

**NERC 2025**

# Plowing Through Data: Efficiency Hacks with GenAI and Excel



GENAI





# Courtney Vance

*Senior Project Manager*

Excel and AI Power User

Avid Reader (If you read, let's chat!)

PROLIFIC Backyard Farmer



Fun Fact:  
I use data to plan,  
assess, and grow  
tons of crops!





# Uncover and Communicate Your Data Story: Part 1





# Magical Journey

LEGO Bricks = Raw Data





# Raw Pursuit Data

	A	C	D	E	F	G	H
1	Opportunity Num	Stage	Firm Estimated Fee	Days in Stage	Firm Org Division	Prospect Type	Firm Org Office
2	22-0002	01-Prospecting	\$123,987	535	Healthcare	New Client	Dallas
3	21-0002	01-Prospecting	\$123,456	1102	Aviation	Repeat Client	Austin
4	23-0003	01-Prospecting	\$234,876	326	Healthcare	New Client	Dallas
5	23-0001	01-Prospecting	\$345,765	380	Healthcare	New Client	Dallas
6	21-0026	01-Prospecting	\$555,500	914	Aviation	Repeat Client	Mexico City
7	21-0044	01-Prospecting	\$246,802	654	Healthcare	Repeat Client	Dallas
8	21-0029	01-Prospecting	\$192,837	654	Landscape	New Client	Dallas
9	21-0010	01-Prospecting	\$908,756	985	Landscape	Repeat Client	Austin
10	21-0009	01-Prospecting	\$890,567	985	Aviation	New Client	Austin
11	21-0028	01-Prospecting	\$765,345	914	Healthcare	Repeat Client	Dallas
12	21-0012	01-Prospecting	\$136,332	985	Municipal	New Client	Dallas
13	22-0012	01-Prospecting	\$135,801	405	Healthcare	New Client	Dallas
14	23-0008	02-Prospecting (Converted Lead)	\$247,221	254	Landscape	Repeat Client	Dallas
15	20-0005-001	02-Prospecting (Converted Lead)	\$2,643,880	277	Aviation	New Client	Boca Raton
16	21-0027	03-Received RFP/RFQ	\$5,000,123	914	Commercial	Repeat Client	Atlanta





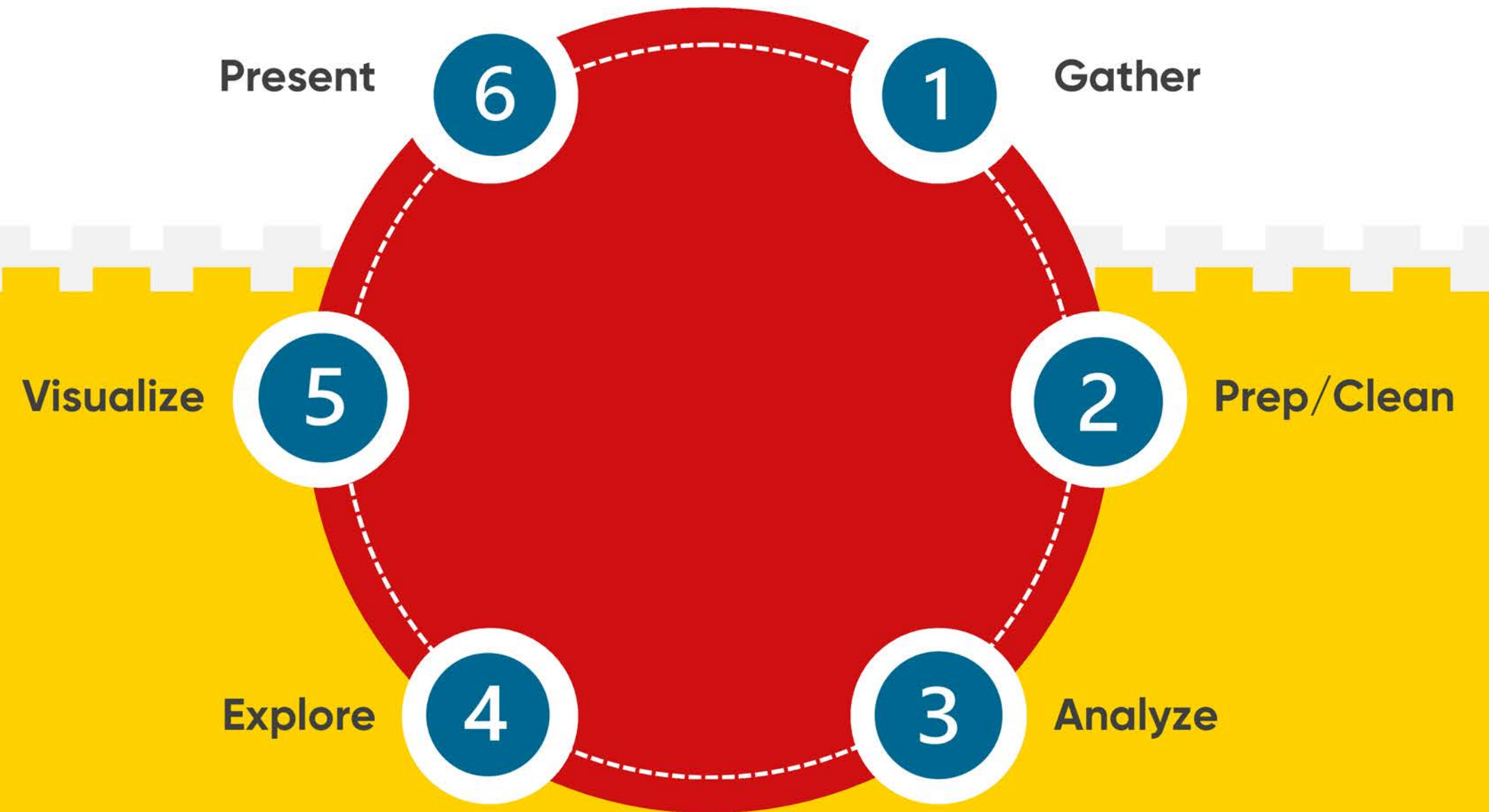
# What if every cell was a LEGO brick?

	A	C	D	E	F	G	H
1	Opportunity Numb	Stage	Firm Estimated Fe	Days in Stag	Firm Org Division	Prospect Type	Firm Org Office
2	22-0002	01-Prospecting	\$123,987	535	Healthcare	New Client	Dallas
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12	21-0012	01-Prospecting	\$136,332	985	Municipal		
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## Data Steps







## Gather. Enough Data

- It's not about collecting the most
- It's about making sense of it
- Connecting the dots across multiple sources

## Prep. Processing the Data

- Removing duplicates
- Handling missing values
- Standardizing formats
- Clearing out hidden spaces and characters
- Abbreviate or Not to Abbreviate





## Analyze. Identify

- Trends and patterns
- Outliers or erroneous data
- Main takeaway

## Explore. GenAI Tools

- Executive summaries with key takeaways
- Gain deeper insights
- Alternative perspectives







# Steps

1. **Gather** – Data Bricks
2. **Prep** – Sort and Organize
3. **Analyze** – Identify Patterns
4. **Explore** – Group and Arrange
5. **Visualize** – Assemble/Build
6. **Present** – Final Structure/Design







# Prep. Sorting Data

Which column of data will you sort by?

- Alphabetically by Company Name
- Highest-to-Lowest Dollar Value
- Sequential by Opp/Project Number

	A	C	D	E	F	G	H
1	Opportunity Numb	Stage	Firm Estimated Fee	Days in Stage	Firm Org Division	Prospect Type	Firm Org Office
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# Prep. Sorting Bricks

How will you sort the bricks?

- Color
- Size







# Analyze. Data Outliers

- Data point(s) significantly different from the rest:
  - All dollars are in the **millions** except one, which is in the **hundreds**
- Typos

	A	C	D	E	F	G	H
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# Analyze. Brick Outliers





# Visualize. Data

How will you show your data?

- Table
- Chart / Graph
- Diagram / Gauge
- Infographic / Flowchart
- Map (Heat, Area, etc.)







# Visualize. Bricks

How will you display the bricks?

- Height
- Depth
- Other?





# Present





# Present

Something's  
missing!











Remember our  
brick outliers?





