

Problem

HR Request to Data Analysis Team

1. Provide a list of healthy individuals and low absenteeism for healthy bonus program – total budget \$1000USD.
2. Calculate a Wage Increase or annual compensation for Non-Smokers for insurance Budget of \$983,221 for all Non-smokers.
3. Create a Dashboard for HR to understand Absenteeism at work based on approved wireframe.

Solution

1. The list of healthy individuals and low absenteeism rate consists of those that are not smokers, social drinkers, posses healthy BMI and have an absenteeism lower than the average absenteeism. After sorting our data, we found **125 persons** according to the set criteria.
2. We found from our data that the list of non-smokers are **686 persons**. The wage increase or annual compensation for non-smokers using a wage increase rate of 0.68 is **\$1414**.
3. This report provides a comprehensive analysis of absenteeism among employees, categorized into Employee Demographics, Trends and Time, and Reasons and Comparisons. The data covers various aspects such as employee BMI, pet ownership, absenteeism trends over time, and reasons for absenteeism, offering insights to help HR develop targeted strategies to reduce absenteeism.

Overview

- **Average Hours of Absenteeism:** 6.92 hours
- **Number of Employees:** 740
- **Total Absenteeism Hours:** 5124 hours

Employee Categories

Worker BMI

- **Overweight:** 272 employees (36.76%)
- **Healthy Weight:** 264 employees (35.68%)
- **Obese:** 204 employees (27.57%)

Pet Ownership

- **0 Pets:** 460 employees
- **1 Pet:** 138 employees
- **2 Pets:** 96 employees
- **3 Pets:** 0 employees
- **4 Pets:** 32 employees
- **5 Pets:** 6 employees
- **8 Pets:** 8 employees

Absenteeism by Age Category

- **Early Career (Under 30):** 292 employees (39.46%)

- **Mid-Career (30-45):** 365 employees (49.32%)
- **Late Career (45-60):** 75 employees (10.14%)
- **Near Retirement (60+):** 8 employees (1.08%)

Total Absenteeism by Age

- **Early Career:** 292 hours (39.46%)
- **Mid-Career:** 365 hours (49.32%)
- **Late Career:** 75 hours (10.14%)
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Trends and Time

Average Absenteeism Hours by Month

- **January:** 4.44 hours
- **February:** 4.08 hours
- **March:** 8.79 hours
- **April:** 9.09 hours
- **May:** 6.25 hours
- **June:** 7.61 hours
- **July:** 10.96 hours
- **August:** 5.33 hours
- **September:** 5.51 hours
- **October:** 4.92 hours
- **November:** 7.51 hours
- **December:** 8.45 hours

Average Absenteeism Hours by Day of the Week

- **Day 2:** 9.25 hours
- **Day 3:** 7.98 hours
- **Day 4:** 7.15 hours
- **Day 5:** 4.42 hours
- **Day 6:** 5.13 hours

Reasons and Comparisons

Reasons for Absenteeism

- **Medical Consultation:** 149 cases
- **Dental Consultation:** 112 cases
- **Physiotherapy:** 69 cases
- **Disease of the Musculoskeletal System and Connective Tissue:** 55 cases
- **Unknown:** 43 cases
- **Injury, Poisoning, and Certain Consequences of External Causes:** 40 cases
- **Patient Follow-Up:** 38 cases
- **Unjustified Absence:** 33 cases
- **Laboratory Examination:** 31 cases
- **Pregnancy, Childbirth, and the Puerperium:** 2 cases
- **Endocrine, Nutritional, and Metabolic Diseases:** 2 cases
- **Blood Donation:** 3 cases

Transportation Expenses and Absenteeism

The graph is downward sloping which signifies that the higher the transport cost, the lower the absenteeism. This is explainable because there is a reward system for those with lower absenteeism which is why transportation cost is not a factor that affects absenteeism since everyone tries to gain this reward.

Summary and Insights

The analysis of absenteeism within the organization reveals several key trends and factors. On average, employees are absent for 6.92 hours, resulting in a total of 5124 absenteeism hours across 740 employees. The data indicates that the majority of the workforce falls into the overweight category, with a significant portion of employees owning no pets.

Absenteeism is highest among employees in their mid-career stage, followed by those in early career stages. This suggests a need for targeted interventions for these groups to address the underlying causes of absenteeism.

Monthly trends show that absenteeism peaks in July and is lowest in February. Additionally, absenteeism is highest on the second day of the week, which may indicate a need for policies addressing mid-week productivity.

Medical consultations are the leading cause of absenteeism, followed by dental consultations and physiotherapy. This highlights the importance of providing adequate healthcare support to employees to reduce absenteeism rates.

Finally, the comparison of transportation expenses and absenteeism shows that the higher the transportation cost, the lower the absenteeism. This is explainable because there is a reward system for those with lower absenteeism which is why transportation cost is not a factor that affects absenteeism since everyone tries to gain this reward.

By addressing these key areas, the organization can develop more effective strategies to reduce absenteeism, enhance employee well-being, and improve overall productivity.