

## **Promoting productivity in the National Health Service (England and Wales), 1950 to 1966.**

This article examines how and why productive efficiency in the National Health Services was promoted by government and by actors outside government between the early 1950s and the mid-1960s. The Ministry of Health implemented some efficiency-related measures in the early part of this period, but these were cautious in scale. This was a matter of concern to various individuals and organisations outside government. These did what they could to encourage productivity in the NHS, mostly through investigations and advocacy. Hospital productivity became more politically salient after the publication of the report of the Committee of Enquiry into the Cost of the National Health Service in January 1956 (the ‘Guillebaud’ committee). In its terms of reference, the committee had been asked to make recommendations on making more efficient use of public funds. Its report gave examples of how capital investment could reduce hospital running costs, but was otherwise more focused on cost than efficiency. The Treasury continued to resist calls for increased investment after Guillebaud on the grounds that the Ministry of Health was not doing enough to achieve economies and efficiencies in current spending. The Ministry responded in 1958 with the announcement of new initiatives to build NHS capacity for productivity. These included the establishment of an advisory body, which came into being a year later as the NHS Advisory Council for Management Efficiency (England and Wales). The Advisory Council was dissolved in 1966 because, by this time, productivity specialists had been trained and recruited in the NHS and the Ministry had created a branch with responsibilities for hospital efficiency.

After a preliminary definition of economic terms, the article begins with a discussion of the politics of NHS investment between Guillebaud and the Hospital Plan. This is a subject that has previously been treated in considerable depth by a number of authors, whose findings are briefly reviewed. The article considers some early responses to the cause of NHS productivity, coming from both inside and outside government. The implementation and subsequent development of the three initiatives announced in 1958 is then examined in some detail and with reference to archival sources. These initiatives have not previously been documented in any detail and are interesting in their own right as an aspect of NHS history. Beyond this, the history of NHS productivity policy speaks to a number of wider themes in the historiography of post-war Britain.

First, it connects the history of the NHS to that of industrial policy. Within the historiography of the latter, the core texts on productivity policy between 1945 and 1964 are by Tiratsoo and Tomlinson.<sup>1</sup> Their work is concerned primarily with public policy and the limits of state intervention. In their first volume, they document the immediate post-war push for improved productivity. This was central to the Labour government's economic policy and the focus of the USA's programme of technical assistance to Britain. In the second, they show how government's commitment to productivity, and to an active industrial policy more generally, attenuated under Conservative governments between 1951 and 1964. In addition to policy, and the development of institutions for productivity, the work of these authors deals with ideology, using language like 'the productivity gospel' and 'productivity missionaries' to capture the fervour of the champions of productivity. The productivity quest is presented as a social movement, challenging the complacency of British industrial management - and ultimately constrained by that complacency.<sup>2</sup> Tiratsoo and Tomlinson's writing extends to the public sector when it touches on the nationalised industries, but it does not consider the possibility that the productivity missionaries may have taken their gospel to the social services. This article shows that this did happen, at least in the case of health, and thereby extends our understanding of the productivity movement.

Making the connection between these two previously separate literatures likewise extends our understanding of the history of NHS management. Much of the relevant literature argues that 'administration' rather than 'management' was the dominant paradigm before the early 1980s, providing continuity with health services before the NHS.<sup>3</sup> In this interpretation, the Griffiths Report of 1983 is seen as the pivotal event, dismantling the myth that NHS administration was *sui generis* and had nothing to learn from the private sector.<sup>4</sup> Snow has provided a more nuanced version of this history, showing how management training was developed in the early NHS and how this encouraged the development of a new consciousness among hospital administrators. She is cautious in making any claims about how widely such developments permeated the service.<sup>5</sup> The new public management (NPM) movement has sought to divide the history of public services into a pre-NPM era of bureaucracy and an era of management-led reform, starting around 1980. Cutler has challenged this interpretation, using 'performance management' in NHS hospitals before 1962 as a case study.<sup>6</sup> Robson identifies significant programmes of accounting and management reform between 1959 and 1974, including the introduction of 'efficiency tools'.<sup>7</sup> However, both these articles also identify significant limitations to management action in the early NHS. A picture emerges in which

some aspects of modern management practice appear to be present while others seem altogether absent. The precise contribution of managers as actors for improvement in the ‘heyday of technocratic politics in the NHS’ remains strangely opaque.<sup>8</sup> The history of NHS productivity, which relied upon the introduction of new management competencies and techniques, illuminate the nature and role of NHS management in this early period.

As a third point of connection with the wider historiography, the material in this article also speaks to writing about the role of non-government organisations and the ‘moving frontier’ between the state and civil society in post-war Britain. Finlayson borrows this term from Beveridge in an article on the changing role of voluntarism in the first half of the twentieth century.<sup>9</sup> He argues that a simple linear narrative, in which the state has expanded to fill gaps created by the insufficiency of voluntary action, is too simplistic. Instead, he sees historical processes in which the frontiers between public, private, voluntary and informal sectors are constantly in flux. This frame of reference seems helpful for the interpretation of the history of NHS productivity because the non-government actors involved were not all ‘voluntary organisations’ by any of the many possible definitions of that term.<sup>10</sup> Other actors, such as professional bodies and management consultants, were also involved. Two charitable foundations, the King’s Edwards Hospital Fund and the Nuffield Provincial Hospitals Trust, were members of the alliance. Both were concerned with the development and application of expertise in the health service. Both were also elitist, endowed organisations that did not need or seek mass-membership and so do not conform well to recent interpretations of the ‘politics of expertise’ in post-war Britain.<sup>11</sup> These preliminary considerations suggest that the history of NHS productivity offers a potentially rich case study of the moving frontier.

In summary, then, the material presented in this article speaks to three questions. The first asks what the history of NHS productivity initiatives might add to our understanding of public policy for productivity from the early 1950s through to the mid-1960s. The second, what this material contributes to our historical understanding of the nature of management in the NHS during this period. The third asks what this material adds to our understanding of the development of the British state and of the ‘moving frontier’ between civil society and the state.

### **Efficiency, productivity and economy.**

Before proceeding any further, it may be helpful to consider the definition of the economic terms used in this article. ‘Efficiency’ is widely used to mean making the most of

available resources. However, this lay meaning is too imprecise for economists who draw a distinction between productive efficiency and allocative efficiency. Productive efficiency refers to the efficient production of any bundle of outputs, whether products or services. It is achieved when it is impossible to achieve a given output if there is no alternative way of producing that output that will use less resources. 'Productivity' is, strictly speaking, the measure of 'productive efficiency' but is also used to mean the effectiveness of productive effort. Allocative efficiency is related to the distribution of resources. In the context of public services, allocative efficiency is achieved when it is not possible to make one individual better off through the redistribution of resources without making another worse off. 'Economy', in the sense of 'making economies', is not a term recognised by economists because of its ambiguity. It might either mean improving productive efficiency or reducing resource inputs in a way that causes reduced outputs, or more colloquially 'cuts'.<sup>12</sup>

In the context of health care, productivity will be maximised when the throughput of patients through a hospital bed in a period is maximised whilst maintaining clinical outcomes. Allocative efficiency will be achieved when the geographical distribution and sizing of hospitals is aligned with need for inpatient care as determined by population variables. The initiatives discussed in this article were primarily concerned with productive efficiency, or productivity. Measuring productive efficiency in health care is highly problematical, for reasons that are mostly to do with definition and measurement of outcomes.<sup>13</sup> Discussion of these technical challenges is beyond the scope of this article but it should be appreciated that efficiency measurement was in its infancy in this 'primeval' era of health economics.<sup>14</sup>

