



# PERCENT RECOVERABLE REMAINING-PPR

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## *The Metric for the Future?*



### Planning For Zero Waste VRA 2017

**Dana D'Souza**

Skumatz Economic Research Associates, Inc. (SERA)

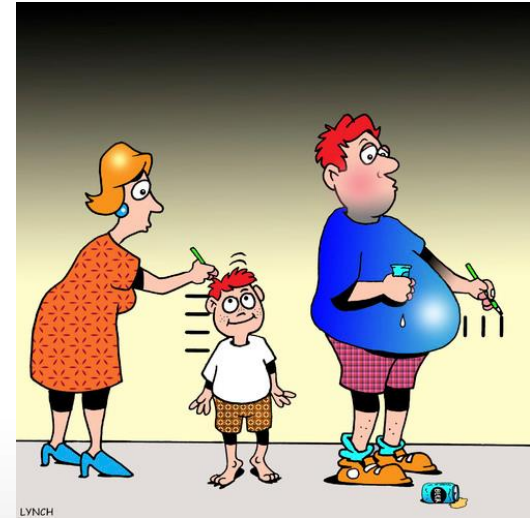
**Lisa A. Skumatz, Ph.D., Principal,**

762 Eldorado Dr. Superior, CO 80027

303/494-1178 Skumatz@serainc.com

# TOPICS

- Measurement difficulties & criteria for a good metric
- Review of existing methods –pros & cons
- Our proposal
- Case study
- Implications and Recommendations



- *What is measured, improves...*
- *Evaluate to inform decision-making & assure (public) funds being well-spent*
- *A number alone is not meaningful*

# ***THE DIFFICULTIES: REFLECTING PROGRESS → IN A WAY THAT...***

Reflects goals

- Variety – multiple metrics / confusing?-
- What is enough?

Compare over time

- Reflect changes in what you want to reflect
- Affected by economy? Material changes?

Compare to other towns

- What's included;
- Varied sophistication levels

Low Cost

- Too much or expensive data (or calcs) – so it can be replicable, timely and informative

Multiple haulers / facilities

- Data collectionn, authority
- Estimations

Supports next steps / causal

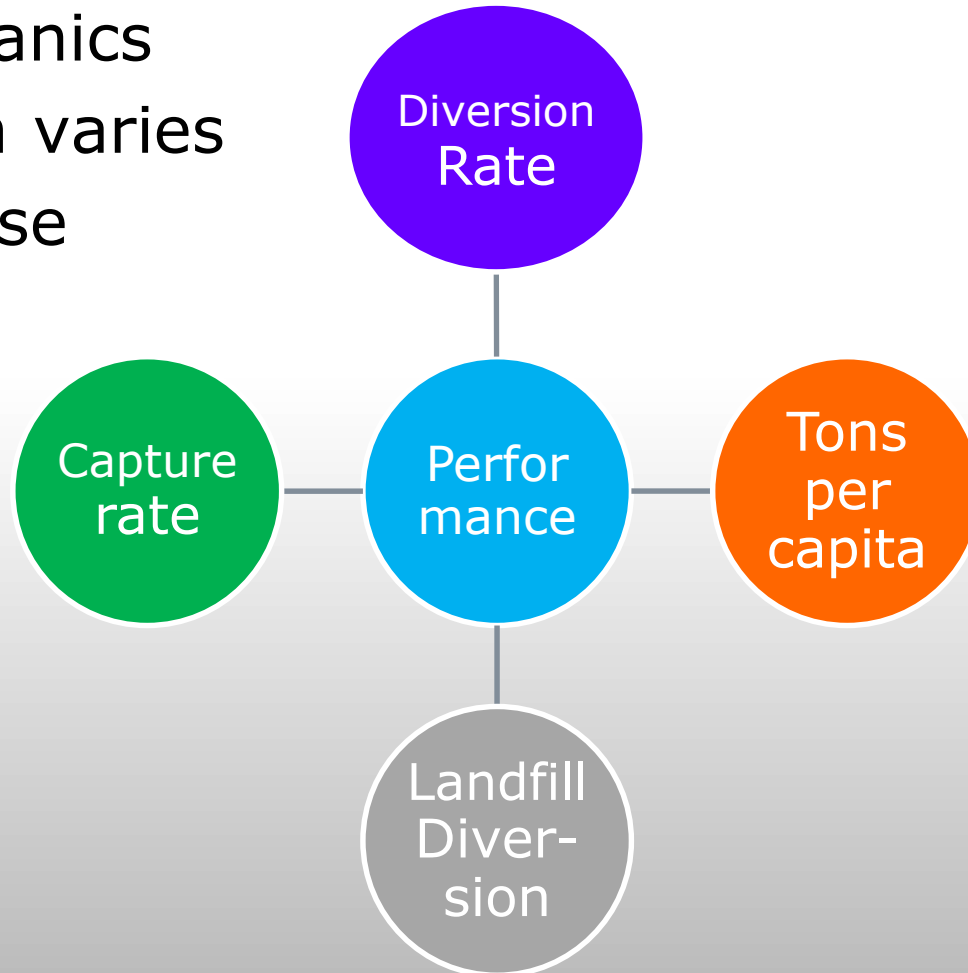
- Actionable recommendations-  
informative

