



# **Arkansas Highway Commission Review and Advisory Subcommittee Meeting**

Current State Assessment  
Presentation

May 14<sup>th</sup>, 2020



# Agenda

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# Executive Summary

# Background

The Highway Commission Review and Advisory Subcommittee (HCRAS) selected Guidehouse to conduct a study of the Arkansas Department of Transportation (ArDOT) to support the Subcommittee in preparing its own report later this year. Guidehouse submitted a Current State Assessment Report on March 13, 2020.

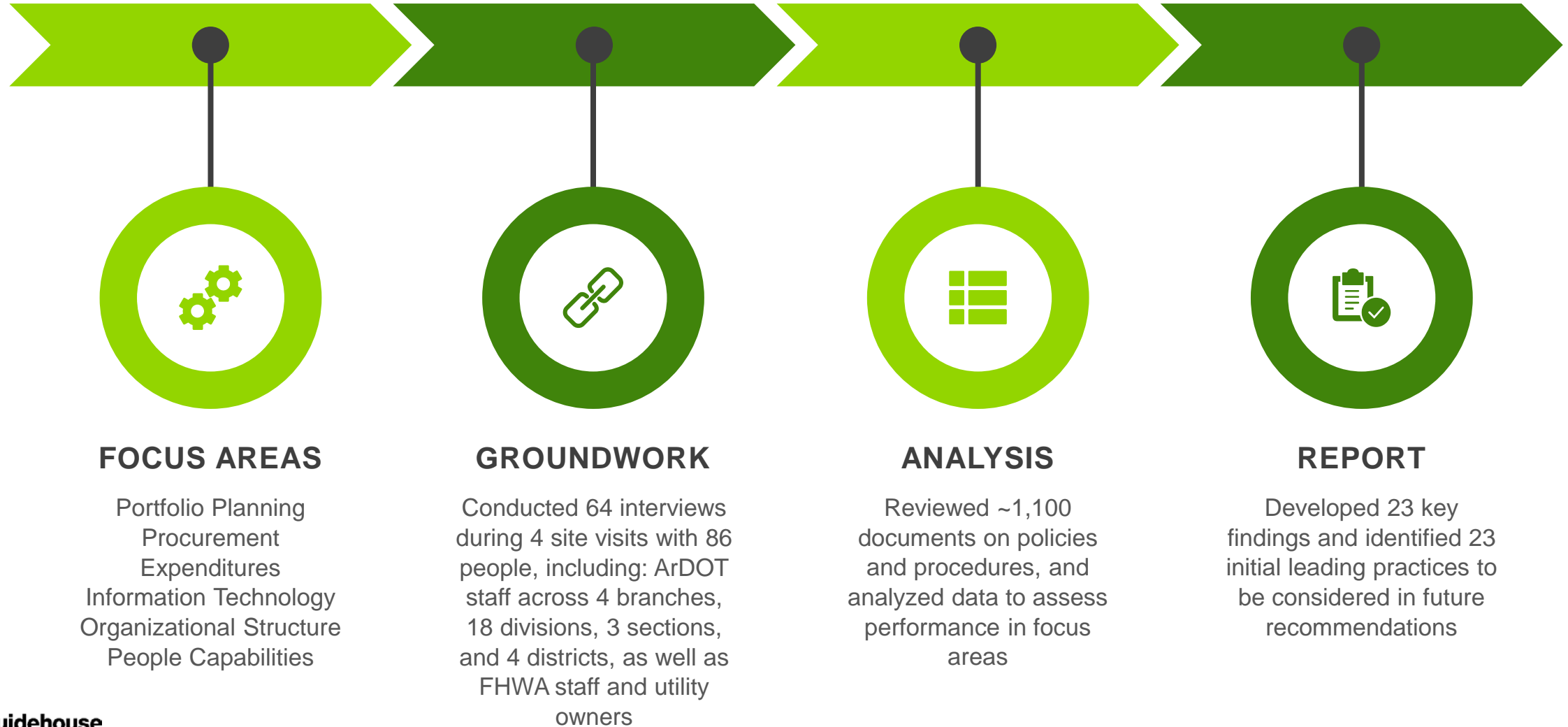
***The report contains 23 findings across 6 focus areas.*** This report will form the foundation for a Recommendation Report that will be delivered in May.

