

Welcome

Greetings, I'm Amanda, a proud Wisconsinite. I'm a born and raised city girl now living the country lifestyle. My travels across the United States fostered an appreciation for nature and the world around us. I'm passionate about expanding my skill set and applying it to real-world challenges. Through a self-paced learning journey with Maven Analytics, I've honed my Excel skills in this **HR Survey Analysis**. For a closer look at my educational background and professional experience, please visit my LinkedIn page or review my resume. You can also reach out via email. Thriving in cross-functional teams allows me to share perspectives, learn from others, and deliver results. My mission is to make data a driving force for transformation in today's business landscape. Let's connect and embark on a journey where data isn't just information; it's a catalyst for positive change. Remember to cherish each day whenever you can.

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HR SURVEY ANALYSIS**THE SITUATION**

I was hired as a **Human Resources (HR) Associate** for the Seattle Department of Public Works. The city surveyed ~ 1,500 public works employees to measure job satisfaction and identify opportunities to keep staff motivated and engaged.

THE ASSIGNMENT

I was asked to analyze the survey response data and prepare a visual summary for the HR leadership team.

THE OBJECTIVES

1. Explore and profile the data to correct any quality issues.
2. Prepare and reformat the data for visualization.
3. Visualize the data and identify key insights and recommendations.

ORIGINAL EMPLOYEE RESPONSE DATA

~ 1,500 responses from city employees in Washington State

File Type: Excel

Data Structure: Single Table

of records: 14725

of fields: 10

AFTER CLEANING & FORMATTING

of records: 14575

Field	Description
Response ID	Unique, sequential ID representing a response to a survey question
Status	Identifies whether a response was complete or incomplete
Department	Survey respondent's job department (Human Resources, Public Works, etc.)
Director	Binary (0/1) field indicating if the respondent is in a Director role
Manager	Binary (0/1) field indicating if the respondent is in a Manager role
Supervisor	Binary (0/1) field indicating if the respondent is in a Supervisor role
Staff	Binary (0/1) field indicating if the respondent is in a Staff role
Question	Full survey question text
Response	Survey response value (0, 1, 2, 3, 4)
Response Text	Survey response text (Not Applicable, Strongly Disagree, Disagree, Agree, Strongly Agree)

Objective 1: Explore and profile the data to correct any quality issues.

I first took a look at the raw data as a whole.

Row count 14725

Calculations

Added a column (A) and some rows above data to make room

MIN, MAX, COUNT, & BLANKS in the numerical data columns

Added filters to my header row.

Select Row 1, use the shortcut ALT H S F

Using the filters, I noticed:

Question (I): 2 sets of questions 7 & 10

Response (J) & Response Text (K): have blanks

Remove blanks

Applied filter to Column I to show only blanks

Results of 135 blanks which were also blank in Response Text

Selecting the first row, use the shortcut Ctrl Shift down arrow

Deleted all rows with blanks

Row count is now 14590

Remove duplicates

Selecting all data, Data Tab, click 'Remove Duplicates'

15 duplicates were found and deleted

Row count 14575

Checking Department

Selecting all data, Insert Tab, Pivot Table

in new sheet Department Pivot

Formatting

Department to Rows

Department to Values (Count)

Nothing stands out as an error

Counts are correct

Checking Question

Selecting all data, Insert Tab, Pivot Table

in new sheet Question Pivot

Formatting

Question to Rows

Question to Values (Count)

Question 7: "&", "and" are use

Question 10: no visual error, click in and find trailing space

Back in HR Survery Responses - Cleaned

Question 7

Selecting Question column, Ctrl F

Find & Replace "&" with "and"

Replaced 501

Refresh Question Pivot and only 1 question 7

Question 10

In Column L (helper column)

=TRIM(I9)

copied down

Select new column data, Ctrl C

Paste values into Question column (ALT H V V)

delete helper column

Refresh Question Pivot and only 1 question 10

Objective 2: Prepare and reformat the data for visualization

Adding new sheet 'Chart Source View 1'

