Data-Driven Legislation Implementation Using the Performance Measurement System

Meghan E. Peel, Ph.D.
Policy Research and Data Analyst
July 13, 2023

TDLR
TEXAS DEPARTMENT OF LICENSING & REGULATION

About Me

UMass
Boston

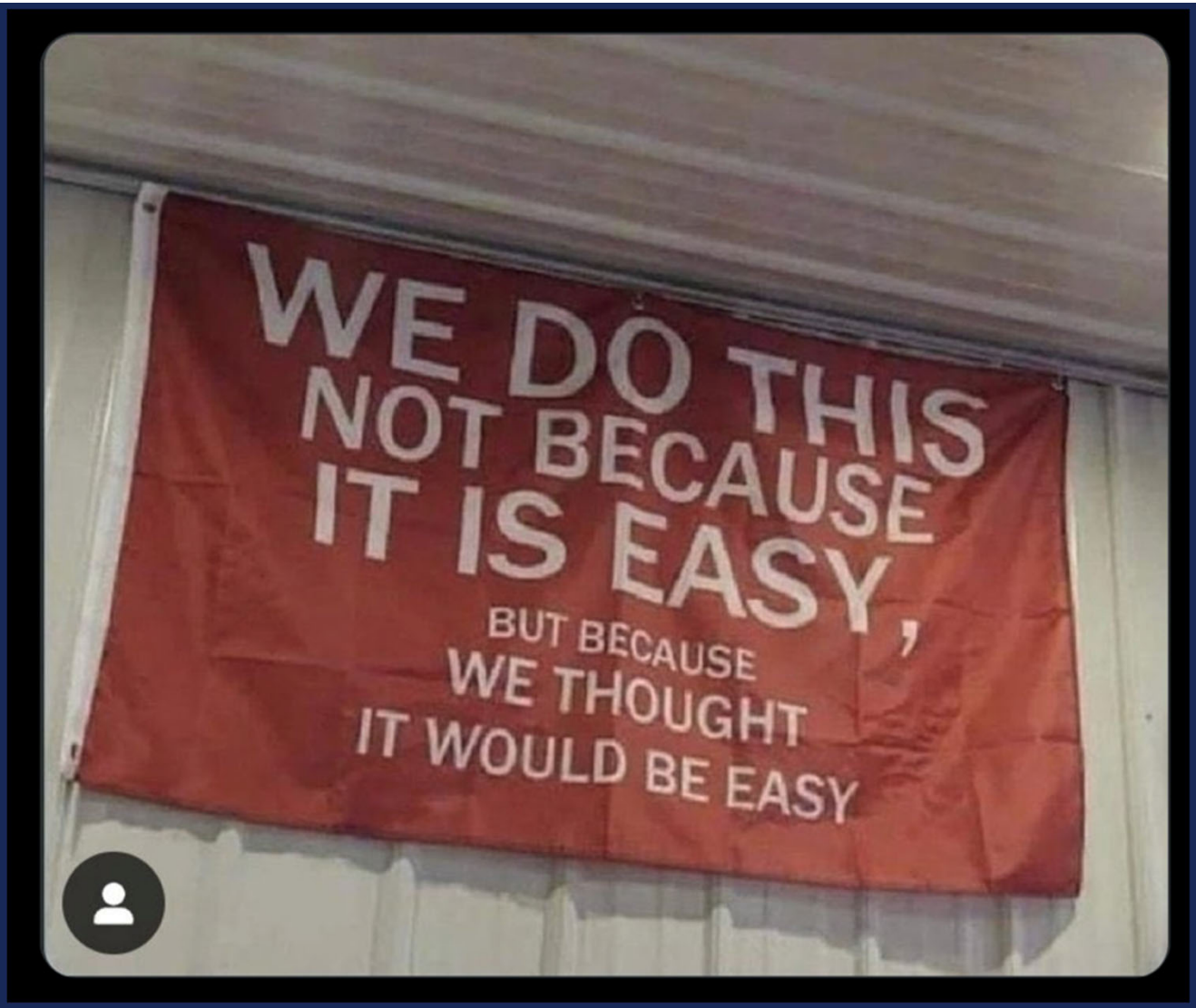
SIG. UNIV. LIB. REF. AMST.
AUXILIUM NOSTRUM IN NOMINE D

CDMP
Certified Data
Management
Professional
ASSOCIATE

TEXAS STATE UNIVERSITY
1899

NORTHEASTERN UNIVERSITY
LVX
VERITAS
VIRTVS
FOUNDED
BOSTON, MASSACHUSETTS

CERTIFIED
Tableau Desktop
Specialist


WE DO THIS
NOT BECAUSE
IT IS EASY,
BUT BECAUSE
WE THOUGHT
IT WOULD BE EASY

Performance-Based Budgeting

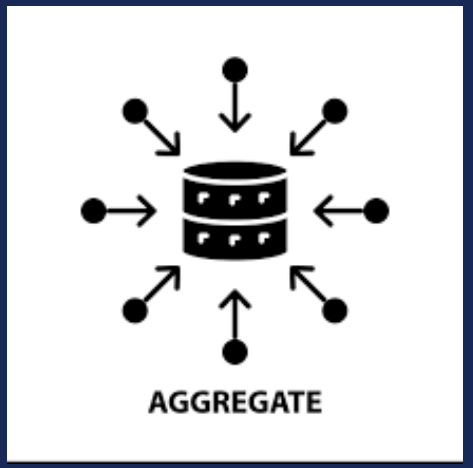
Starts and ends with the agency's Performance Measurement System

- Performance measures are a high-level view of what happens in an agency
- Two groups of measures:
  - ➢ Workload
  - ➢ Output

TEXAS DEPARTMENT OF LICENSING & REGULATION

Performance-Based Budgeting Challenges

- Aggregation Challenges
- Lack of Understanding
- Reactive vs. Proactive Use



TEXAS DEPARTMENT OF LICENSING & REGULATION

Characteristics of a Good Performance Measurement System

- Results Oriented
- Selective
- Useful
- Accessible
- Reliable

TEXAS DEPARTMENT OF LICENSING & REGULATION

Goals of Performance Measurement Administration

- ✓ End-user oriented
- ✓ Need to be measures/goals NOT threats
- ✓ Integrate into decision making at all levels
- ✓ Culture shift
- ✓ Develop traps and controls (Quality First!)
- ✓ Revisit often

TEXAS DEPARTMENT OF LICENSING & REGULATION

Disaggregating Your Performance Measures

Why disaggregate?

- Accountability
- Identify challenges
- Identify errors masked by aggregation
- Understand workload
- Acquire a better understanding of workload and productivity before and after implementing new policies/programs