### **Productivity and the politics of NHS capital investment**

The findings of Guillebaud moved political discourse about the NHS beyond the all-consuming 'crisis of expenditure' that over-shadowed its earliest years.<sup>15</sup> Yet the committee's report did little to appease the Treasury, which remained deeply concerned about the prospect of ever-rising NHS costs.<sup>16</sup> The committee had been asked to make recommendations on ways to avoid 'a rising charge' on the Exchequer, so Treasury was understandably disappointed when the committee reported that 'we have found no opportunity for making recommendations that would either produce new sources of income or reduce in a substantial degree the annual cost of the service'.<sup>17</sup> The committee had also been asked to make recommendations on 'the efficient use of such Exchequer funds as may be available', but the report included little by way of specific recommendations for greater efficiency. Discussion

was confined to general observations about hospitals producing more outputs of various kinds and serving more people.<sup>18</sup> This reflected the approach taken by Guillebaud's analytical team from the National Institute of Economic and Social Research, Abel-Smith and Titmuss. Their work was focused on the construction of a more meaningful quantification NHS costs than that presented by government accounting; and on the identification of cost trends. It made no attempt to define efficiency or construct efficiency indices beyond a crude measure of cost per head of population.<sup>19</sup> Their analysis did, however, demonstrate how capital expenditure could reduce hospital running costs. This was brought into the committee report as part of the wider discussion about low levels of capital expenditure. On this last matter, the committee was unequivocal. Levels of investment were 'totally inadequate' and 'cannot be allowed to continue much longer without serious harm to the service'.<sup>20</sup>

By the General Election of October 1959, the two main political parties were both promising major hospital building programmes.<sup>21</sup> However, the findings of Guillebaud did not lead inexorably to the emergence of political consensus, as some historical writing suggests.<sup>22</sup> According to Webster, the 'stringent regime of containment' of NHS expenditure imposed by the Treasury continued regardless of Guillebaud.<sup>23</sup> Cutler argues that this parsimony, which was at its most extreme in the case of capital expenditure, was determined by political considerations. The popularity of the NHS provided sufficient political headroom to permit repeated deferral of capital expenditure.<sup>24</sup> Other writing offers a simpler explanation, which is that continuing resistance to capital investment reflected Treasury conviction that the Ministry of Health was making insufficient efforts to secure economies in current NHS spending.<sup>25</sup> Mohan demonstrates how resistance to a new hospital programme was tied to unwillingness to accept such expenditure as investment. The Treasury wanted to see capital projects yielding savings in current spending and was doubtful that the Ministry knew how to deploy additional capital investment to best achieve this end.<sup>26</sup> When a commitment to a substantial increase in capital investment was finally secured, in the Hospital Plan of 1962, it was tied to a commitment to contain future increases in current spending. Enoch Powell, the Minister responsible for the Plan, took an 'industrial view' of acute hospitals and expected investment in new hospitals to increase the throughput of patients.<sup>27</sup> The Ministry was able to persuade the Treasury that the productive efficiency to be gained through judicious capital investment promised containment in the rate of increase in current spending.<sup>28</sup> Powell had accepted a cap on the latter before the Plan was published of 2½ per cent above inflation per annum, this being the anticipated rate of growth in national product.<sup>29</sup> Cutler argues that any charge of

‘strategic inconsistency’ between Powell’s commitment to containment of current spending and his planning for increased capital expenditure fails to appreciate the extent to which the latter was expected to contribute to the former through productivity gains.<sup>30</sup> By 1960, the prospects of improvements in productive efficiency had become closely linked to the political consensus supporting a substantial programme of investment in NHS hospitals.

### **Early initiatives by the Ministry of Health**

The Ministry of Health had, since the early 1950s, taken some steps promote productive efficiency in the National Health Service. The Chief Medical Officer’s annual report for 1952 included a chapter on *Utilization of Hospital Beds*, which argued that, with capital investment likely to be constrained for the near future, increased throughput would be essential to meeting demand.<sup>31</sup> Studies of bed utilization had been funded by two independent charitable foundations, the Kings Edward’s Hospital Fund for London and the Nuffield Provincial Hospitals Trust, and had also been undertaken by Liverpool RHB.<sup>32</sup> The Ministry was able to draw on the findings from these studies when issuing a circular on the subject in 1954, which urged scrutiny and control of length of stay.<sup>33</sup> The two foundations also produced reports on reforms to management accounting in hospitals in 1952, at the request of the Minister. In the same year the Ministry also received proposals from the Association of Regional Health Board Treasurers. These included recommendation for ‘departmental costing’, including calculations of cost per patient treated: a crude measure of efficiency. Progress in implementing these proposals was slow, because of divergent opinion on technical matters and it was 1958 before the ‘main scheme’ of departmental accounting was introduced, beginning with two hundred larger hospitals.<sup>34</sup> The Ministry’s had established a statistics branch in 1955, although initially this employed only a single statistician.<sup>35</sup> These initiatives were all directed towards the development of analytical capacity. In a more practical vein, the Ministry had also established a small ‘Organisation and Methods’ (O&M) Unit on an experimental basis in 1954. O&M had originally emerged during the Second World War as a development of the Treasury’s ‘Investigating Section’. The Select Committee on the Estimates had, in 1946, recommended the adoption of O&M by government departments so as ‘to secure maximum efficiency in the operation of the government’s executive machinery and, by the application of scientific methods to organisation, to achieve economy in cost and labour’. This led to the setting up of an O&M unit at the Treasury which then spawned similar units in spending departments, including the Ministry of Health in 1956.<sup>36</sup> O&M was concerned with organisational design and ‘the studying of administrative and clerical procedures and methods, of office

mechanisation and equipment, office layouts and working conditions'.<sup>37</sup> The Guillebaud Committee, whilst encouraging all these efforts as 'proceeding on the right lines', recognised that they would be of limited value on their own. The committee trusted that 'all hospital authorities and the staffs concerned will continually study the available statistical material to see what steps might be taken in hospital departments to improve the efficiency and economy of the service'. But it went to say that 'the statistics themselves do not provide the answers; they only point the way for further enquiry and investigation'.<sup>38</sup> The active engagement of the hospital authorities would also be needed for productivity improvements.

In 1958, the Ministry changed up a gear, signalling its intention to develop managerial expertise in the NHS and enlist external expertise for greater productive efficiency. During a debate in the House of Commons to mark the tenth anniversary of the NHS, the Minister of Health, Derek Walker-Smith, announced three initiatives. Consideration would be given to the setting-up of an advisory body on management efficiency; there would be an expansion of O&M; and management consultants would be engaged to undertake hospital efficiency studies, at their own expense. These announcements were linked directly to the subject of capital investment in hospitals. Walker-Smith began his speech by trumpeting the governments' hospital building programme before sounding a cautionary note. The hospital service accounted for more than half of total NHS spending and would continue to 'loom large' even if community care was improved. Therefore, he argued, 'it is vital, where so much is involved in money and resources that we should strenuously continue to seek the highest common factor of efficiency and economy in administration'.<sup>39</sup> The Ministry had drawn up a five year plan that included substantially increased levels of capital investment, but this encountered Treasury resistance, as previously discussed, and the political climate was far from conducive to proposals for increased public expenditure. It was only six months since the entire Treasury front-bench team (which included Enoch Powell) had resigned over the Cabinet's decision not to adopt their plan for cutting public expenditure. Walker-Smith was engaged in a delicate balancing act. He wanted to promise new and better hospitals to the public. Yet at the same time, he did not want to overstep the mark with the Treasury or antagonise party colleagues who remained committed to tight control over public expenditure. A pledge to improve NHS efficiency was an obvious way of reconciling these conflicting pressures and spoke directly to the concerns of the Treasury.

