Advancing Analytics, How we got here and where we're going.

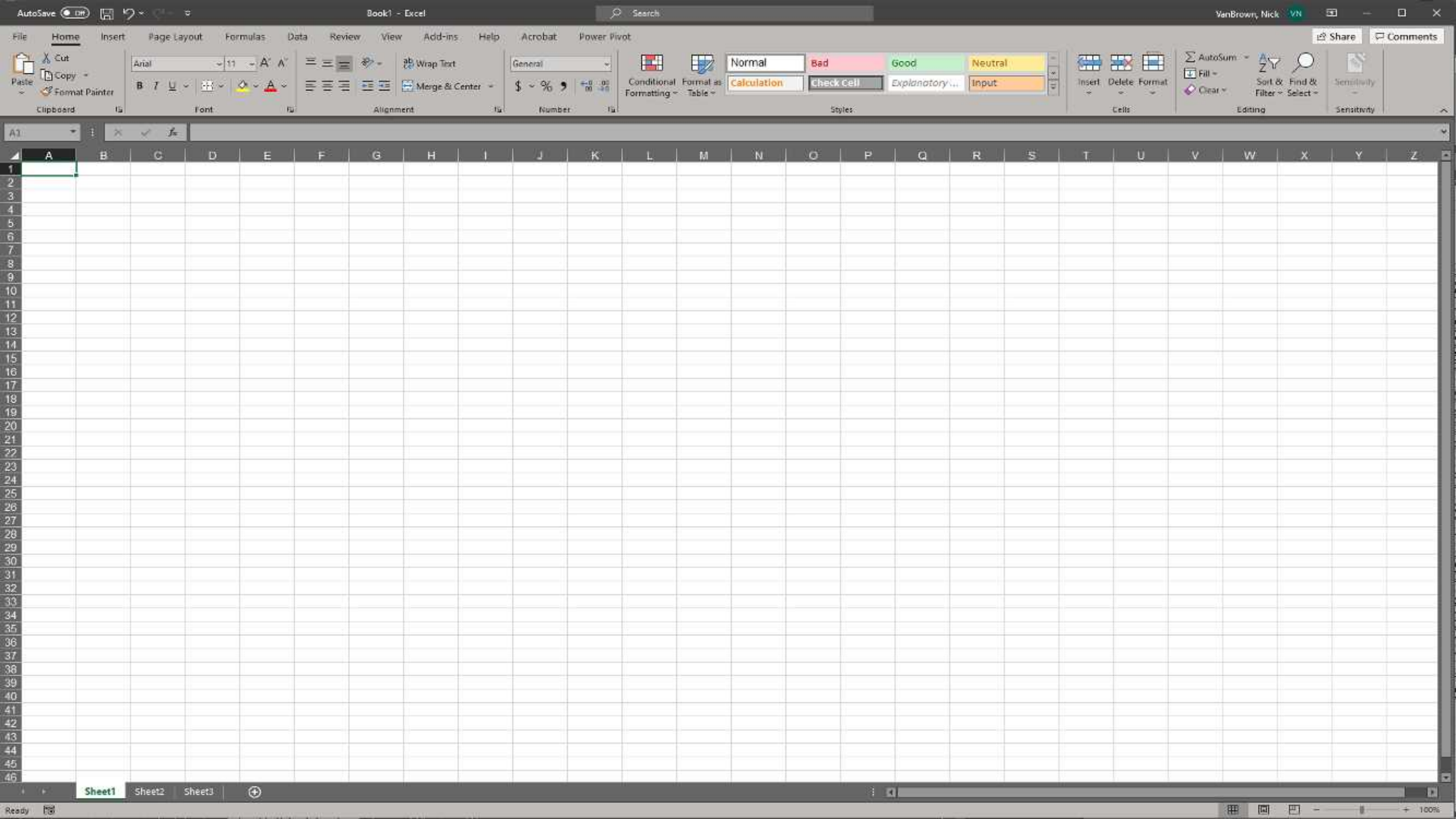
Our Journey So Far…

Nick VanBrown – MT
Legislative Fiscal Division

Montana Legislative Fiscal Division

Increasing Expectations

- Speed – Automation and trust of the data
- Depth & Breadth of Analysis - Connections and ability to deal with larger and more row level data
