

Professor Jaideep J Pandit
Consultant Anaesthetist
Nuffield Department of Anaesthetics
Oxford University Hospitals NHS Trust
Oxford, UK, OX3 9DU
Tel: 01865-221590
Fax: 01865-220027
email: jaideep.pandit@dpag.ox.ac.uk

Pensions, tax and the anaesthetist: significant implications for workforce planning

Jaideep J Pandit

Consultant Anaesthetist, Nuffield Department of Anaesthetics, Oxford University Hospitals
NHS Trust, Oxford, UK, OX3 9DU

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Summary

This paper shows how recent tax changes to pensions (ie, new lifetime and annual allowance limits to contributions) mean that NHS consultants will need to adopt one of four rational strategies to work and financial planning. Two of those strategies (termed ‘Earn Fast, Drop Out’ and ‘Never Enter’) involve a break between work and pensions. The logical consequence of this break is that consultants may exercise options to maximise their total income, which in turn will result in less work within the NHS and more work in alternative higher-paying (eg, private) sectors. A third strategy (‘Go Slow, Stay Low’) also involves less-than-full-time NHS work. Only one option (‘Do Nothing’ as a result of the tax changes) has no effect. In short, the tax changes will predictably lead to future senior consultants devoting proportionately much less of their time to NHS work than before. The article discusses the important implications of this conclusion for NHS **manpower** planning.

Introduction

“The question isn't at what age I want to retire, it's at what income.”

~ George Foreman, heavyweight boxer

“A pension is little other than deferred wages”

~ Elizabeth Warren, US Senator and bankruptcy lawyer

A recent glossy by the Association of Anaesthetists of Great Britain and Ireland (AAGBI) [1] addresses the important issue of ageing and the anaesthetist. Focussed on how individual job plans and work patterns can be changed to accommodate ageing, it briefly touches upon the important issue of pension planning. The purpose of this paper is to complement the glossy and make the argument that recent changes to NHS pensions and in particular, the related taxation, will have a radical and perhaps unforeseen adverse impact on NHS anaesthetic service delivery. The key change, as will be shown, is a break between ‘work’ and ‘pensions’ and the changes consequent to this have the potential to change the very fabric of the NHS, by changing the fundamental relationship between employees and employer. An urgent and radical change in approach to workforce planning is needed to take account of these issues. Focussing on broad principles, few calculations are presented; most are relegated to appendices, for interested readers (and a numbered* superscript corresponds to further appended information).

What is a ‘pension’?

Seemingly obvious to many, it is worth briefly re-articulating the concept, especially for non-UK readers unfamiliar with the NHS. Warren’s quotation at the start of this paper comes close to the mark^{*1} [2]). A pension is a savings or insurance policy earmarked to provide some income to employees when they can no longer work. Dating from the early 18th century, pensions have evolved into a broadly common pattern.

Investment vs salary-linked pension schemes

In most pension schemes, including the NHS, both employee and employer contribute^{*2}. In an *investment-based scheme*, these contributions create a pooled fund, invested over time to yield a return. At retirement, the fund pays out the member’s share, based on the investment performance.

In the NHS however, the pension contributions are absorbed into wider government funds and payouts on retirement are not linked to market performance of a fund. Rather, the NHS scheme pays out a sum calculated using a formula that is based on time in service and

salary level (a *salary-linked scheme*). Historically the NHS scheme was a ‘final salary’ scheme^{*3}. The core principles of this NHS scheme are that (a) it accrues an amount based on years of service (yielding a ‘time-based contribution fraction’, historically $1/80^{\text{th}}$ for each year of service up to a maximum allowable in the reckoning of 40 years’ service, up to the age of 60) and (b) this time-based contribution fraction is multiplied by the final salary to yield a ‘salary-time product’. This salary-time product is then (c) subjected to further calculations to yield a tax-free lump sum payment on retirement, plus an annual taxable income. From the perspective of government, the NHS pension scheme is a variable future financial liability, the size of the liability depending upon how many NHS employees there are, how long they have worked and the salary they are deemed to retire at.

Despite the future liability, supporting pensions in various ways was regarded as an advantage to governments and to society [1,3] and taxation policy was structured to assist. For example, contributions to the NHS pension (and even to other, privately-provided pension schemes) could be made with full tax relief up to certain limits, and the tax-free lump sum represents another concession from government.

Historic strategy for maximising pension returns

Historically, an NHS consultant wishing to maximise their pension had a rational and simple strategy: first, to work in the NHS for as long as possible in order to maximise the time-based contribution fraction (eg, working 20 years gained $20/80^{\text{ths}}$ of the time-based contribution fraction; working 40 years gained the maximum $40/80^{\text{ths}}$). Second, it was to earn as much as possible especially, in the final salary scheme, within the last 3 years of employment before retirement. Thus a final salary of, say, £100,000 would result in a higher pension than one of, say, just £50,000. This strategy could be summarised as ‘Work Long; Earn High’^{*4}.

Any alternative strategies to ‘Work Long; Earn High’ would predictably yield a lower pension than was theoretically available, either through reducing the time-based contribution fraction in the pension calculations or by reducing final salary, or both (eg, breaks in employment, part-time work or reduced income). Often, these alternatives were not active financial choices but consequences of things like pregnancy, childcare, or illness.

Pensions as an incentive for employee retention and work

Structured in this way so as to make ‘Work Long; Earn High’ the optimal strategy, the pension was a very effective means for the NHS to incentivise its employees to remain in

service for as long and as actively as possible and thus look forward to a comfortable retirement.

