

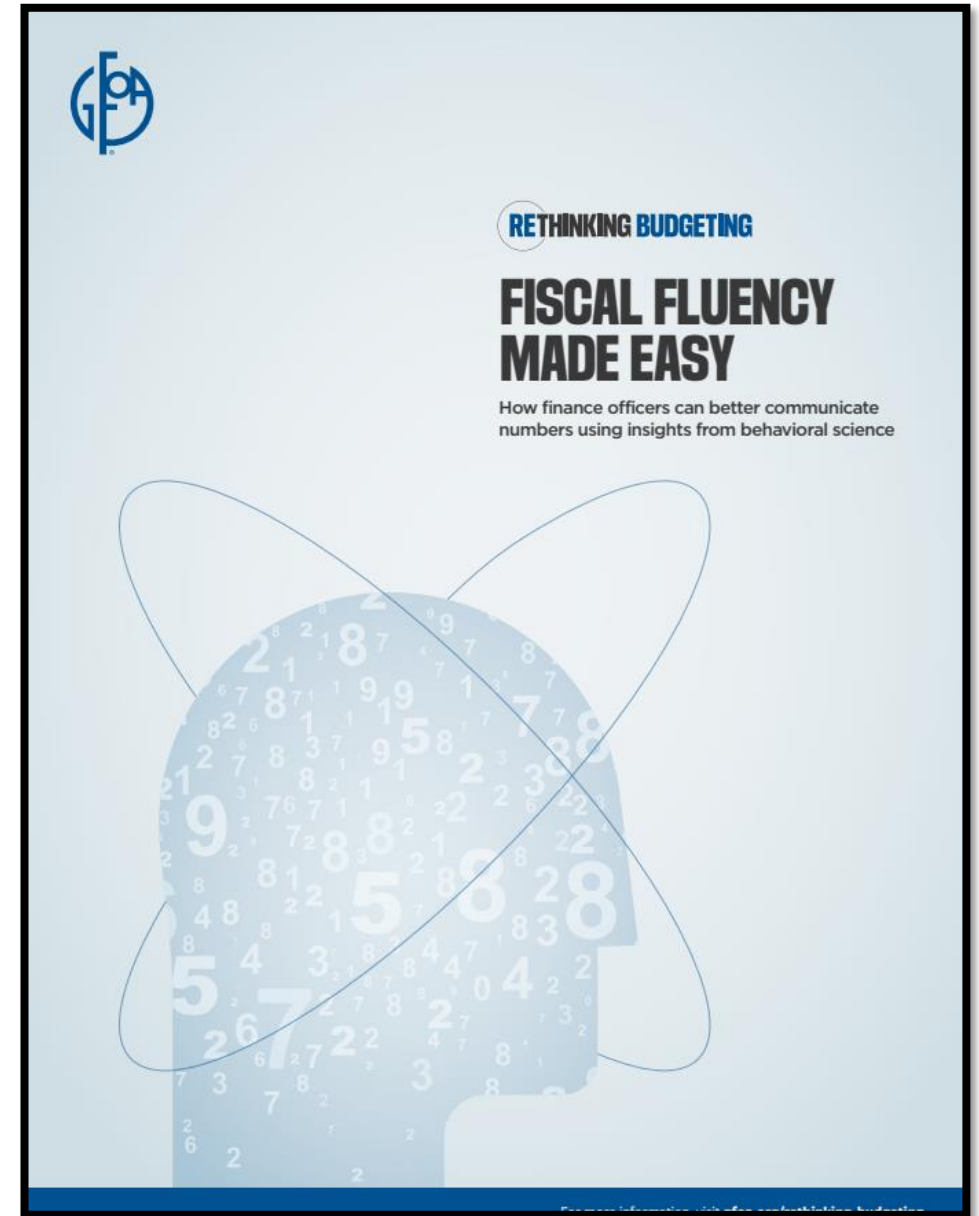
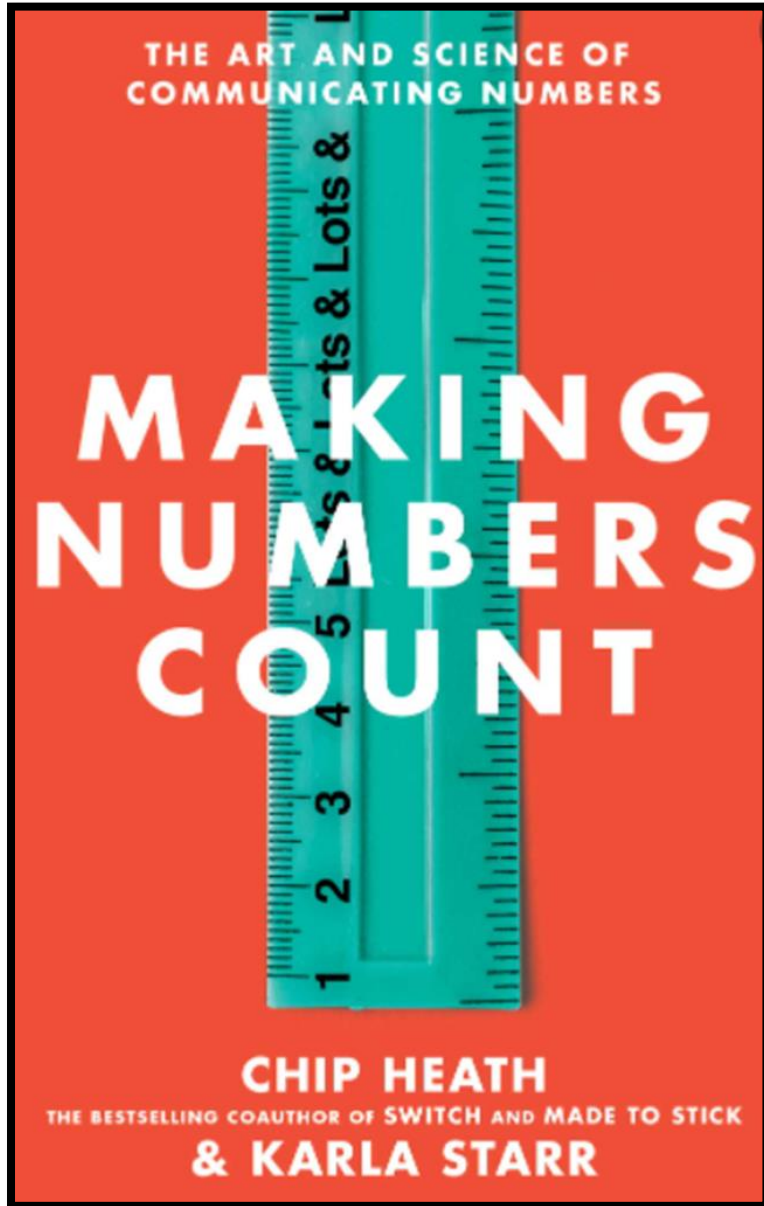
Simplifying Complexity



Communicating Financial Information

IGFOA 2024 Annual Conference - September 11, 2024

Sources



The Limits of Rationality

People do not really understand numbers, especially the very large numbers that make up a budget.