## **Influences from outside government**

Outside government, various individuals and organisations demonstrated an interest in NHS productivity. These included some backbench Members of Parliament, as evident in a House of Commons debate held in April 1958. Conservative member Ernest Partridge, spoke in support of the use of ‘work study’ in the NHS, which he described as ‘the pointer and stimulus to efficient management and administration’. This was challenged by Dr Edith Summerskill, a founder member of the Socialist Medical Association, who argued that hospitals were largely staffed by nurses, who worked long hours for little pay out of a sense of vocation. The notion that work study could be used to extract further savings from nursing was, in her view, unrealistic. Nor was she much more optimistic about the prospect of efficiency savings in other sections of the workforce. This line of argument was systematically demolished by Sir Keith Joseph. Joseph’s assiduous interest in social services had contributed to his recruitment by the One Nation Group, which sought to develop a forward-looking Conservative position on the welfare state.<sup>40</sup> Showing an impressive grasp of detail, Joseph pointed to the costs of the NHS; the paucity of data on comparative efficiency; and the productivity gains made in other sectors, including the building industry to which he was personally connected. He could ‘see no reason by the government should not use the same techniques for the National Health Service’. The junior minister, Richard Thompson, gave his views on the potential for productivity techniques in the hospital service. Arguing against the potential application of work study to many aspects of hospital work, including nursing, he conceded that it might profitably be applied on branches of hospital activity ‘analogous to industrial activity – laundries, building maintenance, catering and matters of that kind’.<sup>41</sup>

Views that nursing was an unsuitable case for the application of productivity techniques adapted from industry were not shared by the leaders of the profession. The Royal College of Nursing (RCN) was, at this time, a strong advocate for scientific investigations into hospital operations. The historians of the College, writing of the 1950s, comment that ‘work studies were very much in vogue and many in the profession saw them as a solution to everyday problems’.<sup>42</sup> The RCN anticipated that such investigations would yield compelling evidence that outdated hospitals caused inefficiencies in nursing work. This, they hoped, would strengthen the case for investment in new hospitals and equipment, providing the modern working conditions that would allow the profession to rise above the drudgery in which it was mired. Earlier in the decade, the RCN had worked with the Nuffield Provincial Hospitals Trust (NPHT), to systematically analyse nursing work. The NPHT Nursing Study

applied time and motion techniques to nursing work. The study demonstrated that forty per cent of nurses' time was spent on administration and domestic work and that a great deal of inefficiency in nursing work arose from poorly laid-out and inadequately equipped hospitals.<sup>43</sup>

Nursing leaders' hopes that such work would lead to a programme of hospital investment were not quickly realised. Against this background, the RCN organised a three-day conference on 'Work Study and the Hospital Service' in November 1957. The aim of the conference was to 'bring to the attention of those in charge of hospital administration the progress made by the application of Work Study in industry so that consideration could be given to its application in the hospital field'. The most significant recommendation from the conference, and that to which Walker-Smith referred in his 1958 announcement, were that 'an independent central body should be set up to act as an advisory body and encourage a climate of opinion for the appreciation of work study, to advise on and promote the training of personnel to undertake work study in hospitals, to advise on the introduction of pilot schemes, co-ordinate activities and disseminate information on the lines of the British Productivity Council'.<sup>44</sup>

The NPHT, together with the King Edward's Hospital Fund ('The King's Fund'), were interested in NHS productivity as an aspect of their mission of support to the health service. Both charities had been established to provide financial support for the voluntary hospital sector before the NHS. Both charities were compelled to fundamentally re-consider their missions and their relationship with the state in 1948. The NPFT set out to make 'a special contribution as an independent body, co-operating with government agencies, in the field of enquiry and research into practically all aspects of health services'.<sup>45</sup> This included the establishment of an in-house operational research (OR) unit to undertake work such as the Nursing Study and the influential Investigation into the Function and Design of Hospitals.<sup>46</sup> The Trust also made grants to NHS bodies for service innovations and evaluation. The King's Fund was less focused on fostering efficiency, being more pre-occupied in the 1950s with the question of how to deploy its substantial grant-making capacity in a way that added greatest value to Exchequer funds. Its submissions to the Guillebaud Committee were anodyne, for political reasons, despite the strong views held by some of its staff on the inefficiencies of the NHS.<sup>47</sup> Of the two charities, it was the NPHT that played the more engaged role in the cause of productivity during the 1950s, although the Staff College of the King's Fund came to play an important management training role in the 1960s.

Backbench MPs, the RCN and charitable organisations thus constituted a loose coalition of interest, possessing diverse motivations, speaking and working for the cause of NHS productivity in various ways. The RCN had made a connection to the productivity movement in industry, as evident at its 1957 conference which was chaired by a management consultant and featured speakers from ICI. Joseph also referred to ICI as an example to the NHS in his 1958 speech. The announcements by Walker-Smith signalled that the Ministry of Health was ready to engage with the productivity movement.

### **Institutions and expertise – the productivity movement**

Policy for improved industrial productivity under Labour had spawned various institutions between 1945 and 1951.<sup>48</sup> These included the Anglo-American Productivity Council (AAPC), which was a creature of the US technical assistance programme and served as a vehicle for the transfer of American business practices to the UK.<sup>49</sup> The British Productivity Council (BPC) was established in 1952 as a successor to AAPC and given a broad remit for stimulating ‘the improvement of productivity in every sector of the national economy by every possible means’. It brought together representatives from employers and trade unions in a common forum dedicated to this goal. Activities included the dissemination of information on productivity techniques through exchange visits, meetings, lectures and rallies. As a national organisation, the BPC recognised that it needed a sub-national presence to be effective and promoted both Local Productivity Councils and sector specific studies.<sup>50</sup>

The NHS advisory body, as envisioned by the RCN and announced by Walker-Smith, was thought of as a sector-specific version of the BPC. This positioning was so explicit that the Ministry of Health felt obliged to consult the Board of Trade (the sponsoring department for BPC) on potential role overlap. The reply is rather condescending, describing BPC as ‘essentially a propaganda body’ that had been at risk of dissipating its energies by attempting to work in too many fields. The potential for overlap was, therefore, judged to be minimal, as was the potential for the BPC to contribute much to the NHS.<sup>51</sup> The original intention was to call the new advisory body the NHS Productivity Council but this title was changed just before launch. Instead the National Health Service Advisory Council for Management Efficiency, England and Wales, (ACME) was announced on 4 May 1959 by means of a parliamentary question from Keith Joseph to the minister. ACME was given the following terms of reference: ‘to advise generally on measures for improving efficiency in the National

Health Service in England and Wales'.<sup>52</sup> At the minister's request, the new body was to concentrate on the hospital service.

