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Calculation of Pension Funds for TNI Group IIIA Using the Individual Level Premium Method

Sania Bisyarah[1*], Sri Novi Elizabeth S.[2]

[1,2]*Universitas Padjadjaran, Sumedang Regency, Indonesia*

**Corresponding author email: sania21003@mail.unpad.ac.id*

Abstract

Prosperity in retirement is one of the important aspects to achieve in the career path of every individual, including the Indonesian National Army (TNI) which relies on pension funds as a source of post-retirement income. Pension funds manage programs that promise financial benefits to participants after they retire. In this context, the study aims to present the calculation of pension funds for TNI class IIIA using the Individual Level Premium method. This method allocates the total pension benefit equally each year. As a result, it is found that the Individual Level Premium method provides a greater pension benefit value than the benefit value using the proportion of salary from ASABRI. This shows that this method is effective in calculating retirement benefits.

Keywords: Pension Fund, Individual Level Premium Method, TNI Group IIIA

1. Introduction

As a form of corporate responsibility to its employees who have put in their time, the pension fund program is a future plan to ensure the survival of employees in retirement. Law of the Republic of Indonesia No. 11 of 1992 concerning Pension Funds was passed by the Indonesian government to protect the old age security for employees. Chapter 1 Article 1 states that a pension fund is a legal entity that manages and runs a program that promises retirement benefits.

According to the law on employee pensions and employee widow/widower pensions, some of the causes of a worker's retirement are death, at their own request with a certain age and length of service, reaching retirement age, organizational downsizing or government policies that result in early retirement, and physical/mental incapacity so that they cannot carry out their duties and obligations.

The retirement of many employees in a company is unpredictable, resulting in an irregular decline in the number of employees. As a result, companies must provide pension funds for their employees. The company's finances will not be stable if it does not plan and calculate annuity payments for its workers through a pension fund program. This means that calculations must be made to estimate the amount of money the company needs to pay for retired employees.

Based on this, this study will calculate the amount of normal contributions paid each year by pension plan participants and the amount of benefits obtained using the Individual Level Premium (ILP) method on the salary data of the Indonesian National Army (TNI) class IIIA. This data includes monthly salaries obtained based on the total length of service. Thus, it is hoped that this research can make a significant contribution to pension fund management and assist institutions in planning financial obligations more accurately and efficiently.

2. Literature Review

2.1 Pension Fund Program

A pension fund program is a monthly income received by retirees as a guarantee of their old age and as a form of appreciation for their years of service to the government (Taspen, 2018).

A pension fund is a type of financial entity that manages assets and pays income to individuals after they retire. Companies and other employers hold pension funds as investments to meet the annual amount set in the business organization's pension plan (Blake, 2003).

2.2 Mortality Table

A mortality table, often called a death table, is a table that displays the chances or probability of death of each member of an age-group population. The probability that a person in a certain age group will die within the time period shown in this table (Crimmins & Beltran, 2011).

In this research, the Indonesian Mortality Table IV sourced from the Indonesian Life Insurance Association (AAJI) website will be used with the ILP method. In the mortality table, the number of people aged x years is expressed as l_x and the number of people who die between the ages of x and $x+1$ expressed by:

$$d_x = l_x - l_{x+1} \tag{1}$$

$$_nd_x = l_x - l_{x+n} \tag{2}$$

The probability that a person aged x years will survive between ages n and $x+n$ is expressed as:

$$_np_x = \frac{l_{x+n}}{l_x} \tag{3}$$

In addition, the probability that a person aged x will die between ages n and $x+n$ is expressed as:

$$\begin{aligned} _nq_x &= 1 - p_x \\ &= \frac{l_x - l_{x+n}}{l_x} \end{aligned} \tag{4}$$

Future payments can be discounted to present value using an interest rate function expressed as:

$$v = \frac{1}{1+i} = (1+i)^{-1} \tag{5}$$

Please note that commutation symbols are often used in the actuarial world. The purpose of these symbols is to simplify the writing of formulas in calculations. Commutation symbols are expressed as:

$$D_x = v^x l_x \tag{6}$$

$$N_x = \sum_{t=0}^{\omega} D_{x+t} \tag{7}$$

Description:

l_x : Number of people aged x years
d_x : Number of people who died between x and $x-1$ years of age
$_np_x$: Probability that person aged x will live at least n years
$_nq_x$: Probability of people dying between the ages of x to $x-1$ years
i : Interest rate
ω : Maximum age in mortality table
D_x : The product of v^x with l_x
v^x : Present value of a unit of money in x years time
N_x : Accumulated value of D_{x+t} with $t=0$ to $t=r-x$

