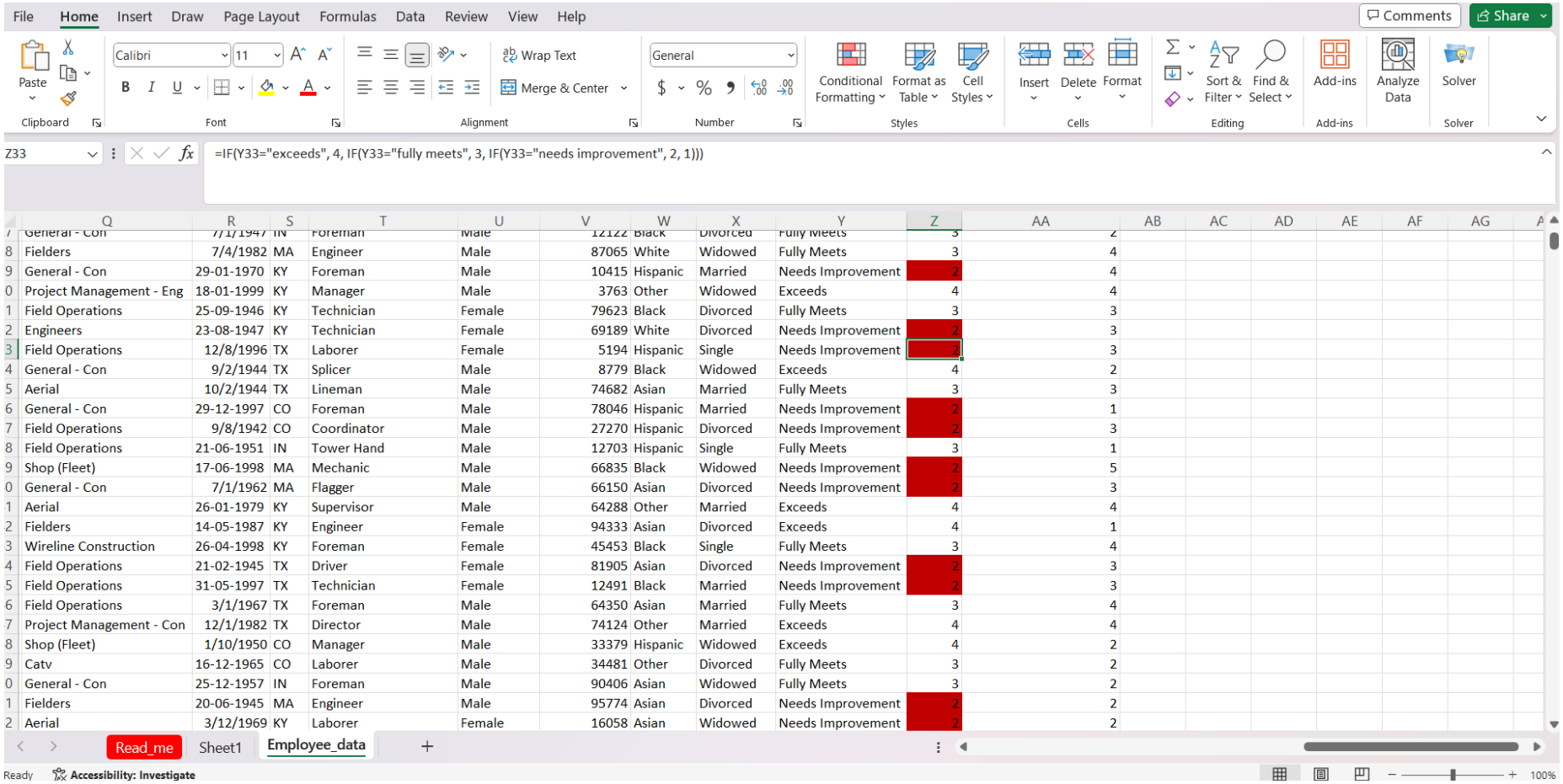

PSYLIQ
EMPLOYEE DATA ANALYSIS
ARFA AFSHEEN

Can you create a pivot table to summarize the total number of employees in each department?