Moreover, the more attractive a pension scheme is, the less an employer needs to offer as a regular salary during employment. The NHS could adopt a ‘jam tomorrow’ rather than ‘jam today’ policy. Direct comparisons are difficult (requiring reckoning of costs of living, inflation and expenses) but there is some evidence that this is the case when crude incomes are compared across countries [4].

Therefore since inception, the NHS the system might be said to be in some state of equilibrium. Employees were paid perhaps a little less than the market rate to work for the NHS (which benefited from their long years of service) but then, amongst other things, could save for a future pension that was more secure and somewhat more generous than found elsewhere. And the longer and harder consultants worked, the better off they would be in retirement.

Recent NHS pension changes

However, things have changed radically in pensions nationally and in the NHS scheme [5]. This article takes those changes at face value and considers the implications.

Although these NHS pension changes (termed NHS 2015 Scheme) caused some doctors considerable concern^{*5} they were strategically trivial, as they did not alter the ‘Work Long; Earn High’ as rational for maximising pension. Nevertheless, some relevant 2015 Scheme details include:

1. an increased accrual rate from 1/80th per year to 1/54th per year of service; potentially an improvement in the ‘time-based contribution fraction’ theoretically yielding a higher final pension;
2. a change from ‘final salary’ to ‘career averaged’ as the point of reference in calculations; disadvantaging employees who spend longer in lower-paid tiers, but advantaging (or neutral to) those who spend longer in the highest tiers;
3. an increase in employee contribution rate^{*6}; the NHS pension now ‘costs more’ to the employee than before;
4. a change in the age at which the NHS pension can be drawn without penalty from 60 to 68 years^{*7}; detrimental to those who had planned to retire <68 but potentially advantageous to those who wished to work until 68^{*8}.

We will not discuss nuances, since these are all supervened in relation to strategy by much more important tax changes to pensions, to which we now turn.

Tax changes to pension schemes

None of the 2015 NHS pensions changes detailed above alter the fact that ‘Work Long; Earn High’ remained – within the narrow context of *pension* rules - the optimal strategy to maximise NHS pension. However, two specific *tax* measures have been introduced to all pensions (not just NHS) that critically affect this optimum strategy: first, the new ‘lifetime allowance’ limit and second, the ‘annual allowance’ limit.

Lifetime allowance limit

Lifetime allowance is simple to explain. The government now sets an upper limit to the value of a ‘pension pot’ before it is subject to penalty rates of taxation (currently the penalty rate being 55%, far higher than the maximum rate of 40% applied to income tax). As of 2016, the pot limit is set at £1 million. Clearly, it is advisable to make financial plans to avoid or minimise this tax.

Calculating the value of a pension pot (and hence the potential penalty tax) is straightforward for an investment-based pension scheme, as simply the size of the member’s share of the pension fund at any given time.

However, estimating the value of the pension pot in the NHS scheme is much more difficult, since the ‘pot’ in question is an intangible entity, related as it is to a formula based on length of service and salary. Therefore, the government has introduced a further formula to estimate the value of this pot. Based on this, anyone who has already adopted the ‘Work Long; Earn High’ strategy that was previously optimal will have a higher pension pot than someone adopting any alternative strategy. Moreover, simple calculations show that a very high proportion (if not the majority) of consultants now aged >50 - and many aged >45 - will find their pension pots already exceeding, or soon to exceed, the current pot limit of £1 million. This cohort of doctors therefore faces an important and arguably immediate, financial strategy decision.

Furthermore, younger readers are not exempt from a need for strategy reappraisal. Given the final size of consultant salaries (the National Audit Office found two-thirds of consultants received salaries >£100,000 [6]) and the fact that most doctors work for the NHS for >20-30 years, *all* younger consultants/trainees who adopt a ‘Work Long, Earn High’ strategy will at some point in future be very likely to meet or exceed the current pension pot limit. We will consider the strategic options later, but first we consider the annual allowance limits.

Annual allowance limits

The tax on the final size of the pension pot (lifetime limit) is one tax. There is now a second potential tax on the *annual gains* made by the pension pot. The pension is now not only taxed if it exceeds a certain lifetime limit, it is also taxed additionally year on year, if ‘too much’ is deemed to have been contributed to a pension, even if the pot size stays within the lifetime limit.

For a scheme based on investment, the contributions are easy to calculate as simply the investments made into the pension fund in any one year.

The parallel statistic for the NHS scheme is based on a complex calculation, which uses the estimated difference in value of the pension pot at the end versus start of a given year. Using an arbitrary fixed factor to multiply the numbers involved, this calculation yields the assumed gain made by the pension pot in any given year, which is subject to the annual tax (Appendix).

The current annual allowance limit is £40,000, but further reduced in a tapered manner if the employees’ ‘adjusted’ income’ is >£150,000 per year, to a lower limit of just £10,000 if adjusted income is >£210,000^{*9}. Adjusted income is income from *all sources* (dividends, investments, private practice, bonuses, rental income, etc) and not just pensionable income from NHS employment. Thus, employees with high salaries, regular increases in salary (including clinical excellence awards) and additional sources of income are at those most risk of breaching annual allowance limits, and these will require strategy reappraisal.

Novel strategies for maximising pension

In summary, it is the new tax changes (not pension changes) that have the greatest impact. The available new strategies to avoid this are listed below and summarised in Figure 1.