This presentation previews some of these findings in the form of ***10 Key Takeaways***, which we may revisit during the Recommendations presentation.



- Synthesizes current state findings in 6 focus areas, emphasizing gaps in the current state
- Documents and substantiates key findings
- Analyzes alignment with corresponding regulatory environment (preliminary)
- Highlights preliminary leading practices/areas of opportunity for the recommendation report

# Approach





# Report Findings

# Summary of Key Takeaways



## Organizational Structure

1. Executive reporting **does not emphasize operational effectiveness**. Additionally, ArDOT's unique governance structure **limits performance reporting directly to the legislature**



## Portfolio Planning

2. ArDOT has **limited proactive communication of project changes** and **does not comprehensively track and manage customer inquiries**

3. **Maintenance projects and budgets** are based on **historically allocated financial resources** and conducted activities



## Procurement

4. Construction procurement **does not consider prior contractor performance**

5. Alternative contracting and project delivery methods can be **strengthened to help manage construction quality and cost**.

6. ArDOT **lacks formal systems to identify and implement procurement efficiencies** outside of construction



## Expenditures

7. Lack of formalized project and portfolio management practice **limit ArDOT's ability to optimize projects and maintenance activities**

8. **Opportunities** may currently exist **to yield project development cost savings**



## Information Technology

9. **IT investments** are **not clearly tied to business need** and **lack ArDOT specific governance**



## People Capabilities

10. **Limited human capital programming to mitigate** current and future **talent retention and recruitment challenges**



# Organizational Structure



| The findings and takeaways included in the presentation are a point in time representation and are subject to change. Please see the assumptions slide in the appendix for further details.



# 1. Executive reporting does not emphasize operational effectiveness, and ArDOT's unique governance structure limits performance reporting directly to the legislature (CS Report pp. 50 – 51)

## Takeaway

- Department level **performance framework lacks maturity**, with many operational measures still in development.
- **Many other states require** department level performance **reporting to the legislature**.

## Potential Impacts

- **Diminished ability to identify** coordinated department wide **cost efficiency initiatives** or the **need for expenditures not tied to system condition**
- Lack of consistent and meaning performance reporting **decreases accountability to decision makers**.

## Evidence

- Of ArDOT's **41 Performance indicators**, **17 emphasize on system condition**; **~18** are focused on operational effectiveness with **~12 under development**
- **Strategic goals** and objectives **lack performance targets**
- **District and Division KPIs do not exist**.
- There is **no operational plan to implement the Strategic Plan**

## Leading Practices

- There is **precedent for State DOTs reporting performance** to their respective State Legislatures, with 21 State DOTs doing so
- Virginia Department of Transportation (VDOT) attributes an **increase in early delivery of construction activities** (16% to 44%) to **improved performance reporting** and business rules



### GLOSSARY

KPI: Key Performance Indicator

# Portfolio Planning



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## 2. ArDOT has limited proactive communication of project changes and does not comprehensively track and manage customer inquiries

### Takeaway

- Communication vehicles **do not match stakeholder engagement standards** for benchmarked states

