

THE PROGRAMME GROUP – RESULTS OF THE INDIVIDUAL BENEFIT COMPARISONS AND GLOBAL COSTINGS

At the previous meetings of the Group it has been agreed how the benefits a member would receive in USS should be compared with those in TPS.

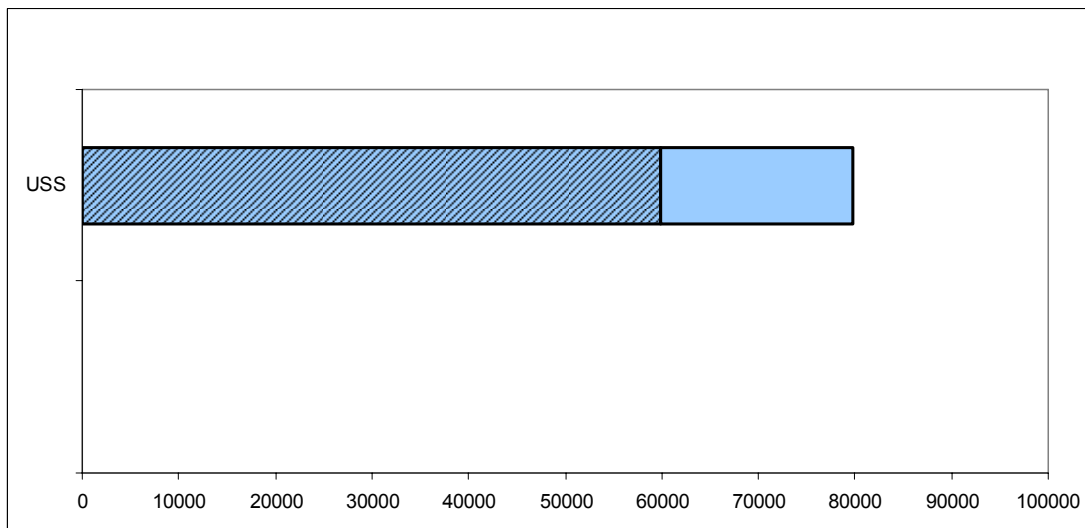
Individual benefit comparisons

A number of sample members have been agreed by the Group and provided to us together with an agreed approach and a number of assumptions to simplify the calculations themselves (I attach these assumptions as Appendix II for ease of reference).

I set out the results of these sample calculations in Appendix I. The format of the results is as follows:

- The details of the sample member provided.
- The comparison of the benefits shown in a graphical format.

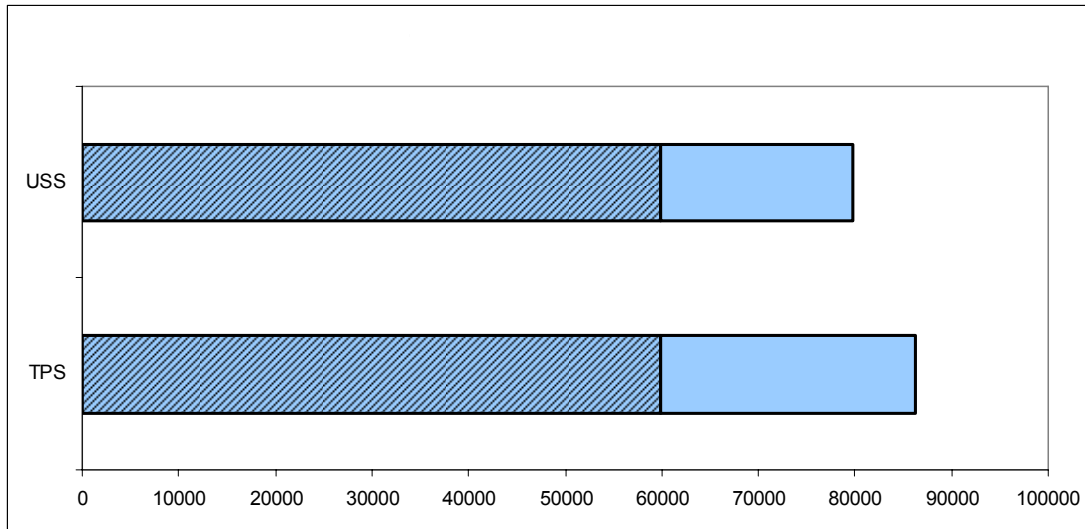
The benefits within USS comprise a pension (n/80ths) which is payable per annum **plus** a lump sum (of 3 x pension) payable as a one off payment at retirement. This can be represented for USS in the chart below.



The hashed area represents the lump sum at retirement (in this example £60,000) and the unhashed area represents the residual pension (of £20,000 per annum).

Under TPS the pension accrual is not 80ths but rather 57ths out of which a tax free lump sum at retirement can be commuted, meaning that the member can opt to draw a **lower** pension than available under the 57ths accrual formula in return for which he/she enjoys a one off lump sum payment in lieu of the pension foregone. As agreed with the Employers and Unions, for the

purposes of these comparisons, we will assume that the TPS member chooses to commute that level of lump sum which he/she would have had under the USS cash plus pension formula. This is represented for the TPS member in the lower bar in the chart below, with the corresponding benefit for the USS member as previously for comparison.



Clearly, in the above example the TPS cash taken exactly corresponds with the USS cash entitlement (the hashed areas are the same at £60,000) but the TPS residual pension (enjoyed by the member in addition to the cash taken) exceeds the USS pension of £20,000 by about £5,000 per annum.

Whilst the important point is that the cash assumed to be taken in each scheme is the same, the Programme Group also considered the case where the member takes only pension and no cash under TPS. This might be considered a feasible scenario, as the TPS commutation factor is only 12:1. For consistency, it would then be necessary to assume that the 3/80ths cash provided under USS was converted into extra pension on the current terms offered so that the comparator USS member also "takes no cash". This is, perhaps, a less realistic scenario given the higher commutation factors applicable in USS. Nevertheless, in this scenario the individual illustrations would show an increased pension to the figures shown in both USS and TPS cases **but the increase to the TPS figure would be greater than in the USS**. The diagrams, however, would still look broadly similar, although the relative positions of the coloured blocks would change slightly and more noticeably in some of the comparisons than others.

The charts at this point simply state the obvious, namely that the TPS benefit is better than the USS benefit as can be seen from the fact that the accrual formula is superior.

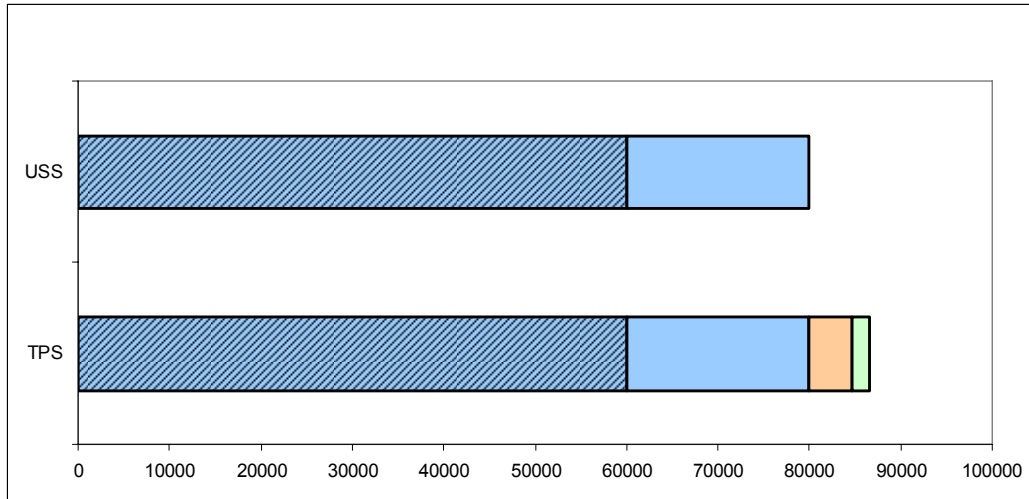
In the examples highlighted in Appendix I we have actually analysed the superiority of the TPS benefit level and broken this down between

- Differences in accrual (57ths with 12:1 commutation in TPS as against 80ths + 3/80ths cash in USS).

and

- Differences in revaluation before retirement (in line with CPI in USS but in line with CPI + 1.6% per annum under TPS).

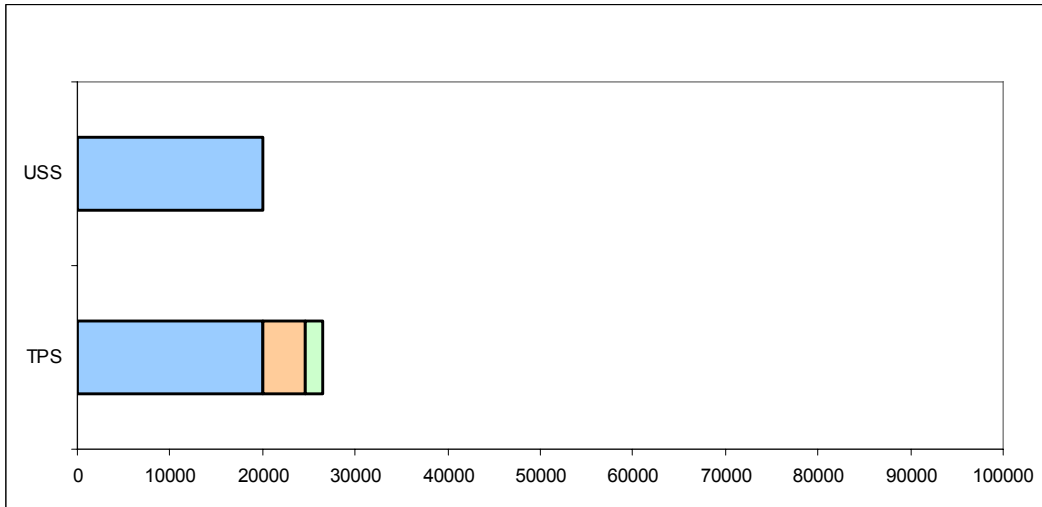
The accrual element is represented by a green slice in the TPS charts and the revaluation element by an orange slice.



To summarise, the above chart illustrates that the TPS benefit for the sample member illustrated is superior to the USS benefit. The lump sums (the hashed areas) are (by dint of the design of the comparisons) identical and can, to all intents and purposes be ignored. The unhashed parts of the bar charts illustrate the fact that the TPS benefit is higher with the excess TPS benefit over the USS benefit being broken down between the green and orange areas representing the effects of the accrual and revaluation superiority, respectively.

As the tax free lump sums represented by the hashed areas are always going to be the same in the examples, we have deleted this from the representation in the detailed member specific illustrations produced in Appendix I, so that in the Appendix I charts only the residual pension comparisons are being made.

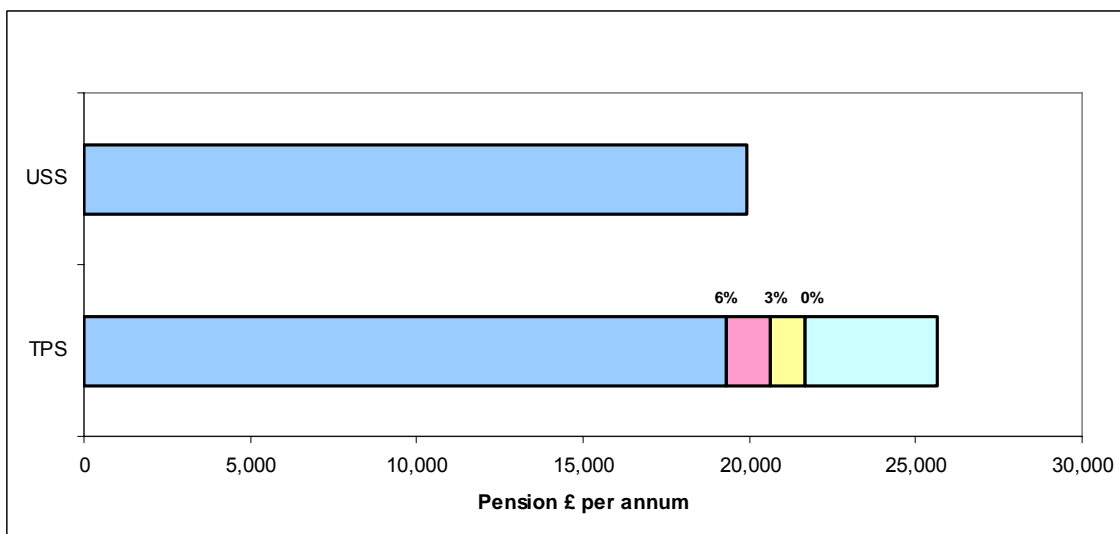
Thus in Appendix I the TPS charts for each member (as compared with the USS charts) appear as follows:-



Adjustment for contribution differences

Given that the member contributions due to the TPS are higher, we have developed the graphical representations comparing the benefits in Appendix I, further, to take account of the fact that TPS members pay a price for the higher benefits receivable. In adjusting for the extra contributions payable to the TPS we have, as agreed with the Unions and Employers, made a notional calculation as follows:-

- It is assumed that the USS comparator member accumulates the “saved” contributions to provide an additional “tax free cash sum”. We then assume that the corresponding TPS comparator takes a similar **extra** tax free lump sum by commuting more pension at 12:1. Thus, if the USS comparator member, by saving and accumulating his contributions would acquire for himself a pot at retirement of £12,000, it is assumed that this is worth £1,000 per annum of pension and the TPS comparator benefit reduced correspondingly by £1,000 per annum. This reduction in the TPS benefits to account for the lower contributions in USS is represented pictorially with the light blue, yellow and pink slices (marked 0%, 3% and 6% respectively) in the TPS comparator chart as below.



