

# MARA Model Design

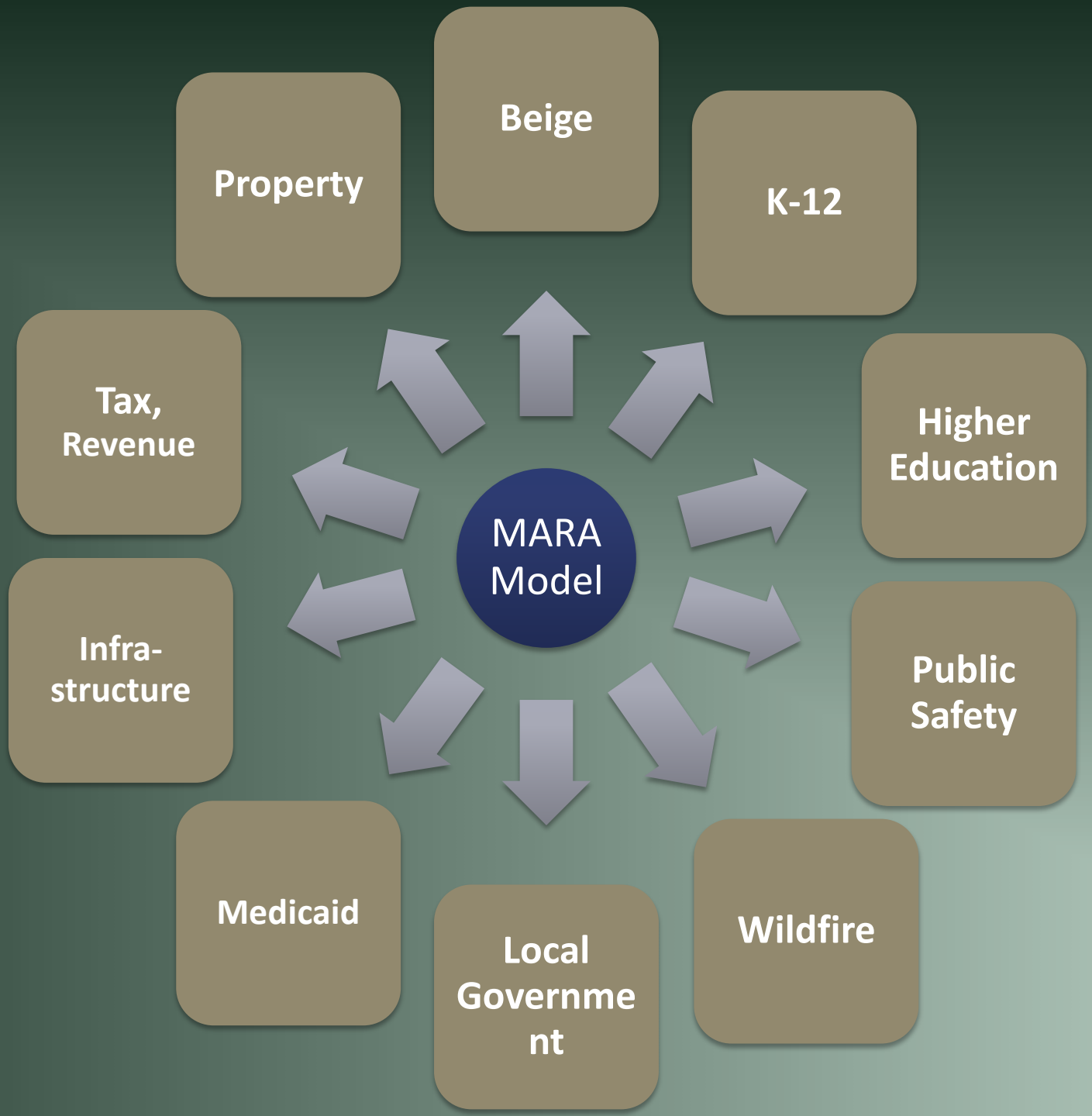
# MARA MODEL

## IS Not

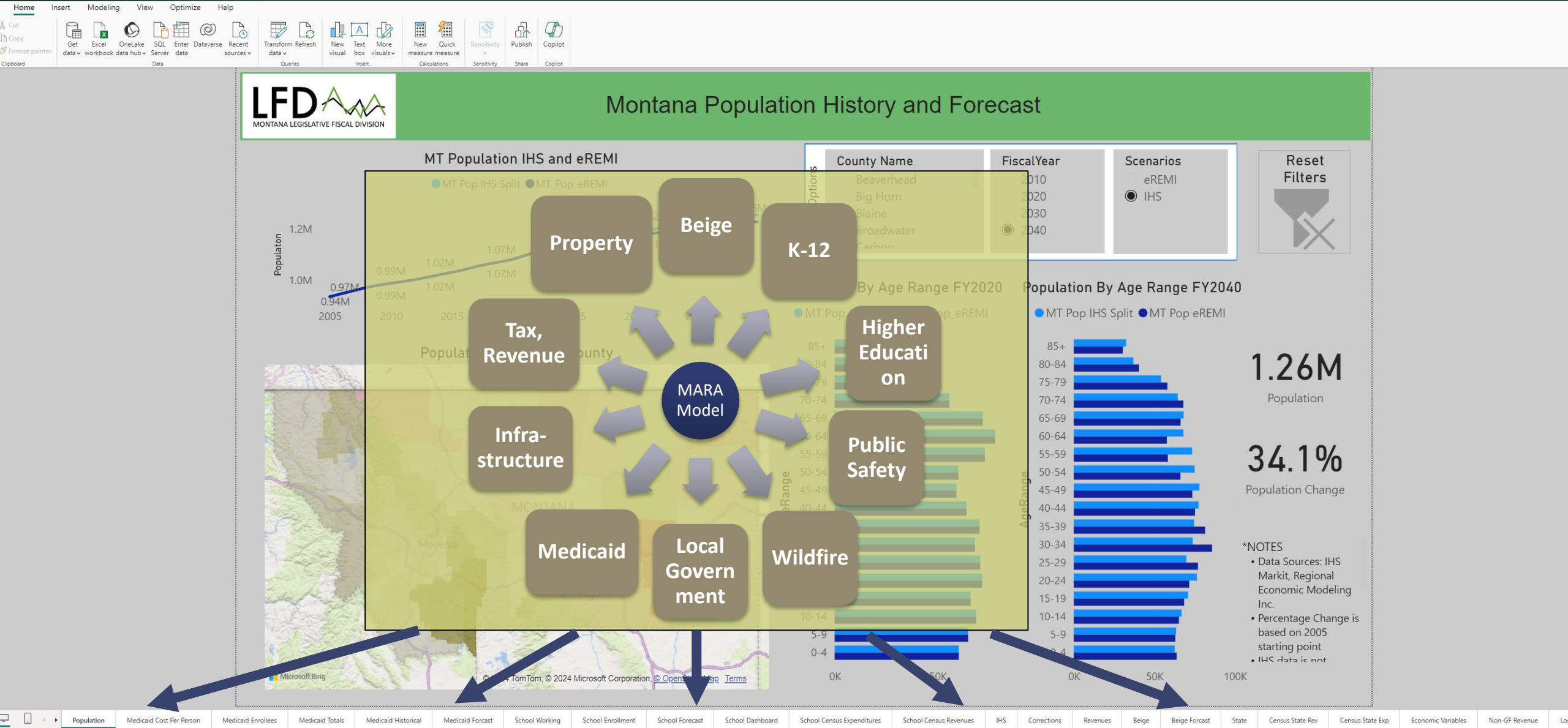
- Not a precise calculation of revenues or costs in the future
- Not telling the legislature what it should do
- Not a budget

## IS

- Tool to provide insights to the future
- Pinch points
- Quantitative values in context
  - Example how big of a problem shortfalls in gas tax be in comparison to shortfall in capacity at the state prison
- Way to Structure Data



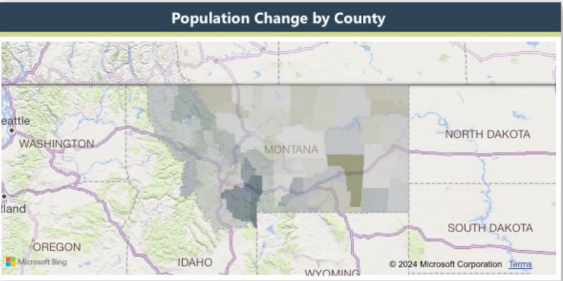
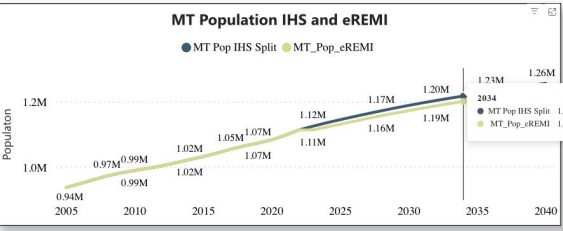
# How The Model Functioned Last Interim





