Task 1: EDA Report

Date: 17/11/2017
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Summary Statistics

Column	Mean	Standard Deviation	Min	Max
Satisfaction Level	0.612834	0.248631	0.09	1
Last Evaluation	0.716102	0.171169	0.36	1
Number of Projects	3.803054	1.232592	2	7
Average monthly hours	201.050337	49.943099	96	310
Time spent at Company (years)	3.498233	0.351719	0	10
Work Accident	0.144610	0.351719	0	1
Promotion in last 5 years	0.021268	0.144281	0	1
Left the company	0.238083	0.425924	0	1

Analysis

1. How does salary affect employees?

3489 employees have left the company because they were underpaid, i.e., they fell within the low or medium salary ranges respectively.
Please refer to the **salary.png** figure.

2. How does the department affect employees?

The sales, support and technical departments each have more than double the amount of employees that leave with respect to the rest of the departments. This amounts to **15.107%** of employees which arises a need for each of these departments inspected and their performance reviewed.
Please refer to the **department.png** figure.

3. Does having an accident at work have a direct impact on employees that left?

According to the **work_accident.png** figure, employees that have experienced work accidents are more likely to stay with the company than leave. This is emphasized by the **3.2 : 1** ratio of employees staying to them leaving. However, it should not be left unnoticed that the amount of employees that do leave as a result of work accidents is quite significant as it is over **22%** of all employees. A recommendation is to ensure that a safer working environment is established as to reduce this percentage.

4. Do employees with a low satisfaction leave?

2606 employees have left the company due to a low satisfaction level, although it is worth noting that still over **4300** employees with low satisfaction levels have remained. A total of **6937** employees, just under half of all employees, have low satisfaction level with the company. This is quite concerning as it is possible that given most employees are under paid they will leave the company. Employee surveys or suggestion boxes should be put in place in attempt to narrow down the underlying issues affecting the employees' satisfaction.
Please refer to the **satisfaction_level.png** figure.

5. Are overworked and undervalued employees leaving?

Indeed, **1813** of the **4804** employees who are overworked and undervalued are leaving the company. Although just under **3000** employees have remained, this number is likely to decrease as the satisfaction level of approximately **46%** employees is below average. There needs to be a reevaluation of employee compensation such that it is fair and promotes employee loyalty and satisfaction.
Please refer to the **overworked_undervalued.png** figure.

6. Are overworked and unrecognized employees leaving?

Around **1800** dedicated employees are leaving due to their efforts being overlooked. These employees every month on average spend more hours working than the average employee, and they take on more projects than the average employee, yet have not been promoted within the past 5 years. Such is the formula to reduce employee satisfaction and should be avoided at all costs. Performance evaluations should be conducted and where granted, promotions should be awarded.
Please refer to the **overlooked_unrecognised.png** figure.