The USS benefit (pension only) is shown as a blue bar. The TPS benefit (residual pension, again, assuming USS levels of cash have been taken) is represented by the full bar (i.e. including the pink, yellow and light blue sections). Allowing for contributions saved by the USS member to be accumulated at 3% per annum, however, the comparator item from the TPS pension in respect of those contributions “saved” is the yellow and light blue segments marked by the 3% line so that at that rate of accumulation of funds a true comparison of TPS and USS residual pensions is represented by the full TPS bar **less** the shaded yellow and light blue segments. In the example above one can see by eye that the TPS benefits (after having allowed for the extra contributions assuming a 3% accumulation thereof) are **still** better than the USS benefits. However, if the USS “saved” contributions are accumulated at 6% per annum, the interest element of the value of the “saved” contributions is (approximately) twice as much and it is necessary to deduct not just the yellow and light blue but also the pink segment in order to make a fair comparison. In the example above, it can be seen by eye that if saved contributions are indeed accumulated at 6% per annum the TPS benefits are inferior to the USS benefits.

If no interest is earned on the “saved” contributions but the face amount is set aside, then the light blue segment only needs to be deducted from the TPS comparator.

If the “saved” contributions are not actually “saved” at all then, at retirement, there would be no accumulated fund built up by the USS member and the TPS versus USS comparison can be made by reference to the full TPS bar without the light blue, yellow and pink deductions. Clearly, even if the USS member does not actually “save” his contributions he would have had the benefit of the extra “spend” during his working lifetime.

Further details

- Where the same basic member details have been used in more than one example we have shown additional graphs. For example, additional examples showing a five year service break after 5 years of service have been added to the original individual calculation.
- We have made **additional** assumptions to those previously discussed and set out in Appendix II. The treatment is consistent under each scheme. The additional assumptions are:
 - The pay spine points given are pay scales at the date of joining (assumed to be 1 April 2012 for the CRB cases).
 - The pay spine given increases each year with the General Pay Growth assumption.
 - For a 5 year service break after **5 years**, we have assumed the member returns on the **same** spine point (CRB cases only).
 - Given that most sample members specified retire at 66, for the examples where SPA increases to 67 we have assumed retirement at age 66 by applying an early retirement factor based on current USS terms where applicable.
 - For FS members taking career breaks, after 5 years (or 10 years), we have assumed the member returns on the salary he/she **would have obtained** had the career break not occurred.
 - Accumulations of saved contributions to be illustrated on a zero and 6% (as well as 3%) basis.

Global costings

It is agreed that we will use the 2011 valuation data set and the 2011 technical provisions assumptions but ignore the differences in the ill-health and death-in-service pensions between the two schemes.

For the USS future Final Salary (FS) benefits, the USS Career Revalued Benefits (CRB) and the TPS CRB we have derived a factor for each which indicates the level of benefits delivered per unit member contribution.

Essentially this takes the present value of future benefits and divides this by the present value of the future member contributions.

The relevant factors on USS 2011 data and technical provisions assumptions are:

USS Final Salary The derived factor is 2.93
USS CRB The derived factor is 2.85
TPS CRB The derived factor is 2.22

The factors indicate that, on the assumptions made, the USS CRB section provides (on average) better value for money (per unit **member** contribution) than does the TPS CRB section (the latter providing higher benefits but at disproportionately higher member contribution rates). Unsurprisingly, therefore, when allowing for the continued Final Salary accruals for existing USS members the USS arrangement provides even higher USS value for money than would the TPS for 31 March 2011 active members – on average 31% better (2.93 / 2.22).

USS blended future accrual factor

Given the mixture of FS and CRB accruals under the USS a blended future accrual factor will be more appropriate when considering the value delivered per unit member contribution in the USS.

The precise blend of the USS benefits will depend on the proportion of the membership assumed to receive FS benefits to those who receive CRB type benefits. For example if the assumption was 50:50 then the combined factor would be 2.89 ($.5 \times 2.93 + .5 \times 2.85$).

Worked Examples

Colour Key to graphs



Reduction to TPS pension due to additional member contributions



Reduction to TPS pension due to additional member contributions accumulated at 3%



Reduction to TPS pension due to additional member contributions accumulated at 6%



Increase to pension as a result of change in active revaluation and different LRF allowance



Increase to pension as a result of change in accrual

CRB MEMBERS - EXAMPLE 1A

Researcher, academic and academic related staff, who join on point 30 (Ac2) and work to top of grade point 37 and are promoted to Ac3 to top of point 46.

Data

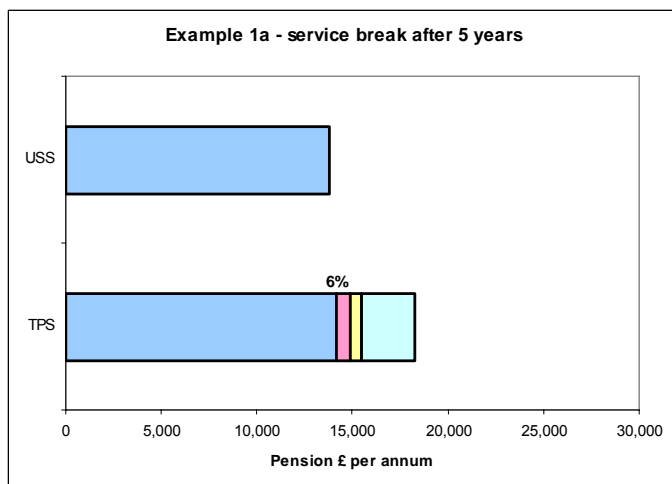
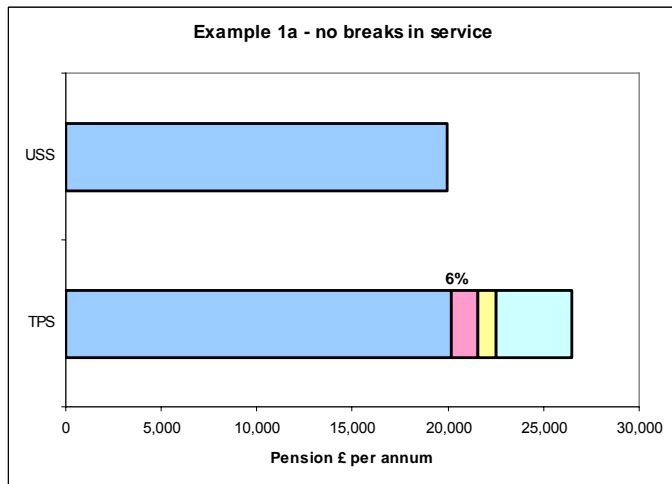
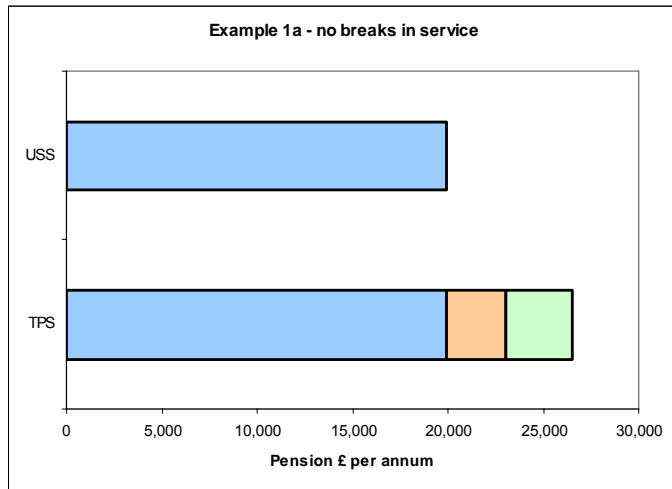
Sex M
 Service 20 years
 Age at DOJ 46
 Retirement Normal
 NRA USS 65 for service pre 2020
 66 for post 2020 service
 NRA TPS 65 for service pre 2015 service
 Member SPA for post 2015 service

Pensionable salary history:

Spine point

30	£30,122
31	£31,020
32	£31,948
33	£32,901
34	£33,884
35	£34,895
36	£35,938
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639
42	£42,883
43	£44,166
44	£45,486
45	£46,846
46	£48,246

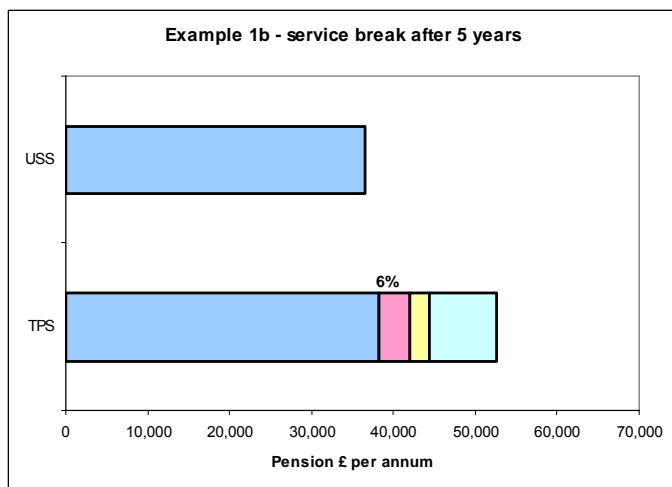
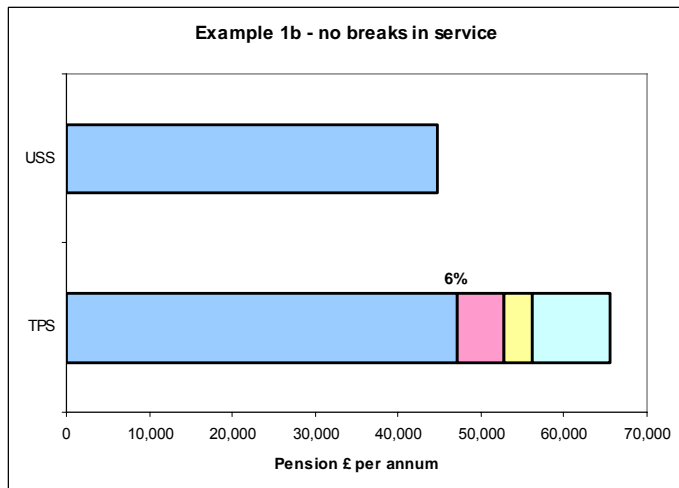
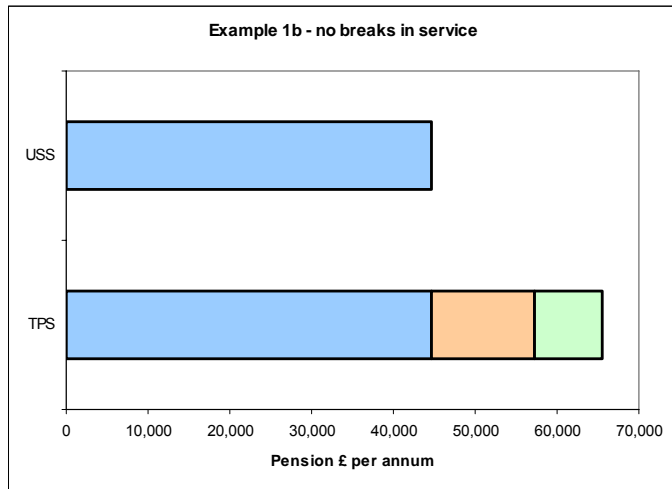
for remaining service



CRB MEMBERS - EXAMPLE 1B

Researcher, academic and academic related staff, who join on point 30 (Ac2) and work to top of grade point 37 and are promoted to Ac3 to top of point 46.

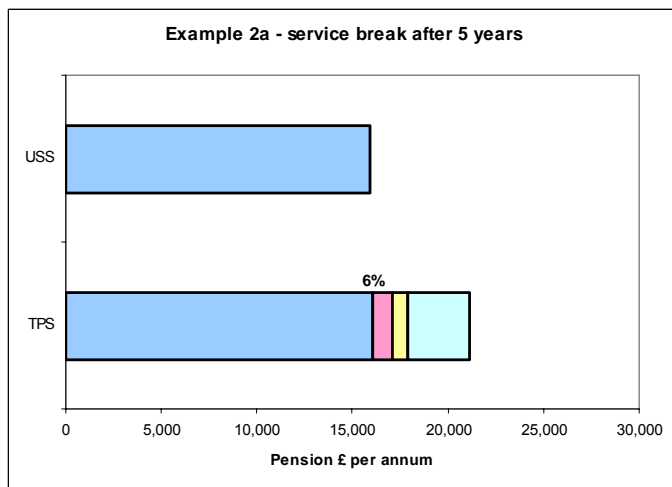
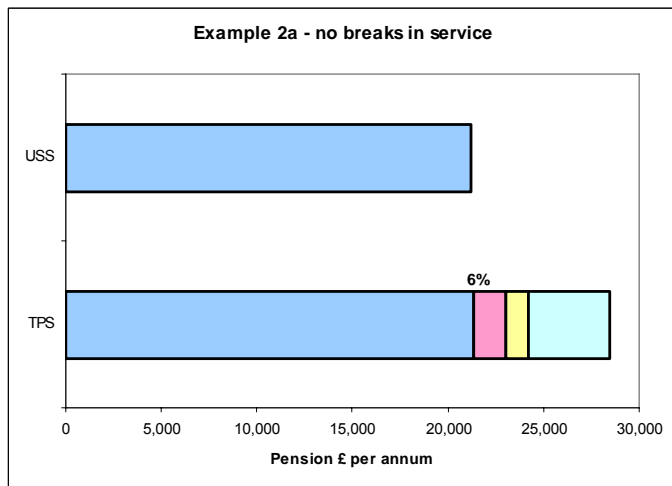
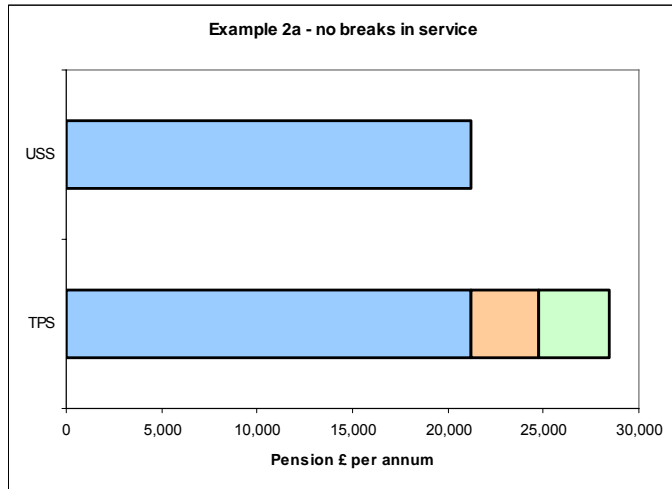
Data	
Sex	M
Service	30 years
Age at DOJ	36
Retirement	Normal
NRA USS	65 for service pre 2020 66 for post 2020 service
NRA TPS	65 for service pre 2015 service Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
30	£30,122
31	£31,020
32	£31,948
33	£32,901
34	£33,884
35	£34,895
36	£35,938
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639
42	£42,883
43	£44,166
44	£45,486
45	£46,846
46	£48,246
	for remaining service



