**Pewlett-Hackard Analysis:**

**SQL & PostgreSQL**

**Overview:**

Pewlett-Hackard is a large company who has been slow to develop its database capabilities and has asked us to organize and create a Human Resource database from several unrelated spreadsheet or csv files that currently hold their employee data. After creating the SQL data base, they requested an analysis be done since a significant number of their employees will be coming eligible for retirement in the near future. They have requested us to determine what the impact of this “silver tsunami” might be, and how they could plan for this transition in their work force. They are looking at implementing a mentoring program that would pair off these senior employees with younger ones to prepare them to take leadership roles as the experienced workers retire. To do this we first need to determine the number of employees that will be reaching the eligible retirement age in the next few years, and second determine how many employees are eligible to participate in this mentorship program given their set criteria.

Used PostgreSQL to merge and filter the data from several CSV files to get the desired information and analysis:

**Results:**

**Original Request Result & Analysis:**

* The number of current employees that will be reaching the eligible retirement age over the next few years is 72,458 which is 30.2% of their total workforce.
* The number of current employees that will be reaching the eligible retirement age over the next few years, (birthday in the years of 1952 – 1955), listed by title shows that most of them are in senor positions.

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* Given the original requirements, employees born in 1965, the number of current employees eligibility to participation in the mentorship program is 1,549, which is significantly less than those who will be retiring.

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* By expanding the mentorship criteria to include the years of (1962-1965) versed the single year of 1965 you see a significant increase in those available to be mentored.

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**Summary:**

As first glance this “silver tsunami” appears to be catastrophic with over 30% of their work force leaving in such a short time frame. However, after further analysis we can see that they do have some option.

* First, they could review their company structure and how they do business. Could they outsource some of the engineering work to reduce their need to employ as many engineers as they currently have.
* Second, in total the number of employees becoming retirement eligible is significant but as you can see by year it is more manageable. (See Impact of “silver tsunami” below)
* Third, in addition to the mentorship program they could also try providing incentive for individuals to delay retirement, which would spread this “silver Tsunami” over even more years lessoning its sudden impact.

**Addition queries provide us with the following information:**

**Impact of “silver tsunami” by year:**

In total the number of retirement eligible is 72,458, but by year it is over 18,000 each year, except for 1952:

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**Available Mentors vs Mentees by Department:**

As you can see based on the original criteria of only those employees born in 1965 there are enough mentors for mentees in each department.

**Mentors Available per Department: Mentees Eligible per Department:**

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Here is the same information with expanded criteria to include the years of 1962-1965, there are still enough mentors for each mentee by department.

**Mentors Available per Department: Mentees Eligible per Department:**

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