Regional Economic Models, Inc.

January 26th, 2021

Exploring the Capabilities and Features of REMI TranSight

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REMI TranSight

Presentation Objectives

- About REMI and TranSight
- Custom Results
- TDM Integration
- Benefit-Cost Analysis
- Effective Distance Scenarios
- [Model Demo] TranSight 4.3: Features Highlights

REMI TranSight

About Us

Regional Economic Models, Inc. (REMI) was founded in 1980 on a transformative idea: ***government decision-makers should test the economic effects of their policies before they're implemented***. We are the nation's leader in dynamic local, state and national policy modeling.

Our clients use REMI models to perform rigorous economic analysis that critically influences local, state and national policies.

Our team of research economists and software developers are dedicated to continued model innovation.

Our success is measured by the success of our clients. We provide unlimited expert and professional technical support to our users.

REMI TranSight

What is TranSight?

TranSight is the premier software solution for comprehensive evaluations of the total economic effects of transportation policy. Decision makers depend on TranSight to demonstrate the economic contributions of transportation investments.

TranSight is also constructed with extensive data on:

→ Income → Employment → Demographics → Output

REMI TranSight

TranSight Applications

TranSight depicts the effects of transportation improvements on employment and economic development.

Our users rely on TranSight to validate their:

- Long-range Planning
- Project Prioritization
- Economic Impact Analysis
- Transportation Financing
- TIP and STIP Planning

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Model Methodology

REMI's 35-year history of rigorous academic research and software development has led to the development of the industry standard in macroeconomic research methodology:

General Equilibrium

Input-Output

Econometrics

Economic Geography

Integrated REMI economic modelling approach

Our clients include:

- AECOM
- Michigan Department of Transportation
- Cambridge Systematics, Inc.
- Illinois Department of Transportation
- Atlanta Regional Commission (ARC)
- Southern California Association of Governments (SCAG)
- New York State Department of Transportation
- United States Army Corps of Engineers Great Lakes District
- Houston-Galveston Area Council (H-GAC)

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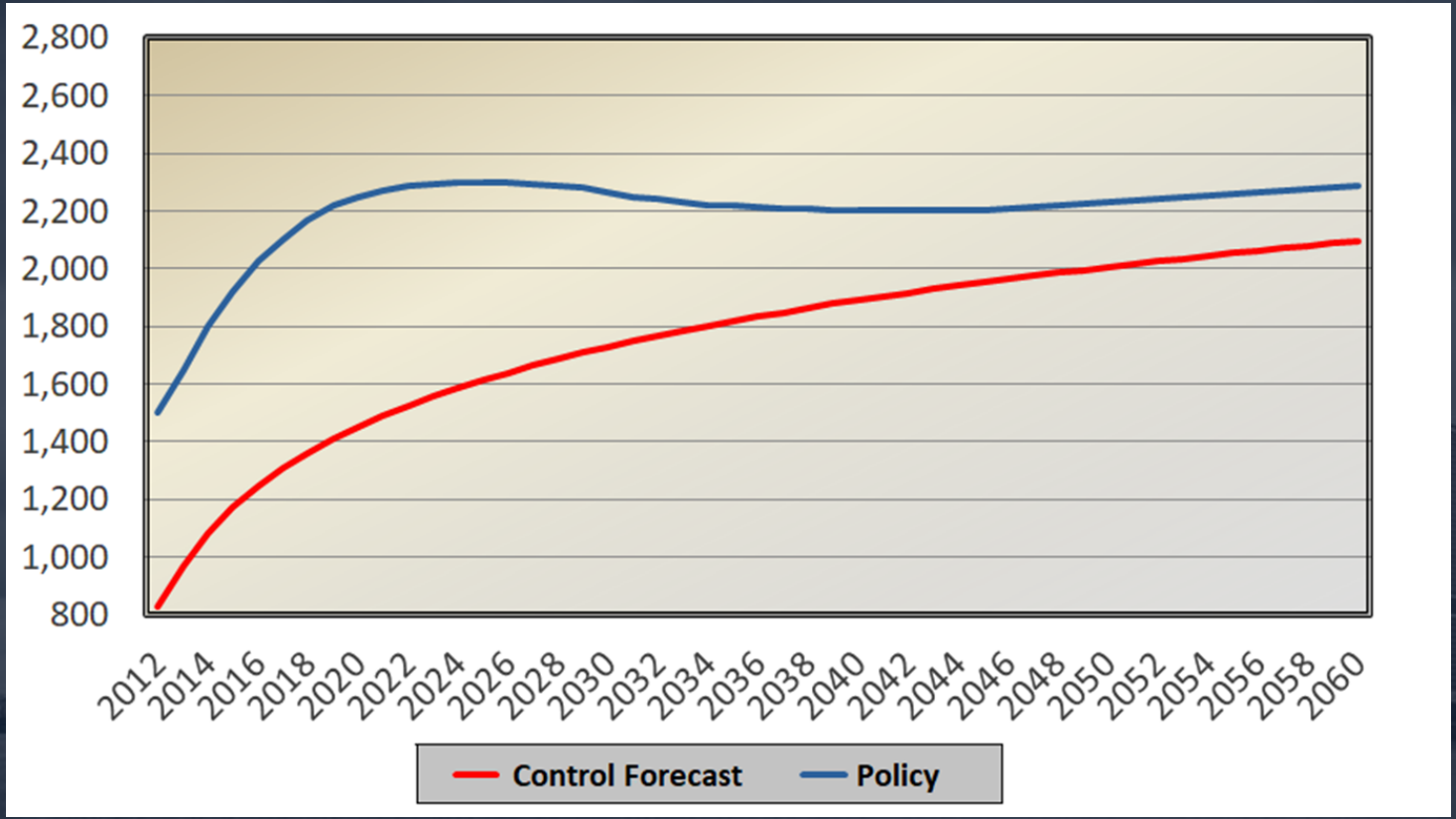
Dynamic Analysis