### Potential Impacts

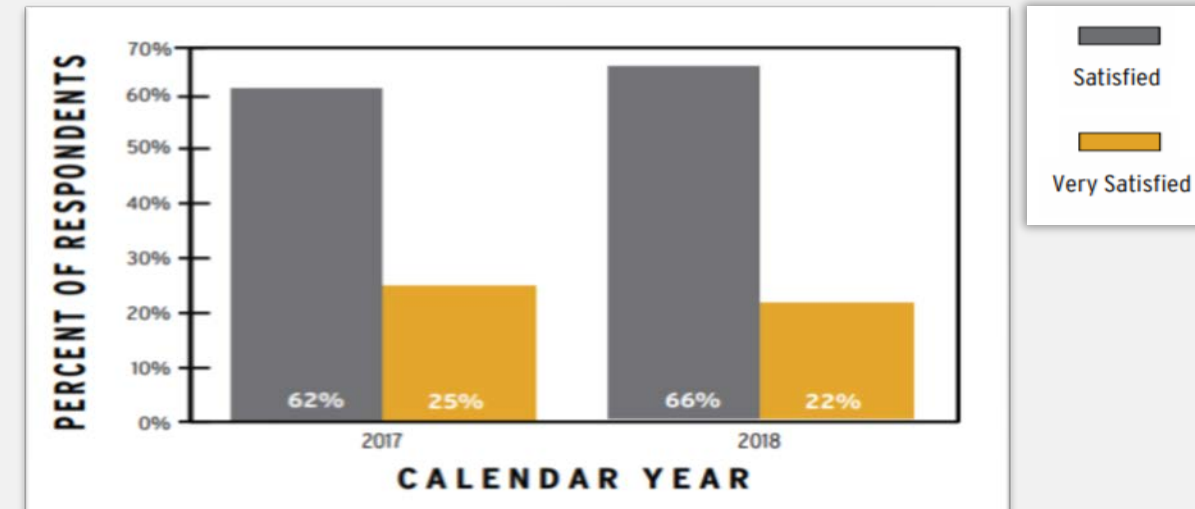
- **Decreased stakeholder awareness** and understanding of progress and changes
- **Low stakeholder and customer satisfaction, and public trust**
- Increased diversion of staff time to attend to project related inquiries

### Evidence

- **The Department implemented changes to construction project prioritization, budget, and timing** through ~56 amendments (from 12/2016) and ~11,150 change orders (from 2014)
- **A consolidated tool to communicate these changes does not exist.**
- iDRIVE Arkansas and social media are primarily used to communicate traffic pattern changes, and do not track all customer requests or complaints.

### Leading Practices

- **Maryland DOT measures customer service and uses the data to inform its customer service strategy.** This strategy includes conducting an annual **fall tour** to present its Consolidated Transportation Plan, **operating consolidated customer call centers**, and providing **customer service training** to staff members
- Since 2016, MDOT's **overall customer satisfaction has grown from 76% to 88%**



Source: Maryland DOT



### 3. Maintenance projects and budgets are based on historically allocated financial resources and conducted activities

#### Takeaway

- **Projects and budgets are primarily based on prior-years' spend, not targeted system needs.** ArDOT has allocated ~\$190M in FY20 to support maintenance of: ~16,500 roadway miles, and ~7,300 bridges.

#### Potential Impacts

- Current budgets and projects **may not directly address actual maintenance needs**
- **System feature condition cannot be optimized** based on service level or long-term costs
- **Inequities in District funding** may not be recognized

#### Evidence

- Maintenance Budgets across Districts have remained **relatively flat over time**, with annual increases ranging from 0.2% - 1.9%.
- Interviews revealed that **the Department does not have target levels of service** for all system features within each District e.g. Percentage of culverts in deficient condition

#### Leading Practices

- **Wisconsin DOT (WisDOT)** has been using a performance based maintenance approach (Compass) since 2002. **This system allows WisDOT leadership to track maintenance funding and performance year over year**
- From 2011 to 2015, WisDOT saw **similar or improved performance in 22 of 28 measures**

