

Data Visualization & Analytics

IBM HR Analytics Employee Attrition

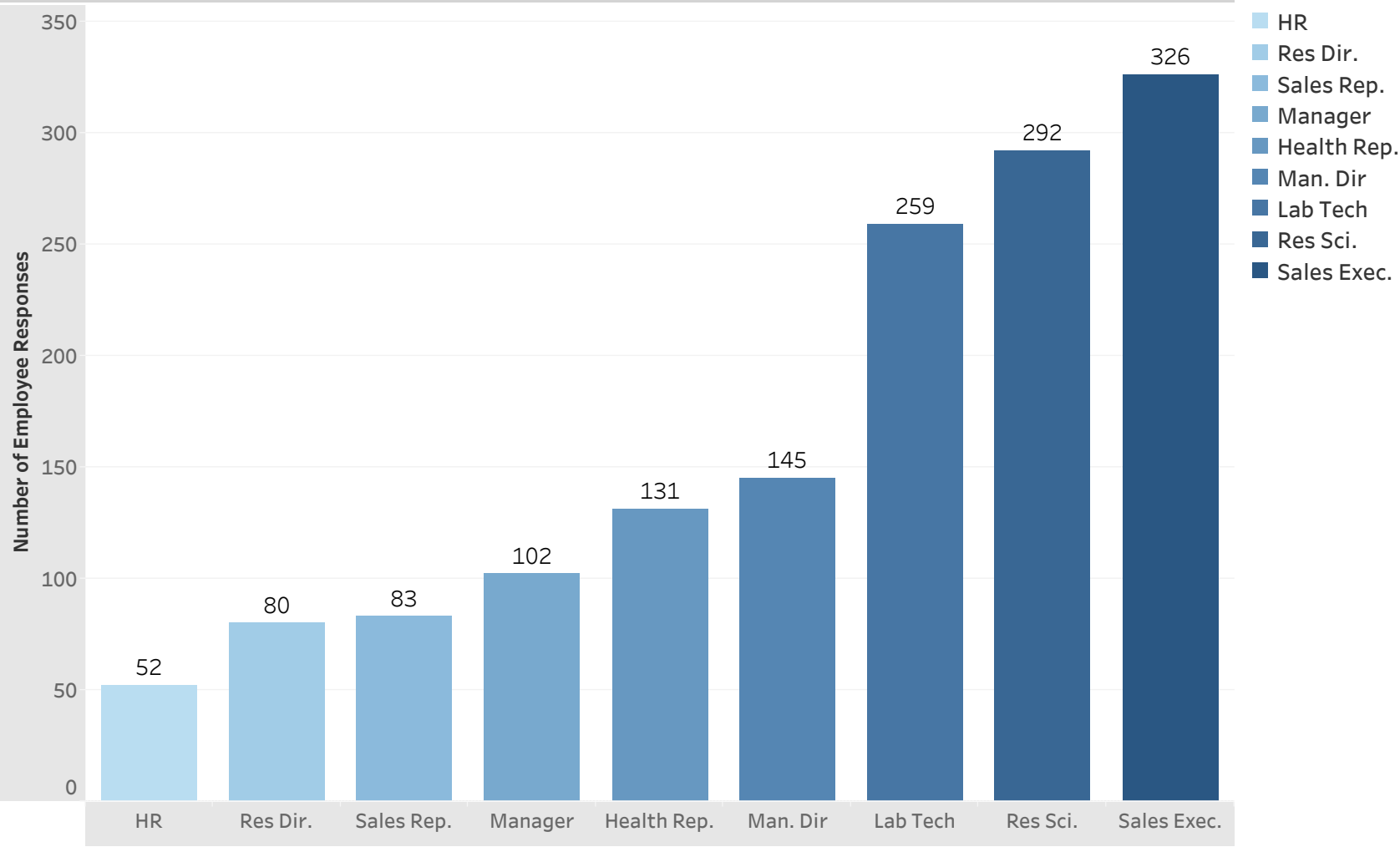
Sunita Barik

DATASET DESCRIPTION

Name	Description
AGE	Numerical Value
ATTRITION	Employee leaving the company (0=no, 1=yes)
BUSINESS TRAVEL	(1=No Travel, 2=Travel Frequently, 3=Tavel Rarely)
DAILY RATE	Numerical Value - Salary Level
DEPARTMENT	(1=HR, 2=R&D, 3=Sales)
DISTANCE FROM HOME	Numerical Value - THE DISTANCE FROM WORK TO HOME
EDUCATION	Numerical Value (1=BELOW COLLEGE, 2=COLLEGE, 3=BACHELOR, 4=MASTER, 5=DOCTOR)
EDUCATION FIELD	(1=HR, 2=LIFE SCIENCES, 3=MARKETING, 4=MEDICAL SCIENCES, 5=OTHERS, 6= TEHCNICAL)
EMPLOYEE COUNT	Numerical Value
EMPLOYEE NUMBER	Numerical Value - EMPLOYEE ID
ENVIROMENT SATISFACTION	Numerical Value - SATISFACTION WITH THE ENVIROMENT (Rating 1-5)
GENDER	(1=FEMALE, 2=MALE)
HOURLY RATE	Numerical Value - HOURLY SALARY
JOB INVOLVEMENT	Numerical Value - JOB INVOLVEMENT
JOB LEVEL	Numerical Value - LEVEL OF JOB
JOB ROLE	(1=HC REP, 2=HR, 3=LAB TECHNICIAN, 4=MANAGER, 5= MANAGING DIRECTOR, 6= REASEARCH DIRECTOR, 7= RESEARCH SCIENTIST, 8=SALES EXECUTIEVE, 9= SALES REPRESENTATIVE)