Row Labels	Count of Employee ID
Admin Offices	80
Executive Office	24
IT/IS	430
Production	2020
Sales	331
Software Engineering	115
Grand Total	**3000**

Apply conditional formatting to highlight employees with a "Performance Score" below 3 in red.

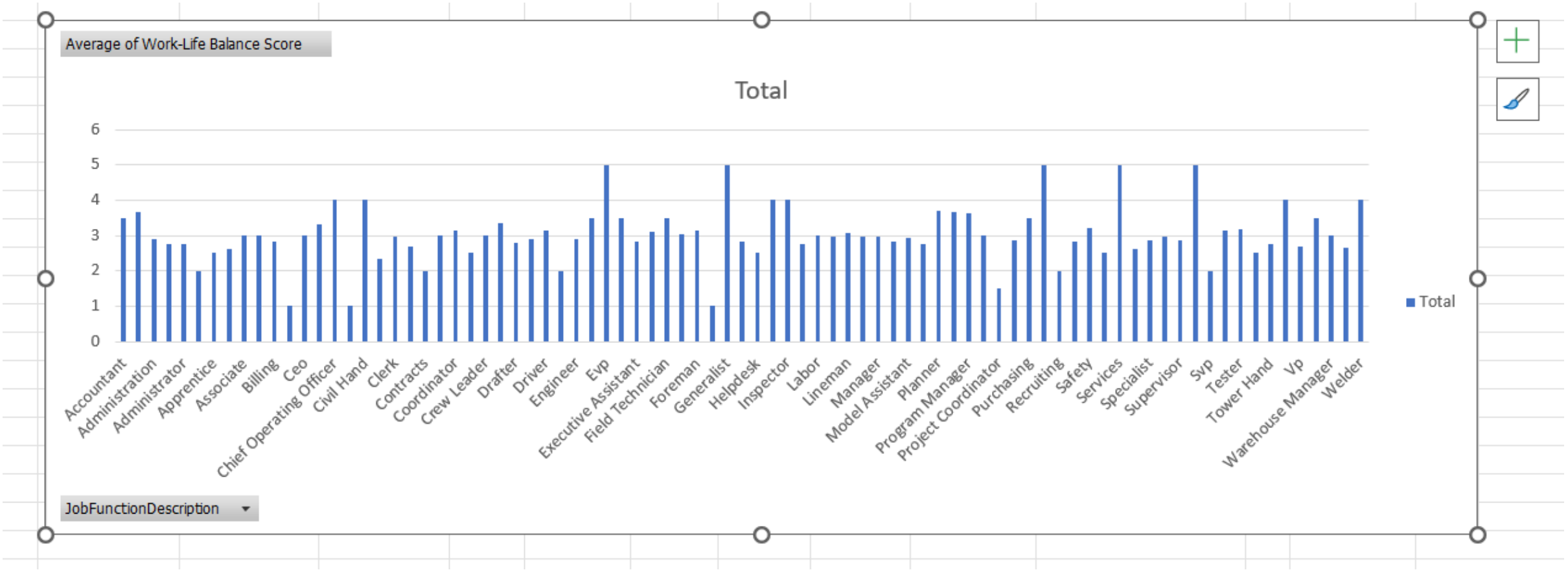


	Q	R	S	T	U	V	W	X	Y	Z	AA
8	Fielders	7/4/1982	MA	Engineer	Male	87065	White	Widowed	Fully Meets	3	4
9	General - Con	29-01-1970	KY	Foreman	Male	10415	Hispanic	Married	Needs Improvement	2	4
0	Project Management - Eng	18-01-1999	KY	Manager	Male	3763	Other	Widowed	Exceeds	4	4
1	Field Operations	25-09-1946	KY	Technician	Female	79623	Black	Divorced	Fully Meets	3	3
2	Engineers	23-08-1947	KY	Technician	Female	69189	White	Divorced	Needs Improvement	2	3
3	Field Operations	12/8/1996	TX	Laborer	Female	5194	Hispanic	Single	Needs Improvement	2	3
4	General - Con	9/2/1944	TX	Splicer	Male	8779	Black	Widowed	Exceeds	4	2
5	Aerial	10/2/1944	TX	Lineman	Male	74682	Asian	Married	Fully Meets	3	3
6	General - Con	29-12-1997	CO	Foreman	Male	78046	Hispanic	Married	Needs Improvement	2	1
7	Field Operations	9/8/1942	CO	Coordinator	Male	27270	Hispanic	Divorced	Needs Improvement	2	3
8	Field Operations	21-06-1951	IN	Tower Hand	Male	12703	Hispanic	Single	Fully Meets	3	1
9	Shop (Fleet)	17-06-1998	MA	Mechanic	Male	66835	Black	Widowed	Needs Improvement	2	5
0	General - Con	7/1/1962	MA	Flagger	Male	66150	Asian	Divorced	Needs Improvement	2	3
1	Aerial	26-01-1979	KY	Supervisor	Male	64288	Other	Married	Exceeds	4	4
2	Fielders	14-05-1987	KY	Engineer	Female	94333	Asian	Divorced	Exceeds	4	1
3	Wireline Construction	26-04-1998	KY	Foreman	Female	45453	Black	Single	Fully Meets	3	4
