

DATA ANALYTICS ON HR DATASET

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ASSIGNMENT 02

KNOWLEDGE INSTITUTE OF TECHNOLOGY

IBM Cognos Analytics * New data module

Grid Relationships Custom tables

Properties

Data module

Search

New data module

Navigation paths

HRDataset_v14.csv

- # Row Id
- # Employee_Name
- # EmpID
- # MarriedID
- # MaritalStatusID
- # GenderID
- # EmpStatusID
- # DeptID
- # PerfScoreID
- # FromDive...bFairID
- Salary
- Termd
- # PositionID
- # Position
- # State
- # Zip
- (DOB)
- # Sex
- # MaritalDesc
- # CitizenDesc

Row Id	Employee_Name	EmpID	MarriedID	MaritalStatusID	GenderID	EmpStatusID	DeptID	PerfScoreID
1	Adinolfi, Wilson K	10026	0	0	1	1	5	4
2	Ait Sidi, Karthikeyan	10084	1	1	1	5	3	3
3	Akinkuolie, Sarah	10196	1	1	0	5	5	3
4	Alagbe,Trina	10088	1	1	0	1	5	3
5	Anderson, Carol	10069	0	2	0	5	5	3
6	Anderson, Linda	10002	0	0	0	1	5	4
7	Andreola, Colby	10194	0	0	0	1	4	3
8	Athwal, Sam	10062	0	4	1	1	5	3
9	Bachiochi, Linda	10114	0	0	0	3	5	3
10	Bacong, Alejandro	10250	0	2	1	1	3	3
11	Baczenski, Rachael	10252	1	1	0	5	5	3
12	Barbara, Thomas	10242	1	1	1	5	5	3
13	Barbossa, Hector	10012	0	2	1	1	3	4
14	Barone, Francesco A	10265	0	0	1	1	5	3
15	Barton, Nader	10066	0	2	1	5	5	3
16	Bates, Norman	10061	0	0	1	4	5	3
17	Beak, Kimberly	10023	1	1	0	2	5	4
18	Beatrice, Courtney	10055	0	0	0	1	5	3

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IBM Cognos Analytics * New data module

Grid Relationships Custom tables

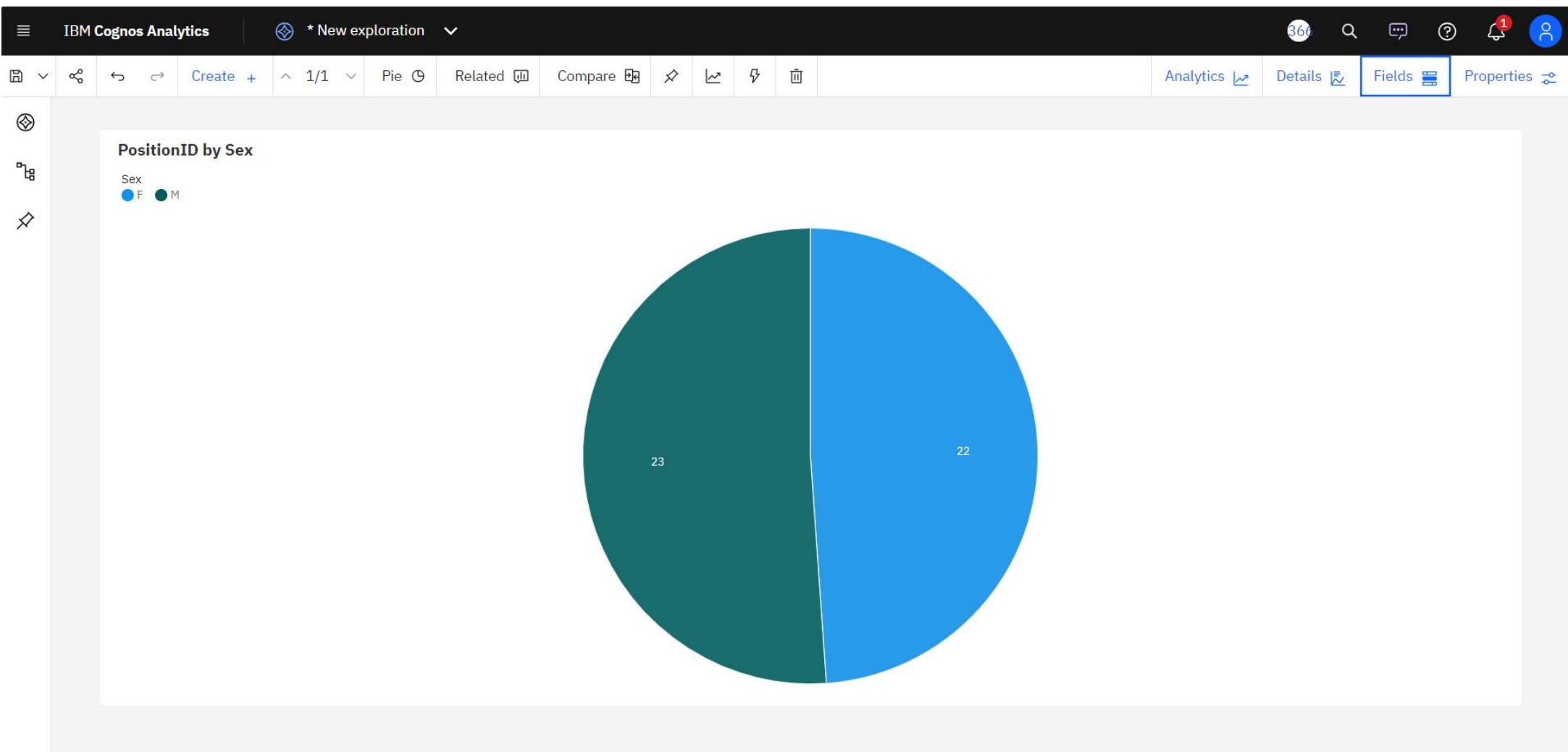
Properties

Search

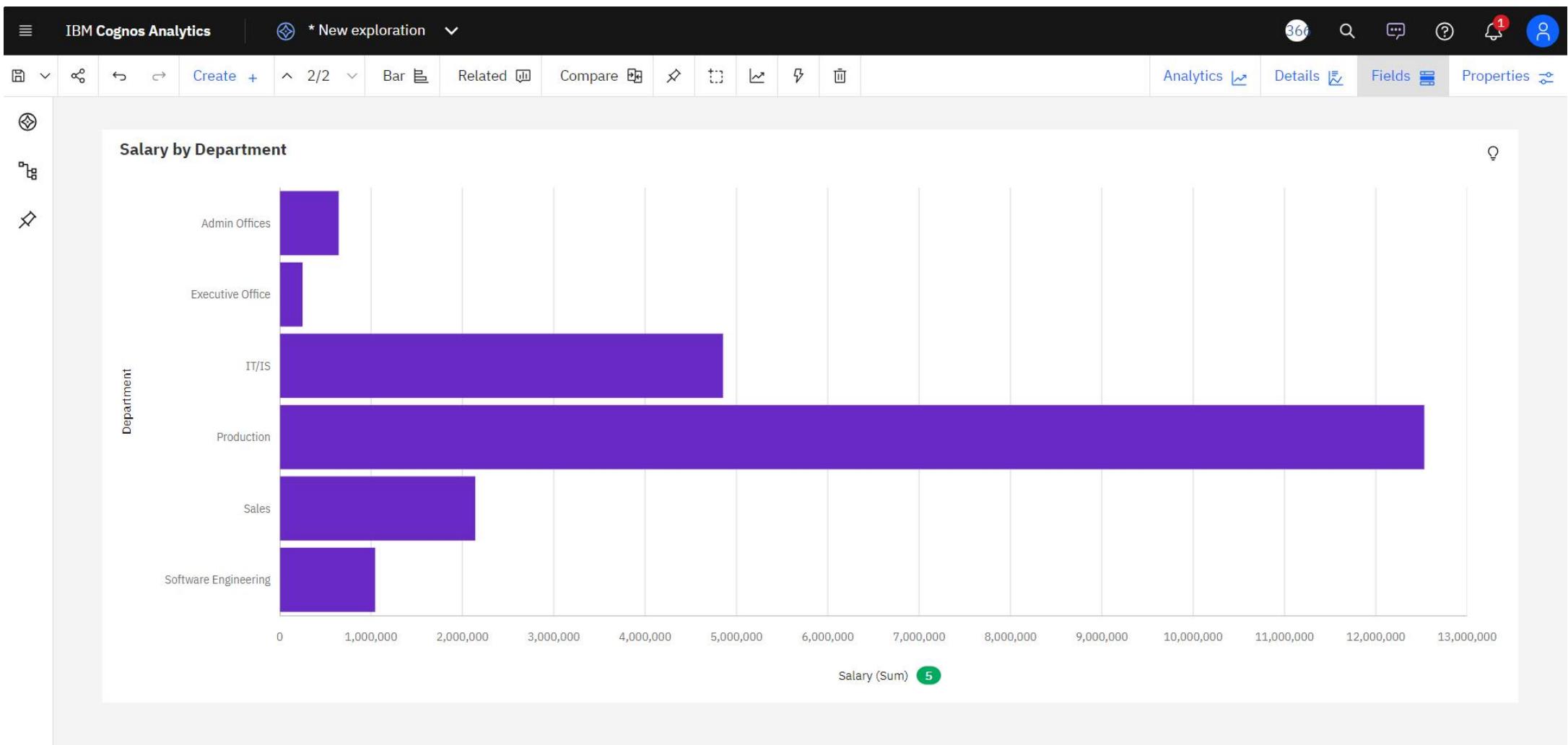
HRDataset_v14.csv

	Salary	PositionID	Position	State	DOB	Sex	MaritalDesc	CitizenDesc	HispanicLatino
62506	19	Production Technician I	MA	1983-07-10	M	Single	US Citizen	No	
104437	27	Sr. DBA	MA	1975-05-05	M	Married	US Citizen	No	
64955	20	Production Technician II	MA	1988-09-19	F	Married	US Citizen	No	
64991	19	Production Technician I	MA	1988-09-27	F	Married	US Citizen	No	
50825	19	Production Technician I	MA	1989-09-08	F	Divorced	US Citizen	No	
57568	19	Production Technician I	MA	1977-05-22	F	Single	US Citizen	No	
95660	24	Software Engineer	MA	1979-05-24	F	Single	US Citizen	No	
59365	19	Production Technician I	MA	1983-02-18	M	Widowed	US Citizen	No	
47837	19	Production Technician I	MA	1970-02-11	F	Single	US Citizen	No	
50178	14	IT Support	MA	1988-01-07	M	Divorced	US Citizen	No	
54670	19	Production Technician I	MA	1974-01-12	F	Married	US Citizen	Yes	
47211	19	Production Technician I	MA	1974-02-21	M	Married	US Citizen	Yes	
92328	9	Data Analyst	TX	1988-07-04	M	Divorced	US Citizen	No	
58709	19	Production Technician I	MA	1983-07-20	M	Single	US Citizen	No	
52505	19	Production Technician I	MA	1977-07-15	M	Divorced	US Citizen	No	
57834	19	Production Technician I	MA	1981-10-18	M	Single	US Citizen	No	
70131	20	Production Technician II	MA	1966-04-17	F	Married	US Citizen	No	
59026	19	Production Technician I	MA	1970-10-27	F	Single	Eligible NonCitizen	No	

