



Government Actuary's
Department

Teachers' Pension Scheme (England and Wales)

2024 Actuarial Valuation

Glossary

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Navigating risk | Cutting through complexity

The Government Actuary's Department is proud to be accredited under the Institute and Faculty of Actuaries' [Quality Assurance Scheme](#). Our website describes [the standards we apply](#).

CARE

CARE stands for Career Average Revalued Earnings and refers to a methodology whereby earnings over a member's working lifetime in the scheme are used in the calculation of their benefits in the reformed scheme.

CARE revaluation

The rate at which the CARE pension is revalued each year a member is an active member.

Core cost cap cost

See 'cost cap cost'

Core cost cap fund

See 'cost cap fund'

Core cost cap fund contribution rate

See 'cost cap fund contribution rate'

Core cost cap income

See 'cost cap income'

Core cost cap notional investment returns

See 'cost cap notional investment returns'

Core cost cap past service cost

See 'cost cap past service cost'

Cost cap benefits paid

Benefits paid during the inter-valuation period 1 April 2020 to 31 March 2024 from the reformed scheme (excluding any CARE benefits paid which are in scope for McCloud remedy).

Cost cap ceiling

3% above the employer cost cap.

Cost cap contribution yield

The expected average contribution rate payable by members over the cost cap implementation period.

Cost cap corridor

The range of rates lying between 3% above and below the employer cost cap. If the cost cap costs of the scheme both lie outside of this corridor in the same direction, then a breach has occurred.

Cost cap cost

The rate which is compared to the employer cost cap at each valuation to determine whether changes to the scheme need to be consulted on.

The cost cap cost of the scheme comes in two forms:

1. Core cost cap cost of the scheme – excludes the impact of changing long-term economic assumptions.
2. Economic cost cap cost of the scheme – includes the impact of changing long-term economic assumptions.

Cost cap floor

3% below the employer cost cap.

Cost cap fund

The cost cap fund comes in two forms, core and economic. It is a notional amount of money, building up from when the reformed scheme was introduced. It is updated at each valuation to take account of all cost cap income and benefits paid, plus an allowance for notional investment returns.

Cost cap fund contribution rate

The cost cap fund contribution rate comes in two forms, core and economic. It is the rate required to cover the cost of benefits accruing from 1 April 2020 to 31 March 2024 and consists of:

1. Expected cost of benefits accrued 2020 to 2024; plus
2. Cost cap past service cost at 2020; minus
3. Member contributions from 2020 to 2024.

Cost cap future service cost

The contribution rate required to cover the expected cost of benefits accrued by members during the cost cap implementation period.

Cost cap implementation date

The date from which the cost control mechanism results apply, i.e. 1 April 2027.

Cost cap implementation period

The period over which future accrual in the scheme is measured for the purposes of the cost control mechanism. For the 31 March 2024 valuation the implementation period is 1 April 2027 to 31 March 2031

Cost cap income

The cost cap income comes in two forms, core and economic. This is income received by the scheme, in respect of reformed scheme benefit accrual not in scope of McCloud remedy, for example employee contributions. Employer contributions are also included, but these are

set to the amount that would have been received if employer contributions were paid at the core, or economic, cost cap fund contribution rate.

Cost cap liabilities

The value of the liabilities relating to benefits that have accrued in the reformed scheme as at 31 March 2024, excluding reformed scheme liabilities that are in scope of McCloud remedy.

Cost cap notional investment returns

The cost cap notional investment returns comes in two forms, core and economic. This is the notional amount of money added to the core, or economic, cost cap fund representing the growth of the cost cap funds over time.

Cost cap past service cost

The cost cap past service cost comes in two forms, core and economic. It is the difference between the cost cap liabilities and the core, or economic, cost cap fund as at 31 March 2024, expressed as a percentage of pensionable pay.

Cost control mechanism

A risk-sharing arrangement that seeks to ensure a fair balance of risk between members of public service pension schemes and taxpayers regarding scheme costs. It also aims to maintain value to members and provide stability and certainty of member benefit and contribution levels, with changes only being triggered by 'extraordinary, unpredictable' events.