CRB MEMBERS - EXAMPLE 2A

Academic lecturer works point 37 to 43

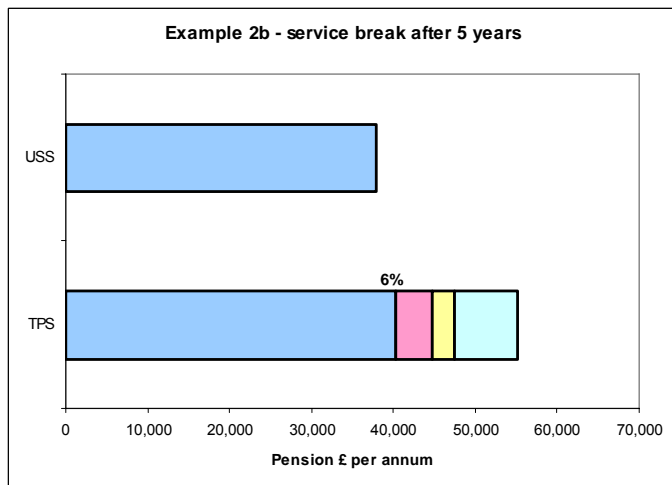
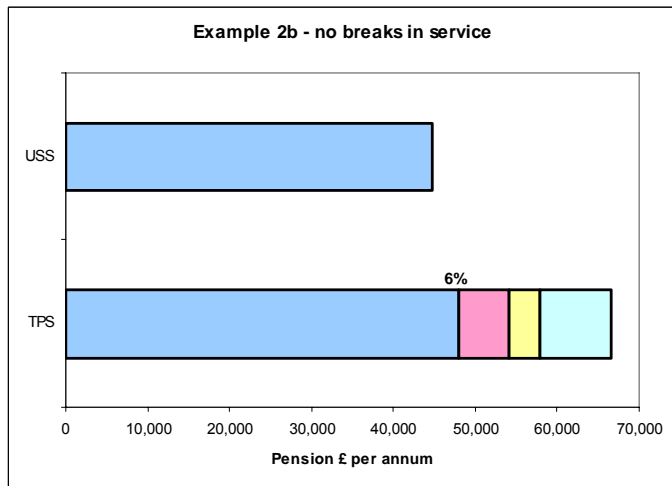
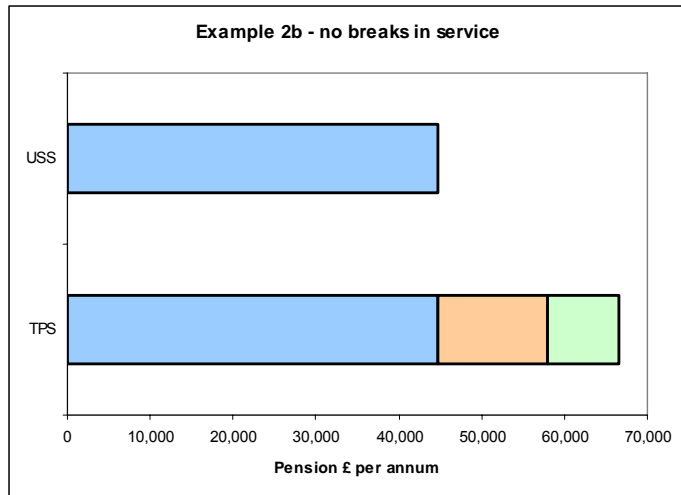
Data	
Sex	F
Service	20 years
Age at DOJ	46
Retirement	Normal
NRA USS	65 for service pre 2020
	66 for post 2020 service
NRA TPS	65 for service pre 2015
	service
	Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639
42	£42,883
43	£44,166
	for remaining service



CRB MEMBERS - EXAMPLE 2B

Academic lecturer works point 37 to 43

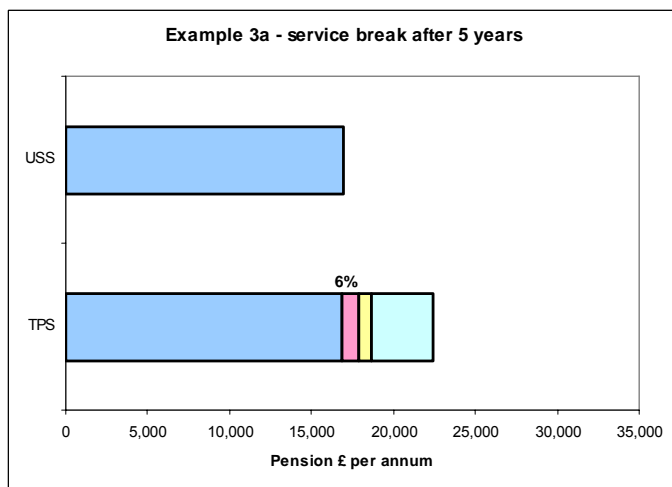
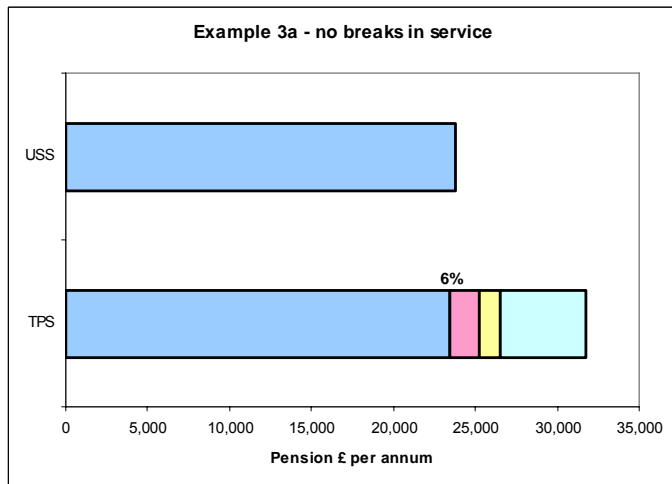
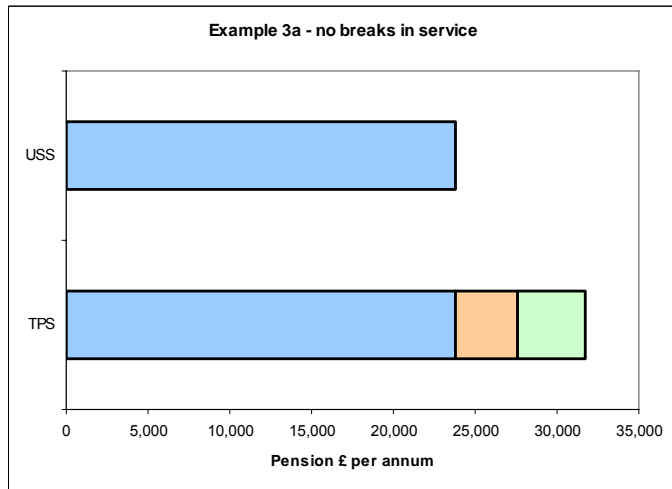
Data	
Sex	F
Service	30 years
Age at DOJ	36
Retirement	Normal
NRA USS	65 for service pre 2020 66 for post 2020 service
NRA TPS	65 for service pre 2015 service
	Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639
42	£42,883
43	£44,166
	for remaining service



CRB MEMBERS - EXAMPLE 3A

Academic works point 37 to 43 and then works to point 50

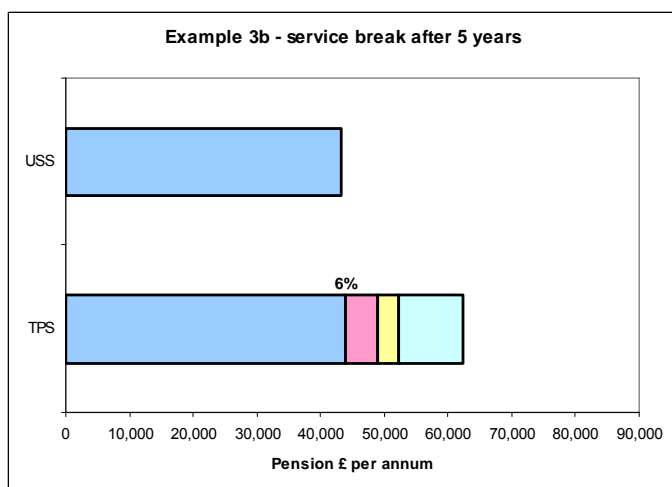
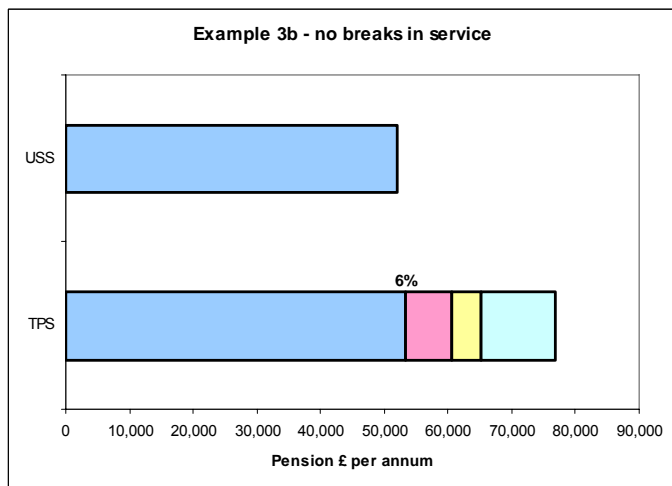
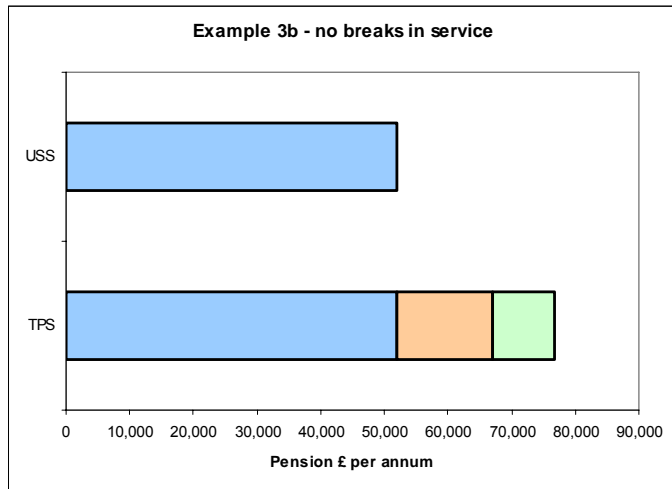
Data	
Sex	M
Service	20 years
Age at DOJ	46
Retirement	Normal
NRA USS	65 for service pre 2020 66 for post 2020 service
NRA TPS	65 for service pre 2015 service Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639
42	£42,883
43	£44,166
44	£45,486
45	£46,846
46	£48,246
47	£49,689
48	£51,175
49	£52,706
50	£54,283
	for remaining service



CRB MEMBERS - EXAMPLE 3B

Academic works point 37 to 43 and then works to point 50

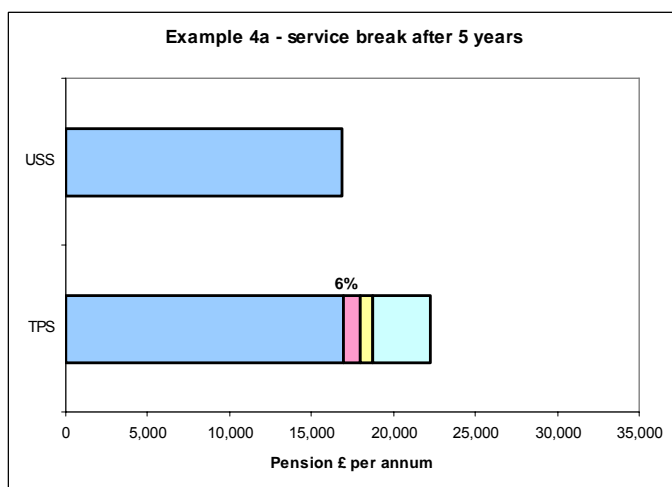
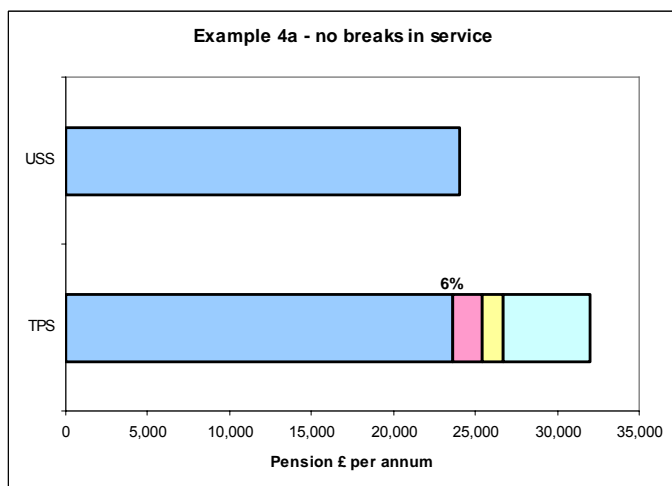
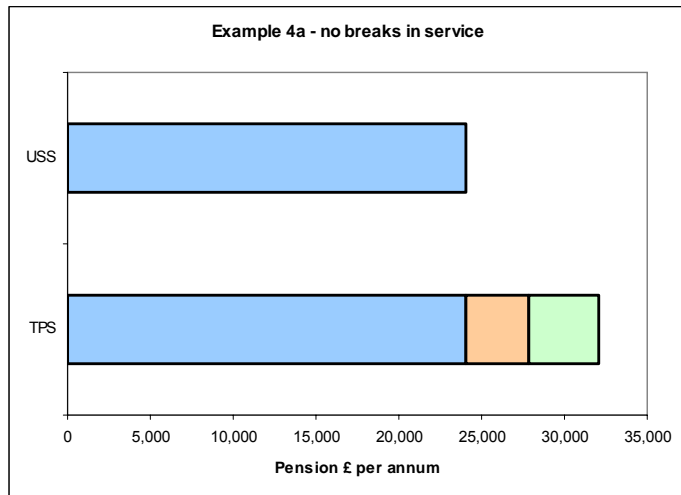
Data	
Sex	M
Service	30 years
Age at DOJ	36
Retirement	Normal
NRA USS	65 for service pre 2020 66 for post 2020 service
NRA TPS	65 for service pre 2015 service Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639
42	£42,883
43	£44,166
44	£45,486
45	£46,846
46	£48,246
47	£49,689
48	£51,175
49	£52,706
50	£54,283
	for remaining service



