Deemed Measure Costs and Savings Methodologies

CALIFORNIA
TECHNICAL FORUM

AYAD AL-SHAIKH
DEC 19TH – CAL TF MEETING

Agenda

- Overview of "Deemed Measure Cost Methodology" memo
- Overview of "Deemed Measure Savings Methodology" memo

- Small-Group Break Outs
  - ❑ 2 sessions (30 minutes each)
    - ✕ Group 1: Cost (or) Group 2: CET
    - ✕ Group 1: Savings (or) Group 2: GHG
  - ❑ Phone will be included in the Cost/Savings groups because screen will be shared.

Cost Memo Overview

- Objective:
  - Review cost estimation methodologies across measures
  - Develop a recommended framework for documenting cost

- Data:
  - Reviewed over 100 active statewide deemed measures
  - Documented for four sets of value for each measure:
    1. Base Material Cost
    2. Base Labor Cost
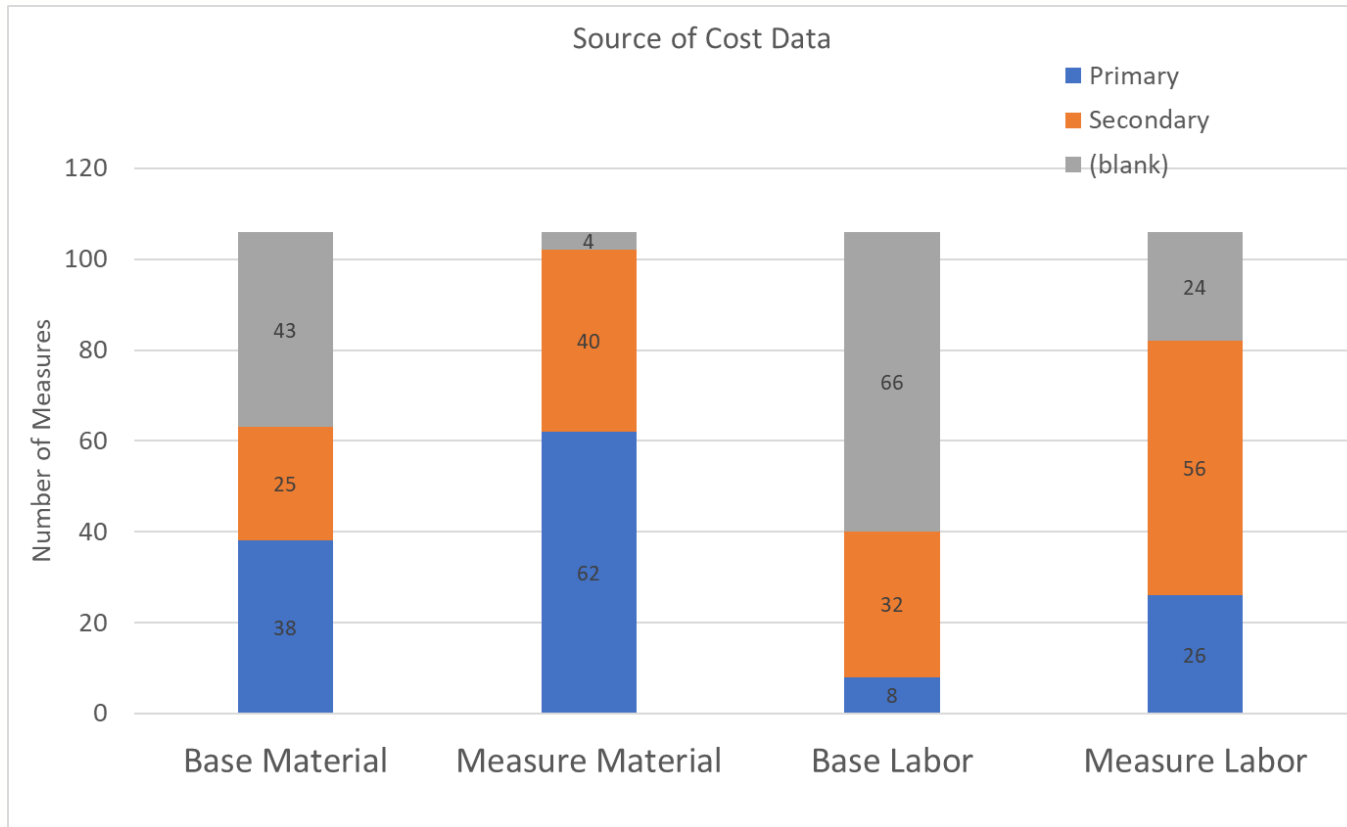   3. Measure Material Cost
    4. Measure Labor Cost