4	Field Operations	21-02-1945	TX	Driver	Female	81905	Asian	Divorced	Needs Improvement	2	3
5	Field Operations	31-05-1997	TX	Technician	Female	12491	Black	Married	Needs Improvement	2	3
6	Field Operations	3/1/1967	TX	Foreman	Male	64350	Asian	Married	Fully Meets	3	4
7	Project Management - Con	12/1/1982	TX	Director	Male	74124	Other	Married	Exceeds	4	4
8	Shop (Fleet)	1/10/1950	CO	Manager	Male	33379	Hispanic	Widowed	Exceeds	4	2
9	Catv	16-12-1965	CO	Laborer	Male	34481	Other	Divorced	Fully Meets	3	2
0	General - Con	25-12-1957	IN	Foreman	Male	90406	Asian	Widowed	Fully Meets	3	2
1	Fielders	20-06-1945	MA	Engineer	Male	95774	Asian	Divorced	Needs Improvement	2	2
2	Aerial	3/12/1969	KY	Laborer	Female	16058	Asian	Widowed	Needs Improvement	2	2

Calculate the average "Satisfaction Score" separately for male and female employees using a pivot table.

Row Labels	Average of Satisfaction Score
Female	3.020214031
Male	3.024279211
Grand Total	**3.022**

Create a chart to visualize the distribution of "Work-Life Balance Score" for different job functions.



Filter the data to display only terminated employees and find out the most common "Termination Type."

EmployeeStatus	(Multiple Items)
Termination_type	**Count of TerminationType**
Involuntary	107
Resignation	96
Retirement	86
Voluntary	98
Grand Total	**387**

Calculate the average "Engagement Score" for each department using a pivot table.

Row Labels	Average of Engagement Score
Admin Offices	3
Executive Office	2.875
IT/IS	2.934883721
Production	2.95049505
Sales	2.876132931
Software Engineering	2.92173913
(blank)	
Grand Total	**2.939666667**