2.3 Annuity

An annuity is a regular payment of a certain amount made at regular intervals and for a predetermined period of time (Sheshinski, 2004). Annuities are formulated as:

$$\ddot{a}_r = \frac{N_r}{D_r} \tag{8}$$

The annuity paid annually is formulated as:

$$\ddot{a}_r^{(m)} = \ddot{a}_r + \frac{m-1}{2m} \tag{9}$$

Description:

$\ddot{a}_r$: Early life annuity for a person aged r
$\ddot{a}_r^{(m)}$: Initial life annuity for a person aged r paid m times

2.4 Multiple Decrement Table

A multiple decrement table is an extension of a mortality table. This table includes more than one depreciation factor, whereas the mortality table only includes one depreciation factor, namely death. It is assumed that as people age, the number of workers will shrink until all workers eventually stop working.

$$l_{x+1}^{(\tau)} = l_x^{(\tau)} - \left(d_x^{(t)} + d_x^{(d)} + d_x^{(m)} + d_x^{(r)}\right) \tag{10}$$

$$l_{x+1}^{(\tau)} = l_x^{(\tau)} - d_x^{(\tau)} \tag{11}$$

$$D_x^{(\tau)} = v^x l_x^{(\tau)} \tag{12}$$

$$N_x^{(\tau)} = \sum_{i=0}^{r} D_{x+i}^{(\tau)} \tag{13}$$

Description:
$l_x^{(\tau)}$: Number of participants aged x years who are still working
$d_x^{(t)}$: Number of workers aged x resigned during the year
$d_x^{(d)}$: Number of workers aged x disabled during the year
$d_x^{(m)}$: Number of workers aged x who died during the year
$d_x^{(r)}$: Number of workers of retirement age x during the year
$d_x^{(\tau)}$: Total number of workers at age x
$D_x^{(\tau)}$: Number of participants who died in year x
$N_x^{(\tau)}$: Number of participants in year x

2.5 Individual Level Premium Method

The Individual Level Premium method is a method that uses a fixed annual rate or percentage of an employee's earnings to distribute the cost of each employee's pension benefits over the time between the employee's first participation date and retirement date (Boyce & Ippolito, 2002).

2.5.1 Salary

Salary is a payment that is routinely given to employees for their contribution to the company to achieve its goals and as an effort to encourage them to improve their performance in the future (Christiana, 2017). The accumulated salary from entry age e as a pension fund participant until age $r-1$ or 1 year before retirement is formulated as follows:

$$S_x = \sum_{x=e}^{r-1} s_x \tag{14}$$

Description:
s_x : Current salary received by the participant at age x years
S_x : Accumulated salary per year from age e to $r-1$

The proportion of salary allocated to retirement benefits is expressed by the following equation:

$$B_x = kS_x \tag{15}$$

Description:
B_x : Total pension benefit amount when the worker is x years old
k : Percentage proportion of salary for pension calculation

2.5.2 Pensiun Contributions

Pension contributions are paid regularly by individuals, companies and employees to fund members' pensions and administer the program. The pension benefits that members will receive after they retire are paid from these contribution (Blake,2003). The amount of pension contributions in the ILP method is formulated as:

$${}^{ILP\ r}(NC)_x = B_r \ddot{a}_r^{(12)} \frac{D_r^{(\tau)}}{N_x^{(\tau)} - N_r^{(\tau)}} \tag{16}$$

Description:
${}^{ILP\ r}(NC)_x$: Pension contributions for participants aged x years
B_r : Accumulated retirement benefits of participants from age x to r years

2.5.3 Present Value of Future Benefit (PVFB)

The present value of the pension benefits that pension plan participants will receive is known as the Present Value of Future Benefit. Pension plan participants will receive these payments when they reach retirement age, which is r years. Retirement benefit payments are made annually until the participant dies. The amount of PVFB is calculated as:

$$(PVFB)_x = B_r v^{r-x}{}_{r-x}p_x \ddot{a}_r \tag{17}$$

$${}_{r-x}p_x = \frac{l_r}{l_x} \tag{18}$$

Description:

${}_{r-x}p_x$: The probability that a participant aged $x-1$ will live to retirement age $r = 58$