Represent Criteria (others too)

# ***BASIC CLASSES OF TON-BASED PERFORMANCE METRICS AND INPUT DATA***

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- ❑ Recycling, organics
- ❑ Data collection varies
- ❑ Others of course



# ***NATIONALLY, A PROBLEM... DATA ISSUES!***

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- Fragmented haulers
  - Relatively few contracts / franchises or municipal collection services
- Private landfills / disposal sites
- Little authority (invoked); “estimates”
- Costs and authority affect data availability
- ... and that’s just even talking residential!  
Commercial even more complicated / fragmented
- → With this in mind – major pros / cons

# HIGH LEVEL STRENGTHS & WEAKNESSES

*Metrics apply to recycling & organics*

Metric	Major Pros	Major Cons	Data Needs
Diversion rate	Understandable Attrib to program(s) Traditional	No SR Varies with econ. What's included?	Multiple streams - Tons for programs & disposal***
Diversion/ capita	Simple Program attribution	No SR What's included?	Tons for programs*
Generation /cap	Good comparisons	No pgm attrib alone Varies with econ.	Tons for programs & disposal***
Landfill diversion	Addresses SR	Complex BaseYear No pgm attribution Multiple haulers & facilities Varies with econ	Tons disposed*** & tons disposed in base year***
Capture rate	Program attribution	No SR What's included? Waste comp data	Tons for programs (mat'l)* & waste comp

Source: Skumatz SERA 2014

\*Refers to relative difficulty of obtaining data in poor-tracking states; Multiple haulers, cross borders, estimations; *Some, but less, econ effect in program tons.*



# ***ACTIONABLE INFO & PROGRESS***

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- I'm a recycling manager... 30% recycling rate-Yay!
- What does 30% say about how I'm doing?
  - I'm good – I beat other cities & improved over last year
  - Have I caught all the recycling and need to go to the next stream (e.g. yard waste/food scraps)?
- Oooh, and Boulder (or Seattle, or SF) is XX%.
  - Am I worse / better? Where? Will I ever clarify what they do and don't count?
- The 30% figure doesn't provide much "next step" guidance

# WHAT CAN WORK?

- We were working on projects in several state – very different
- What is practical in very different locations? What do we always have?
- Realized, back to basics.
  - One stream we have access to
  - What is the behavior / environmental impact we want to measure?
  - Informational / actionable



- Sort the trash and ID if (target) Recoverables remain.  
Reflects Behavior; immune to economy; immune to waste stream  
Cost an issue?????
- % MAY BE HIGH, BUT... HAVE I GOTTEN WHAT I'M CURRENTLY AFTER? OR HIT NEXT STREAM?