Element	What are we spending?					Feature	How much of the system still needs work at the end of the maintenance season?					How well maintained is the system?					
	Dollars spent (in millions) <sup>1</sup>						Condition change: 2014 to 2015 <sup>2</sup>	% of system backlogged					2015 Feature grades				
	FY 11	FY 12	FY 13	FY 14	FY 15			2011	2012	2013	2014	2015	A	B	C	D	F
Shoulders	11.05	11.08	8.16	7.79	8.91	Hazardous Debris	↑	7	7	7	7	6			C		
	11.64	11.44	8.31	7.80	8.91	Drop-off/Build-up (paved)	↑	3	1	4	4	2	A				
	0.33	0.33	0.24	0.23	0.26	Cracking (paved)	↑	60	55	54	69	67					F
	0.34	0.34	0.24	0.23	0.26	Potholes/Raveling (paved)	↑	6	6	7	8	6	A				
						Drop-off/Build-up (unpaved)	↓	37	36	36	41	42					F
						Cross-Slope (unpaved)	↑	27	26	22	27	25				D	
						Erosion (unpaved)	↑	2	1	1	3	2	A				
						Ditches	-	3	1	1	1	1	A				
Drainage	8.54	7.90	7.10	7.04	7.58	Culverts	↑	22	25	25	21	20				D	
	9.00	8.15	7.22	7.04	7.58	Under-drains/Edge-drains	↑	33	30	29	26	23			C		
	0.25	0.23	0.21	0.20	0.22	Flumes	↑↑	39	45	47	42	23			C		
	0.27	0.24	0.21	0.21	0.22	Curb & Gutter	↓	4	5	4	5	6	A				



# Procurement



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Please see the assumptions slide in the appendix for further details.



## 4. Construction procurement does not consider prior contractor performance

### Takeaway

- Construction procurements **primarily focus on price, schedule, and standard specifications**, and do not consider prior contractor performance

### Potential Impacts

- Potential for **reduced construction quality** because delivery to minimally acceptable standards is incentivized
- May **increase workload and contractor-monitoring costs**

### Evidence

- ArDOT's use of pre-qualification and bonding only **approximates project completion and does not screen for quality**
- Current policies **do not limit** the ability of **poor-quality contractors to compete for bids**
- Contractors that do not meet thresholds **may need to redo work**. These measures only come into play **after the bidder has been selected**

### Leading Practices

- In 2014, **New Mexico DOT (NMDOT) piloted a pre-qualification system** that adjusts a contractor's bid amount based on the quality of their past performance
- The NMDOT system has encouraged contractors to improve performance**, as demonstrated by a reduction in Disincentives charged to contractors since adoption



Source: New Mexico DOT

#### GLOSSARY

NMDOT: New Mexico Department of Transportation



# 5. Alternative contracting and project delivery methods can be strengthened to help manage construction quality and cost

## Takeaway

- **Alternative contract methods**, such as Lane Rental disincentives and A+C bidding, have allowed more **influence on contractor behavior**.
- Of these methods, there are **limited processes**, such as trend analysis, **to evaluate efficacy** of these methods

## Potential Impacts

- ArDOT may **not be optimizing construction quality and cost** as it is not able to definitively capture the efficacy of these alternative contracting methods

## Evidence

- From 2014 – 2019, ArDOT levied **~\$20M in Disincentives and Item Deductions**, and **~\$44M in Incentives**
- The Department does not have formal protocols to **standardize decision-making** around when to use specific strategies.

## Leading Practices

- Michigan DOT, employ a comprehensive set of guidelines to **advise on and approve the use of certain strategies** for construction acceleration, procurement, and project delivery, based on the project objective
- A Minnesota DOT study on the efficacy of their alternative contracting policies reveals the value in such an analysis. For example, **A+B contracts yielded higher bid amounts, comparable final contract amounts, and lower internal MnDOT costs**

• = May apply	Acceleration Techniques							
	Lane Rental	A+B Incentives	Accepted for Traffic Incentives	No Excuse Incentives	Standard Incentives	Accelerated Schedules	Interim Completion Date Incent.	Alternate Const Methods
Project Objective								
Expedite construction	•	•	•	•	•	•	•	•
Minimize road user delay costs	•	•	•	•	•	•	•	•
Promote innovation <sup>(7)</sup>								•
Expedite contract award <sup>(4)</sup>								
Minimize risk of claims/disputes				•				
Maximize work within set budget <sup>(1)</sup>								
Enhance quality <sup>(6)</sup>								•
Define construction budget early <sup>(2)</sup>								
Reduce design & construction time <sup>(5)</sup>								
Leverage external funding sources <sup>(3)</sup>								