**“Our brains were designed to grok 1, 2, 3, 4, and 5. After that, it’s just
“lots.”**

Information is lost unless numbers are translated into human experience.

The Problem: Abstraction

The higher numbers get, the less sensitive we become to them.

This is known as “psychophysical numbing”

Every number can be translated into something that is easier for people to grasp, like an analogy, a comparison, and more.





Four Building Blocks for Better Communication

Take a Cue from Childhood

- Translate numbers into human experience
- We can do better than fingers and toes

Four Building Blocks

- Translate Numbers to Human Scale
- Help People Grasp Your Numbers
- Catalyzing Action with Emotional Numbers
- Build a Scale Model





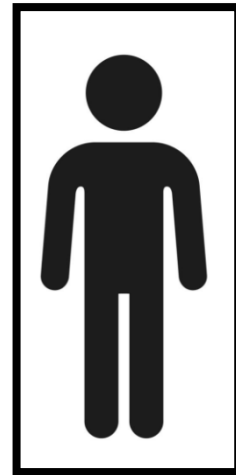
Translate Numbers to Human Scale

Consider sports statistics

Focusing on One at a Time



Per Capita Figures



*Impact on Tax Bill
of Average Home*



Favor User-Friendly Numbers

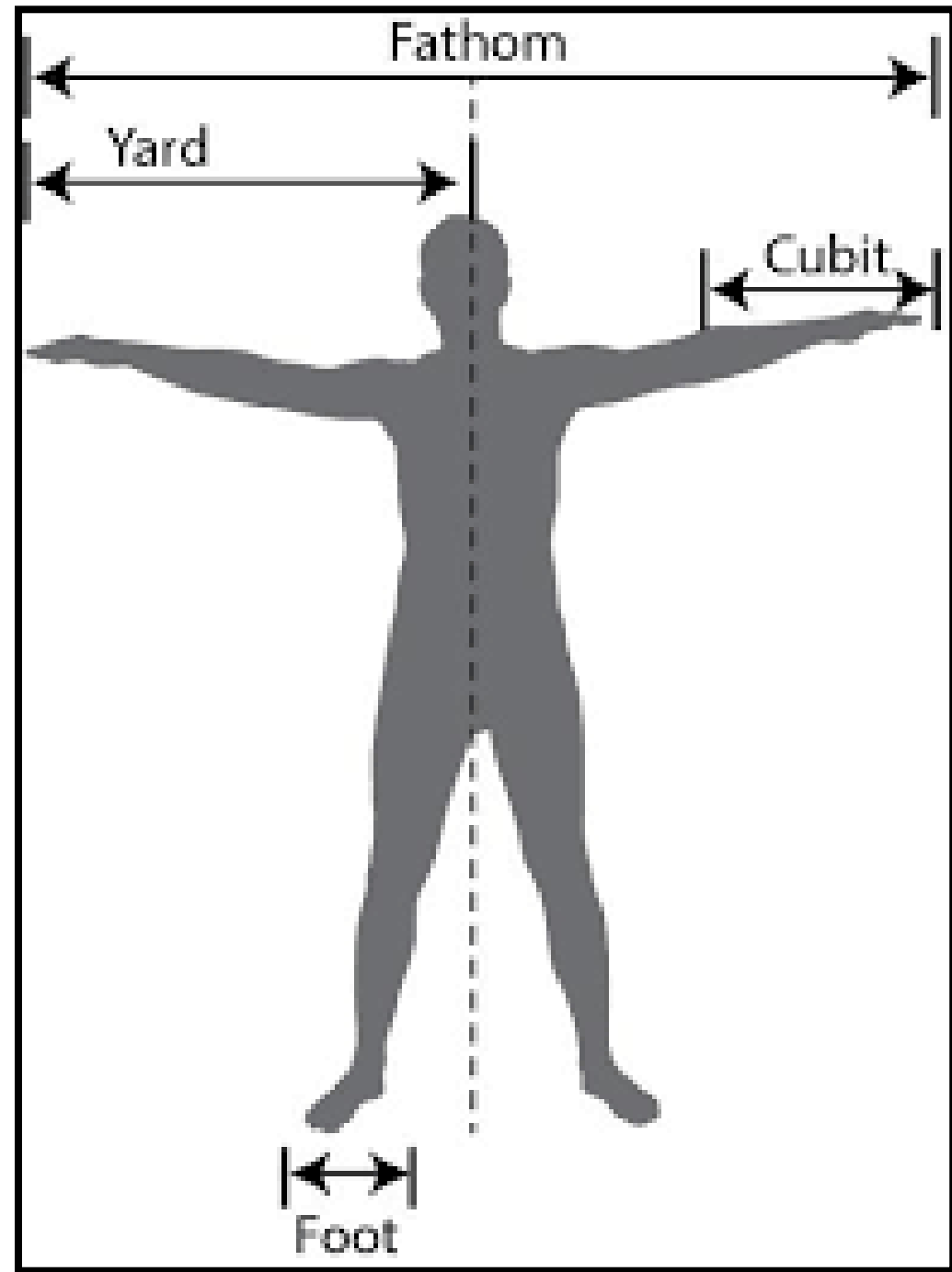
- Round with Enthusiasm (remember telephone numbers!)
 - \$3,405,892 → \$3.4 million
- Concrete is better: Use Whole Numbers to Describe Fractions

Department	% of Spending	For every \$10 of spending...	For every \$100 of Spending...
Police	36%	\$4	\$36
Fire	31%	\$3	\$31
Public Works	22%	\$2	\$22
Admin	11%	\$1	\$11



Help People Grasp Your
Numbers

It is not an
accident that
“Grasp” also
means to
understand



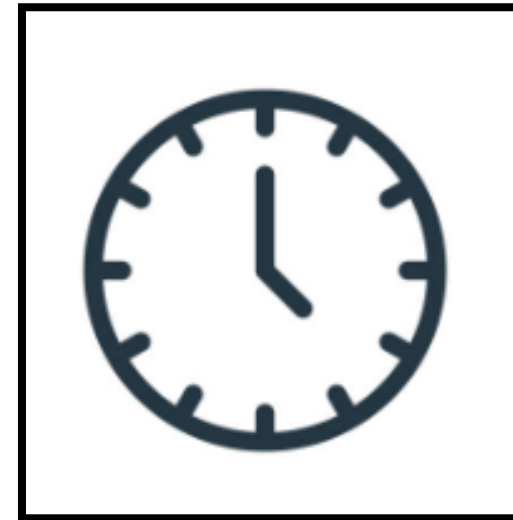
Help people grasp your numbers

- Use Simple Familiar Comparisons

*Cost of Municipal Service
vs. Consumer Goods*



Trade Time for Money





Catalyze Action with Emotional Numbers

**Sometimes a
finance officer
may need to
inspire action...**

- Numbers speak to logic
- Actions often spurred by emotion

Ethical Warning!