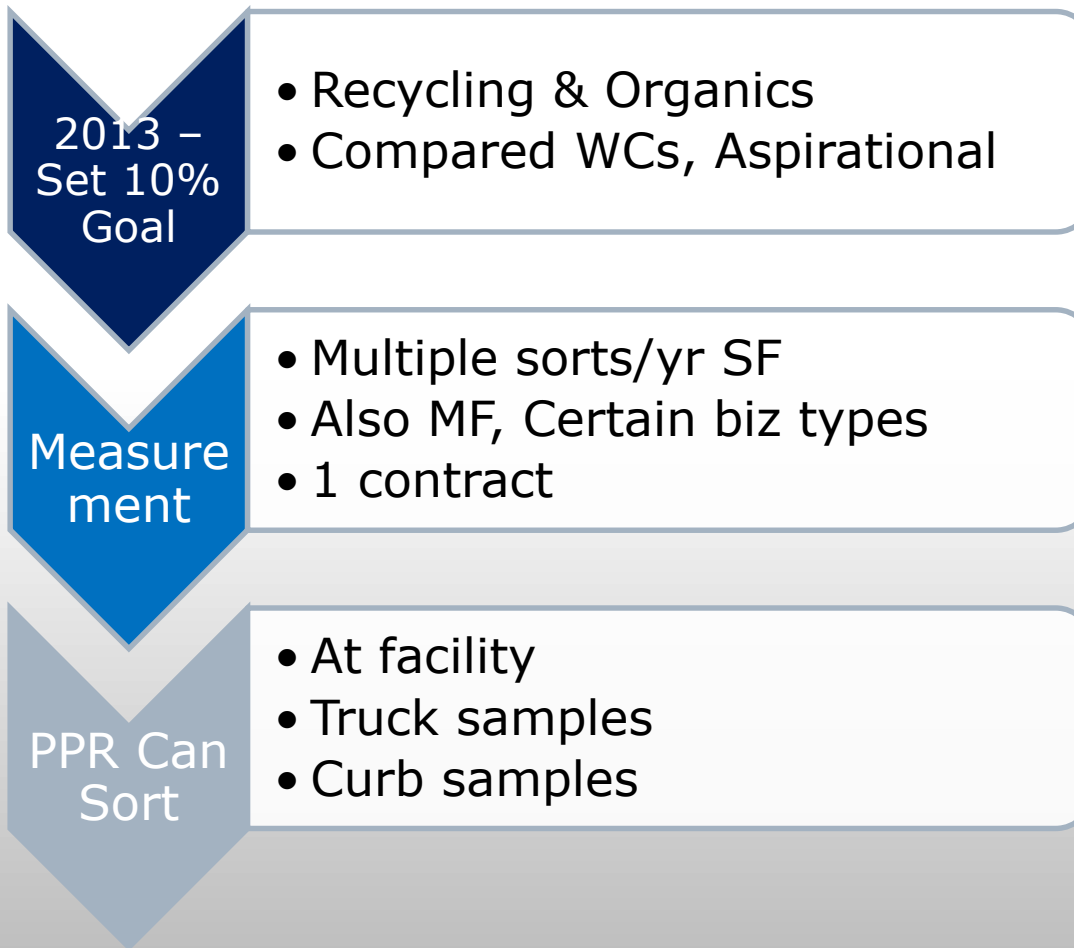
# ***CASE STUDY – California Community***

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- Motivation –
  - 5-yr audits reviewing progress for 14 cities and 2 sanitary districts
  - State measurement approach too convoluted, soft, “phantom counting”
  - Wanted something better
    - Concrete (more than ZW metrics)
    - Immune to business cycles & mat’l substitutions
    - Measure what you’re asking people to do
- Their name: % “Good Stuff Left”!