CRB MEMBERS - EXAMPLE 4A

Professor works from 37 to 48 and is promoted to fixed point service, remaining at band C

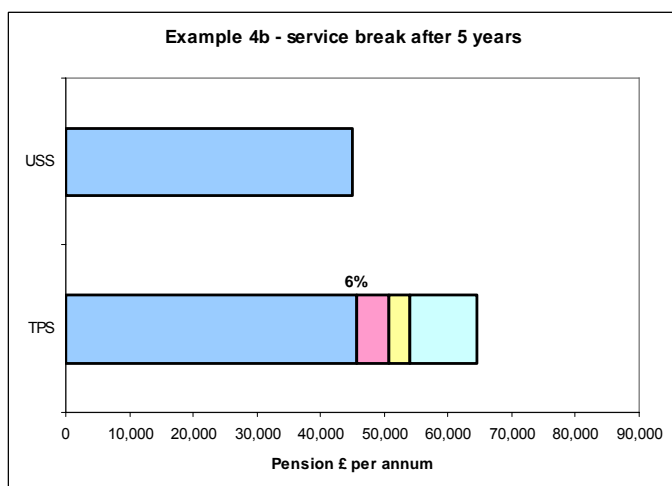
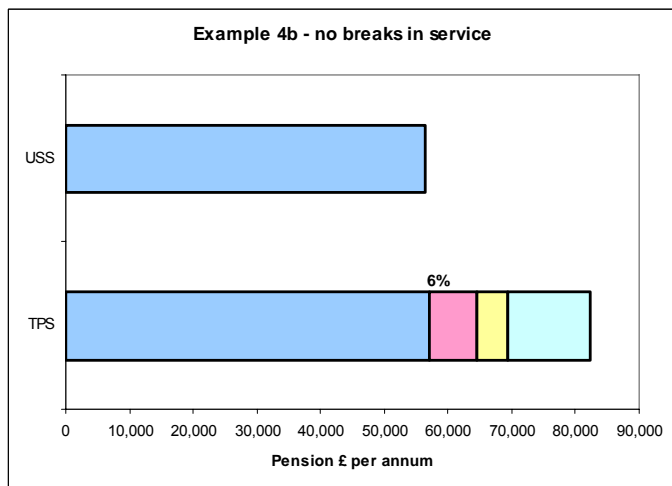
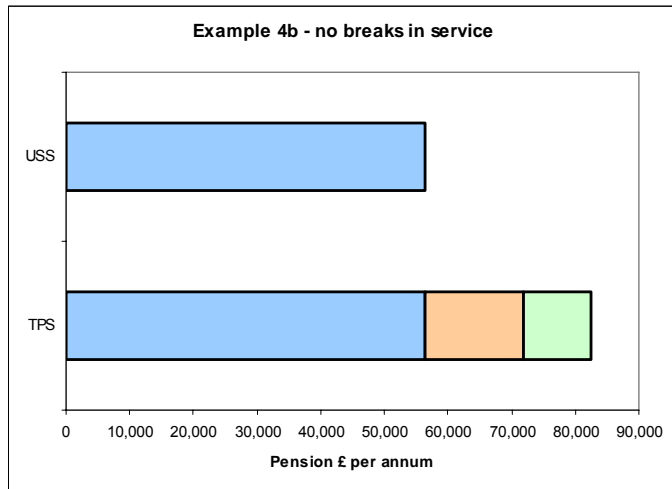
Data	
Sex	F
Service	20 years
Age at DOJ	46
Retirement	Normal
NRA USS	65 for service pre 2020
	66 for post 2020 service
NRA TPS	65 for service pre 2015 service
	Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639
42	£42,883
43	£44,166
44	£45,486
45	£46,846
46	£48,246
47	£49,689
48	£51,175
	for 5 years
Prof C lower quartile	£59,150
	for 5 years
Prof C upper quartile	£65,080
	for remaining service



CRB MEMBERS - EXAMPLE 4B

Professor works from 37 to 48 and is promoted to fixed point service, remaining at band C

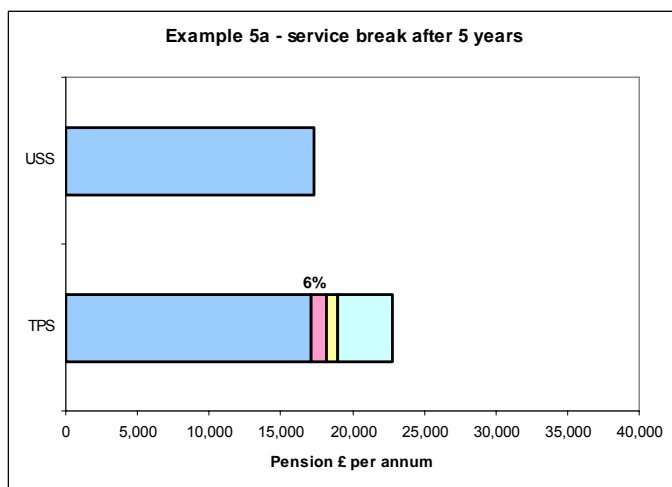
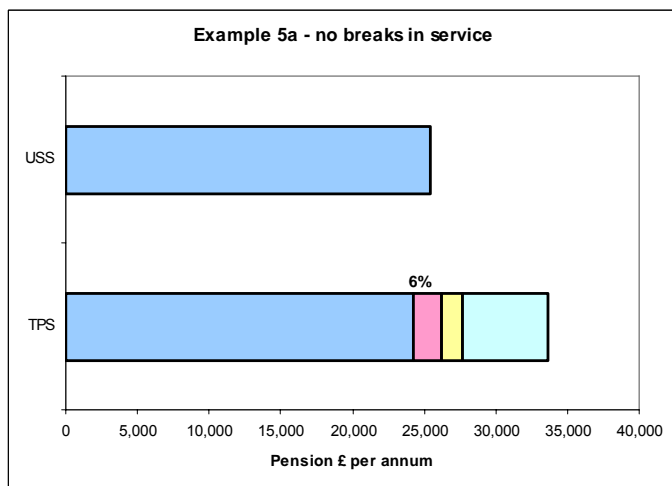
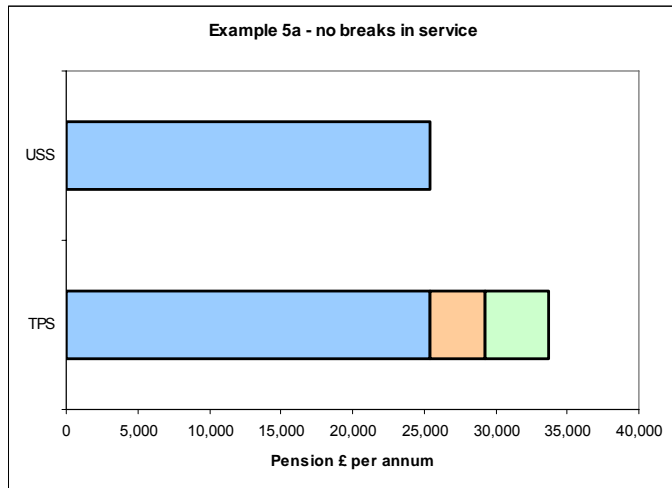
Data	
Sex	F
Service	30 years
Age at DOJ	36
Retirement	Normal
NRA USS	65 for service pre 2020
NRA TPS	66 for post 2020 service
NRA TPS	65 for service pre 2015 service
	Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639
42	£42,883
43	£44,166
44	£45,486
45	£46,846
46	£48,246
47	£49,689
48	£51,175
	for 5 years
Prof C lower quartile	£59,150
	for 5 years
Prof C upper quartile	£65,080
	for remaining service



CRB MEMBERS - EXAMPLE 5A

Professor works from 37 to 48 and is promoted to fixed point service progressing from band C to A

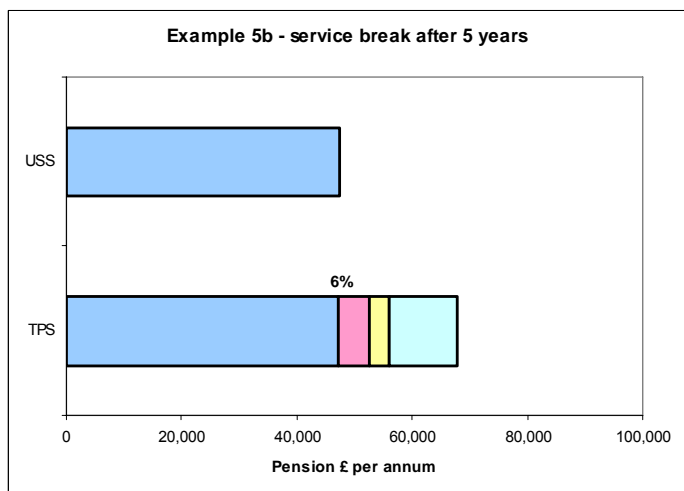
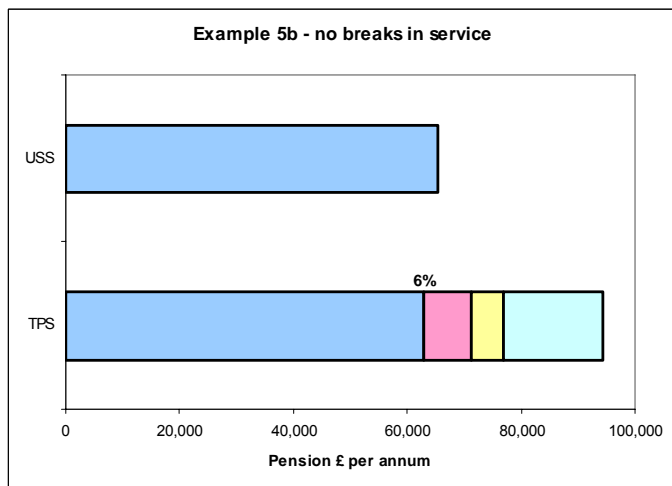
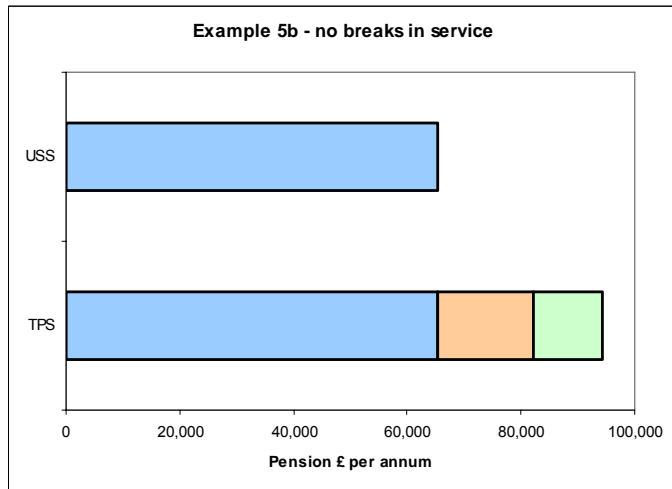
Data	
Sex	M
Service	20 years
Age at DOJ	46
Retirement	Normal
NRA USS	65 for service pre 2020
	66 for post 2020 service
NRA TPS	65 for service pre 2015 service
	Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639
42	£42,883
43	£44,166
44	£45,486
45	£46,846
46	£48,246
47	£49,689
48	£51,175
Prof C lower quartile	£59,150
	for 5 years
Prof C upper quartile	£65,080
	for 5 years
Prof B lower quartile	£68,240
	for 2 years
Prof B upper quartile	£83,740
	for 2 years
Prof A lower quartile	£83,740
	for 1 year
Prof A upper quartile	£103,740
	for remaining service



CRB MEMBERS - EXAMPLE 5B

Professor works from 37 to 48 and is promoted to fixed point service progressing from band C to A