# Montana Population History and Forecast

County Name: All | Fiscal Year: 2040 | Scenarios: eREMI, IHS



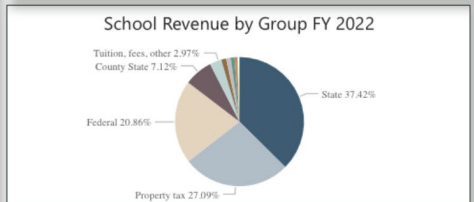
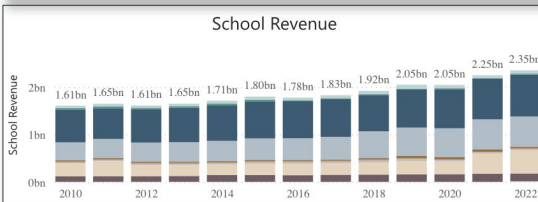
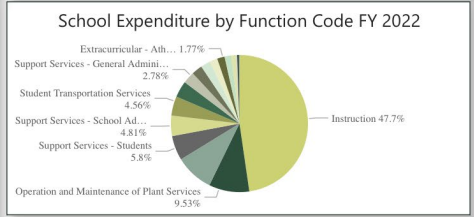
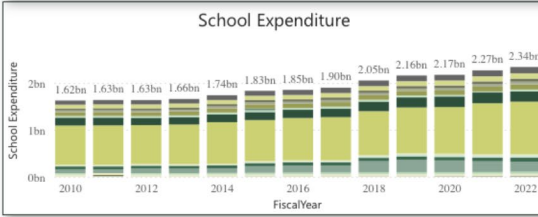
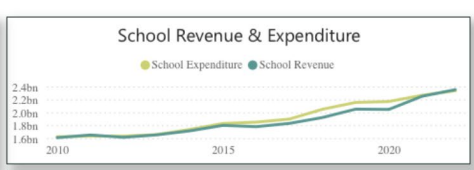
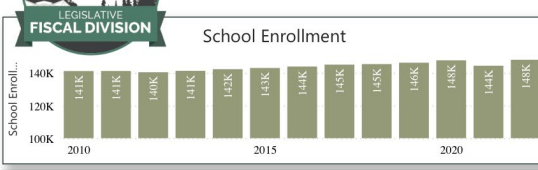
Reset Filters

NOTES:

- Data Sources: IHS Markit, Regional Economic Modeling Inc.
- Percentage Change is based on 2005 starting point.
- IHS data is not provided by county, so all IHS county values are IHS totals allocated by REMI county percentages.
- Historic population years have slightly different values in IHS and eREMI data. For consistency, IHS values are used for past years.



# School Enrollment, Expenditures, & Revenue



Clear Filters

Slicer Options

County

- Beaverhead
- Big Horn
- Blaine
- Broadwater
- Carbon
- Carter
- Cascade

District Name

- Absarokee Elem
- Absarokee H S
- Alberton K-12 Schools
- Albion Elem
- Alder Elem
- Alzada Elem
- Amsterdam Elem
- Anaconda Elem

Sources & Notes:

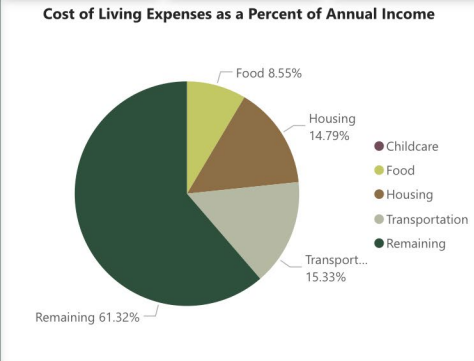
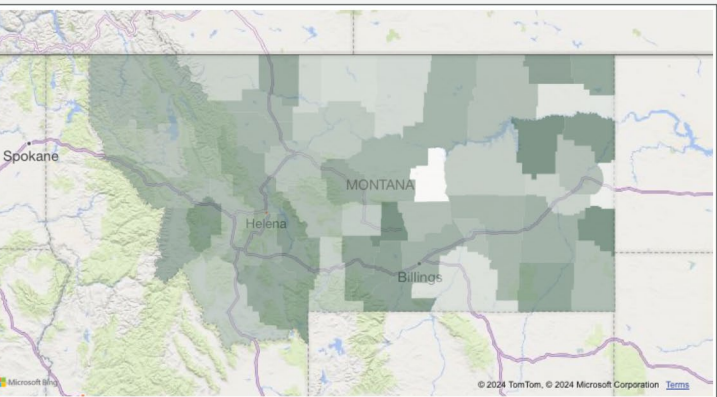
- Data from the Office of Public Instruction.
- Co-ops are not currently included in these data.