This renaming before birth reflects how the productivity council model was moderated by two NHS institutions as it was imported into this unique organisational field. The first of these was the doctrine of clinical autonomy, which curtailed the field within which NHS management could legitimately operate. This is discussed in more detail later. The other institution was the established model for advisory bodies in the NHS. Great emphasis was given to advisory mechanisms in the early structures of the NHS, as a means of accommodating and appeasing various interest groups, including critics of the new service.<sup>53</sup> Such bodies existed not only to mobilise expertise but also to build consensus. The Ministry's approach to deciding the membership of ACME reflects this blending of external and NHS institutional models. The official line was that members were appointed on the basis of the personal contribution they could bring to the council, not as delegates or representatives.<sup>54</sup> The reality was rather different, as multiple iterations of a scheme of representation were considered as the basis for membership.<sup>55</sup> The Confederation of Health Service Employees was invited to nominate three trade unionists. Employers were represented by two Regional Hospital Board (RHB) members, Sir Edward Thompson and A M Hudson Davies. Inclusion of employer and employee representatives was reflective of the productivity council approach, although both the RHB members were prominent industrialists and brought personal expertise from the world of business. Geo-political considerations also came into play with inclusion of a member from Wales seen as obligatory. Miss M L Young, Matron of Westminster Hospital, was nominated by the Royal College of Nursing, who registered their disappointment that she was the sole woman appointed to the Council.<sup>56</sup> Teaching and research interests were represented by the recently-retired Dean of Birmingham medical school, Professor Sir Arthur Thomson, and Professor Theodore 'Teddy' Chester, Professor of Social Administration at Manchester.<sup>57</sup> In effect, then, the membership of ACME reflected its mixed parentage, showing elements of the productivity council approach - bringing employers and trades unions together - and the NHS advisory council approach which was more concerned with representation of a wider spectrum of interests.

The Ministry also looked to the productivity movement for individuals who could bring leadership and expertise into the NHS. The first chairman of ACME, Sir Frank Ewart Smith FRS (1897-1995), took up this role upon retirement from ICI where he had spent his whole career apart from wartime service with the Ministry of Supply.<sup>58</sup> In the post-war period,

his responsibilities at ICI had included productivity and he introduced the technique of work study to the company in 1947. Smith served as Chairman of the British Productivity Council in 1955 and was made an honorary member of the Institute of Work Study in 1960, an honour reserved for those considered to have made an outstanding contribution in the field of scientific management.<sup>59</sup> In private meetings and letters to the minister, Smith made his central convictions plain: that training of work study staff would be absolutely critical to success; that this training should be intensive; and that Treasury O&M could not offer such training.<sup>60</sup> The Minister's response reveals that he shared his official's worries about 'selling' the idea of work study to the hospital authorities and that he saw the challenge as initially being one of 'persuasion and evangelism'.<sup>61</sup> Smith's passion for work study, rather than the more familiar (in government) O&M and the likely cost of training on the scale he envisaged worried officials to the extent that they discussed dropping him as Chairman and instead appointing Keith Joseph, who was judged to have 'the gift of handling people'.<sup>62</sup> However, Walker-Smith was presumably persuaded that Smith's potential as an evangelist outweighed the risks presented by his uncompromising opinions.

Russell Mackenzie Currie (1902-1967), a former colleague of Smith, was another leading light of the productivity movement who took his expertise into the health sector. He founded and directed the Central Work Study Unit at ICI, the staff of which grew from thirty in 1947 to two thousand under his leadership. The label 'productivity missionary' can justifiably be applied to Currie, who achieved international recognition for his expertise and has been described as 'a super salesman for method study and work measurement techniques'.<sup>63</sup> He was the founding president of both the Institute of Work Study and the European Work Study Federation and the author of a British Institute of Management textbook on work study, which ran to four editions between 1959 and 1977. Currie appeared as a frequent speaker at events promoting work study to the health sector. He spoke at the RCN conference on 'Work Study and the Hospital Service' in 1957.<sup>64</sup> ACME organised an open day with the same title in October 1959, at which Currie and two colleagues from ICI presented.<sup>65</sup>

When seeking to persuade Walker-Smith of the case for introduction of work study to the NHS, Frank Ewart Smith suggested that the Minister might consult some other 'independent people who have relevant expertise'. These included Keith Joseph, Lord McCorquodale (Chairman of the King Edward's Hospital Fund), David Price MP (a Conservative backbencher who had previously worked for ICI) and Sir George Schuster.<sup>66</sup> Schuster (1881 to 1982) was a Liberal politician who played a role in productivity initiatives

in the immediate post-war period. He was appointed Chairman of the Working Party on the Cotton Industry and of the Panel on Human Factors Affecting Productivity (1947), which reported to the Committee on Industrial Productivity.<sup>67</sup> This latter role included a seat on the Medical Research Council which undertook research on human factors in partnership with the Department of Scientific and Industrial Research. Schuster was thus steeped in both productivity methods and human relations thinking.<sup>68</sup> He later became Chairman of the Oxford Regional Hospital Board which, with support from the Nuffield Provincial Hospitals Trust, became a pioneer in the introduction of productivity techniques, a development that took place in advance of the Ministry of Health. A series of influential publications on the NHS by the Acton Society Trust, a Liberal party-linked think-tank, included a section by Schuster in which he argues for the extension of such techniques to the whole NHS.<sup>69</sup> Schuster corresponded directly with Smith on the activities of the Ministry of Health, which were viewed as something of a bureaucratic hindrance by pioneering Oxford. A further link between Smith and Oxford was provided by G Watts, Secretary to the Oxford Regional Hospital Board, who was a member of ACME.<sup>70</sup>

The adoption of the sector-specific productivity council model and the enrolment of leaders from industry were strategies for rapidly acquiring credibility and expertise. The model of the productivity council developed for industry was, however, moderated by institutions particular to the NHS. A similar effect can be seen in the Ministry's choice of productivity techniques.

### **ACME and productivity techniques**

In the post-war productivity drive, different approaches and disciplines proliferated. In his textbook, Currie writes of 'productivity science', encompassing work study, organisation and methods, operational research, network analysis, systems analysis, ergonomics, and value engineering.<sup>71</sup> Tiratsoo and Tomlinson identify production engineering, materials handling, quality control, human relations and inter-firm comparisons as being, together with work study, the preferred weapons of the American productivity missionaries.<sup>72</sup> The Ministry of Health focused exclusively on just three of these disciplines: organisation and methods, work study, and operational research.

The adoption by government departments of Organisation and Methods has previously been discussed. Commitment to O&M was furthered strengthened by the Plowden Committee's recommendations for the development of 'management services' in government departments.