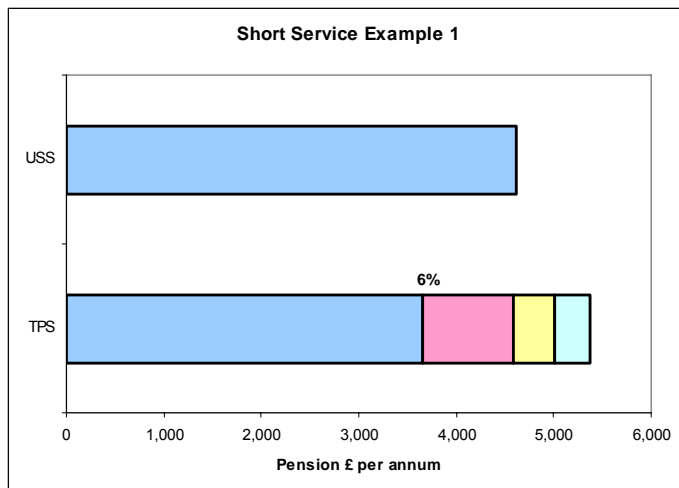
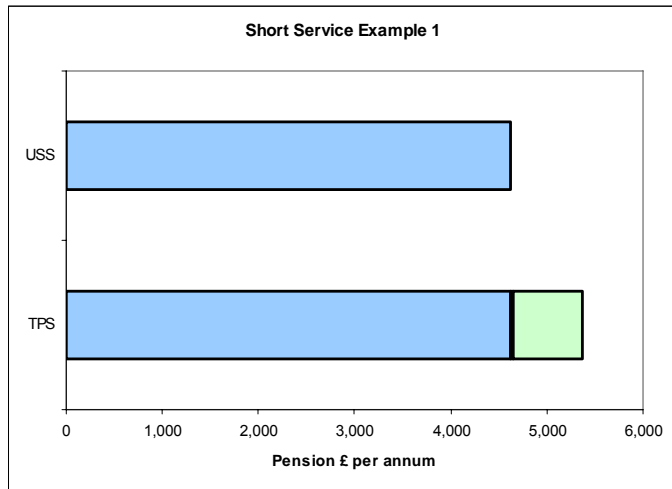
Data	
Sex	M
Service	30 years
Age at DOJ	36
Retirement	Normal
NRA USS	65 for service pre 2020
	66 for post 2020 service
NRA TPS	65 for service pre 2015 service
	Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
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40	£40,430
41	£41,639
42	£42,883
43	£44,166
44	£45,486
45	£46,846
46	£48,246
47	£49,689
48	£51,175
Prof C lower quartile	£59,150
	for 5 years
Prof C upper quartile	£65,080
	for 5 years
Prof B lower quartile	£68,240
	for 2 years
Prof B upper quartile	£83,740
	for 2 years
Prof A lower quartile	£83,740
	for 1 year
Prof A upper quartile	£103,740
	for remaining service



CRB MEMBERS – SHORT SERVICE EXAMPLE 1

Researcher, academic and academic related staff, who join on point 30 for 5 years then leaves

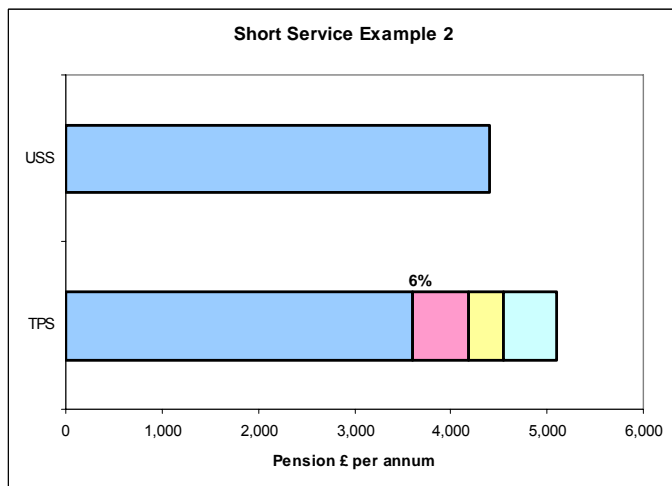
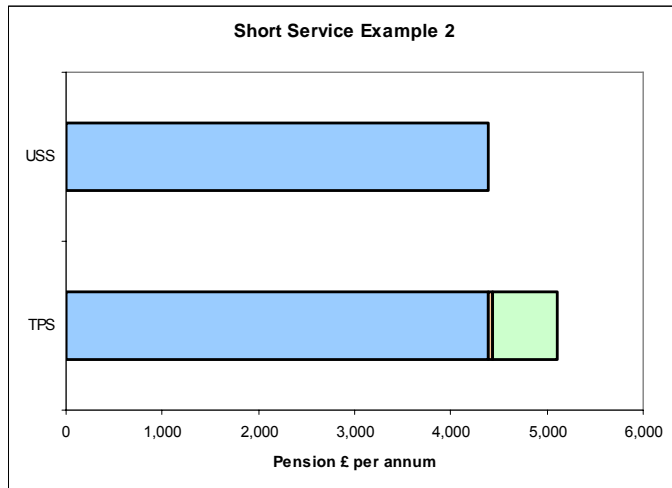
Data	
Sex	M
Service	5 years
Age at DOJ	36
Retirement	Normal
NRA USS	65 for service pre 2020
	66 for post 2020 service
NRA TPS	65 for service pre 2015 service
	Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
30	£30,122
31	£31,020
32	£31,948
33	£32,901
34	£33,884



CRB MEMBERS – SHORT SERVICE EXAMPLE 2

Academic lecturer works point 37 to 41 then leaves

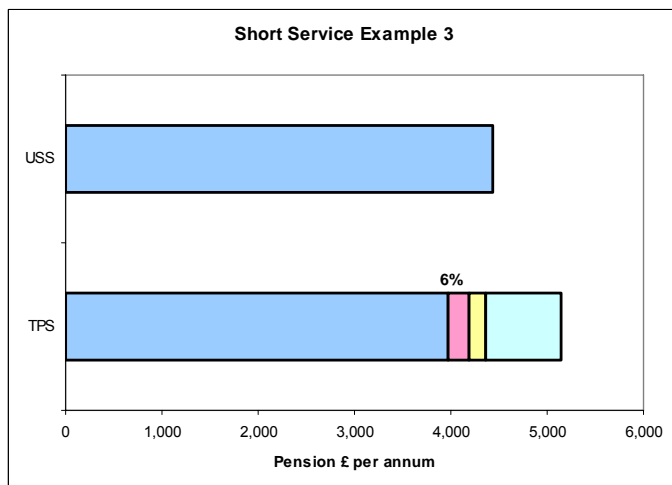
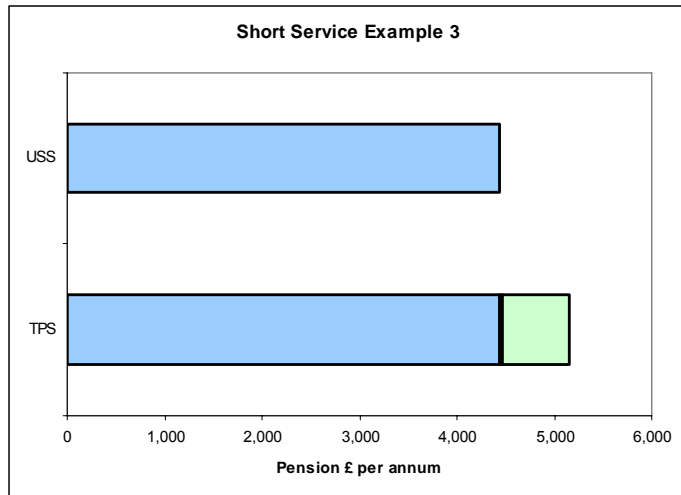
Data	
Sex	F
Service	5 years
Age at DOJ	46
Retirement	Normal
NRA USS	65 for service pre 2020 66 for post 2020 service
NRA TPS	65 for service pre 2015 service Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
37	£37,012
38	£38,140
39	£39,257
40	£40,430
41	£41,639



CRB MEMBERS – SHORT SERVICE EXAMPLE 3

Academic joins as senior lecturer for 5 years then leaves

Data	
Sex	M
Service	5 years
Age at DOJ	56
Retirement	Normal
NRA USS	65 for service pre 2020 66 for post 2020 service
NRA TPS	65 for service pre 2015 service Member SPA for post 2015 service
Pensionable salary history:	
Spine point	
46	£48,246
47	£49,689
48	£51,175
49	£52,706
50	£54,283



FINAL SALARY MEMBERS – 20 YEAR EXAMPLE 1

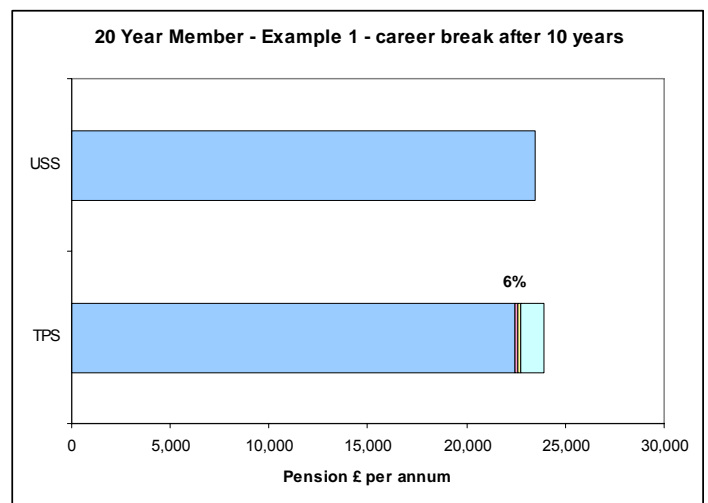
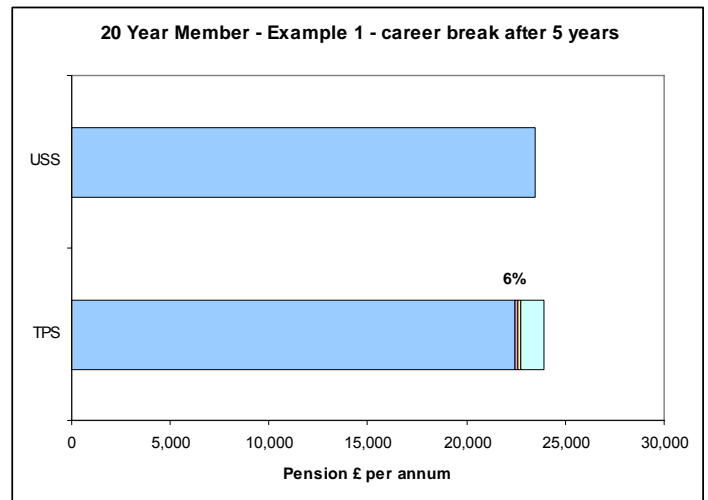
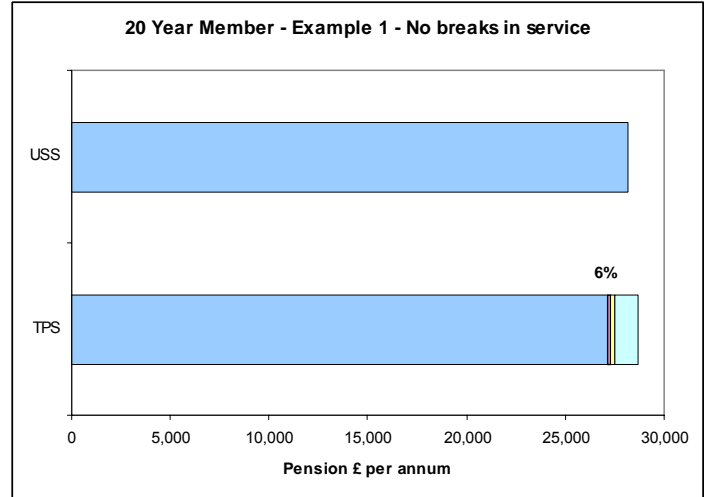
Researcher, academic and academic related staff, who join on point 30 (Ac2) and work to top of grade point 37 and are promoted to Ac3 to top of point 46.