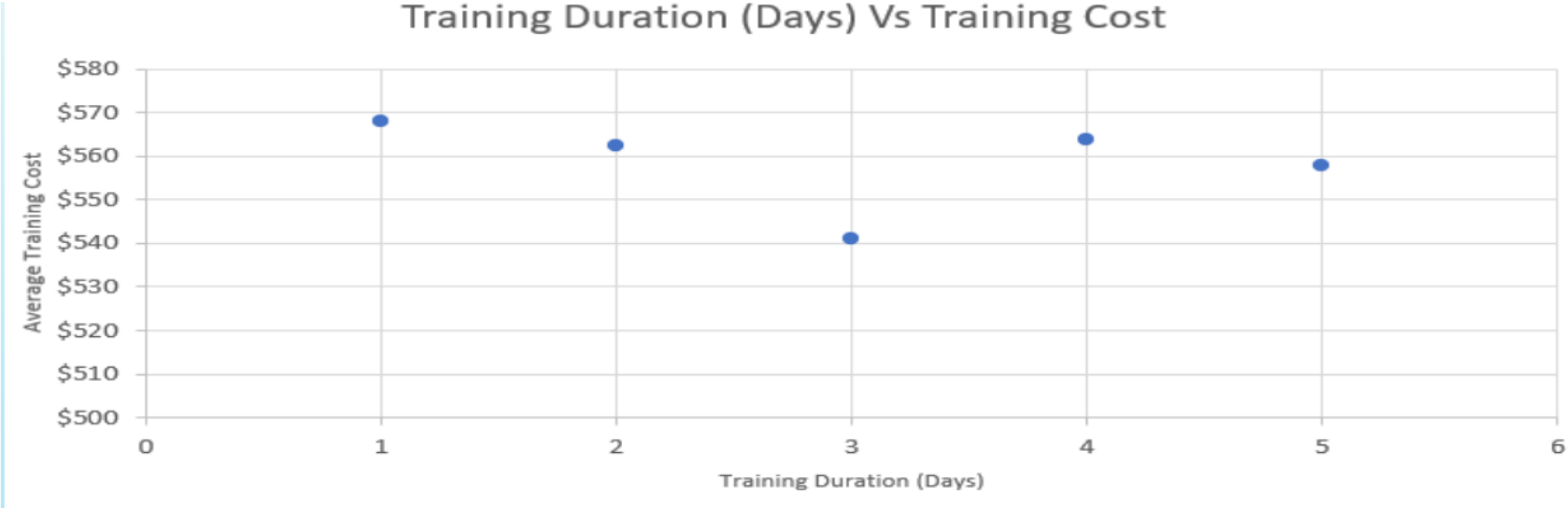
Use VLOOKUP to find the supervisor's email address for a specific employee.

```
=VLOOKUP(A2,A1:H14,8,FALSE)
```

Can you identify the department with the highest average "Employee Rating?"

Row Labels	Average of Current Employee Rating
Admin Offices	3.025
Executive Office	2.791666667
IT/IS	2.969767442
Production	2.982178218
Sales	2.909365559
Software Engineering	2.904347826
Grand Total	**2.969**

Create a scatter plot to explore the relationship between "Training Duration (Days)" and "Training Cost."



Build a pivot table that shows the count of employees by "RaceDesc" and "GenderCode."

Count of Employee ID	Column Labels		
Row Labels	Female	Male	Grand Total
Asian	346	283	629
Black	346	272	618
Hispanic	325	247	572
Other	318	264	582
White	347	252	599
Grand Total	**1682**	**1318**	**3000**

Use INDEX and MATCH functions to find the "Training Program Name" for an employee with a specific ID.

```
=INDEX(A1:I20,MATCH(A2,A1:A20,0),3)
```

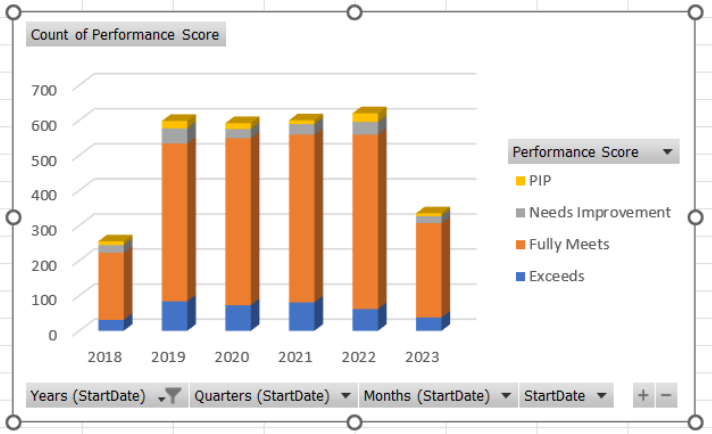
Create a multi-level pivot table to analyze the "Performance Score" by "BusinessUnit" and "JobFunctionDescription."

