









# HR Analytics





This HR Analytics project aims to analyze various factors, including demographics, job-related variables, career progression, and work-life balance, to understand their impact on employee attrition within a company. Through data visualization and analysis, the project seeks to uncover patterns and insights that can inform HR strategies and interventions to reduce attrition and improve overall employee satisfaction and retention.



#### **ATTRITION OVERVIEW**

This section provides an overall view of employee attrition, focusing on the correlation between numeric variables and attrition.



#### **DEMOGRAPHICS**

This section explores how demographics factors such as marital status, gender and education field relate to attrition rates



#### **JOB-RELATED FACTORS**

This section investigates the impact of job-related factors like jo role, department and working years on attrition



## CAREER AND WORK BALANCE

This section looks at the influence of career-related factors like overtime, education level, number of companies worked and distance from home on attrition











## ATTRITION - OVERVIEW

										Co	rrelat	ion P	lot									
Age -	1	0.011	0.001	70.21	0.01	0.024	0.03	0.51-	0.004	9 0.5	0.028	0.3	0.0036	0.0019	0.054	0.68	-0.02	-0.021	0.31	0.21	0.22	0.2
DailyRate -0	.011	1	-0.005	0.017	0.018	0.023	0.046	0.003	0.031	0.0077	-0.032	0.038	0.023	.0004	<b>7</b> .0078	0.015	0.0025	0.038	-0.034	0.0099	-0.033	0.026
DistanceFromHome -0.	.001	0.005	1	0.021	-0.016	0.031	0.0088	0.0053	0.003	70.017	0.027	-0.029	0.04	0.027	0.0066	0.004€	0.037	-0.027	0.0095	0.019	0.01	0.014
Education - (	0.21	0.017	0.021	1	0.027	0.017	0.042	0.1	0.011	0.095	-0.026	0.13	0.011	-0.025	0.0091	0.15	-0.025	0.0098	0.069	0.06	0.054	0.069
EnvironmentSatisfaction - (	0.01	0.018	0.016	0.027	1	-0.05	0.008	3.0012	0.006	<b>a</b> .006:	0.038	0.013	-0.032	-0.03	0.0077	0.002	0.019	0.028	0.0015	0.018	0.016	-0.005
HourlyRate -0	.024	0.023	0.031	0.017	-0.05	1	0.043	-0.028	0.071	0.016	-0.015	0.022	0.009	0.002	0.0013	0.002 <del>:</del>	3.008 <del>.</del>	໑.0046	-0.02	0.024	-0.027	-0.02
JobInvolvement - (	0.03	0.046	0.0088	0.042	0.008	0.043	1	-0.013	0.021	-0.015	-0.016	0.015	-0.017	-0.029	0.034	0.005	0.015	-0.015	-0.021	0.0087	0.024	0.026
JobLevel - (	0.51	0.003	0.0053	0.1	0.0012	0.028	-0.013	1	0.001	0.95	0.04	0.14	-0.035	-0.021	0.022	0.78	0.018	0.038	0.53	0.39	0.35	0.38
JobSatisfaction0.	.0049	0.031	0.003	0.011	0.006	0.071	-0.021	0.0019	1	0.0070	20006	40.056	0.02	0.0023	0.012	-0.02-	0.005	0.019	0.003	0.0023	0.018	0.028
MonthlyIncome -	0.5	0.0077	0.017	0.095	0.006	0.016	0.015	0.95	0.007	1	0.035	0.15	-0.027	-0.017	0.026	0.77	0.022	0.031	0.51	0.36	0.34	0.34
MonthlyRate -0	.028	0.032	0.027	-0.026	0.038	-0.015	-0.016	0.040	.0006	40.035	1	0.018	0.0064	D.009	3.0041	.0.026	0.0015	0.008	-0.024	0.013	0.0016	0.037
NumCompaniesWorked -	0.3	0.038	-0.029	0.13	0.013	0.022	0.015	0.14	0.05€	0.15	0.018	1	-0.01	-0.014	0.053	0.24	0.066	0.0084	-0.12	0.091	-0.037	-0.11
PercentSalaryHike -).	0036	0.023	0.04	0.011	0.032	0.009	0.017	-0.035	0.02	-0.027	0.0064	-0.01	1	0.77	-0.04	0.021	0.005	0.0033	0.036	0.0015	0.022	0.012
PerformanceRating -).	0016	.0004	0.027	-0.025	-0.03-	0.002	20.029	-0.021	0.0023	0.017	0.0098	80.014	0.77	1	-0.031	0.0067	0.016	0.0026	0.0034	0.035	0.018	0.023
RelationshipSatisfaction -0	.054	0.0078	0.006€	0.009	0.0077	0.0013	0.034	0.022	0.012	0.026	0.0041	0.053	-0.04	-0.031	1	0.024	0.0025	0.02	0.019	0.015	0.033	.0008
TotalWorkingYears - (	0.68	0.015	0.004€	0.15-	0.002 <del>-</del>	0.002	3.005	0.78	-0.02	0.77	0.026	0.24	0.021	0.0067	0.024	1	0.036	0.001	0.63	0.46	0.4	0.46
TrainingTimesLastYear	0.02	0.0025	0.037	-0.025	0.019	0.008	50.015	0.018	0.005	80.022	0.0015	0.066	0.0052	20.016	0.0025	0.036	1	0.028	0.003€	0.005-	0.002	0.004
WorkLifeBalance0	0.021	0.038	-0.027	0.0098	0.028	0.004	60.015	0.038	0.019	0.031	0.008	0.0084	0.0033	3.0026	0.02	0.001	0.028	1	0.012	0.05	0.0089	0.0028
YearsAtCompany - (	0.31	0.034	0.0095	0.069	0.0015	-0.02	-0.021	0.53-	0.003	80.51	-0.024	-0.12	0.036	0.0034	0.019	0.63	0.0036	0.012	1	0.76	0.62	0.77
YearsInCurrentRole - (	0.21	0.0099	0.019	0.06	0.018	0.024	0.0087	0.39-	0.002	3 0.36	-0.013	-0.091	0.0015	0.035	-0.015	0.46-	0.005	0.05	0.76	1	0.55	0.71
YearsSinceLastPromotion - (	0.22	0.033	0.01	0.054	0.016	0.027	0.024	0.35	0.018	0.34	0.0016	0.037	0.022	0.018	0.033	0.4 -	0.002	0.0089	0.62	0.55	1	0.51
YearsWithCurrManager -	0.2	0.026	0.014	0.069	0.005	-0.02	0.026	0.38	0.028	0.34	-0.037	-0.11	0.012	0.023	.0008	70.46-	0.004	0.0028	0.77	0.71	0.51	1
	- Age -	DailyRate –	DistanceFromHome -	Education -	EnvironmentSatisfaction -	HourlyRate -	Jobinvolvement -	JobLevel -	JobSatisfaction -	MonthlyIncome -	MonthlyRate -	NumCompaniesWorked -	PercentSalaryHike -	PerformanceRating -	RelationshipSatisfaction -	TotalWorkingYears -	TrainingTimesLastYear -	WorkLifeBalance -	YearsAtCompany -	YearsInCurrentRole -	rearsSinceLastPromotion -	YearsWithCurrManager -

