



Government  
Actuary's  
Department

# Matthews second exercise

FRA calculator

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6th June 2023



# Agenda

Exercise  
recap

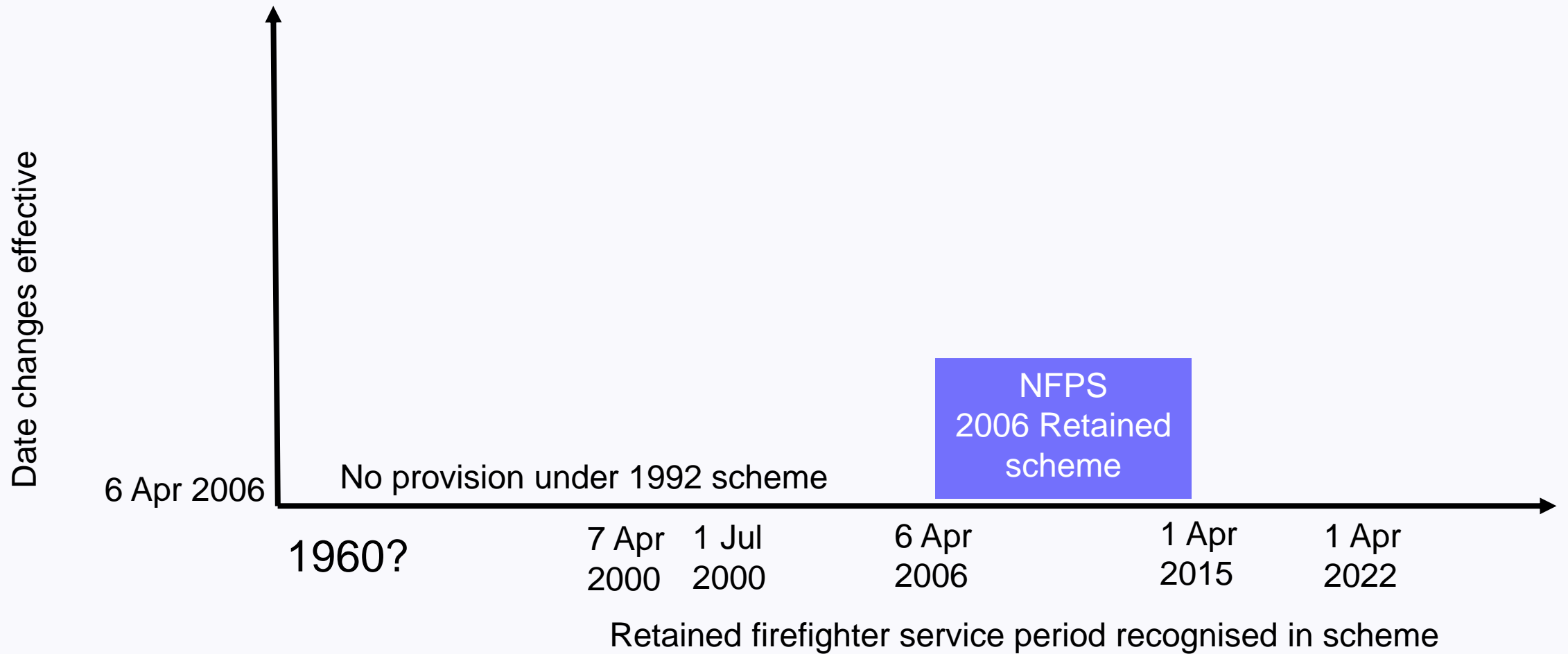
FRA  
calculator  
functions

Input  
Description

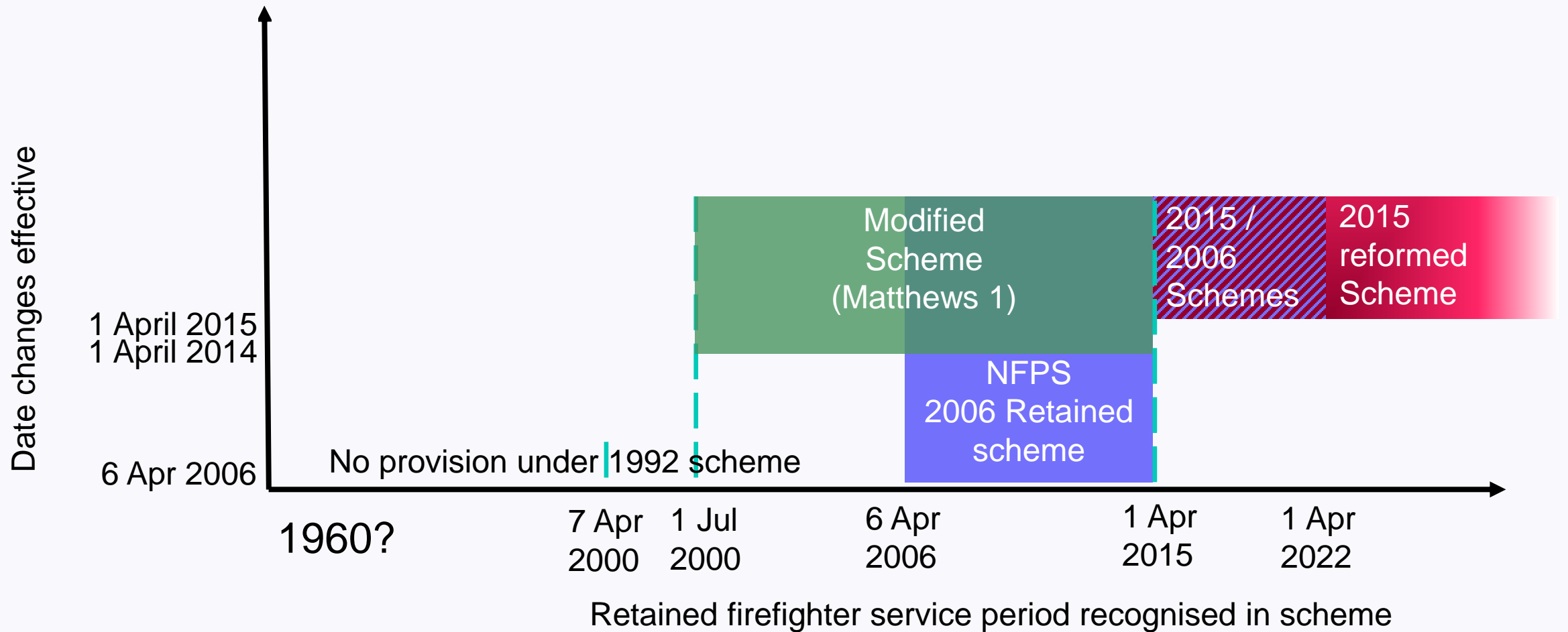
Q&A



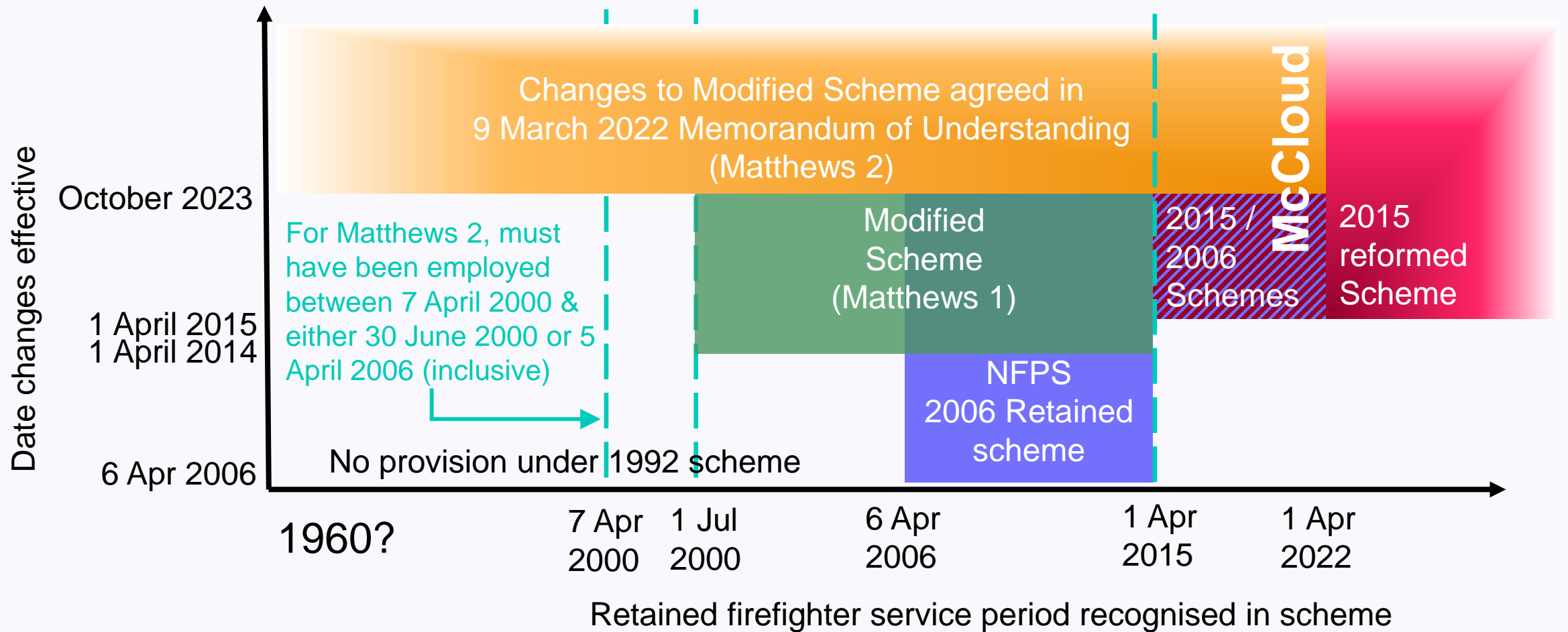
# FPS: Retained firefighter provision



# FPS: Retained firefighter provision

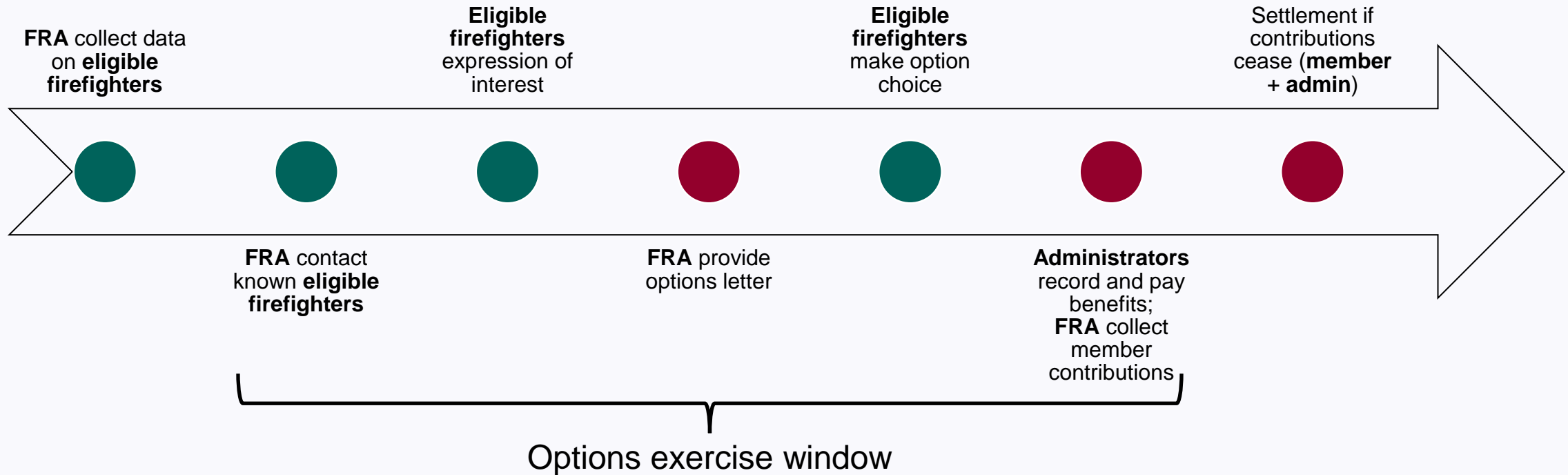