- Scalability – Live connected models are easier to adjust and add to, such as changing location
- Communication – Visualizations lets the information be more interactive for legislators or the public. Another tool to tell complicated stories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VanBrown, Nick
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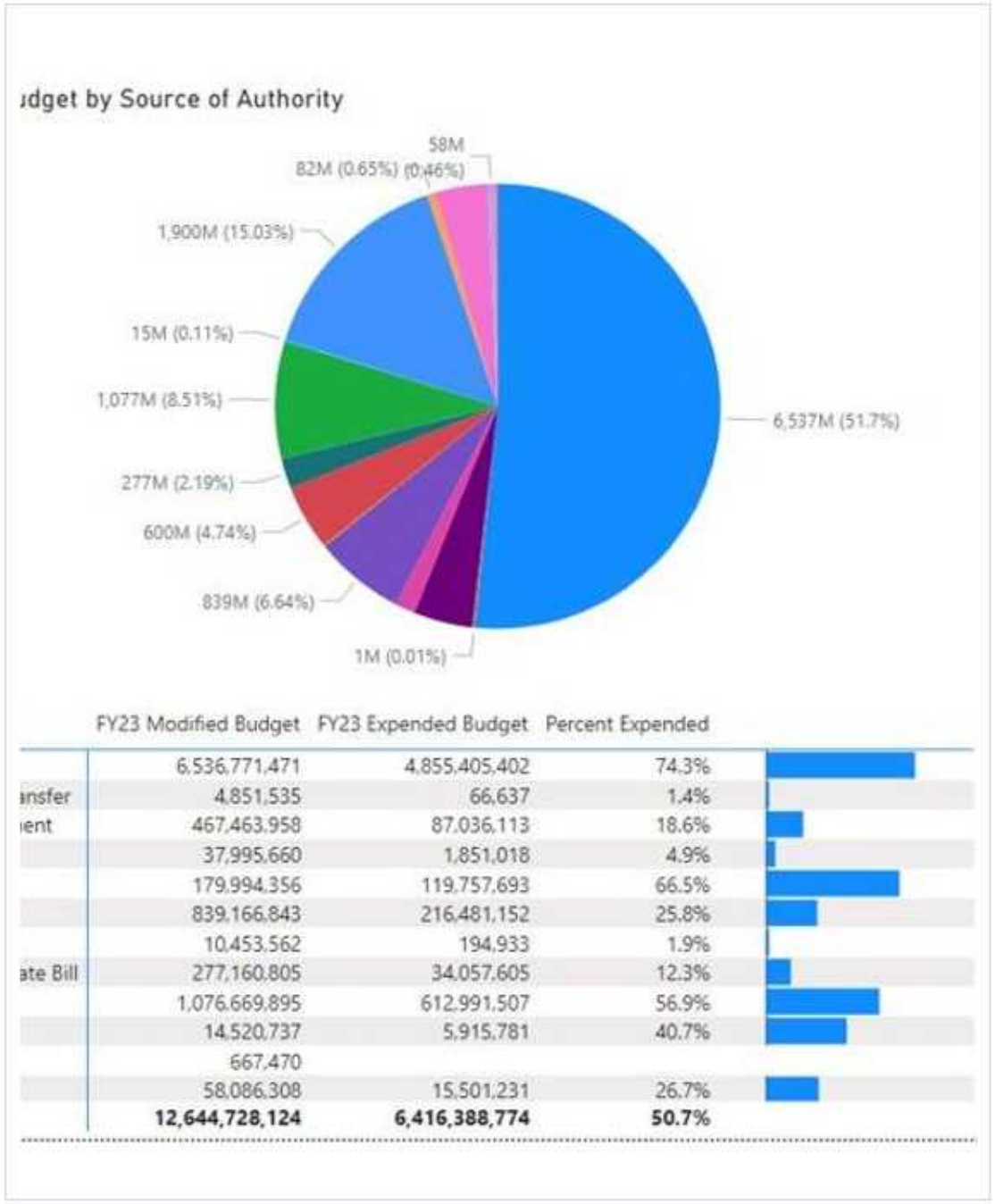
Database Query