(1) The ‘Do Nothing’ Strategy

This involves no change from the historic ‘Work Long, Earn High’. The adherent carries on pension contributions to the new retirement age, regardless of any penalty taxes. Consultants might follow this strategy by default, if ignorant of the pension and tax changes. Others may have reasoned that making full contributions and paying the penalty taxes is still, on balance, better than any alternative strategy. Some consultants may reason that their incomes and pension benefits will be too low to be affected by any penalty taxes (especially

if they take long breaks in service, have ill-health, or remain in low-paid work due to lack of career advancement). Conversely, some consultants may be so independently wealthy as not to care or be affected by any possible tax penalties on what they regard as the minor part of their income.

(2) The 'Go Slow, Stay Low' Strategy

Here the adherent proactively plans for a lower annual income and hence a slower rate of pension accrual, through a mix of part-time working, career breaks, or remaining in lower paid tiers. Whilst avoiding penalty taxes, one self-evident disadvantage is that the adherent's income is decidedly lower throughout their working life, limiting their other financial options. Also, since annual allowance limits take into reckoning *all* forms of income, not just employment income, the adherent must be careful not to invest too profitably or have independent income or this will undermine their strategy.

(3) The 'Earn Fast, Drop Out' Strategy

Diametrically opposite to 'Go Slow, Stay Low', the adherent plans to maximise income and pension contributions as fast as possible, to the very limits. Once they reach either their annual allowance or lifetime allowance limits (or both), well before pensionable age, the adherent ceases NHS pension contributions (drop out). This 'freezes' the value of their pension (ie, it becomes a 'deferred pension, which they can access without any tax penalties at their pension age')^{*10}.

(4) The 'Never Enter' Strategy

Diametrically opposite to 'Do Nothing', the adherent reasons that the NHS pension scheme with its taxation is simply not worth it, and never enters scheme from the outset and makes alternative, 'private' arrangements for savings. Note that if these arrangements are classed as a 'pension' (ie, they involve some employee contribution to the scheme that is tax-deductible or also a contribution to the scheme from the employer) then the same annual and lifetime limits apply, as to the NHS pension scheme. If however, these arrangements are simply non-pension investments (eg, cash, bonds, stocks, shares or property) then no limits apply and the individual is entirely at the mercy of the performance of those assets in the open market.

In summary, there are four broad options in the new era. Individuals will sensibly take professional advice, but that advice will inevitably fall into one of these four options. While some readers may be more interested in how this analysis affects them personally, that is not the purpose of this article. Rather, the focus here is on how each of these strategies could influence behaviour, and in turn how that changed behaviour could affect workforce planning. Only one strategy ('Do Nothing') has no fresh consequences for workforce planning. The other three result in a lower quantum of work for the NHS, which we discuss below. Notably the last two strategies ('Earn Fast, Drop Out' and 'Never Enter') have the added effect of breaking the link between work and pensions, and it is the important behavioural consequences of this that we next consider.

Work and pensions: rational consequences of breaking the link

From the moment that an employee disengages from an occupational pension scheme, that scheme is no longer an incentive. There may be many other incentives, but pension ceases to be one of them. In two strategies ('Earn Fast, Drop Out' and 'Never Enter') the employee is left with the task of funding their own retirement provision. For 'Earn Fast, Drop Out', there will have been some pension accumulation before the pension limits were reached (Figure 1) but this may not alone be enough to sustain long years of later retirement.

A train of logic leads inexorably to these employees adopting rational strategies that result in less work provided for the NHS and more for (or via) other, more lucratively-paying employment models (eg, premium waiting list, locum, non-UK, or private work). The logical steps are as follows:

- (a) an employee disengaged from NHS pension now needs to fund their own (non-pension) savings package;
- (b) the larger this savings package, the higher the retirement provision;
- (c) savings are proportional to income: the more the employee earns, the more they can save for retirement;
- (d) income can be increased in broadly two ways: (i) work longer hours for the NHS at standard rates (ie, additional sessions within a regular job plan); (ii) instead use any spare time to work at higher hourly/sessional rates of pay;
- (e) whereas working longer hours at standard NHS rates undoubtedly increases income, working at premium rates yields higher income for any given level of work;
- (f) therefore, this last option becomes the rational strategy to adopt for any consultant disengaged from NHS pension contributions.

Figure 2 illustrates these realities. Plotting annual income (y-axis) against the number of sessions worked (x-axis), point A represents full time, 10 sessions of NHS work (standard rates: black line). ‘Session’ denotes a ‘programmed activity’ (PA; ~a half days’ work) [7,8]. Exact values are not relevant: all that matters for illustration is the relative slopes of the black and red lines, not absolute values.

The employee may remain at point A or otherwise has three options. One is to work longer hours within the NHS at standard rates (‘additional PAs’): the black line’s extension illustrates the rate of increase in income that results. A second option is to work longer hours at premium rates (eg, NHS waiting list initiatives, etc, or private fee-paying work). It is assumed that these premium sessional rates are double those of the NHS standard [9,10] (although estimates of as high as three times have been suggested in the UK and elsewhere) [11,12], and the red line shows the income that results from working 10 NHS plus 1, 2, 3, etc ‘premium’ sessions. The red line’s slope is higher, reflecting the attraction of this strategy for someone disengaged from the NHS pension scheme, as this additional income can fuel their retirement savings.

However, both the extension of the black line and the red line represent options requiring more overall work >10 sessions. The green line shows a third option which is to reduce contracted NHS work, and replace the time freed by premium-rate work, whilst remaining within a total 10 session work envelope (eg, point B represents the income resulting from 7 standard NHS sessions and 3 at premium rates).