**It's important to  
understand your data!**











**The power of data  
is not just the  
visualization, it's  
the story you tell!**













# Time-Saving Excel Tools and Formulas



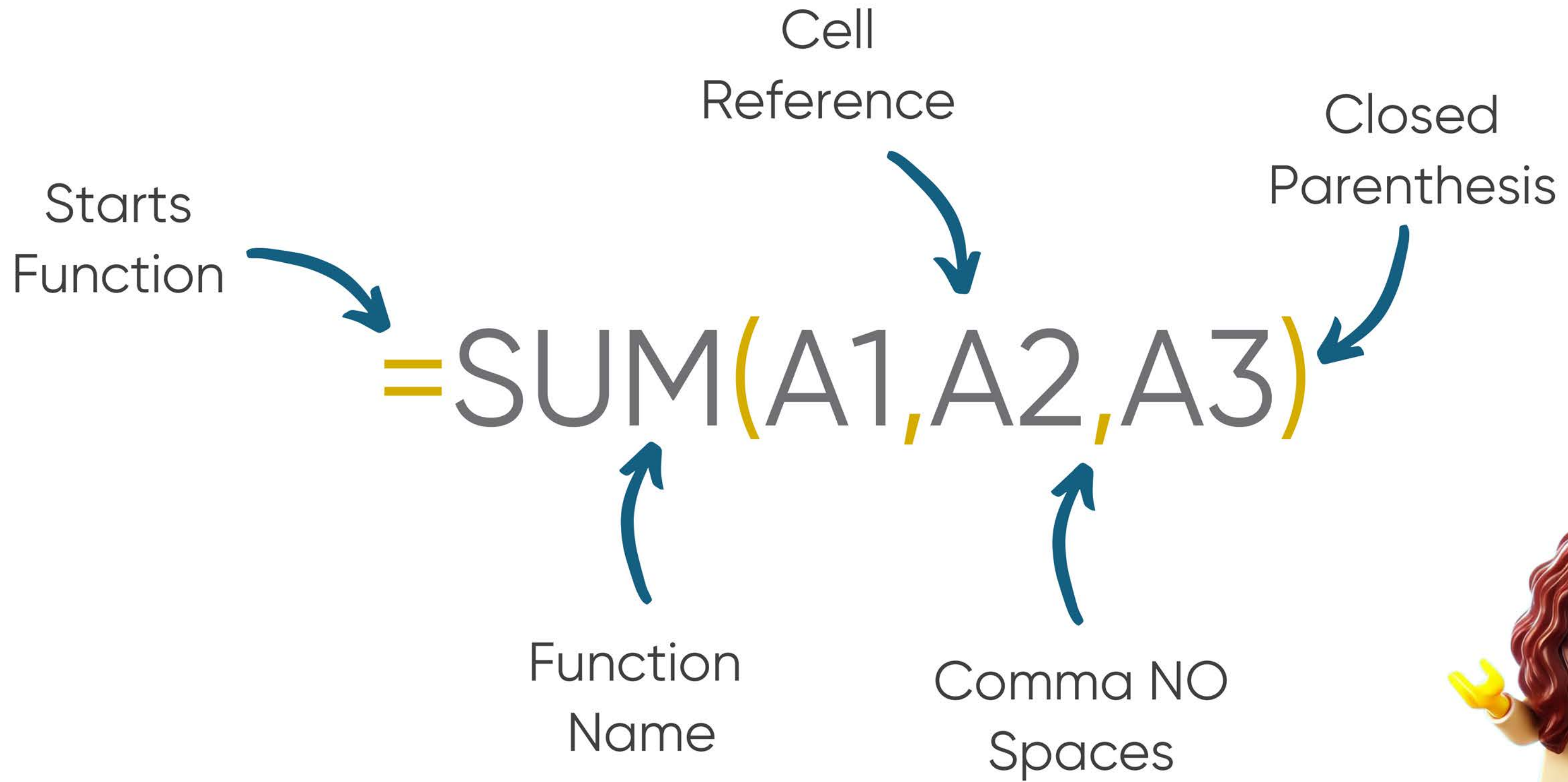




# Excel Best Practices

- Always back up your data set first
- Know your unique identifiers
- Leave yourself clues
- Never share sheets with active formulas
- **Sorting data is risky - be careful**





# SYNTAX BASICS



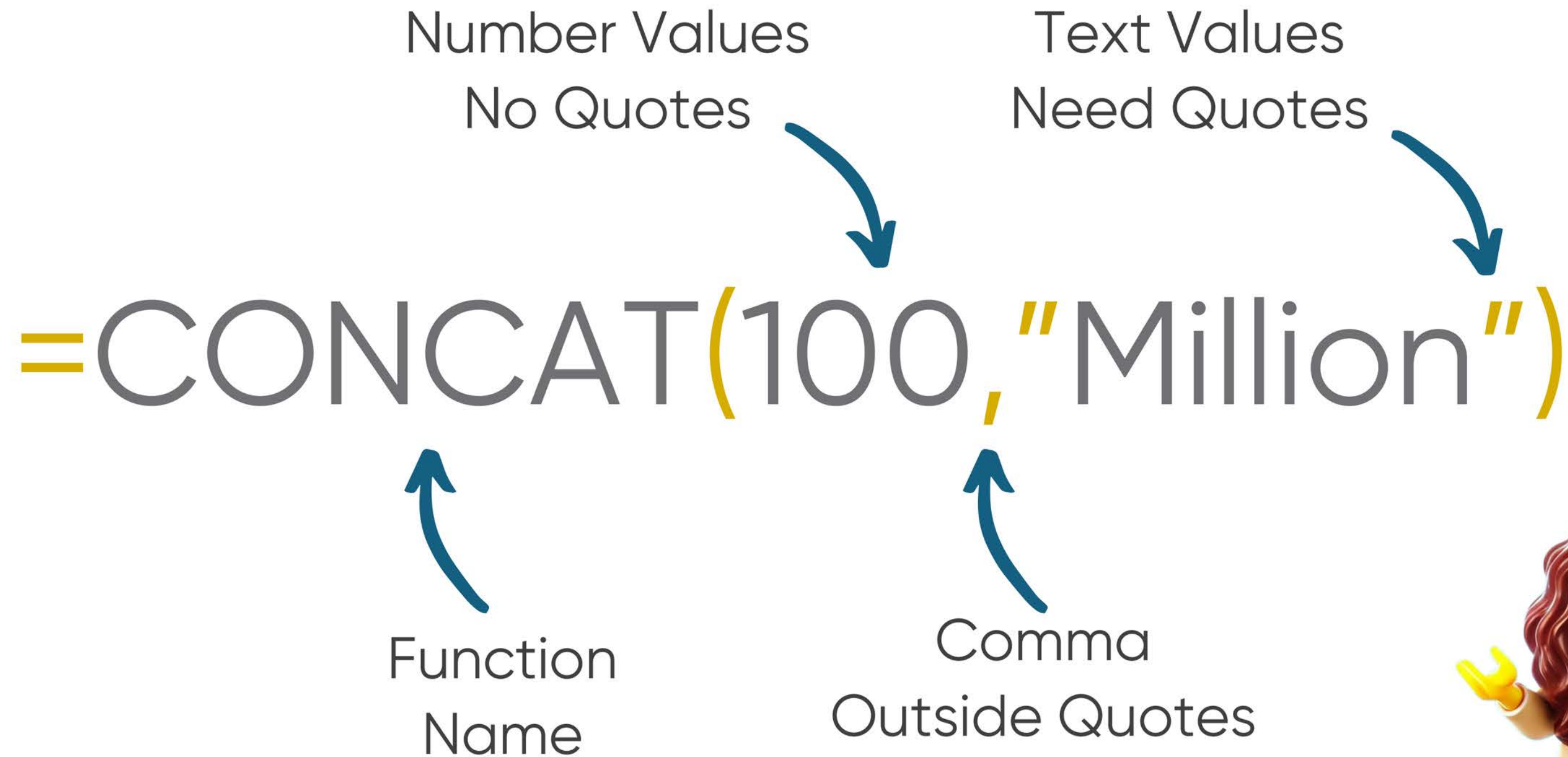
Number Values  
No Quotes

Text Values  
Need Quotes

=CONCAT(100,"Million")

Function  
Name

Comma  
Outside Quotes





Column A      Row 2      Column A  
Row 3

↓      ↓      ↓

=SUM(\$A1,A\$2,\$A\$3)



