

WE HAVE THE WRONG GOALS:

Better Ways to Measure and Recognize Diversion Progress

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Lisa A. Skumatz, Ph.D., Principal,
Skumatz Economic Research Associates, Inc. (SERA)
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*

Been doing this since 1987 - From independent SERA work 2000, 2002, 2007, 2015, and several client projects
Assessed two dozen metrics, more than a score of data sources and calculation methods,
and conducted more than a dozen detailed interviews.

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

Reflects goals

- Variety –maybe 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 col'n, authority
- Estimations

Supports next steps / causal

- Actionable rec'm's - informative

GOALS – TO REFLECT IMPACTS

Successful diversion of recyclables & hierarchy

Successful diversion of organics & hierarchy

Source reduction

Diversion of HHW

Cost-effectiveness

Toxics reduction

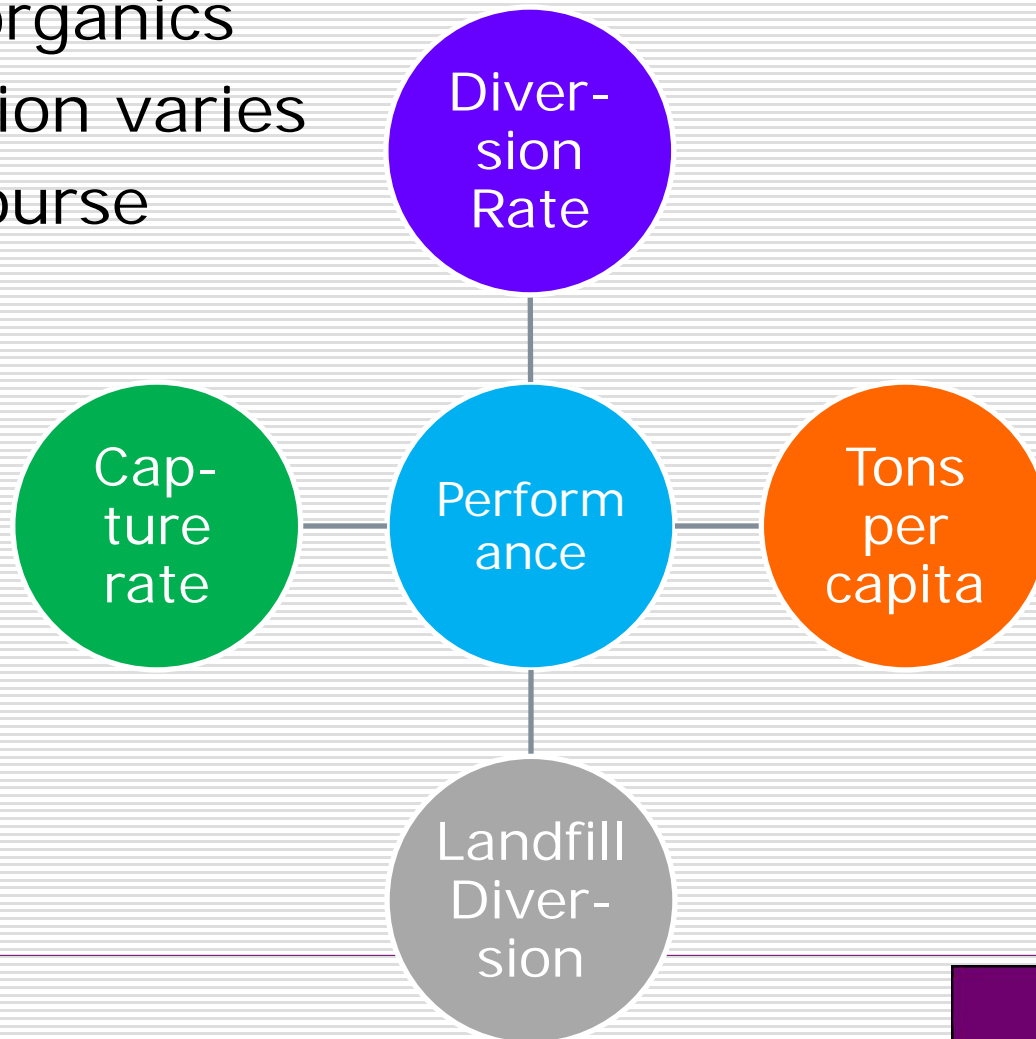
Sustainability

Triple Bottom Line (TBL)

Satisfaction, participation, set outs, indirect effects, others...