Data

Sex	M
Service	30 years
Age at DOJ	36
Retirement	Normal
NRA USS	65 for pre 2020 service 66 for post 2020 service
NRA TPS	65 for pre 2015 service Member SPA for post 2015 service

Pensionable salary history:

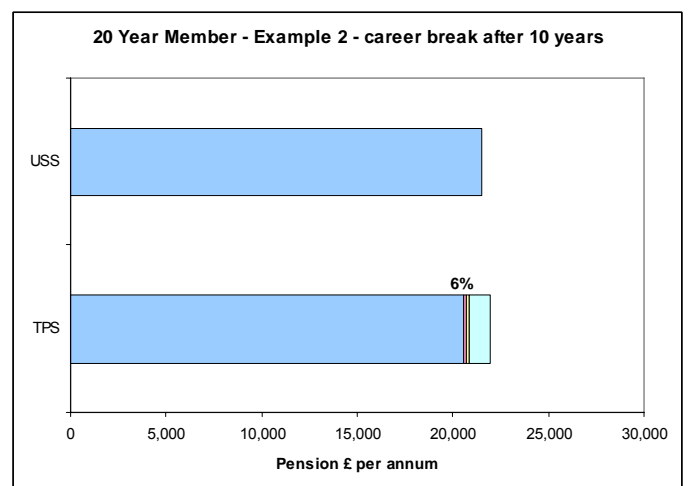
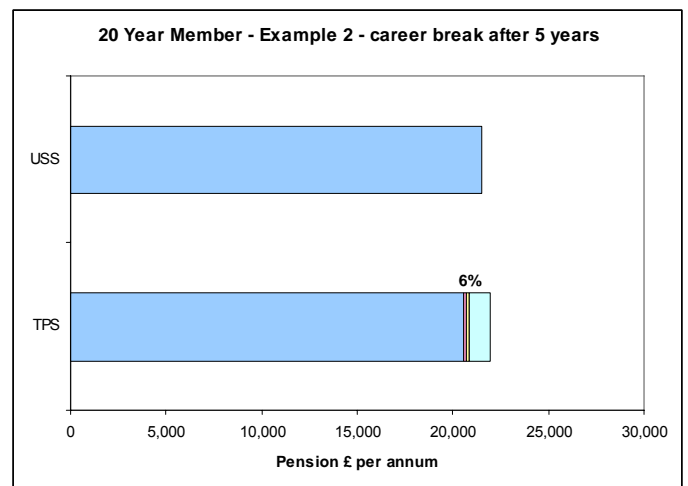
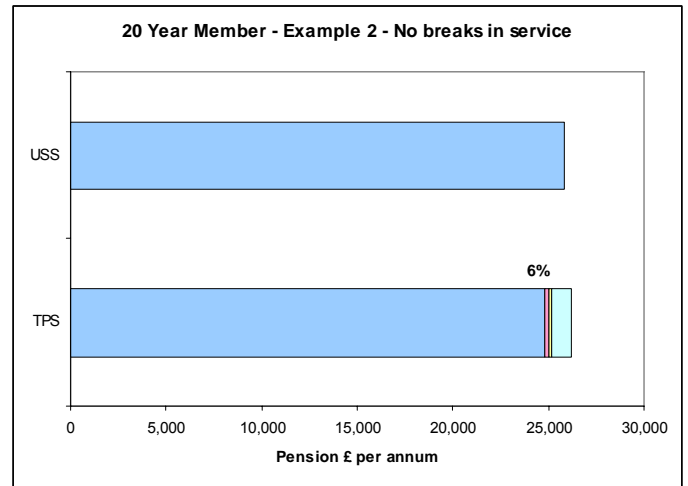
Spine point	Year	Salary
30	1991-92	£16,472
31	1992-93	£17,474
32	1993-94	£18,539
33	1994-95	£19,649
34	1995-96	£20,785
35	1996-97	£22,029
36	1997-98	£23,348
37	1998-99	£24,963
38	1999-00	£26,627
39	2000-01	£28,232
40	2001-02	£30,329
41	2002-03	£32,333
42	2003-04	£34,448
43	2004-05	£36,547
44	2005-06	£38,772
45	2006-07 (higher)	£41,544
46	2007-08 (higher)	£45,397
46	2008-09	£47,666
46	2009-10	£47,905
46	2010-11	£48,096
46	2011-12	£48,246 for remaining service



FINAL SALARY MEMBERS – 20 YEAR EXAMPLE 2

2. Academic lecturer works point 37 to 43

Data		
Sex	F	
Service	30 years	
Age at DOJ	36	
Retirement	Normal	
NRA USS	65 for pre 2020 service 66 for post 2020 service	
NRA TPS	65 for pre 2015 service Member SPA for post 2015 service	
Pensionable salary history:		
Spine point	Year	Salary
37	1991-92	£20,258
38	1992-93	£21,505
39	1993-94	£22,801
40	1994-95	£24,166
41	1995-96	£25,563
42	1996-97	£27,093
43	1997-98	£28,716
43	1998-99	£29,807
43	1999-00	£30,850
43	2000-01	£31,776
43	2001-02	£33,142
43	2002-03	£34,302
43	2003-04	£35,482
43	2004-05	£36,547
43	2005-06	£37,643
43	2006-07 (higher)	£39,160
43	2007-08 (higher)	£41,545
43	2008-09	£43,622
43	2009-10	£43,840
43	2010-11	£44,016
43	2011-12	£44,166 for remaining service



FINAL SALARY MEMBERS – 20 YEAR EXAMPLE 3

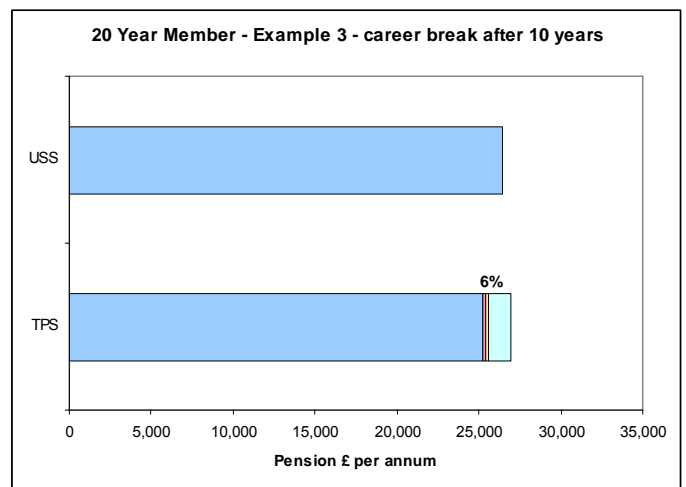
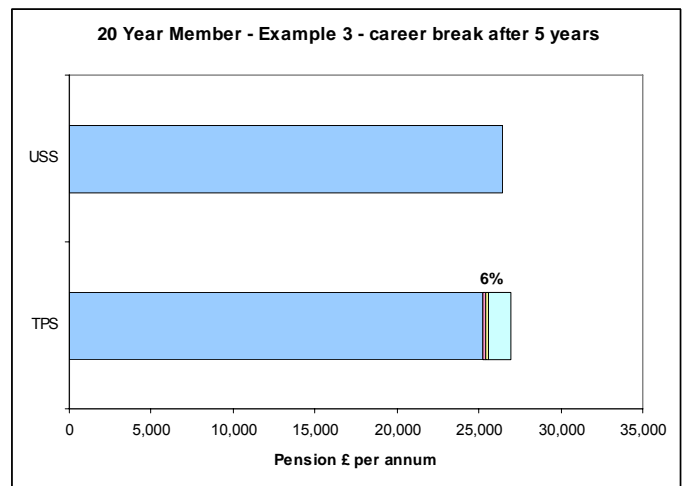
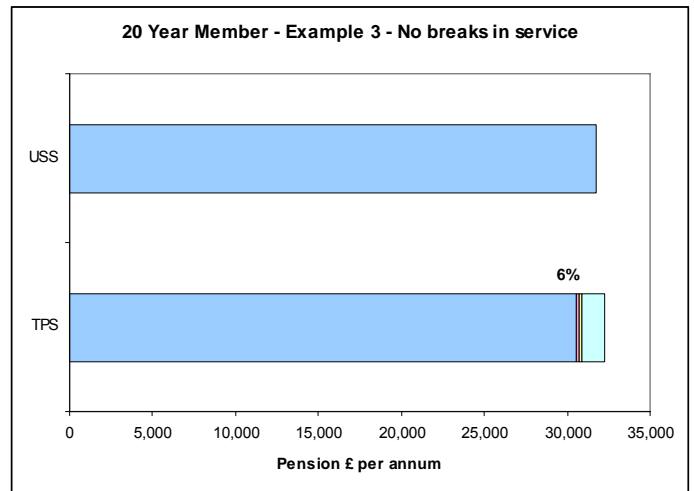
3. Academic works point 37 to 43 and then works to point 50

Data

Sex	M
Service	30 years
Age at DOJ	36
Retirement	Normal
NRA USS	65 for pre 2020 service 66 for post 2020 service
NRA TPS	65 for pre 2015 service Member SPA for post 2015 service

Pensionable salary history:

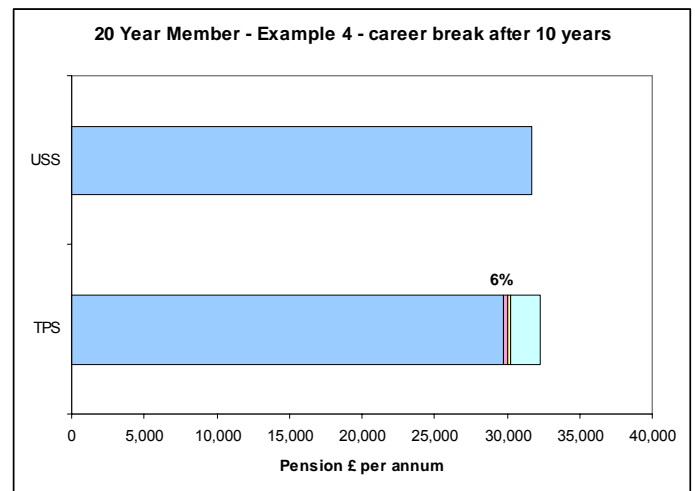
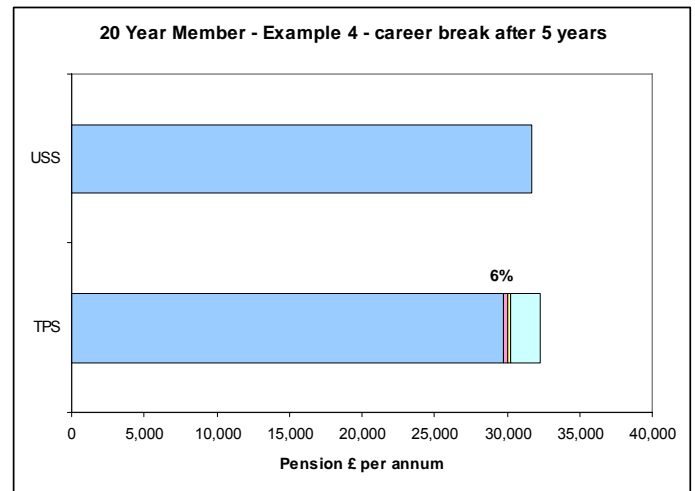
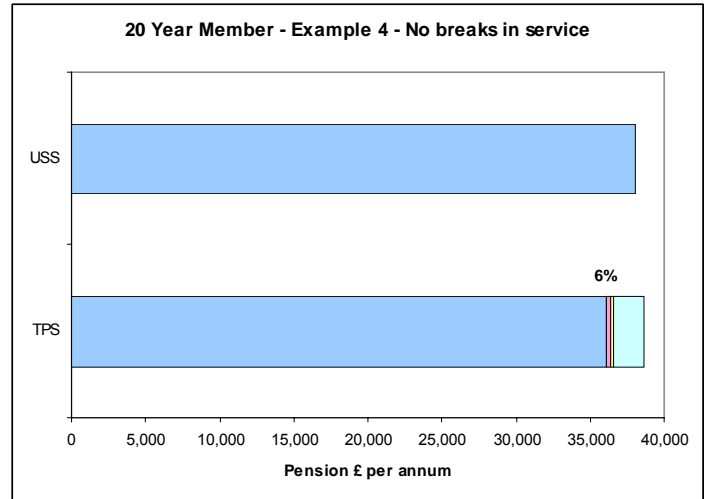
Spine point	Year	Salary
37	1991-92	£20,258
38	1992-93	£21,505
39	1993-94	£22,801
40	1994-95	£24,166
41	1995-96	£25,563
42	1996-97	£27,093
43	1997-98	£28,716
44	1998-99	£30,701
45	1999-00	£32,729
46	2000-01	£34,722
47	2001-02	£37,301
48	2002-03	£39,765
49	2003-04	£42,367
50	2004-05	£44,948
50	2005-06	£46,296
50	2006-07 (higher)	£48,162
50	2007-08 (higher)	£51,095
50	2008-09	£53,650
50	2009-10	£53,918
50	2010-11	£54,133
50	2011-12	£54,283 for remaining service



FINAL SALARY MEMBERS – 20 YEAR EXAMPLE 4

4. Professor works from 37 to 48 and is promoted to fixed point service, remaining at band C.

Data		
Sex	F	
Service	30 years	
Age at DOJ	36	
Retirement	Normal	
NRA USS	65 for pre 2020 service	
	66 for post 2020 service	
NRA TPS	65 for pre 2015 service	
	Member SPA for post 2015 service	
Pensionable salary history:		
Spine point	Year	Salary
37	1991-92	£20,258
38	1992-93	£21,505
39	1993-94	£22,801
40	1994-95	£24,166
41	1995-96	£25,563
42	1996-97	£27,093
43	1997-98	£28,716
44	1998-99	£30,701
45	1999-00	£32,729
46	2000-01	£34,722
47	2001-02	£37,301
48	2002-03	£39,765
48	2003-04	£41,133
48	2004-05	£42,367
48	2005-06	£43,638
48	2006-07 (higher)	£45,397
Prof C lower quartile	2007-08	£58,600
Prof C upper quartile	2011-12	£65,080
		for remaining service



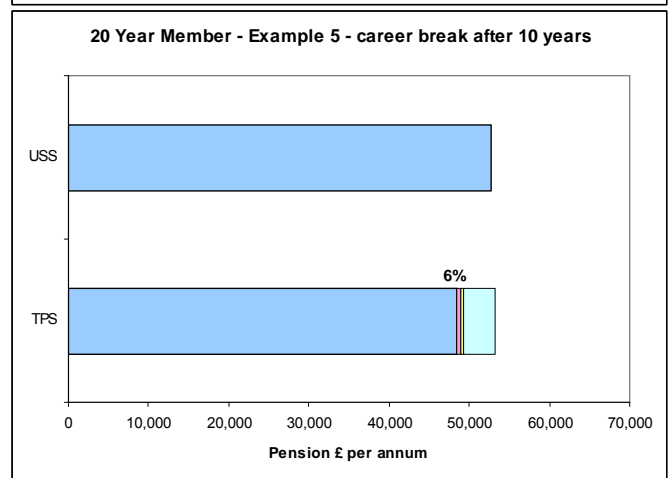
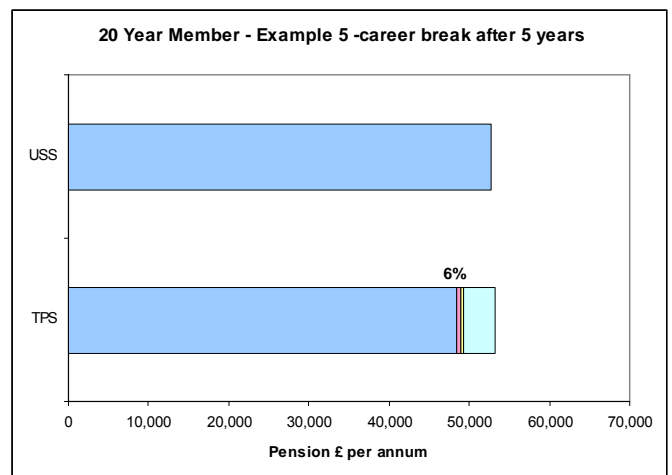
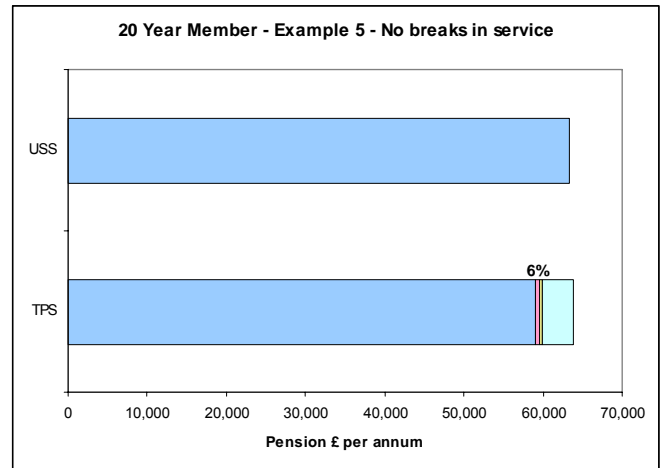
FINAL SALARY MEMBERS – 20 YEAR EXAMPLE 5