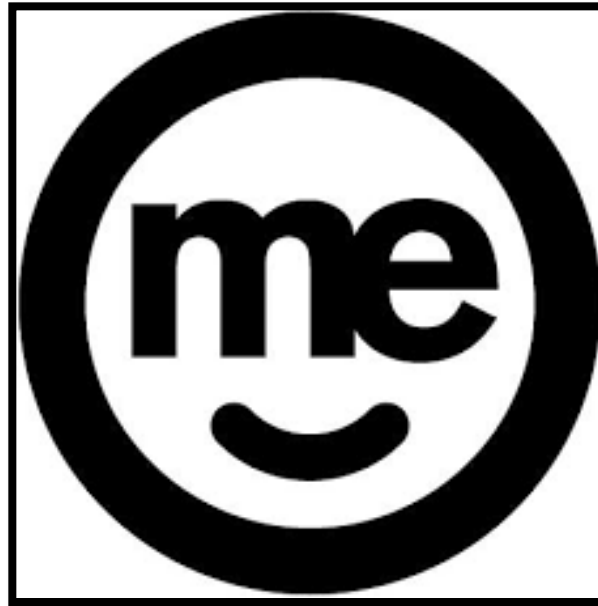


Catalyze Action with Emotional Numbers

Use a Vivid Comparison



Make the Number Personal



Establish a Pattern, then Break it

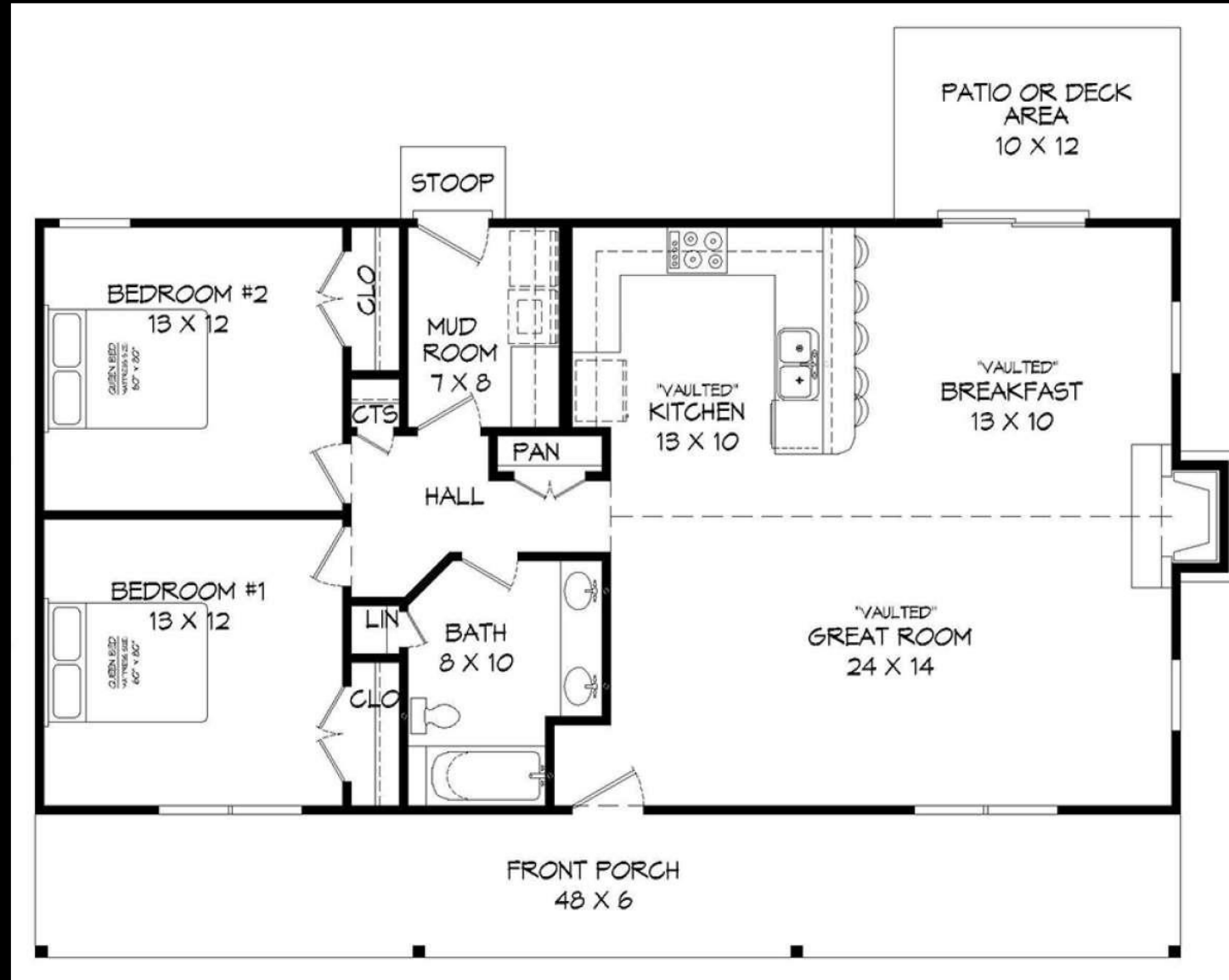




Build a Scale Model

Can you imagine how a large 1,200 square foot house is?