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GLOSSARY

A+B/A+C: Bidding process that includes price and time

Source: Michigan DOT

# 6. ArDOT lacks formal systems to identify and implement procurement efficiencies outside of construction

## Takeaway

- Procurement *trends are not monitored* using data
- **No Total Cost of Ownership** based management system
- **Divisions and Districts maintain significant purchasing discretion**

## Potential Impacts

- Potential cost savings are not recognized as the Department is **not conducting a formalized spend analysis**, and because the **organizational structure limits implementation** of department wide **cost effective procurement practices**

## Evidence

- Purchases are primarily monitored for compliance with applicable regulations
- ArDOT spends on average ~\$24.4M and ~\$12.7M in Small Order and Competitive Bid purchases per year
- ArDOT does not have **formalized policies to identify purchasing trends** and establish term/supply contracts **to yield savings**

## Leading Practices

- A 2016 **Texas Comptroller of Public Accounts** State Purchasing study concluded that *“High Volume, low dollar transactions represent areas where centralization of purchasing and consolidation of vendors will have the greatest impact on operational efficiency”*
- Wisconsin DOT (WisDOT) uses the state’s procurement business intelligence tools to help **incentivize purchases from state approved contracts** (see table right)

Business Unit Name	Budget Reference Code	# of Approved POs	# On Contract	% Approved On Contract
DATCP	FY2015	20	0	0.0%
	FY2016	175	96	54.9%
	FY2017	71	56	77.8%
DATCP Total		265	152	56.9%
DCF	FY2015	0	0	
	FY2016	330	269	81.5%
	FY2017	242	216	89.3%
DCF Total		572	485	84.8%
DFI	FY2016	49	47	95.9%
	FY2017	42	40	95.2%
DFI Total		91	87	95.6%
DHS	FY2015	119	6	5.0%
	FY2016	4664	1747	37.4%
	FY2017	1968	1069	54.2%
DHS Total		6744	2822	41.8%

Source: Wisconsin DOT

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# Expenditures



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## 7. Lack of formalized project and portfolio management practice limit ArDOT's ability to optimize projects and maintenance activities

### Takeaway

- Although construction projects generally complete on time and budget, the Department **does not have**:
  - Standard project/portfolio management practices and tools**
  - Formalized **resource planning** and monitoring processes

### Potential Impacts

- Reduced ability to optimize resources and budgets**
- Difficulty communicating progress to stakeholders** due to manual processes and proprietary tools
- Potential for increased change orders

### Evidence

- The Department budgets ~\$40M** for Planning, Design, and Construction monitoring Activities, yet, **Mechanisms to match STIP projects** with these **budgets and resources are “homegrown” or non-existent**
- Target costs** associated with executing pre-construction, construction monitoring or maintenance activities **do not exist**

### Leading Practices

- North Carolina DOT (and other DOTs) publish their **project management frameworks, standards, guides, and templates**
- Wisconsin DOT (WisDOT) has improved **its pre-construction management and workflow** using 3D CIM Collaboration Models creating **cost savings and avoidance opportunities up to 25%**



Source: Wisconsin DOT

#### GLOSSARY

WisDOT: Wisconsin Department of Transportation



# 8. Opportunities may currently exist to yield project development cost savings



## Takeaway

- The Department has **not fully exhausted** the potential of it's Practical Design and Value Engineering (VE) policies to **capture and track cost savings**
- Change orders are not formally analyzed to identify design phase process improvements



## Potential Impacts

- Current project design protocols **limit** the Department's ability to:
  - **Maximize construction expenditures**
  - **Communicate** any resulting **cost savings**