Cost Memo Overview

- Data collected:
  - ❑ Savings per measure
  - ❑ Categorized source of data
    - ✕ Includes a detailed description of source
    - ✕ Primary/Secondary
    - ✕ Who collected the data
  - ❑ Methodology for combining the data
    - ✕ Was the data scaled to current dollars
  - ❑ Age of the data
  - ❑ Metrics of data
    - ✕ Number of data points (*not always completed*)
    - ✕ Average and standard deviation (*not always completed*)
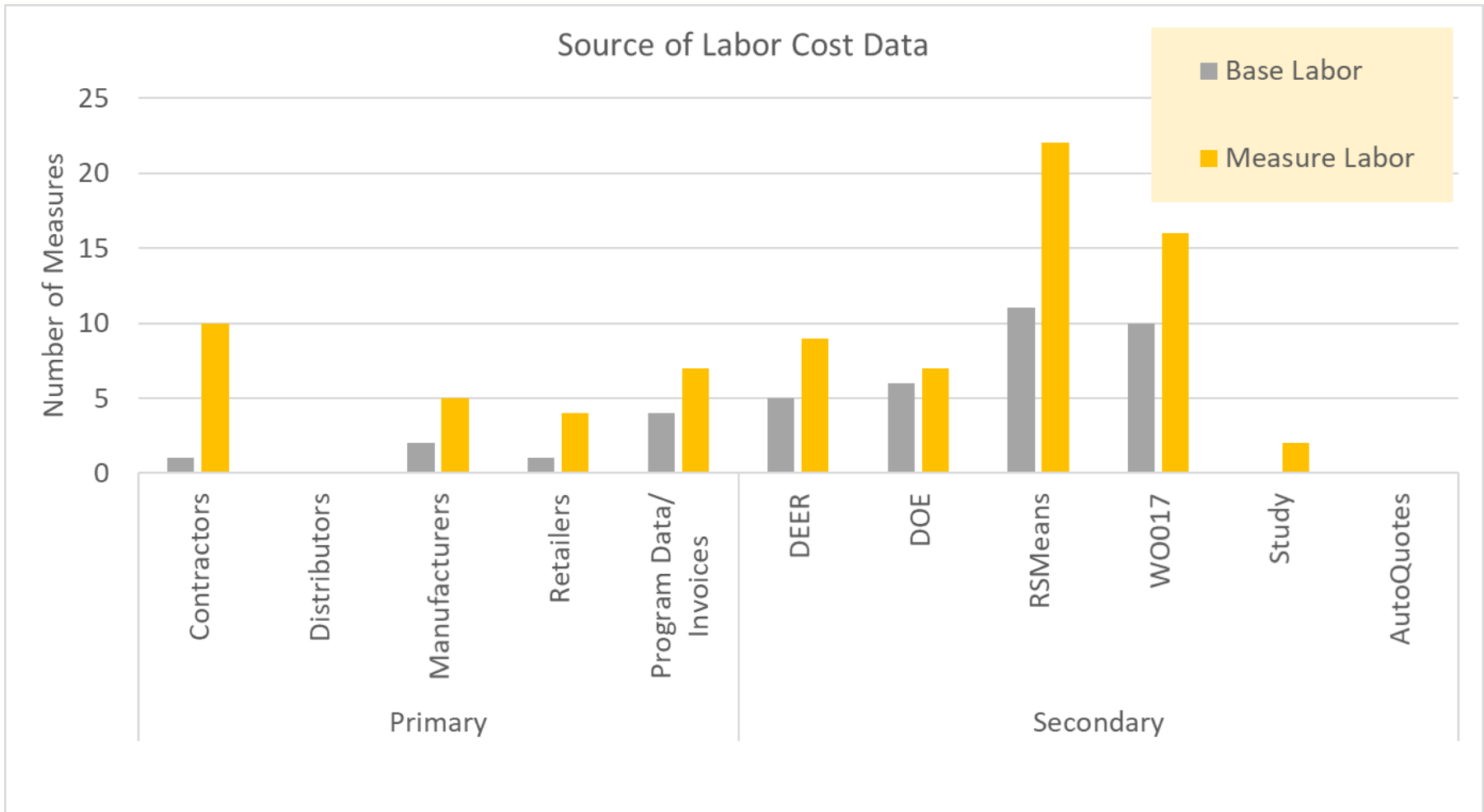
Cost Memo Data: Primary / Secondary

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Source of Cost Data

- Primary
- Secondary
- (blank)