# FPS: Retained firefighter provision



# Matthews exercises: Work stream overview

● Step at which first exercise (GAD) FRA calculator was used



# FRA calculator functions

## Member contributions calculations

- Essential core updates
- Bulk calculation option
- User (FRA) to populate interest rate parameters (avoiding monthly version updates)
- More detailed outputs to help answer queries

Address 2014/15 lessons learned

## Benefit calculations

- service from salary history data provided by FRA
- pension and lump sum from service, pay data from FRA
- Limited other calcs

Fire England SAB/sector request

# Essential core updates

## Extended periods

- Employed 6 April 30 June 2000
- Service pre 1 July 2000

## Matthews 1 purchases

- Mandatory Special Period Pension
- Converted standard membership to special membership
- Converted special membership to standard membership
- Partial purchases

## Other areas

- Former firefighters unable to access pension tax relief
- Given complexity: identifying scenarios that the tool can't cover which need to be escalated
- User guide and testing



# Member contributions calculations: outputs

## Totals

- Contributions (LS or periodic)
- Lump sum due (pensioners)
- Settlement due

## Details

- Interest
- Tax relief
- Mandatory/Converted
- Back payments/LS



# Benefits calculations

## Inputs

- Pay
- Service
- M1
- Choices

## Outputs

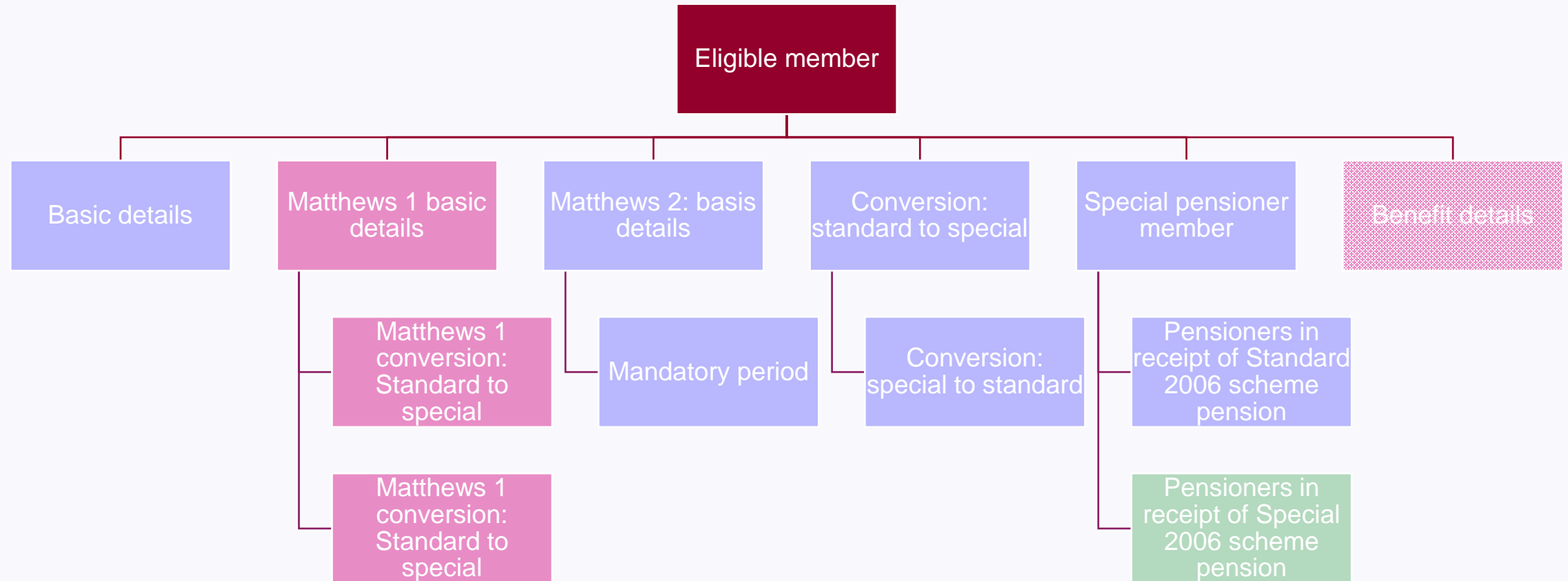
- Service
- Mandatory pension
- Conversion pension