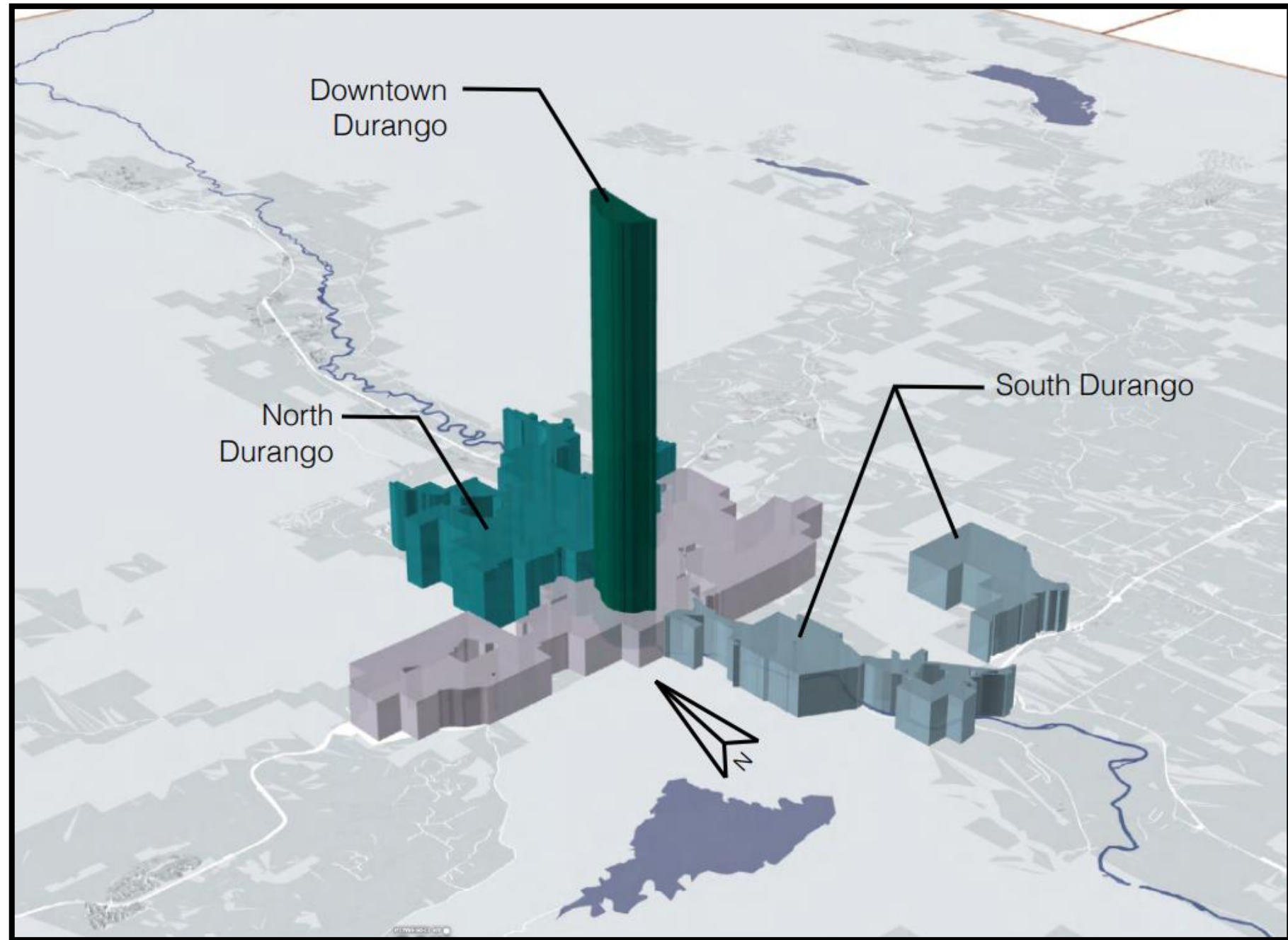
How about now?...



**People find scale
models
inherently
interesting**

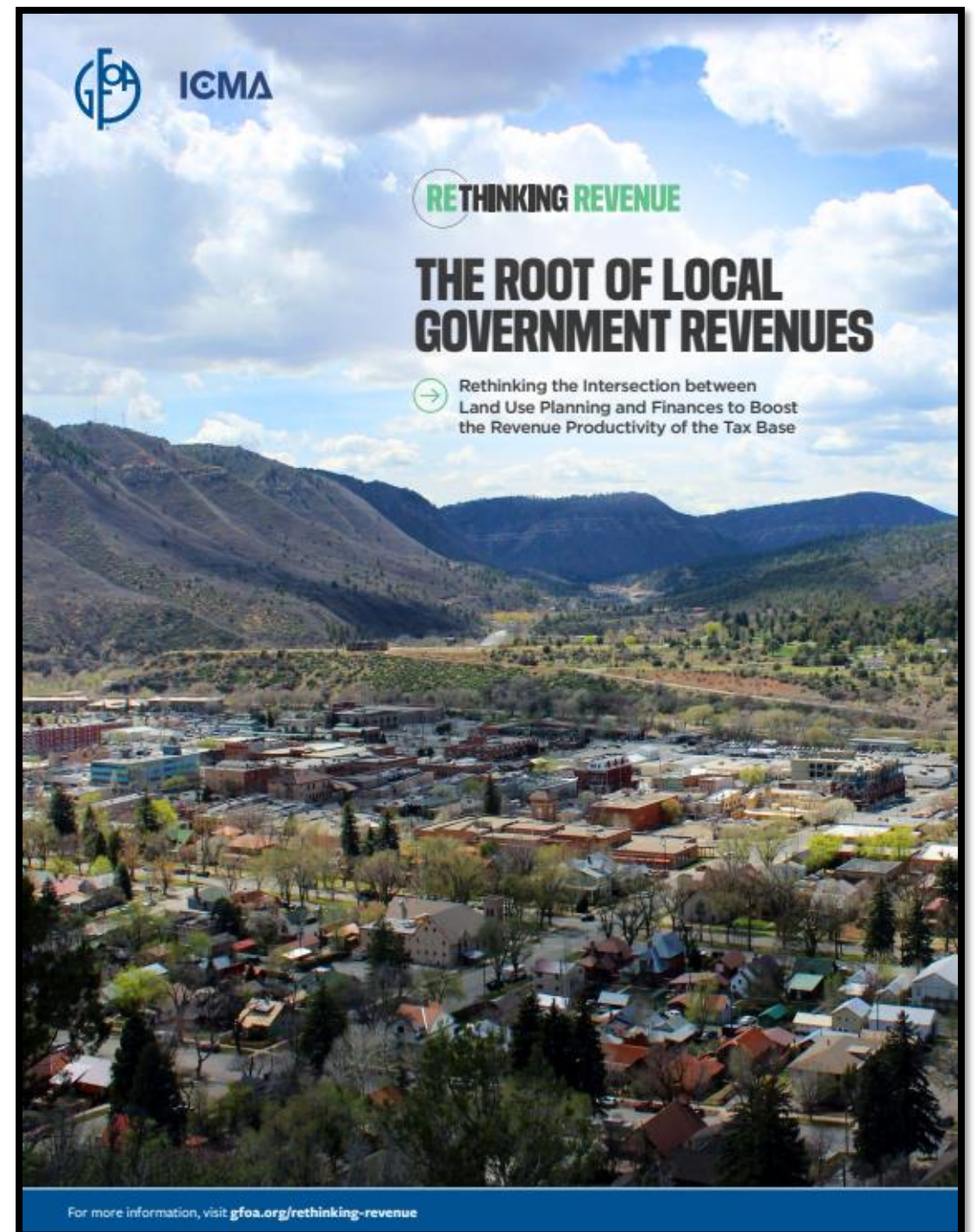


Combine financial
information with
geospatial
information



For more...