This green line potentially represents logically the most attractive option - perhaps even a powerful incentive of itself – as shown by Figure 2b. A consultant disengaged from NHS pension contributions might wish to retain their overall net income, whilst also making broadly the same retirement savings as previously made to the NHS scheme (ie, to contribute ~14.5% as employee and ~14.3% as employer contribution rate). Thus, the consultant’s new gross income would need to increase by ~30%. The grey horizontal line in Figure 2b shows this new level of income aspiration and that it can be achieved in three different ways. Either by working ~13 sessions wholly at standard NHS rates (X), or by working 10 standard NHS plus ~1.5 premium-rate sessions (X’), or by working ~7 standard NHS plus ~3 premium rate sessions (X’). Unless an individual enjoys work purely for its own sake, or eschews all non-NHS work, point X’ would seem the logical option.

In summary, there are four possible strategies for future pension planning. As shown, three of them (‘Go Slow, Stay Low’, ‘Earn Fast, Drop Out’ and ‘Never Enter’) result in behaviours that predictably lead to less NHS service delivery.

There are clearly limitations to the analysis. Access to premium rate work may not be as secure or regular as perhaps implied, or sufficient to underpin any strategy. Although many anaesthetists do have stable private practice incomes, there may be large variations [10,14,15]. Figure 1 is based on sessional rates being roughly double NHS rates, but if in future they are much less, this may influence choice - or at least the point at which this choice is exercised. Non-NHS work does not provide paid study leave, professional leave, etc, and insurance premiums will be higher. The analysis may not apply to university academics (eg, fewer opportunities for non-NHS work and perhaps a different pension scheme^{*11}). However, the number of academic anaesthetists is sparse [16,17]. Benefits of the NHS pension such death-in-service will be lost on ceasing contributions. On an intangible level, outweighing for some all financial considerations, many may choose NHS work as a social responsibility, or enjoy a positive, supportive atmosphere and teamwork, absent elsewhere.

Implications for workforce planning

It would be important for workforce planners to take account of the analysis. NHS workforce planning is complex, with contributions made by several organisations [18-24]. The plans are based on crude estimates of demand, such as an ageing population, and consultant attrition rates (retirement, emigration or death). In contrast to ‘top down’ approaches, individual hospitals also undertake ‘bottom up’ exercises. Disparities between ‘top down’ and ‘bottom up’ estimates are well recognised [25].

Regardless of minor differences all strategic workforce plans embed as fundamental to calculations at least three notions [22,25]: (a) a ‘consultant post’; (b) a ‘full time equivalent’ (FTE) post; (c) ‘retirement’. The idea is to match the number of trainees qualifying to FTE consultant posts that become available [22,26]. **However, all 3 notions are arguably redundant.**

The notion of a ‘consultant post’ makes sense where the behaviour of incumbents is relatively homogenous. Hitherto, the majority of consultants have worked full time (~11.2 sessions average [6]). Historically consultants were probably in a cluster around point A in Figure 2, with a modest ‘tail’ extending along the red line (representing private practice). However, as one of four strategic choices need to be made (Figure 1), this cluster will predictably disintegrate and spread more widely along the black, red and green lines (Figure 2). The resulting heterogeneity obscures the meaning of an ‘FTE consultant post’.

Moreover, if Figure 2b proves correct, future consultants may work ~0.7 FTE on average and an increase of ~30% in total consultant numbers as a head count will be

necessary. Existing workforce models will have proved very wide off the mark. Staffing is already running at a shortfall of ~6%, and will clearly worsen when the analysis presented in this paper is taken into account [27,28].

Next, it is now unclear when a consultant disengaged from the NHS pension scheme should be deemed to have ‘retired’. Without actually drawing a pension, these individuals have acquired sufficient flexibility to adjust the level of their NHS service contributions at standard rates, whilst optimising their income from work at premium rates (ie, their position on the green, black or red lines in Figure 2 may vary over time). Furthermore, they can draw upon their non-pension savings at any time they like and by any amount (this is not counted as ‘retirement’). From the strategic planner’s perspective, this behaviour would be highly disruptive to inflexible calculations based on more rigid notions of ‘FTEs’ or ‘retirement’. Finally, although the term ‘consultant’ has been used throughout this article^{*12}, the analysis applies equally well to Staff and Associate Specialist (SAS) or other posts, so these staff groups may also behave similarly in future.

In summary therefore, most current workforce predictions are likely to be incorrect not through lack of detailed information, which has been the concern hitherto [18, 23], but simply because they are based on the wrong principles. Described as an ‘imprecise art’ [18], there comes a point in imprecision when the exercise itself ceases to be worthwhile.

In future planning, more relevant data than the number of ‘posts’ would be the actual number of NHS sessions required by employers, better to reflect the actual service needs. Calculations could then focus on how these needs are met, by which specialist(s), and at what cost. The term ‘retirement’ should be abandoned and replaced with ‘ceasing NHS pension contributions’ and ‘drawing NHS pension’, better to reflect future behaviours.

Conclusions

There is nothing in this article that is novel: the same analysis has already been presented in respect of recruitment to the judiciary by a Supreme Court justice (Gibraltar) [29] and echoed by the Lord Chief Justice (England and Wales) in recent evidence to Parliament [30]. All of the scenarios outlined are the inevitable consequences of widely published public policies, and it is easily predictable from these that NHS service delivery by consultants will sharply decline. This article is not directed to individuals as financial advice. It is not suggested that any one of the four rational strategies presented is inherently preferable. Different people will make different choices, based on any professional advice

they receive. Instead this article is primarily directed to workforce planners to show how new behaviours will require radical changes to workforce modelling.