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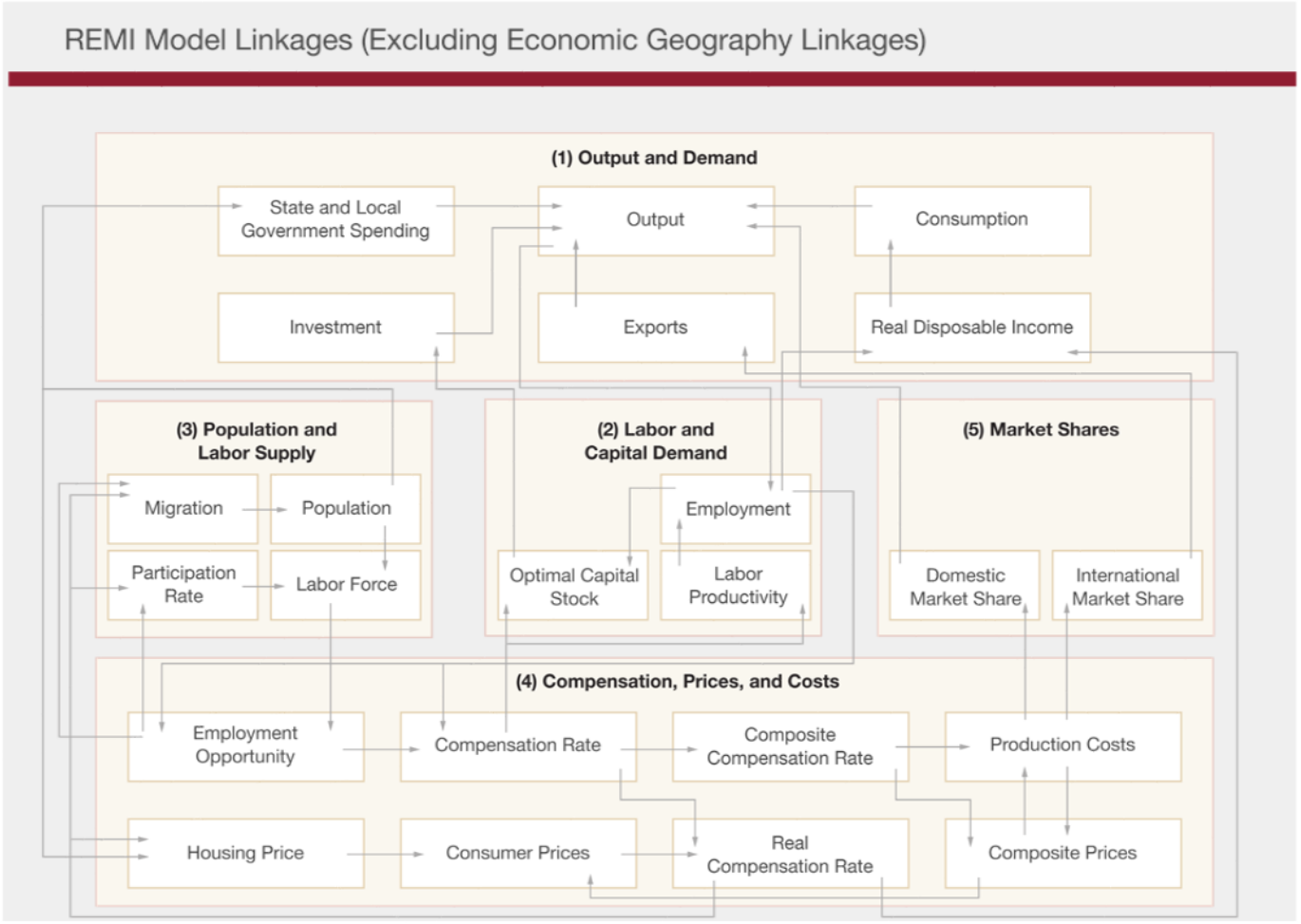
Model Structure



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Key Advantages of TranSight

Proven Accuracy

Validated by REMI's peer-reviewed model equations, TranSight can answer *"what if…?"* questions about your economy by producing various forecasts and impact analyses of transportation investments.

Intuitive Software

TranSight is a desktop application with extensive user service and support functions. These are combined with unlimited assistance and professional training provided by REMI's expert staff members.

Analysis of Key Variables

TranSight offers a comprehensive suite of variables to provide the most thorough and robust understanding possible of the macroeconomy.

✓ **Employment** ✓ **GDP** ✓ **Income** ✓ **Output** ✓ **Demographics**

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Static vs. Dynamic Analysis

Static Analysis	Dynamic Analysis
• Construction spending • O&M spending	• Construction spending • O&M spending • Travel time savings • Emissions savings • Safety improvements • Population changes • Fuel expenditures • Non-fuel VOCs • Network speed improvements • Access to labor • Access to intermediate inputs