5. Professor works from 37 to 48 and is promoted to fixed point service progressing from band C to A.

Data	
Sex	M
Service	30 years
Age at DOJ	36
Retirement	Normal
NRA USS	65 for pre 2020 service
	66 for post 2020 service
NRA TPS	65 for pre 2015 service
	Member SPA for post 2015 service

Pensionable salary history:

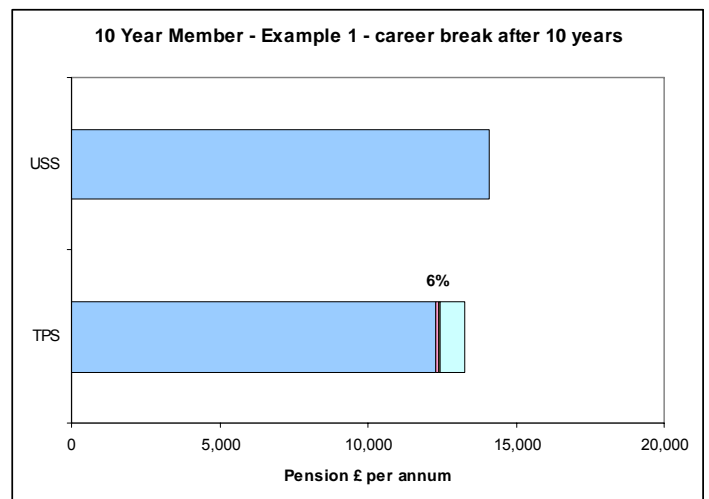
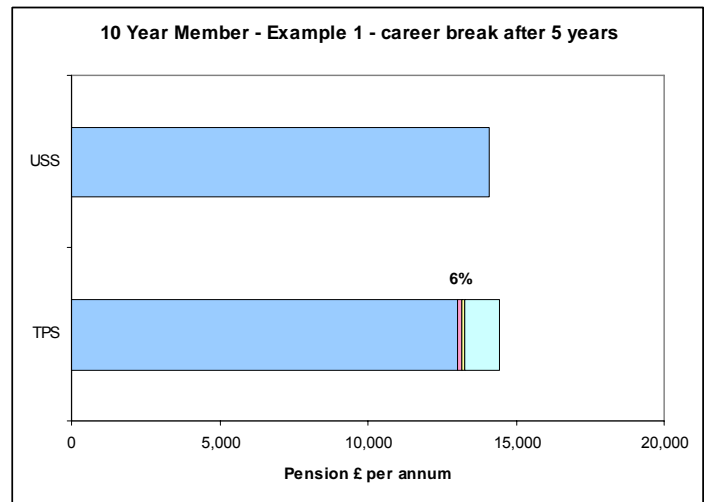
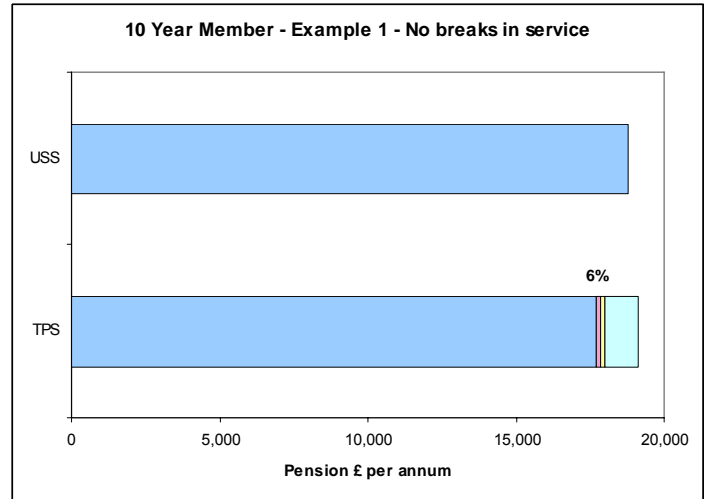
Spine point	Year	Salary
37	1991-92	£20,258
38	1992-93	£21,505
39	1993-94	£22,801
40	1994-95	£24,166
41	1995-96	£25,563
42	1996-97	£27,093
43	1997-98	£28,716
44	1998-99	£30,701
45	1999-00	£32,729
46	2000-01	£34,722
47	2001-02	£37,301
48	2002-03	£39,765
Prof C lower quartile	2003-04	£52,680
	2004-05	£54,260
	2005-06	£55,990
	2006-07	£58,600
Prof C upper quartile	2007-08	£60,800
	2008-09	£65,980
	2009-10	£65,980
	2010-11	£65,980
Prof B lower quartile	2010-11	£68,240 for 2 years
		£83,740 for 2 years
Prof B upper quartile	2010-11	years
Prof A lower quartile	2010-11	£83,740 for 1 year
Prof A upper quartile	2010-11	£103,740 for remaining service



FINAL SALARY MEMBERS – 10 YEAR EXAMPLE 1

1. Researcher, academic and academic related staff, who join on point 30 (Ac2) and work to top of grade point 37 and are promoted to Ac3 to top of point 46.

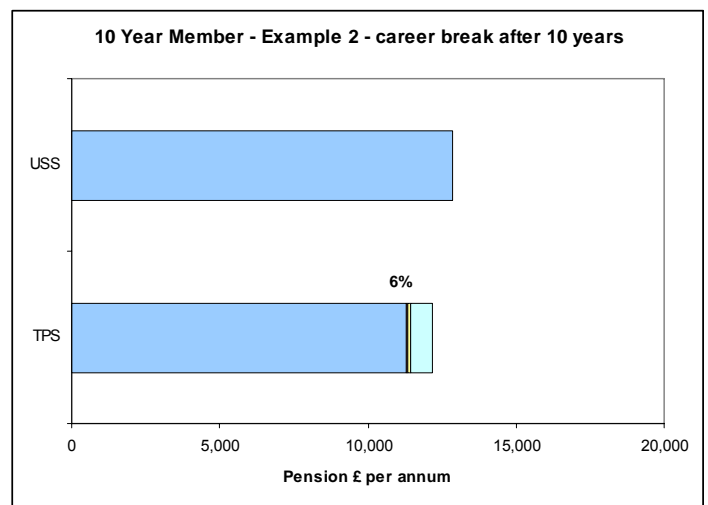
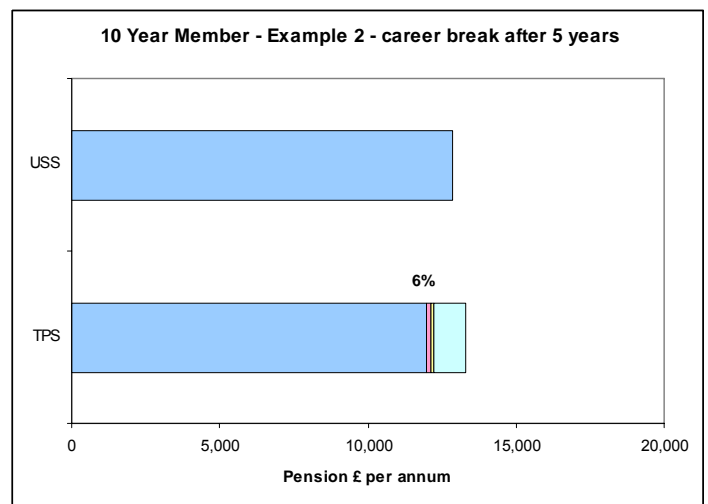
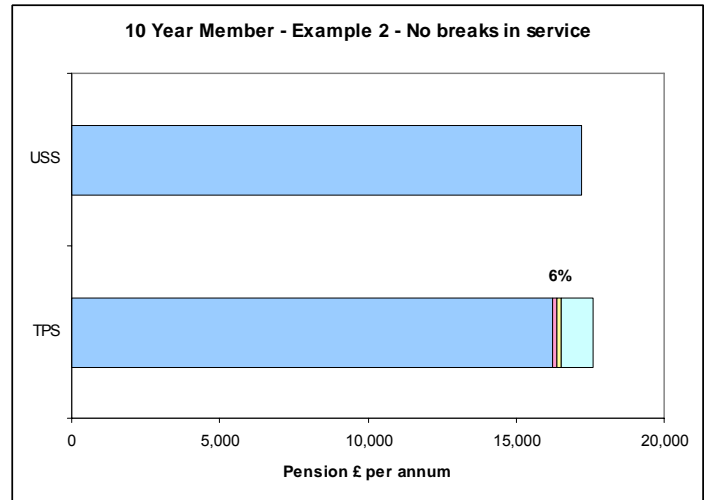
Data		
Sex	F	
Service	20 years	
Age at DOJ	46	
Retirement	Normal	
NRA USS	65 for pre 2020 service 66 for post 2020 service	
NRA TPS	65 for pre 2015 service Member SPA for post 2015 service	
Pensionable salary history:		
Spine point	Year	Salary
30	2001-02	£22,568
31	2002-03	£24,058
32	2003-04	£25,633
33	2004-05	£27,193
34	2005-06	£28,850
35	2006-07 (higher)	£30,913
36	2007-08 (higher)	£33,780
37	2008-09	£36,532
38	2009-10	£37,839
39	2010-11	£39,107
40	2011-12	£40,430
41	2011-12	£41,639
42	2011-12	£42,883
43	2011-12	£44,166
44	2011-12	£45,486
45	2011-12	£46,846
46	2011-12	£48,246 for remaining service



FINAL SALARY MEMBERS – 10 YEAR EXAMPLE 2

2. Academic lecturer works point 37 to 43

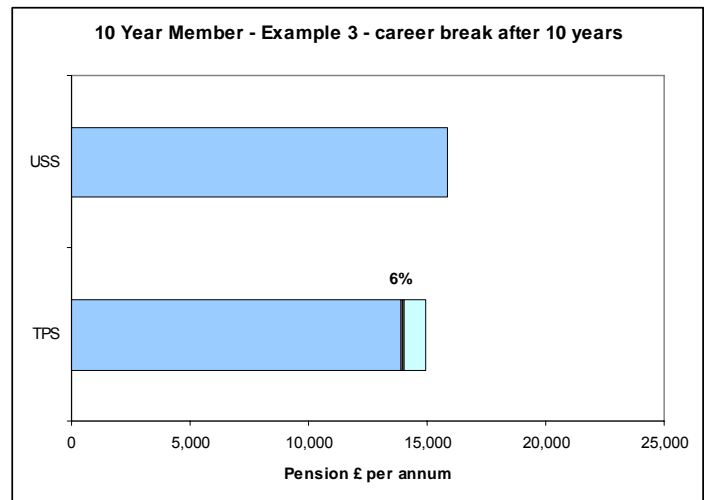
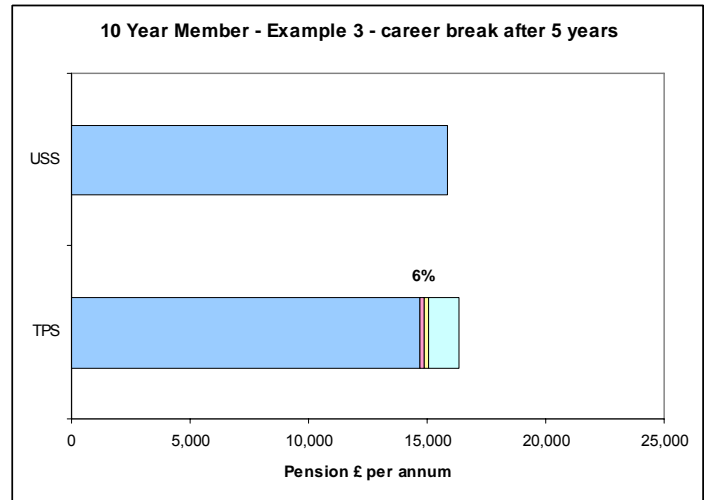
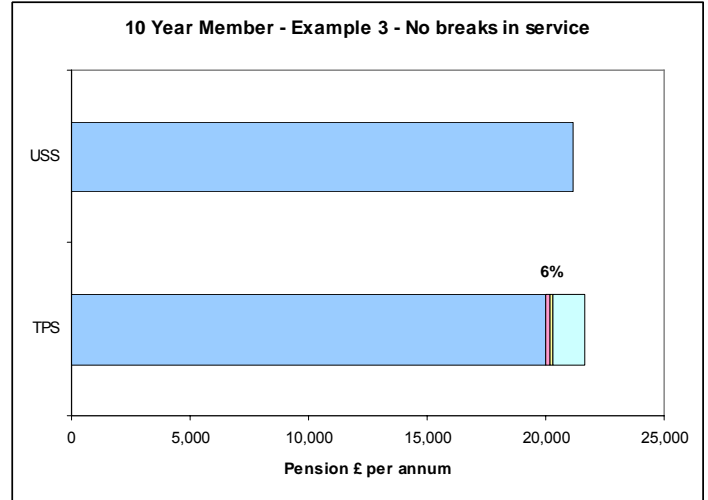
Data		
Sex	M	
Service	20 years	
Age at DOJ	46	
Retirement	Normal	
NRA USS	65 for pre 2020 service	
	66 for post 2020 service	
NRA TPS	65 for pre 2015 service	
	Member SPA for post 2015 service	
Pensionable salary history:		
Spine point	Year	Salary
37	2001-02	£27,756
38	2002-03	£29,606
39	2003-04	£31,525
40	2004-05	£33,445
41	2005-06	£35,482
42	2006-07 (higher)	£38,019
43	2007-08 (higher)	£41,545
43	2008-09	£43,622
43	2009-10	£43,840
43	2010-11	£44,016
43	2011-12	£44,166 for remaining service