Although the focus of this article is on anaesthetists, the principles apply to all NHS employees, notably surgeons and senior – clinical and non-clinical - managers. Theoretically for surgeons, since their non-NHS income is proportionately so much higher relative to NHS income versus that of anaesthetists (ie, the slopes of the red and green lines in Figure 2 are very much steeper for surgeons), the incentive to adopt either a ‘Earn Fast, Drop Out’ or ‘Never Enter’ strategy is that much greater. It is not known how disengagement from the NHS pension scheme will affect the behaviour of senior NHS managers or civil servants but like all other employees, they are not exempt from the realities described in this paper.

There is one further comment to make from the perspective of the anaesthetist. In a previous article, we discussed how data about sessional private income could usefully inform incentivisation strategies within group private practices [10]. If now, at different career stages consultants will find it logically advantageous to devote different amounts of sessional time to NHS vs non-NHS work (Figure 2), group practices will need to think carefully about how optimally to manage the partnership as a whole. Specifically, where some partners would wish to maximise their non-NHS income then practices will need to consider whether it is optimal to remain as ‘equity partnerships’ (where all income is pooled, regardless of how much each partner brings in) or better to become ‘share partnerships’ (where income to the partner is proportionate to the time they devote, or to the fees they each bill).

Ageing and taxes are unavoidable: together with the important details presented in ‘*Age and the Anaesthetist*’ [1], it is hoped that this complementary article will help the reader to be armed with a range of strategies and resources to manage the inevitable.

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References

1. Hutton P, Baker M, Black C, Giddings T, Griffiths R, Harrop-Griffiths W, Hirst G, Redfern N, Shipway D. Age and the Anaesthetist. The report of a working party of the AAGBI. *Anaesthesia News* 2016 [In Press]
2. Milbank D. Clinton must make Warren her Vice-President. *Washington Post* 4 March 2016 At: <https://www.washingtonpost.com/opinions/> (accessed 21.5.16)
3. Keohane N, Rowell S. *Good Pensions: Introducing Social Pension Funds to the UK*. Social Market Foundation. Sept 2015. At: <http://www.smf.co.uk/> (accessed 21.5.16)
4. Laugesen MJ, Glied SA. Higher fees paid to US physicians drive higher spending for physician services compared to other countries. *Health Affairs* 2011; **30**: 1647-56.
5. Pensions Policy Institute. *The Implications of the Coalition Government's Public Service Pension Reforms*. May 2013. ISBN 978-1-906284-25-1 At: <http://www.pensionspolicyinstitute.org.uk/> (accessed 21.5.16)
6. Comptroller and Auditor General. *Managing NHS Hospital Consultants*. National Audit Office. 6 Feb 2013. HC 885; Session 2012-13. London: The Stationery Office.
7. British Medical Association. *The New 2003 Consultant Contract for England*, September 2003.
8. Pandit JJ. The new consultant contract and anaesthesia: practical implications of the new terminology. *Anaesthesia News* 2003; **195**: 16-17.
9. Abbott T, White SM, Pandit JJ. Factors affecting the profitability of surgical procedures under 'Payment by Results'. *Anaesthesia* 2011; **66**: 283-92.
10. Stubbs D, Ward ME, Pandit JJ. Estimating hourly anaesthetic and surgical reimbursement from private medical insurers' benefit maxima: implications for pricing services and for incentives. *Anaesthesia* 2010; **65**: 396-408.
11. McIntosh C, Dexter F, Epstein RH. The impact of service-specific staffing, case scheduling, turnovers, and first-case starts on anesthesia group and operating room productivity: a tutorial using data from an Australian hospital. *Anesthesia and Analgesia* 2006; **103**: 1499-516.
12. Dexter F, Epstein RH. Typical savings from each minute reduction in tardy first case of the day starts. *Anesthesia and Analgesia* 2009; **108**: 1262-7.

13. Pandit JJ, Dexter F. Lack of sensitivity of staffing for 8-hour sessions to standard deviation in daily actual hours of operating room time used for surgeons with long queues. *Anesthesia and Analgesia* 2009; **108**: 1910-5.
14. Harrop-Griffiths W., Prineas S, Grant S. 'The workman is worthy of his hire' : What is an anaesthetist worth in 2010? *Anaesthesia* 2010; **65**: 325-7.
15. Tighe S. Does private practice pay? *Anaesthesia News* 2011; **287**: 22-24.
16. Pandit JJ. A National Strategy for Academic Anaesthesia. 2005. The Royal College of Anaesthetists. At: <http://www.niaa.org.uk/> (accessed 21.5.16).
17. Pandit JJ. The national strategy for academic anaesthesia. A personal view on its implications for our specialty. *British Journal of Anaesthesia* 2006; **96**: 411-4.
18. Redfern N, Harrop-Griffiths W. Who knows how many anaesthetists we need? *Anaesthesia* 2013; **68**: 227-31.
19. Addicott R, Maguire D, Honeyman M, Jabbal J. *Workforce Planning in the NHS*. The King's Fund. April 2015. At: www.kingsfund.org.uk (accessed 21.5.16).
20. Health and Social Care Information Centre. *NHS Workforce Statistics 2014*. Health and Social Care Information Centre website. Available at: www.hscic.gov.uk/catalogue/PUB16227 (accessed on 12 April 2016).
21. Health Education England. *Investing in People for Health and Healthcare*. Workforce plan for England: proposed education and training commissions 2015/16. Leeds: Health Education England. Available at: <https://hee.nhs.uk/2015/02/05/workforce-plan-for-england-201516/> (accessed on 15 April 2016)
22. Centre for Workforce Intelligence. *In-depth Review of the Anaesthetics and Intensive Care Medicine Workforce*. Final report. Feb 2015. At: www.cfwi.org.uk (accessed 21.5.16).
23. Van Besouw J-P. Workforce planning: the issues. *Anaesthesia News* 2012; **302**: 9-11.
24. Miller RP, Hirsh W. *Workforce Planning in Academic Institutions*. A report for Universitas 21. Institute for Employment Studies. Brighton: 2014. At: www.universitas21.com (accessed 21.5.16)
25. Pandit JJ, Tavaré AN, Millard P. Why are there local shortfalls in anaesthesia consultant staffing? A case study of operational workforce planning. *Journal of Healthcare Organisation and Management* 2010; **24**: 4-21.
26. Harrop-Griffiths W. Is a consultant-delivered anaesthesia service feasible or desirable? *British Journal of Anaesthesia* 2012; **109**: 4-7.
27. House of Commons Committee of Public Accounts. 2015. *Managing the Supply of NHS Clinical Staff in England*.