BASIC CLASSES OF TON-BASED PERFORMANCE METRICS AND INPUT DATA

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



NATIONALLY, A PROBLEM... DATA ISSUES!

- 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

* Refers to relative difficulty of obtaining data in poor-tracking states;

Multiple haulers, cross borders, estimations

Some, but less, econ effect in program tons.

Source: Skumatz SERA 2014



ACTIONABLE INFO & PROGRESS

- 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, but What should I do next?
 - Have I caught all the recycling and need to go to the next stream (e.g. yard waste/food scraps)?
 - Which recyclables remain? Have I captured max value from these collections before I start a new one!?
- 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 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?????

DIFFERENT METRIC PROPOSED – “RECOVERABLES REMAINING / RR”

Criteria

Reflects goals

- Program progress; **measures behavior(s) asked**
- Easily **sector-based** info; (info for goals).

Compare over time

- **Immune** to economics, waste stream changes;
- Changes in materials affect performance; stability

Compare to other towns

- Region with similar list; Your list elsewhere;
- Simple “standard” list? **

Low Cost

- **One stream sort**
- Don’t need 30+ categories, so affordable?

Multiple haulers / facilities

- Data col’n, **authority**
- Can-based sample

Supports next steps / causal

- **DIRECT** and powerful for guiding programs

HIGH LEVEL STRENGTHS & WEAKNESSES FOR "RR"

Metric	Major Pros	Major Cons	Data Needs
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** Refers to relative difficulty of obtaining data broadly

PLANNING FOR TRACKING "RECOVERABLES REMAINING"



CASE STUDY –

- Motivation – 5-yr audits to 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:

