

# Report for UCU

## A comparison of USS with TPS

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## Introduction

This report has been prepared for the Universities and Colleges Union, on the instructions of Matt Waddup. We were asked to prepare a comparison of the Universities Superannuation Scheme (USS) with the Teachers' Pension Scheme (TPS), to include a comparison of the contributions paid in by members with the benefits received during an average retirement.

We used 13 example members, as described in Appendix A. These examples are broadly similar to those used by Mercer in a report to USS of January 2013, but brought up to date.

We would remind you of the note for members which we prepared in May 2015, which compared the USS and the TPS. This is a useful summary document which gives the basic details of the USS and TPS and compares and contrasts them.

## Notes on our calculations

We have worked in real terms relative to CPI.

The sum of each member's contributions is net of income tax relief. Therefore the total contribution is the total deduction from take home pay. We calculated the tax relief due on each year's contribution, allowing for standard and higher rates of tax.

In calculating the total benefits paid, we assumed an average of 27 years life expectancy of the member and partner. We assumed all pensions were taxed at 20%, having first allowed for tax free cash to be taken.

The USS provides 3/75 cash in addition to 1/75 pension. For those earning over £55,000, there are DC contributions on earnings over £55,000.

The TPS provides cash by commutation of pension, using a factor of £12 cash for £1 pension given up, regardless of age or gender.

In our calculations, we have calculated the lowest amount of tax free cash available in either the USS and the TPS. We have then assumed that this amount of tax free cash is taken from both schemes. If there is any remaining USS DC pot, it is assumed to be paid out as taxed benefits.

## Results of our calculations

We have given the results of our calculations in charts and in tables of data. The 13 example members are labelled in the charts as M1 to M13.

In all cases, the benefits of TPS exceed the benefits of USS. In all cases, the member's contributions to TPS exceed the contributions to USS. In all cases, the extra benefits of TPS (for a member of average life expectancy) more than exceed the extra member contributions.

The beneficial differences of TPS are most marked for the 10 example members who work through to retirement. They benefit from the revaluation rate of 1.6% more than CPI in TPS (revaluation follows the CPI in USS).

