

Lab 6

Stat 426

Spring 2021

Instructions

Complete all questions. To prepare for the randomly collected lab, follow the instructions on the class website to prepare the work for submission. These submission rules will apply to all labs throughout the semester.

Iterative programming

- (1) With the provided starter code and data table, create a DO loop containing statements to calculate the estimated values of Wages, Retire, and Medical, and Total_Cost for 10 years

```
data initial;
wages=12874000;
retire=1765000;
medical=649000;
total_cost=sum(wages,retire,medical)
run;
```

```
data expenses;
set initial;
<insert your code here for loop>;
```

- (2) Use start and stop to control the values of the index-variable that you will name Year within your DO loop
- (3) Assume the estimated annual increase shown in the table; an example bit of code to help with the calculations for wages having a 6% yearly increase: `wages=wages*1.06;`

Variable	Current value	Est. annual increase
Wages	12,874,000	6%
Retire	1,765,000	1.4%
Medical	649,000	9.5%

- (4) Use the OUTPUT statement to see each year's results
- (5) Use PROC PRINT to verify that your results look similar to the following:

Obs	year	Wages	Retire	Medical	total_cost
1	2015	\$13,646,440.00	\$1,789,710.00	\$710,655.00	\$16,146,805.00
2	2016	\$14,465,226.40	\$1,814,765.94	\$778,167.23	\$17,058,159.57
3	2017	\$15,333,139.98	\$1,840,172.66	\$852,093.11	\$18,025,405.76
4	2018	\$16,253,128.38	\$1,865,935.08	\$933,041.96	\$19,052,105.42
5	2019	\$17,228,316.09	\$1,892,058.17	\$1,021,680.94	\$20,142,055.20
6	2020	\$18,262,015.05	\$1,918,546.99	\$1,118,740.63	\$21,299,302.67
7	2021	\$19,357,735.95	\$1,945,406.64	\$1,225,020.99	\$22,528,163.59
8	2022	\$20,519,200.11	\$1,972,642.34	\$1,341,397.99	\$23,833,240.44
9	2023	\$21,750,352.12	\$2,000,259.33	\$1,468,830.80	\$25,219,442.24
10	2024	\$23,055,373.25	\$2,028,262.96	\$1,608,369.72	\$26,692,005.93