ABSTRACT

PENSION PREMIUM OF DEFINITE BENEFITS FOR FRACTIONAL AGES WITH PROJECTED UNIT CREDIT AND INDIVIDUAL LEVEL PREMIUM METHODS

by

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Everyone who works as an employee in a company or institution will reach an age where they are no longer actively working as usual or called retirement. When entering retirement, the employee sometimes feels a concern about the uncertainty of income. The right program to ensure the welfare of workers in old age is a pension fund program. Pension fund program is a program that provides pension benefits to participants when they enter retirement age, thus creating an obligation for participants to pay pension premiums. In this final project, the calculation of the pension premium using the Projected Unit Credit and Individual Level Premium methods for fractional age is done by modifying the life chances in the mortality table using linear assumptions. The results of this study produce a pension premium formula for fractional age, the results of numerical simulation calculations, and a comparison between the Projected Unit Credit and Individual Level Premium methods. Based on numerical simulations, it is found that the calculation of pension premiums using the Individual Level Premium method is more recommended for participants.

Keywords: Pension, pension premium, Projected Unit Credit method, Individual Level Premium method, linear assumption