JOB SATISFACTION	Numerical Value - SATISFACTION WITH THE JOB (Rating 1-5)
MARITAL STATUS	(1=DIVORCED, 2=MARRIED, 3=SINGLE)
MONTHLY INCOME	Numerical Value - MONTHLY SALARY
MONTHY RATE	Numerical Value - MONTHY RATE
NUMCOMPANIES WORKED	Numerical Value - NO. OF COMPANIES WORKED AT
OVER 18	(1=YES, 2=NO)
OVERTIME	(1=NO, 2=YES)
PERCENT SALARY HIKE	Numerical Value - PERCENTAGE INCREASE IN SALARY
PERFORMANCE RATING	Numerical Value - PERFORMANCE RATING (Rating 1-5)
RELATIONS SATISFACTION	Numerical Value - RELATIONS SATISFACTION (Rating 1-5)
STANDARD HOURS	Numerical Value - STANDARD HOURS
STOCK OPTIONS LEVEL	Numerical Value - STOCK OPTIONS (1=YES, 2=NO)
TOTAL WORKING YEARS	Numerical Value - TOTAL YEARS WORKED
TRAINING TIMES LAST YEAR	Numerical Value - HOURS SPENT TRAINING
WORK LIFE BALANCE	Numerical Value - TIME SPENT BEWTWEEN WORK AND OUTSIDE
YEARS AT COMPANY	Numerical Value - TOTAL NUMBER OF YEARS AT THE COMPNAY
YEARS IN CURRENT ROLE	Numerical Value -YEARS IN CURRENT ROLE
YEARS SINCE LAST PROMOTION	Numerical Value - LAST PROMOTION
YEARS WITH CURRENT MANAGER	Numerical Value - YEARS SPENT WITH CURRENT MANAGE