FHWA: TranSight is among the “best equipped to estimate *productivity* impacts”*

*https://ops.fhwa.dot.gov/publications/fhwahop15034/ch5.htm

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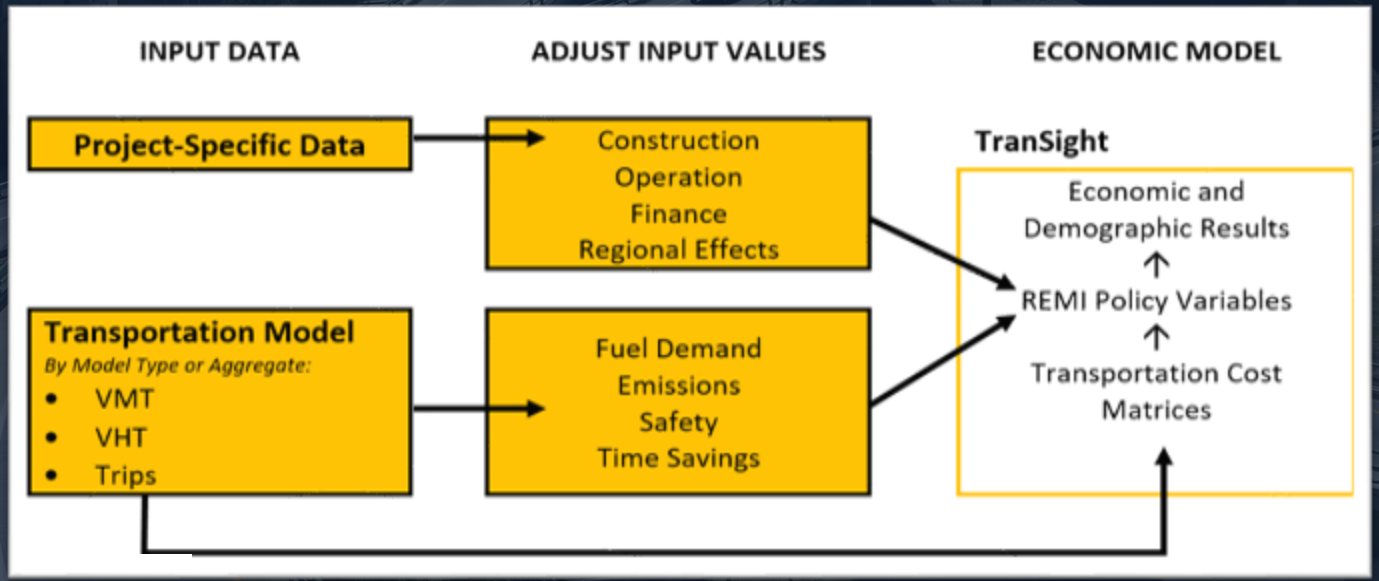
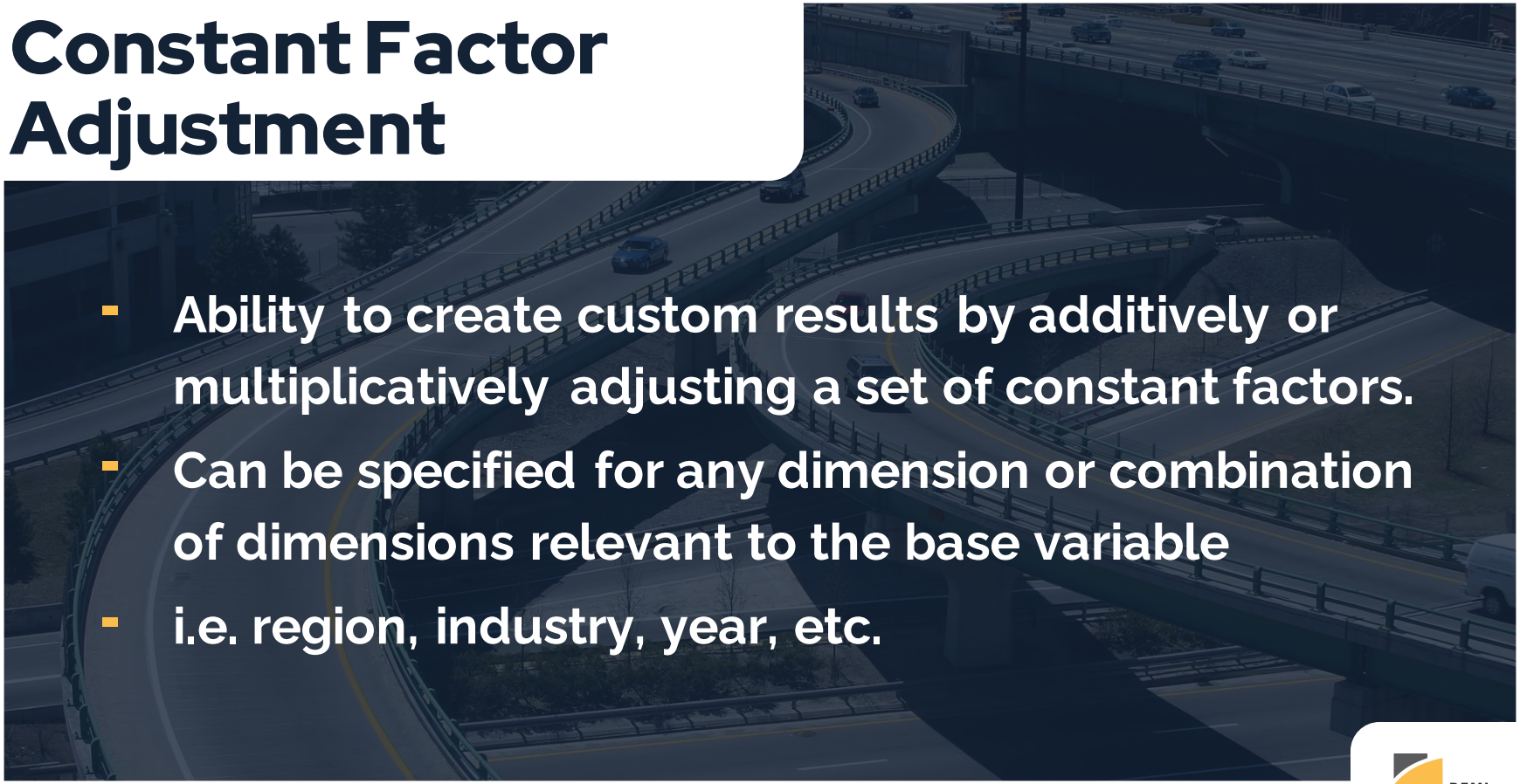
Model Structure



Custom Results

Constant Factor Adjustment



- Ability to create custom results by additively or multiplicatively adjusting a set of constant factors.
- Can be specified for any dimension or combination of dimensions relevant to the base variable
- i.e. region, industry, year, etc.