Development

Microsoft Teams

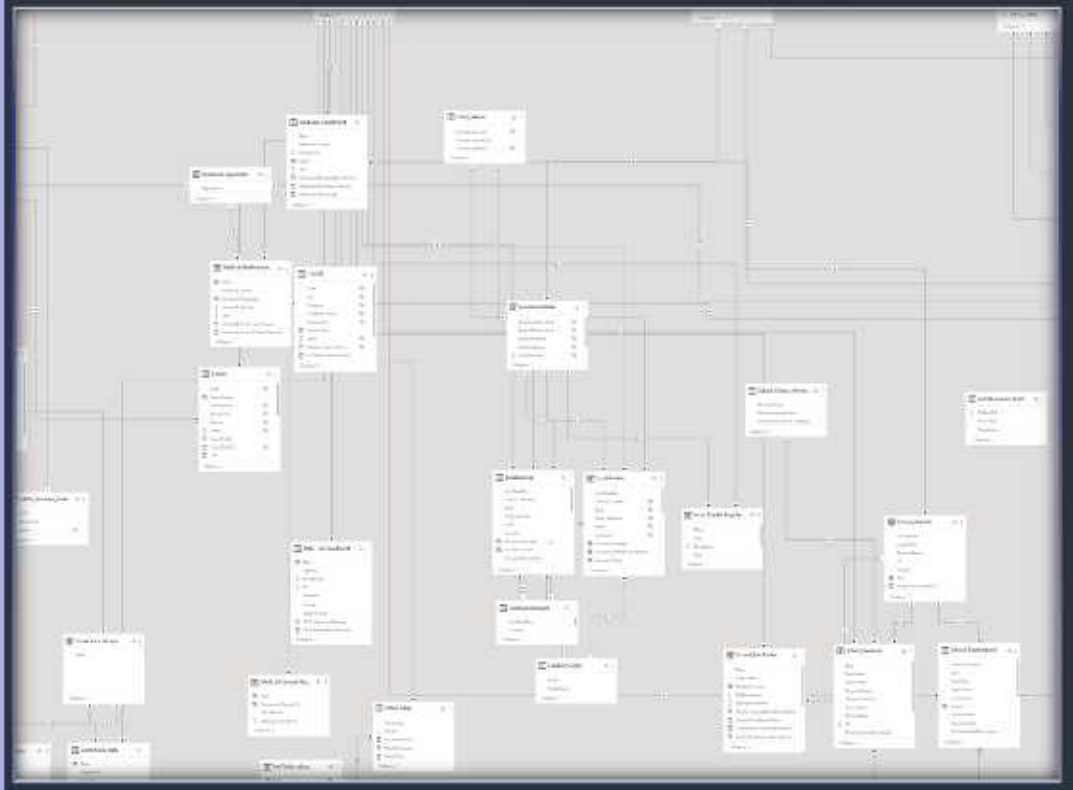
Development



	FY23 Modified Budget	FY23 Expended Budget	Percent Expended
	6,536,771,471	4,855,405,402	74.3%
ansfer	4,851,535	66,637	1.4%
ient	467,463,958	87,036,113	18.6%
	37,995,660	1,851,018	4.9%
	179,994,356	119,757,693	66.5%
	839,166,843	216,481,152	25.8%
	10,453,562	194,933	1.9%
ate Bill	277,160,805	34,057,605	12.3%
	1,076,669,895	612,991,507	56.9%
	14,520,737	5,915,781	40.7%
	667,470		
	58,086,308	15,501,231	26.7%
	12,644,728,124	**6,416,388,774**	**50.7%**

Development

BI Software



```
    CALCULATE (
        DISTINCTCOUNT ( 'Calendar'[FiscalYear] ),
        'Calendar'[FiscalYear] >= MinYr,
        'Calendar'[FiscalYear] <= MaxYr,
        ALL ( 'Calendar'[FiscalYear] )
    )
VAR Calculation1 =
    CALCULATE (
        X1SqrdSum - ( X1SumSqrd / FiscalYearsDistinctCount ),
        ALL ( 'Calendar'[FiscalYear] )
    )
VAR X2 =
    CALCULATE (
        SUMX ( 'Calendar', [CPI] ),
        'Calendar'[FiscalYear] >= MinYR,
        'Calendar'[FiscalYear] <= MaxYr
    )
VAR X2SumSqrd =
    CALCULATE (
        SUMX ( 'Calendar', [CPI] ),
        'Calendar'[FiscalYear] >= MinYR,
        'Calendar'[FiscalYear] <= MaxYr,
        ALL ( 'Calendar' )
    ) ^ 2
VAR X2SqrdSum =
    CALCULATE (
        SUMX ( 'Calendar', [CPI] ^ 2 ),
```

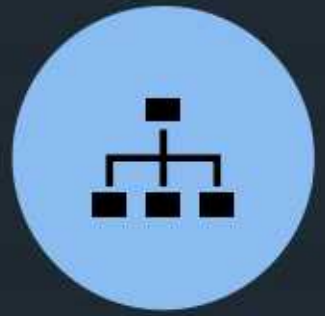
We've Started Seeing Results

Online Tools

Additional Staff

New Permanent Committee

LEGISLATIVE CHAMPION



MANAGEMENT

STAFF

“I've come up with a set of rules that describe our reactions to technologies:

Anything that is in the world when you’re born is normal and ordinary and is just a natural part of the way the world works.