Plowden saw these as encompassing statistics, accountancy, operational research and O&M. Health was singled-out as a sector where the development of management services would be especially beneficial.<sup>73</sup> The central O&M Unit, located at the Ministry, was made permanent and given a bigger staff after 1958. From 1959 onwards, the hospital authorities were also permitted to employ O&M specialists.<sup>74</sup> By 1961 there were fifty-five NHS O&M studies underway, of which twenty had been commissioned by the hospital authorities.<sup>75</sup> Growth in the volume of studies came from the hospital service after 1961, rather than through the central unit. By 1963, the number of studies had risen to seven hundred and fifty.<sup>76</sup> By 1964, around two hundred trained personnel were employed across both the central unit and the hospital service.<sup>77</sup>

ACME supported the growth of O&M but the council's primary focus was on the introduction of work study to the NHS. Work study combined study of how a particular job could be undertaken most efficiently (method study) with the application of techniques designed to establish the time for a qualified worker to carry out a specified job at a defined level of performance (work measurement).<sup>78</sup> In practice, this might mean classic scientific management procedures such as time and motion studies using motion-capture cameras. The persistence of such techniques may appear surprising, given the scepticism about scientific management associated with the ascendant human relations school of management.<sup>79</sup> However, it has been argued that work study was 'a very pale imitation of Tayloristic practices', tending towards ergonomics and with little influence over standard setting and pay bargaining.<sup>80</sup> Currie sets out the British contribution to 'modern work study', distinguishing it from more red-blooded American approaches by emphasising its consensual nature; its extension to non-repetitive tasks; and its application in office and clerical settings.<sup>81</sup> Insistence that the British version of these techniques was somehow exceptional can be seen as a reflection of processes of the deflection and dilution of American-inspired techniques, in which employers were as influential as organised labour.<sup>82</sup>

The third discipline embraced by the Ministry, Operational Research (OR), had its provenance in military science. During the Second World War, all three of the armed services established OR sections, which were perceived as having made a significant contribution to allied victory. OR acquired a particular mystique as a consequence and was seen as offering great potential for attacking complex service delivery problems in civil domains, including health. Schuster, for example, argued that 'if some of the groups of scientists who did such valuable work in the war...could apply their minds to some of the problems of the Hospital

Service, they could provide further ideas for achieving the maximum results with the minimum expenditure of money.’<sup>83</sup>

OR became influential in health later than either work study or O&M. This was because the discipline remained military until the late 1950s, when it began to diffuse out into the civil domain.<sup>84</sup> The Ministry of Health showed an early interest in the potential of OR, but its attempts to get to grips with the discipline were not helped by its fissile practitioner community. When officials asked the Operational Research Society (ORS) for a definition in 1959 they received a response offering a choice of no less than nineteen, reflecting the diversity of views within the Society at that time.<sup>85</sup> It was the mid-1960s before the field had stabilised sufficiently for the ORS to agree an official definition, which captures the discipline’s orientation towards mathematical modelling and its focus on complex problems in large scale systems.<sup>86</sup>

In summary, the choice of productivity disciplines adopted by the Ministry of Health was influenced not just by the productivity movement but also by the existing commitment to O&M in government, and the slightly later enthusiasm for OR in civil government.

### **The advisory council – developing and mobilizing expertise.**

Having identified its preferred disciplines, the Ministry was faced with the challenge of developing and mobilising expertise. This was a core task for ACME, but The Advisory Council understood from the outset that it was without executive authority. Instead it would ‘seek by education, by persuasion and by training, to stimulate initiative and a progressive attitude of mind in the field of management efficiency on the part of everyone concerned’.<sup>87</sup> RHB Chairmen concurred, being ‘generally of the opinion that the council’s main task initially was the education of the hospital service to the value of efficiency techniques’.<sup>88</sup> Ministry of health officials had worried prior to the announcement of an advisory council on efficiency that it was ‘by no means clear that the hospital authorities would welcome such intervention or accept it’.<sup>89</sup> In the event, the hospital service was highly receptive, if judged by the response to distribution of the statement of aims. This was overwhelmingly positive, confounding Ministry officials’ worries about the difficulty of ‘selling’ work study. For example, the Chief Administrative Officer of United Sheffield Hospitals wrote asking for three hundred copies of the statement to send to every board member, consultant, matron, head of department and senior administrator. The ministry was caught-out by the level of interest and there was a delay in distribution pending an extra printing run.<sup>90</sup>

The goal of the Council was that, over time, the NHS would become largely self-sufficient in O&M and work study staff and that these disciplines would become an integral part of the hospital service.<sup>91</sup> The Advisory Council wanted to ensure that expertise in productivity techniques, and learning from local initiatives, would be diffused throughout the NHS. It also believed that NHS administrators were unusually insular and suffered from ‘managerial inbreeding’.<sup>92</sup> The answer was an ‘experimental circuit scheme’ to encourage rotation of administrators between hospitals, an idea lifted directly from Local Productivity Councils.<sup>93</sup> The NHS scheme was launched in 1961 and reported to be a great success in its pilot phase.<sup>94</sup> However, the Advisory Council soon found itself perplexed as to how to encourage wider take-up, given its lack of executive authority.<sup>95</sup>

Training of work study specialists was on a particular concern of Frank Ewart Smith, as he made plain even before his appointment, and was on the agenda for the first meeting of the Council. The proposal was that training should be delivered through the King Edward’s Hospital Fund Administrative College.<sup>96</sup> Established in 1951, the college was by this time offering a range of courses in fields such as engineering and catering.<sup>97</sup> In August 1960, the Ministry announced the launch of training for O&M/Work Study Officers and an Introduction to Work Study course for hospital administrators through the King’s Fund College. Leadership was provided by Mr P. J. Torrie, another former colleague of Smith, who transferred to the College from his position as Head of the Training Section of the ICI Central Work Study Unit.<sup>98</sup>

ACME’s commitment to the development of expertise within the NHS workforce was unhelpful to the management consultancy firms whose aspiration to enter the emerging NHS productivity market had been demonstrated by the offer of *pro bono* hospital studies in 1958. Following the completion of these studies the Management Consultants’ Association submitted a report to the Ministry of Health in which it claimed that the extension of work study throughout the hospital service would save £10 million per annum in the cost of porters, ward orderlies, domestics, maintenance and nursing staff. Feedback from the hospital boards involved was mixed.<sup>99</sup> The view of the Advisory Council was that suitably-trained hospital staff should be employed in efficiency studies wherever possible provided they could eventually return to their normal duties.<sup>100</sup> Management consultants should be used only on an exceptional basis where there was a short term deficit in capacity. This approach would ensure that those who undertook efficiency studies were also, wherever possible, responsible for implementation of efficiency measures and that expertise was retained within the NHS. The

ministry issued guidance to hospital authorities setting out the specific circumstances in which management consultants might be employed. This included a requirement for ministerial approval and capped at six the number of contracts that would be approved for the whole of England and Wales in 1961/2.<sup>101</sup> Walker-Smith's announcement did not, therefore, lead to widespread use of management consultants in the NHS, and this was due in some measure to the influence of ACME.

### **Commissioning operational research**

In early 1961, Treasury staff undertook an inspection of staffing in the two Hospital Services (HS) divisions of the Ministry. The conclusion reached was that 'the two divisions are not fully equipped to tackle effectively the probable increase in the load of work expected to arise from the hospital building programme and the need to take action to promote efficiency and economy in the running of hospitals'.<sup>102</sup> This led to the creation of a new division, within which a branch (HS3-D) was given responsibility for 'sponsoring and co-ordinating of experiments and operational research' and 'collation of information regarding good practice'. HS3-D was also allocated responsibility for ACME, which up to this point had lacked any executive support.<sup>103</sup>

ACME endorsed calls by Guillebaud for the Ministry to provide funds for OR.<sup>104</sup> However, it envisaged such research being undertaken by the staff of the NHS, not by external contractors. Contrary to this view, HS3-D began commissioning what it called 'operational research' (the term was broadly interpreted) from 1964 onwards, looking mainly to the universities and independent research organisations as providers. The first beneficiary of this new research funding stream was Professor Teddy Chester.<sup>105</sup> Another early contractor was Reginald Revans of the University of Manchester Institute of Science and Technology. Revans had been a regular correspondent of Ewart Smith, sending him a stream of reports on hospital management between 1961 and 1963.<sup>106</sup> Initial research commissions were not, in fact, for efficiency studies as such but were directed towards better understanding of NHS management practice. Research commissioning activity grew rapidly throughout the 1960s.<sup>107</sup> Our ability to assess how far HS3-D was, in reality, steered by ACME is hampered by the fact that no files relating to ACME after 1963 appear to have survived.