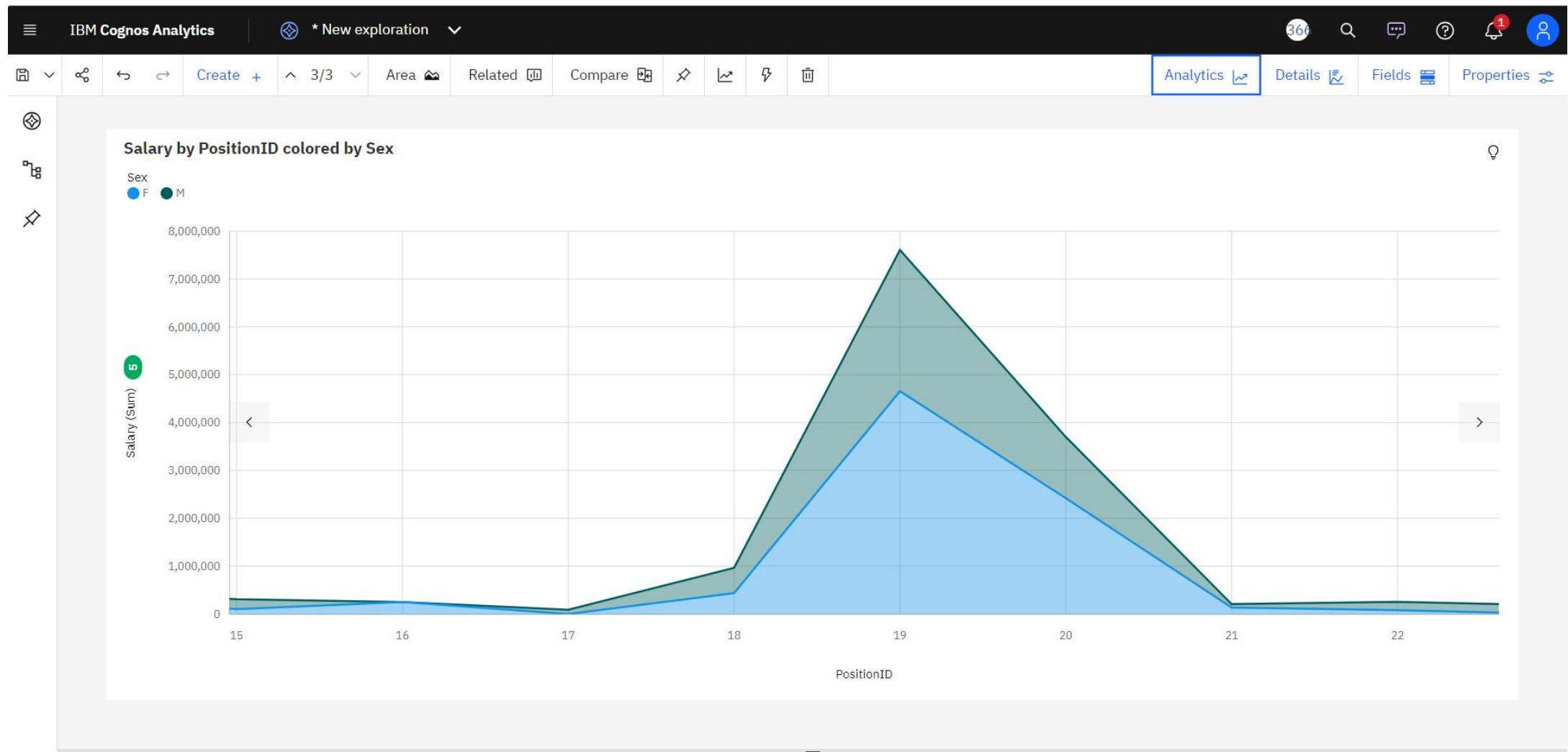
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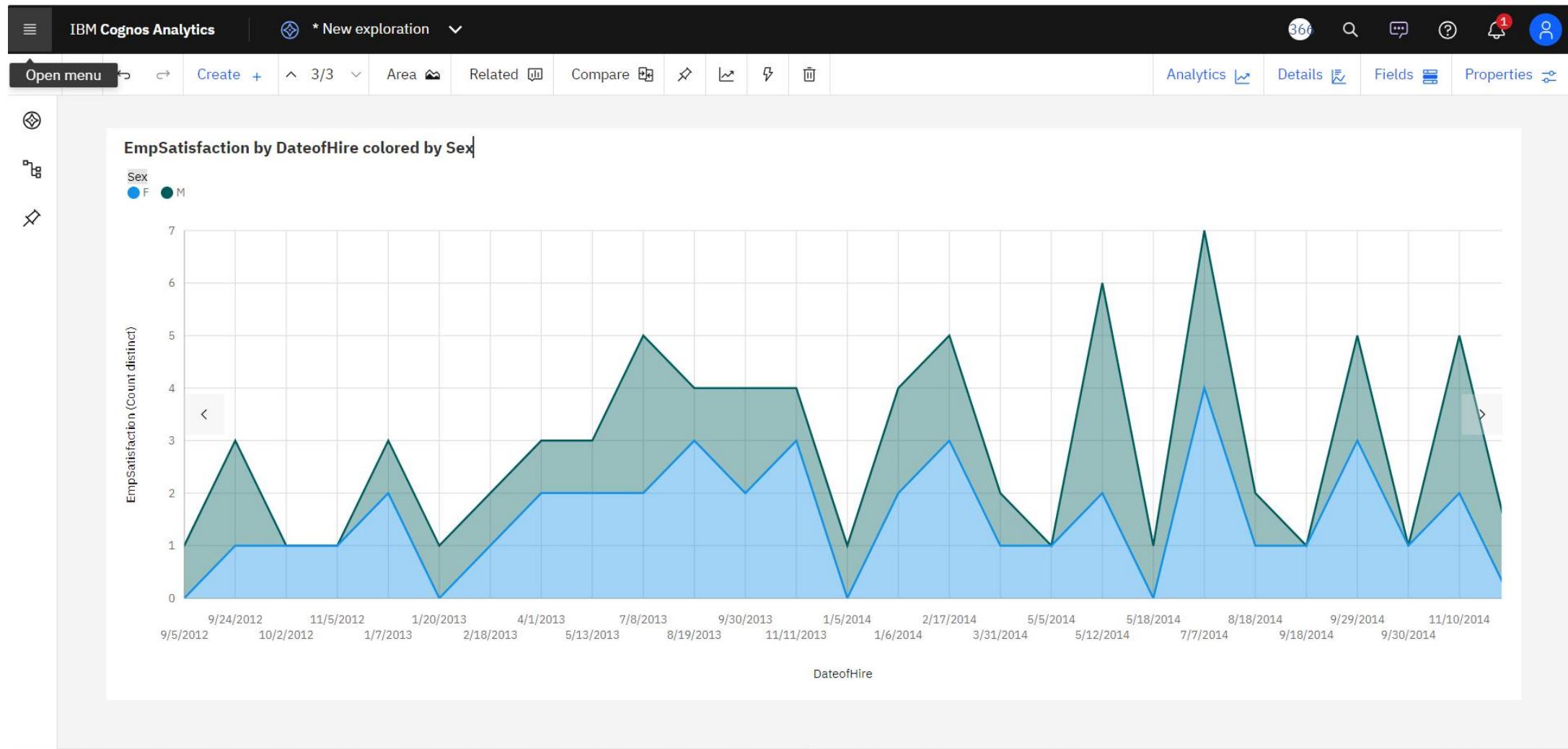
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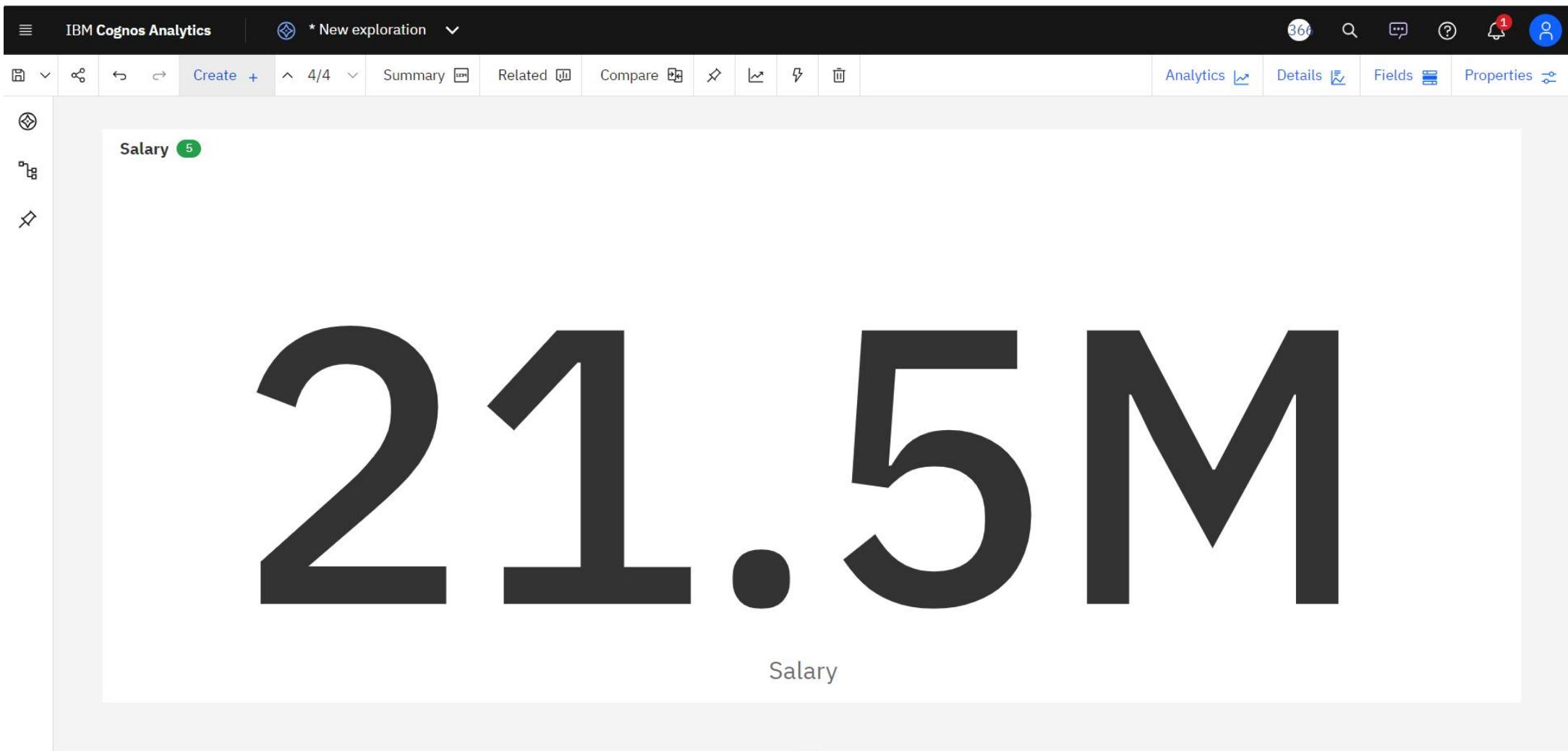
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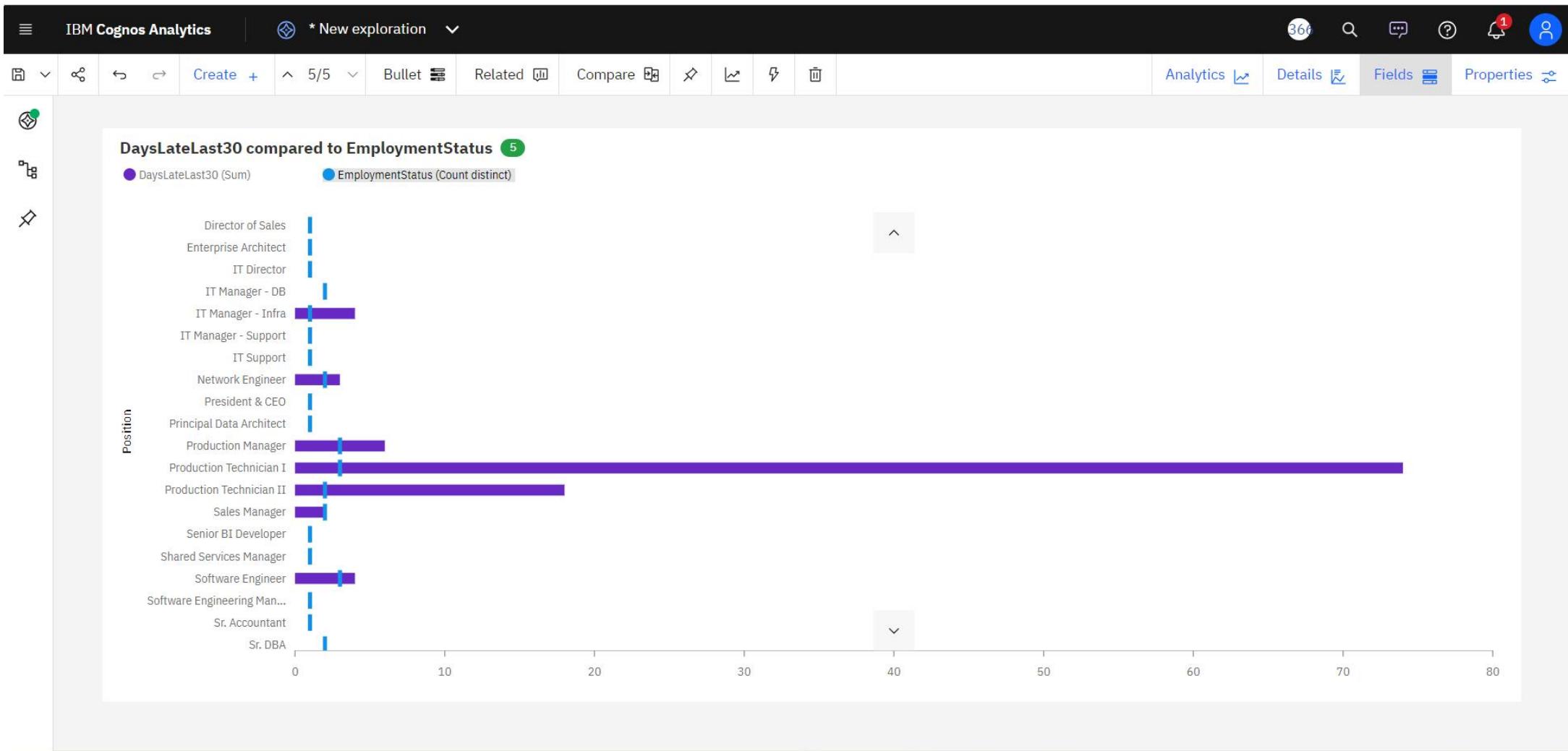
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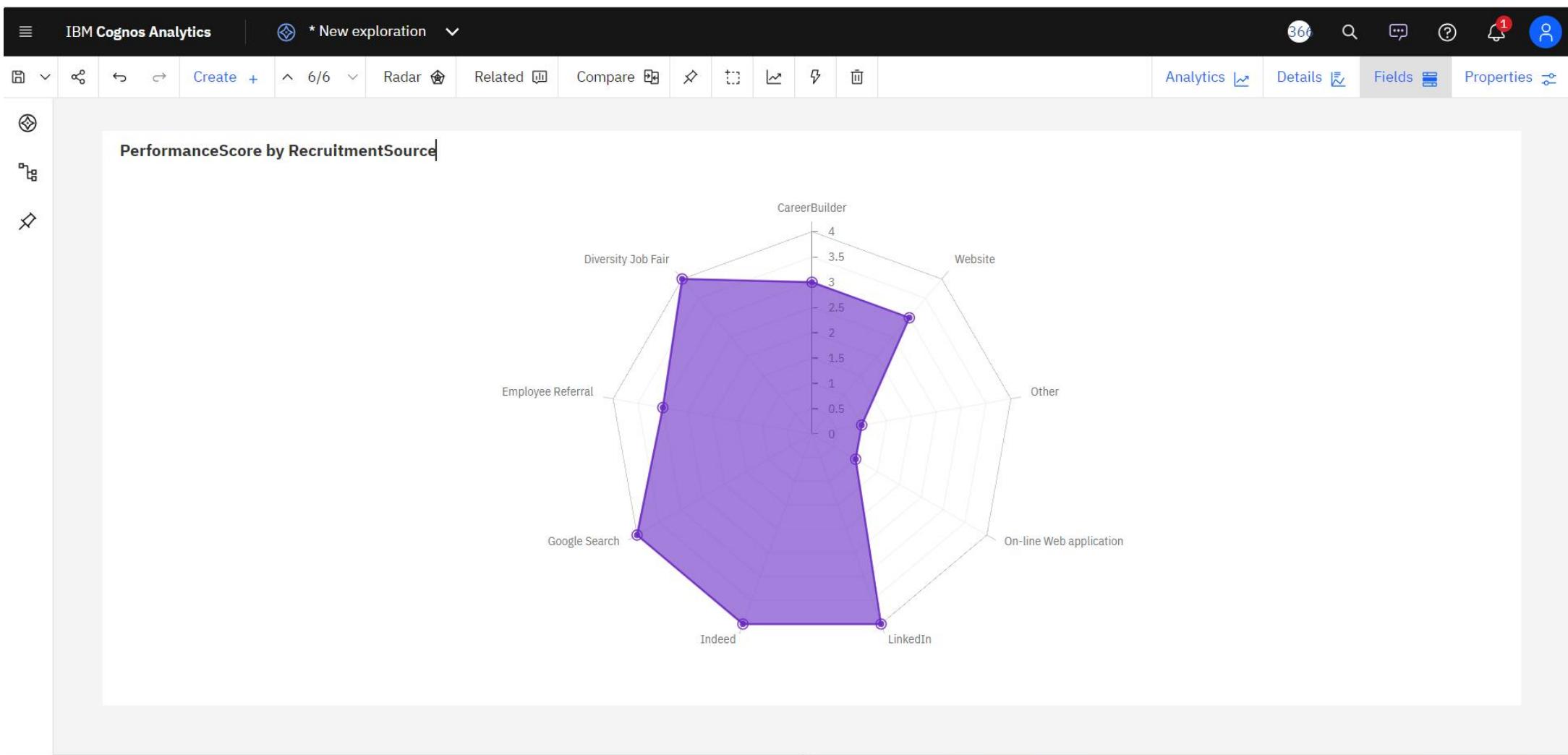
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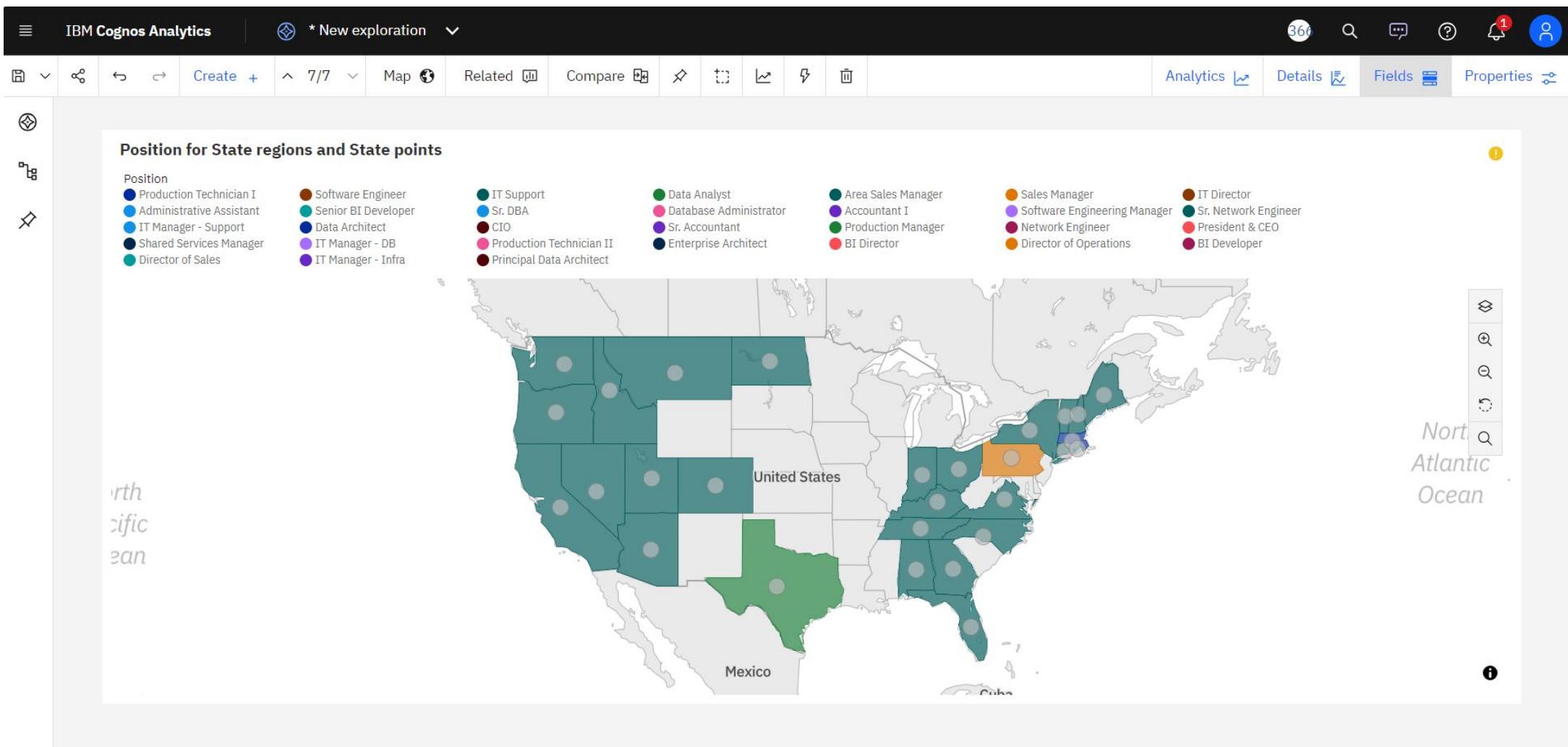
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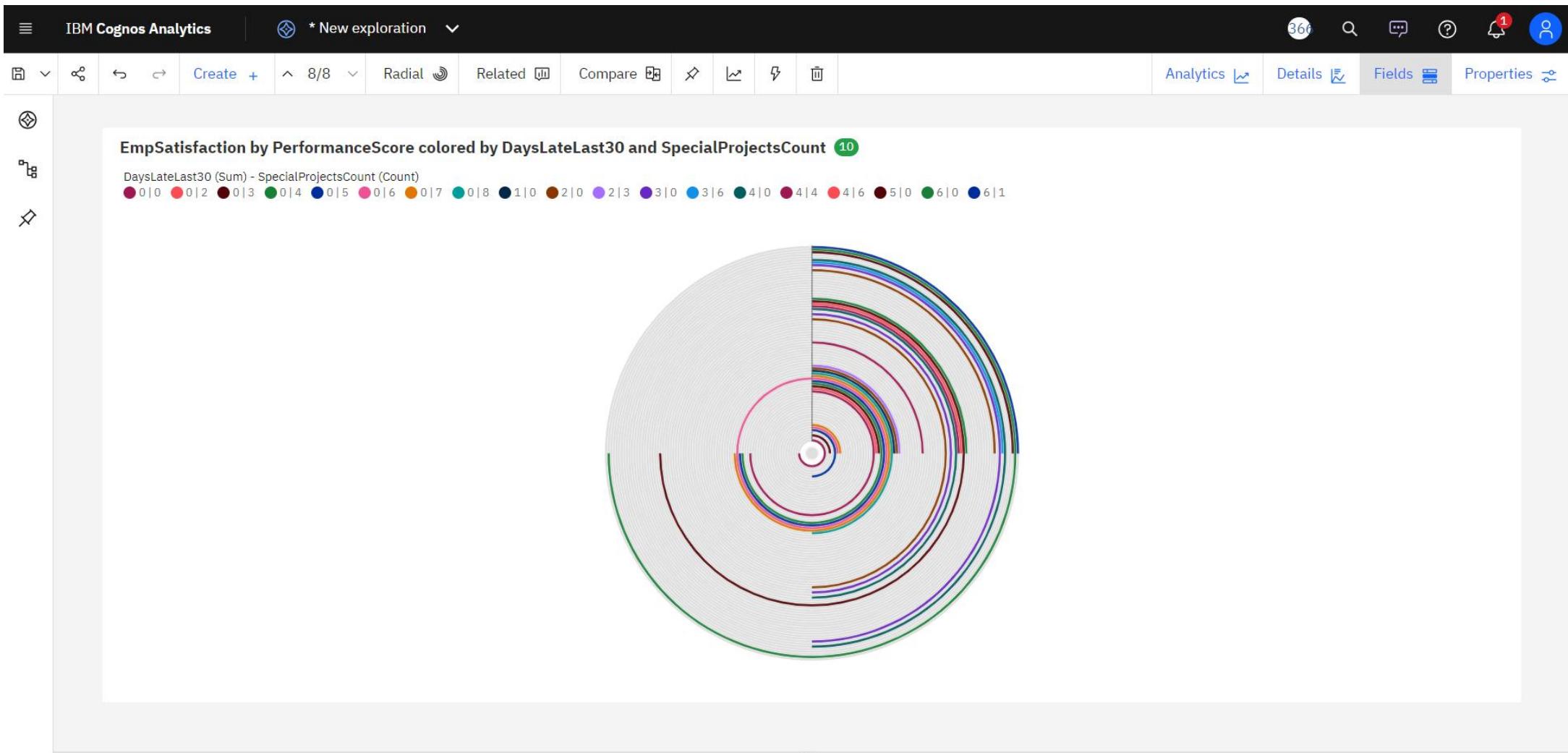