A2 =UNIQUE('HR Survey Reponses - Cleaned'!I9:I14583)

Cleaned and distinct 10 questions

Need # of each response 1-4

B2 =COUNTIFS('HR Survey Reponses - Cleaned'!\$J\$8:\$J\$14583,'Chart Source View 1'!\$A3,'HR Survey Reponses - Cleaned'!\$J\$8:\$J\$14583,'Chart Source View 1'!B\$2)

with reference types set, can drag down and over to fill the the rest of B2:E11

Spot check to make sure all formulas copied correctly

Average responses

F2 =AVERAGEIFS('HR Survey Reponses - Cleaned'!\$J\$8:\$J\$14583,'HR Survey Reponses - Cleaned'!\$I\$8:\$I\$14583,'Chart Source View 1'!\$A3,'HR Survey Reponses - Cleaned'!\$J\$8:\$J\$14583,"<>0")

this will exclude "0" responses as they mean 'Not Applicable'

copied down & double checked

Now to get the % of the responses

After AVG add new headers, (G-J) 1-4

G2 =B3/SUM(\$B3:\$E3)

copied down, across & double checked

Copy whole dataset, paste as values below table

could paste in original placement, I wanted to keep the formulas

ALT H V V, shortcut to paste as values

Formatting

added a row above each table, merging cells for names 'Formulas' & 'Values'

Using 'Values' table here on out

select headers, ALT A T will add filters

Sort DESC by AVG response

centered data in cells, for better readability

Noticed top response

1. I know what is expected of me at work

AVG response is 3.49

Objective 3: Visualize the data and identify key insights and recommendations

Create a 2-D 100% stacked bar chart

Select A17:A26 (Questions in 'Values' table)

CTRL Select % vaules G17:J26

Insert 100% stacked bar chart

Formatting

Y-axis 'check' categories in reverse order

this keeps the questions in sorted order

Update legend for response meanings

Update colors to be colorblind friendly

1 = solid fill, dark orange, 'Strongly Disagree'

2 = solid fill, light orange, 'Disagree'

3 = solid fill, light blue, 'Agree'

4 = solid fill, dark blue, 'Strongly Agree'

Add data labels, centered in bars

Format white text, bold and increase size

delete X-axis, gridlines

- Add title
- Format chart area with no fill and no border
- Edit gap width to 70%
- Removed gridlines from worksheet for blank canvas

Repeated with 2nd bar chart to show actual counts

- formatted same

Copy 'Chart Source View 1' sheet and rename 'Chart Source View 2'

- Delete 'Formulas' table
- Left with 'Values', deleted top header, not needed anymore
- Keep % chart, delete count chart

Modify bar chart to skew the (+) responses to the right, and (-) responses to the left

Modify table

- Add 'left' column after AVG, and 'right' at end
- left (G2) = 1-(H2+I2)
- copy down and format as whole %
- right (L2) = 1-(J2+K2)
- copy down and format as whole %

Select chart

- Edit series data
- include new columns G & L

Reformat Bar Chart

- leftmost & rightmost: no fill, no, data labels or legend
- this makes them invisible
- Adjust colors and series names to match original
- 1 = solid fill, dark orange, 'Strongly Disagree'
- 2 = solid fill, light orange, 'Disagree'
- 3 = solid fill, light blue, 'Agree'
- 4 = solid fill, dark blue, 'Strongly Agree'
- Adjust data labels, white and bold