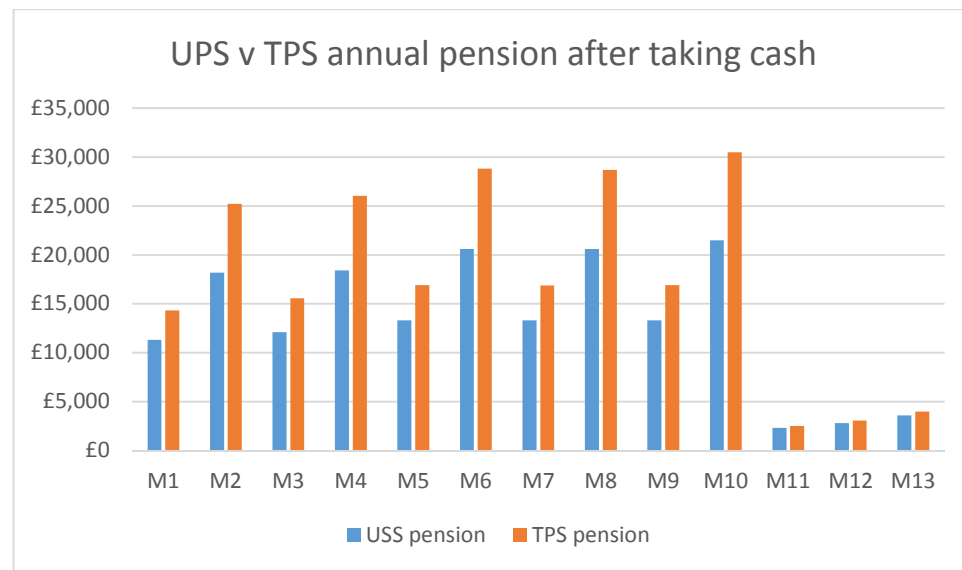
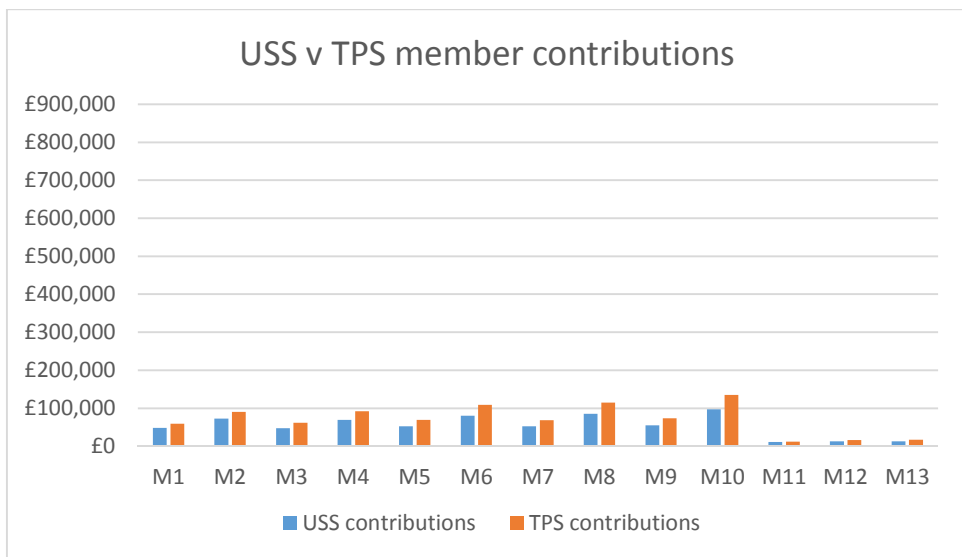
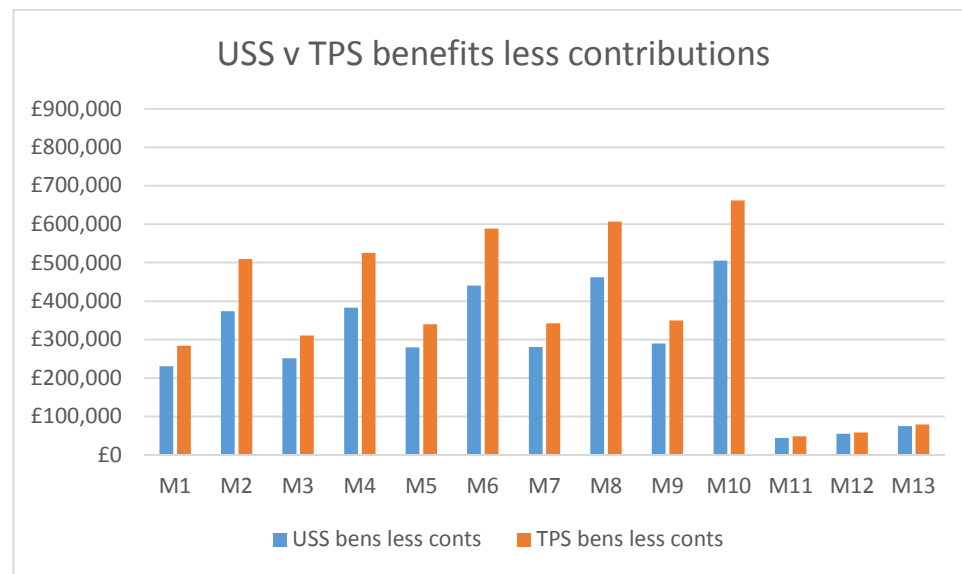
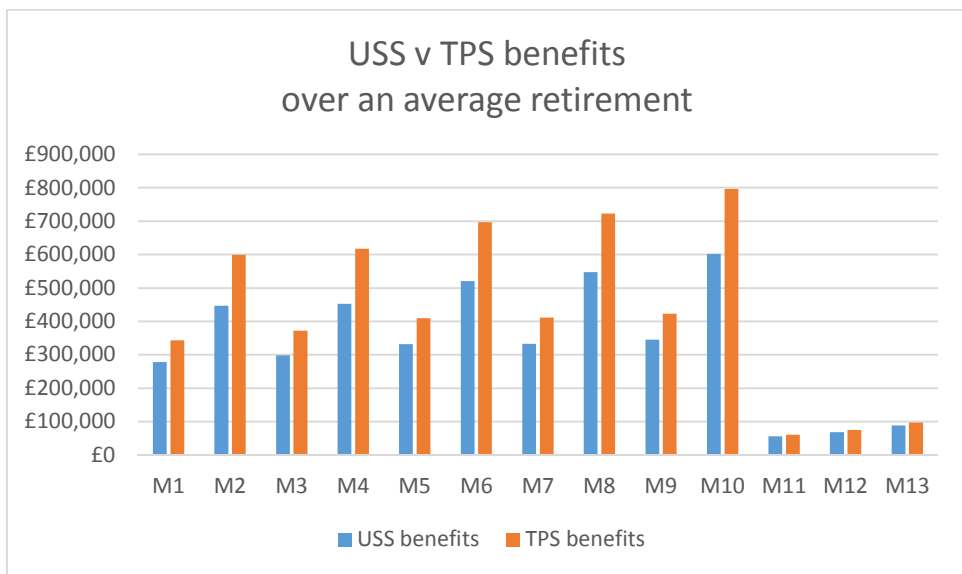
The beneficial differences of TPS are least marked for the 3 example members who leave service early. Revaluation in TPS after leaving service is CPI only, similar to USS.