www.publications.parliament.uk/pa/cm201516/cmselect/cmpubacc/731/73102.htm (accessed 21.5.16)

28. Iacobucci G. NHS Workforce planning is in disarray, MPs warn. *British Medical Journal* 2016; **353**: i2664.
29. Jack A. Very empty benches. *Counsel*; 2015: November.
30. The Select Committee on the Constitution. Evidence session with the Lord Chief Justice of England and Wales. Evidence session 1; questions 1-11, 27 April 2016. The House of Lords. www.parliament.uk/documents/lords-committees/constitution accessed 21.5.16.

Figure 1. Graphical representation of the four strategies available after the new tax changes to pensions. The horizontal dotted line is the lifetime allowance, above which the pension pot is taxed at 55%. (1) in the ‘Do Nothing’ strategy the pot simply exceeds the allowance and all tax is paid; (2) in ‘Go Slow, Stay Low’ the pot never reaches the threshold; (3) in ‘Earn Fast, Drop Out’ the allowance limit is reached early and pension contributions cease at this point; (4) ‘Never Enter’ lies along the x-axis, and no NHS pension is accrued. A similar graph could be plotted in relation to annual allowance limits.

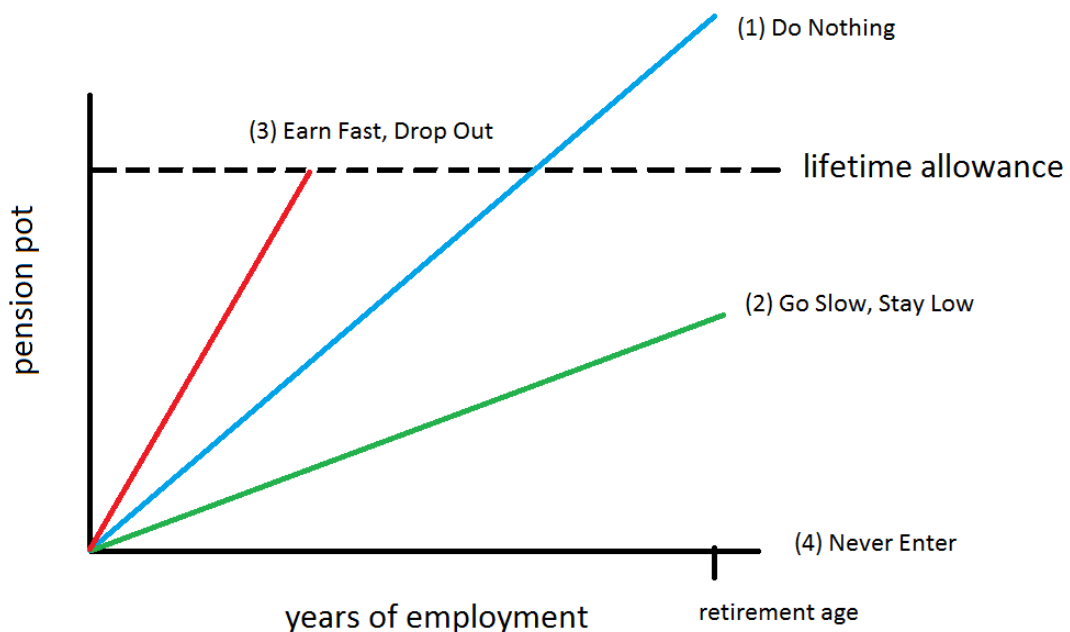
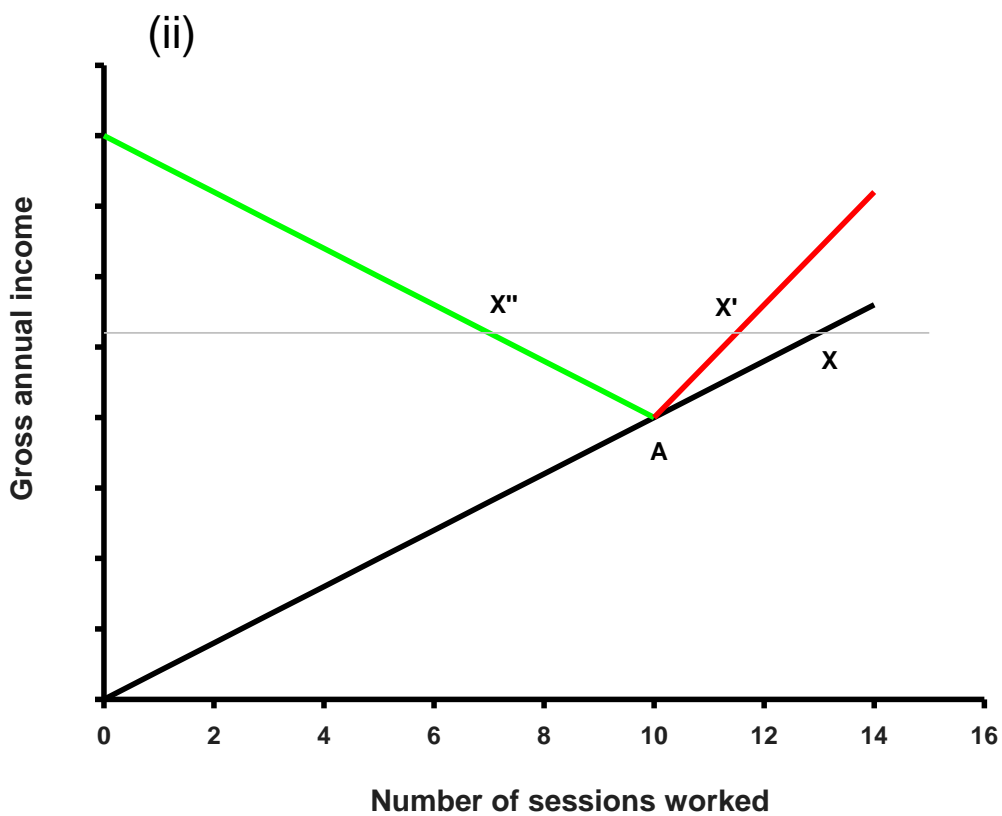
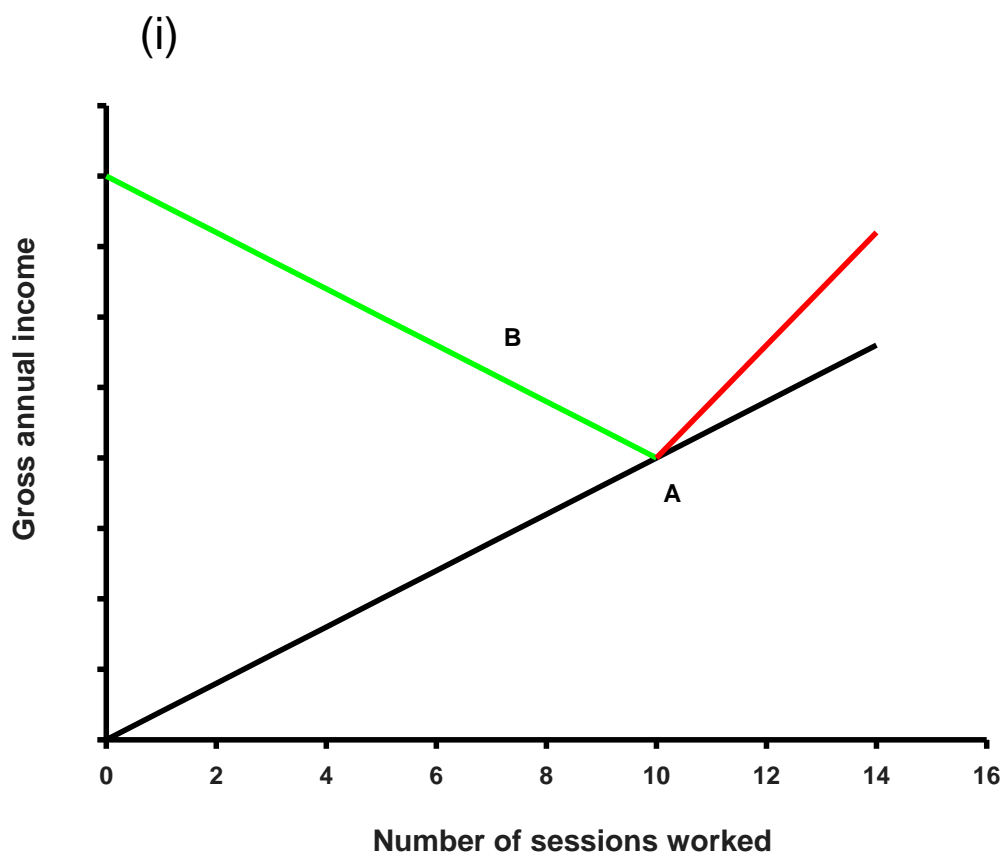