Anything that's invented between when you’re fifteen and thirty-five is new and exciting and revolutionary and you can probably get a career in it.

Anything invented after you're thirty-five is against the natural order of things.”

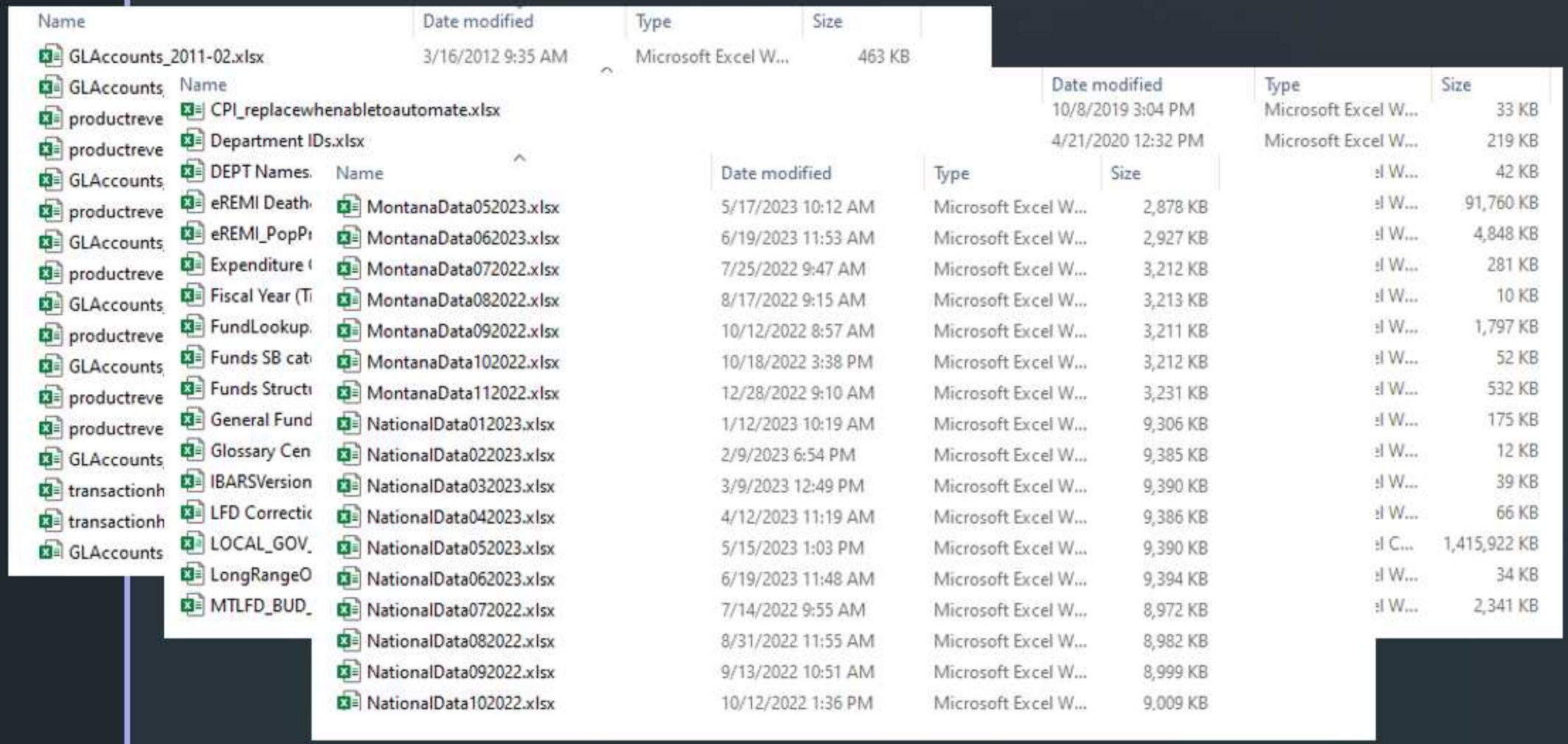
— **Douglas Adams,** The Salmon of Doubt