# input description

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# FRA calculator: input description



# Basic details

	Name of field	Description	Fields unlocked
OLD	Unique identifier	Free text field not used in calculations	
OLD	Address	Free text field not used in calculations	
OLD	Date of birth	Used to calculate date that Normal Retirement Age is reached	
OLD	Calculation date	Date calculation is being run as at Interest will be included up to this date	
NEW	Provided with information statement during first Matthews options exercise?	Yes/No	If Yes: Elected to purchase benefits in first options exercise?
NEW	Elected to purchase benefits in first options exercise?	Yes/No	If Yes: "Matthews 1: X" grids



# Matthews 1: basic details

	Name of field	Description	Fields unlocked
M1	Date of calculation for first options exercise	Date up to 31/12/2015	
M1	Start of the Mandatory Special Period (first options exercise)	Date between 01/07/2000 and 05/04/2006	
M1	End of the Mandatory Special Period (first options exercise)	If converted special to standard: must be 05/04/2006 If converted standard to special: member's start date in the standard 2006 scheme If no conversion: relevant date before calculation date	
M1	Special membership category at first options exercise	Special Firefighter Member, Special Deferred Member or Special Pensioner Member	
M1	Did the member convert any standard to special membership as part of the first options exercise?	Yes/No; mutually exclusive with row below	If Yes: Undo conversion?
M1	Did the member convert any special to standard membership as part of the first options exercise?	Yes/No; mutually exclusive with row above	If Yes: Undo conversion?
NEW	Does the member want to undo this conversion?	Yes/No	IF Yes: "Pensioners in receipt of X pension"
NEW	Did the member cease paying contributions for the first options exercise?	Yes/No	If Yes: Proportion of contributions paid
NEW	What proportion of the contributions did the member pay for the first options exercise?	Percentage of Mandatory Period between 0% and 100% (including reallocation where conversion revoked)	

# Matthews 2: basic details

	Name of field	Description	Fields unlocked
OLD	Special membership category	Membership category at calculation date Special Firefighter Member, Special Deferred Member or Special Pensioner Member	If Deferred OR Pensioner: Paid 2015 scheme contributions?  If Firefighter: Date of transfer to 2015 scheme
OLD	Converting membership from standard to special?	Yes/No; cannot be 'yes' if row below is 'yes'	
OLD	Converting membership from special to standard?	Yes/No; cannot be 'yes' if row above is 'yes'	
OLD	Paid 2015 scheme contributions?	Yes/No	If Yes: Date of transfer to 2015 scheme
OLD	Date of transfer to 2015 scheme	Date between 01/04/2015 and calculation date	



# Conversion: standard to special

	Name of field	Description	Fields unlocked
OLD	Start of membership in standard 2006 scheme	Automatically populated with day after MSP and cannot be changed	
OLD	End of membership in standard 2006 scheme	Date before 31/03/2022 (or date before date of transfer to 2015 scheme, if applicable)	
OLD	Using past contributions or pay data?	Employer choice based on data available	
OLD	Member contributions paid OR Actual Pensionable Pay (as appropriate from above choice)	Value for each financial year converted	
OLD	Reference Pay	Annual salary of full-time equivalent firefighter for each financial year converted	
OLD	Standard Pensionable Service	Amount of reckonable service (in years) being converted (used to validate inputs above)	