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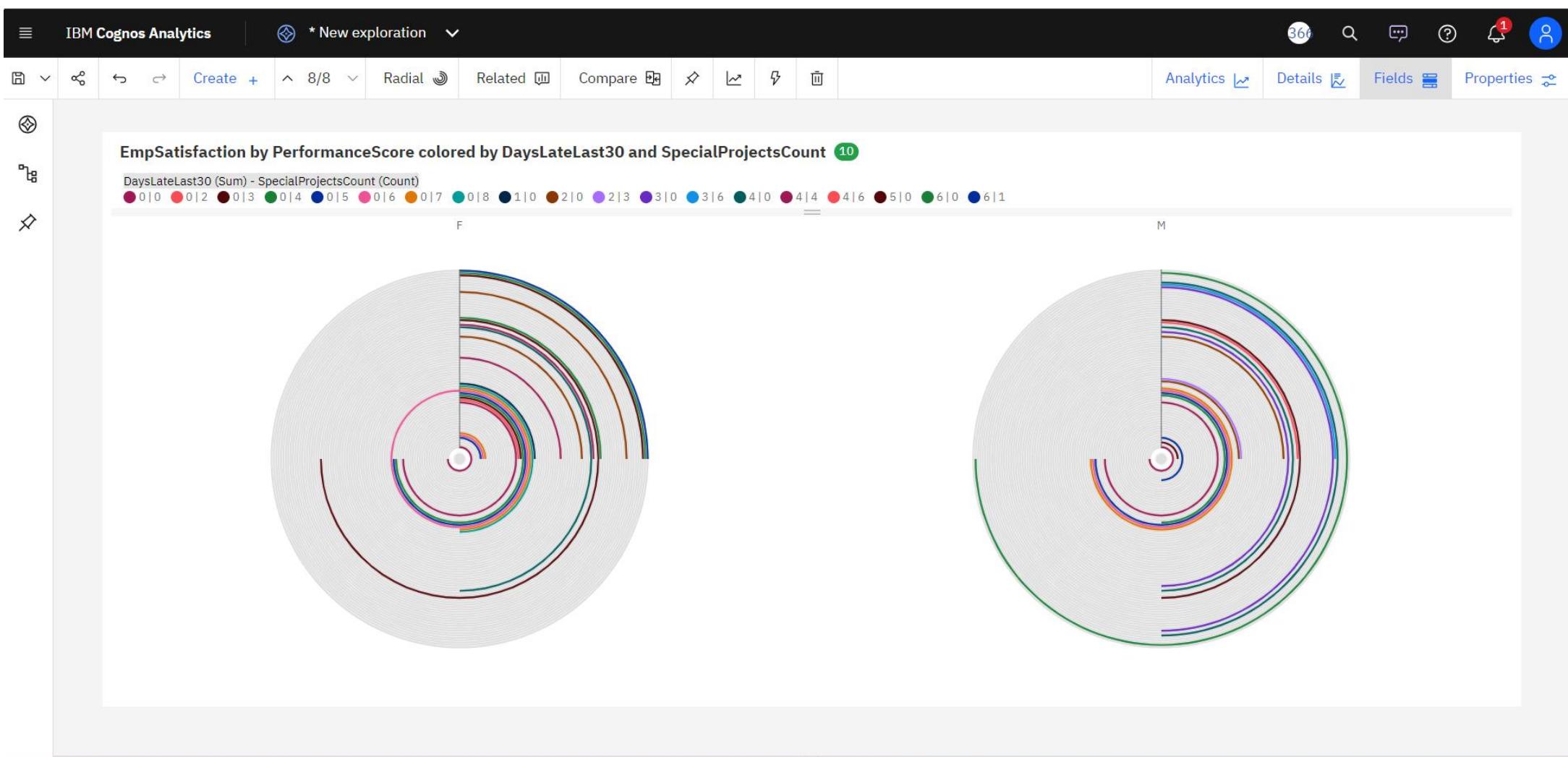