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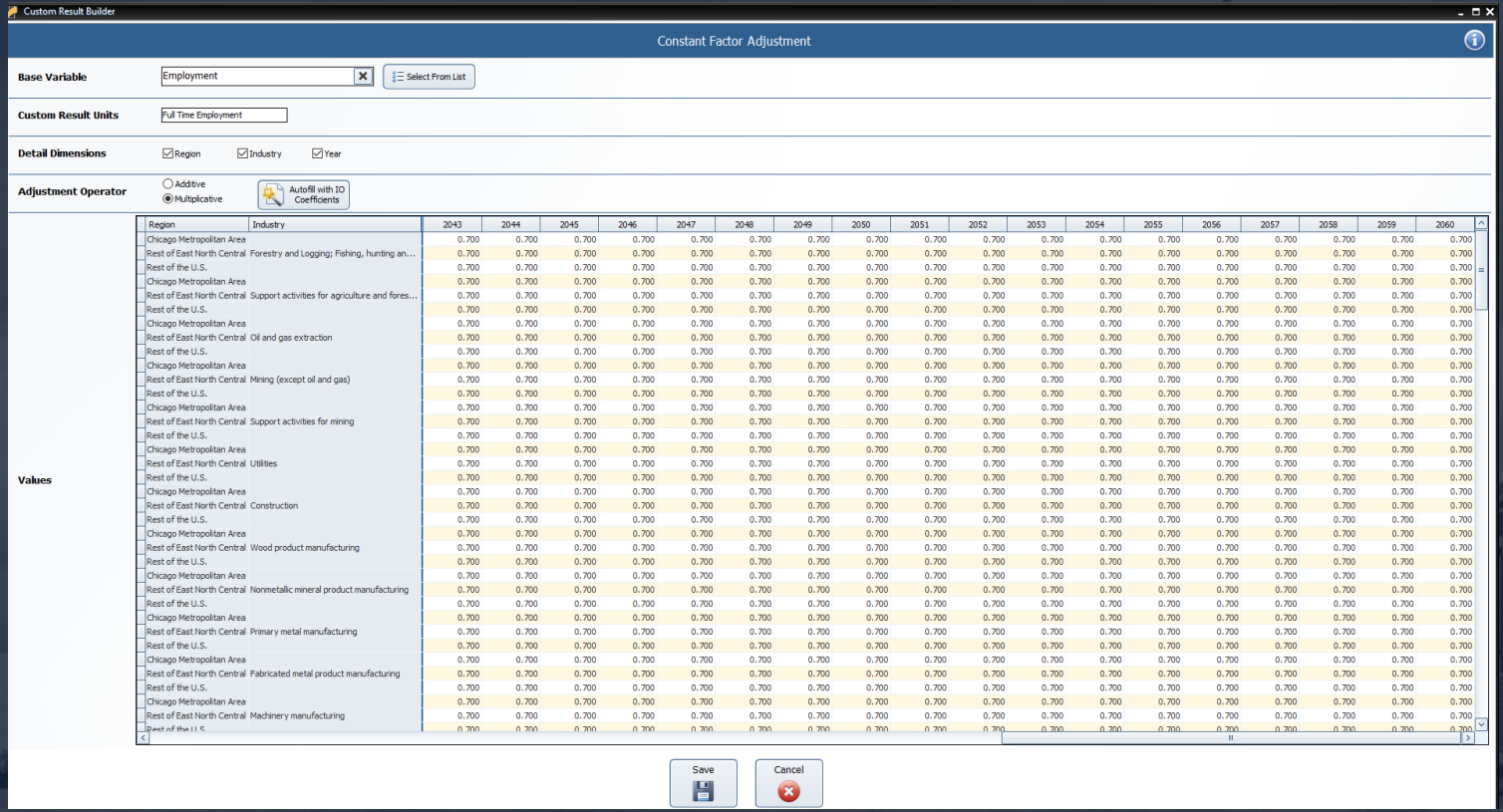
Constant Factor Adjustment



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Custom Equation Definition

- Custom results that are defined by a user-specified equation.
- More simply, two result variables can be combined
- Chaining multiple custom result variables together can create more complex equations
- The equation previewer shows how the variables are fitting together.