# Special pensioner member

	Name of field	Description	Fields unlocked
OLD	Normal or ill-health pensioner	Reason for member retiring	
OLD	Special membership category immediately prior to the pension commencement date	Special Firefighter Member or Special Deferred Member	
OLD	Special pension commencement date	Date the member's Special pension should have commenced  For member retiring from active status: date between end of the MSP and calculation date  For members retiring from deferred status: date of 60th birthday	
OLD	Initial pre-commutation pension (per annum)	Member's Special pension entitlement at date of retirement before any lump sum commutation	
OLD	Commuted lump sum	Amount of lump sum member received as a result of commuting pension	
OLD	Initial post-commutation pension (per annum)	Member's Special pension entitlement at date of retirement after any lump sum commutation	

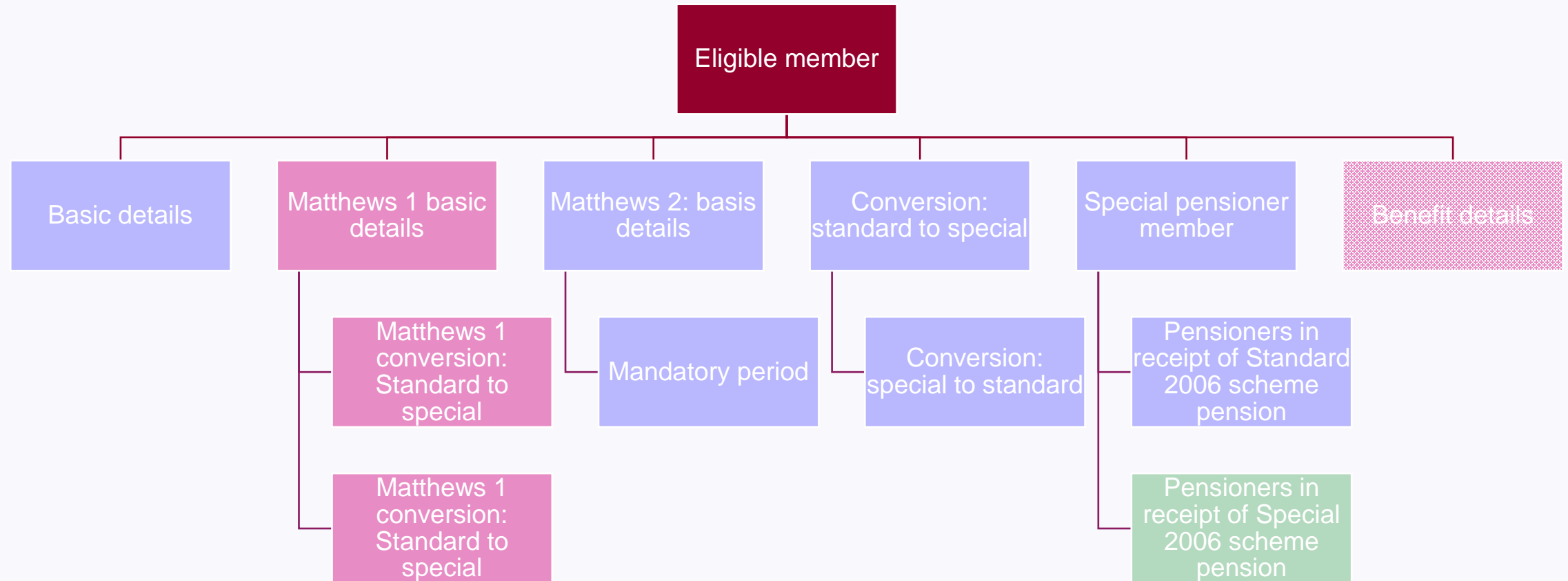


# Annex: input description

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# FRA calculator: input description



# Key to input descriptions

## Field

- Name of field

## Description

- What information to enter
- Limitations on what can be entered

## Fields unlocked

- Other fields influence by entries under this field

## Shading meaning

**OLD**

2014 exercise field  
(possible new limits)