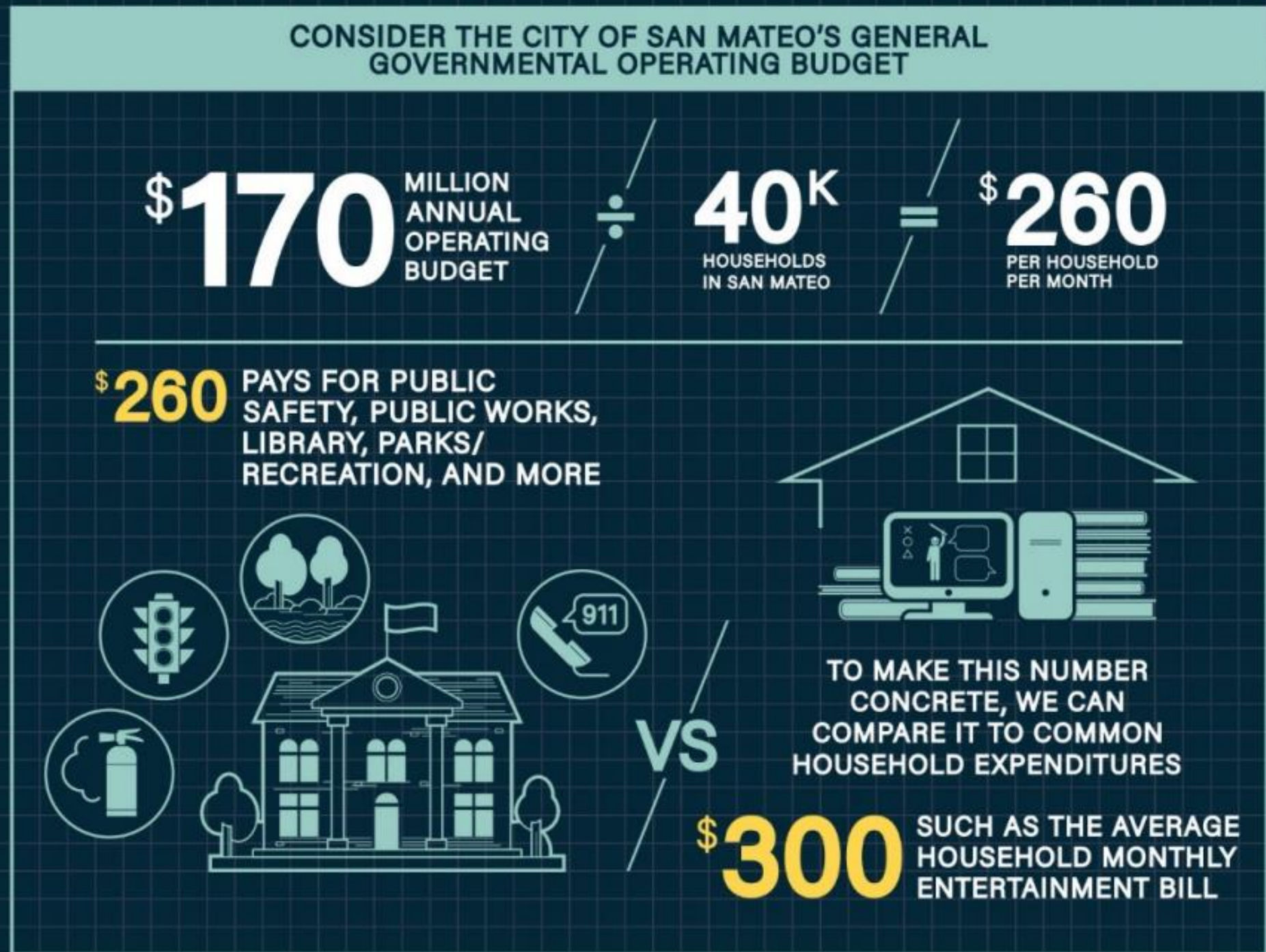
The Root of Local Government Revenues



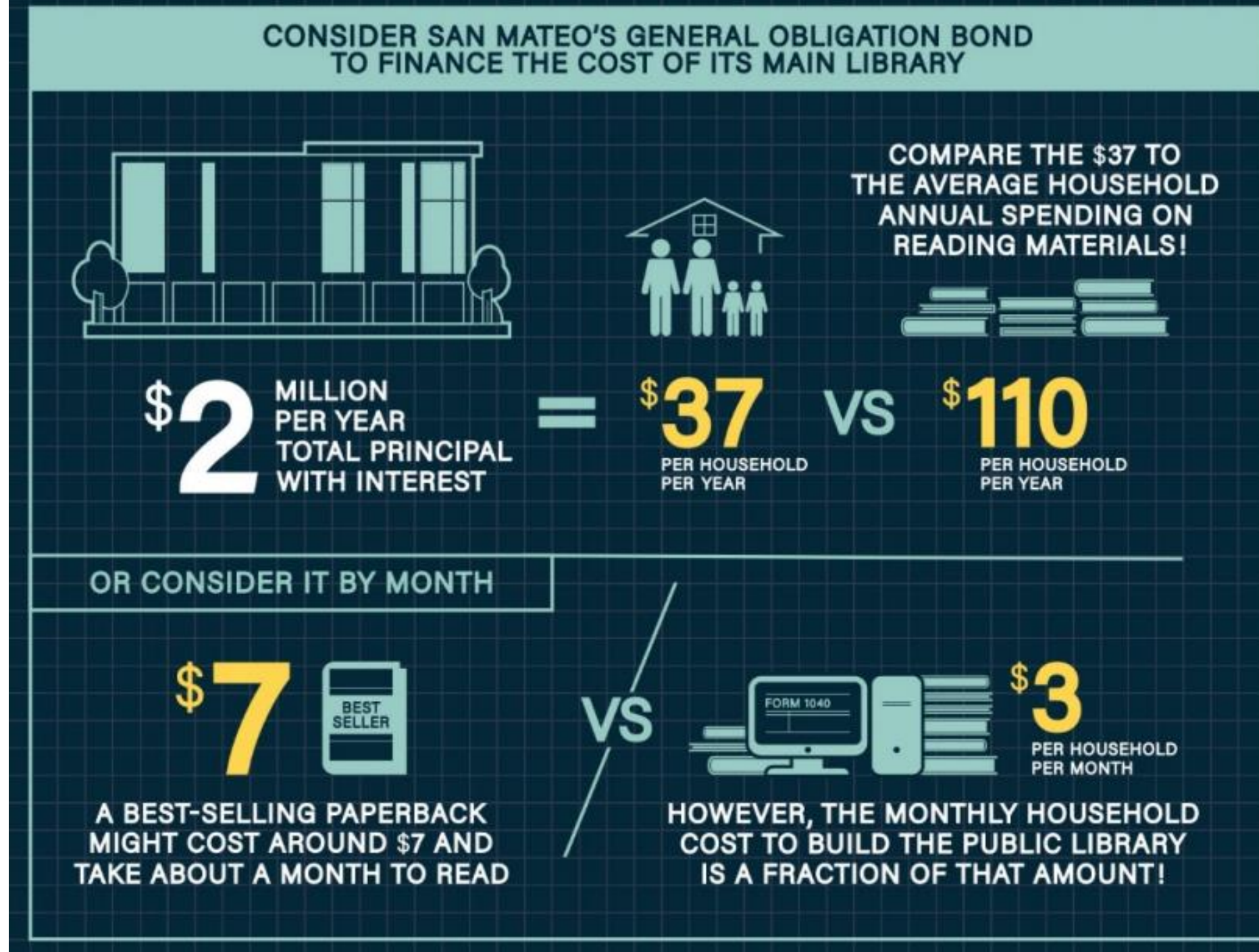


Making Numbers Count in Public Finance

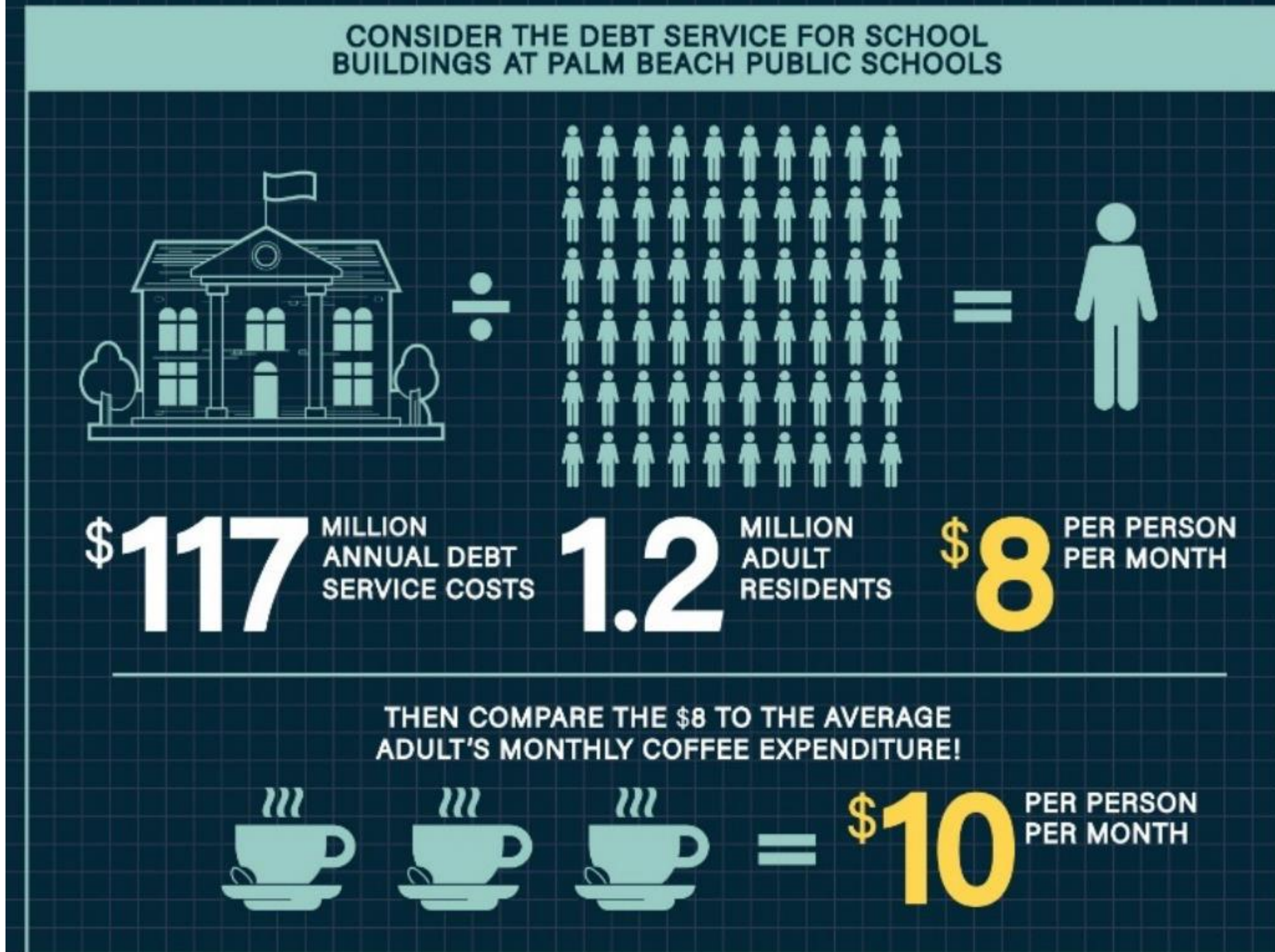
Challenge: Describing the Value of Government



Challenge: Describing the Burden of Debt



Challenge: Describing the Burden of Debt



Lightening Round!

- Communicate insignificance → Translate Money to Time
- Encourage efficiency & cost avoidance → Make it Personal
- Describing the need for spending → Bring it down to human scale

Talk with a Friend

What public finance topic have you had particular success in communicating? Why were you successful?

Or

What public finance topic have you found particularly challenging to communicate? How might you approach it?



**Fiscal Fluency
Challenge Winner!**



..... Budget Video



- Arlington produces an annual video focused on the City's upcoming budget
- The process begins in January with ideas pitched year round
- This cannot be done without the help of the Finance Office
- Video is released at City Council's "Budget Kick-Off" meeting in August





- Use the high concept pitch to find a theme residents can relate to
- Research and immerse yourself in the theme and video production techniques
- Involve the whole team and their talents
- Have a stable underlying plot structure

- Make the script conversational
- Be authentic
- Find a way your viewers can relate to the numbers



.....

Budget Campaign Results

- Lego Budget Video has over 1 million views on YouTube



@hboutwell1 2 years ago

Now this should be included in all school curriculum for high school to help them better understand what Taxes go to! That's the best city budget video I have ever seen!



40



Reply

.....