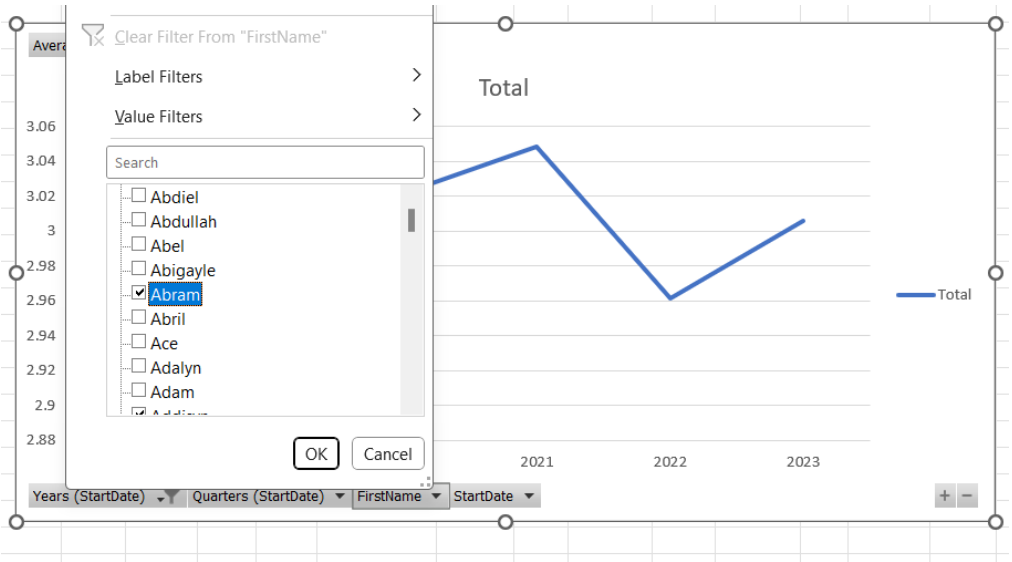
Row Labels	Count of Performance_Score
⊞ BPC	303
⊞ CCDR	300
⊞ EW	302
⊞ MSC	296
⊞ NEL	304
⊞ PL	301
⊞ PYZ	299
⊞ SVG	304
⊞ TNS	297
⊞ WBL	294
Grand Total	3000

Row Labels	Count of Performance_Score
BPC	303
CCDR	300
Accounting	1
Administration	1
Administrative	4
Administrator	3
Apprentice	1
Assistant	5
Associate	1
Clerk	4
Construction Manager	1
Controller	3
Coordinator	7
Director	2
Drafter	2
Driller	3
Driver	1
Engineer	35
Executive Assistant	1
Field Project Manager	1
Field Technician	1
Flagger	6
Foreman	23
Groundman	6

Design a dynamic chart that allows users to select and visualize the performance of any employee over time.

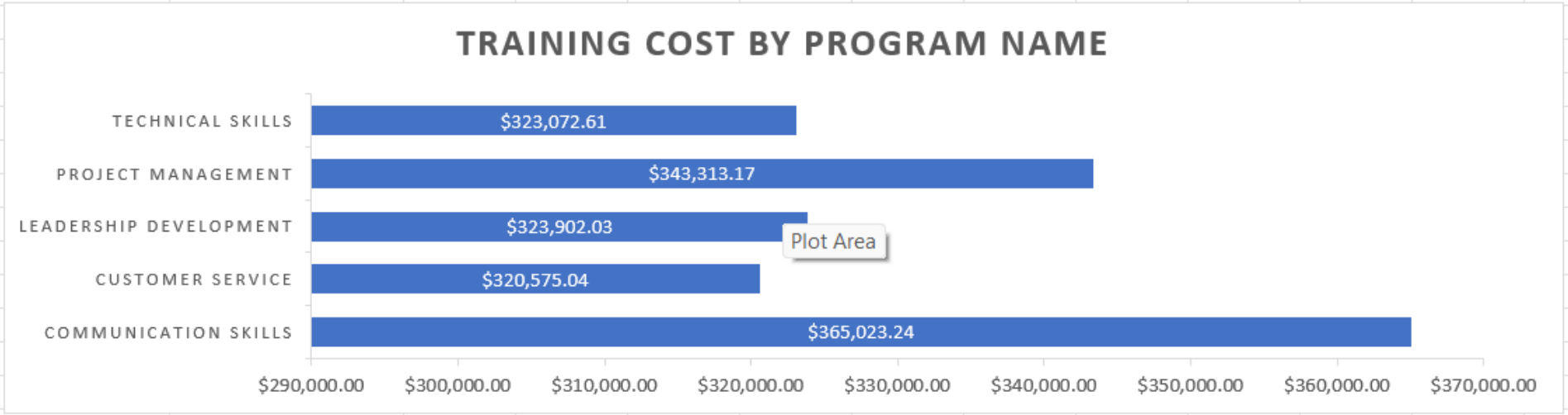
Count of Performance Score	Column Labels				
Row Labels	Exceeds	Fully Meets	Needs Improvement	PIP	Grand T
2018	31	191	22	11	255
2019	84	450	43	21	598
2020	73	476	26	17	592
2021	81	478	30	11	600
2022	62	497	36	25	620
2023	38	269	20	8	335
Grand Total	369	2361	177	93	3000