# ABSOLUTE REFERENCES

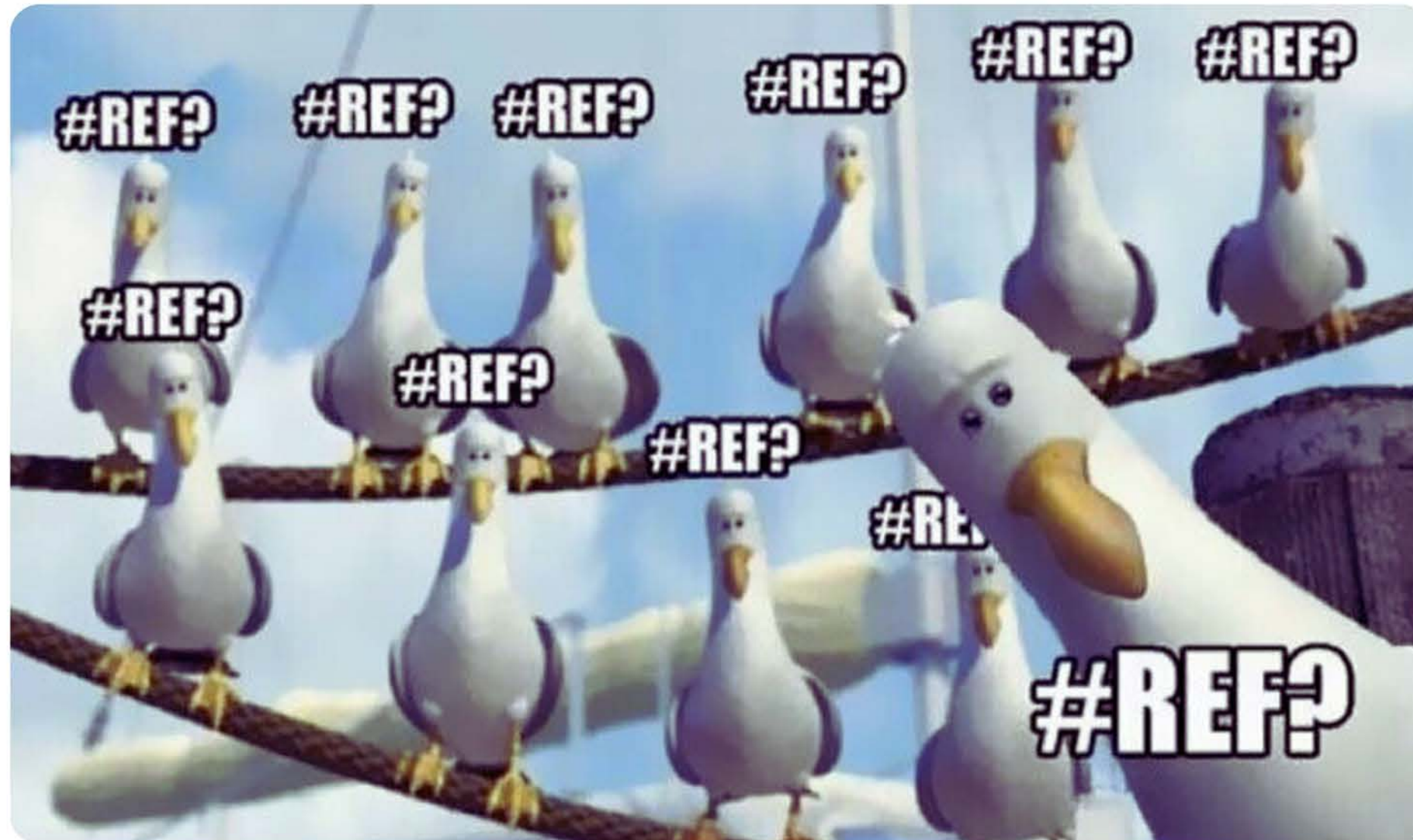


#NULL

#NUM

#N/A

#DIV/0



#VALUE!

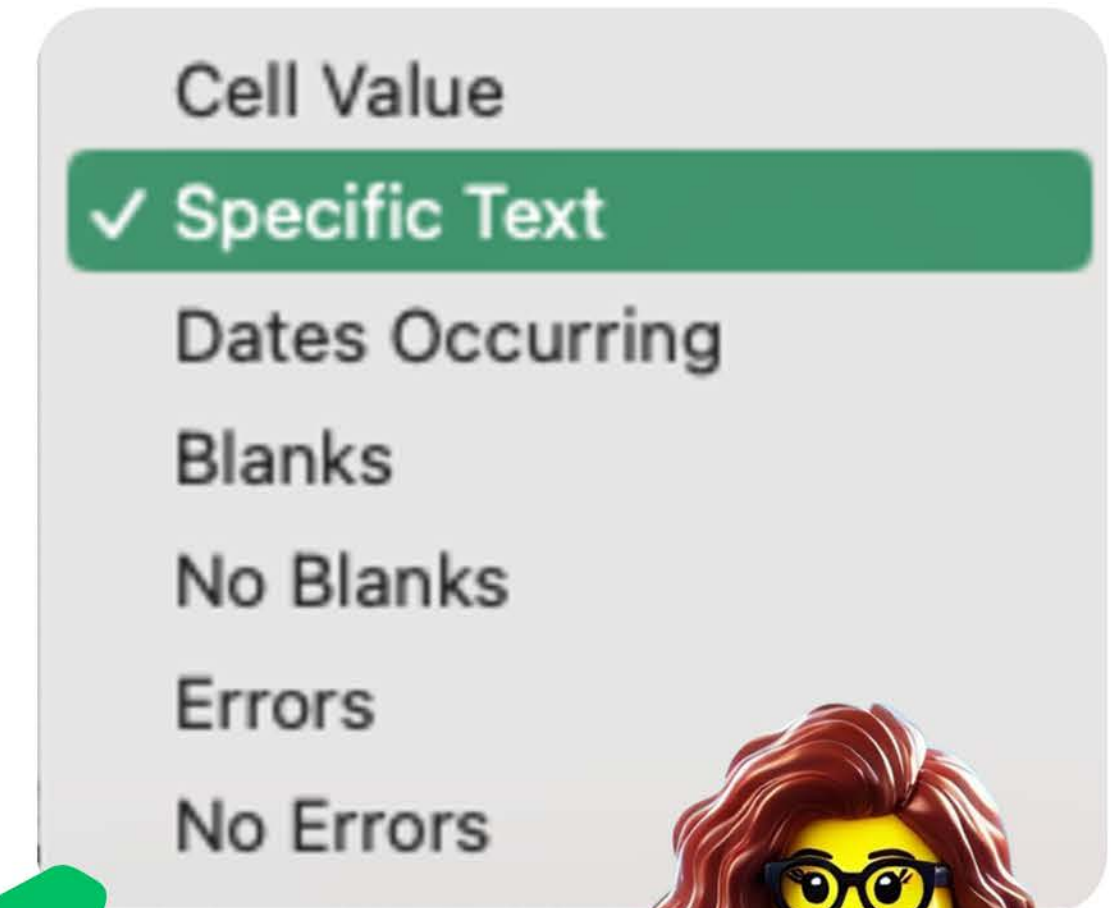
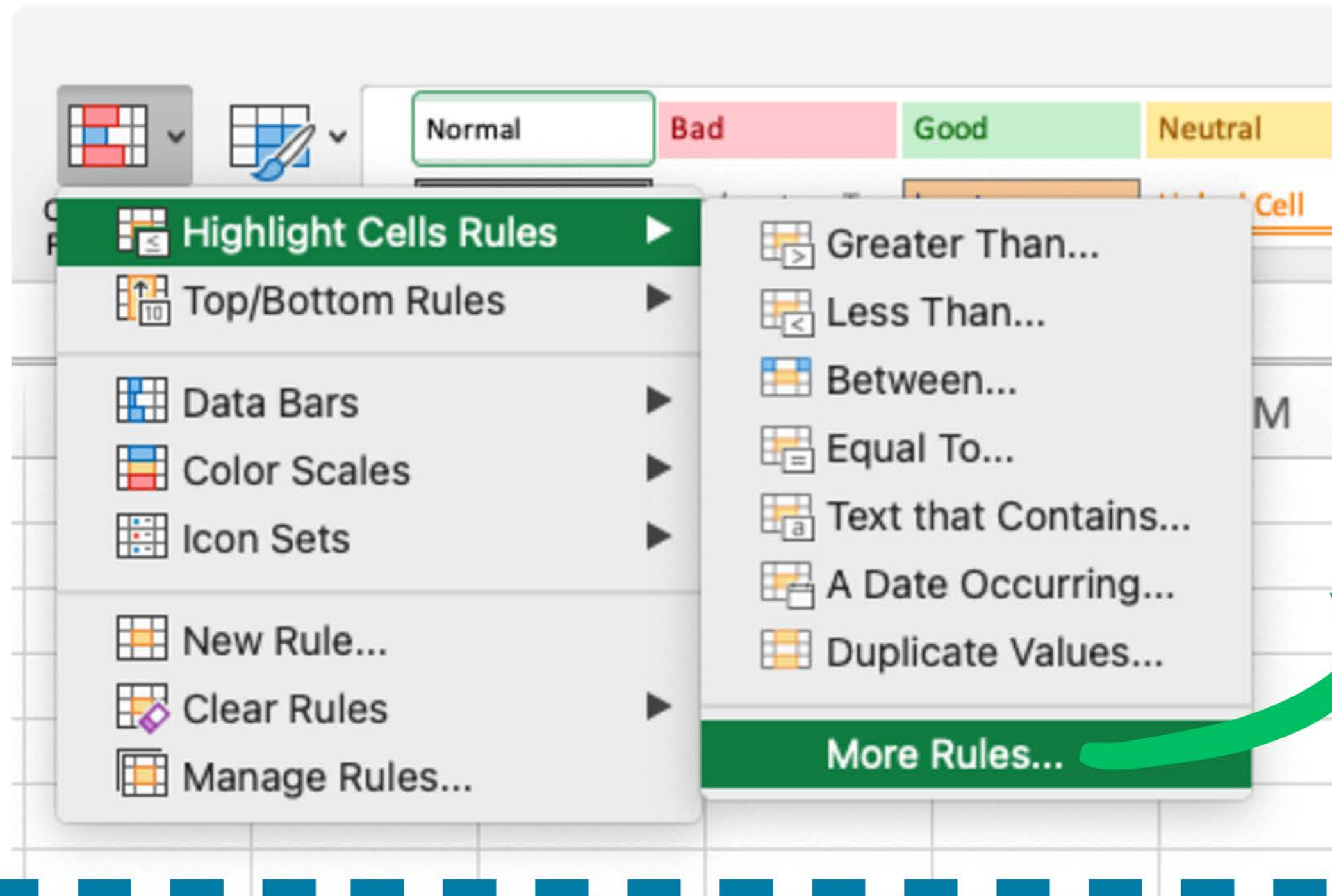
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#NAME