TEXAS DEPARTMENT OF LICENSING & REGULATION

Disaggregating Your Performance Measures Increases Accountability

- ✓Accountability for/to Management
- ✓Accountability for/to Employees
- ✓Accountability to the Legislature
- ✓Accountability to Constituents

TEXAS DEPARTMENT OF LICENSING & REGULATION

Disaggregating Your Performance Measures Helps Identify Challenges

- Can see data trends that indicate a problem is coming (and where it is coming from) or that a problem already exists
- Early Warning Systems (EWS)
- Data Reconciliation – can see data anomalies that could indicate data errors/problems

TEXAS DEPARTMENT OF LICENSING & REGULATION

Disaggregating Your Performance Measures Helps Identify Data Errors

- Involving program staff in discussions
  - Importance of subject matter experts
  - Data require context
- Reconciliation reports
- Viewing trends in different ways
  - Anomaly detection/ Outlier detection

Disaggregating Your Performance Measures Helps Forecast Workload

- Involving program staff to understand what the numbers mean
  - Analysts should not work in isolation
- Viewing trends
- Using trends and patterns to forecast future needs
- Seasonality
  - Performance targets assume equal load across quarters but workload comes in seasons for most agencies
  - Ability to anticipate spikes and valleys

TEXAS DEPARTMENT OF LICENSING & REGULATION

Disaggregating Your Performance Measures Improves Policy Implementation

- Establishing baselines for performance
- Inputs/Outputs (changes in performance)
- Did you move the needle?
- Identifying data gaps
- Involve your data analysts early in the process (hard to reverse engineer data once systems are designed)

TDLR
TEXAS DEPARTMENT OF LICENSING & REGULATION

Disaggregating Your Performance Measures

Ways to disaggregate:

- By Division (for performance measures that cross functional areas)
- By Program
- By Region
- By Individual Employees
- By time period (year, quarter, month, week, day)
- See patterns over the day and week

TEXAS DEPARTMENT OF LICENSING & REGULATION

Using Performance Measures in LAR/Cost Estimates

- Baseline data
- Can look at workload per employee for different types of work
- Can see areas where agency is struggling
- Sometimes the Lege needs to “see the pain”

TEXAS DEPARTMENT OF LICENSING & REGULATION

The TDLR Example

HB 1560 (87R)

Risk-Based Inspections Implementation

TEXAS DEPARTMENT OF LICENSING & REGULATION

Risk-Based Inspections Implementation

- Two performance measures involved:
  - Total Number of Inspections Completed
  - Inspection Coverage Rate
- Cross two divisions:
  - Field Inspections Division
  - Regulatory Program Management Division
- Aggregated measures across multiple programs

TEXAS DEPARTMENT OF LICENSING & REGULATION

The eInspections Project

- Standardization of data:
  - Improved Analytics
  - Design with the data in mind
- Digitize, standardize, and improve the efficiency of inspections
- Improve data reliability and validity
- Assist in implementation of risk-based inspections

TDLR
TEXAS DEPARTMENT OF LICENSING & REGULATION

Field Inspections Example

Ways to disaggregate:

- By Division (for performance measures that cross functional areas)
- By Program
- By Region
- By Individual Employees
- By time period (year, quarter, month, week, day)

TEXAS DEPARTMENT OF LICENSING & REGULATION

TDLR TEXAS DEPARTMENT OF **LICENSING & REGULATION**

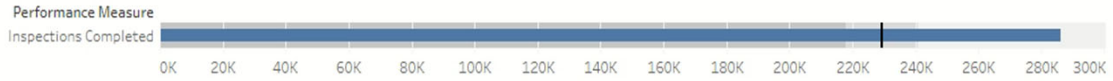
Performance Measure Management System

1. Choose a Fiscal Year: 2022
2. Choose Division(s) Responsible: Field Inspections, Regulatory Program M...
3. Select a Performance Measure: Inspections Completed

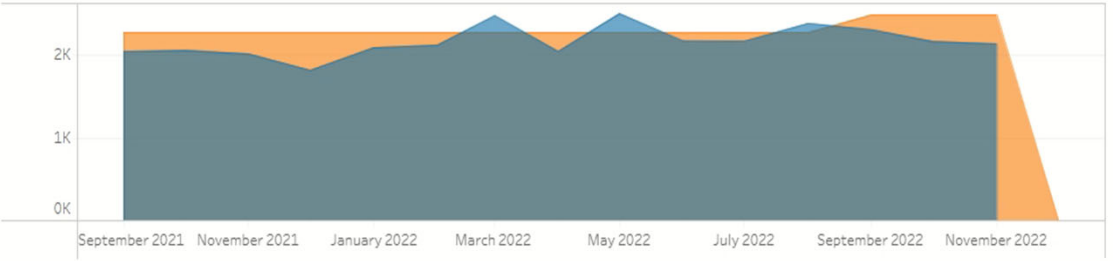
Click here to view Director's Dashboards

The Performance Measure Management System is used to track agency performance in accordance with the SAO Performance Measure Guidelines. This dashboard provides an overview of all agency performance measures. This Dashboard provides the performance measures as they are reported to the Legislative Budget Board. Director-level dashboards allow Directors to work with their managers/supervisors to take a deep dive into their performance measures and utilize them to monitor day-to-day operations. The director dashboards break these performance measures down by specific division, program, and license type (where appropriate and available).

Performance Measure Attainment

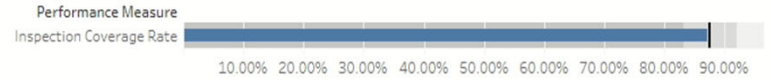


Performance Measure Status by Month



Cumulative Measures

Cumulative Measures (such as the Inspection Coverage Rate) are only reported once at the conclusion of each fiscal year. They are tracked separately to the right.