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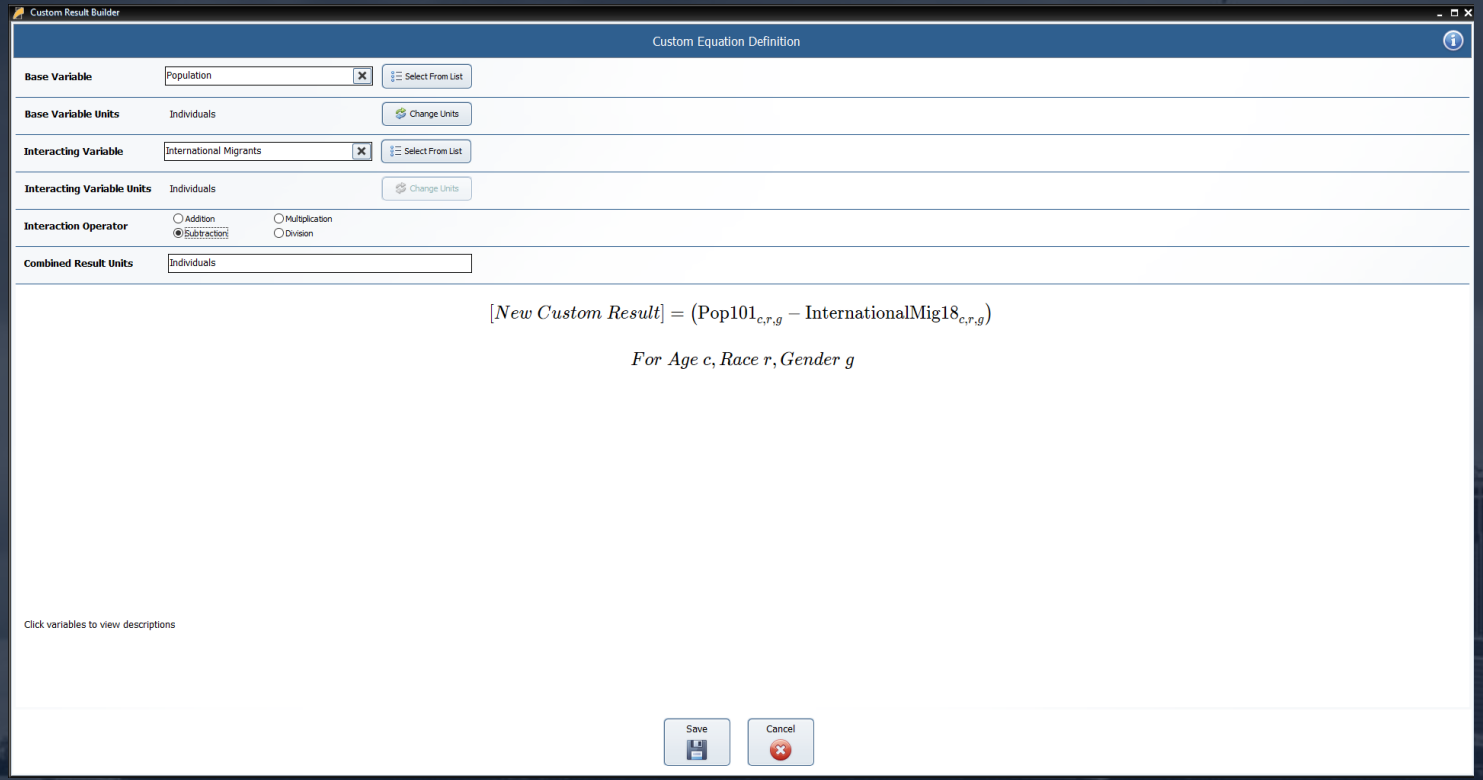
Custom Equation Definition



Weighted Detailed Spreading

- Custom results where numbers are disaggregated according to a user-specified weighting.
- Base result variables can be spread along any available detail dimension
- Weighting factors are entered for each new detail subcategory according to user's outside research

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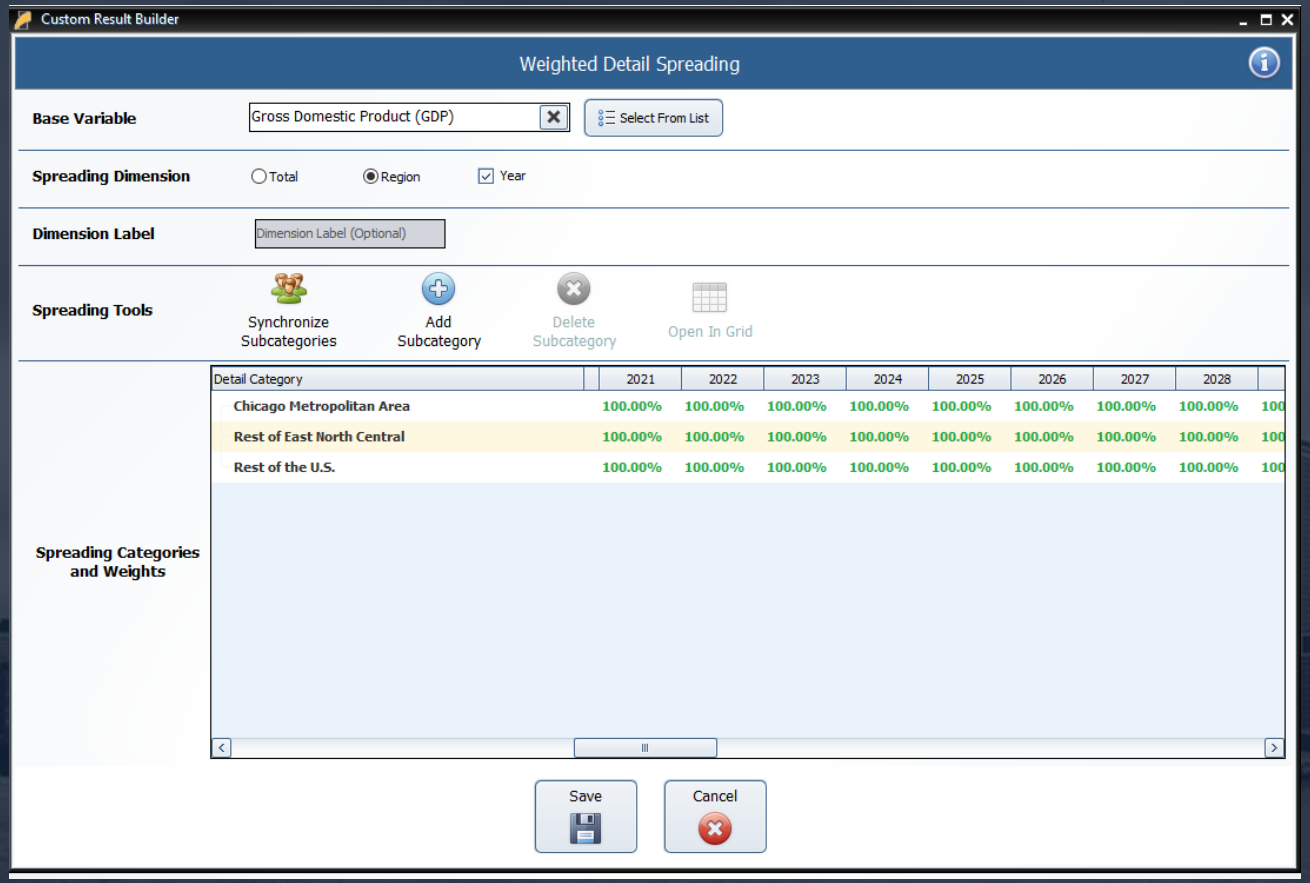
Weighted Detailed Spreading