## Example member calculations

Member	Brief description	Years service
1	Researcher, works point 30 to 46	20
2	Researcher, works point 30 to 46	30
3	Academic lecturer, works point 37 to 43	20
4	Academic lecturer, works point 37 to 43	30
5	Academic, works point 37 to 50	20
6	Academic, works point 37 to 50	30
7	Professor, works point 37 to 48 then band C	20
8	Professor, works point 37 to 48 then band C	30
9	Professor, works point 37 to 48 then band C to A	20
10	Professor, works point 37 to 48 then band C to A	30
11	Researcher, works point 30 to 34, leaves early	5
12	Academic lecturer, works point 37 to 41, leaves early	5
13	Senior lecturer, works point 46 to 50, leaves early	5

The following page contains graphs comparing the benefits and contributions for all example members from both USS and TPS.

The figures used to create the graphs, providing more detail on each specific example member can be found on the subsequent pages.



	Member 1	Member 1	Member 2	Member 2
Scheme	USS	TPS	USS	TPS
Tax free cash	£34,000	£34,000	£54,500	£54,500
Taxed cash	£0	£0	£0	£0
Pension	£11,300	£14,300	£18,200	£25,200
Benefits received	£278,600	£343,400	£446,800	£599,600
Contributions paid	£47,900	£58,900	£72,600	£90,300
Difference	£230,700	£284,500	£374,200	£509,300

	Member 5	Member 5	Member 6	Member 6
Scheme	USS	TPS	USS	TPS
Tax free cash	£44,300	£44,300	£74,400	£74,400
Taxed cash	£0	£0	£0	£0
Pension	£13,300	£16,900	£20,600	£28,800
Benefits received	£331,700	£409,600	£520,200	£697,100
Contributions paid	£52,100	£69,400	£79,800	£108,600
Difference	£279,600	£340,200	£440,400	£588,500

	Member 3	Member 3	Member 4	Member 4
Scheme	USS	TPS	USS	TPS
Tax free cash	£36,400	£36,400	£55,200	£55,200
Taxed cash	£0	£0	£0	£0
Pension	£12,200	£15,600	£18,400	£26,000
Benefits received	£298,900	£372,500	£452,800	£617,800
Contributions paid	£47,000	£61,900	£69,500	£92,100
Difference	£251,900	£310,600	£383,300	£525,700

	Member 7	Member 7	Member 8	Member 8
Scheme	USS	TPS	USS	TPS
Tax free cash	£46,400	£46,400	£102,600	£102,600
Taxed cash	£0	£0	£0	£0
Pension	£13,300	£16,900	£20,600	£28,700
Benefits received	£333,000	£411,200	£547,600	£722,300
Contributions paid	£52,500	£68,600	£85,400	£115,100
Difference	£280,500	£342,600	£462,200	£607,200

	Member 9	Member 9	Member 10	Member 10
Scheme	USS	TPS	USS	TPS
Tax free cash	£58,000	£58,000	£137,600	£137,600
Taxed cash	£0	£0	£23,900	£0
Pension	£13,300	£16,900	£20,600	£30,500
Benefits received	£345,400	£423,200	£602,500	£796,300
Contributions paid	£55,100	£73,600	£97,400	£134,800
Difference	£290,300	£349,600	£505,100	£661,500