CASE STUDY

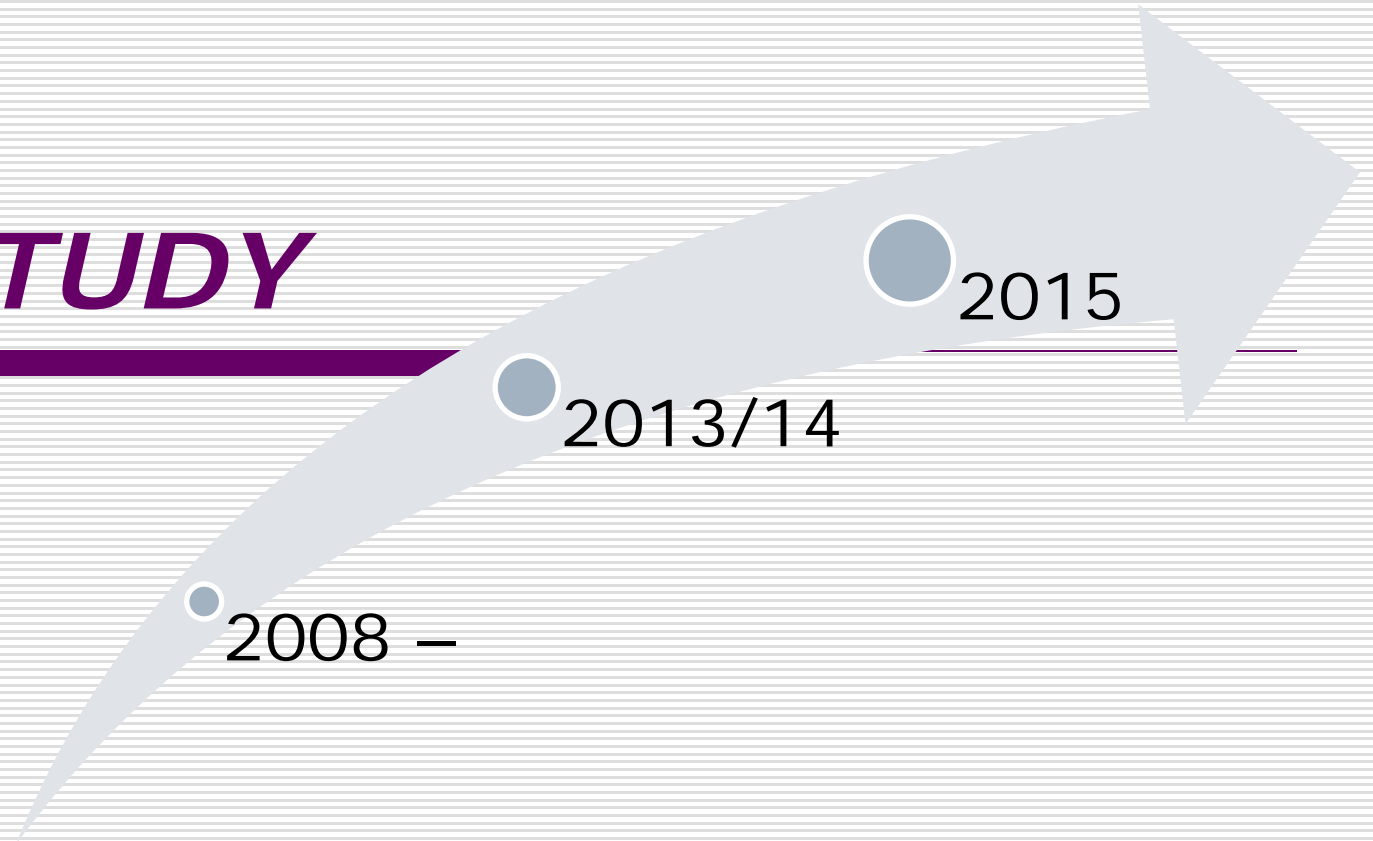
2013 – Set
10% Goal

- Recy & Orgs
- Compared WCs,
Aspirational

Measurement

- Multiple sorts/yr SF
- Also MFCertain biz types
- 1 contract

CASE STUDY



- Single Family - 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 of ~25% meeting or exceeding goal, and 25% not doing anything (“barbell”, bell₁₅ curve)

CASE

- 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

Consider sort of recyclables stream – not statistical sub-regional

Performance?
YES

Comparisons
? YES

Targets / Info
/ Axn? Yes &
No

SUMMARY / CONCLUSIONS

- 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.
 - Case study example; their better name (☺)
 - BUT we recommend maybe 1 **more sort** than the case study (recy, high level) for program **guidance & Action**)
- Multiple metrics—OH NO? Yes.
- One core metric, but
 - Don't forget other easily-obtained data that inform your programs and c/e

QUESTIONS?

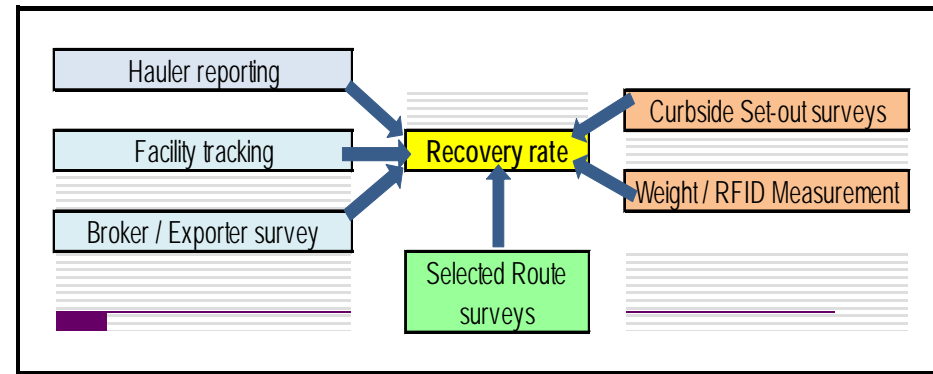
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*Skumatz Economic Research Associates
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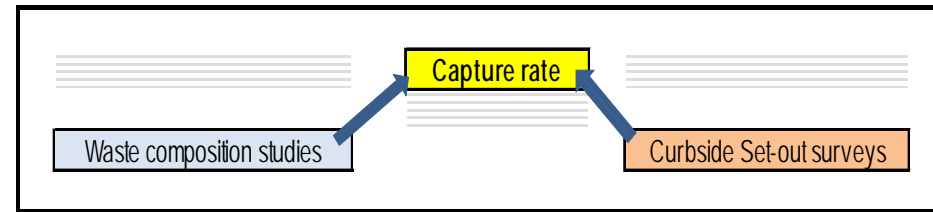
303/494-1178

Skumatz@serainc.com

Benchmark 1



Benchmark 2



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Curbside 'Set out' survey / RFID (possibly routes*)	✓	✓	✓	✓	✓	✓	✓	✓
% 'Good Stuff' waste composition study	✓	✓	✓	✓	✓	✓	✓	✓
Recycling tonnage tracking (status quo)	✓	✓	✓	✓	✓	✓	✓	✓
Full waste and recycling composition study	✓				✓			
Web / Phone Survey	✓		✓		✓		✓	