## Evidence

- ArDOT completes **2.2. VE studies per year and realized a total savings of \$377k since FY2015**
- The cost of Change Orders directly tied to "Plan Omissions/Errors" has averaged \$3.1M from CY2014 to CY2019



## Leading Practices

- **Several states have seen considerable cost savings through implementation of robust Practical Design protocols** such as Minnesota DOT that more modestly saved \$35M and \$39M dollars in FY2016 and FY2017.
- Nationally State DOTs **average ~3.3 VE studies per year with savings close to \$22M** (see table right), far exceeding what ArDOT has been able to achieve through its VE program

VE & VECP Across State DOTs

	# of Studies completed	# of Recs Proposed	# of Recs Approved	Value of Approved Recs
VE Total	175	1376	578	\$1,148,883,369
VE Average	3.3	26.0	10.9	\$21,677,045
VECP Total	n/a	n/a	200	\$40,247,844
VECP Average	n/a	n/a	3.8	\$759,393

On average, the value of approved VE recommendations is 157 times greater than the cost of the VE study.

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GLOSSARY

VE: Value Engineering

VECP: Value Engineering Change Proposals

CY: Calendar Year



# Information Technology



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# 9. IT investments are not clearly tied to business need and lack ArDOT-specific governance

## Takeaway

- The IT ecosystem lacks:
- **Business-focused governance structure**
  - Structures to **optimize software** spend and **unlock data value**
  - A **catalog of the services** provided and model for service management
  - **Project Management standards** and tool sets

## Potential Impacts

- IT investments and projects **may not be prioritized based on business needs**
- **IT investments may require more support** and infrastructure due to lack of standards
- **Customer expectations** related to delivery and support are **not effectively managed**
- IT projects risk cost overruns and/or quality issues

## Evidence

- ArDOT’s **IT budget is scheduled to increase to ~\$23M in FY2020, a 155% increase** since FY2016
- A review by a 3<sup>rd</sup> party consultant, *Info-Tech*, revealed that there is an **“Unclear decision making process”** and “no IT Governance” for these expenditures
- **10 instances** in FY19 of significant IT spend **without prior IT involvement**

## Leading Practices

- **IT governance is an established industry standard** and business leaders report that **strong technology governance contributes to improved business outcomes** and organizational agility
- **Resources** to establish strong governance and implement follow on operational policies and practices that guide IT service delivery **are widely available**
- **Texas’ Department of Information Resources (DIR) publish their project management frameworks and reports the status of all major IT projects** and whether they **meet quality expectations**

QUALITY ASSURANCE TEAM

PROJECT STATUS

PROJECTS BY PERFORMANCE RATING

Project	Percent Complete	Schedule Performance Index	Cost Performance Index	Scope Performance	Quality Performance
I2MS Replacement (Material Analysis Testing System)	97%	👍	👍	👎	👎
Enterprise Content Management (ECM)	88%	👍	👍	👍	👍
Enterprise Information Management (EIM) Project	87%	👍	👍	👍	👍
CYBERSECURITY	75%	👍	👍	👍	👍
TxTag Customer Service Systems and Operations Project	32%	👎	👍	👍	👍
Modernize Portfolio and Project Management (MPPM II)	29%	👎	👍	👎	👎

Texas Department of Transportation

October 2019

PERFORMANCE RATING

👍 Green

👎 Yellow

👎 Red

Source: Texas DIR

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# People Capabilities



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# 10. ArDOT offers limited human capital programming to mitigate current and future talent retention and recruitment challenges

## Takeaway

- Staff *appreciate the Department’s benefits* and value relationships with their managers
- **Career pathways are not defined** nor clearly communicated to Staff members
- Considerable *training is available* but it is **not aligned with “job families”**
- Compensation is **not market competitive**

## Potential Impacts

- **Increasing turnover rate**
- **Limited ability to recruit** top talent or for higher-risk positions
- **Loss of institutional knowledge**
- **Decreased capacity** to *identify operational efficiencies*