	Primary	Secondary	(blank)
Base Material	38	25	43
Measure Material	62	40	4
Base Labor	8	32	66
Measure Labor	26	56	24

- **Primary**
  - ❑ Contractors
  - ❑ Distributors
  - ❑ Manufacturers
  - ❑ Retailers
  - ❑ Program Data / Invoices
- **Secondary**
  - ❑ DOE
  - ❑ DEER
  - ❑ RS Means
  - ❑ Study
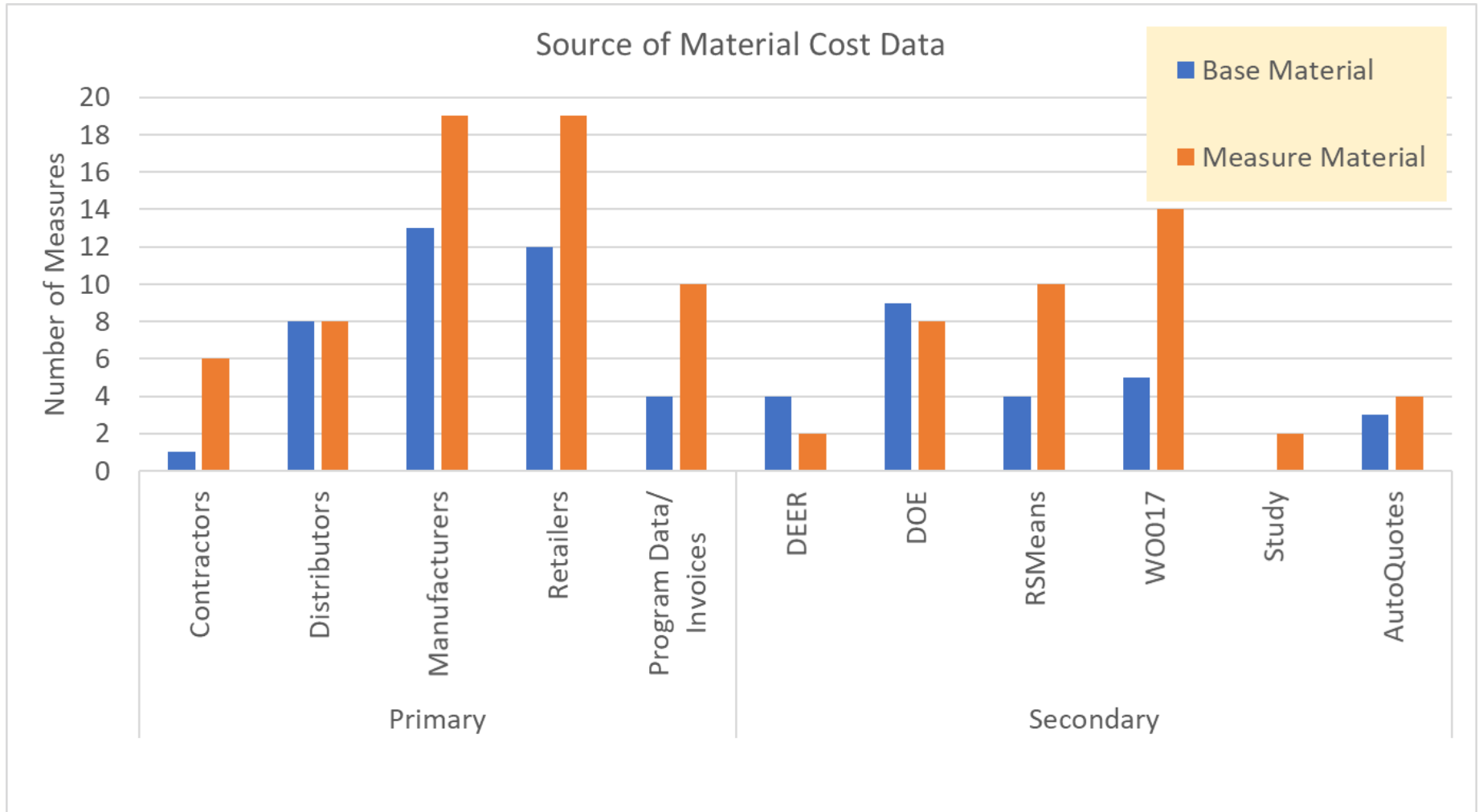 - ❑ AutoQuotes
  - ❑ WO017
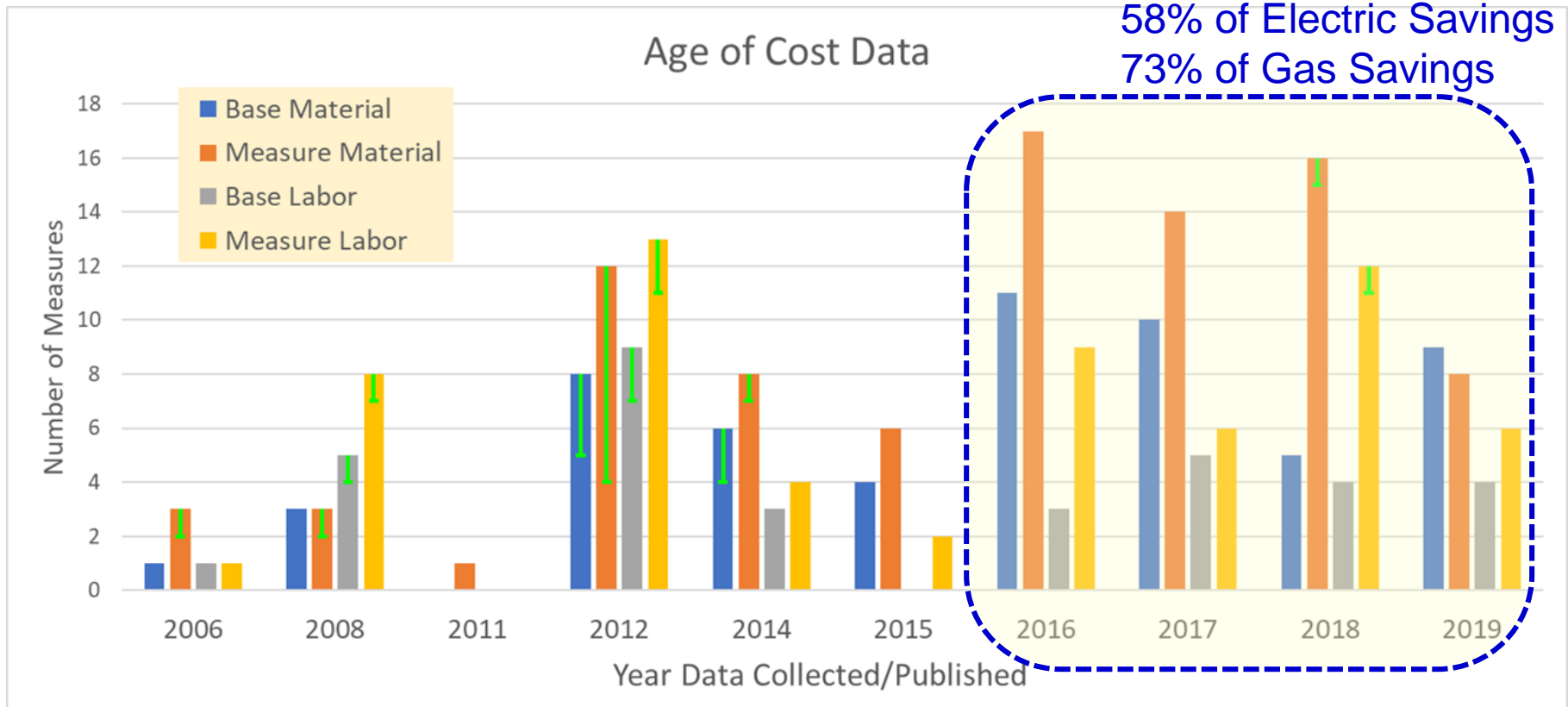 - ❑ Webscraping / Web Harvesting

Cost Memo Data: Source of Material Cost

Source of Material Cost Data

Cost Memo Data: Age

58% of Electric Savings
73% of Gas Savings

Note: Savings values based upon 2018 CEDARS deemed claims data.

Savings Memo Overview

- Objective:
  - ❑ Review savings estimation methodologies across measures
  - ❑ Develop a recommended framework for developing deemed savings value

- Data:
  - ❑ Reviewed over 120 active statewide deemed measures
  - ❑ Calculation methodology recorded

Savings Memo Data: Category / Number

| | Modeled → | | | | | | ← Calculated |
	DEER Modeled	DEER Scaled	IOU Modeled	Mixed: DEER and Calc	ET Result / Study / Tool Result	Complex Excel	Fully Calculated
HVAC	7	2	11		1	1	1
Building Envelope	4						
Service	2	6	2				
Appliance or Plug Load		2		3	3		3
Whole Building			1				
Water Heating			3		1	8	11
Refrigeration			10			4	2
Process					1	1	4
Compressed Air					1		
Recreation					1	1	1
Food Service					3		15
Lighting							3
Water Pumping							3

12/18/2019