

Background information on the Definition of Actuarial Equivalence

Actuarial Equivalence in Minnesota Retirement Plans

Minnesota retirement plans allow retirees to take an optional annuity form as an alternative to the single-life annuity calculated under the applicable state law provision, allow a conversion of defined contribution account accumulations into monthly retirement annuities for life, and impose a reduction for some early retirements where the result is required to be equivalent actuarially.

Summary of the Current Actuarial Equivalence Definition Provisions

Legislators Plan	MSRS-General	MSRS-Correctional
The condition of one allowance or benefit having an equal actuarial present value up to another allowance or benefit, determined by the actuary retained under Section 356.214 as of a given date at a specified age with each actuarial present value based on the mortality table applicable for the plan and approved under Section 356.215, Subdivision 18, and using the applicable pre-retirement or post-retirement interest rate assumption specified in Section 356.215, Subdivision 8. <i>[3A.01, Subd. 1a]</i>	The condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date at a specified age with each actuarial present value based on the appropriate mortality table adopted by the board of directors based on the experience of the fund as recommended by the actuary retained under Section 356.214, and approved under Section 356.215, Subdivision 18, and using the applicable pre-retirement or post-retirement interest rate assumption specified in Section 356.215, Subdivision 8. <i>[352.01, Subd. 12]</i>	Same as MSRS-General.
State Patrol Plan	PERA-General	PERA-P&F
Each optional annuity form shall have the same present value as a regular single-life annuity using the mortality table adopted by the board and the interest assumption specified in Section 356.215, Subdivision 8, and the board shall obtain the written recommendation of the actuary retained under Section 356.214. These recommendations shall be a part of the permanent records of the board. <i>[352B.08, Subd. 3]</i>	The condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date with each actuarial present value based on the appropriate mortality table adopted by the board of trustees based on the experience of the fund as recommended by the actuary retained under Section 356.214, and approved under Section 356.215, Subdivision 18, and using the applicable pre-retirement or post-retirement interest rate assumption specified in Section 356.215, Subdivision 8. <i>[353.01, Subd. 14]</i>	Same as PERA-General.
PERA-Correctional	TRA	First Class City Teachers Coordinated
Same as PERA-General.	The condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date with each actuarial present value based on the appropriate mortality table adopted by the board of trustees based on the experience of the association as recommended by the actuary retained under Section 356.214, and approved under Section 356.215, Subdivision 18, and using the applicable pre-retirement or post-retirement interest rate assumption specified in Section 356.215, Subdivision 8. <i>[354.05, Subd. 7]</i>	The condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date with each actuarial present value based on the appropriate mortality table adopted by the appropriate board of trustees based on the experience of that retirement fund association as recommended by the actuary retained under Section 356.214, and approved under Section 356.215, Subdivision 18, and using the applicable pre-retirement or post-retirement interest rate assumption specified in Section 356.215, Subdivision 8. <i>[354A.011, Subd. 3a]</i>
Judges Plan		
The condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date with each actuarial present value based on the appropriate mortality table adopted by the board of directors of the Minnesota State Retirement System based on the experience of the fund as recom-		

mended by the actuary retained under Section 356.214 and approved under Section 356.215, Subdivision 18, and using the applicable pre-retirement or post-retirement interest rate assumption specified in Section 356.215, Subdivision 8. [490.121, Subd. 2a]

Summary of the Development of the Current Actuarial Equivalence Provisions

1. Legislators Plan

- When the retirement plan was created in 1965, there were no optional annuity forms as part of the retirement plan and no need for the definition.
- In 2006 (Laws 2006, Ch. 271, Art. 10, Sec. 2), after the addition of optional annuity forms in 1993, the current definition was added.

2. MSRS-General

- In 1957 (Laws 1957, Ch. 928, Sec. 4), “actuarial equivalence” was defined as the annual amount determined by calculations based on mortality tables, purchasable with a given amount at a stated age. Optional annuities newly authorized under Minnesota Statutes 1957, Section 352.116, Subdivision 3, were required to be an actuarial equivalent in 1957.
- In 1987 (Laws 1987, Ch. 259, Sec. 12), the 1957 definition was replaced, with the term given the meaning that it is the condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date at a specified age with each actuarial present value based on the appropriate mortality table adopted by the board of directors based on the experience of the fund as recommended by the actuary retained by the Legislative Commission on Pensions and Retirement and using the applicable pre-retirement or post-retirement interest rate assumption specified in Section 356.215, Subdivision 4d.
- In 2002 (Laws 2002, Ch. 392, Art. 11, Sec. 52), the statutory cross-reference to the interest rate actuarial assumptions was revised.
- In 2005 (1st Spec. Sess. 2005, Ch. 8, Art. 3, Sec. 1), a conforming change was made to the situation of the consulting actuary preparing the official actuarial valuations and a cross-reference to the demographic actuarial assumption approval process was added relating to the mortality table.