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IBM Cognos Analytics * New exploration

Open menu Create + Summary Related Sync Analytics Details Filters Fields Properties

Chart A

RecruitmentSource

9

RecruitmentSource

Chart B

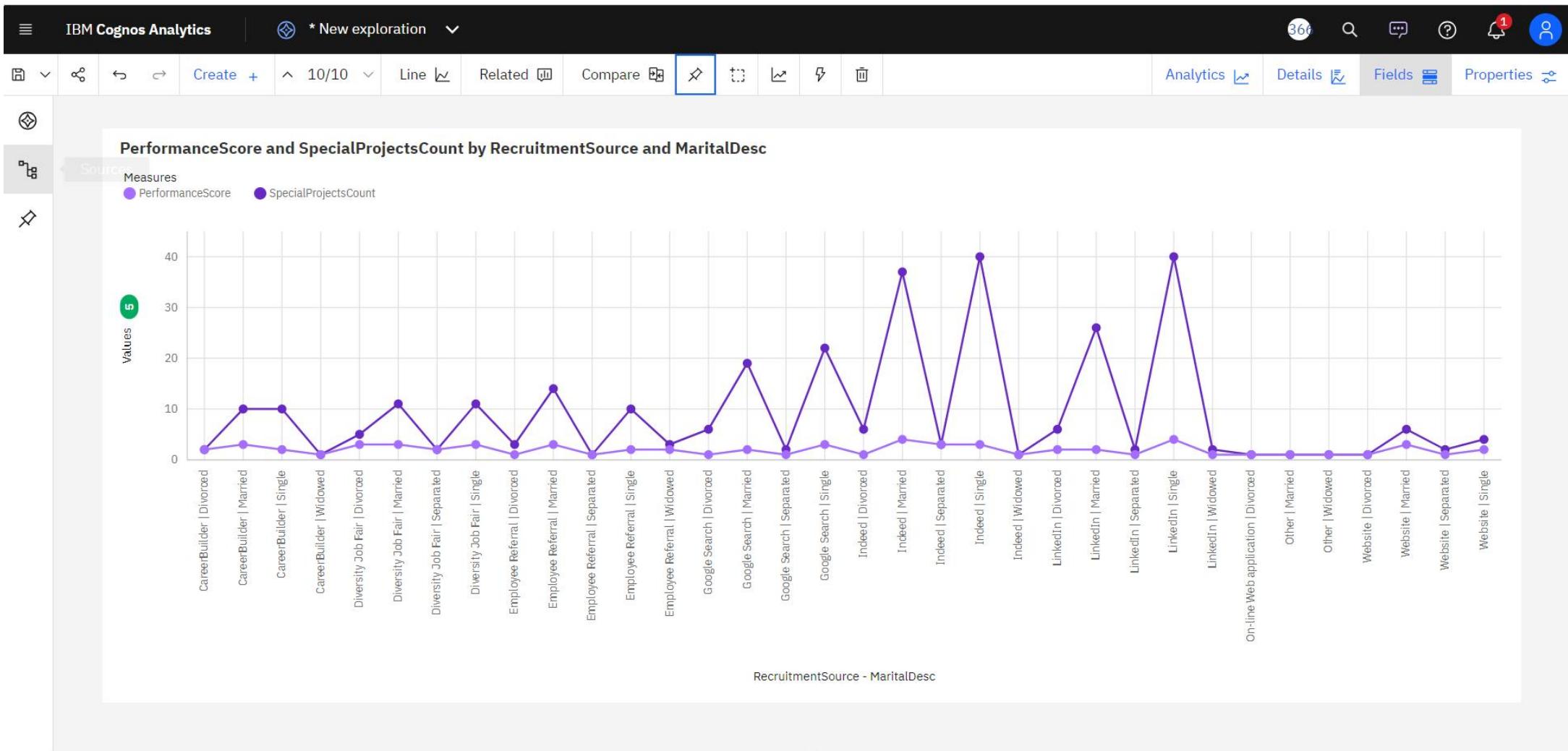
PerformanceScore

4

PerformanceScore

Summary	Chart A : RecruitmentSource	Chart B : PerformanceScore	Combined
Minimum	9	4	-
Maximum	9	4	-
Chart percent of data set	100%	100%	-
Chart total	9	4	-
Difference of chart totals			-