## Evidence

- **Turnover rate has increased** from ~6% (2016) to ~9% (2019)
- **26% of staff are within 10 years** of standard retirement age
- Only **53% of staff believe that they can advance** their careers at ArDOT
- **Morale is trending downwards** with 26% of staff who agree that morale is higher than 5 years ago

## Leading Practices

- A Society for HR Management (SHRM) and Deloitte 2012 Survey reveals that: **Career advancement and development** as the **top most effective retention strategy** amongst millennials and Gen X
- Supervisors at Texas DOT (TxDOT) are **responsible for illuminating career paths**. Moreover, TxDOT offers **formal mentoring programs** for younger employees

“Retaining quality employees is a primary concern for DOTs as the **costs** associated with selecting and training new employees can exceed **100% of the annual compensation**”

-Transportation Consortium of South Central States report on Recruiting, Retention, and promoting

# Questions?



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# Appendix



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# Current State Key Findings Glossary

Current State Report Focus Area	#	Description
Organizational Structure	OS1	ArDOT shares several characteristics with other State DOTs; some are unique to Arkansas.
	OS2	Current Key Performance Indicators (KPIs) are limited to system condition. Operational effectiveness is not yet being measured.
	OS3.1	Standard operating procedures (SOPs) are extensive, but not regularly updated.
	OS3.2	Minimizing knowledge loss is a strategic priority for ArDOT, but efforts are not mature.
Portfolio Planning	PP1.1	ArDOT has a formal and quasi-objective process to identify construction projects, prioritize those projects, ensure public involvement, and secure required approvals.
	PP1.2	ArDOT's public communication related to project status, schedule and budget is disjointed and inconsistent. It requires the public to navigate different sources to secure information.
	PP2.1	The Annual maintenance budgeting process is based on Historical Precedent.
	PP2.2	Maintenance workplans are designed to deliver historically rooted activities rather than specific service conditions.
	PP2.3	There is no formal structure to coordinate Workplans within or across districts, or communicate these workplans to the general public.
	PP3	Although ArDOT is responsive to public inquiries, it only offers a limited number of tools to capture and track them.

# Current State Key Findings Glossary

Current State Report Focus Area	#	Description
Procurement	PR1.1	ArDOT adheres to State procurement and transportation laws that limit its flexibility and do not necessarily apply.
	PR1.2	Low bid procurement is viewed by staff as a cultural and financial necessity.
	PR2.1	Pre-qualification and bonding approximate likelihood of project completion, but do not screen for quality.
	PR2.2	The Standard Specifications mandate certain performance criteria, but do not screen for quality.
	PR3	Anecdotes and data suggest some existing quality issues that may be improved through alternate contractor strategies.
	PR4.1	ArDOT takes advantage of legislation that allows consideration of qualifications in some procurement.
	PR4.2	Alternative contract methods have allowed ArDOT to influence contractor behavior.
	PR5.1	ArDOT is not using data to understand procurement trends and identify efficient practices.
Expenditures	PR5.2	E&P has minimal authority to facilitate implementation of efficient procurement practices.
	EX1	Project development, construction, and maintenance functions present unique resource management challenges.
	EX2.1	Formal protocols around the use of practical design are lacking.
	EX2.2	ArDOT has not taken advantage of the full benefits of Value Engineering.
	EX3.1	Engineer's estimates are not formally evaluated to identify future design cost efficiencies.
	EX3.2	Right of Way (ROW) faces external obstacles to reducing costs.
	EX4	The construction project development process may be enhanced through formalized project management tools that increase accountability, identify process efficiencies, and facilitate collaboration across teams.
	EX5.1	Existing project management tools may have broader applications for construction staff.
	EX5.2	Change orders are not formally reviewed to identify potential efficiencies or problematic contractors.
	EX6	Scheduling and evaluation of maintenance activities may be improved through the use of project management tools.
	EX7.1	ArDOT is taking steps to strengthen its internal audit practices.
	EX7.2	External audits are primarily conducted by Legislative Audit and FHWA.