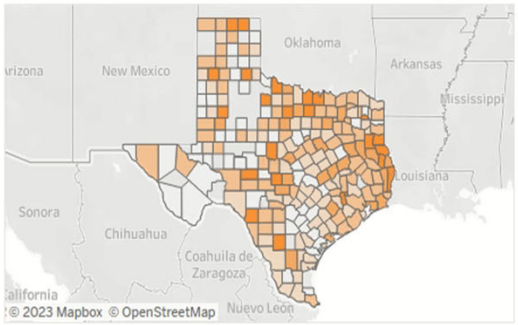
Last Updated December 12, 2022.

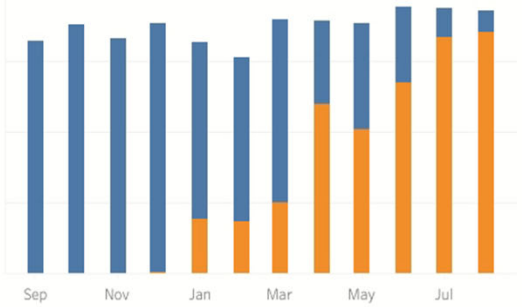
Field Inspections Work Planning

Total Inspections Due This Fiscal Year	Incomplete Inspections Due This Fiscal Year	Overdue Inspections at Start of Month
20,975	9,484	5,900
Inspections Completed Previous Month	**Inspections Completed Current Month to Date**	**YTD Inspections Completed**
1,748	173	11,601

Select a Region: (All)

Select a Bar Chart: Incomplete vs Due





Detailed List

License ID	License Nu..	Licensee/B..	Address 1	Address 2	City	County	Due Date	Owner	Inspection ..	License Sta..	License Exp..
664	000140	CENTRAL T..	2112 E VILL..	Null	BRYAN	OUT OF STA..	5/31/2024	CamTu Tran	Inspection I..	Current	3/31/2025
686	101169	ADVANCED ..	1900 SOUT..	SUITE E	AMARILLO	Potter	8/31/2024	Lance Carol..	Inspection I..	Expired	8/31/2021
687	101196	ADVANCED ..	5211 79TH. ..	Null	LUBBOCK	Lubbock	8/31/2024	Michael Ha..	Inspection ..	Expired	2/28/2022
868	101005	UTHSCSA-R..	7703 FLOY..	Null	SAN ANTO..	Bexar	11/30/2022	James McE..	Inspection ..	Current	5/31/2024

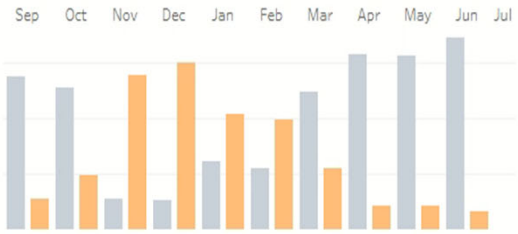
Owner: Meg Peel
Update Frequency: Weekly (Sunday)
Data Sources: eInspections, TULIP, Versa

Data Corrections Needed - Field Inspections

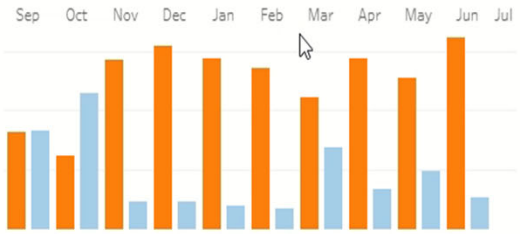
Select Region: (All)

Select Owner (All)

Comparison of Inspections with Corrections Needed and Data Correct Across Systems by Due Date



Comparison of Inspections with Different Month/Year and Same Month/Year Across Systems by Due Date



Select Error Type

- ○ Different Month/Year
- ◉ Same Month/Year

Detailed Corrections Needed List

Inspection ID	License ID	License Nu..	Data Corrections N..	Date of Inspection	Last Inspection Date Syst..	Region (Lic..
POI-00001049-20220810	11874248	ME4384	Corrections Needed	8/10/2022 10:09:00 AM	8/24/2022 12:00:00 AM	South
POI-00001083-20220817	11665381	ME3116	Corrections Needed	8/17/2022 5:58:00 PM	8/18/2022 12:00:00 AM	East
POI-00001165-20220908	70642796	227706	Corrections Needed	9/8/2022 12:34:00 PM	9/22/2022 12:00:00 AM	North
POI-00001661-20220928	70677968	788363	Corrections Needed	9/28/2022 4:41:00 PM	9/27/2022 12:00:00 AM	Central
POI-00002051-20221013	70618840	777357	Corrections Needed	10/13/2022 1:19:00 PM	10/20/2022 12:00:00 AM	Central