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DASHBOARD

Edit

Analytics Filters Fields Properties

HR_Page1 +

Salary

PerformanceScore

RecruitmentSource

21.5M

Salary

4

PerformanceScore

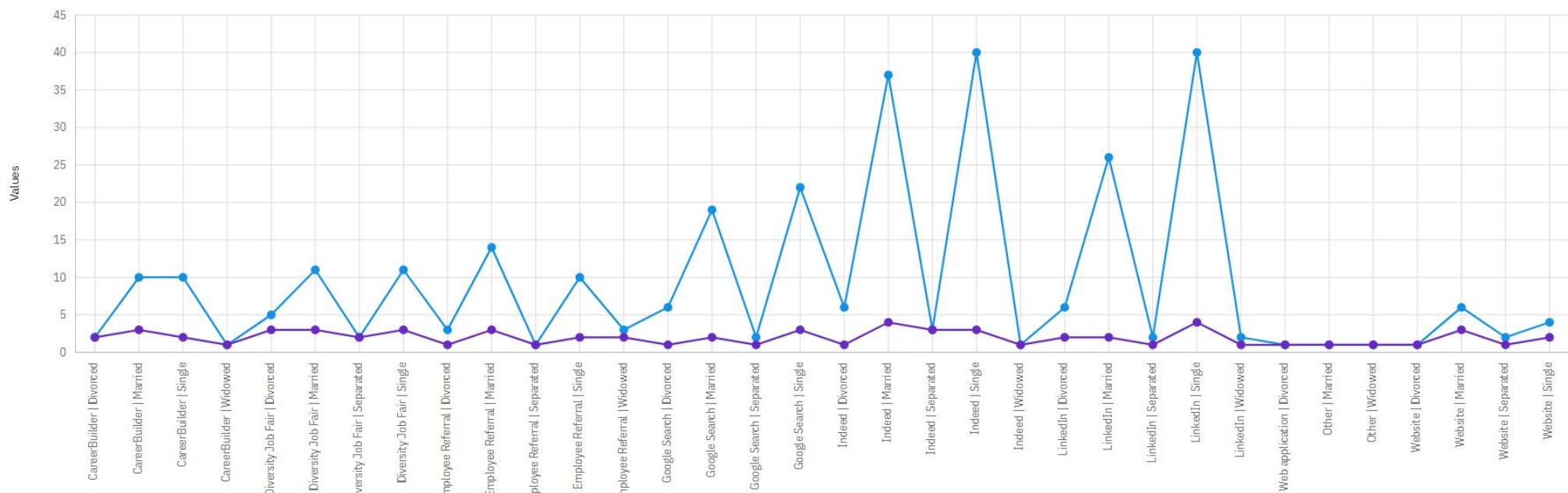
9

RecruitmentSource

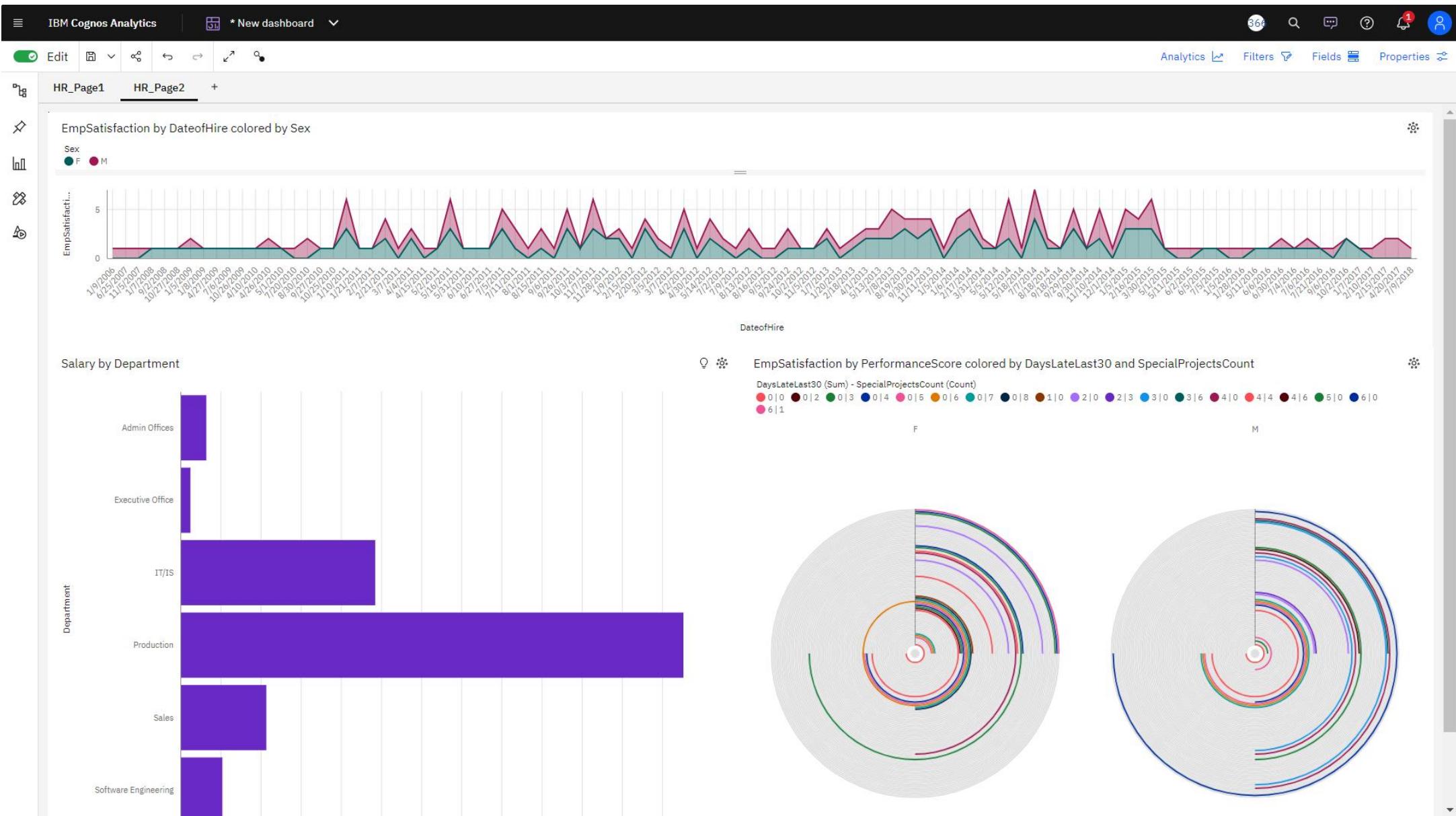
PerformanceScore and SpecialProjectsCount by RecruitmentSource and MaritalDesc

Measures

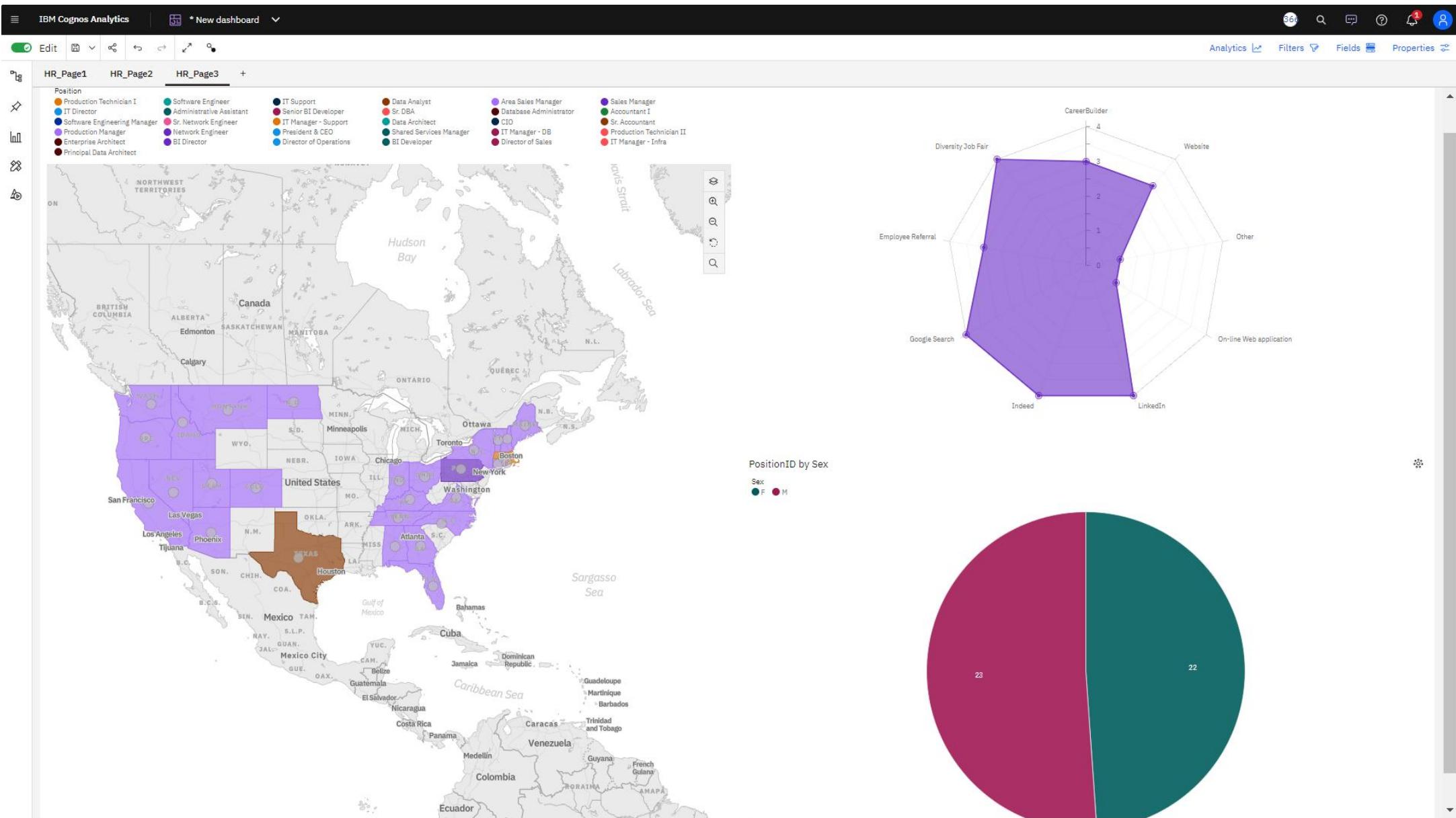
PerformanceScore SpecialProjectsCount



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STORY

IBM Cognos Analytics * New story

360 Q ... ? 1

Edit Filters Fields Properties

HR DataSet

By IBM Cognos

Prev scene ▶▶ Next scene Scene 1 of 12 0:00.0 0:05.0

The screenshot shows the IBM Cognos Analytics interface. At the top, there's a header with the product name and a 'New story' button. To the right are icons for search, help, and user profile, with a notification badge showing '1'. Below the header is a toolbar with icons for edit, filters, fields, and properties. The main content area features a large title 'HR DataSet' and a subtitle 'By IBM Cognos' within a dashed rectangular frame. On the far left, there's a vertical column of small icons. At the bottom, a timeline shows the current scene (1 of 12) and duration (0:00.0 to 0:05.0). A control bar at the very bottom includes buttons for previous and next scenes.

au611220104026

Edit

Analytics Filters Fields Properties



- DateofHire 2012-07-09 has the lowest total Salary at over 46 thousand, followed by 2007-11-05 at over 47 thousand.
- DateofHire 2015-03-30 has the highest total Salary at over 901 thousand, followed by 2011-01-10 at over 867 thousand.
- From 2015-03-30 to 2015-05-01, Salary dropped by 94%.
- The overall number of results for Salary is 311.