ACME members were always aware of their limitations as a purely advisory body and the emergence of executive capacity made ACME appear increasingly superfluous over time. When the Advisory Council decided to reconstitute itself and meet less frequently in 1963 the

rationale was that the Ministry now had more executive capacity through ‘the valuable facilities provided by the new branch (HS3-D)’.<sup>108</sup> This was also the point at which Smith resigned, handing over the chair of ACME to Hudson Davies.

### **Limits to management efficiency**

The activities of ACME, the growth of O&M and the commissioning of research into management practice all confirm that management was seen as the primary source of expertise for improved efficiency. ACME, in particular, was keen to see such expertise embedded within the NHS, rather than relying on external analysis and advice. However, there were two limitations upon the scope of management activity that constrained management action: the doctrine of clinical autonomy and the lack of linkage between efficiency improvements and financial incentives.

In the lead-up to the 1946 NHS Act, the prospect of restrictions to professional autonomy had been one of the principle arguments of the British Medical Association against the proposed nationalisation of healthcare.<sup>109</sup> To appease these anxieties, the government gave a commitment to the protection of clinical autonomy. This concept acquired totemic power, even though doctors themselves subsequently struggled to explain exactly what it meant in practice.<sup>110</sup> Harrison argues that there was little challenge to the doctrine between 1948 and 1982 and that it co-existed with a commitment to improved efficiency. Policy statements were careful never to imply that doctors themselves needed to become more efficient whilst at the same time arguing that efficiency in administration would free up more resources for medical care.<sup>111</sup>

The record of ACME conforms to this analysis. Council Members agreed from the outset that the main impact of efficiency initiatives would fall on ancillary staff.<sup>112</sup> Furthermore, ‘there could be no question of forcing the techniques of work study on doctors and nurses’. Rather the ‘help and co-operation’ of clinical professionals would be sought in relation to ‘the general management of cases, for example the problems of bed occupancy and clinic organisation’.<sup>113</sup> A disinclination to investigate professional practice is also evident in the statement of aims.

Our aim is the improvement of the general organisation of hospital work and of the supporting facilities in order to back up the progress expected on the

clinical side, but the professional aspects of clinical practice will not be the main concern of the Council.

One of the great enthusiasms of the national productivity movement was standardisation, which was one of the '3Ss' advocated by the American productivity missionaries (standardisation, simplification and specialisation).<sup>114</sup> ACME applied this principle to hospital building and design. Members of committee C, which led on this strand of work, were concerned to learn that each region was developing new hospital designs in isolation. The regional hospital boards were resistant to the idea of national design standardisation so the committee promoted the less-threatening concept of 'repetitive building units' and was strongly supportive of the Ministry issuing central guidance on best practice.<sup>115</sup> Such zeal for standardisation was lacking when it came to clinical practice. For example, the sales manager of Glass Containers (Medical) Ltd. wrote to the Secretary to the Council to point out the productivity gains available through national adoption of his company's patented ampoule. He received the reply that 'not only would the Minister feel unable...to try to influence a doctor in his selection of medical supplies but the Advisory Council for Management Efficiency have recognised that the professional aspects of clinical practice are not their main concern.'<sup>116</sup>

Work on statistical and financial comparisons involved confronting variations in clinical practice, which was a subject of concern to a minority of members from the outset. The Secretary of United Bristol Hospitals, Merrivale, argued at the first meeting that the implications of such variations for efficiency should be considered and submitted a memorandum on this matter in September 1959. he was thanked for a stimulating document but the minutes conclude that 'to compare averages in relation to the work of medical staff was difficult and could be dangerous; the aim should be the encouragement of the energetic rather than the development of "average" work'.<sup>117</sup>

Committee B, which led on financial and statistical comparisons, found itself drawn most closely into questions of clinical practice and its bearing on hospital efficiency. It examined the issues affecting bed occupancy. In its first report to the whole Council, the committee comments on the difficulty of getting any grip on variations in medical practice when nobody had authority over the work of medical consultants. The report refers to the 1954 circular on bed management but goes on to question the adequacy of local measures to ensure that hospital doctors were familiar with and followed its recommendations. The conclusion reached is that this is essentially an issue that can only be addressed by doctors who needed 'to

play their part not only as doctors, but also as managers of an organisation for more complex than most industrial plants'.<sup>118</sup> The public pronouncements of ACME as a whole observed established boundaries until 1966, when the Advisory Committee (as it became in 1963) published a pamphlet on *Management Functions of Hospital Doctors*.<sup>119</sup> This argued that clinical decisions are also management decisions and recommended that doctors should be given management training. The same arguments were developed further in a publication on hospital efficiency by the Office of Health Economics in the following year.<sup>120</sup>

The second constraint over management action was resistance to creating any link between efficiency improvements and financial rewards in the NHS. From the outset, the Trade Union representatives on ACME pressed for discussion as to how savings from productivity improvements could be returned in part to their members. Smith was adamant that such matters were beyond the remit of the Advisory Council, as were related matters such as the handling of potential redundancies.<sup>121</sup> Weaker incentives, in the form of rewards for efficiency suggestions, were considered but many difficulties were foreseen and the Council recommended that the hospital authorities 'should proceed slowly'.<sup>122</sup> The second report of ACME includes a cautious discussion of financial incentives but the potential sensitivity of the issue is indicated by a covering note to the minister (by now Enoch Powell) which suggests that the relevant paragraphs might be omitted should the document be circulated throughout the hospital service.<sup>123</sup> A brief - and anodyne - guidance note on efficiency studies, dealing mostly with the handling of labour relations, was issued by the Ministry of Health in March 1960, promising full consultation and the avoidance of compulsory redundancies.<sup>124</sup>

### **Concluding discussion**

The material presented in this article demonstrates how techniques created for industrial productivity were adopted in at least one part of the public social services. Caution is needed in making any generalisations about the implications for the public sector more widely. In the case of health, this migration was prompted by factors that may have been exceptional: political exigencies; the influence of non-government actors; and the enthusiasm of a small number of 'productivity missionaries' who were prepared to make a personal commitment to the sector. The operation of productivity policy in the NHS was blunted by the constraints of clinical autonomy and de-coupled from financial incentives. The consensual and corporatist approach evident in the industrial sector was made even more consensual and corporatist in the NHS by the overlay of the advisory council model. The scope for ACME to

make an impact was severely constrained by its purely advisory role. When the Ministry did develop executive capacity, this devoted its energies and resources to activities that met with Treasury approval: the growth of O&M capacity, which was familiar in government, and the commissioning of operational research. Further comparative investigations would be needed to establish whether Health was exceptional, both in its receptivity and in the extent to which it adapted external approaches to fit in with its own institutions.

