

## 1. OVERVIEW OF THE ANALYSIS

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Pewlett Hackard is a large company boasting several thousand employees and it's been around for a long time. As baby boomers begin to retire at a rapid rate Pewlett Hackard is looking toward the future in two ways. First, it's offering a retirement package for those who meet certain criteria. Second, it's starting to think about which positions will need to be filled in the near future. The number of upcoming retirements will leave thousands of job openings. What would happen to a company if they didn't look ahead and prepare for this many vacancies? It probably wouldn't be pretty.

Bobby is an up and coming HR Analyst whose task is to perform employee research. Specifically, he needs to find answers to the following questions:

1. Who will be retiring in the next few years
2. How many positions will Pewlett Hackard need to fill?

This analysis will help future-proof PewAt Hackard by generating a list of all employees eligible for the retirement package. The employee data Bobby needs is the only available form of six CSV files because Pewlett Hackard has been mainly using Excel and VBA to work with their data. But now they've finally decided to update their methods and instead use SQL, a definite upgrade considering the amount of data.

**PURPOSE: Help Bobby build an employee database with SQL by applying my data modeling, engineering, and analysis skills.**

## 2. RESULTS OF THE ANALYSIS

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### Deliverable 1:

- 72,458 employees fall under the near-retirement criteria, which accounts for ~30% of the current workforce.
- The most affected position will be senior “*Senior Engineer*”, which accounts for ~36% of the retiring workforce.

### Deliverable 2:

- 1,549 employees are eligible for the mentorship program
- Most common positions for mentorship programs are “*Staff*” and “*Senior Engineer*”

### 3. SUMMARY OF THE ANALYSIS

1. How many roles will need to be filled as the "silver tsunami" begins to make an impact?

72,458 employees.

```
SELECT COUNT(emp_no)
```

```
FROM (
```

```
    SELECT DISTINCT ON (emp_no) emp_no
```

```
    FROM retirement_titles
```

```
    WHERE to_date = ('9999-01-01')
```

```
) AS subquery;
```

2. Are there enough qualified, retirement-ready employees in the departments to mentor the next generation of Hewlett Packard employees?

According to **Table 1**. Number of employees per retiring employee, there are (on average) 1.4 employees for each new employee joining the company. In my opinion, this number seems low and as it may affect the “*Business As Usual*” of non-retiring employees, considering a person takes at least 30 days to start catching up.

**Table 1.** Number of employees per retiring employees

title	total employees	retiring_employees	retiring / total e ratio
Senior Engineer	85,939	25,916	1.4
Senior Staff	82,024	24,926	1.4
Engineer	30,983	9,285	1.4
Staff	25,526	7,636	1.4
Technique Leader	12,055	3,603	1.4
Assistant Engineer	3,588	1,090	1.4
Manager	9	2	1.3
AVERAGE			1.4

```
SELECT title, COUNT(emp_no)

FROM (

    SELECT e.emp_no, e.first_name, e.last_name, t.title, t.from_date, t.to_date

    FROM employees AS e

    INNER JOIN titles AS t

    ON e.emp_no = t.emp_no

    WHERE to_date = ('9999-01-01')

) AS subquery

GROUP BY title

ORDER BY count DESC;
```