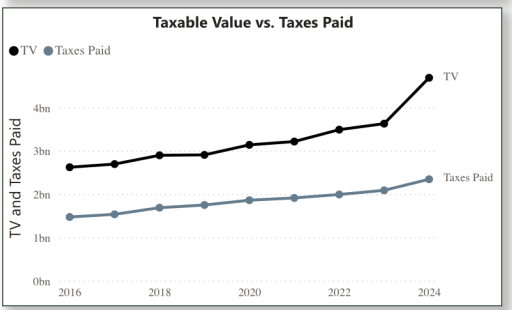
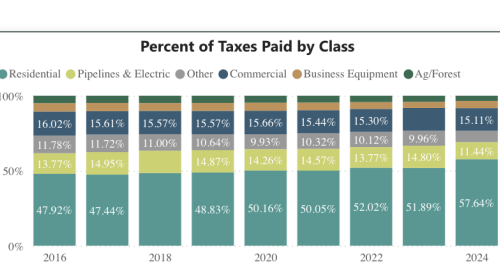
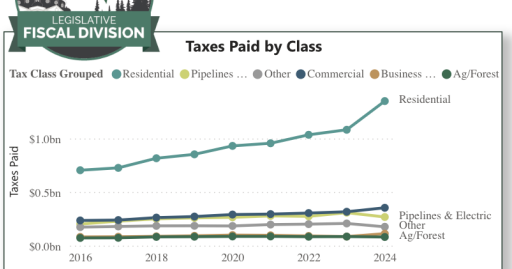
# Montana Cost of Living

County: All | Adults in Household: 1, 2 (1 Working), 2 (Both Working) | Number of Children: 0, 1, 2, 3

Adults in Household	Childcare	Food	Housing	Transportation	Total Cost of Living Expenses	Median Income	Minimum Wage	Poverty Wage
1	\$0	\$4,122	\$7,128	\$7,389	\$18,638	\$48,183	\$18,200	\$12,880
<b>Total</b>	<b>\$0</b>	<b>\$4,122</b>	<b>\$7,128</b>	<b>\$7,389</b>	<b>\$18,638</b>	<b>\$48,183</b>	<b>\$18,200</b>	<b>\$12,880</b>



# General Property Tax Growth by Class



Compound Annual Growth Rate (CAGR) by Grouped Tax Class

Tax Class Grouped	CAGR Taxes Paid (8 year)	CAGR Year over Year FY23-24
Other	0.24%	-14.98%
Ag/Forest	1.46%	-4.36%
Pipelines & Electric	3.57%	-13.18%
Business Equipment	4.00%	31.64%
Commercial	5.22%	11.70%
Residential	8.47%	24.75%
<b>Total</b>	<b>5.99%</b>	<b>12.29%</b>

NOTE: Due to the nature of these data, there are many calculated fields in this dashboard. These fields are calculated estimates based on available data. If you have questions or concerns, please contact the Legislative Fiscal Division.

Data Sources:

- Montana Department of Revenue
- Montana Office of Public Instruction
- Montana Department of Administration