2.5.4 Actuarial Liability

The actuarial liability of a pension plan at age x is the amount of pension funds that must be accumulated at time x in order for future pension benefits to be paid (Kerkez, 2017). The value of the actuarial liability is formulated as:

$${}^{ILP\,r}(AL)_x = (PVFB)_x - {}^{ILP\,r}(NC)_x v^{r-x}{}_{r-x}p_x \tag{19}$$

Description:

${}^{ILP\,r}(AL)_x$: Actuarial liability for x year old participants

2.5.5 Pension Benefits

Pension benefits are recurring payments made to participants in accordance with the schedule and guidelines outlined in the regulations governing pension fund. (Boyce & Ippolito, 2002). lTo calculate the amount of pension benefits, it is formulated as follows:

$${}^{ILP}B = 20\% \left[{}^{ILP\,r}(AL)_{r-1} - \sum_{x}^{r-1} {}^{ILP\,r}(NC)_x \right] \tag{20}$$

3. Material and Method

3.1 Material

This study uses data on the basic salary of the Indonesian National Army (TNI) which is in accordance with Government Regulation Number 6 of 2024 concerning the Thirteenth Amendment to Government Regulation Number 28 of 2001 concerning Salary Regulations for Members of the Indonesian National Army. In this study, we used synthetic data with assumptions that are close to the actual case. In addition, TNI member data is sensitive data because it contains personal information for each member. Limitations on the synthetic data used, namely:

(a) Members of the TNI class III-A, namely the rank of Second Lieutenant in accordance with the PP
(b) The retirement age for members of class III-A is 58 years old according to TNI Law Article 53.
(c) The salary for male TNI members is the same as for women according to their class.
(d) Members who have been officially inducted into the TNI will immediately become participants in the military pension fund
(e) Pension fund contributions are paid in accordance with the provisions of the Armed Forces Social Insurance of the Republic of Indonesia (ASABRI) at 4.75%
(f) The interest rate used is based on the BI-Rate set by Bank Indonesia for the year 2024 of 6.25%

The synthetic data used contains the gender, age of the participant when entering the pension fund program, and length of service. In the data, there are three TNI members, namely member A is female, becomes a pension participant at the age of 28, the calculation when the participant is 31 and the service period until retirement is 20 years; member B is male, becomes a pension participant at the age of 30, the calculation when the participant is 34 and the service period until retirement is 28 years; and member C is male, becomes a pension participant at the age of 29, the calculation when the participant is 31 and the service period until retirement is 29 years.

Given additional data on the number of workers aged x who resigned $\boldsymbol{d_x^{(t)}}$), experience disability ($\boldsymbol{d_x^{(d)}}$), died ($\boldsymbol{d_x^{(m)}}$), and pension ($\boldsymbol{d_x^{(r)}}$) for a year. The data is presented in several tables below with the information that Table 1 is for female gender and Table 2 is for male gender.

Table 1: List of Female Participants

x	$d_x^{(t)}$	$d_x^{(d)}$	$d_x^{(m)}$	$d_x^{(r)}$
28	23.814	53	129	0
29	19.113	47	119	0
30	15.529	56	112	0
31	12.754	50	107	0
32	10.576	45	103	0
33	8.875	41	101	0
34	7.510	38	99	0
35	6.419	35	98	0
36	5.534	41	98	0
37	4.816	46	98	0
38	4.224	50	100	0
39	3.738	54	101	0
40	3.338	57	104	0
41	3.004	60	108	0
42	2.727	69	114	0
43	2.491	76	123	0
44	2.290	83	133	0
45	2.121	89	144	0
46	1.969	94	156	0
47	1.841	99	168	0
48	1.721	107	181	0
49	1.616	115	194	0
50	1.517	121	207	0
51	1.424	127	218	0
52	1.335	135	230	0
53	1.244	142	242	0
54	1.159	148	252	0
55	1.300	156	267	0
56	1.200	166	286	0
57	1.000	182	305	0
58	900	203	326	0

Table 2: List of Male Participants

x	$d_x^{(t)}$	$d_x^{(d)}$	$d_x^{(m)}$	$d_x^{(r)}$
29	19.113	47	119	0
30	15.529	56	112	0
31	12.754	50	107	0
32	10.576	45	103	0
33	8.875	41	101	0
34	7.510	38	99	0
35	6.419	35	98	0
36	5.534	41	98	0
37	4.816	46	98	0
38	4.224	50	100	0
39	3.738	54	101	0
40	3.338	57	104	0
41	3.004	60	108	0
42	2.727	69	114	0

43	2.491	76	123	0
44	2.290	83	133	0
45	2.121	89	144	0
46	1.969	94	156	0
47	1.841	99	168	0
48	1.721	107	181	0
49	1.616	115	194	0
50	1.517	121	207	0
51	1.424	127	218	0
52	1.335	135	230	0
53	1.244	142	242	0
54	1.159	148	252	0
55	1.300	156	267	0
56	1.200	166	286	0
57	1.000	182	305	0
58	900	203	326	0

3.2 Method

This research uses quantitative research methods, which are methods that rely heavily on numbers for data collection, analysis, and reporting. The research methodology used is to conduct a review of the literature related to the application of the ILP method in calculating pension benefits.

