"Back of the envelope" Pension Comparison

1. **Employee X**
   a. Is a 68-year old woman (Exhibit 1)
   b. Served for 22 years on the Providence City Council (Exhibit 1)
   c. Is currently receiving a $495 per month (or $5,940 per year) civil service pension from the City for service on the City Council. (Exhibit 1)
   d. She will live to the age of 87 years (Exhibit 2)

2. **Employee Y**
   a. Is a 68-year old woman
   b. Has no prior service for the City of Providence
   c. She will live to the age of 87 years (Exhibit 2)

3. **The Position**
   a. The employee (X or Y) will receive $57,000 per year (Exhibit 1)
   b. For simplicity, there will be no pay increases
   c. The employee will begin on July 1, 2015.
   d. The employee will retire on June 30, 2020.

4. **The Retirement**
   a. Employee X will suspend her civil service pension while employed with the City.
   b. Employees X and Y will take a full pension upon retirement.
   c. Their retirement will last for 14 years until they reach age 87 (Exhibit 2)

5. **Employee X's pension**
   a. Average Salary: $57,000
   b. Years of Service: 27
   c. Percentage of Salary based on years of service: 64% (Exhibit 3)
   d. Annual pension: $57,000 x 64% = $36,480
   e. Monthly pension: $36,480/12 = $3,040
   f. Total pension payments: $36,480 x 14 = $510,720
   g. Suspended pension payments: $5,940 x 19 = $112,860
   h. Net increase in pension payments: $510,720 - $112,860 = $397,860

6. **Employee Y's pension**
   a. Average Salary: $57,000
   b. Years of Service: 5
   c. Percentage of Salary based on years of service: 10% (Exhibit 3)
   d. Annual pension: $57,000 x 10% = $5,700
   e. Monthly pension: $7,125/12 = $475
   f. Total pension payments: $5,700 x 14 = $79,800

7. **Gross increase in pension payments (before discounting to present value)**
   a. $397,860 - $79,800 = $318,060

8. <u>Present discounted value (PDV) calculation assumptions</u>
   a. The discount rate will be 8.25%, which is the expected rate of return of the pension system.
   b. We will assume there are no cost-of-living adjustments to the pensions for simplicity.

9. <u>PDV of net cost of Employee X's pension increase</u>
   a. PDV of enhanced pension (as of July 1, 2020): $302,317 (Exhibit 4)
   b. PDV of enhanced pension (as of July 1, 2015): $203,387 (Exhibit 5)
   b. PDV of previous pension: $56,902 (Exhibit 6)
   c. **Net pension cost (PDV): $203,387 - $56,902 = $146,485**

10. <u>PDV of Employee Y's pension</u>
   a. PDV of pension (as of July 1, 2020): $47,237 (Exhibit 7)
   b. PDV of pension (as of July 1, 2015): $31,779 (Exhibit 8)

11. <u>Net cost (Employee X - Employee Y)</u>
   a. **$146,485 - $31,779 = $114,706**

Table of Exhibits

1.   WPRI.com Post with background information

2.   Life expectancy calculator for 68 year old female

3.   Pension Ordinance excerpts

4.   Mortgage calculator: present day value of 14-year pension of $3,040 per month with 8.25% discount rate

5.   Present day value calculator: reducing item (4) to present day value at 5 years at 8.25%.

6.   Mortgage calculator: present day value of 19-year pension of $495 per month with 8.25% discount rate

7.   Mortgage calculator: present day value of 14-year pension of $475 per month with 8.25% discount rate

8.   Present day value calculator: reducing item (7) to present day value at 5 years at 8.25%.