HR DataSet

Salary

21.5M

Salary

Prev scene



Next scene

Scene 2 of 12

0:00.0



0:05.0



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Edit Diagram Fields SearchAnalytics Link Filters Filter Fields Table Properties Properties

HR DataSet

- DateofHire 2006-01-09 and 2007-06-25 have the lowest RecruitmentSource at 1.0.
- DateofHire 2011-01-10 and 2015-01-05 have the highest RecruitmentSource at 6.0.
- From 2010-10-25 to 2011-01-10, RecruitmentSource increased by 500%.
- The overall number of results for RecruitmentSource is 311.

RecruitmentSource

9

RecruitmentSource

Prev scene



Next scene

Scene 3 of 12

0:00.0



0:05.0



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Edit

Analytics Filters Fields Properties



Visualizations

- LastPerformanceReview_Date 2010-07-14 and 2011-02-06 have the lowest PerformanceScore at 1.0.
- LastPerformanceReview_Date 2019-02-04 has the highest PerformanceScore at 4.0, followed by 2019-01-14 at 3.0.
- From 2019-02-01 to 2019-02-04, PerformanceScore increased by 300%.
- The overall number of results for PerformanceScore is 311.

HR DataSet

PerformanceScore

4

PerformanceScore

Prev scene



Next scene

Scene 4 of 12

0:00.0



0:05.0

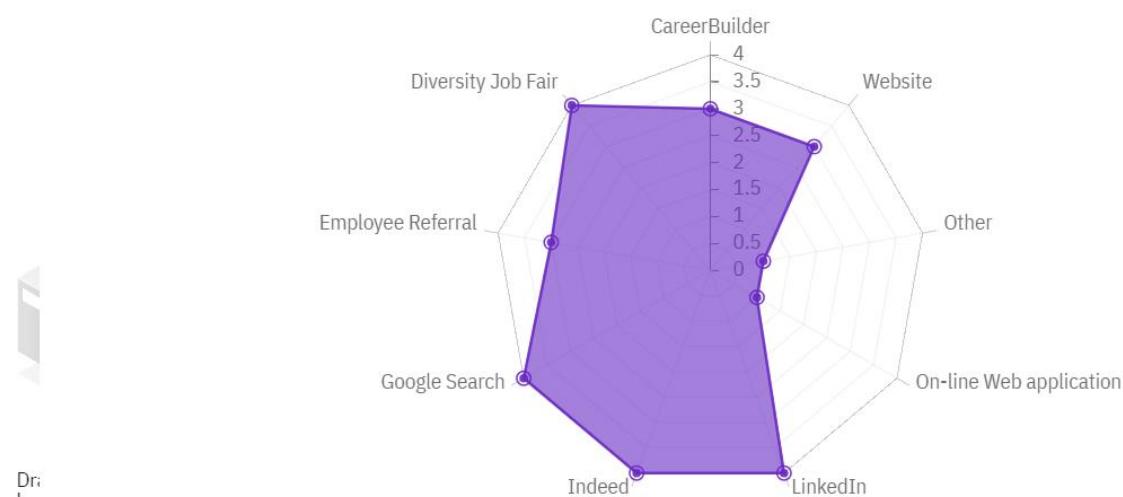


[Edit](#) [Diagram](#) [Fields](#) [Search](#)[Analytics](#) [Filters](#) [Fields](#) [Properties](#)

HR DataSet

- From 2019-02-01 to 2019-02-04, LinkedIn's PerformanceScore increased by 200%.

PerformanceScore by RecruitmentSource

[Prev scene](#)[Next scene](#)

Scene 5 of 12

0:00.0



0:05.0

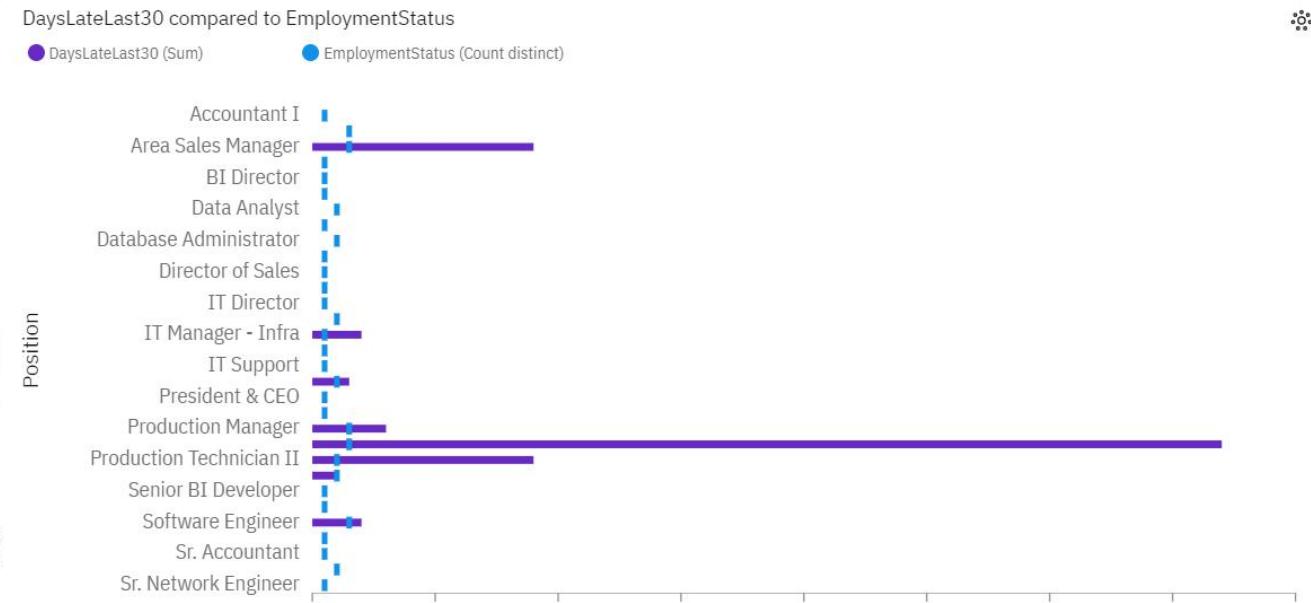


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Edit Save Share Print SearchAnalytics Link Filters Filter Fields Fields Properties Properties

HR DataSet

- Position Administrative Assistant has the highest Count distinct EmploymentStatus but is ranked #9 in Total DaysLateLast30.
- From 2011-02-07 to 2011-02-21, Production Technician I's EmploymentStatus increased by 100%.
- Position Production Technician I has the highest Total DaysLateLast30 but is ranked #1 in Count distinct EmploymentStatus.
- Over all positions, the sum of DaysLateLast30 is 129.
- DaysLateLast30 ranges from 0, when Position is Accountant I, to 74, when Position is Production Technician I.



Prev scene



Next scene

Scene 6 of 12

0:00.0

0:05.0

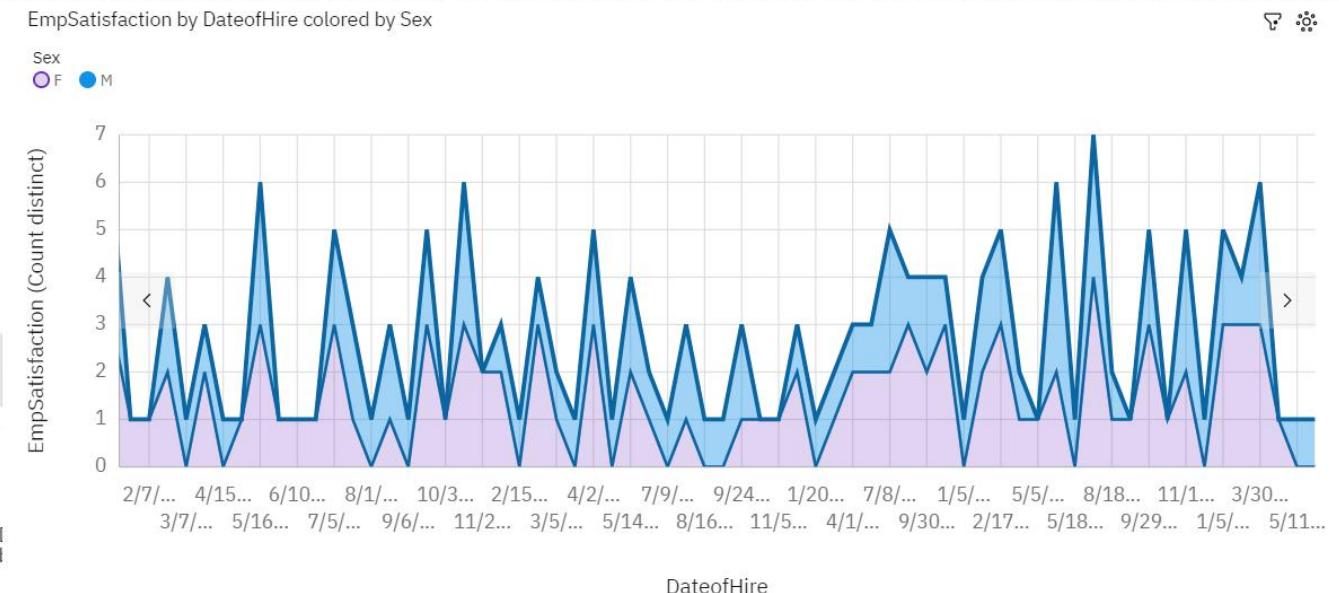


Edit 🖍️ ↻ 🔍

Analytics 🔍 Filters 🔍 Fields 🔍 Properties 🔍

HR DataSet

- Sex F has the highest values of both EmpSatisfaction and Salary.
- From 2014-05-12 to 2014-05-18, M's EmpSatisfaction dropped by 75%.
- 2011-01-10 is the most frequently occurring category of DateofHire with a count of 14 items with EmpSatisfaction values (4.5 % of the total).
- The overall number of results for EmpSatisfaction is 311.