**M1**

Captures data used at 2014  
exercise purchases

**NEW**

New field for the 2023  
exercise

Financial year is 1 April to 31 March, i.e. scheme year



# Basic details

	Name of field	Description	Fields unlocked
OLD	Unique identifier	Free text field not used in calculations	
OLD	Address	Free text field not used in calculations	
OLD	Date of birth	Used to calculate date that Normal Retirement Age is reached	
OLD	Calculation date	Date calculation is being run as at Interest will be included up to this date	
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# Matthews 1: basic details

	Name of field	Description	Fields unlocked
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M1	Start of the Mandatory Special Period (first options exercise)	Date between 01/07/2000 and 05/04/2006	
M1	End of the Mandatory Special Period (first options exercise)	If converted special to standard: must be 05/04/2006 If converted standard to special: member's start date in the standard 2006 scheme If no conversion: relevant date before calculation date	
M1	Special membership category at first options exercise	Special Firefighter Member, Special Deferred Member or Special Pensioner Member	
M1	Did the member convert any standard to special membership as part of the first options exercise?	Yes/No; mutually exclusive with row below	If Yes: Undo conversion?
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NEW	Does the member want to undo this conversion?	Yes/No	IF Yes: "Pensioners in receipt of X pension"
NEW	Did the member cease paying contributions for the first options exercise?	Yes/No	If Yes: Proportion of contributions paid
NEW	What proportion of the contributions did the member pay for the first options exercise?	Percentage of Mandatory Period between 0% and 100% (including reallocation where conversion revoked)	

# Matthews 1: standard to special conversion

	Name of field	Description	Fields unlocked
M1	Start of membership in standard 2006 scheme	Member's start date in the standard 2006 scheme (date between 06/04/2006 and date of calculation for first options exercise)	
M1	End of membership in standard 2006 scheme	Member's last day of service in the standard 2006 scheme, prior to Mathews 1 election, before any conversion. (date between row above and 30/09/2015)	
M1	Using past contributions or pay data?	Employer choice based on data available	
M1	Member contributions paid OR Actual Pensionable Pay (as appropriate)	Type of data depends on row above Either contributions paid by the member or pensionable pay paid to the member; split by financial year	
M1	Reference pay	Annual salary of full-time equivalent firefighter	
M1	Standard Pensionable Service	Amount of reckonable service (in years) the member opted to convert (used to validate inputs above)	



# Matthews 1: special to standard conversion

	Name of field	Description	Fields unlocked
M1	Start of membership in standard 2006 scheme	Member's start date in the standard 2006 scheme (date between 06/04/2006 and 31/03/2015)	
M1	End of membership in standard 2006 scheme	Member's last day of service in the standard 2006 scheme, prior to Matthews 1 election, before any conversion. (date between row above and 31/03/2022)	
M1	Actual Pensionable Pay	Pensionable pay received by them member; split by financial year	
M1	Reference pay	Annual salary of full-time equivalent firefighter	
M1	Pensionable service to be backdated in the standard scheme	Amount of reckonable service (in years) the member opted to convert (used to validate inputs above)	





# Matthews 2: basic details

	Name of field	Description	Fields unlocked
OLD	Special membership category	Membership category at calculation date Special Firefighter Member, Special Deferred Member or Special Pensioner Member	If Deferred OR Pensioner: Paid 2015 scheme contributions?  If Firefighter: Date of transfer to 2015 scheme
OLD	Converting membership from standard to special?	Yes/No; cannot be 'yes' if row below is 'yes'	
OLD	Converting membership from special to standard?	Yes/No; cannot be 'yes' if row above is 'yes'	
OLD	Paid 2015 scheme contributions?	Yes/No	If Yes: Date of transfer to 2015 scheme
OLD	Date of transfer to 2015 scheme	Date between 01/04/2015 and calculation date	