	Member 11	Member 11	Member 12	Member 12
Scheme	USS	TPS	USS	TPS
Tax free cash	£6,800	£6,800	£8,400	£8,400
Taxed cash	£0	£0	£0	£0
Pension	£2,300	£2,500	£2,800	£3,100
Benefits received	£55,700	£61,000	£68,500	£74,900
Contributions paid	£10,900	£12,000	£13,100	£16,400
Difference	£44,800	£49,000	£55,400	£58,500

	Member 13	Member 13
Scheme	USS	TPS
Tax free cash	£11,500	£11,500
Taxed cash	£0	£0
Pension	£3,600	£4,000
Benefits received	£88,800	£97,200
Contributions paid	£13,100	£17,400
Difference	£75,700	£79,800

Yours faithfully

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## Appendix A: Example members

### *Member 1*

Researcher, academic and academic related staff

Age at joining: 47  
 State pension age: 67  
 Service: 20 years  
 Pay progression: Join at spine point 30, reach spine point 48 and remain there

### *Member 2*

Researcher, academic and academic related staff

Age at joining: 38  
 State pension age: 68  
 Service: 30 years  
 Pay progression: Join at spine point 30, reach spine point 48 and remain there

### *Member 3*

Academic lecturer

Age at joining: 47  
 State pension age: 67  
 Service: 20 years  
 Pay progression: Join at spine point 37, reach spine point 43 and remain there

### *Member 4*

Academic lecturer

Age at joining: 38  
 State pension age: 68  
 Service: 30 years  
 Pay progression: Join at spine point 37, reach spine point 43 and remain there

### *Member 5*

Academic

Age at joining: 47  
 State pension age: 67  
 Service: 20 years  
 Pay progression: Join at spine point 37, reach spine point 50 and remain there

### *Member 6*

Academic

Age at joining: 38  
 State pension age: 68  
 Service: 30 years  
 Pay progression: Join at spine point 37, reach spine point 50 and remain there

*Member 7*

Professor

Age at joining: 47  
 State pension age: 67  
 Service: 20 years  
 Pay progression: Join at spine point 37,  
 reach spine point 48 for 5 years,  
 Prof C lower quartile £62,843 for 5 years,  
 Prof C upper quartile £69,143 for remaining  
 service

*Member 8*

Professor

Age at joining: 38  
 State pension age: 68  
 Service: 30 years  
 Pay progression: Join at spine point 37,  
 reach spine point 48 for 5 years,  
 Prof C lower quartile £62,843 for 5 years,  
 Prof C upper quartile £69,143 for remaining  
 service

*Member 9*

Professor

Age at joining: 47  
 State pension age: 67  
 Service: 20 years  
 Pay progression: Join at spine point 37, reach spine point 48  
 Prof C lower quartile £62,843 for 5 years,  
 Prof C upper quartile £69,143 for 5 years  
 Prof B lower quartile £72,500 for 2 years,  
 Prof B upper quartile £88,968 for 2 years  
 Prof A lower quartile £88,968 for 1 year,  
 Prof A upper quartile £110,217 for remaining  
 service

*Member 10*

Professor

Age at joining: 38  
 State pension age: 68  
 Service: 30 years  
 Pay progression: Join at spine point 37, reach spine point 48  
 Prof C lower quartile £62,843 for 5 years,  
 Prof C upper quartile £69,143 for 5 years  
 Prof B lower quartile £72,500 for 2 years,  
 Prof B upper quartile £88,968 for 2 years  
 Prof A lower quartile £88,968 for 1 year,  
 Prof A upper quartile £110,217 for remaining  
 service



**Member 11**

Researcher, academic and academic related staff

Age at joining: 38  
State pension age: 68  
Service: 5 years  
Pay progression: Join at spine point 30,  
reach spine point 34 then leave

***Member 12***

Academic lecturer

Age at joining: 47  
State pension age: 67  
Service: 5 years  
Pay progression: Join at spine point 37,  
reach spine point 41 then leave

***Member 13***

Academic joins as senior lecturer

Age at joining: 56  
State pension age: 66  
Service: 5 years  
Pay progression: Join at spine point 46,  
reach spine point 50 then leave