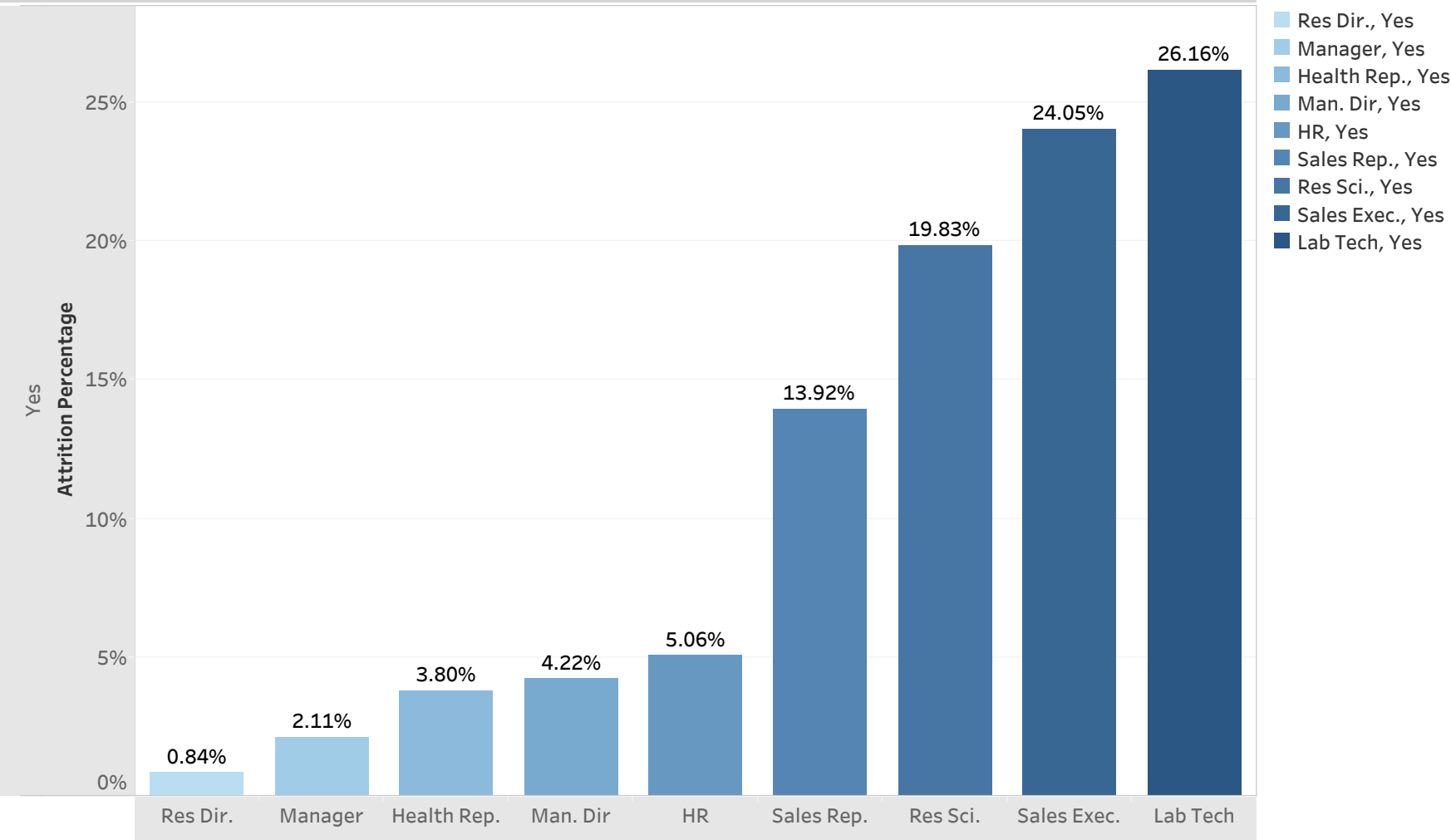
DATA TYPES AND COUNT		
	Dichotomous	4
	Categorical	14
	Numeric	17
	Total	35