Prev scene



Next scene

Scene 7 of 12

0:00.0

0:05.0

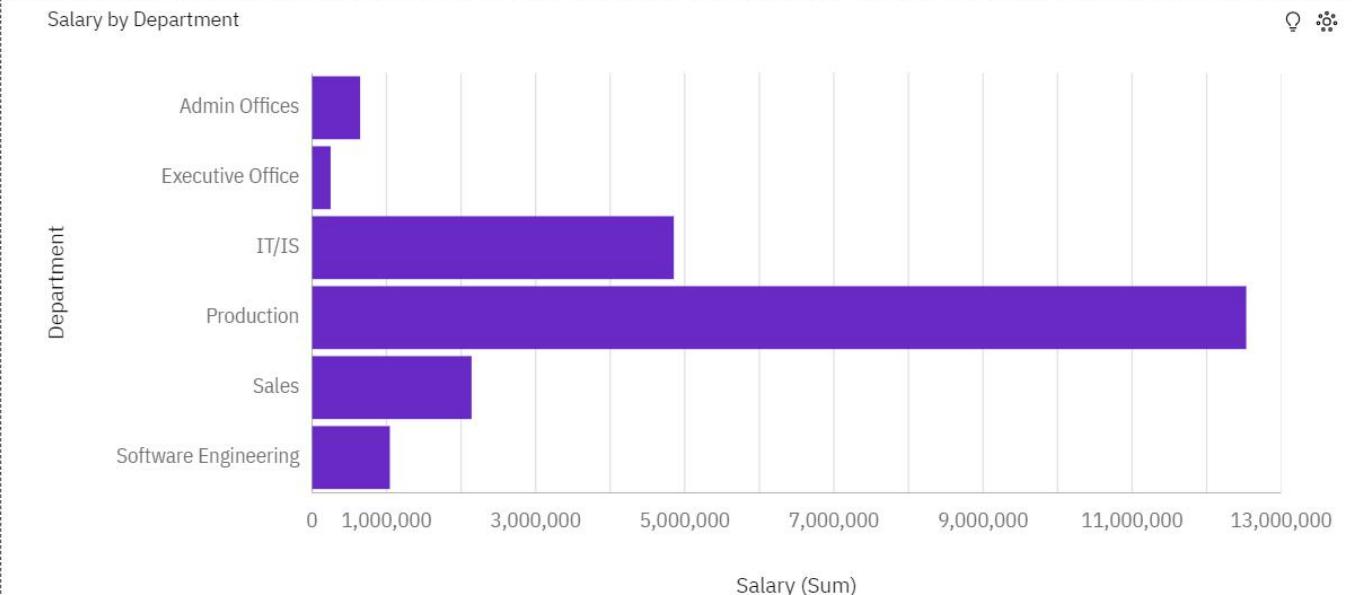


Open Edit



HR DataSet

- Salary is unusually high when Department is Production.
- From 2010-10-25 to 2011-01-10, Production's Salary increased by 962%.
- Across all departments, the sum of Salary is over 21 million.
- Salary ranges from 250 thousand, when Department is Executive Office, to nearly thirteen million, when Department is Production.



Prev scene



Next scene

Scene 8 of 12

0:00.0

0:05.0



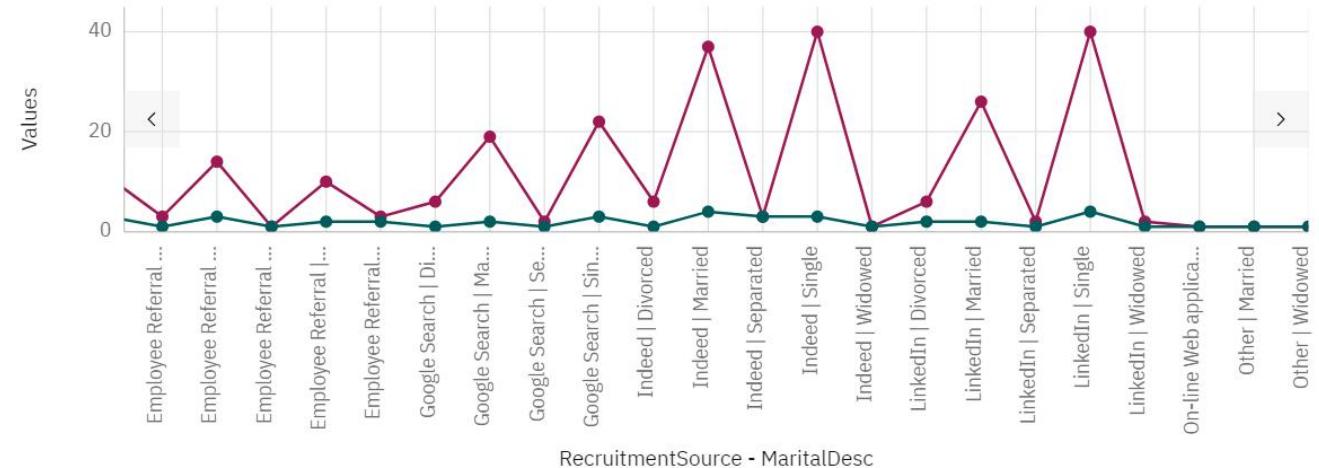
Edit File Search Print Copy PasteAnalytics Link Filters Filter Fields Table Properties Properties

- From 2019-02-01 to 2019-02-04, LinkedIn's PerformanceScore increased by 200%.
- The total number of results for PerformanceScore, across all RecruitmentSource - MaritalDesc, is 311.
- The total number of results for SpecialProjectsCount, across all RecruitmentSource - MaritalDesc, is 311.

HR DataSet

PerformanceScore and SpecialProjectsCount by RecruitmentSource and MaritalDesc

Measures
● PerformanceScore ● SpecialProjectsCount



Prev scene



Next scene

Scene 9 of 12

0:00.0

0:05.0

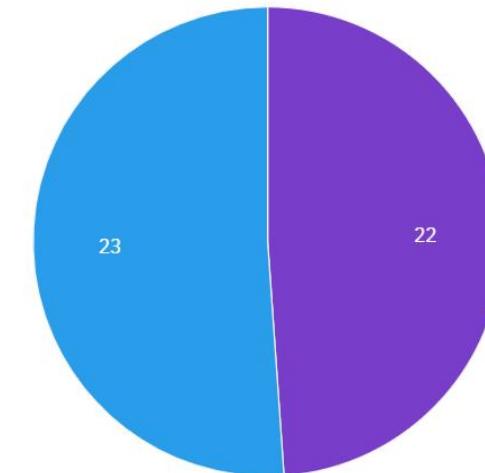


[Edit](#) [Insert](#) [Format](#) [Search](#)[Analytics](#) [Filters](#) [Fields](#) [Properties](#)

HR DataSet

- M exceeds F in PositionID by 1.
- Sex F has the highest Total Salary but is ranked #2 in Count distinct PositionID.
- Sex M has the highest Count distinct PositionID but is ranked #2 in Total Salary.
- F is the most frequently occurring category of Sex with a count of 176 items with PositionID values (56.6 % of the total).
- The total number of results for PositionID, across all sexes, is 311.

PositionID by Sex

Sex
F M[Prev scene](#)[Next scene](#)

Scene 10 of 12

0:00.0



0:05.0



IBM Cognos Analytics * New story

360 Q ... ? 1

Edit Filters Fields Properties

HR DataSet

- DaysLateLast30 0 has the highest EmpSatisfaction due to ManagerID 1.
- DaysLateLast30 0 has the highest EmpSatisfaction due to Sex F.
- PerformanceScore Fully Meets has the highest values of both EmpSatisfaction and Salary.
- Sex F has the highest values of both EmpSatisfaction and Salary.
- ManagerID 22 has the highest EmpSatisfaction at 7, out of which DaysLateLast30 0 contributed the most at 3.
- Sex M has the highest EmpSatisfaction at 16, out of which DaysLateLast30 0 contributed the most at 3.
- ManagerID 7 has the highest EmpSatisfaction at 10, out of which SpecialProjectsCount 6 contributed the most at 3.

EmpSatisfaction by PerformanceScore colored by DaysLateLast30 and SpecialProjectsCount

DaysLateLast30 (Sum) - SpecialProjectsCount (Count)

0|0 0|2 0|3 0|4 0|5 0|6 0|7 0|8 1|0 2|0 2|3 3|0 3|6 4|0 4|4 4|6 5|0 6|0 6|1

F M

Prev scene ▶▶ Next scene Scene 11 of 12 0:00.0 0:05.0

Edit

Analytics Filters Fields Properties



- State MA has the highest Salary at nearly 19 million, out of which Position Production Technician I contributed the most at over 7.6 million.
- Position Production Technician I Salary from State MA is over 7.6 million, whereas Production Technician II is only nearly 3.7 million.
- Position Production Technician I has the highest total Salary due to State MA.
- The total number of results for Position, across all states, is 311.
- State NV has the lowest total EngagementSurvey at 1.81, followed by AL at 1.93.
- State MA has the highest total EngagementSurvey at 1139.01, followed by CT at 25.24.

HR DataSet

Position for State regions and State points

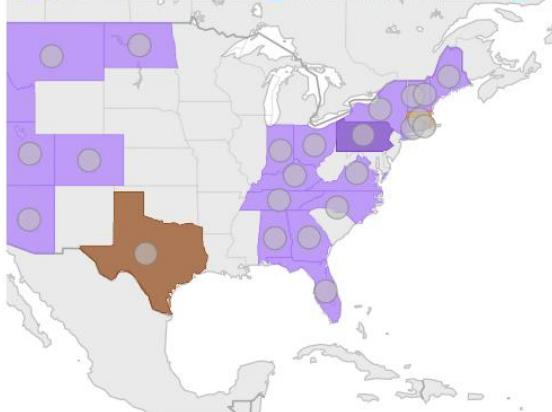
Position

- Production Technician I
- Sales Manager
- Database Administrator
- Data Architect
- President & CEO
- IT Director
- Software Engineer
- IT Director
- Accountant I
- CIO
- Shared Services Manager
- Director of Operations

- IT Support
- Administrative Assistant
- Software Engineering Manager
- Sr. Accountant
- IT Manager - DB
- IT Developer

- Data Analyst
- Senior BI Developer
- Sr. Network Engineer
- Production Manager
- Production Technician II
- Director of Sales

- Area Sales Manager
- Sr. DBA
- IT Manager - Support
- Network Engineer
- Enterprise Architect
- IT Manager - Infra