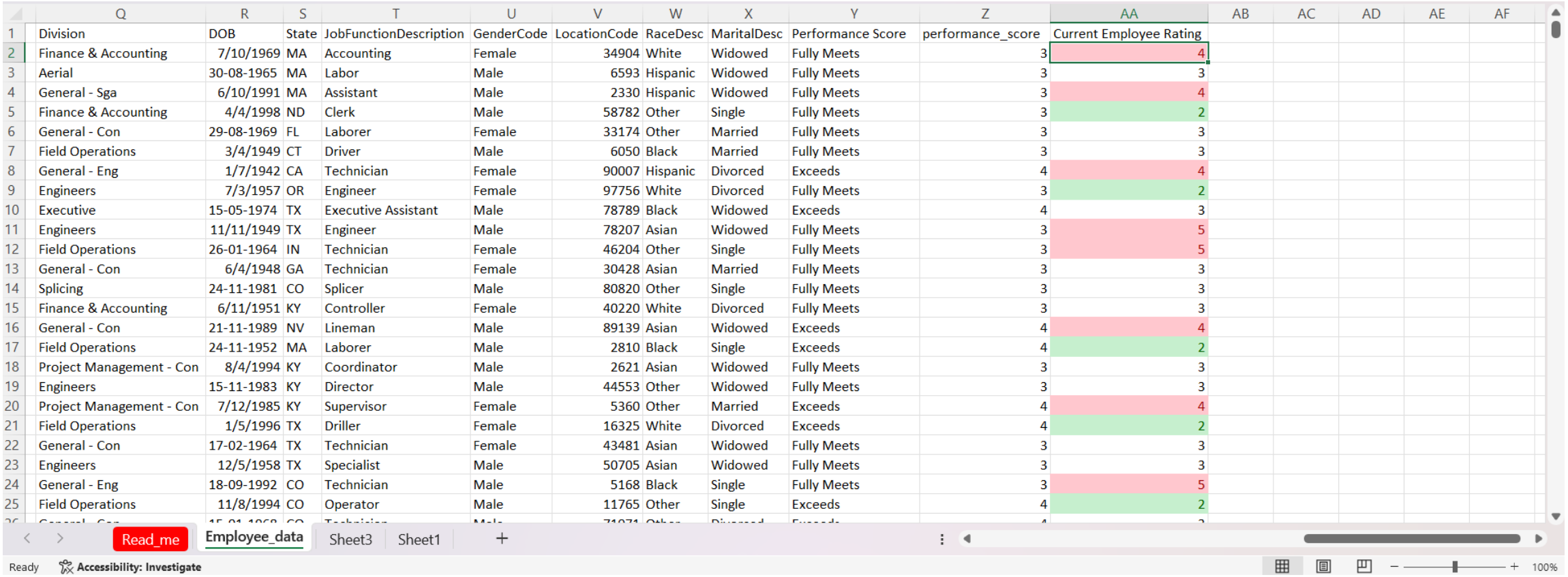


Calculate the total training cost for each "Training Program Name" and display it in a bar chart.