#####

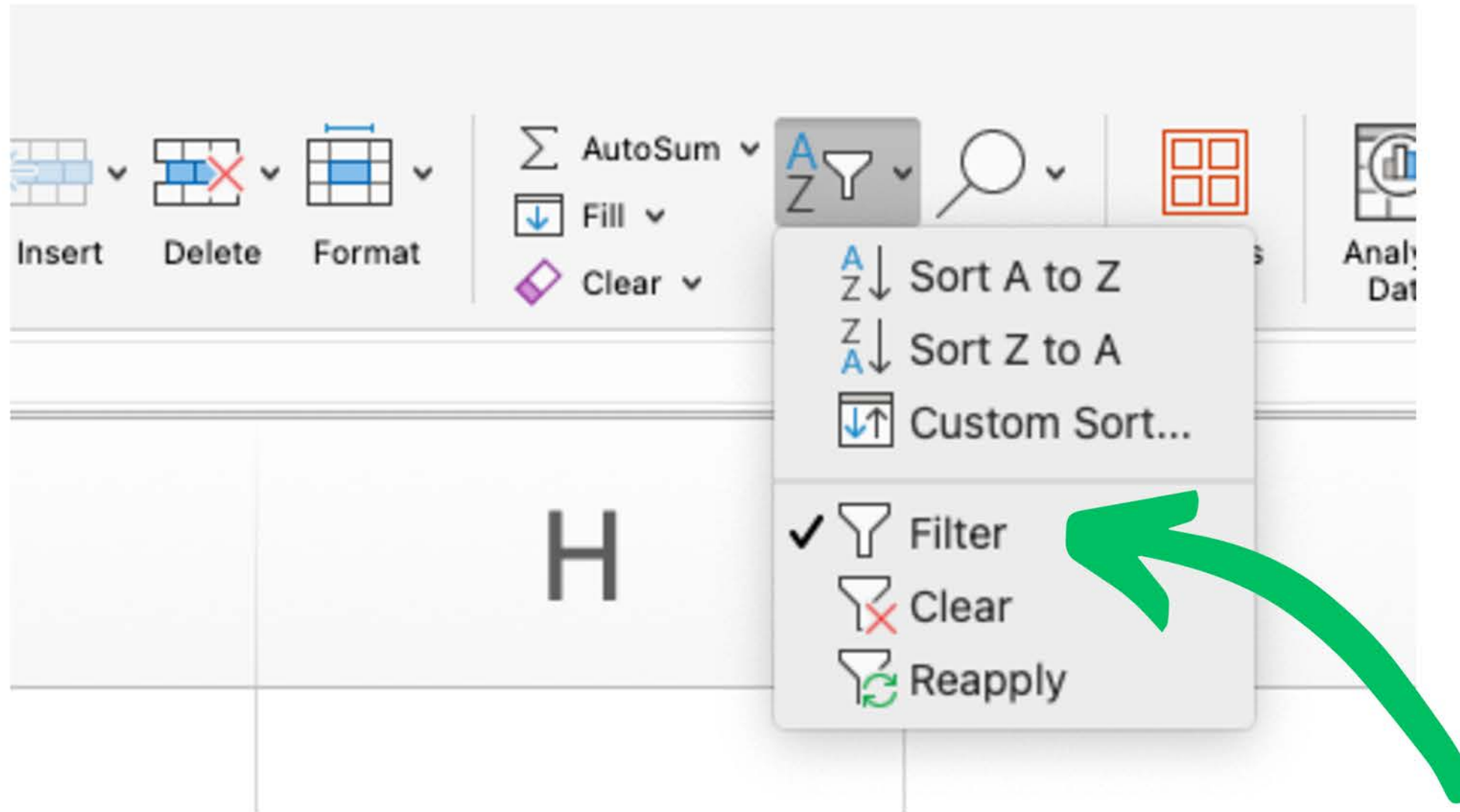


# CONDITIONAL FORMATTING





# FILTERING/SORTING



	A	B
1	123456	Silver
2	123456	Black
3	123456	White
4	123456	





# CLEAN/TRIM FUNCTION

=CLEAN(TRIM(A1))

	A	B
1	The car was red	The car was red
2	The car was blue	The car was blue





# XLOOKUP FUNCTION

=XLOOKUP(lookup\_value, lookup\_array, return\_array,  
[if\_not\_found],[match\_mode],[search\_mode])

*use double quotes*

*0 - exact match*

*you can skip this one*



	A	B	C
1	12345	The car was	Silver
2	54321	The car was	Black

Main Sheet



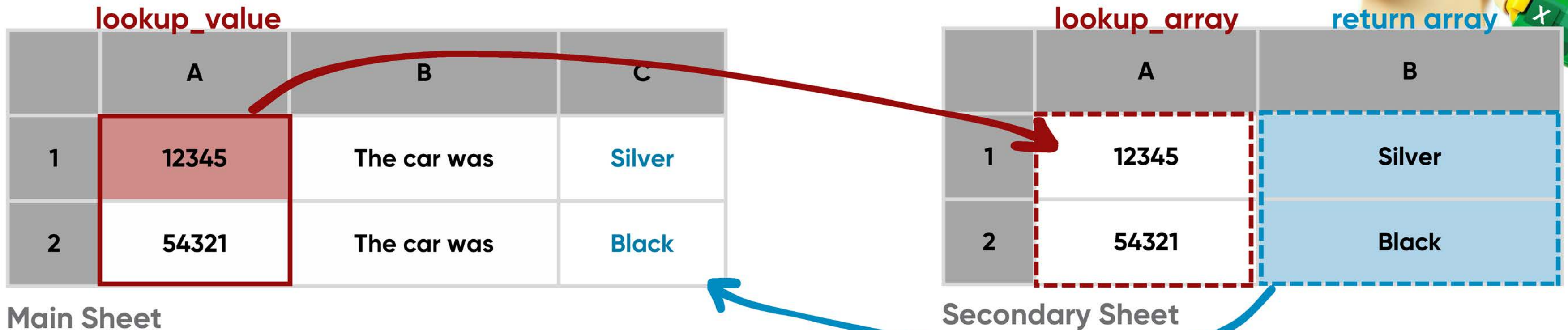
	A	B
1	12345	Silver
2	54321	Black

Secondary Sheet



# XLOOKUP FUNCTION CONTINUED

=XLOOKUP(A1, A:A, SecondarySheet!B:B, "", 0)





# IF FUNCTION

=IF(logical\_test, if\_true, if\_false)

=IF(A1=B1,"","Review")

	A		B	C
1	Red car	=	Red car	
2	Blue car	≠	Orange Car	Review
	Expected Value		Actual Value (XLOOKUP)	IF Function





# CONCATENATE FUNCTION

=CONCAT(A1," ",B1)

	A	B	C
1	Red	Car	Red Car





# TEXTJOIN

=TEXTJOIN(**DELIMITER**,  
IGNORE\_EMPTY, **TEXT1**, [**TEXT2**], ...)

	A	B	C	D	E	F
1	The	car	was		red	The car was red
2	The	car	was	not	red	The car was not red





# FIND YOUR OWN FORMULA

What Excel function would work best to join data in different rows based on UID? For example UID = 123456. It has three different rows of data in Column F:

123456 | A, B

123456 | A, C, D

123456 | B, D

Result:

123456 | A, B, C, D

To achieve this in Excel, you'll need to use **Power Query** or a combination of **TEXTJOIN** and **FILTER** functions (if using Excel 365). Here are two approaches:

## Method 1: Power Query (Best for Large Datasets)

1. Select your data and go to **Data** → **Get & Transform** → **From Table/Range** (Convert to a table if prompted).
2. In Power Query, group data by UID:



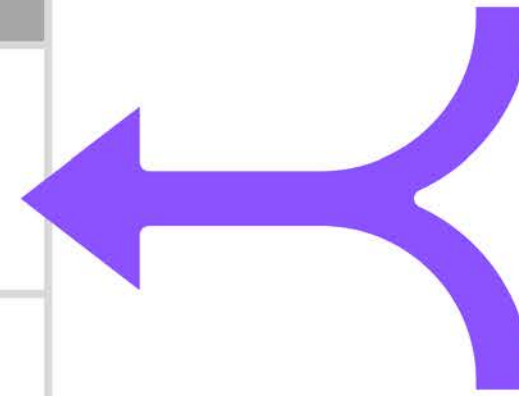


# TEXTJOIN + FILTER



=TEXTJOIN("--",TRUE,FILTER(B:B,A:A=A1),"",0)