The material presented in this essay also offers a new perspective on the history of management in the NHS. The conventional view is that hospital administrators only adopted quantitative techniques in the late 1960's as part of a long march towards management and leadership.<sup>125</sup> The evidence presented here locates the adoption of industrial management techniques as occurring much earlier. Analysis in this vein invites a reading-back of later paradigms of management into the 1950s, which in turn risks becoming a search for ever-earlier progenitors of modern management practice. Apart from the presentism involved, this would be too simplistic. As both Guillebaud and ACME observed, the ability to analyse variation in performance does not, in itself, amount to the possibility of action to improve performance. The primary obstacle to managerial intervention for improved patient care was the doctrine of clinical autonomy, which created a barrier between initiatives in the supporting organisation for clinical practice and clinical practice itself. The logical conclusion was that doctors, as the senior clinical profession, had to become more managerial. It seems likely, then, that the experience gained through early productivity initiatives was influential in two later medically-led movements: medical management and clinical effectiveness.

Two points in relation to actors outside government emerge from the material presented above. First, the actors involved were diverse in their motivation and the nature of their engagement with the NHS. The RCN was a professional body motivated by concerns for the working conditions of its members. Conservative backbenchers were motivated by a conviction that the social services could and should become more efficient by learning from industry. The interest of the two charitable foundations concerned arose from their re-interpreted mission of support for health care. The involvement of the productivity missionaries was another kind of voluntarism, born of professional commitment to a particular view of management technique. The diversity of interests, and their importance in prompting and animating government in this period, all speaks to Finlayson's caution about laying too much emphasis on the state in explaining the development of welfare, including social services. The history of NHS productivity provides a case study in a 'mixed economy' in

which state, voluntary, commercial and informal sectors were blended in variable proportions. Second, while it is undoubtedly the case that the state did develop its capacity for intervention throughout this period, this was not so much accompanied by a withering away of the voluntary sector as a re-positioning. So, for example, the closure of the OR group at NPFT in the early 1960's might be seen as a classic case of a charity vacating the field as the apparatus of the state developed. However, a closer reading suggests an alternative explanation. NPFT moved towards a model of grant-making to universities because it recognised that the quinquennial review system of the University Grants Council created strong pressures for continuation of funding once a research group was established.<sup>126</sup> It also made grants to the hospital authorities, often on a match-funding basis, to stimulate the development of investigative appetite and capacity. This could, equally well, be interpreted as not so much retreat as change of tack, flexibly engaging with new state mechanisms in a way that would maximise the returns from the charity's limited funds. The returns sought were the development of knowledge and expertise of relevance to the health service. The King's Fund Division of Hospital Services was developed during the 1960s and undertook a series of practical investigations that were highly relevant to the building of new hospitals.<sup>127</sup> These observations speak to Prochaska's theme that the voluntary sector is constantly re-inventing itself and finding new ways of supplementing the state.<sup>128</sup>

What can be said about the success or otherwise of these early initiatives for NHS productive efficiency? Not very much. Over this period, little progress was made in developing efficiency indices so that the Office of Health Economics report on *Hospital Efficiency*, published in 1967, can only look at very crude indicators, such trends in as the number of beds per thousand of population. The report devotes considerable attention to the existence of variations in such indicators, but is unable to explain these at a point in time, let alone offer any analysis of efficiency trends. The Hospital Plan did not secure savings in current costs on the scale anticipated.<sup>129</sup> The historical verdict on specific initiatives has not been positive, with ACME described as 'lacking in decisive leadership' and as adopting 'a guarded approach, rather than a more interventionist one'.<sup>130</sup> Such judgements are perhaps too instrumental. ACME was an advisory, not an executive, body. As with all the initiatives discussed, it possessed significant ideological, participatory and symbolic properties and may have mattered most in conferring credibility to statements that the NHS was firmly committed to becoming more efficient through the adoption of advanced management techniques. Acceptance that this was so was pivotal in securing acceptance of the NHS Plan.

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Notes

- 1 Tiratsoo and Tomlinson, *Industrial Efficiency and State Intervention, Labour and The Conservatives and Industrial Efficiency*.
- 2 Tiratsoo, *Limits of Americanisation*.
- 3 Harrison, *Managing the National Health Service. Shifting the Frontier?* Learmonth, *Kindly Technicians*.
- 4 Harrison, *National Health Service Management in the 1980s*.
- 5 Snow, *I've Never Found Doctors to be a Difficult Bunch*.
- 6 Cutler, *Performance Management in Public Services*
- 7 Robson, *Adapting not Adopting*.
- 8 Klein, *The New Politics of the NHS*, 46-49
- 9 Finlayson, *A Moving Frontier*.
- 10 Kendall and Knapp, *A loose and baggy monster*.
- 11 Hilton, McKay et al. *The Politics of Expertise*.
- 12 Lipsey and Chrystal, *Positive Economics*, 294-298, McGuire, Henderson and Mooney, *Economics of Health Care*, 76-77.
- 13 Hussey et al., *A Systematic Review of Health Care Efficiency Measures*.
- 14 Williams, *Primeval Health Economics in Britain*.
- 15 Webster, *The Health Services Since the War*, Vol. 1, 133-183
- 16 Ibid. 210; Lowe, *The Welfare State*, 190-191.
- 17 Cmd. 9663, para. 735(4).
- 18 Ibid. para. 36.
- 19 Abel-Smith, B. and R. M. Titmuss, *The Costs of the National Health Service*.
- 20 Cmd. 9663, paras. 313-318.
- 21 Klein, *The New Politics of the NHS*, 46
- 22 Ham, *Health Policy*, 17
- 23 Webster, *Conservatives and Consensus*.
- 24 Cutler, *A double irony?*
- 25 Webster, *The Health Services Since the War. Volume I*, 216-220
- 26 Mohan, *Planning, Markets and Hospitals*
- 27 Cutler, *Economic Liberal or Arch Planner?* 476-7.
- 28 O'Hara, *Dreams to Disillusionment*, 184-5.
- 29 Powell, *A New Look*, 29.
- 30 Cutler, *Economic Liberal or Arch Planner?*
- 31 Cutler, *Performance Management in Public Services*, 136.

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- 32 Sheard, *Getting Better, Faster*, 315-317
- 33 Hospital Management Circular HM(54)89, discussed in NA MH137/350 *Report by the Statistical and Financial Comparisons Committee*.
- 34 Cmd. 9663, paras. 340-346; Robson, *Adapting not Adopting*.
- 35 NA MH137/350 *Report by the Statistical and Financial Comparisons Committee*.  
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- 36 Agar, *Government Machine*, 252-259.
- 37 NA MH137/344, *Copy of definitions sent to Mr Perrin*.
- 38 Cmd. 9663, para. 364
- 39 HC Debates 30 July 1958 vol. 592 cc1407-1410
- 40 Denham and Garnett, *Keith Joseph*, 81-83
- 41 HC Debates 28 April 1958 Vol. 587 (97)
- 42 McGann, Crowther and Dougall, *History of the Royal College of Nursing*, 174-175.
- 43 Nuffield Provincial Hospitals Trust, *The Work of Nurses*.
- 44 NA MH 137/338, *Synopsis of proceedings and summary of recommendations*
- 45 McLachlan, *History of the Nuffield Provincial Hospitals Trust*, 66
- 46 Nuffield Provincial Hospitals Trust, *Studies in the Functions and Designs*, Theodore, *Fattest Possible Nurse*.
- 47 Prochaska, *Philanthropy and the Hospitals of London*, 164-181
- 48 Tiratsoo and Tomlinson, *Labour*.
- 49 Chambers, *The Task of the British Productivity Council*
- 50 Tiratsoo and Tomlinson, *Conservatives*, 38-41
- 51 NA MH137/338 Preston to Mason 15 September 1958
- 52 NA MH 137/340 *Improving Efficiency in Hospitals. The Aims of the Advisory Council for Management Efficiency (England and Wales)*, December 1959
- 53 Webster, *The Health Services Since the War, Volume I*, 241-256
- 54 Cmnd. 1086, *Report of the Ministry of Health for the Year Ended 31st December 1959. Part I*, 360.
- 55 For example NA MH137/339 *Membership of the Productivity Council*
- 56 NA MH137/339 Letter from Catherine Hall to Walker-Smith, 16 June 1959.
- 57 NA MH137/343 *Appendix A to briefing note on ACME (draft)* under covering note from Perry, 9 December 1960. See Snow, 'I've Never Found Doctors to be a Difficult Bunch' for more on Chester.
- 58 "A Leader in the Art of Good Management", *New Statesman*, 5 May 1959 (filed in NA MH137/346).