Owner: Meg Peel
Update Frequency: Weekly (Sundays)
Data Source: eInspections, TULIP, Versa

Using Your Performance Measurement System to Create Return on Investment

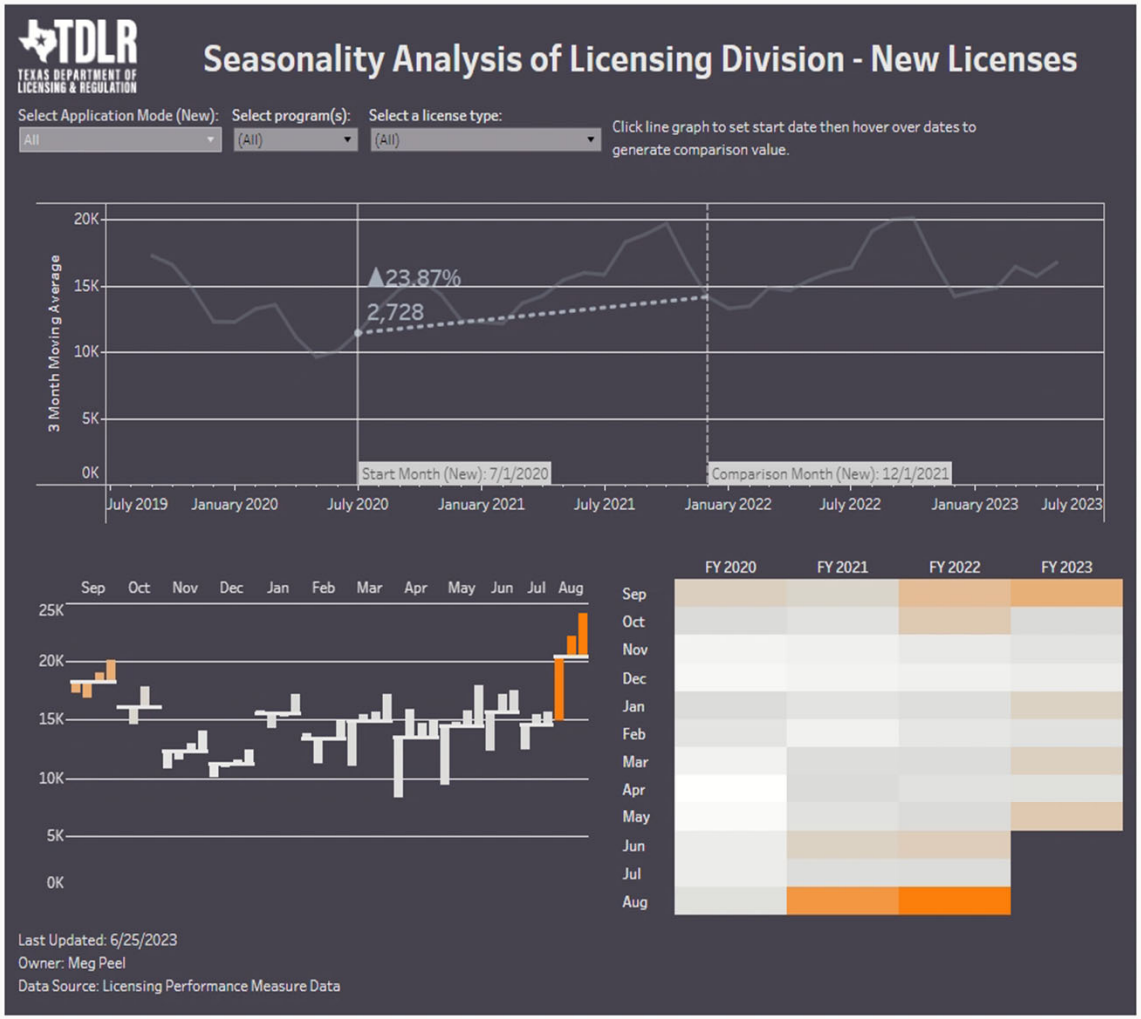
Number of Inspections	Forecast Paper POI Cost	Forecast Electronic POI Cost	Difference
26,510	$230,106.80	$82,711.20	$147,395.60