The stages carried out in calculating pension funds using the ILP method, namely:

(a) Calculating the annuity value $\ddot{a}_r$ and the annuity paid each month $\ddot{a}_r^{(12)}$
(b) Calculating accumulated salary S_r
(c) Calculating the proportion of salary for retirement benefits B_r
(d) Calculating normal pension contributions ${}^{ILP\,r}(NC)_x$
(e) Calculating Present Value of Future Benefit $(PVFB)_x$
(f) Calculating actuarial liability ${}^{ILP\,r}(AL)_x$
(g) Calculate the amount of pension benefits earned ${}^{ILP}B$
(h) Comparing the value of retirement benefits and the ILP method

4. Results and Discussion

4.1 Indonesian Mortality Table IV

In the calculation of pension funds for TNI members, we use the Indonesia IV Mortality table with the assumption that there are 1,000,000 for each male and female in the preparation of the service table.

With the age of the pension fund program participants in the current period or $x = 28$, calculate the value of the probability of death and the chance of living participants, namely:

$$q_{28} = 0.00049$$
$$p_{28} = (1 - 0.00049) = 0.99951$$

Based on the limits used, the value of the interest rate or i follows that set by the BI-Rate of 6.25% and the discount factor value is calculated, namely:

$$v^{28} = (1 + 6.25\%)^{-28} = 0.1831$$

Based on the assumption that there are $l_0 = 1{,}000{,}000$ members at age 0, we can calculate D_x and N_x, namely:

$$D_0 = l_0 v^0 = 1{,}000{,}000$$
$$D_{28} = l_{28} v^{28} = 181.334{,}1$$
$$\begin{aligned} N_{28} &= D_{28} + D_{29} + \cdots + D_{111} \\ &= 181{,}334{,}116 + 170{,}583{,}7762 + \cdots + 0.1821 \\ &= 2{,}921{,}028.8 \end{aligned}$$

The values obtained previously can be used to calculate the annuity as follows:

$$\ddot{a}_{58} = \frac{N_{58}}{D_{58}} = 13.2$$
$$\ddot{a}_{58}^{(12)} = 13.21 + \frac{11}{24} = 13.6$$

4.1.1 Service Table

It is assumed that the number of people living and working at $x = 28$ years is 1,000,000 or expressed by $l_{28}^{(\tau)} = 1{,}000{,}000$.

$$\begin{aligned} l_{29}^{(\tau)} &= l_{28}^{(\tau)} - \left(d_{28}^{(m)} + d_{28}^{(t)} + d_{28}^{(d)} + d_{28}^{(r)}\right) \\ &= 1{,}000{,}000 - (129 + 23{,}814 + 53 + 0) \\ &= 976{,}004 \end{aligned}$$
$$D_{28}^{(\tau)} = v^{28} l_{28}^{(\tau)} = 183{,}142.7$$
$$\begin{aligned} N_{28}^{(\tau)} &= D_{28}^{(\tau)} + D_{29}^{(\tau)} + \cdots + D_{58}^{(\tau)} \\ &= 183{,}142.7 + 168{,}233.4 + \cdots + 24{,}854.1 \\ &= 2{,}378{,}980.5 \end{aligned}$$

4.2 List of Basic Salaries for TNI Group III-A

The basic salary for TNI members is based on the class and length of service of the class contained in PP Number 6 of 2024. The salary list for TNI class III-A is contained in Table 3.