Figure 2. Panel (i): Graphical representation of how gross annual income varies with number of sessions worked within the NHS at standard rates (black line). Exact values are not relevant for illustration, but rather the relative slopes of the lines. Nevertheless, we might assume that each NHS session accrues ~£8,000 per session (ie, the black line reaches ~£80,000 for 10 sessions at point A). Point A represents a ‘full time’ income at 10 sessions. The red line represents undertaking 10 NHS sessions and over and above these undertaking additional sessions at premium rates, such as in non-NHS work. The slope of the red line is greater than the black as it is assumed that the sessional (hourly) rates of income are greater (the relative slopes of the red and black lines reflect the ratio of these rates). The green line represents undertaking a mix of standard NHS sessions (x-axis) with the balance made up of premium rate or non-NHS sessions (eg, point B represents 7 standard NHS and 3 premium rate sessions). Panel (ii): the same as Panel A, but here the horizontal grey line is the income that is ~30% higher than point A (see text for explanation). This income can be attained by strategies that yield either point X (~13 NHS sessions) or point X’ (10 NHS sessions plus ~1.5 non-NHS sessions), or point X’’ (~7 NHS sessions plus ~3 non-NHS sessions).



Appendix 1 (online)

These bullet points relate to superscript numbers (*) in text, to provide some detailed information or caveats to the points made:

*¹ Elizabeth Warren sits on the US Senate committee on pensions and, at time of writing, is tipped to be 2016 Democratic candidate for Vice-President (see ref [2]).