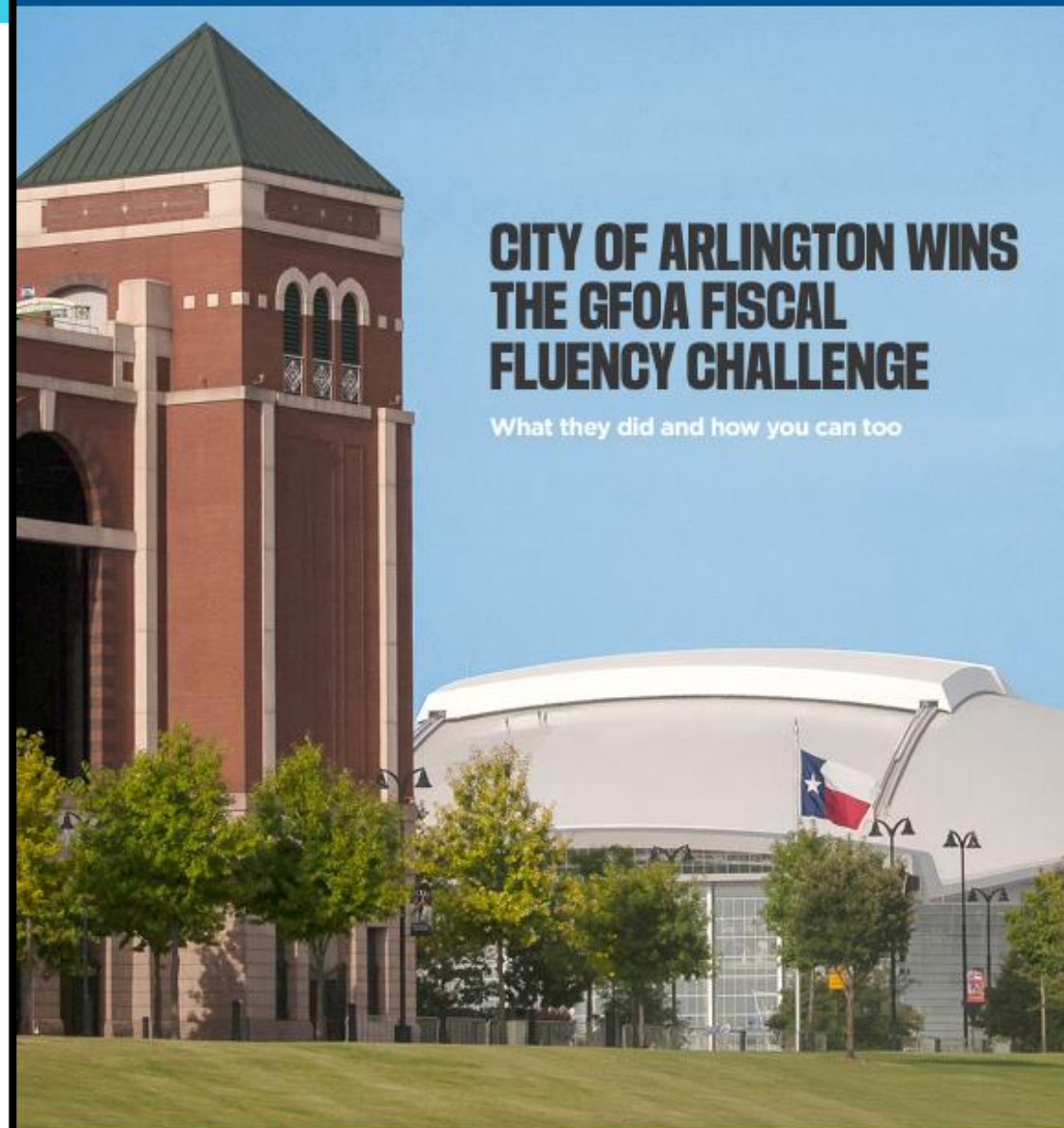
Budget Campaign Results

- Budget Bites has over 400,000 views
- Videos are broken into smaller segments for social media
- City sees more educated, informed questions in budget public hearings and on social media

Learn Arlington's Secrets!



RETHINKING BUDGETING



For more information, visit gfoa.org/rethinking-budgeting

Chat with a Friend

Putting aside the production values of the Arlington Budget Bites video, what do you think was most striking and effective? How could you apply that?

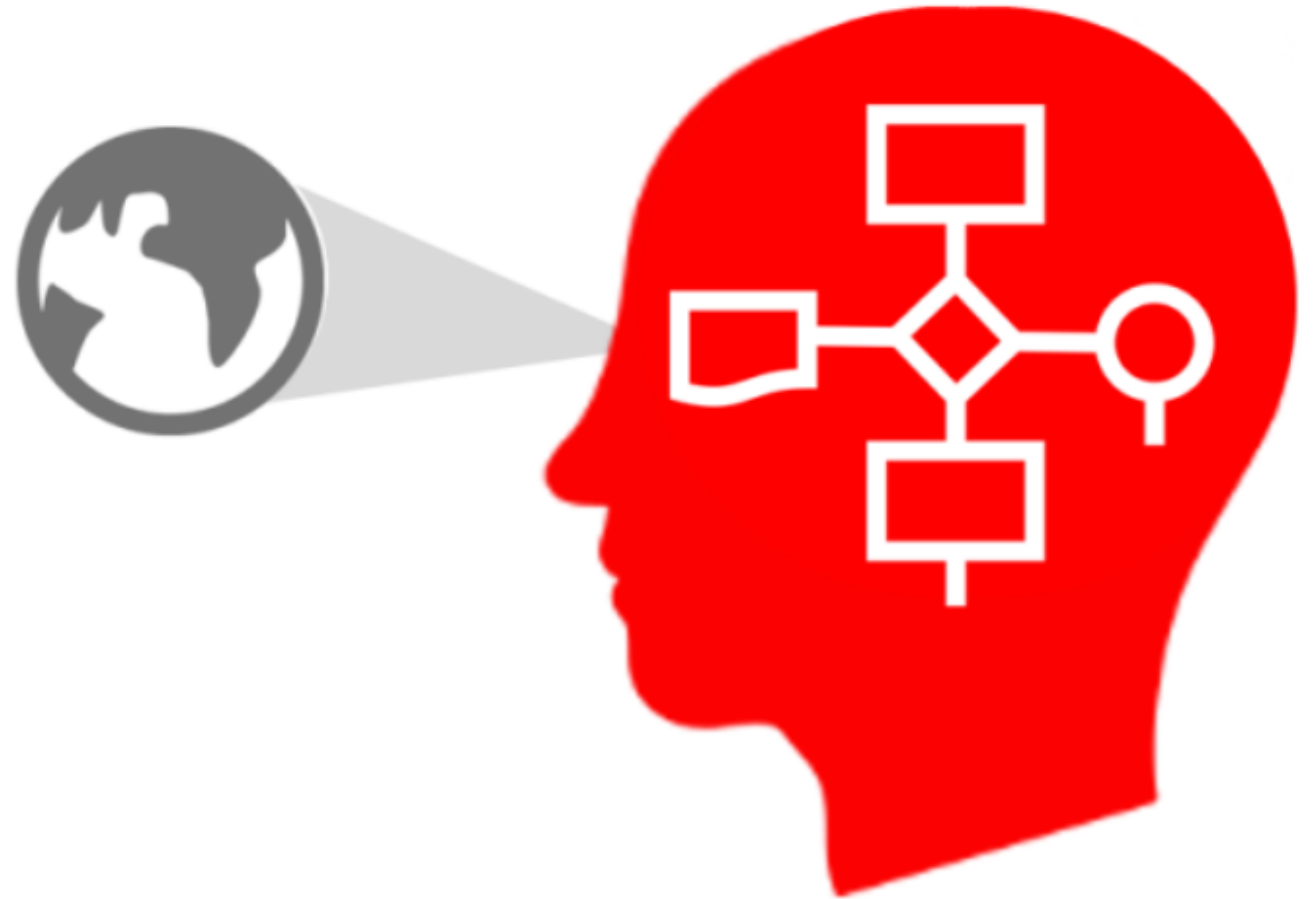
Mental Models



**A mental model is a
representation of
how the real-world
works.**

**The real world is
complicated.**

**Mental models
simplify.**



We all use mental models, even if we don't realize it.