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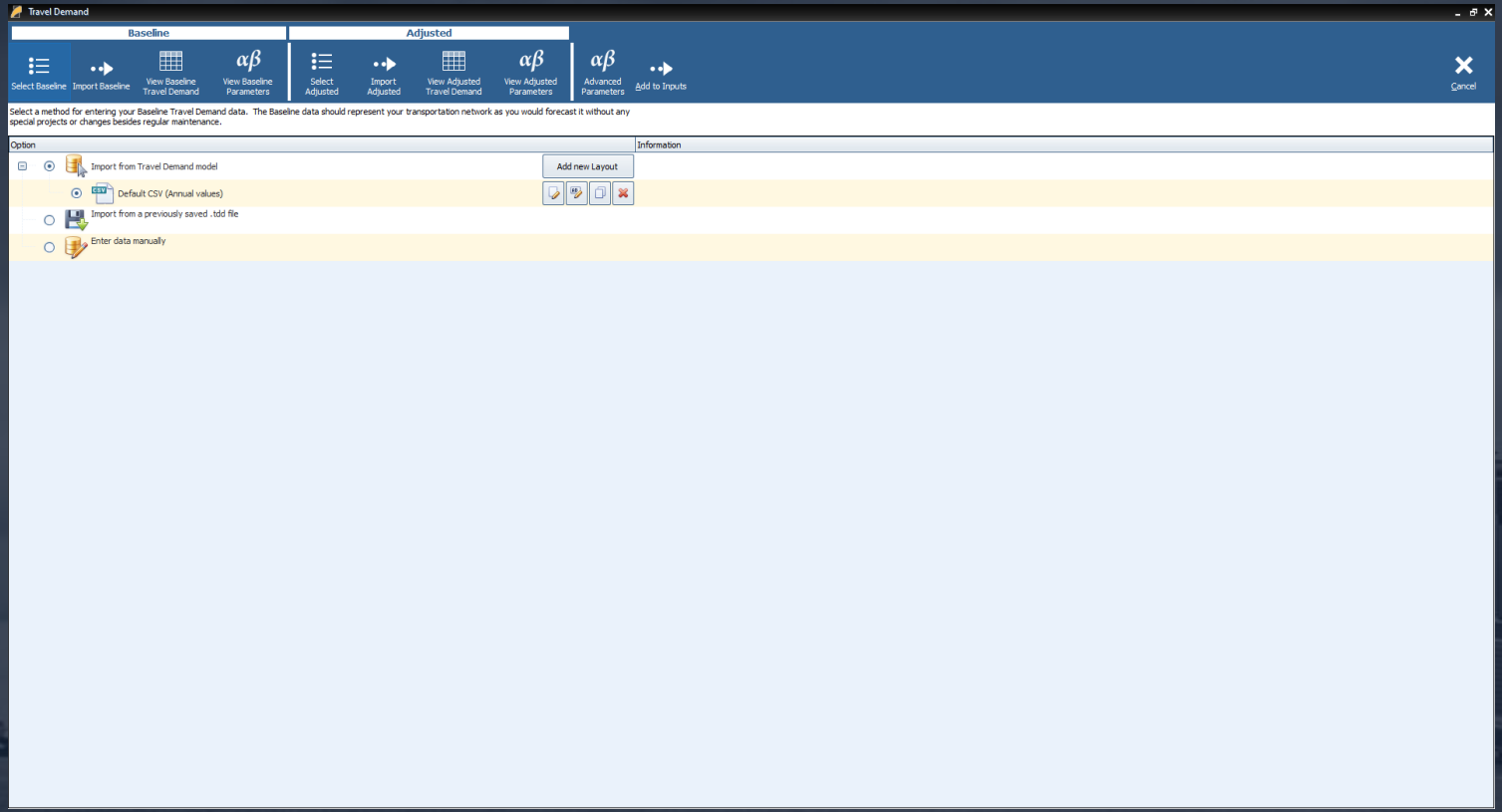
TDM Integration