This chart is easier on the eyes, easily see (-) & (+) responses

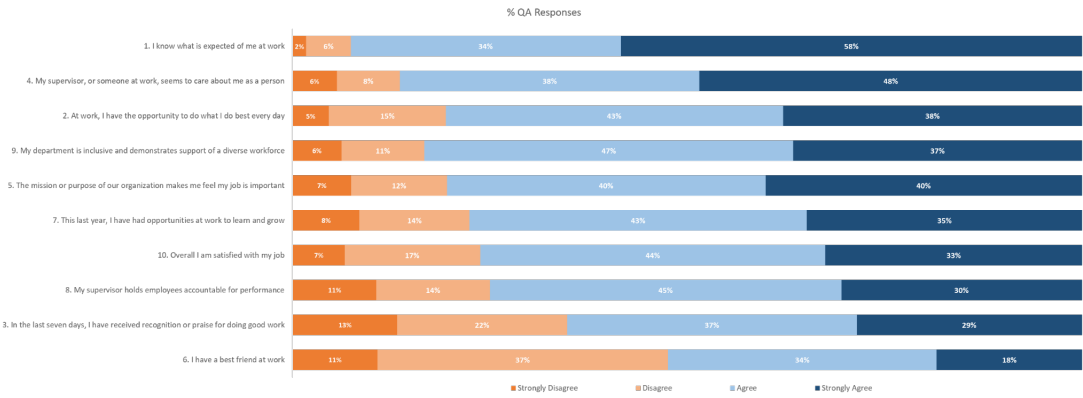
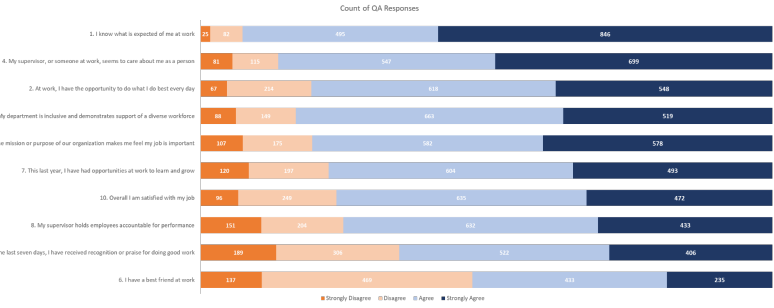
Check out my Insights & Recommendations

<i>Department</i>	Count of Department
Assessor-Treasurer's Office	426
Assigned Council	180
Clerk of Superior Court	358
Communications Office	196
Council's Office	267
District Court	418
Economic Development	69
Emergency Management	188
Exec Office & Directors	263
Facilities Management	472
Family Justice Center	39
Finance and Performance Management	1088
Human Resources	269
Human Services	959
Juvenile Court	742
Medical Examiner	109
Parks and Recreation	550
Planning and Public Works	4663
Prosecuting Attorney's Office	1172
Sheriff's Department	1800
Superior Court	347
Grand Total	14575