Total Responses by Job Role

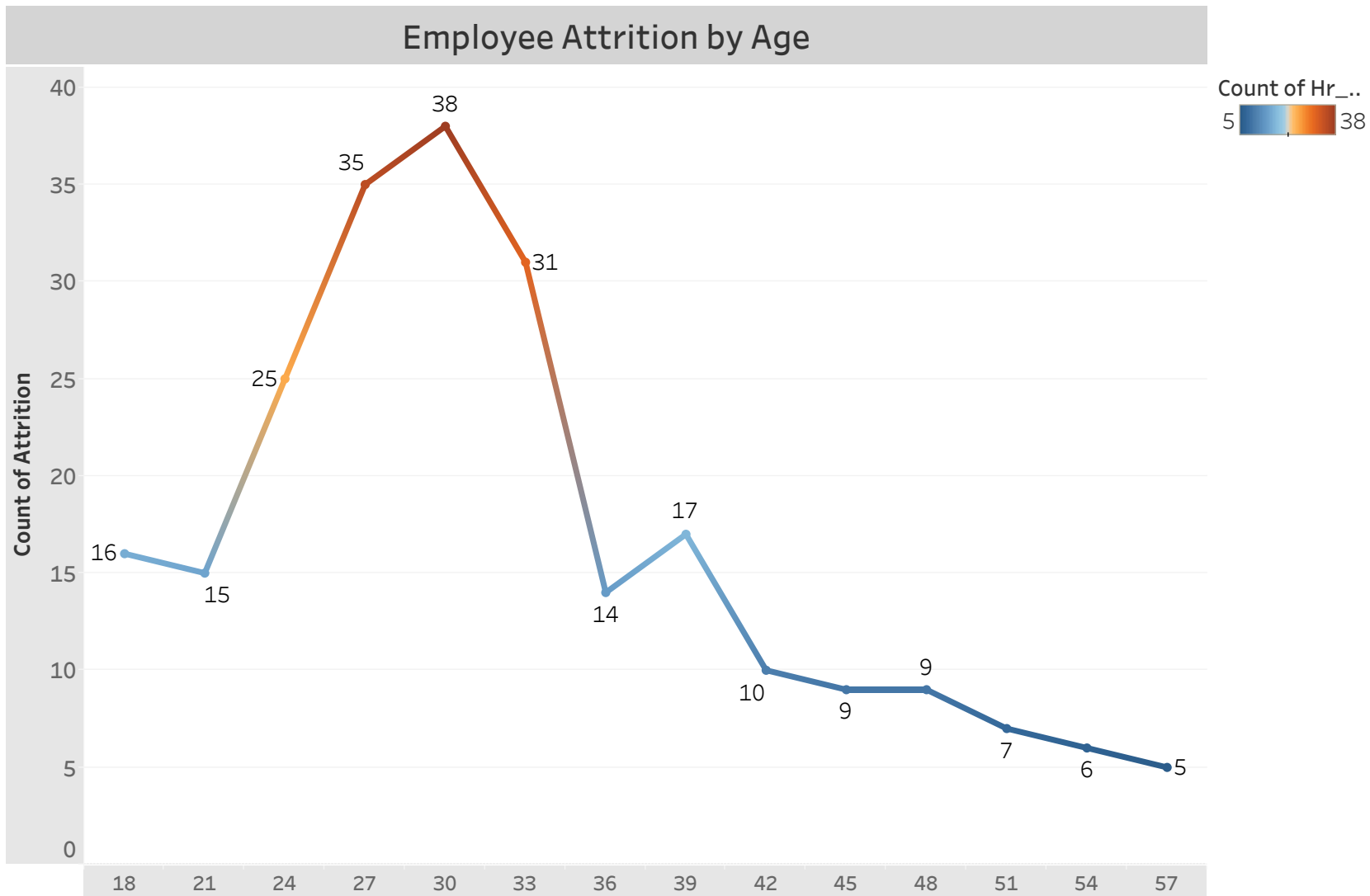


Count of Hr_Employee_Attrition.csv for each Job Role. Color shows details about Job Role. The data is filtered on Attrition, which keeps No and Yes. The view is filtered on Job Role, which keeps 9 of 9 members.