3. State Patrol Plan

- In 1965 (Laws 1965, Ch. 889, Sec. 2), joint-and-survivor optional annuities, payable to the surviving spouse of a deceased plan member, adjusted to be the actuarial equivalent value of a life annuity, were authorized to be elected, but actuarial equivalency was not defined.
- In 1987 (Laws 1987, Ch. 259, Sec. 23), authority for the Minnesota State Retirement System (MSRS) board of directors to establish actuarial equivalent optional annuity forms generally was granted and an actuarial equivalent value was defined as having the same present value as a regular single-life annuity using the mortality table adopted by the MSRS board and the applicable statutory interest rate assumption and with the written recommendation of the consulting actuary retained by the Legislative Commission on Pensions and Retirement to be retained in the permanent records of the board.
- In 2002 (Laws 2002, Ch. 392, Art. 11, Sec. 52), the statutory cross-reference to the interest rate assumptions was revised.
- In 2006 (Laws 2006, Ch. 271, Art. 3, Sec. 47), a conforming change was made to the statutory provision governing the retention of the consulting actuary preparing the official retirement plan actuarial valuations.

4. PERA-General

- In 1957 (Laws 1957, Ch. 935, Sec. 2 and Sec. 10, Subd. 3), actuarial equivalent optional annuity forms were authorized to be established by the Public Employees Retirement Association (PERA) board and actuarial equivalency was defined as the annual amount determined by calculations based on mortality tables, purchasable with a given amount at a stated age.
- In 1987 (Laws 1987, Ch. 259, Sec. 25), the 1957 definition was replaced, with its meaning set as the condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date with each actuarial present value based on the experience of the fund as recommended by the actuary retained by the Legislative Commission on Pensions

and Retirement and using the applicable pre-retirement or post-retirement interest rate assumption specified in Section 356.215, Subdivision 4d.

- In 2002 (Laws 2002, Ch. 392, Art. 11, Sec. 52), the statutory cross-reference to the interest rate assumptions was revised.
- In 2005 (1st Spec. Sess. 2005, Ch. 8, Art. 3, Sec. 2), a conforming change was made to the retention of the consulting actuary preparing the official actuarial valuations, and a cross-reference to the demographic actuarial assumptions approval process was added relating to the mortality table.

5. TRA

- In 1957 (Ex. Sess. Laws 1957, Ch. 16, Sec. 2), an actuarial equivalent definition was added as the annual amount determined by calculations based on mortality tables, purchasable with a given amount at a stated age, accompanying the authorization of optional retirement annuity forms in Extra Session Laws 1957, Chapter 16, Section 7.
- In 1987 (Laws 1987, Ch. 259, Sec. 30), the 1957 definition was replaced with a new definition, as the condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date, with each actuarial present value based on the appropriate mortality table adopted by the board of trustees based on the experience of the fund as recommended by the actuary retained by the Legislative Commission on Pensions and Retirement and using the applicable pre-retirement or post-retirement interest rate assumption specified in section 356.215, subdivision 4d.
- In 2002 (Laws 2002, Ch. 392, Art. 11, Sec. 52), the statutory cross-reference to the interest rate assumptions was revised.
- In 2005 (1st Spec. Sess. Laws 2005, Ch. 8, Art. 3, Sec. 3), a conforming change was made to the retention of the consulting actuary preparing the official actuarial valuations, and a cross-reference to the demographic actuarial assumption approval process was added relating to the mortality table.

6. First Class City Teachers Coordinated Programs

- In 1979 (Laws 1979, Ch. 217, Sec. 17 and 18), as part of the codification of the coordinated program benefit plan provisions intended to replicate the applicable provisions of TRA law, optional annuity forms were authorized and were required to be the actuarial equivalent of a single-life annuity, but actuarial equivalency was not defined.
- In 1987 (Laws 1987, Ch. 259, Sec. 46), a definition of “actuarial equivalent” was added to Minnesota Statutes, Chapter 354A, as the condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date, with each actuarial present value based on the appropriate mortality table adopted by the appropriate board of trustees based on the experience of that retirement fund association as recommended by the actuary retained by the Legislative Commission on Pensions and Retirement and using the applicable pre-retirement or post-retirement interest rate assumption specified in section 356.215, subdivision 4d.
- In 2002 (Laws 2002, Ch. 392, Art. 11, Sec. 52), the statutory cross-reference to the interest rate assumption was revised.
- In 2005 (1st Spec. Session Laws 2005, Ch. 8, Art. 3, Sec. 5), a conforming change was made to the retention of the consulting actuary preparing the official actuarial valuations, and a cross-reference to the demographic actuarial assumption approval process was added relating to the mortality table.

7. Judges Plan

- In 1973 (Laws 1973, Ch. 744, Sec. 1, Subd. 20), as part of the creation of the Uniform Judicial Retirement Plan, an actuarial equivalent definition was added, to mean the annual amount determined by calculations based on mortality tables, purchasable with a given amount at a stated age.
- In 1987 (Laws 1987, Ch. 259, Sec. 79), the definition was revised, as the condition of one annuity or benefit having an equal actuarial present value as another annuity or benefit, determined as of a given date with each actuarial present value based on the appropriate mortality table adopted by the board of trustees based on the experience of the fund as recommended by the commission-retained actuary and using the applicable pre-retirement or post-retirement interest rate assumption specified in section 356.215, subdivision 4d.

- In 2002 (Laws 2002), Ch. 392, Art. 11, Sec. 52), the statutory cross-reference to the interest rate assumptions was revised.
- In 2005 (1st Spec. Sess. Laws 2005, Ch. 8, Art. 3, Sec. 9), a conforming change was made to the retention of the consulting actuary preparing the official actuarial valuations, and a cross-reference to the demographic actuarial assumption approval process was added relating to the mortality table.