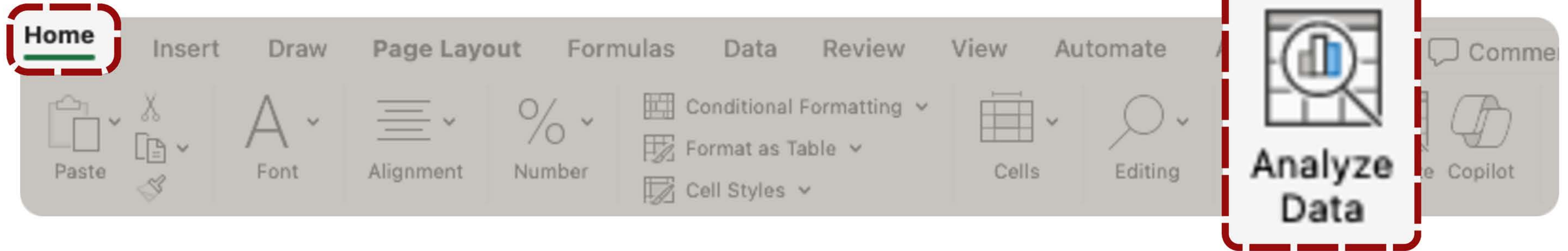
	A	C
1	123456	Silver--Black-- White--Red
2	654321	Black--Orange-- Silver--Gray



	A	B
1	123456	Silver
2	123456	Black
3	123456	White
4	123456	Red



# EXCEL ANALYZE DATA



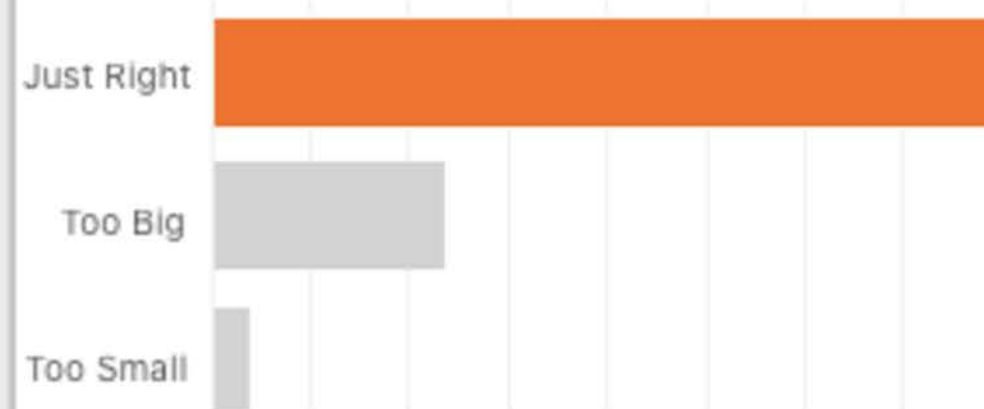


	A	B	C	D	E	F
1	<b>Opportunity</b>	<b>Opportunity Name</b>	<b>Contract Type</b>	<b>Pursuit (%)</b>	<b>Profitability</b>	<b>Profitability (\$)</b>
2	OPP-4026	Tech Campus Expansion	Too Big	81	5	48453
3	OPP-8865	Historic District Revitalization	Too Big	56	9	49149
4	OPP-4089	Bridge Maintenance Project	Just Right	65	30	79892
5	OPP-1273	University Hall Renovation	Too Big	51	6	46154
6	OPP-6069	Energy Plant Expansion	Too Big	85	15	25782
7	OPP-3688	Historic District Revitalization	Just Right	58	40	67225
8	OPP-2357	Airport Terminal Update	Just Right	82	35	55782
9	OPP-4504	Healthcare Facility Buildout	Too Big	55	19	20936
10	OPP-2975	Bridge Maintenance Project	Too Small	35	1	14604
11	OPP-8803	Historic District Revitalization	Just Right	95	46	53321
12	OPP-9288	Bridge Maintenance Project	Too Big	74	19	22446
13	OPP-9803	Healthcare Facility Buildout	Just Right	93	47	59355
14	OPP-9776	Bridge Maintenance Project	Too Small	10	3	16074
15	OPP-6559	Suburban Housing Plan	Just Right	79	39	80192
16	OPP-5674	Retail Plaza Development	Too Big	84	20	34219
17	OPP-5098	University Hall Renovation	Just Right	50	41	53327
18	OPP-8891	University Hall Renovation	Too Big	37	6	42949
19	OPP-1228	Energy Plant Expansion	Too Big	60	13	42203
20	OPP-3210	Transit System Overhaul	Too Big	48	10	42098
21	OPP-5638	University Hall Renovation	Too Big	87	8	21719
22						
23						

## Analyze Data

'Contract Type': **Just Right** has noticeably higher 'Profitability (%)'.

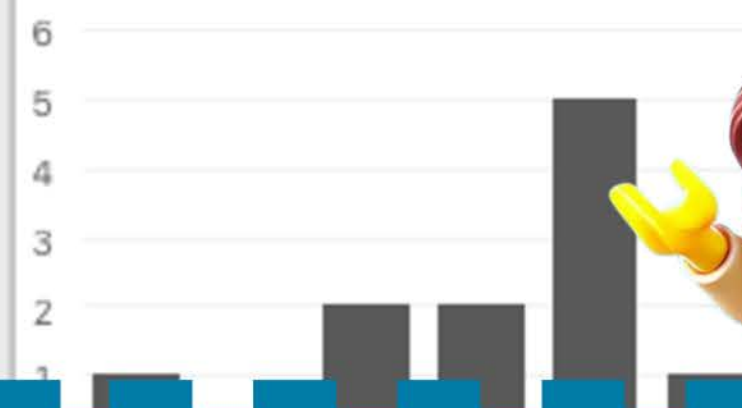
Average of Profitability (%)



[+ Insert PivotChart](#)

Is this helpful?

Frequency of 'Pursuit (%)'







# **GenAI Tools to Simplify Tasks & Uncover Insights**





Raise your hand if you are  
using GenAI for data





If you did not raise your  
hand, scan this now





# AI Context Components



## **Purpose**

What are you trying to accomplish by sharing the data?  
What action do you want to drive with the story?



## **Audience**

The 'who' determines your objective, tone and call to action.  
What level of data literacy do they have?



## **Delivery**

How will this be presented?  
Slides, print, website, social media, etc.



## **Depth**

How much detail is necessary?  
Keep focused on why the data matters?





# Using GenAI

## Gather



- Explain your type of business
  - Ask what data you need to gather and track
  - Ask what data you could be tracking
- Explain the platforms
  - What systems you're using
  - Ask how it can help you pull the data step-by-step
- Create prompt templates to process your gathered data
- Use GenAI for data collection





# Using GenAI

## Analyze



- Upload anonymized data in spreadsheet:
  - Find insights and key takeaways
  - Understand the purpose of the data set
  - Understand your audience
  - Find the call to action
  - Tailor your data story to be impactful tying insights and call to action together





# Using GenAI

Analyze



What can I help with?



Monthly Sales.xlsx  
Spreadsheet

Can you help me understand the data and provide insights from the data? What are the key takeaways? I will be creating a data story and my audience is composed of marketers.



Search

Deep research





# Using GenAI

## Analyze



The dataset appears to contain monthly sales data, with columns representing:

- **Month** (in the first column, though it's unnamed)
- **5-Year Average Sales** (historical reference data)
- **2024 Sales** (current year sales figures)

I'll clean and analyze the data to extract key insights, trends, and comparisons. [↗]

Monthly Sales Data

	Month	5Yr_Avg	Sales_2024	% Change
1	Jan	75000	90000	20.0
2	Feb	90000	100000	11.111111111111111
3	Mar	70000	75000	7.142857142857142
4	Apr	72000	82000	13.88888888888889
5	May	31000	62000	100.0
6	Jun	15000	20000	33.33333333333333

I've cleaned the data and added a percentage change column to show how 2024 sales compare to the 5-year average. Let me know if you want further breakdowns, trends, or visualizations to support your data story. [↗]





# Using GenAI

## Analyze

Provide further  
breakdowns, trends  
and visualizations.



### Key takeaways:

- **January and May** show significant growth compared to the historical average.
- **March** has the **smallest increase**, indicating a relatively stable trend.
- **May** stands out with a **100% increase**, which could be due to seasonal demand, a successful campaign, or an external factor.