Month	Number of Inspections	Cost if All Paper POI	Cost if All Electronic POI	Difference
Sept – 21	1,661	$14,417.48	$5,182.32	$9,235.16
Oct – 21	1,626	$14,113.68	$5,073.12	$9,040.56
Nov – 21	1,572	$13,644.96	$4,904.64	$8,740.32
Dec – 21	1,185	$10,285.80	$3,697.20	$6,588.60
Jan – 22	1,718	$14,912.24	$5,360.16	$9,552.08
Feb – 22	1,380	$11,978.40	$4,305.60	$7,672.80
Mar – 22	2,902	$25,189.36	$9,054.24	$16,135.12
Apr – 22	3,736	$32,428.48	$11,656.32	$20,772.16
May – 22	4,280	$37,150.40	$13,353.60	$23,796.80
Jun – 22	2,719	$23,600.92	$8,483.28	$15,117.64
Jul – 22	1,785	$15,493.80	$5,569.20	$9,924.60
Aug – 22	1,946	$16,891.28	$6,071.52	$10,819.76
Average Per Month	2,209	$19,174.12	$6,892.08	$12,282.04

The TDLR Example

Seasonality Analysis

TEXAS DEPARTMENT OF LICENSING & REGULATION

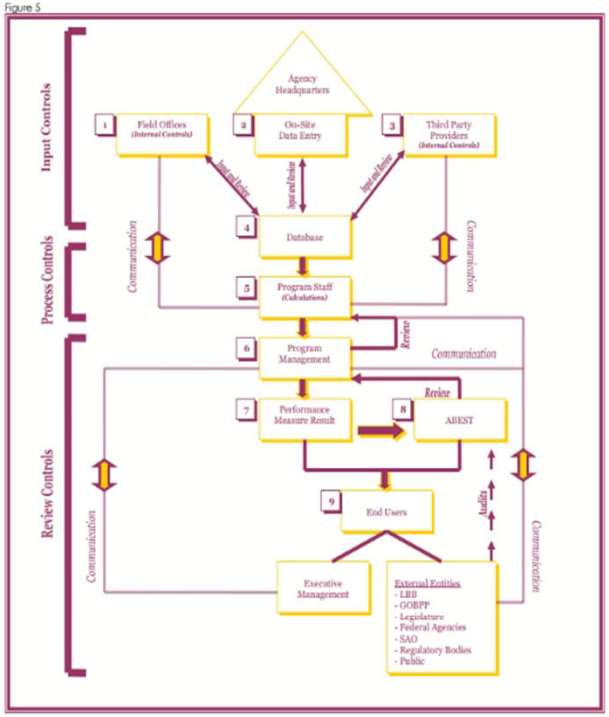

TDLR
TEXAS DEPARTMENT OF LICENSING & REGULATION
Seasonality Analysis of Licensing Division - New Licenses
Select Application Mode (New):
All
Select program(s):
(All)
Select a license type:
(All)
Click line graph to set start date then hover over dates to generate comparison value.
3 Month Moving Average
20K
15K
10K
5K
0K
▲23.87%
2,728
Start Month (New): 7/1/2020
Comparison Month (New): 12/1/2021
July 2019
January 2020
July 2020
January 2021
July 2021
January 2022
July 2022
January 2023
July 2023
Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug
25K
20K
15K
10K
5K
0K
FY 2020 FY 2021 FY 2022 FY 2023
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Last Updated: 6/25/2023
Owner: Meg Peel
Data Source: Licensing Performance Measure Data

Returning to the Aggregate

TDLR Performance Measure Reporting Status System

Background of Performance Measurement System

Figure 5



SOURCE: Model of a Performance Measurement System with an Example Control Structure (from SAO 212-333)

Customer Service PMs (2)

Education and Examination PMs (1)

Enforcement PMs (6)

Licensing % PMs (5)

Licensing Volume PMs (4)

RPM PMs (2)

RPM and FI PMs (2)

SAO Audit Information

Questions?

Meghan E. Peel, Ph.D.
(meg.peel@tdlr.Texas.gov)