- 1.0

- 0.8

- 0.6





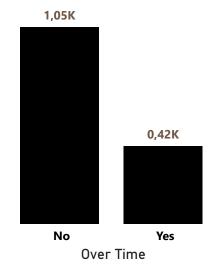






## **DEMOGRAPHICS**

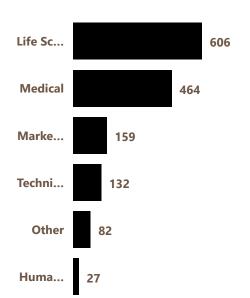
### Over Time by Attrition



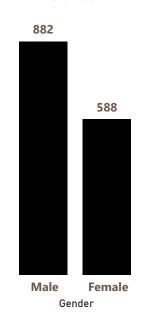
### Marital Status by Attrition



#### **Education Field**



#### Gender



#### Count of Attrition by Gender

Gender	No	Yes	Total			
Female	501	87	588			
Male	732	150	882			
Total	1233	237	1470			

## Count of Attrition by Gender

Over Time	No	Yes	Total
No	944	110	1054
Yes	289	127	416
Total	1233	237	1470









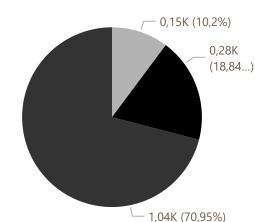


## JOB-RELATED FACTORS

### Attrition by Job Role

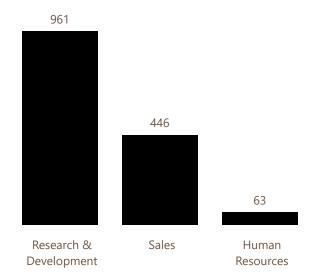


#### **Business Travels with Attrition**

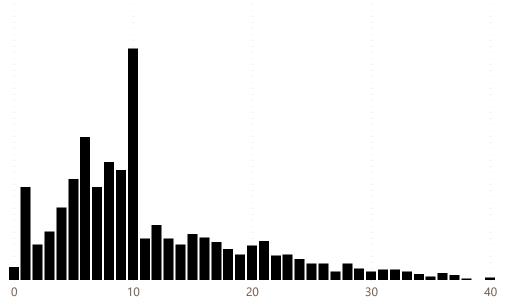


## **Business Tr...** ● Non-Travel ● Travel\_Fre... ● Travel\_Rar...

### Departmental Attrition distribution



## Attrition Rate by Total Working Years













Education

# CAREER AND WORK BALANCE