# Using GenAI

## Visualize



- Use GenAI to suggest the best visualization
  - Bar, scatter plot, heatmap etc.
- Alternatively, upload the visualization and ask how to improve it
  - Improve for clarity, effectiveness, etc.
- Ask which AI tools might be better if you're not getting what you want



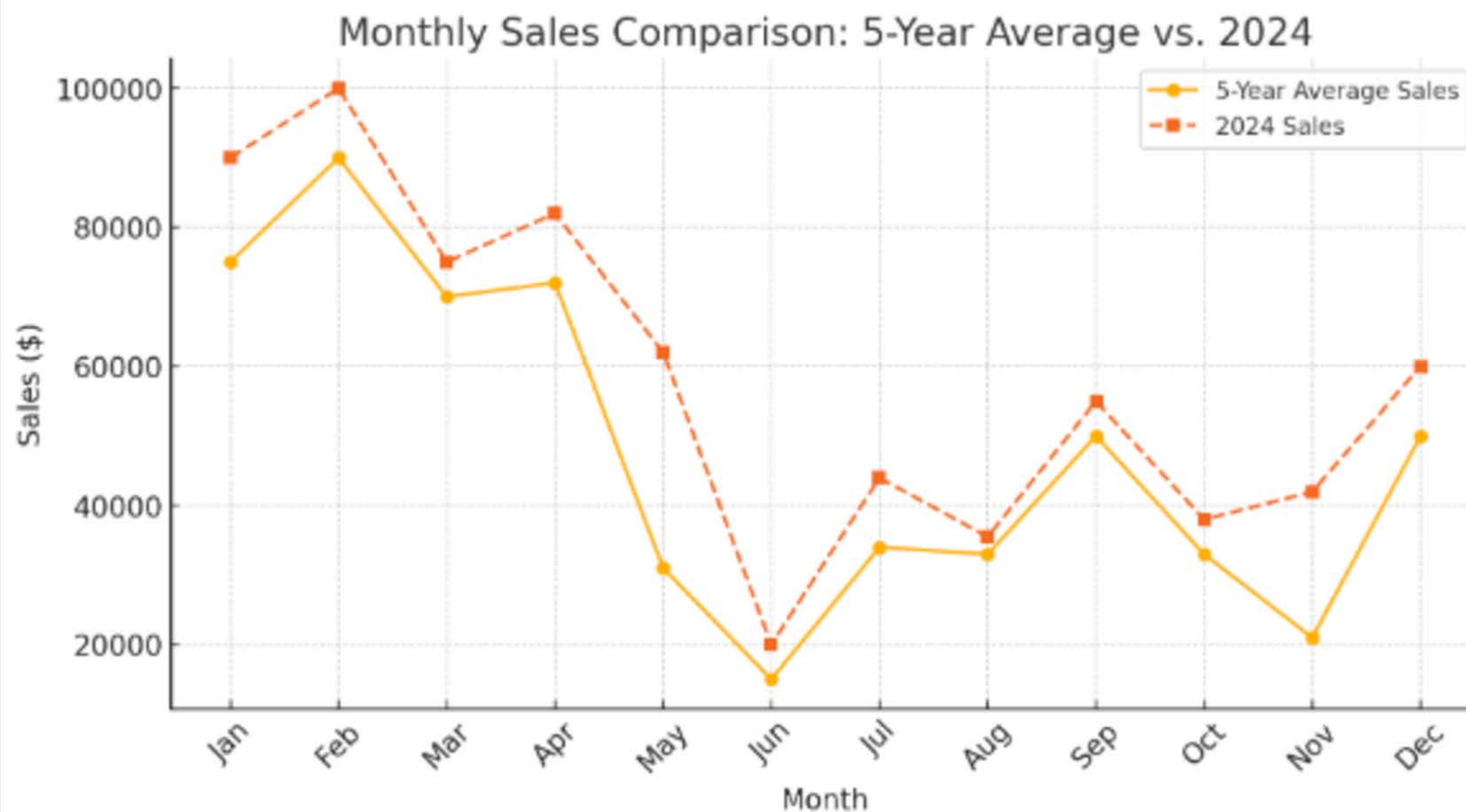


# Using GenAI

Visualize



Monthly Sales Comparison: 5-Year Average Vs. 2024





# Using GenAI

**Gather**



**Analyze**



**Visualize**



**Review/Develop**







# **Uncover and Communicate Your Data Story: Part 2**





# Monthly Sales – GenAI Insights

Monthly Sales Comparison: 5-Year Average Vs. 2024



## Key Insights from the Monthly Sales Data

1. **Overall Positive Growth** – Every month in 2024 shows an increase compared to the 5-year average.
2. **January and May Show Exceptional Growth** – January sales are up **20%**, and May has the highest jump at **100%**.
3. **Steady but Moderate Increases in Other Months** – February (**11%**), March (**7%**), and April (**14%**) show consistent, yet smaller growth.
4. **May is a Breakout Month** – The **100% increase in May** suggests a major influencing factor such as seasonal demand, promotions, or market expansion.
5. **Potential for Campaign Optimization** – Months like March with **minimal growth (7%)** might benefit from targeted marketing efforts.
6. **Momentum to Maintain** – Sustaining the growth trend will require **analyzing customer behavior**, reinforcing successful campaigns, and adjusting underperforming strategies.



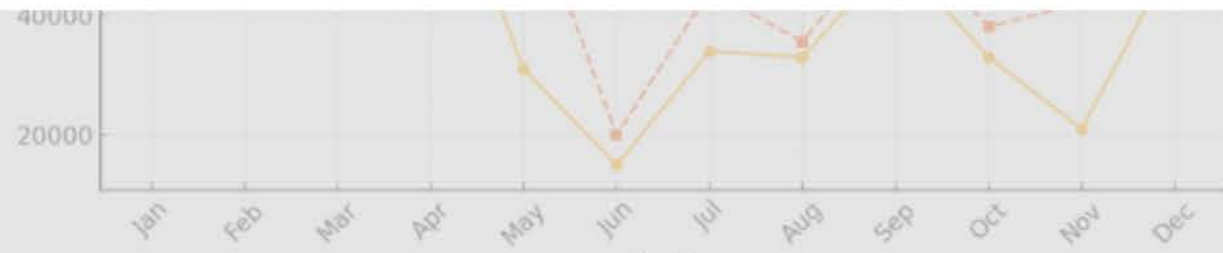


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Monthly Sales Comparison: 5-Year Average Vs. 2024



