were represented in that. I am comfortable with where we are now.

Q82 Chairman: Do you not think this nonsense of external examiners and 2/1s and 2/2s has had its day? Should it go to a grade point average and be a bit grown-up and modern about it. You must have marked many, many papers in your time and the difference between a 67% and a 68%, which can make a big difference to somebody's career, is just fictitious, is it not?

Professor Sir Alan Wilson: I think you are making a good case, Chairman

Q83 Chairman: Do you agree that the time has come for a re-examination.

Professor Sir Alan Wilson: These systems have been with us for a long time and it may not be insignificant that the 2008 version of the research assessment exercise has moved towards what is in effect a grade point average.

Q84 Dr Harris: What do you think the Department should be doing about the pay gap in universities between men and women or is just for the universities to deal with despite the fact that it is all pretty much public money?

Professor Sir Alan Wilson: I am sure the Department should be concerned about it. Again, those are not statistics I have at my fingertips in a national sense because it is not something that I have yet had time to look at.

Q85 Dr Harris: There is a gap and I know everyone is concerned about it. I am just wondering what action can be taken, might one of the options for action be no action at all, leave it to the university.

Professor Sir Alan Wilson: I think what always has to be done in these kind of situations—and I keep coming back to your original question on evidence-based policy—is we need to understand what produces the gap. I could speculate but I am not sure that there has been enough research to understand that gap. I am very concerned about any *prima facie* evidence of inequality, whether it is gender or any other dimension. One of the problems in universities is that you are dealing with very long time periods in terms of promotion through the usual criteria for promotion, although one of the things that universities have done to respond to this is actually amend their promotion criteria and that will begin to change the situation.

Q86 Dr Harris: Let me look at another question, which is this issue of access again. There is going to be an office to check that there is good access. I have asked the Secretary of State this question and I never had an answer—I call it the West Oxford question—a university like Oxford does not get enough people from poorer backgrounds applying—this is Oxford England, not Oxford Australia, let us deal with where we are here—and yet they are going to be told that the solution to their funding problems is to increase fees on students, including poor students, through top-up fees. If, as the British evidence suggests, that might reduce the number of applications to Oxford compared to other universities which do not raise the funding then they are not going to be allowed to levy these fees presumably by this Office for Fair Access because they are going to get a decline in applications from poorer students. How do they break out of that vicious circle?

Professor Sir Alan Wilson: Again, I cannot comment in detail, Chairman, about what will happen in a particular university. My intuition will be that it will not be difficult for them. Indeed Cambridge and Imperial College have given the lead on that by announcing bursary schemes which will attract students from poorer backgrounds.

Q87 Dr Harris: That is using the money they were going to raise. In theory they could raise the fees and then give a huge chunk of that money to bursaries and they would be no better off than not having imposed the debt in the first place or the government not having abolished the grants in the first place. There is still a cost to doing that, that is what my constituents in Oxford tell me, they do not see a way round that unless it is fudged by the Office for Fair Access.

Professor Sir Alan Wilson: It is a cost, Chairman, but it is a relatively small part of the prospective fee income, as I understand it.

Q88 Mr McWalter: The Roberts Report was very concerned about contract research staff and it recommended having market related salaries for key

22 March 2004 Professor Sir Alan Wilson

academic staff which Roberts believed would benefit scientists and engineers, particularly those engaged in research of international quality. That would mean taking on lecturers' unions, would it not? Are you going to be prepared to do that?

Professor Sir Alan Wilson: What is happening on those kind of pay structures is there is certainly proper union concerns that of course salaries should be good and better than they are. Universities are actually more able within existing structures to meet the Roberts incentives where it is appropriate. It is probably less true in relation to contract research staff but even then there are probably ways and means in determining grades at which people are appointed. With something like professorial salaries, and I think this is very important for the development of science and for the attractiveness of this country for the best scientists, when you see Chairs advertised there is a professorial minimum salary but there is no maximum. I think many universities are now paying salaries on what amounts to quite a wide scale.

Q89 Dr Harris: What is the Department going to do about the problems of short-term contracts? We did a report about this and the Roberts Report impacted on that, morale is very poor, career patterns are bleak, people talk to people that they are teaching and deter them from going into what is a mug's game.

Professor Sir Alan Wilson: From the Department's point of view it has been handled at this stage through the Funding Council's reward and developing staff policy. From an individual university's point of view, and again you will have to forgive me after being six weeks in the job part-time to fall back on my Leeds experience, what we have been able to do in Leeds is take a number of steps to have far fewer fixed term contracts, particularly for people whose main role is teaching. I think in territory like post-doctoral fellowships it is very, very difficult to move away. I seek to encourage departments to function in such a way that they can see themselves as bringing in continuous streams of income that will support research staff over much longer periods. Then, of course, the new EU Directive in two or three years' time will take care of the issue. I think that the situation, particularly with the EU Directive, with the initiatives that many universities are taking, partly supported by the Funding Council are rewarding and developing staff policy and big improvements are being made. I am not saying that it is not a problem but big improvements are being made.

Chairman: Sir Alan, we have come to the end, we got you early in the game before these civil servants get at you and beat you about the head, you have been very frank and open and your enthusiasm for the process in higher education comes through very, very strongly. Thank you very much for coming today. We look forward to seeing you before too long again.