The mechanism compares certain costs of the schemes (core and economic cost cap costs) to the original employer cost cap. If both these assessed costs have moved outside the cost cap corridor in the same direction, a breach of the mechanism is said to have occurred and a consultation on changes to the scheme to bring the costs back to the employer cost cap is required.

Cumulative future service technical immunity adjustment

An adjustment made to the core cost cap cost of the scheme to exclude the impact of changes to long-term economic assumptions (e.g. SCAPE rate) from the future service cost.

Directions

A document published by HM Treasury and referred to in The Public Service Pensions Act 2013, which sets out the process and requirements for carrying out valuations, including the results which need to be disclosed. Directions were first published in 2014 and have been amended several times since then.

The latest Directions, on which the results of this valuation are based, are The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2023 as amended by The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2026.

Earth system tipping points

Earth system tipping points are thresholds where changes in the earth's natural systems become self-perpetuating, leading to significant, widespread and often irreversible impacts. Examples include melting of Greenland and Antarctic ice sheets, and collapse of the Atlantic Meridional Overturning Circulation (AMOC).

Economic check

Assessment of whether the economic cost cap cost of the scheme (which includes the impact of changing long-term economic assumptions) breaches the cost cap corridor.

Economic cost cap cost

See 'cost cap cost'

Economic cost cap fund

See 'cost cap fund'

Economic cost cap fund contribution rate

See 'cost cap fund contribution rate'

Economic cost cap income

See 'cost cap income'

Economic cost cap notional investment returns

See 'cost cap notional investment returns'

Economic cost cap past service cost

See 'cost cap past service cost'

Ecosystem services

Ecosystem services are functions of the natural environment, that directly or indirectly provide benefits for people. Examples of ecosystem services include the provision of food and pollination.

Effective date

The date of the actuarial valuation, i.e. 31 March 2024.

Employer contribution rate

The percentage of scheme members' pensionable salaries which employers are required to pay in order to:

- meet the costs of future benefits accrued by active members
- make good any deficit in the notional amounts set aside to cover benefits already built up.

The result is heavily dependent on assumptions about future financial conditions and membership changes.

Employer cost cap

The contribution rate, determined at the 2012 valuation, to cover the cost of benefits accruing over the relevant implementation period, less expected member contribution payable during this same period.

The employer cost cap can be thought of as the baseline cost or target cost of the scheme and is used as the comparator for the core cost cap cost and economic cost cap cost at the 2024 valuation.

Feedback loops

Feedback loops are systems by which one change leads to another change that then has a subsequent effect back on the original change. Feedback loops can be positive or negative, meaning the subsequent effect can either reinforce (positive feedback loop) or counter (negative feedback loop) the original change.

Fiscal resilience

Fiscal resilience refers to the ability of government and the public sector to withstand, absorb and recover from economic shocks without compromising financial stability or long-term economic health.

Future service technical immunity adjustment

The part of the cumulative future service technical immunity adjustment that is in respect of the impact of changes to long-term economic assumptions arising only since the previous valuation.

Global emissions pathway

A global emissions pathway is a projected trajectory showing how levels of greenhouse gas emissions in the global atmosphere change over time.

Implementation date

The date from which the employer contribution rate results apply, i.e. 1 April 2027.

Implementation period

The period over which future accrual in the scheme is measured for the purposes of the employer contribution rate. For the 31 March 2024 valuation the implementation period is 1 April 2027 to 31 March 2031.

Inter-valuation period

For the valuation with an effective date of 31 March 2024, the inter-valuation period is the four years from 1 April 2020 to 31 March 2024.

Legacy scheme

See 'Reformed and legacy schemes'

McCloud

McCloud refers to a legal judgement made in December 2018. The England and Wales Court of Appeal upheld claims of age discrimination brought by some firefighters and members of the judiciary against 'transitional protection' rules. These rules determined the date on which some members would move between the legacy schemes and the reformed scheme.