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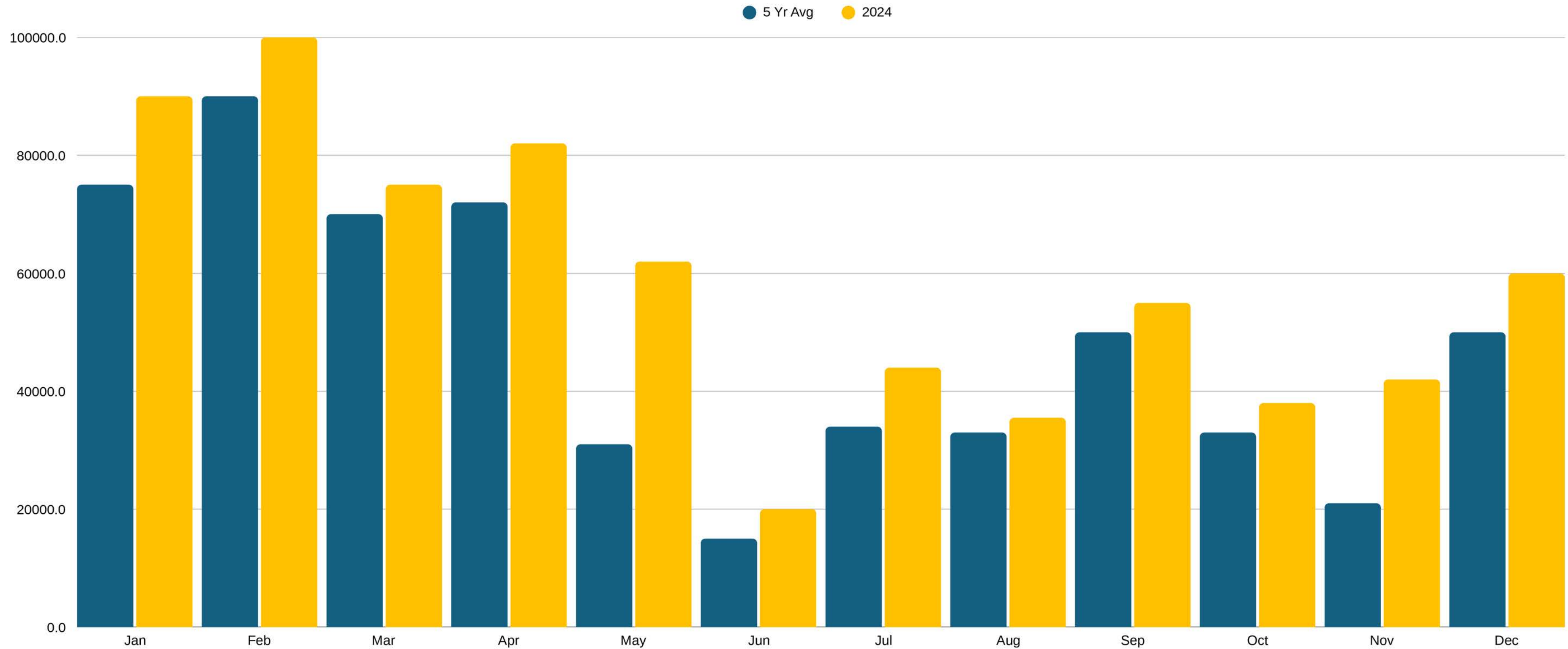
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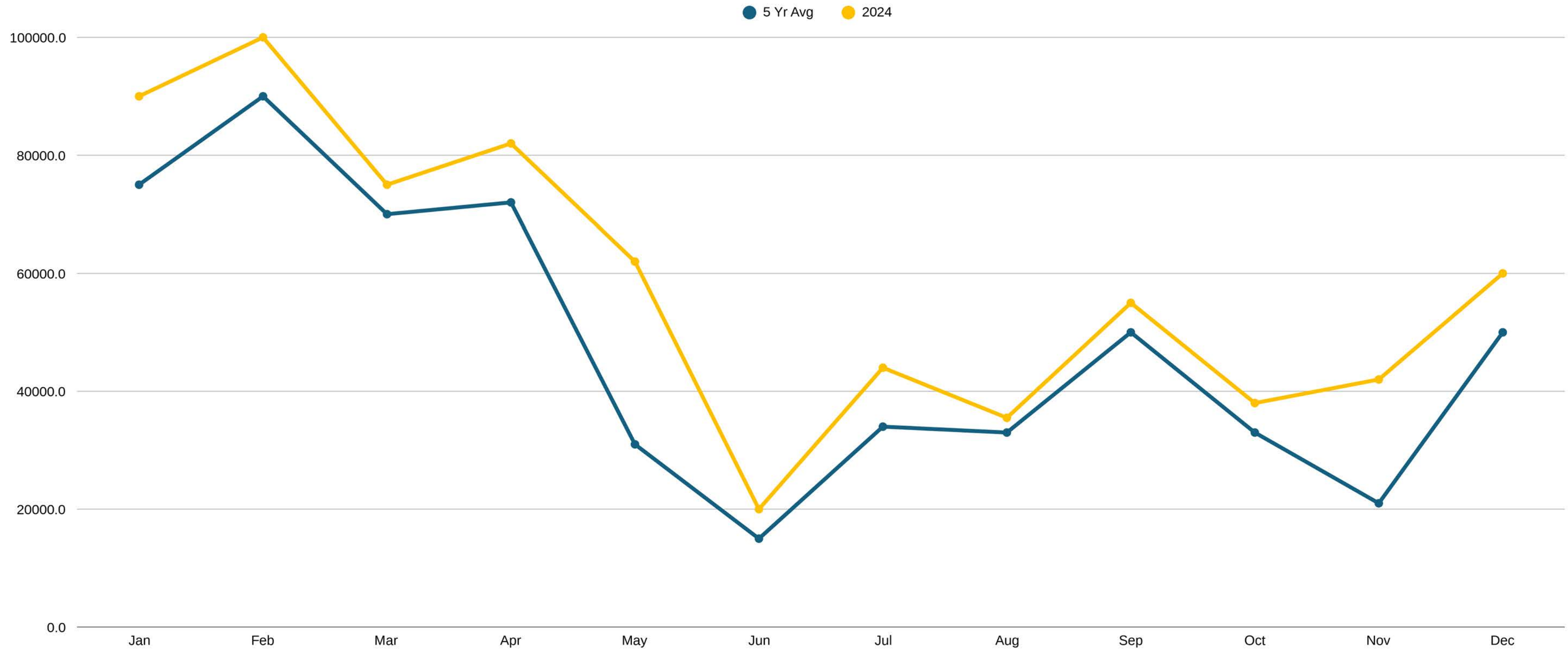


# 2024 Revenue Was Above Average All Year



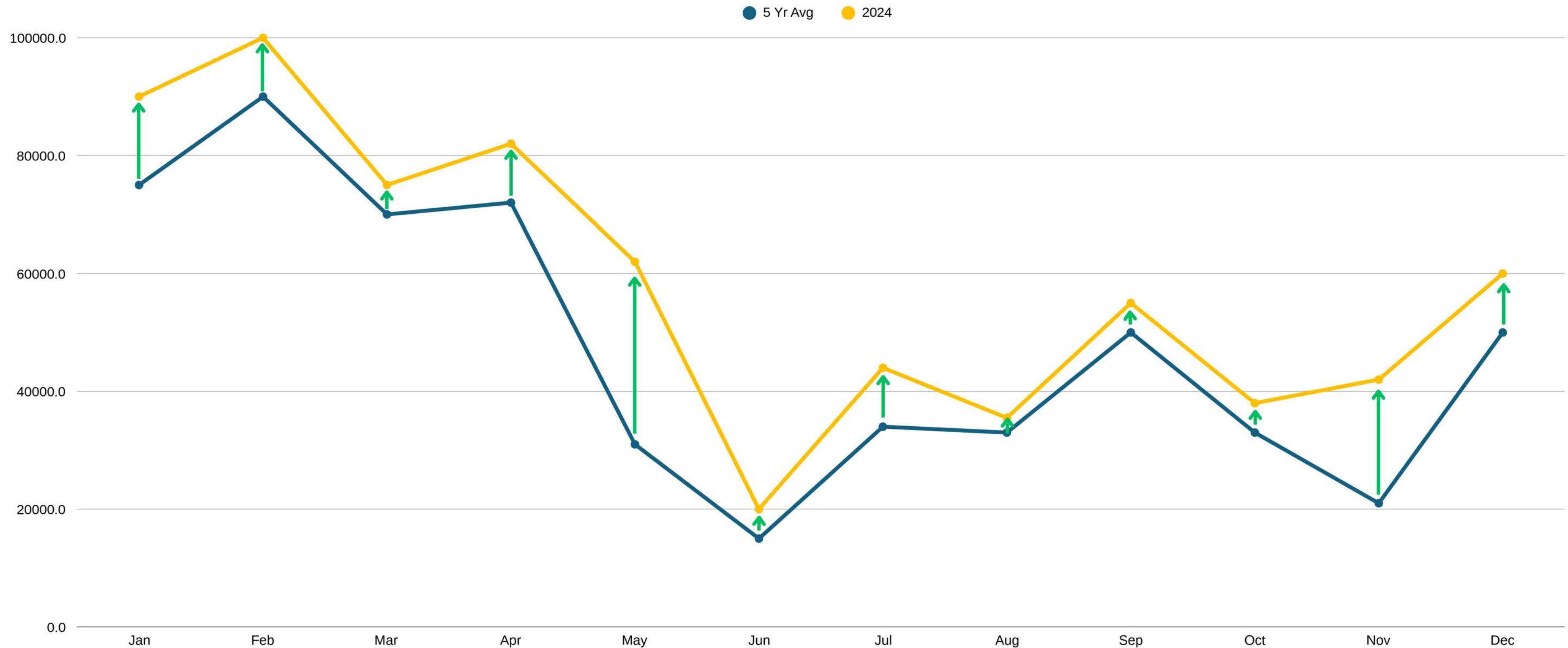


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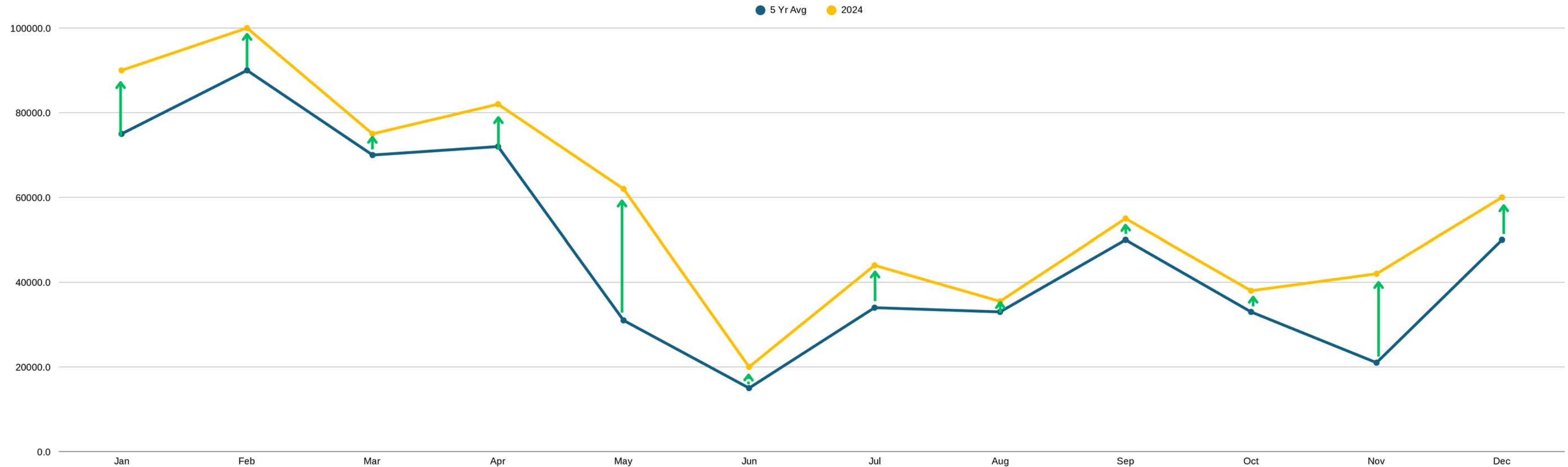


# 2024 Revenue Was Above Average All Year





# 2024 Revenue Was Above Average All Year



The chart above compares the monthly 5-year average and 2024 revenue. The data shows that revenues **are consistently higher than the corresponding 5-year averages in 2024!** This marked improvement suggests that initiatives taken in 2024 to increase growth relative to the historical performance have been successful, with some months (such as May and November) showing particularly substantial increases. To maintain this progress, we recommend reinvesting in the initiatives that got us here for 2025.