Table 3: List of Basic Salary for TNI Group III-A

Length of Service/Year	Salary/Month (IDR)	Length of Service/Year	Salary/Month (IDR)
0	IDR2,954,200	17	IDR3,845,800
1	IDR3,000,000	18	IDR3,845,800
2	IDR3,000,000	19	IDR3,967,100
3	IDR3,094,600	20	IDR3,967,100
4	IDR3,094,600	21	IDR4,092,200
5	IDR3,192,200	22	IDR4,092,200
6	IDR3,192,200	23	IDR4,221,200
7	IDR3,292,900	24	IDR4,221,200
8	IDR3,292,900	25	IDR4,354,300
9	IDR3,396,700	26	IDR4,354,300
10	IDR3,396,700	27	IDR4,491,600
11	IDR3,503,800	28	IDR4,491,600
12	IDR3,503,800	29	IDR4,633,200
13	IDR3,614,300	30	IDR4,633,200
14	IDR3,614,300	31	IDR4,779,300
15	IDR3,728,300	32	IDR4,779,300

4.3 Calculation of Pension Fund

In this calculation, take member A who is female, enters the pension program at the age of $e = 28$, the current age is $x = 31$, the working period from the current age to the retirement age $r = 58$, which is 30 years. The initial basic salary is IDR3,094,600.

4.3.1 Calculating Salary Accumulation

The accumulated salary is obtained from the total salary per year during employment from the first year to one year before retirement, so it is calculated from the age of member A when $x = 31$.
Salary at age 28, 0 years of service:

$$s_{28} = 3{,}094{,}600$$

Salary at age 29, 1 year of service:

$$\begin{aligned} s_{29} &= 3{,}094{,}600 \times 12 \\ &= 37{,}135{,}200 \end{aligned}$$

Applies onwards until retirement age $r-1=57$ with 30 years of service, i.e.:

$$s_{57} = 4{,}779{,}300 \times 12$$
$$= 57{,}351{,}600$$

Next, accumulate the salary from the time of age $x=31$ until the retirement age according to the following equation:

$$S_{58} = \sum_{x=28}^{57} s_x$$
$$S_{58} = s_{28} + s_{29} + \cdots + s_{57}$$
$$= 3{,}094{,}600 + 37{,}135{,}200 + \cdots + 57{,}351{,}600$$
$$= 20{,}039{,}929{,}200$$

4.3.2 Calculating the Proportion of Salary for Retirement Benefits

The value of the proportion of salary (k) is in accordance with that set by ASABRI, which is 4.75%. The amount of salary proportion for age $x=28$:

$$B_{28} = kS_{28}$$
$$= 4.75\%(37{,}135{,}200)$$
$$= 1{,}763{,}922$$

The proportion of salary for age$x=29$:

$$B_{29} = kS_{29}$$
$$= 4.75\%(74{,}270{,}400)$$
$$= 3{,}527{,}844$$

Next, accumulate member A's retirement benefits from the time $x=28$ until retirement age:

$$B_{58} = kS_{58}$$
$$= 4.75\%(20{,}039{,}929{,}200)$$
$$= 951{,}896{,}637$$

Table 4: Comparison of Salary Accumulation and Salary Proportion

Member	S_x	k	B_r
A	IDR20,039,929,200	4.75%	IDR951,896,637
B	IDR17,566,028,400	4.75%	IDR834,386,349
C	IDR18,347,320,800	4.75%	IDR871,497,738

4.3.3 Calculating Annuities

Annuity for the female gender:

$$\ddot{a}_{58} = \frac{N_{58}}{D_{58}} = \frac{365{,}236{,}7843656}{27{,}652{,}1626448} = 13.2$$

Annuity paid over 12 months or annually:

$$\ddot{a}_{58}^{(12)} = \ddot{a}_{58} + \frac{12-1}{2(12)} = 13.2 + \frac{11}{24} = 13.6$$

Do the same for the male gender. Table 5 is a comparison of annuity values between women and men.

Table 5: Annuity Comparison

P/L	$\ddot{a}_{58}$	$\ddot{a}_{58}^{(12)}$
P	13.2	13.6
L	12.6	13.07

4.3.4 Calculating Normal Pension Contributions

The amount of normal pension contributions using the ILP method with the following equation:

$${}^{ILP\ 58}(NC)_{28} = B_{28}\ddot{a}_{58}^{(12)}\frac{D_{58}^{(\tau)}}{N_{28}^{(\tau)} - N_{58}^{(\tau)}}$$
$$= (1{,}763{,}922)(13{,}6)\frac{24{,}854.15}{2{,}378{,}980.5 - 24{,}854.15}$$

$$= 254{,}512.19$$

The results show that the normal contribution for the first year is IDR254,512.19. With the same thing until the last year before retirement,

$$^{ILP\ 58}(NC)_{57} = B_{57}\ddot{a}_{58}^{(12)}\frac{D_{58}^{(\tau)}}{N_{57}^{(\tau)} - N_{58}^{(\tau)}}$$
$$= (66{,}356{,}550)(13.6)\frac{24{,}854.15}{51{,}308.6 - 24{,}854.15}$$
$$= 749{,}066{,}310.7$$