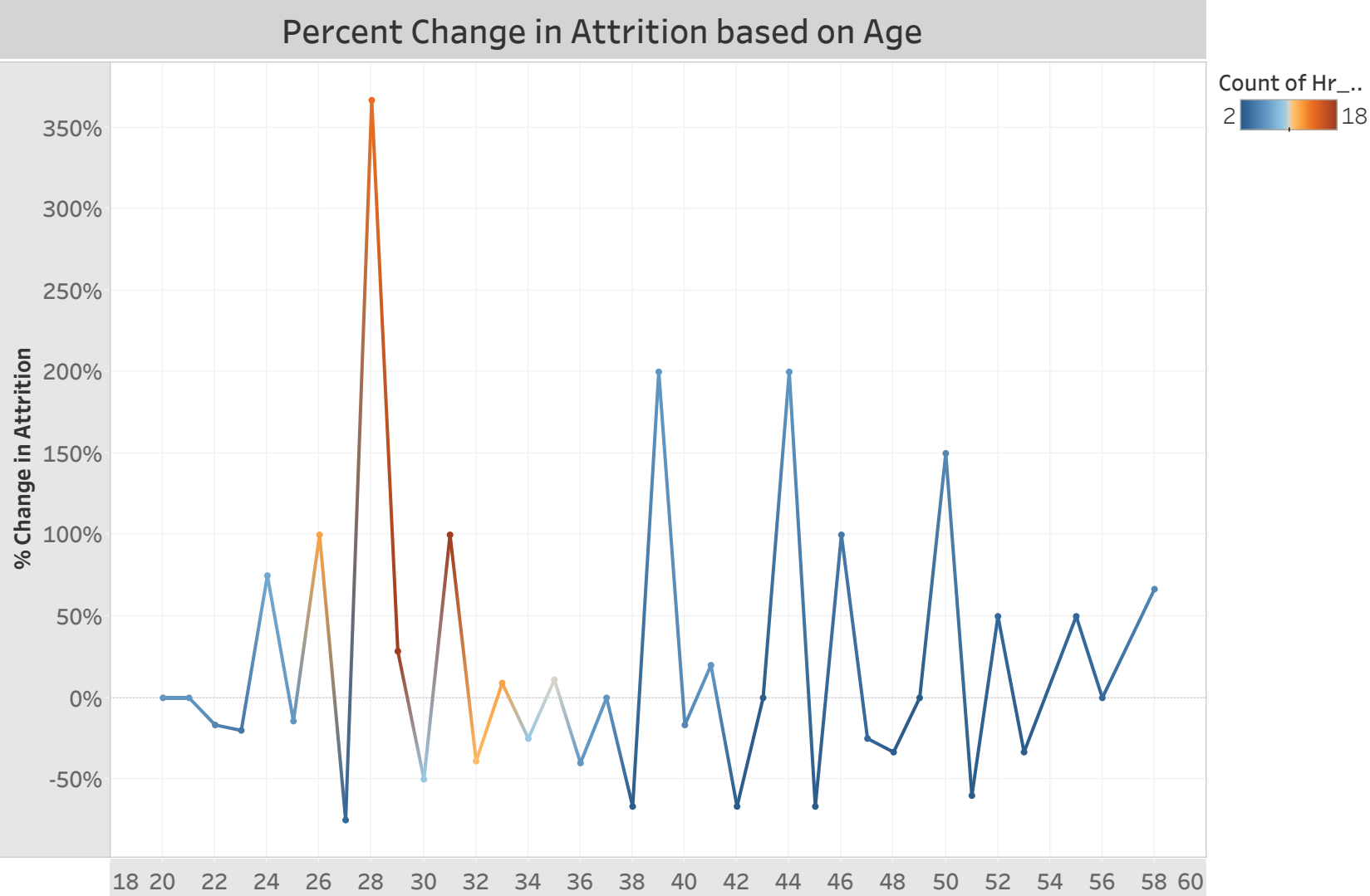
Attrition Percentage by Job Role



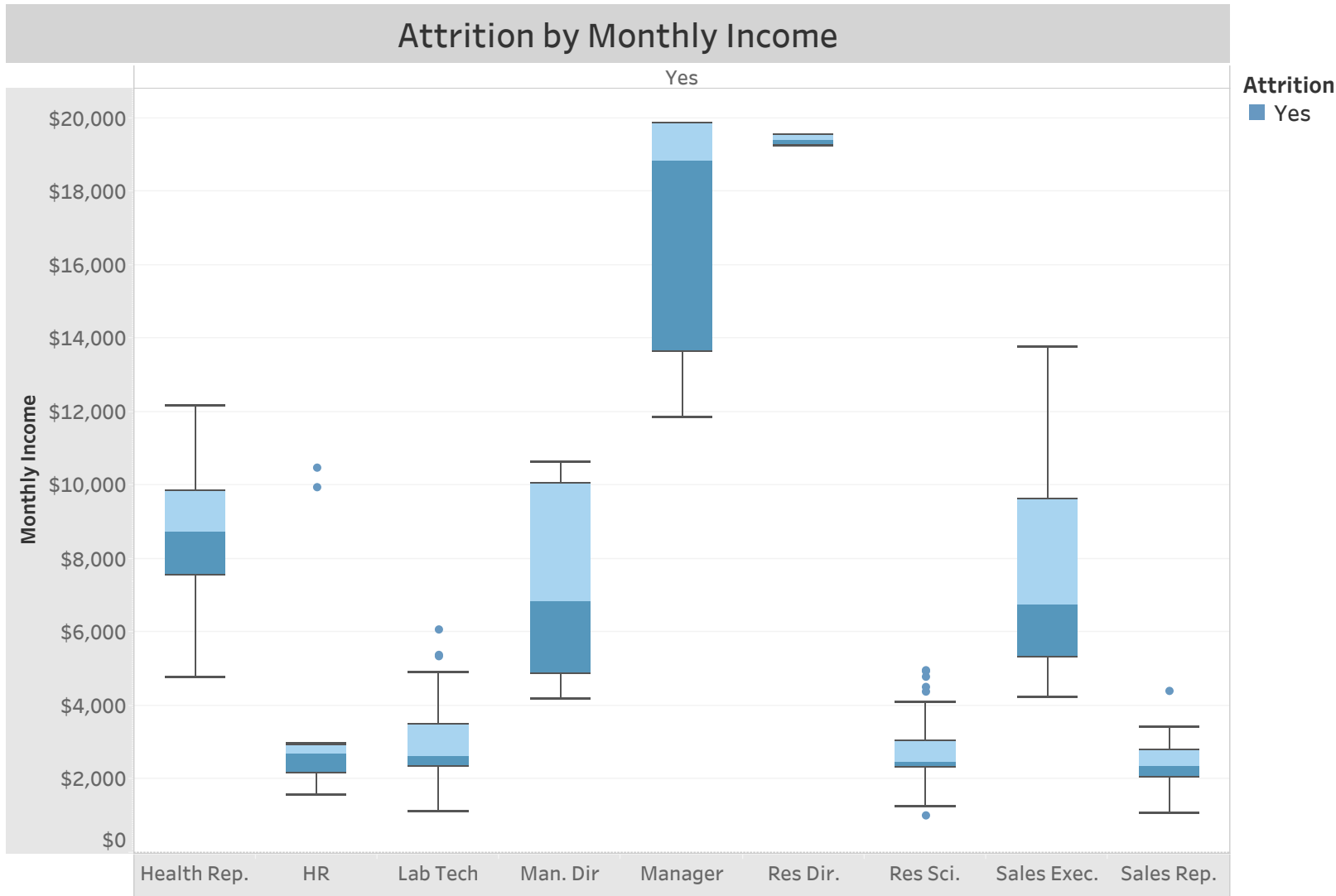
% of Total Count of Hr_Employee_Attrition.csv for each Job Role broken down by Attrition. Color shows details about Job Role and Attrition. The view is filtered on Attrition and Job Role. The Attrition filter keeps Yes. The Job Role filter keeps 9 of 9 members.



The trend of count of Hr_Employee_Attrition.csv for Age (bin). Color shows count of Hr_Employee_Attrition.csv. Details are shown for Age (bin). The data is filtered on Attrition, which keeps Yes.