The powerful  
practice of  
pause



# The Powerful Practice of Pause



## **When to pause:**

- Post assignment – ask those clarifying questions
- After every data step – gather, prep, analyze, explore, visualize

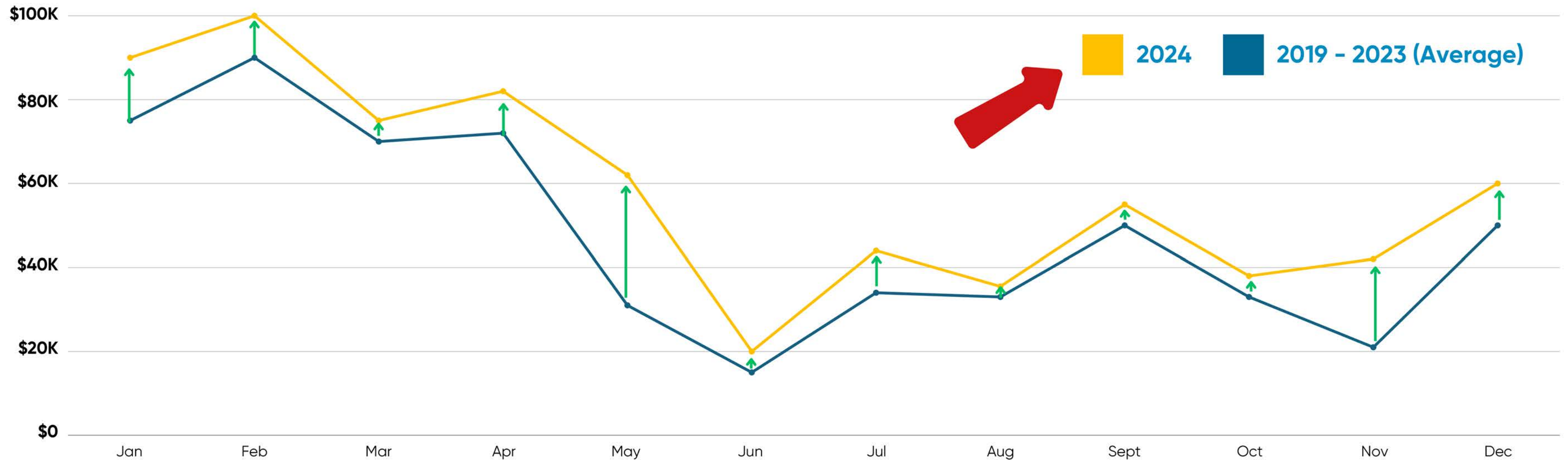
## **Types of pauses:**

- Solo – eye test, breathwork, repetitive task, movement, outside
- Collaborative – colleague, FOM, chatbot of choice





# 2024 Revenue Was Above Average All Year

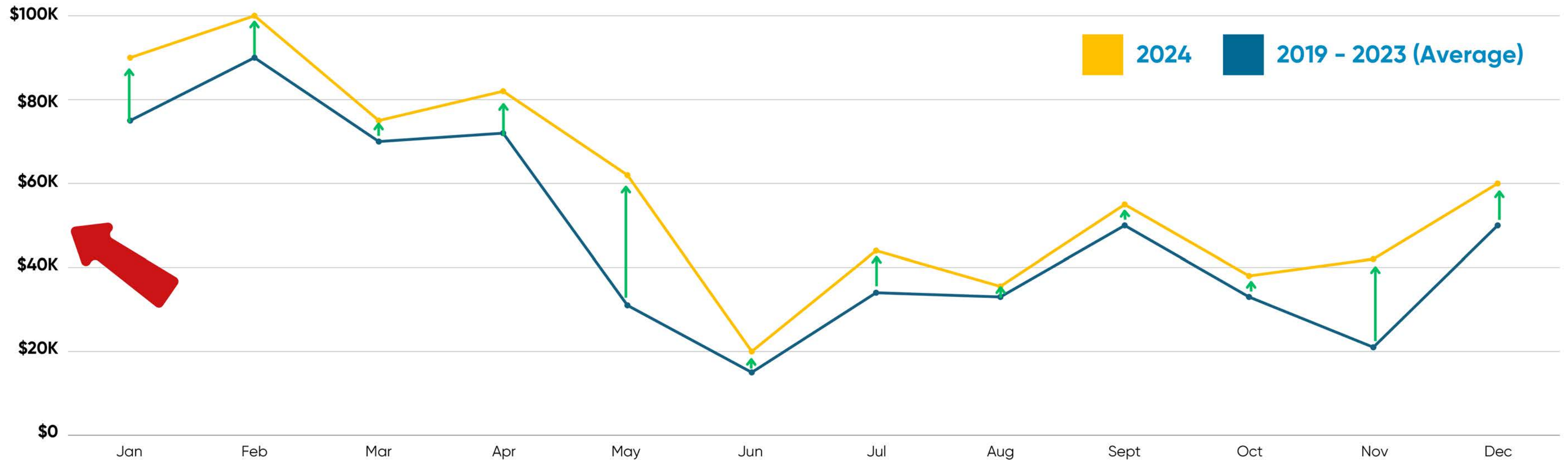


## Focus on Strategic Pursuits Resulted in Higher Revenues

At the end of 2023, we shifted our focus to pursue work with a 50% or better chance of winning. As a result, revenues are consistently higher than the corresponding 5-year averages in 2024! This marked improvement suggests that pairing down our focus to winnable work has been highly successful. **We recommend continuing this strategy into 2025 and driving adoption through incentives, such as profit-sharing.**



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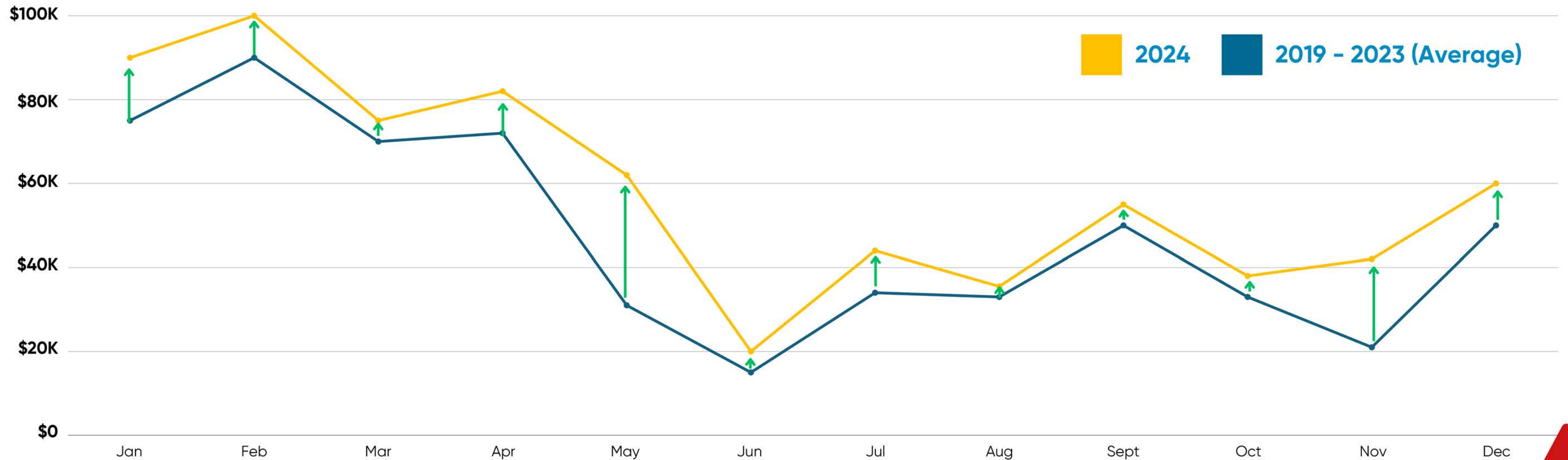


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**Please Complete  
the Speaker Eval  
in the App**





Any  
Questions?





# Thank You







## Additional Resources

- Download the Big Idea worksheet
- Listen to the podcast on statio – a meditative pause
- Read the books – there's a new for preorder!
- There's even a book for kids!

storytelling  WITH data®