FINAL SALARY MEMBERS – 10 YEAR EXAMPLE 3

3. Academic works point 37 to 43 and then works to point 50

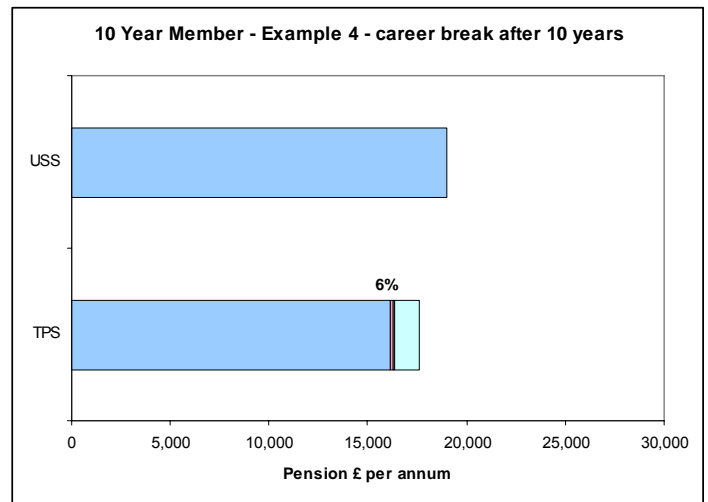
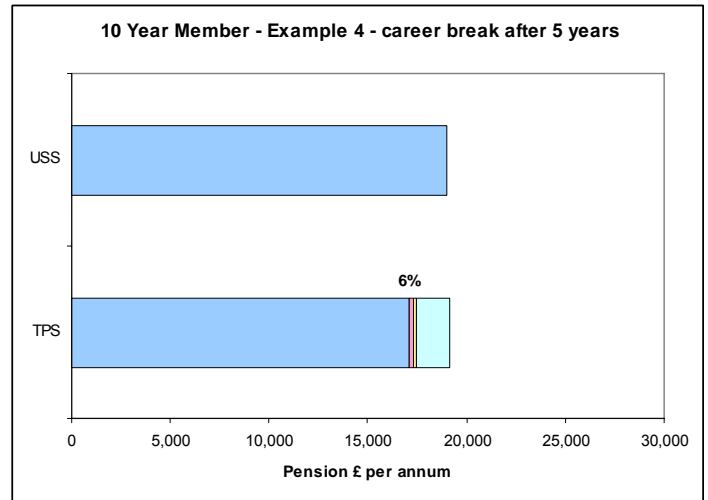
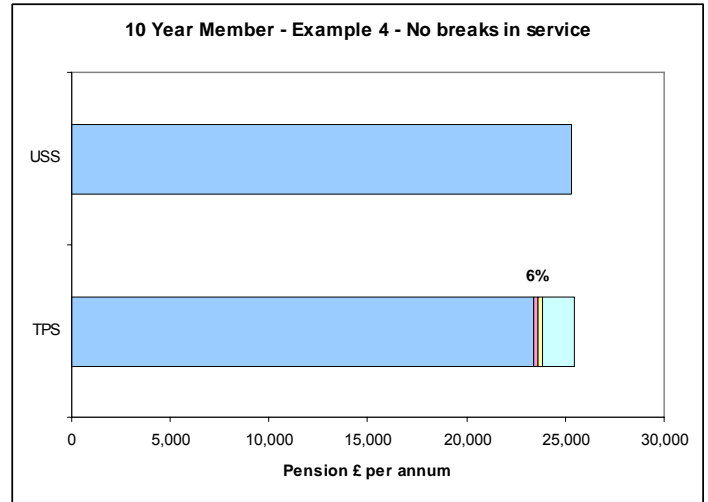
Data		
Sex	M	
Service	20 years	
Age at DOJ	46	
Retirement	Normal	
NRA USS	65 for pre 2020 service	
	66 for post 2020 service	
NRA TPS	65 for pre 2015 service	
	Member SPA for post 2015 service	
Pensionable salary history:		
Spine point	Year	Salary
37	2001-02	£27,756
38	2002-03	£29,606
39	2003-04	£31,525
40	2004-05	£33,445
41	2005-06	£35,482
42	2006-07 (higher)	£38,019
43	2007-08 (higher)	£41,545
44	2008-09	£44,930
45	2009-10	£46,510
46	2010-11	£48,096
47	2011-12	£49,689
48	2011-12	£51,175
49	2011-12	£52,706
50	2011-12	£54,283 for remaining service



FINAL SALARY MEMBERS – 10 YEAR EXAMPLE 4

4. Professor works from 37 to 48 and is promoted to fixed point service, remaining at band C.

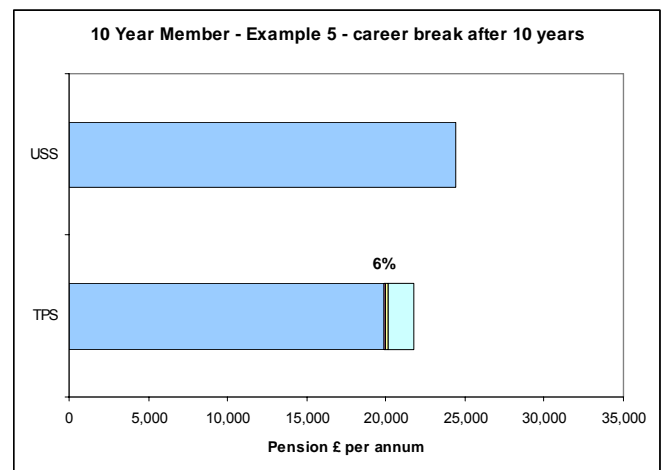
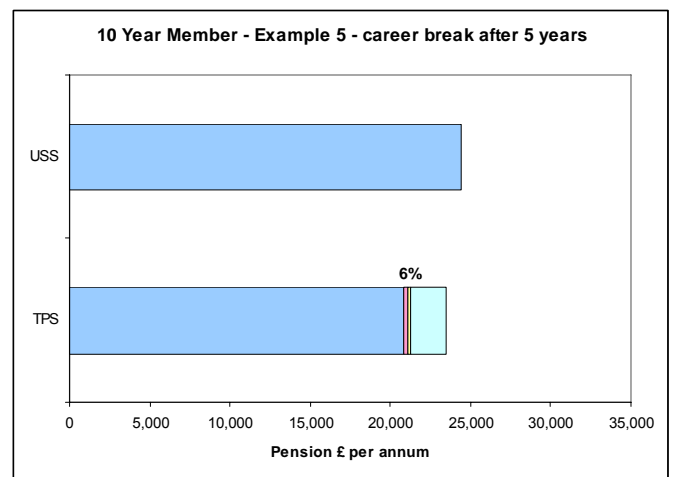
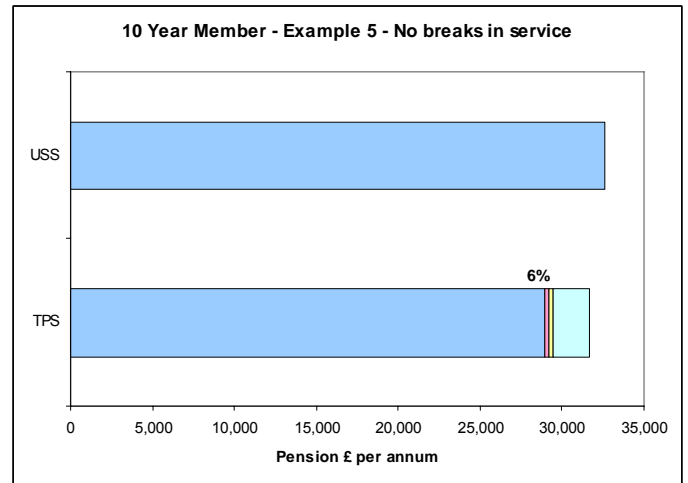
Data		
Sex	M	
Service	20 years	
Age at DOJ	46	
Retirement	Normal	
NRA USS	65 for pre 2020 service 66 for post 2020 service	
NRA TPS	65 for pre 2015 service Member SPA for post 2015 service	
Pensionable salary history:		
Spine point	Year	Salary
37	2001-02	£27,756
38	2002-03	£29,606
39	2003-04	£31,525
40	2004-05	£33,445
41	2005-06	£35,482
42	2006-07 (higher)	£38,019
43	2007-08 (higher)	£41,545
44	2008-09	£44,930
45	2009-10	£46,510
46	2010-11	£48,096
47	2011-12	£49,689
		£51,175
48	2011-12	for 3 years
Prof C lower quartile	£59,150 for 3 years	
Prof C upper quartile	£65,080 for remainder of service	



FINAL SALARY MEMBERS – 10 YEAR EXAMPLE 5

5. Professor works from 37 to 48 and is promoted to fixed point service progressing from band C to A.

Data		
Sex	M	
Service	20 years	
Age at DOJ	46	
Retirement	Normal	
NRA USS	65 for pre 2020 service 66 for post 2020 service	
NRA TPS	65 for pre 2015 service Member SPA for post 2015 service	
Pensionable salary history:		
Spine point	Year	Salary
37	2001-02	£27,756
38	2002-03	£29,606
39	2003-04	£31,525
40	2004-05	£33,445
41	2005-06	£35,482
42	2006-07 (higher)	£38,019
43	2007-08 (higher)	£41,545
44	2008-09	£44,930
45	2009-10	£46,510
46	2010-11	£48,096
47	2011-12	£49,689
48	2011-12	£51,175
Prof C lower quartile	£59,150 for 2 years	
Prof C upper quartile	£65,080 for 2 years	
Prof B lower quartile	£68,240 for 2 years	
Prof B upper quartile	£83,740 for 2 years	
Prof A lower quartile	£83,740 for 1 year	
Prof A upper quartile	£103,740 for remainder	



THE PROGRAMME GROUP - SUMMARY OF THE AGREED APPROACH, ASSUMPTIONS AND ACTIONS FROM THE MEETING ON 12 MARCH 2012

Method 2 – example profiles for individual comparisons

The following approaches, assumptions and actions were agreed:

- The required example profiles to be issued to Mercer next week including sufficient description setting out each profile.
- If any early retirement factors are needed for some of the example profiles then the same factor will be used for both schemes – the current factors used in the USS will be applied.
- It was agreed that the TPS CRB benefits are as set out in Appendix A in the document as previously circulated. It was noted that the final draft “Heads of Agreement” is about to be issued, a copy of which is to be circulated to Mercer once it has been published.
- The definition of pensionable salaries and salaries are to be taken as the same in both schemes.
- It was agreed that the TPS member contributions over the next few years are as set out in section 2 of the Summary from the last meeting as circulated ahead of the meeting.

It was also agreed for simplicity that the calculations are to be based on the rates from 2014 onwards only.

It was agreed that the salary bands for the employee rates should be increased in line with CPI each year.

- It was agreed that the results of the individual example profiles should show the benefit comparison **ignoring** the difference in member contributions and then separately show the effect of the additional benefits that can be secured from the additional employee contributions paid in the TPS leading to the overall net effect.
- To calculate an additional benefit from the extra member contributions variant 1 of Appendix II in the document will be used.

It was agreed that one rate of roll up throughout the period would be used.

The rate of roll up to be used is 3% per annum.

- It was agreed that the approach to take into account commutation in the TPS would be as follows:

i) For the main commutation the individual will commute the same amount of cash as

would be provided under the USS on the 3n/80ths formula.

- ii) The additional employee contributions under the TPS would be rolled forward through to, for example, retirement and then would be commuted using the current TPS commutation terms and this will be deducted from the benefits that would be derived from the TPS for comparison purposes. In other words the comparison would be between the pension element of the USS and the residual pension in the TPS.

Method 3 – Global costing

- The 2011 technical provision assumptions are to be used.
- The impact of ill-health and DIS pension differences will be ignored.
- Allowance will be taken into account in the benefits for the Supplementary Scheme with a corresponding employee rate at 6.5% in USS.
- The effects of the exempt groups from both schemes (those within 10 years of Normal Retirement Date) will be ignored for simplicity.
- The multiplier approach as set out in the paper will be used, this indicates the level of benefits delivered per unit member contribution.
- It was agreed that three different costings would be produced based on the 2011 data in full and assumptions, these being:
 - i) USS – post 1 October 2011 Final Salary benefits only
 - ii) USS – CRB Section benefits only
 - iii) TPS – CRB benefits only

The Working Group will then decide the appropriate blend of USS benefits to be compared with those from TPS.

Timings

- A list of the individual profiles for benefit comparisons to be provided to Mercer in the week commencing 19 March.
- Mercer to produce the individual calculations and global costings over the next 4-5 weeks (in time for the next meeting on 16 April).
- Any further assumptions found to be required by Mercer to be agreed via Phil Harding and Geraldine Egan.