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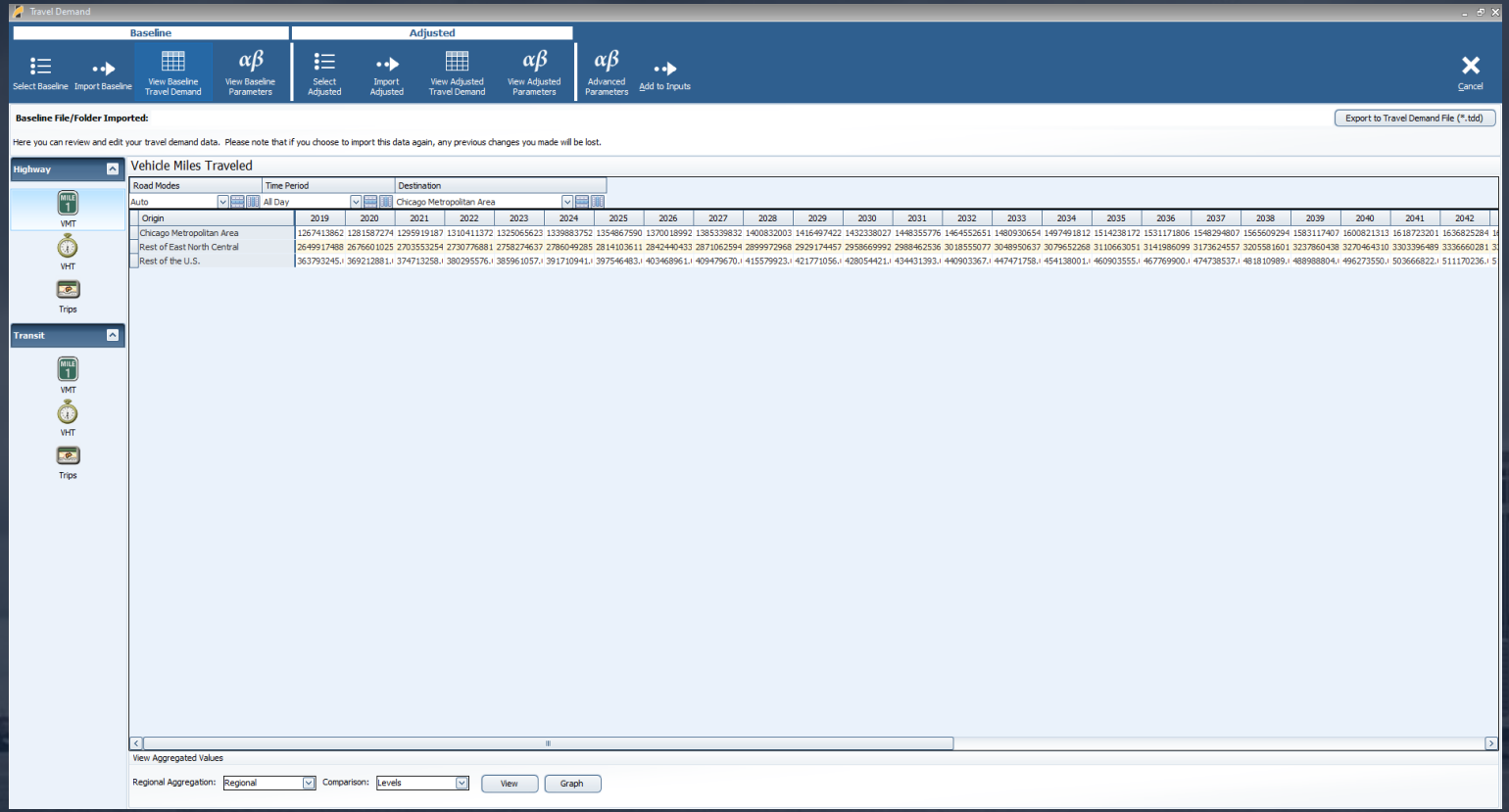
TDM Integration



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Benefit-Cost Analysis

- Evaluation of a project's economic merit by comparing total benefits with their total cost over a period of time.
- Only the direct benefits and direct costs associated with a project (FWHA Guidelines)
- Possible benefits may include decreases in emissions and corresponding positive environmental changes, vehicle operating cost savings, travel time savings, maintenance costs/savings, safety benefits.

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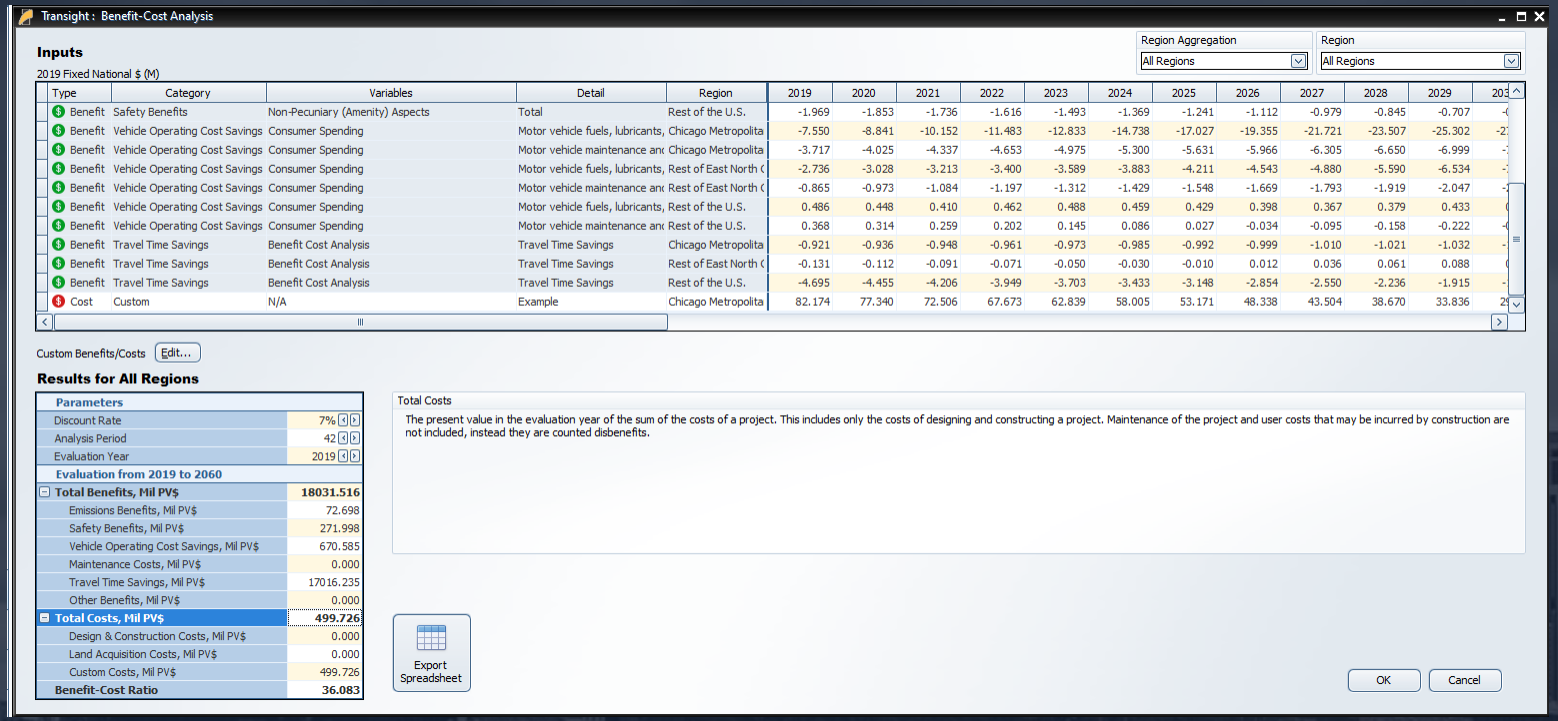
Benefit-Cost Analysis