Row Labels	Sum of Training Cost
Communication Skills	$365,023.24
Customer Service	$320,575.04
Leadership Development	$323,902.03
Project Management	$343,313.17
Technical Skills	$323,072.61
Grand Total	**$1,675,886.09**



Apply advanced conditional formatting to highlight the top 10% and bottom 10% of employees based on "Current Employee Rating."



	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
1	Division	DOB	State	JobFunctionDescription	GenderCode	LocationCode	RaceDesc	MaritalDesc	Performance Score	performance_score	Current Employee Rating					
2	Finance & Accounting	7/10/1969	MA	Accounting	Female	34904	White	Widowed	Fully Meets	3	4					
3	Aerial	30-08-1965	MA	Labor	Male	6593	Hispanic	Widowed	Fully Meets	3	3					
4	General - Sga	6/10/1991	MA	Assistant	Male	2330	Hispanic	Widowed	Fully Meets	3	4					
5	Finance & Accounting	4/4/1998	ND	Clerk	Male	58782	Other	Single	Fully Meets	3	2					
6	General - Con	29-08-1969	FL	Laborer	Female	33174	Other	Married	Fully Meets	3	3					
7	Field Operations	3/4/1949	CT	Driver	Male	6050	Black	Married	Fully Meets	3	3					
8	General - Eng	1/7/1942	CA	Technician	Female	90007	Hispanic	Divorced	Exceeds	4	4					
9	Engineers	7/3/1957	OR	Engineer	Female	97756	White	Divorced	Fully Meets	3	2					
10	Executive	15-05-1974	TX	Executive Assistant	Male	78789	Black	Widowed	Exceeds	4	3					
11	Engineers	11/11/1949	TX	Engineer	Male	78207	Asian	Widowed	Fully Meets	3	5					
12	Field Operations	26-01-1964	IN	Technician	Female	46204	Other	Single	Fully Meets	3	5					
13	General - Con	6/4/1948	GA	Technician	Female	30428	Asian	Married	Fully Meets	3	3					
14	Splicing	24-11-1981	CO	Splicer	Male	80820	Other	Single	Fully Meets	3	3					
15	Finance & Accounting	6/11/1951	KY	Controller	Female	40220	White	Divorced	Fully Meets	3	3					
16	General - Con	21-11-1989	NV	Lineman	Male	89139	Asian	Widowed	Exceeds	4	4					
17	Field Operations	24-11-1952	MA	Laborer	Male	2810	Black	Single	Exceeds	4	2					
18	Project Management - Con	8/4/1994	KY	Coordinator	Male	2621	Asian	Widowed	Fully Meets	3	3					
19	Engineers	15-11-1983	KY	Director	Male	44553	Other	Widowed	Fully Meets	3	3					
20	Project Management - Con	7/12/1985	KY	Supervisor	Female	5360	Other	Married	Exceeds	4	4					
21	Field Operations	1/5/1996	TX	Driller	Female	16325	White	Divorced	Exceeds	4	2					
22	General - Con	17-02-1964	TX	Technician	Female	43481	Asian	Widowed	Fully Meets	3	3					
23	Engineers	12/5/1958	TX	Specialist	Male	50705	Asian	Widowed	Fully Meets	3	3					
24	General - Eng	18-09-1992	CO	Technician	Male	5168	Black	Single	Fully Meets	3	5					
25	Field Operations	11/8/1994	CO	Operator	Male	11765	Other	Single	Exceeds	4	2					