Prev scene



Next scene

Scene 12 of 12

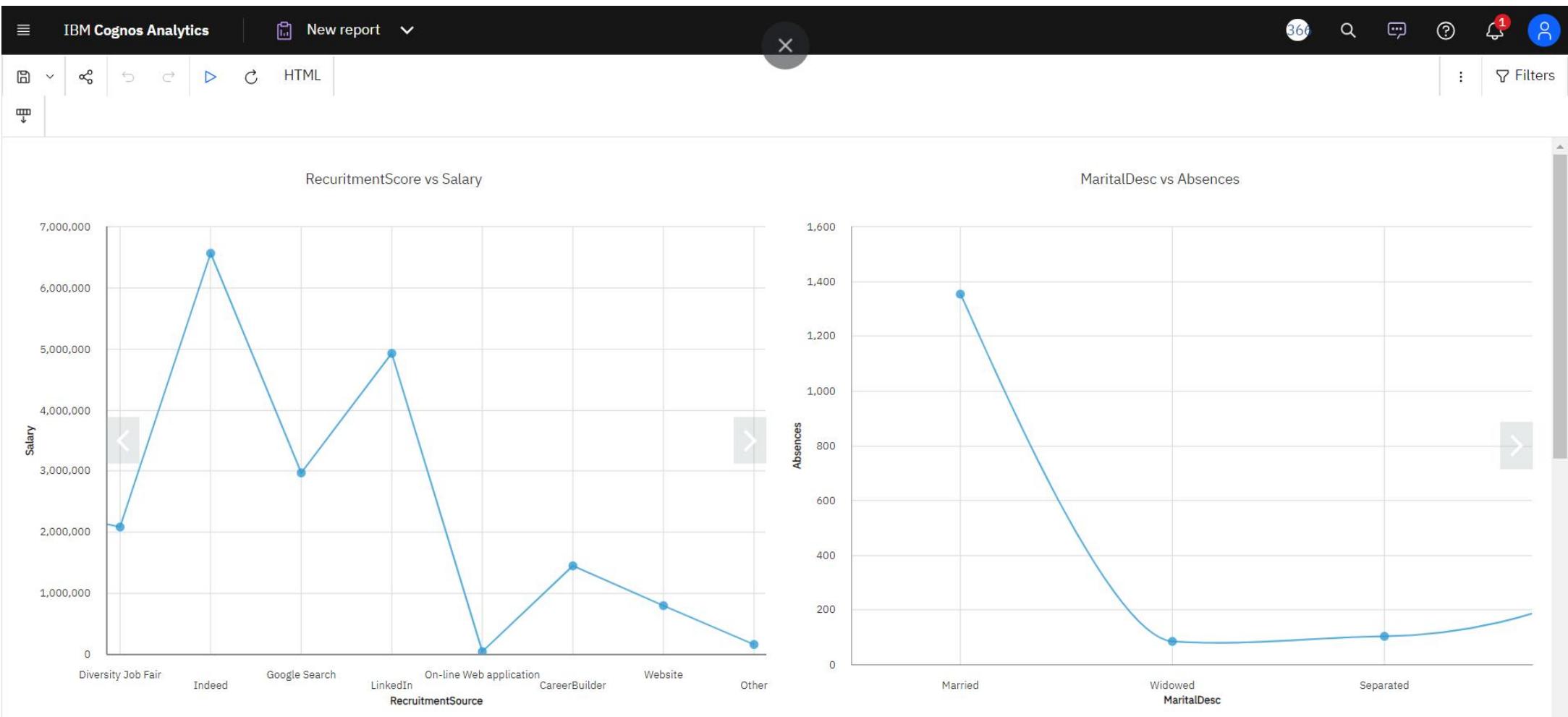
0:00:0

0:05.0



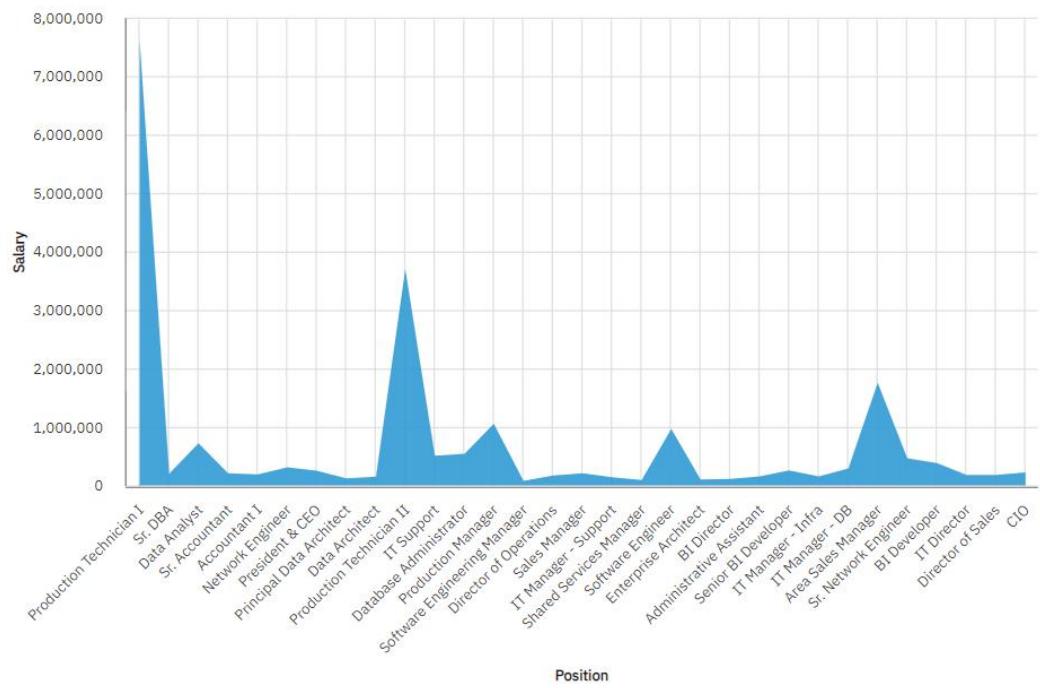
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REPORT

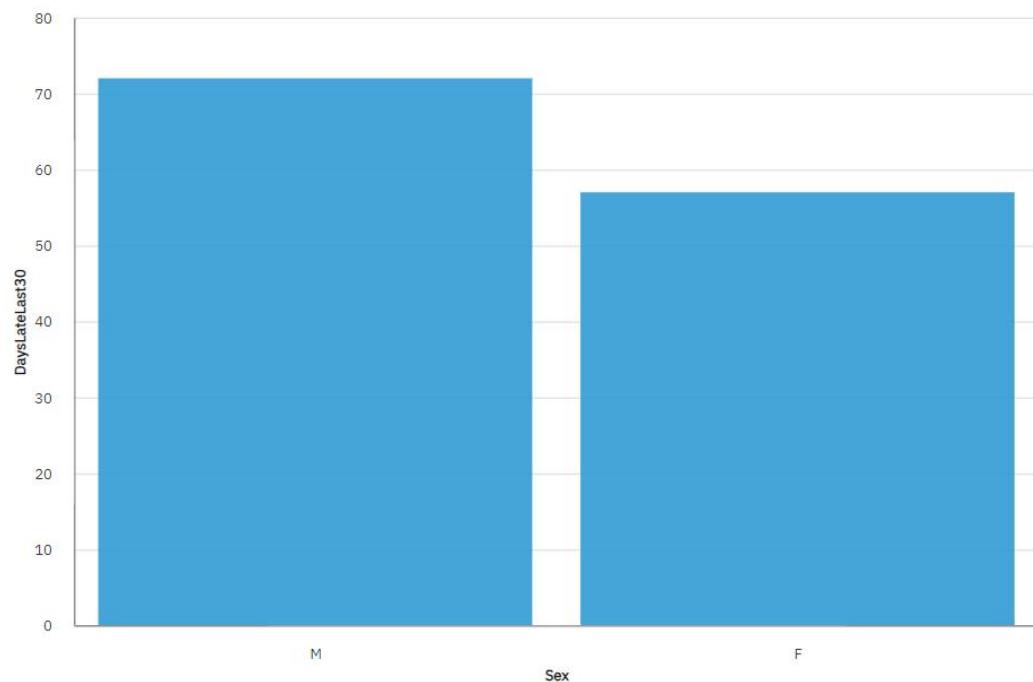


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Position vs Salary

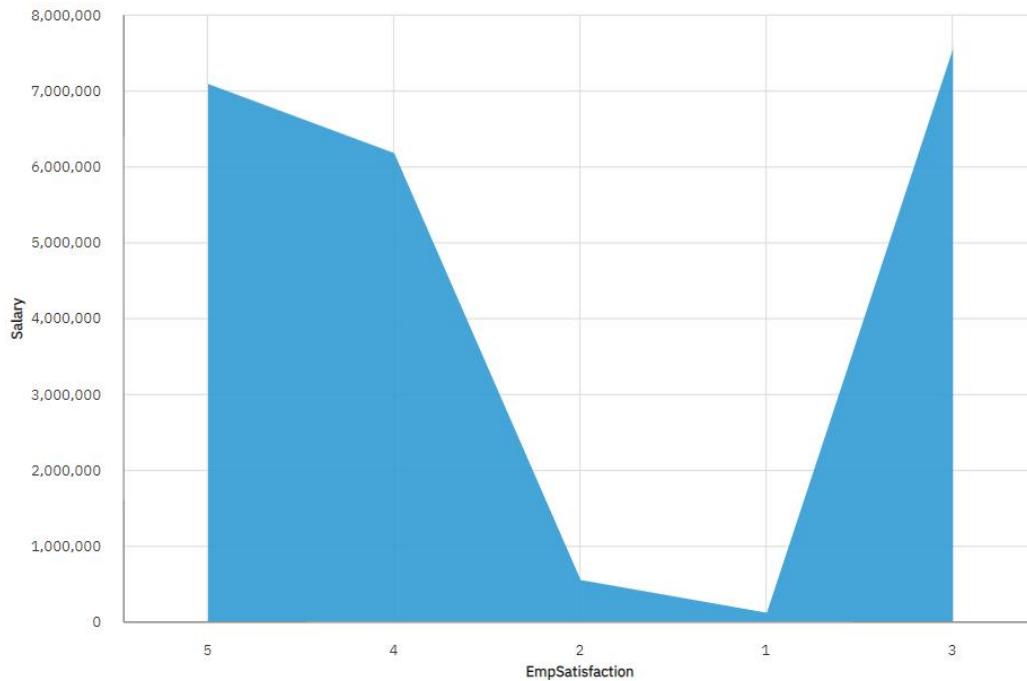


Sex vs DaysLateLast30

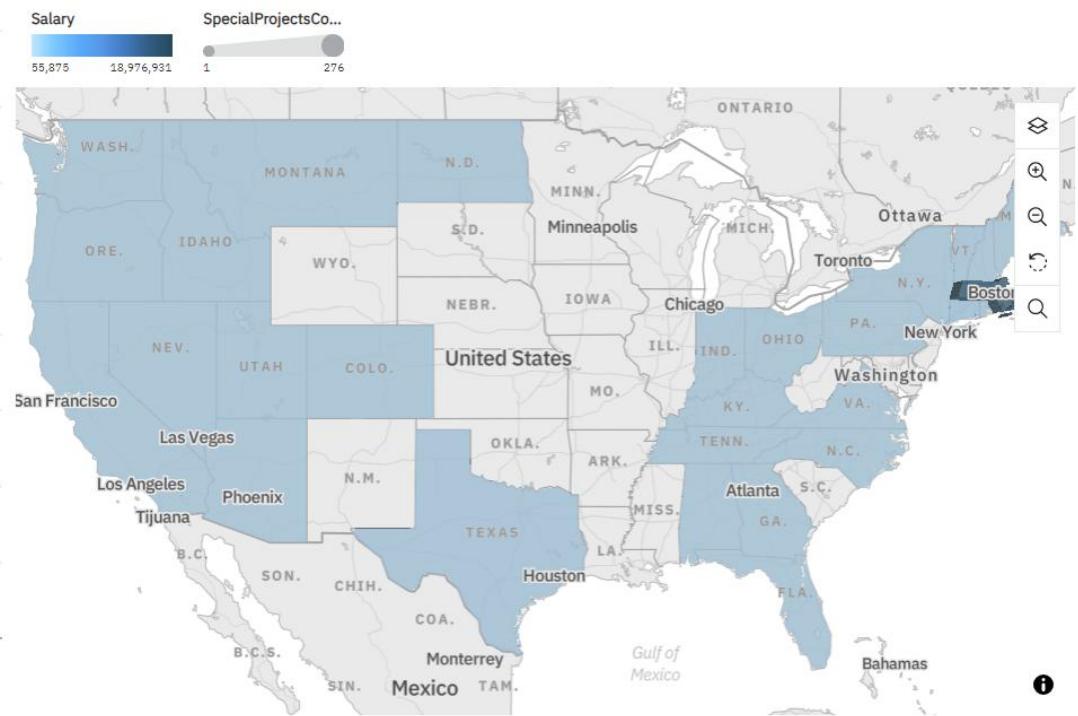


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EmpSatisfaction vs Salary



State vs SpecialProjectCount With Salary



Sep 30, 2023

1

1:05:08 PM

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