So, the normal contribution for one year before retirement at 29 years of service is IDR749,066,310.7. Accumulate the value of normal pension contributions from age $x = 28$ until one year before retirement,

$$\sum_{x=28}^{57} {}^{ILP\ 58}(NC)_x = {}^{ILP\ 58}(NC)_{28} + {}^{ILP\ 58}(NC)_{29} + \cdots + {}^{ILP\ 58}(NC)_{57}$$
$$= 254{,}512.19 + 551{,}965.3 + \cdots + 749{,}066{,}310.7$$
$$= 2{,}311{,}169{,}839.47$$

4.3.5 Calculating PVFB

The present value of pension benefits that will be received by participants in the pension fund program when participants enter normal retirement age or PVFB,

At age $x = 28$ years,

$$(PVFB)_{28} = B_{58}v^{30}{}_{30}p_{28}\ddot{a}_{58}$$
$$= (951{,}896{,}637)(0.162)\left(\frac{930{,}965}{990{,}124}\right)(13.2)$$
$$= 1{,}917{,}276{,}652.06$$

Furthermore, up to one year before retirement, $(PVFB)_{57} = B_{58}v^{1}{}_{1}p_{57}\ddot{a}_{58}$

$$= (951{,}896{,}637)(0.941)\left(\frac{930{,}965}{935{,}965}\right)(13.2)$$
$$= 11{,}766{,}688{,}996.18$$

4.3.6 Calculating Actuarial Liability

At age $x = 28$ years,

$$^{ILP\ 58}(AL)_{28} = (PVFB)_{28} - {}^{ILP\ 58}(NC)_{28}v^{30}{}_{30}p_{28}$$
$$= (1{,}917{,}276{,}652.06) - (254{,}512.19)(0.162)\left(\frac{930{,}965}{990{,}124}\right)$$
$$= 1{,}917{,}237{,}840.7$$

With the same until the last year before retirement,

$$^{ILP\ 58}(AL)_{57} = (PVFB)_{57} - {}^{ILP\ 58}(NC)_{57}v^{1}{}_{1}p_{57}$$
$$= (11{,}766{,}688{,}996.18) - (852{,}007{,}898.01)(0.941)\left(\frac{930{,}965}{935{,}965}\right)$$
$$= 10{,}969{,}313{,}849.3$$

4.3.7 Calculating Pension Benefits

Pension benefits will be given to participants at 20% at once when entering retirement age $r = 58$ and the remaining 80% will be allocated every month as pension salary. The benefits that will be obtained using the ILP method are:

$$^{ILP}B = 20\%\left[{}^{ILP\ 58}(AL)_{57} - \sum_{x=28}^{57} {}^{ILP\ 58}(NC)_{28}\right]$$
$$= 20\%[10{,}969{,}313{,}849.3 - 2{,}311{,}169{,}839.47]$$
$$= 1{,}731{,}628{,}801.97$$

4.3.8 Comparison of Retirement Benefits

In Table 6, there is a comparison of pension benefit data with the initial calculation and after using the ILP method. Based on the table, it can be seen that the benefits received are different using the ILP method because the initial benefit calculation uses the proportion of salary set by ASABRI and is not the same as that set by the BI-Rate. In

addition, it can also be seen that the amount of contribution benefits collected from each member until retirement age is very large according to the total length of service.

Table 6: Comparison of Retirement Benefits and Individual Premium Method

Member	F/M	Length of Service/Year	B_r	${}^{ILP}B$
A	F	30	IDR951,896,637	IDR1,731,628,801.97
B	M	28	IDR834,386,349	IDR1,414,640,548.52
C	M	29	IDR871,497,738	IDR1,493,128,328.38

5. Conclusion

Based on the results and discussion, it can be seen that the Individual Level Premium method provides a greater value of pension benefits compared to the value of pension benefits using the proportion of salary from ASABRI. With this method, pension plan participants are guaranteed to receive more ideal benefits according to their total service period that follows the BI-Rate standard. Therefore, the Individual Level Premium method can be considered as a more efficient retirement planning method. It is hoped that this research can significantly improve pension fund management and help institutions to plan financial responsibilities more appropriately and effectively.

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