

## Retirement

You are a college student nearing graduation and about to enter the workforce. You've received several offers which offer similar salary but different benefits. In particular, the retirement benefits are very different.

The retirement benefits offered by three potential employers are summarized in the Excel attachment "Retirement Data" on the "Retirement Plans" tab.

### Task 1

Using the assumptions provided on the "Assumptions" tab, calculate the Age 65 lump sum value of each company's retirement benefit. All else equal, which company would you choose and why?

### Task 2

While the results you just calculated may seem like a sizeable amount of money, it may be difficult to ascertain whether it is adequate for retirement. Determine how much money you would have each year of your retirement (assume level amounts each year) if you lived to your life expectancy (from Age 65). Compare this to your pay in your last year before retirement, and determine whether you would be able to maintain a similar standard of living and why.

### Task 3

A reputable study shows that the average retiree needs 11 times their final pay to maintain the same quality of life after retirement.

1. How valuable does a Final Average Pay plan need to be to achieve this result (assume three-year average pay)?
2. How valuable does a Cash Balance plan need to be (i.e. what contribution percentage) to achieve this result?
3. What percentage of salary each year would you need to contribute each year to achieve this result purely from your contributions?

**Task 4**

The study referenced above is for the average employee. Analyze how the following assumptions impact each aspect of the retirement adequacy analysis. Provide sensitivity analysis where appropriate.

1. Current Age
2. Retirement Age
3. Current Pay
4. Mortality
5. Housing Costs
6. Suggest 3 more factors and provide the same analysis for each.

**Task 5**

Suggest three ways an employee can improve his or her retirement adequacy.

**Task 6**

Suggest three ways an employer can improve the retirement adequacy of its employees, without increasing cost.