*² ‘contributory’ schemes. Some very rare schemes do exist where the employee needs to make no contribution (‘non-contributory’).

*³ or, technically, the highest salary within 3 years of retirement.

*⁴ Moreover a scheme known as ‘added years’ was also available to maximise pension (but this scheme was withdrawn in 2008). Because the age at which one could retire and take the pension was 60 and because doctors only qualified aged ~23, they could only accrue ~37 years of service. Thus, to enable them to reach the maximum accruable service of 40 years as allowed by the scheme by pension age, the difference in years could be bought by additional contributions (which were also tax deductible; another example of government support for pensions).

*⁵ the changes were the reason for the short-lived British Medical Association’s industrial action in 2012

*⁶ from a previous high of 10.9% of salary; it will now be 14.5% (and is the highest rate of any public sector employee). This is clearly detrimental.

*⁷ 67 years for some; ie, to align the NHS pension retirement age with the state pension age. This will be phased in, but means that, for each year of ‘early’ retirement (ie, before 68), there is ~5% ‘actuarial reduction’ in the pension benefits.

*⁸ As they would theoretically gain a much higher pension than before There are complexities that we will not detail, that arise from many if not most current employees being partly in the NHS 1995 Scheme (when they started work until now) and also in the 2015 Scheme (from now on). There was also a 2008 Scheme to which some members belong.

*⁹ When first introduced in 2006, annual allowance limits were set at £215,000, increased to £255,000 by 2012. These high limits were not relevant to the majority of employees, but then these were reduced to £50,000 in 2013.

*¹⁰ ie, 60 for the NHS 1995 Scheme or 67/68 for the NHS 2015 Scheme. If they access their pension any earlier, they will suffer the actuarial reductions, as discussed above.

*¹¹ The USS (Universities Superannuation Scheme), which has different regulations

*¹² because almost all workforce calculations are based around consultant posts. The analysis applies to any post(s) with access to the NHS pension scheme.

Appendix 2 (online)

Bibliography

A reference list is provided to substantiate specific points in the text. However, the general description of pension and taxation rules is better served by a bibliography of websites, from where further detailed information can be drawn:

<http://www.nhsbsa.nhs.uk/Pensions.aspx>

<https://www.gov.uk/government/collections/nhs-pensions>

<http://www.nhsemployers.org/your-workforce/pay-and-reward/pensions/nhs-pension-scheme>

<http://www.bma.org.uk/support-at-work/pensions>

Appendix 3 (online)

Examples of pension calculations. These are greatly simplified merely for illustration. Individuals should take professional financial advice and not base decisions on these calculations.

A. Example of pension calculation in NHS final salary scheme (1995 Scheme)

Dr A retires at age 60 with 40 years of service and a final salary of £100,000.

Her time-based contribution fraction = $40/80$

And therefore, her salary-time product = $40/80 \times 100,000 = £50,000$.

This represents her annual pension income in retirement. On top of this, she receives a tax-free lump sum of three times this annual pension = £150,000.

B. Example of pension calculation in NHS CARE scheme (2015 scheme)

In future, Dr B retires at age 68 with 40 years of service in the 2015 scheme and a final salary of £100,000. However he only attained this final salary in the last couple of years of service: his average salary over the 40 years is £60,000.

His time-based contribution fraction = $40/54$

And therefore, his salary-time product = $40/54 \times 60,000 = £44,444$.

This represents his annual pension (income) on retirement. On top of this, he receives a tax-free lump sum of three times his annual pension = £133,333.

C. How an NHS pension pot is calculated (for lifetime allowance limits)

Dr C current NHS salary is £115,000*. He has worked in the NHS for 30 years. Therefore, if he retired today (not accounting for any actuarial reductions), his pension would be:

His time-based fraction = $30/80^{**}$

And therefore his time-salary product = $30/80 \times 115,000 = £43,125$

On top which he would get a lump sum = £129,375

The pension pot is thus estimated as:

Time-salary product $\times 20^{\dagger} = £862,500$

Plus lump sum = $£862,500 + £129,375 = £991,875$

Thus, at this stage, Dr C's pension pot is very close to the lifetime limit of £1M.

Notes:

**Under 2015 scheme this figure would relate to the average salary to date, not the current salary*

***Under 2015 scheme this would be 30/54*

\dagger this the arbitrary multiplier used to calculate pension pot

D. How the annual increase in pension pot is calculated (for annual allowance limits)

Dr C (in example C above) receives, in the following year, a modest incremental pay award such that his new salary is £120,000. The steps below show how his annual allowance is calculated. Note that the calculations are very similar to C, above, except that the arbitrary multiplier is 16, not 20, and there is a factor for inflation - not included in these calculations, for simplicity (in fact, inflation is regarded as zero for the year 2016 for these purposes):

In Year 1, his pension pot for annual allowance purposes was calculated as £819,375

In Year 2, his pension pot using the same calculations is £883,500

Thus his pension has grown by £64,125

His tax free annual allowance limit depends on his adjusted income. The annual allowance limit is £40,000 (which Dr C has exceeded here by £24,125). However, Dr C has a private practice income of £20,000, plus he rents out a flat yielding an income of £20,000 and his income from investments is £3,000. Also, the employer has contributed ~£17,000 to his pension. Therefore, his adjusted income which takes all these into account is £180,000. Therefore, he has a reduced annual allowance of £25,000, which he has exceeded by £39,125. Dr C therefore faces a potential tax charge of ~£15,650 for this year on the 'growth' in his NHS pension alone, for this one year (with further broadly similar charges each year).