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- 59 Citation from the Institute's Journal *Target* October 1960 (filed in NA MH137/346)
  - 60 Institute of Mechanical Engineers (IMEchE) Frank Ewart Smith archive, FES/4 Copy of letter 9 December 1958
  - 61 IMechE, FES/4 Letter 23 December 1958
  - 62 NA PRO MH/137/338 file note 16 December 1958
  - 63 Macey, *Encyclopaedia of Time*, 151-152
  - 64 NA MH137/338 *Who's Who*
  - 65 NA MH137/343 *Work Study in the Hospital Service*
  - 66 IMechE FES/4/2 Letter 9 December 1958
  - 67 Tiratsoo and Tomlinson, *Labour*, 68-69, 92-94
  - 68 Ussishkin, *Morale and the Postwar Politics of Consensus*.
  - 69 The Acton Society Trust, *Creative Leadership in a State Service*, 51-55
  - 70 IMechE FES/4/2 letters from Watts and Schuster to Smith, 1962.
  - 71 Currie, *Work Study*, 17.
  - 72 Tiratsoo and Tomlinson, *Conservatives*, 50-65.
  - 73 Cmnd. 1432, *Control of Public Expenditure*, paras. 50-58.
  - 74 NA MH137/338 *Present Stage of Development of Efficiency Studies in the National Health Service*, May 1959
  - 75 Cmnd. 1754, *Report of the Ministry of Health for the Year Ended 31st December 1961, Part 1*.
  - 76 Cmnd. 2389, *Report of the Ministry of Health for the Year Ended 31st December 1963*.
  - 77 Cmnd. 2688, *Report of the Ministry of Health for the Year Ended 31st December 1964*.
  - 78 British Standard 3138 *Glossary of Terms Used in Work Study and Organization and Methods (O & M)*, (British Standards Institute, 1969).
  - 79 Witzel, *History of Management Thought*, 177-197
  - 80 Tiratsoo and Tomlinson, *Labour*, 148-150
  - 81 Currie, *Work Study*, 9-11
  - 82 Clark, *Resistance to the Fordist Production Process*.
  - 83 The Acton Society Trust, *Creative Leadership*, 55
  - 84 Kirby, *Operational Research in War and Peace*.
  - 85 NA MH137/344, Schedule from Operational Research Society, author Mrs G. M. Heselton.

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- 86 This definition is printed in the frontispiece of each edition of *Operational Research Quarterly*, the journal of the Operational Research Society, from 1967 onwards.
- 87 *Improving Efficiency in Hospitals* (see note 36).
- 88 NA MH137/342 Notes of a joint meeting between RHB Chairmen and ACME held on 15 September 1959.
- 89 NA MH137/338 memo. From Mason to Allen 17 July 1958.
- 90 NA MH137/340 exchange of letters between Sumner and Perry 17 and 18 December 1959. The file contains scores of similar letters asking for more copies and expressing support.
- 91 Cmnd. 806, *Report of the Ministry of Health for the Year Ended 31st December 1958, Part 1*, 43.
- 92 NA MH137/350 first report of the committee 17 November 1960
- 93 Tiratsoo and Tomlinson, *Conservatives*, 38
- 94 NA MH137/350 *Experimental circuit scheme*: report by committee B 27 January 1961
- 95 NA MH137/342 Minutes of the 18th meeting of ACME 4 October 1961
- 96 NA MH137/342 Minutes of the third meeting of ACME, 14 September 1959
- 97 Prochaska, *Philanthropy and the Hospitals of London*, 188-189.
- 98 NA MH137/344 *Training for work study in hospitals*.
- 99 NA MH137/350 *Notes of Efficiency Studies carried out for the Minister by members of the Management Consultants' Association*, January 1961
- 100 NA MH137/342 Minutes of the fifth meeting of ACME, 5 November 1959,
- 101 NA MH137/350 *Employment of Management Consultants*.
- 102 NA T227/2229 *Staff Inspection of Senior Posts in Divisions 1 and 2*
- 103 NA MH157/1 Ministry of Health Telephone Directory 1962
- 104 IMechE FES4/1 second annual report of the committee, section V.
- 105 NA MH166/249
- 106 IMechE FES 4/1
- 107 Holland, *Improving Health Services*.
- 108 NA MH137/350 Enclosure to ACME(P)62
- 109 Eckstein. *The English Health Service*, 222.
- 110 Tolliday, *Clinical Autonomy*.
- 111 Harrison, *Policymaking on the Hoof?* 24-25
- 112 NA MH137/342 Minutes of the third meeting of ACME 14 September 1959
- 113 NA MH137/342 Notes of a joint meeting between RHB Chairmen and ACME, 15 September 1959

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- 114 Tiratsoo, *Limits to Americanisation*.
- 115 NA MH137/349 Minutes of the second meeting of committee C, 4 November 1959.
- 116 NA MH137/343 Letter Perry to Shaw 6th July 1960
- 117 NA MH137-342 Minutes of the fourth meeting of ACME, 7th October 1959.
- 118 NA MH137/350 *Report by the Statistical and Financial Comparisons Committee*. Paragraph 31
- 119 Advisory Committee for Management Efficiency, *Management Functions of Hospital Doctors*.
- 120 Office of Health Economics, *Efficiency in the Hospital Service*.
- 121 NA MH 137/343 Memo from Perry to Pater 26 February 1960
- 122 TN MH 137/342 Minutes of the fifteenth meeting of ACME, 1st February 1961
- 123 IMechE FES 4/1 Letter of June 1961
- 124 Ministry of Health, Circular HM (60)14
- 125 Harrison, *On the Hoof?* 15
- 126 McLachlan, *History of the Nuffield Provincial Hospitals Trust*, 80
- 127 Prochaska, *Philanthropy and the Hospitals of London*, 206-208
- 128 Prochaska, *The Voluntary Impulse*.
- 129 O'Hara, *Dreams to Disillusionment*, 188-190
- 130 Webster, *The Health Services, Vol 1*, 256; Robson, *Adapting and Adopting*

#### Abbreviations

AAPC	Anglo American Productivity Council
ACME	The NHS Advisory Council (Committee after 1963) on Management Efficiency, England and Wales
BPC	British Productivity Council
ICI	Imperial Chemical Industries Ltd
MP	Member of Parliament
NHS	National Health Service
NPHT	Nuffield Provincial Hospitals Trust
O&M	Organisation and Methods
OR	Operational Research
ORS	Operational Research Society
RCN	Royal College of Nursing
RHB	Regional Hospital Board

#### Archive Sources

NA	The National Archives. London
IMechE	Institute of Mechanical Engineers, Frank Ewart Smith archive.

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