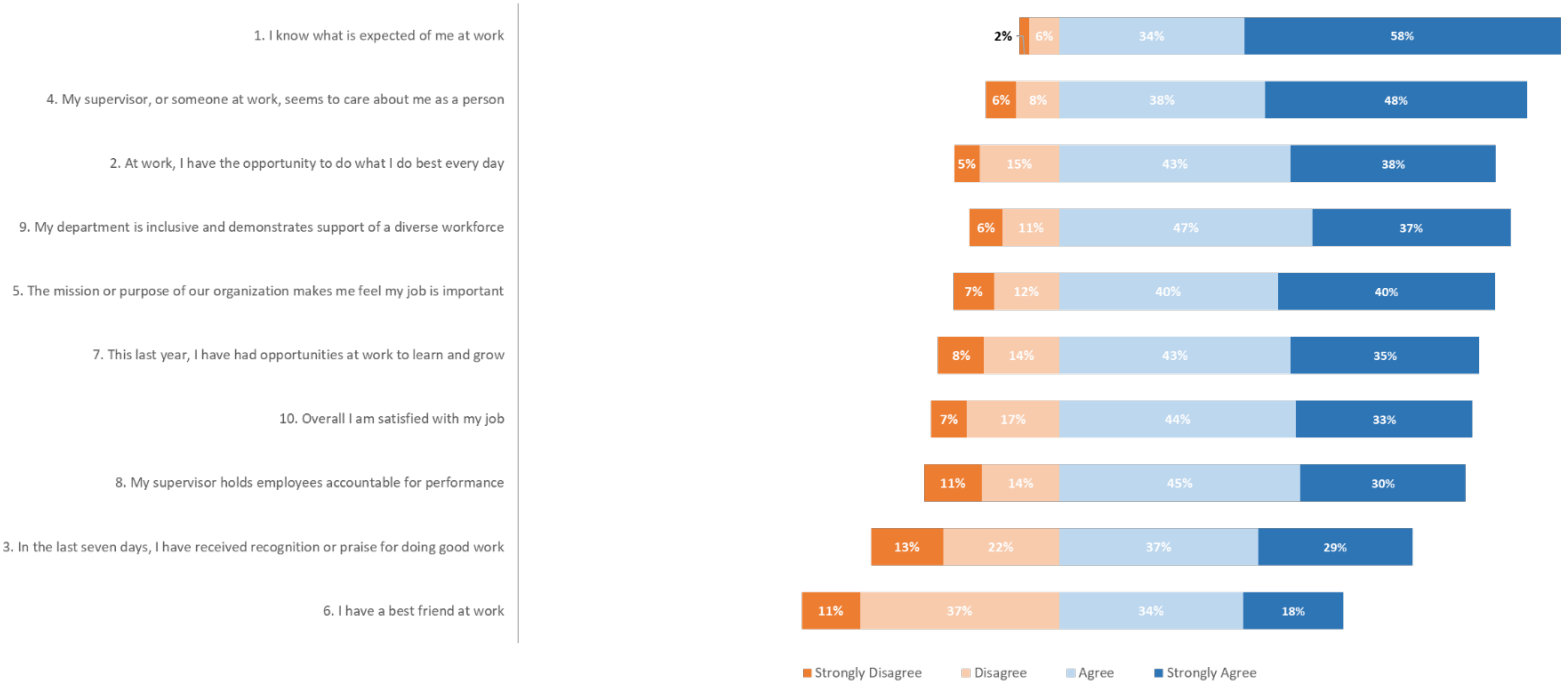
Question	Count of Question
1. I know what is expected of me at work	1453
10. Overall I am satisfied with my job	1462
2. At work, I have the opportunity to do what I do best every day	1461
3. In the last seven days, I have received recognition or praise for doing good work	1456
4. My supervisor, or someone at work, seems to care about me as a person	1457
5. The mission or purpose of our organization makes me feel my job is important	1459
6. I have a best friend at work	1458
7. This last year, I have had opportunities at work to learn and grow	1452
8. My supervisor holds employees accountable for performance	1459
9. My department is inclusive and demonstrates support of a diverse workforce	1458
Grand Total	14575

Questions	Formulas								
	1	2	3	4 avg	1	2	3	4	
1. I know what is expected of me at work	25	82	495	846	3.49	2%	6%	34%	58%
2. At work, I have the opportunity to do what I do best every day	67	214	618	548	3.14	5%	15%	43%	38%
3. In the last seven days, I have received recognition or praise for doing good work	189	306	522	406	2.80	13%	22%	37%	29%
4. My supervisor, or someone at work, seems to care about me as a person	81	115	547	699	3.29	6%	8%	38%	48%
5. The mission or purpose of our organization makes me feel my job is important	107	175	582	578	3.13	7%	12%	40%	40%
6. I have a best friend at work	137	469	433	235	2.60	11%	37%	34%	18%
7. This last year, I have had opportunities at work to learn and grow	120	197	604	493	3.04	8%	14%	43%	35%
8. My supervisor holds employees accountable for performance	151	204	632	433	2.95	11%	14%	45%	30%
9. My department is inclusive and demonstrates support of a diverse workforce	88	149	663	519	3.14	6%	11%	47%	37%
10. Overall I am satisfied with my job	96	249	635	472	3.02	7%	17%	44%	33%