Mixed Service

In certain circumstances, members can accrue service in both the NPA 60 and NPA 65 sections, which we refer to as Mixed Service. Such members can also accrue benefits in the 2015 scheme in the usual way.

Nationally Determined Contributions

The Paris Agreement is a landmark international treaty on climate change. Adopted by the UN in 2015 the Agreement aims to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels".

As part of the Paris Agreement, countries are required to set Nationally Determined Contributions (NDCs) every five years. NDCs are national-level emission reduction targets that are supposed to reflect increasing ambition each time they are updated.

Net zero

Net zero refers to the state where the total emissions we emit are equal to or less than the emissions we remove from the environment.

Normal pension age

The age at which a member in normal health is entitled to unreduced benefits. This age varies between the legacy and reformed schemes.

Notional assets

A notional amount of money, initially set as the value of all members' past service liabilities at a specific date. It is updated at each valuation to take account of all actual scheme income and benefits paid, plus an allowance for notional investment returns.

Past service liabilities

The monetary amount assessed in today's terms, as being required to meet benefit promises (pensions, lump sums, dependants' pensions etc) that have been made to scheme members over their period of service prior to the effective date. For active members, these liabilities include allowance for future salary inflation and in-service benefit revaluation until the assumed date of cessation of pensionable service.

Past service technical immunity adjustment

An adjustment made to the core cost cap fund to exclude the impact of changes to long-term economic assumptions (e.g. SCAPE rate).

Pension increase

Public service pensions are increased under the provisions of the Pensions (Increase) Act 1971 and Section 59 of the Social Security Pensions Act 1975.

Pension revaluation

The rate at which pension is revalued each year.

Pre-industrial

The pre-industrial period is used as a reference baseline for comparison and is typically defined as the period from 1850 to 1900.

Professional actuarial requirements

The professional requirements that we have complied with when completing this actuarial valuation include:

1. Technical Actuarial Standards: TAS 100 and TAS 300, issued by the Financial Reporting Council (FRC).
2. The Actuaries' Code, issued by the Institute and Faculty of Actuaries (IFoA).
3. The Civil Service Code.

GAD is also accredited under the IFoA's Quality Assurance Scheme. More details can be found on our website.

Rate up

A term used to refer to any multiplicative adjustments made to data in order to correct for known issues. For example, if it appears that a group of members have been omitted from the data we've received and salaries are understated by 2% as a result, we might apply a 'rate up' of 2% to the salary data we actually hold as a correction. Although the term 'rate up' implies an increase, we might also 'rate down' if appropriate to do so.

Reformed and legacy schemes

The reformed scheme is the scheme that was set up in line with The Public Service Pensions Act 2013, and which came into force on 1 April 2015 (may also be referred to as the 2015 Scheme). All non-reformed schemes are known as legacy schemes.

Reformed scheme

See 'Reformed and legacy schemes'

SCAPE discount rate

SCAPE is short for the Superannuation Contributions Adjusted for Past Experience. It is the discount rate set by HM Treasury which is used when assessing the discounted value of pension payments from the unfunded public service pension schemes. It is currently based on the Office for Budget Responsibility's forecast for long-term gross domestic product growth.

Scheme Advisory Board

The Board set up in line with section 7 of the Public Service Pensions Act 2013, with responsibility for providing advice on potential changes to the scheme and other matters relating to the efficient administration and management of the scheme.

Scheme Advisory Board is commonly shortened to 'SAB'.

Standard mortality table

The CMI produce mortality base tables based on the experience of UK defined benefit self administered pension schemes (SAPS). Since 2006 the CMI have produced four sets of mortality tables - the S1, S2, S3 and S4 series.

The S4 series mortality tables were released on 26 February 2024. The S4 tables are based on 2014-2019 data and have an effective date of 1 January 2017.

Total cumulative technical immunity adjustment

The difference between the core cost cap of the scheme and the economic cost cap of the scheme.