Read_me | Employee_data | Sheet3 | Sheet1

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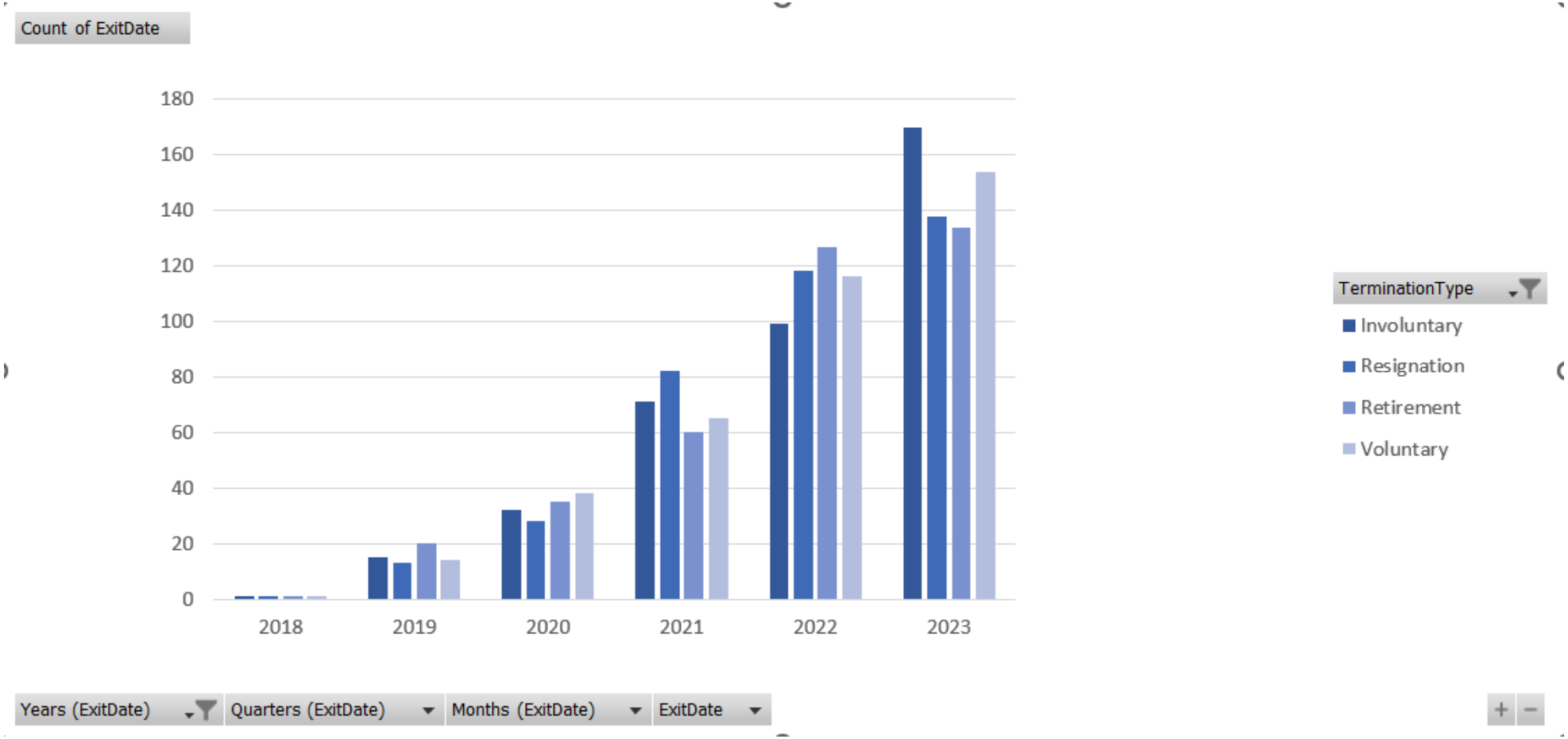
Use a calculated field in a pivot table to determine the average "Engagement Score" per year.

Row Labels	Average of Engagement Score
2018	2.898039216
2019	3.065217391
2020	2.939189189
2021	2.888333333
2022	2.943548387
2023	2.832835821
Grand Total	**2.939666667**

Create a histogram to understand the distribution of "ExitDate" for terminated employees.



Utilize the SUMPRODUCT function to calculate the total training cost for employees in a specific location.

```
=SUMPRODUCT((F2:F100="Port Greg") * I2:I100)
```

Develop a dashboard that provides an overview of key HR metrics, including headcount, performance, and training costs, using charts and pivot tables.