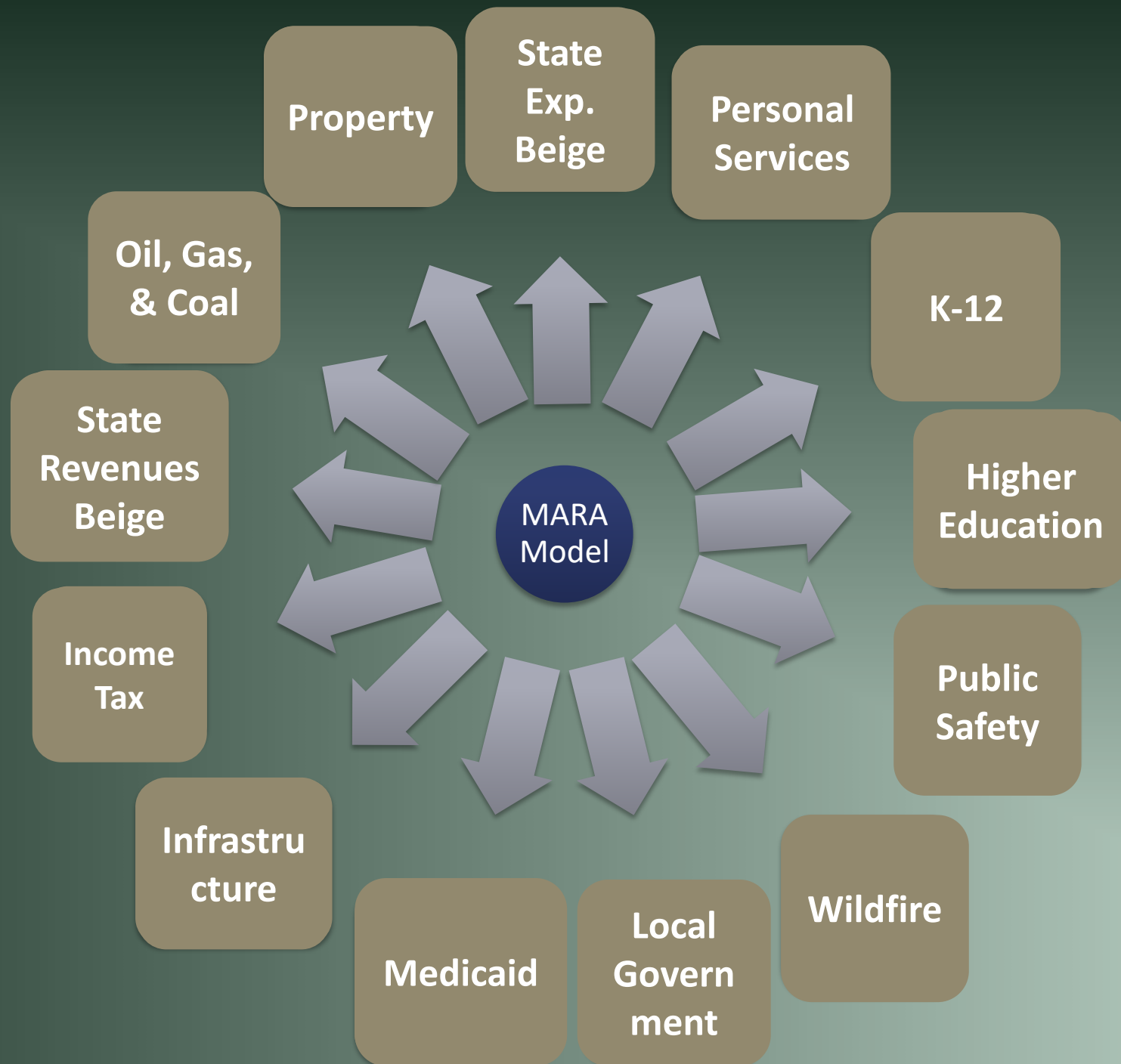
Slicer Options

Tax Class (Grouped)

- Ag/Forest
- Business Equipment
- Commercial
- Other
- Pipelines & Electric
- Residential