# Matthews 2: Mandatory period

	Name of field	Description	Fields unlocked
OLD	Start of the Mandatory Special Period	Start date of service being purchased Must be before first exercise MSP start date (or 06/04/2006 if not offered first exercise)	
OLD	End of the Mandatory Special Period	End date of service being purchased Members who took part in first exercise: must be day before the start date of the first exercise Members converting special to standard (no M1): must be 05/04/2006 Members converting standard to special (no M1): between 05/04/2006 and date of leaving 2006 scheme Members not converting service (no M1): any date before 01/04/2015	
OLD	Actual Pensionable Pay	Pensionable pay received by them member; split by financial year	
OLD	Reference Pay	Annual salary of full-time equivalent firefighter	
OLD	Special Pensionable Service	Additional reckonable service (in years) being purchased (used to validate inputs above)	



# Conversion: standard to special

	Name of field	Description	Fields unlocked
OLD	Start of membership in standard 2006 scheme	Automatically populated with day after MSP and cannot be changed	
OLD	End of membership in standard 2006 scheme	Date before 31/03/2022 (or date before date of transfer to 2015 scheme, if applicable)	
OLD	Using past contributions or pay data?	Employer choice based on data available	
OLD	Member contributions paid OR Actual Pensionable Pay (as appropriate from above choice)	Value for each financial year converted	
OLD	Reference Pay	Annual salary of full-time equivalent firefighter for each financial year converted	
OLD	Standard Pensionable Service	Amount of reckonable service (in years) being converted (used to validate inputs above)	



# Conversion: special to standard

	Name of field	Description	Fields unlocked
OLD	Start of membership in standard 2006 scheme	Member's start date in the standard 2006 scheme (date between 2006 scheme commencement (06/04/2006) and 31/03/2015)	
OLD	Actual pensionable pay	Value for each financial year converted	
OLD	Reference pay	Annual salary of full-time equivalent firefighter for each financial year converted	
OLD	Pensionable service to be backdated in the standard scheme	Amount of reckonable service (in years) being converted (used to validate inputs above)	



# Special pensioner member

	Name of field	Description	Fields unlocked
OLD	Normal or ill-health pensioner	Reason for member retiring	
OLD	Special membership category immediately prior to the pension commencement date	Special Firefighter Member or Special Deferred Member	
OLD	Special pension commencement date	Date the member's Special pension should have commenced  For member retiring from active status: date between end of the MSP and calculation date  For members retiring from deferred status: date of 60th birthday	
OLD	Initial pre-commutation pension (per annum)	Member's Special pension entitlement at date of retirement before any lump sum commutation	
OLD	Commuted lump sum	Amount of lump sum member received as a result of commuting pension	
OLD	Initial post-commutation pension (per annum)	Member's Special pension entitlement at date of retirement after any lump sum commutation	



# Pensioners in receipt of Standard 2006 scheme pension

	Name of field	Description	Fields unlocked
OLD	Normal or ill-health pensioner	Reason for member retiring	
OLD	Standard scheme pension commencement date	Date first payment of Standard scheme pension was made Must be between 06/04/2006 and the calculation date	
OLD	Date of last pension payment	Must be in the two month period preceding the calculation date	
OLD	Lump sum commuted at retirement	Amount of lump sum member received as a result of commuting pension	
OLD	Pension payments	Total gross monthly pension payments actually paid to the member split by financial year	
New	Lump sum payment at date of calculation for first options exercise	Amount of lump sum member received as a result of election for the first options exercise (where relevant and assumed paid at date of calculation for first options exercise)	



# Pensioners in receipt of Special 2006 scheme pension

	Name of field	Description	Fields unlocked
New	Normal or ill-health pensioner	Reason for member retiring	
New	Special scheme pension commencement date	Date first payment of Standard scheme pension was made Must be between 01/04/2014 and the calculation date	
New	Date of last pension payment	Must be in the two month period preceding the calculation date	
New	Lump sum commuted at retirement	Amount of lump sum member received as a result of commuting pension	
New	Pension payments	Total gross monthly pension payments actually paid to the member split by financial year	
New	Lump sum payment at date of calculation for first options exercise	Amount of lump sum member received as a result of election for the first options exercise (assumed paid at date of calculation for first options exercise)	





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