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Effective Distance

Effective distance scenarios can be analyzed as policy variables or as a cost matrix.

- **Commuting Costs (Immediate Market Share Response)**
- **Accessibility Costs**
- **Transportation Costs**
- **Commuting Costs (Lagged Market Share Response)**

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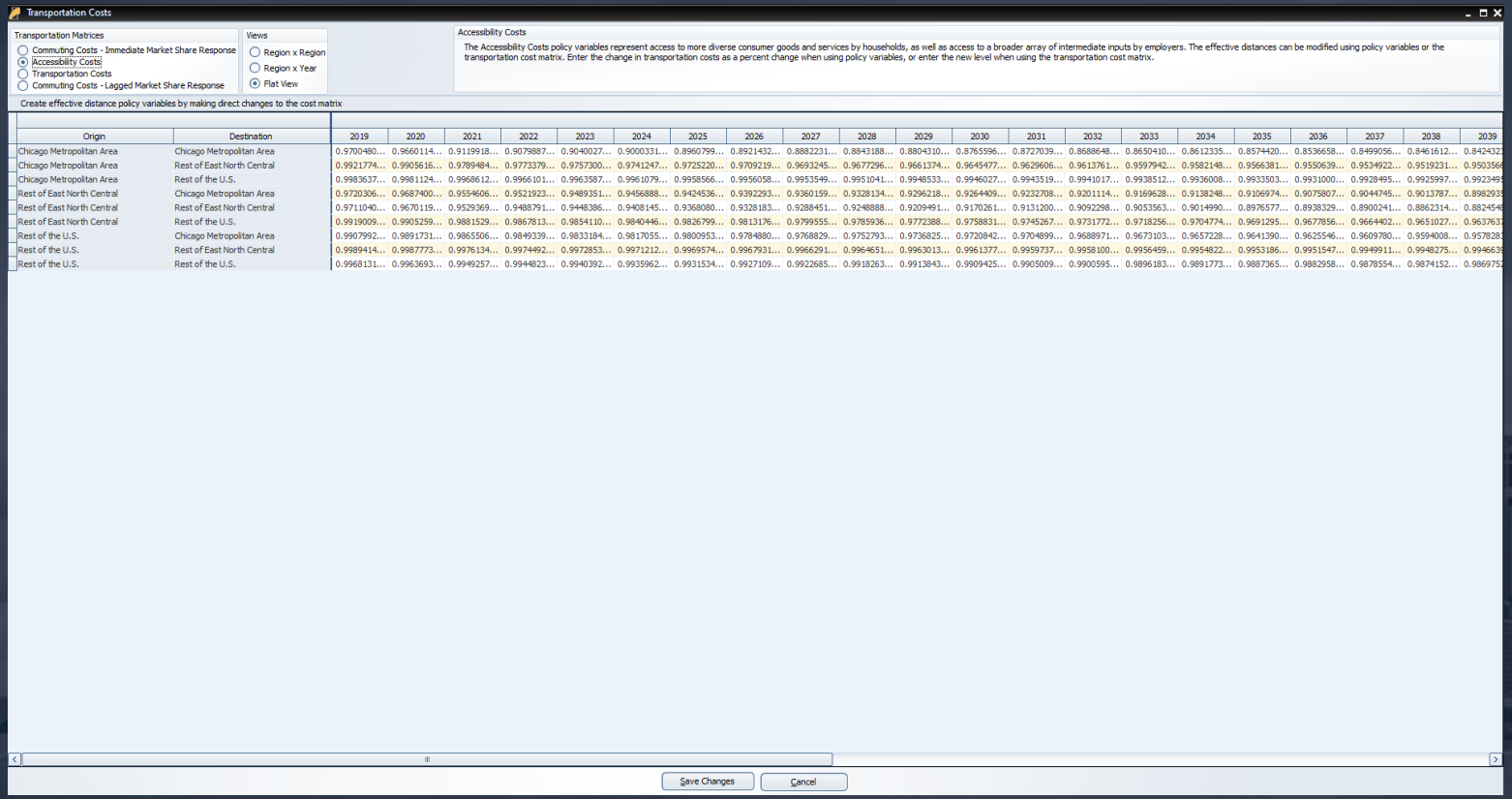
Effective Distance



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Model Demonstration

Transportation Policy in the Biden Administration

Tomorrow: Wednesday, January 27th 11:30am EST

This presentation will describe potential changes to transportation policy in the Biden administration. Policies such as shifts in investments for our nation's roads, bridges, railways, and ports and resulting network improvements will be examined in TranSight.

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