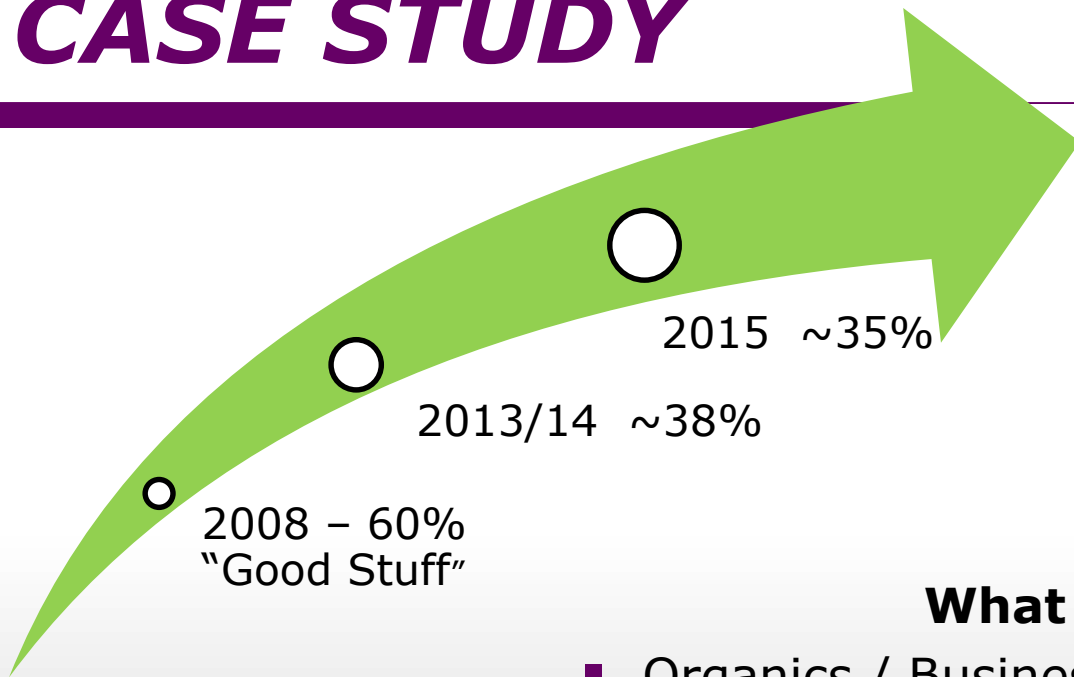
# CASE STUDY

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# CASE STUDY

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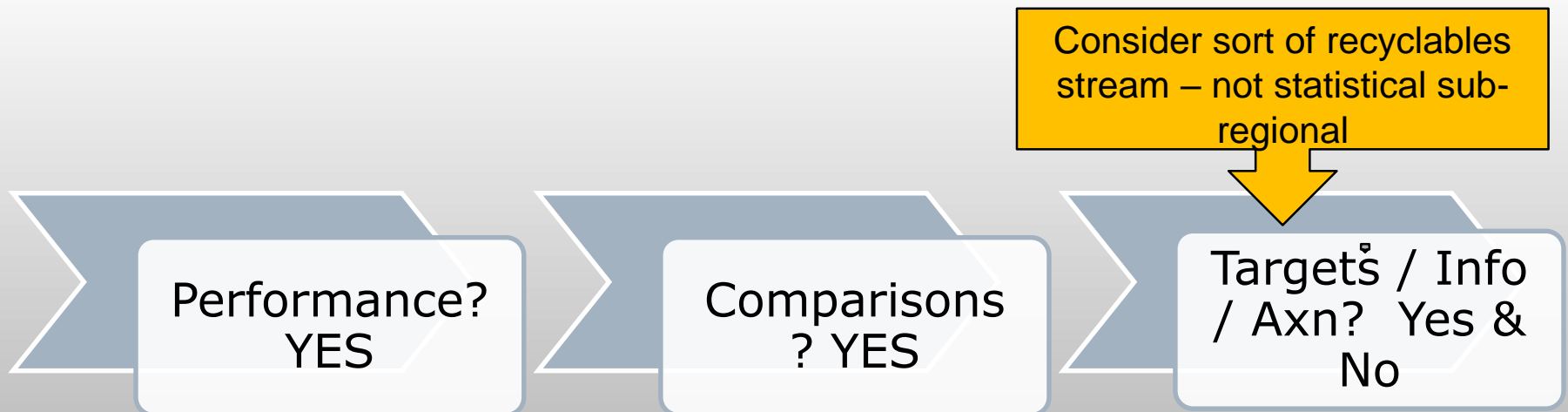
## What Did They Learn?

- Organics / Business
- SF- Compare/track cities by total & then R & O
- Also track set out weights /other metric
- Behavior improving in 3 years of data
- Not "normal" curve –
- Clusters ~25% meeting or exceeding goal, and 25% not doing anything ("barbell", not bell curve)

# CASE STUDY

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- Next Steps & recommendations:
  - Learned the **organics** was food waste, not yard waste or food-soiled paper
  - Doing full waste comp 2017 (periodically) – recycling detail but mostly self-haul, com'l, dropboxes



# NATIONALLY, A PROBLEM... DATA ISSUES!

- ❑ Who Sets Recycling Goals?
- ❑ Tonnage based concerns (lightweighting etc.)
- ❑ Successful SR messages/ buy in bulk
- ❑ Market Values
- ❑ Environmental
- ❑ Lifecycle Implications

	Upstream Production Savings – Long-haul Breakeven Distances	In trips to the Moon
Aluminum		
Plastics (LDPE & PET)		
Steel		
Paper (News, Cardboard, Office Paper)		

Excludes direct market prices  
Source: Adapted from Allaway, OR DEQ

# ***SUMMARY / CONCLUSIONS***

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- Traditional metrics ok, but **data issues (→ \$)**
- Good direction **RR**—simple, accessible data
  - Be reasonable about measurement subcategories to control cost
  - Works in areas without good **data reporting**; easy to **sectors**, etc.
  - Effective for planning / driving Zero Waste
  - Can focus on GHG, Mkt Value, Lifecycle
- Multiple metrics—OH NO? Yes.

# *Thank You! QUESTIONS?*

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Dana D'Souza

[dsouza@serainc.com](mailto:dsouza@serainc.com)

*Lisa A. Skumatz, Ph.D.*

*Skumatz Economic Research Associates (SERA)*

*303/494-1178*

[Skumatz@serainc.com](mailto:Skumatz@serainc.com)