County Name: All

Municipality: All

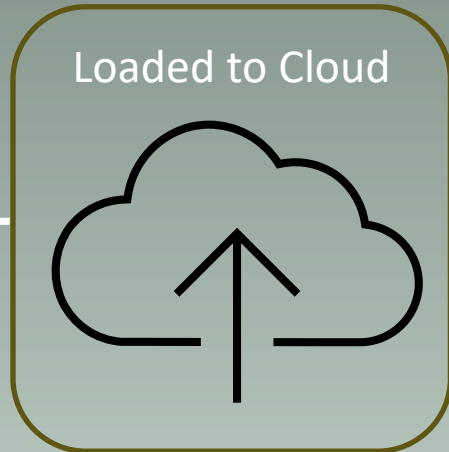
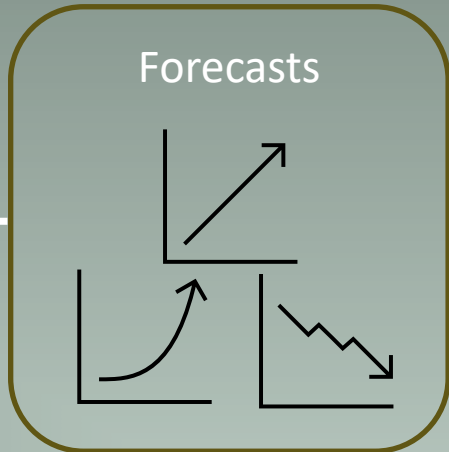
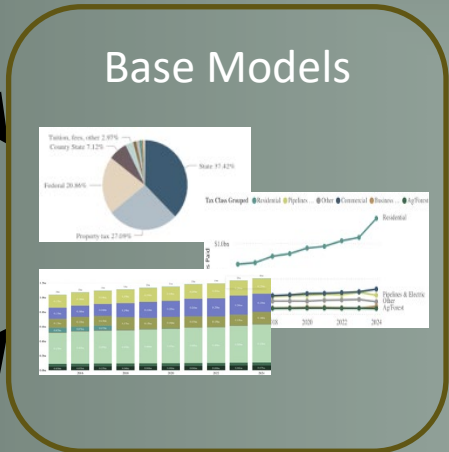
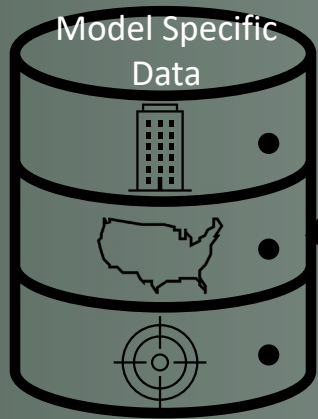
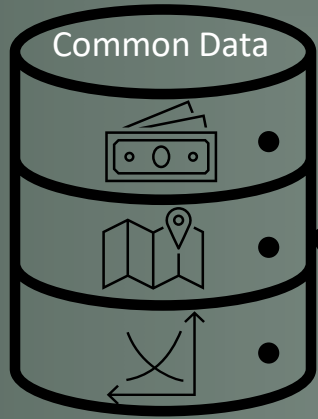


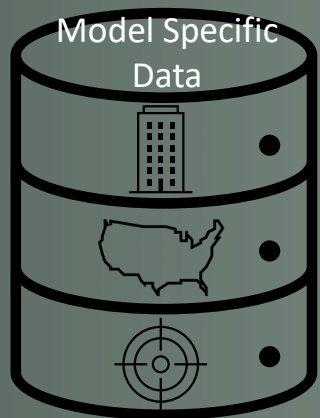
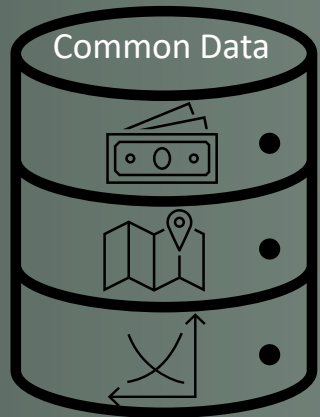
# Individual Models

Wildfire	Medicaid	K-12	Infrastructure
Public Safety	Income Tax	Property	Demographics
Oil, Gas, & Coal	Local Government	State Revenues Beige	Housing
Higher Education	Personal Services	State Exp. Beige	Cost of Living









Loaded to Cloud



Wildfire	Medicaid	K-12	Infrastructure
Public Safety	Income Tax	Property	Demographics
Oil, Gas, & Coal	Local Government	State Revenues Beige	Housing
Higher Education	Personal Services	State Exp. Beige	Cost of Living