Maps are a model.

Some models are better than others!



Vs.



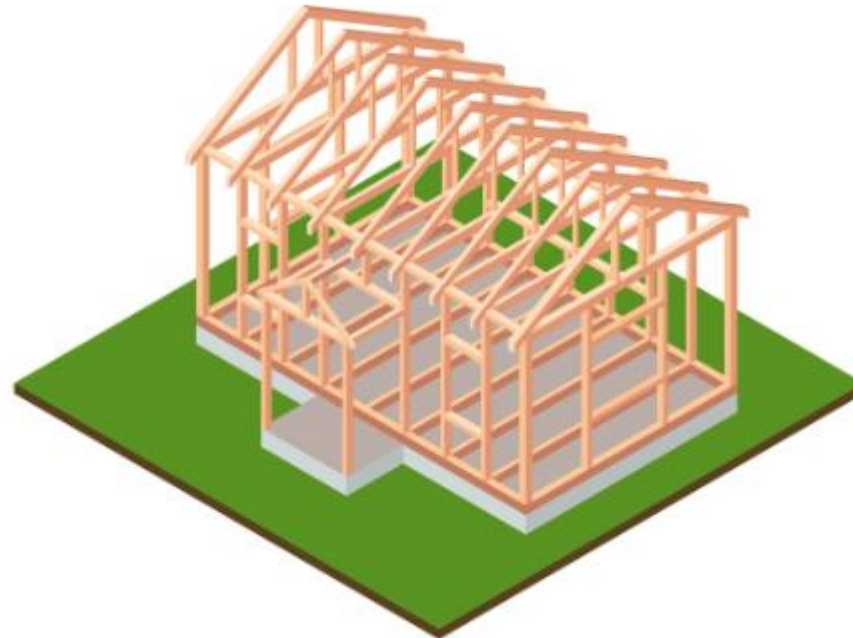
A fact



A bunch of facts



A mental
model is the
structural
frame



Some Basic Finance Mental Models

- Sunk Cost Fallacy
 - “Don’t throw good money after bad”
- Compound interest
 - “The best time to plant a tree was 20 years ago”
- Opportunity cost
 - “Time is Money”

Public Finance Mentals Models



What is the traditional mental model for reserves?

The Savings Account

- Easy to grasp
- Seemingly obvious parallel to our personal lives



The savings account mental model is limited.

- Savings is more commonly seen as deferred spending than a way to manage risk
- Implies that more is better



What's the alternative?

The Insurance Policy

- A reserve manages volatility
- Risk is a product of volatility
- Hence, reserves help manage risk

Advantages

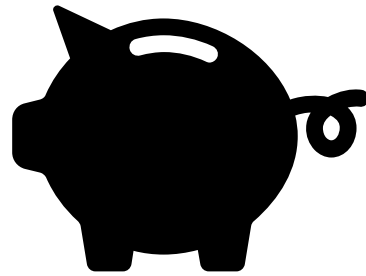
- Obvious parallel to personal lives
- Invites us to think how commercial insurance complements reserves
- Implies there is an optimal amount



**Reserves as
Insurance**



**Reserves as
Savings
Account**



**Savvy & Wise
Decisions**



Pension Debt as “Bad Debt”

QUEEN CREEK’S MENTAL MODEL IN ACTION



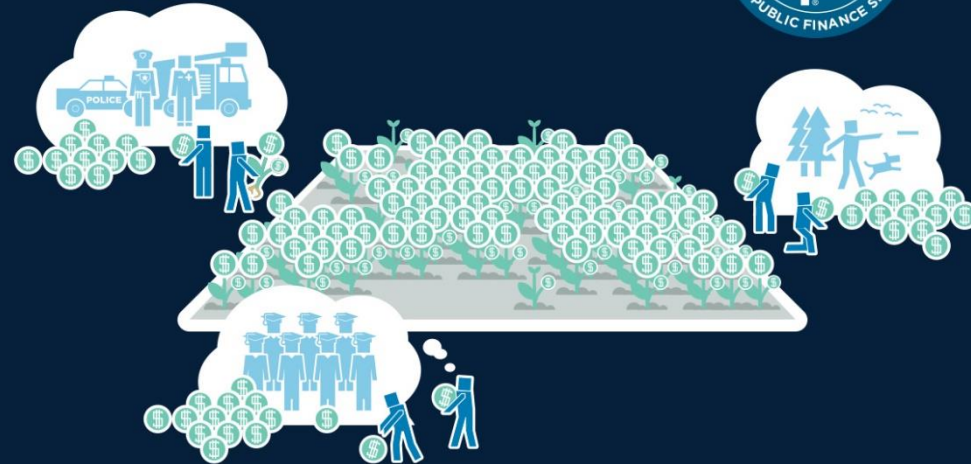
= a problem to avoid

THE TRAGEDY OF THE COMMONS* IN LOCAL GOVERNMENT BUDGETING



1 A budget is a commonly owned resource that many people wish to draw from to fund their goals...

2 ...Because of this everyone has the incentive to get as much as they can from the budget.



3 Eventually, the budget becomes over-burdened and can no longer support what is used to...

4 ...So, we need wise, collaborative budgeting, not a win-lose competition for resources.



*The Tragedy of the Commons is a name for a resource problem that occurs in many different domains. GFOA's Financial Foundations for Thriving Communities describes how to solve this problem in public finance.

Saco's Sustainable Cycle of City Government



Top Tips to Develop Your Own Mental Models

- Make things as simple as possible, but not simpler
- All models are wrong, but some are useful
 - The map is not the territory
- Lean on analogies and metaphors



Imagine you are the CFO for a local government. You need to explain to the elected governing board how to make better decisions about the government's reserve. What are some generative analogies you could use?

Top Tips to Develop Your Own Mental Models

- The power of proverbs
 - Compound Interest = The best time to plant a tree...

A Proverb for Reserves *by ChatGPT-4*

“For fiscal health and peace of mind, a reserve fund is the best insurance one can find.”

- Tell Stories
 - Simulation – Knowledge about how to Act (thought experiments)
 - Inspiration – Motivation to Act

This is a story...

Strong Infrastructure,
Safe Neighborhoods,
Great Schools, etc.



What are some areas in public finance where we most need better mental models for public officials?

Take the Mental Model Makeover Challenge!



RETHINKING BUDGETING

SIMPLIFYING COMPLEXITY

Using Mental Models to Enhance Understanding and Decision-Making in Public Finance



For more information, visit gfoa.org/rethinking-budgeting



Thank you!

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