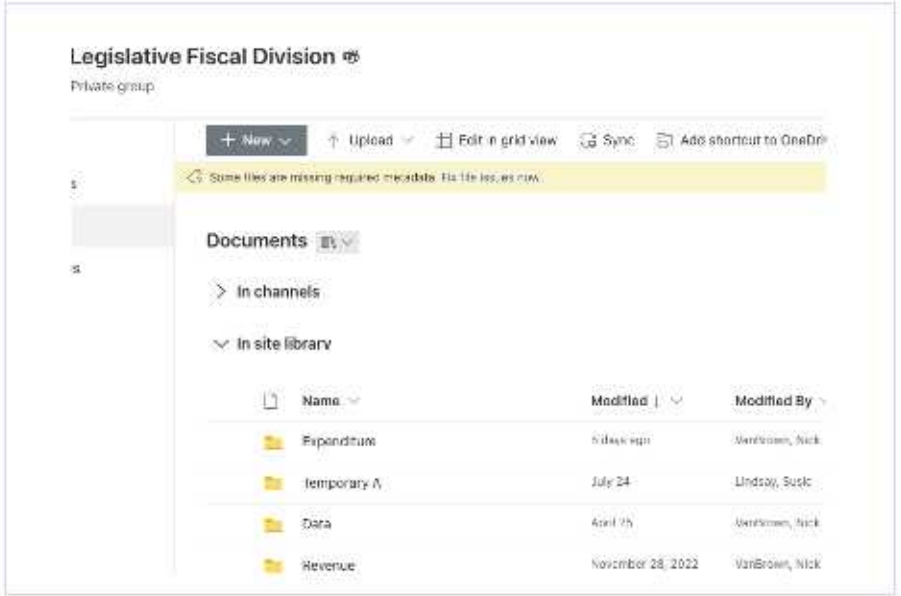
A Few Lessons

1. Making time to do this work is the trick with all the demands of the normal job.
2. Adding Resources - The deeper we've gone into this the more we realized we have to spread the load a bit.
3. You must start trusting your people, you can't be the expert they are.
4. Involvement in groups outside our typical world.
5. Moved from one-offs to more living products when it makes sense.
6. Relationship with your IT shop must be in good shape, this has been a shared journey for us.

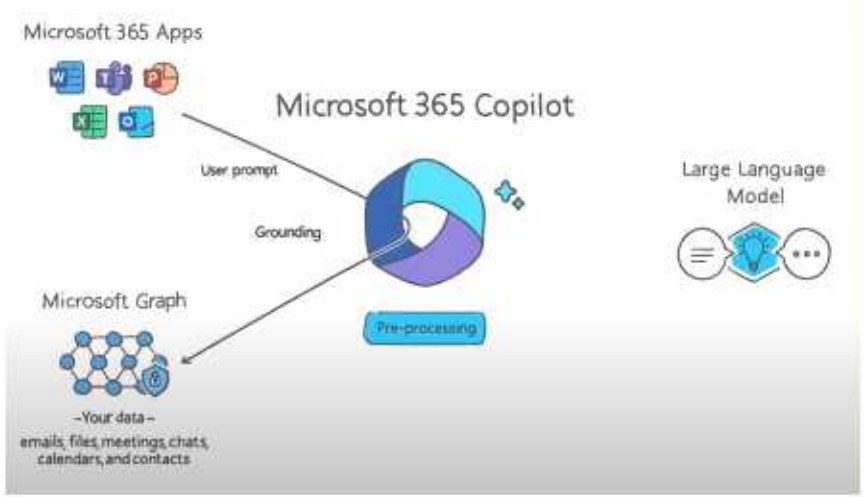
So, What's Next?

Data Storage and Setup





Document Library



Setting up for new tools

Jobs in U.S. that are likely to have high, medium or low exposure to AI

High exposure

- Budget analysts
- Data entry keyers
- Tax preparers
- Technical writers
- Web developers

Medium exposure

- Chief executives
- Veterinarians
- Interior designers
- Fundraisers
- Sales managers

Low exposure

- Barbers
- Child care workers
- Dishwashers
- Firefighters
- Pipelayers

Note: Occupations are grouped by the relative importance of work activities with low, medium or high exposure to AI.
Source: Pew Research Center analysis of O*NET (Version 27.3).
"Which U.S. Workers Are More Exposed to AI on Their Jobs?"

PEW RESEARCH CENTER

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JULY 21, 2023

Thanks!