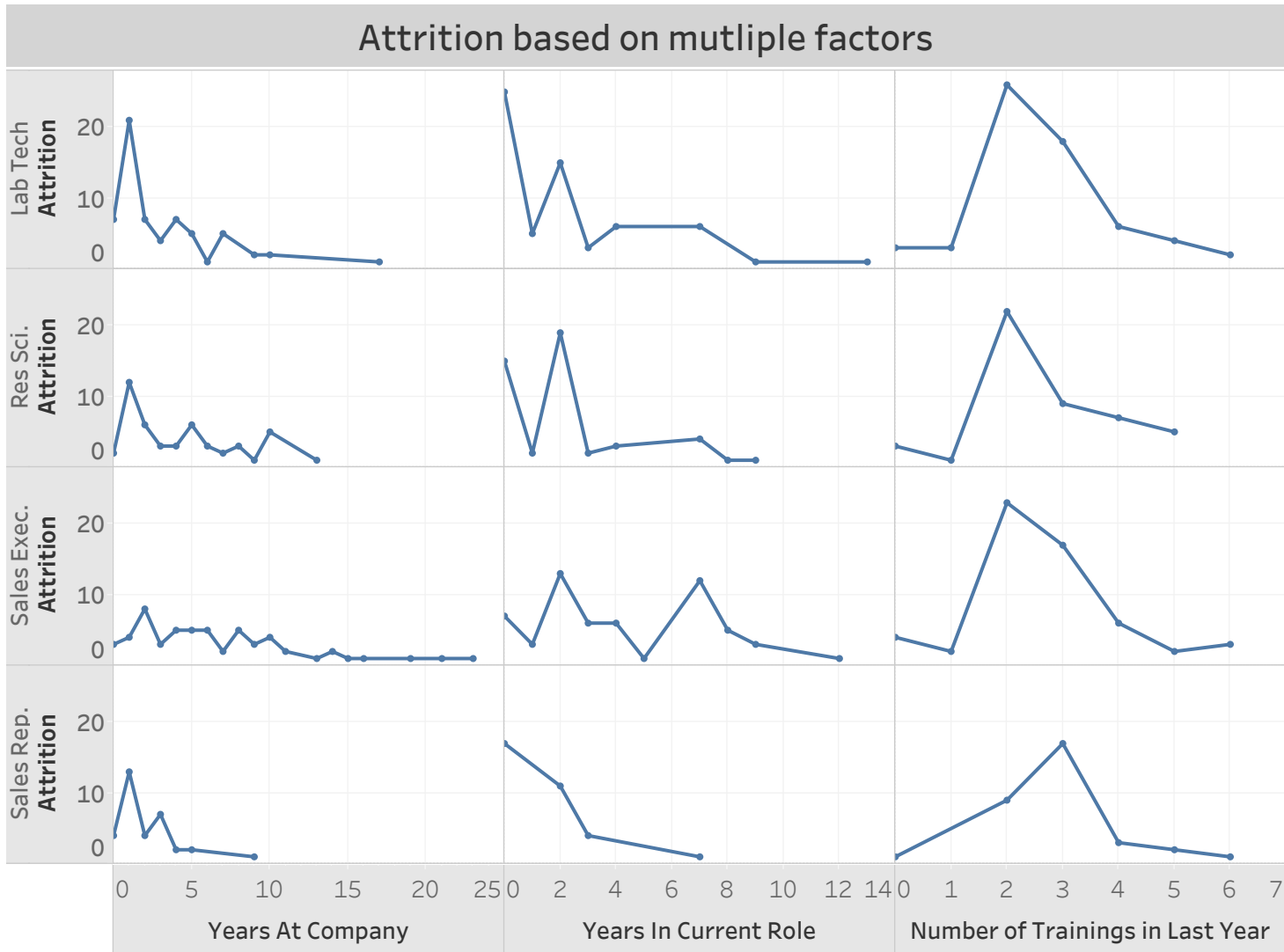
The trend of % Difference in Count of Hr_Employee_Attrition.csv for Age broken down by Attrition. Color shows count of Hr_Employee_Attrition.csv. The data is filtered on % Difference in Years At Company, which keeps non-Null values only. The view is filtered on Attrition and % Difference in Count of Hr_Employee_Attrition.csv. The Attrition filter keeps Yes. The % Difference in Count of Hr_Employee_Attrition.csv filter keeps non-Null values only.



Monthly Income for each Job Role broken down by Attrition. Color shows details about Attrition. The data is filtered on sum of Monthly Income, which ranges from 1,009 to 35,722. The view is filtered on Attrition and Job Role. The Attrition filter keeps Yes. The Job Role filter keeps 9 of 9 members.



Count of Hr_Employee_Attrition.csv for each Total Working Years (bin) broken down by Job Role. Color shows details about Job Role. The data is filtered on Attrition, which keeps Yes. The view is filtered on Job Role, which keeps Lab Tech, Res Sci., Sales Exec. and Sales Rep..



The trends of count of Hr_Employee_Attrition.csv for Years At Company, Years In Current Role and Training Times Last Year broken down by Job Role. The data is filtered on Attrition, which keeps Yes. The view is filtered on Job Role, which keeps Lab Tech, Res Sci., Sales Exec. and Sales Rep..

Key Indicators of Attrition

- Specific Roles: Lab technician, Research Scientist and Sales roles
- Working Experience
- Age Factor
- Reevaluate Training System