Questions	Values									
	1	2	3	4	avg	1	2	3	4	
1. I know what is expected of me at work	25	82	495	846	3.49	2%	6%	34%	58%	
2. At work, I have the opportunity to do what I do best every day	67	214	618	548	3.14	5%	15%	43%	38%	
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10. Overall I am satisfied with my job										



Questions	1	2	3	4	avg	left	1	2	3	4	right
1. I know what is expected of me at work	25	82	495	846	3.49	93%	2%	6%	34%	58%	7%
4. My supervisor, or someone at work, seems to care about me as a person	81	115	547	699	3.29	86%	6%	8%	38%	48%	14%
2. At work, I have the opportunity to do what I do best every day	67	214	618	548	3.14	81%	5%	15%	43%	38%	19%
9. My department is inclusive and demonstrates support of a diverse workforce	88	149	663	519	3.14	83%	6%	11%	47%	37%	17%
5. The mission or purpose of our organization makes me feel my job is important	107	175	582	578	3.13	80%	7%	12%	40%	40%	20%
7. This last year, I have had opportunities at work to learn and grow	120	197	604	493	3.04	78%	8%	14%	43%	35%	22%
10. Overall I am satisfied with my job	96	249	635	472	3.02	76%	7%	17%	44%	33%	24%
8. My supervisor holds employees accountable for performance	151	204	632	433	2.95	75%	11%	14%	45%	30%	25%
3. In the last seven days, I have received recognition or praise for doing good work	189	306	522	406	2.80	65%	13%	22%	37%	29%	35%
6. I have a best friend at work	137	469	433	235	2.60	52%	11%	37%	34%	18%	48%



Key Insights from HR Survey Analysis (Public Works Employees)	Recommended Actions
<p>Positive Aspects</p> <ul style="list-style-type: none">* Clear Expectations: 58% of employees express clarity in their work expectations, indicating well-defined roles.* Diversity and Inclusion: 47% of employees believe the department demonstrates a decent level of inclusivity.* Meaningful Work: 40% of employees find purpose in their roles due to the organization's mission. <p>Areas Needing Improvement</p> <ul style="list-style-type: none">* Limited Growth Opportunities: 43% of employees feel hindered by insufficient opportunities for learning and growth.* Lack of Recognition: Only 29% of respondents received recognition for their work in the past week, indicating a need for appreciation.* Accountability Concerns: 30% of employees believe supervisors don't hold colleagues accountable for performance.* Overall Job Satisfaction: While 44% are satisfied with their jobs, 33% express dissatisfaction, necessitating improvement.	<ul style="list-style-type: none">* Invest in Growth Opportunities: Implement training programs, mentorship initiatives, and job rotations to address the demand for learning and development.* Foster a Culture of Recognition: Encourage supervisors to regularly acknowledge and appreciate employees' contributions formally and informally.* Enhance Accountability Measures: Clearly define performance expectations and implement fair consequences for meeting or not meeting those expectations.* Explore Dissatisfaction Causes: Conduct further research or focus groups to identify the root causes of dissatisfaction and tailor solutions accordingly.* Promote Collaboration: Organize team-building activities and social events to create a more connected and positive work environment.
	<p>Additional Considerations</p> <ul style="list-style-type: none">* The survey provides a timely snapshot, and regular pulse surveys can track progress and spot emerging trends.* The survey's comments section offers valuable qualitative data, shedding light on employee concerns and suggestions.* The city, by addressing improvement areas and leveraging its strengths, has the potential to create a more engaging and fulfilling workplace for public works employees, leading to improved productivity, morale, and retention.

1. I know what is expected of me at work
4. My supervisor, or someone at work, seems to care about me as a person
2. At work, I have the opportunity to do what I do best every day
9. My department is inclusive and demonstrates support of a diverse workforce
5. The mission or purpose of our organization makes me feel my job is important
7. This last year, I have had opportunities at work to learn and grow
10. Overall I am satisfied with my job
8. My supervisor holds employees accountable for performance
3. In the last seven days, I have received recognition or praise for doing good work
6. I have a best friend at work