# Individual Models

## -End Points to Themselves-



# Combined State Rev/Exp View

## Revenues

Income Tax

Oil, Gas, & Coal

Property

State Revenues  
Beige

## Expenditures

Public Safety

Wildfire

Medicaid

Personal  
Services

State Exp.  
Beige

Infrastructure

## Rev & Exp Components

K-12

Higher  
Education

Local  
Government

## Foundation and Support

Housing

Cost of Living

Demographics

# Combined State Rev/Exp View

## Revenues

Income Tax

Oil, Gas, & Coal

Property

## Expenditures

Public Safety

Wildfire

K-12

Medicaid

Personal Services

Higher Education

Infrastructure

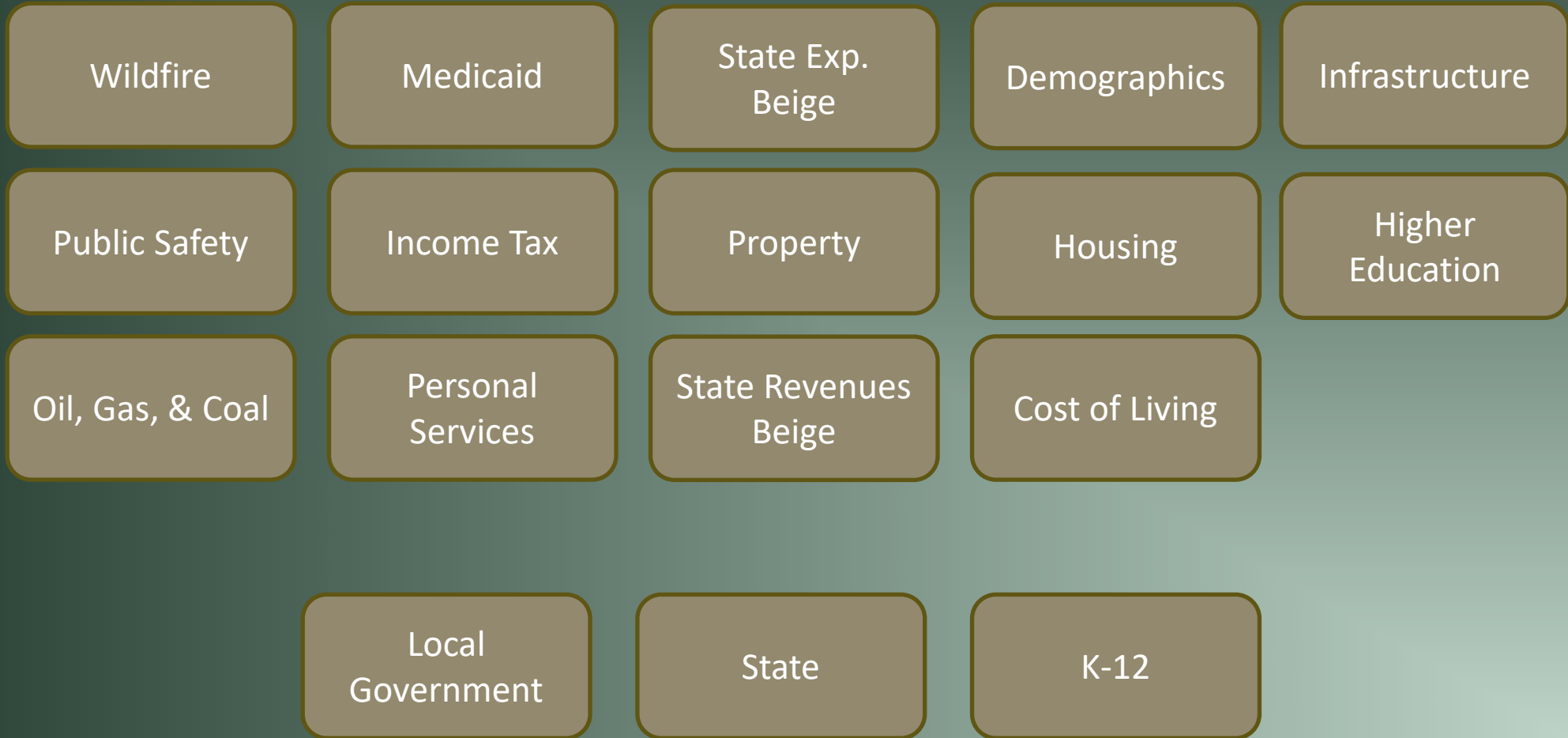
Local Government

State  
Combined  
View

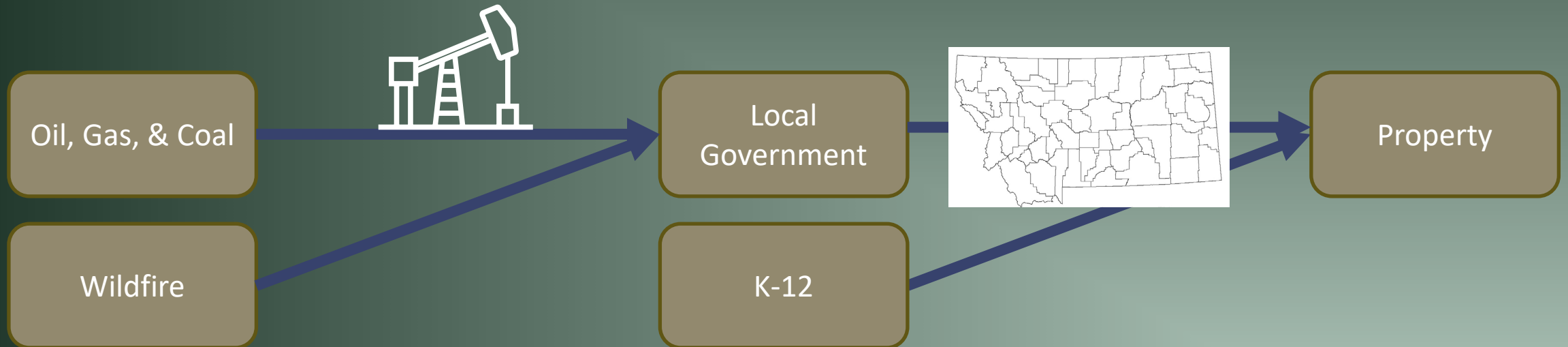
State Revenues  
Beige

State Exp.  
Beige

# Governmental Level - End Points



# Alternative-End Points



# Global Dimensions

Wildfire

Medicaid

K-12

Demographics

Public Safety

Income Tax

Property

Housing

Oil, Gas, & Coal

Local  
Government

State Revenues  
Beige

Cost of Living

Higher  
Education

Personal  
Services

State Exp.  
Beige

Infrastructure



# Global Dimensions

Demographics



Wildfire

Medicaid

K-12

Public Safety

Income Tax

Property

Housing

Oil, Gas, & Coal

Local Government

State Revenues  
Beige

Cost of Living

Higher Education

Personal Services

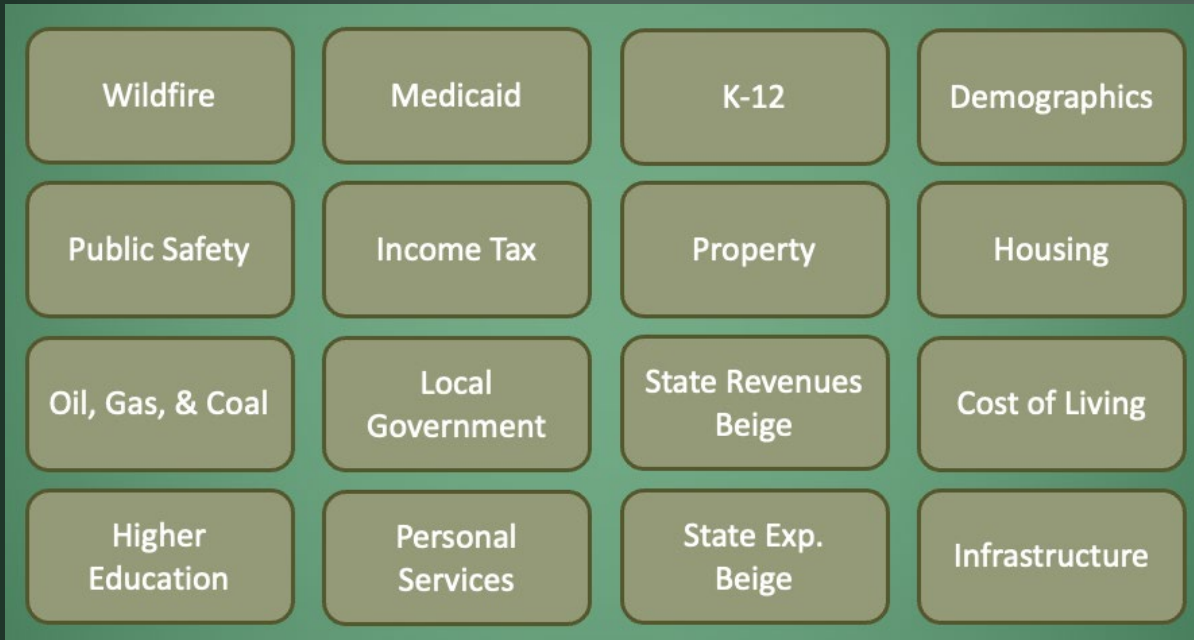
State Exp.  
Beige

Infrastructure



State  
Combined  
View

# Recap



- Distributed
- Live
- Adjustable
- Connected
- Not a single model

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Questions?

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