# Current State Key Findings Glossary

Current State Report Focus Area	#	Description
Information Technology	IT1.1	ArDOT appears to be approaching data center modernization phases, however, there does not appear to be a formal plan for integration.
	IT1.2	ArDOT has preliminarily identified staff's software needs but efforts to align technology purchases across the Department has not been universally implemented.
	IT1.3	ArDOT has enlisted a number of vendors to rapidly implement Enterprise Infrastructure upgrades.
	IT1.4	ArDOT recognized that IT customer support is of critical importance and is looking to secure a supporting ITSM tool.
	IT1.5	Although ArDOT is making progress on developing Disaster Recovery (DR) platform, they currently lack a cyber security function, policies, and standards.
	IT2.1	ArDOT has not developed a Governance Structure to ensure IT investments support objectives, manage enterprise risk, and meet external stakeholder needs.
	IT2.2	There is no overarching Enterprise architecture or "Blueprint" to standardize and organize IT infrastructure and solutions to align with business goals.
	IT2.3	ArDOT has not adopted a service catalog nor defined service level expectations which has led to confusion on what IT will deliver, when it will deliver it, and how support is distributed.
	IT2.4	ArDOT's efforts to establish a project management infrastructure to ensure effective delivery of IT projects is still in its infancy.
People Capabilities	PC1	Employee engagement and retention are challenges for ArDOT.
	PC2.1	ArDOT staff value the Department's benefits, but dissatisfaction with compensation is widespread.
	PC2.2	ArDOT faces strong competitors who offer higher wages for both entry-level and experienced professionals.
	PC3.1	Staff have positive relationships with managers, but lack confidence in leadership.
	PC3.2	ArDOT is exploring flexible work strategies to alleviate staffing challenges.
	PC4.1	Career pathways are not defined or clearly communicated to staff.
	PC4.2	Staff lack confidence in the performance evaluation process.
	PC5.1	While training is offered, there are no formal learning pathways that define training plans.
	PC5.2	On-the-job training is often preferred, but difficult to institutionalize.



# Current State Key Findings and Key Takeaway Crosswalk

Key Takeaway Focus Area	Key Takeaway	Addressed Key Finding #	Addressed Key Finding Description
Organizational Structure	1. Executive reporting does not emphasize operational effectiveness. Additionally, ArDOT's unique governance structure limits performance reporting directly to the legislature.	OS1	ArDOT shares several characteristics with other State DOTs; some are unique to Arkansas.
		OS2	Current Key Performance Indicators (KPIs) are limited to system condition. Operational effectiveness is not yet being measured.
	Additional Findings	OS3.1	Standard operating procedures (SOPs) are extensive, but not regularly updated.
		OS3.2	Minimizing knowledge loss is a strategic priority for ArDOT, but efforts are not mature.
Portfolio Planning	2. ArDOT has limited proactive communication of project changes and does not comprehensively track and manage customer inquiries.	PP1.1	ArDOT has a formal and quasi-objective process to identify construction projects, prioritize those projects, ensure public involvement, and secure required approvals.
		PP1.2	ArDOT's public communication related to project status, schedule and budget is disjointed and inconsistent. It requires the public to navigate different sources to secure information.
		PP2.3	There is no formal structure to coordinate Workplans within or across districts, or communicate these workplans to the general public.
		PP3	Although ArDOT is responsive to public inquiries, it only offers a limited number of tools to capture and track them.
	3. Maintenance projects and budgets are based on historically allocated financial resources and conducted activities	PP2.1	The Annual maintenance budgeting process is based on Historical Precedent.
		PP2.2	Maintenance workplans are designed to deliver historically rooted activities rather than specific service conditions.
		PP2.3	There is no formal structure to coordinate Workplans within or across districts, or communicate these workplans to the general public.

# Current State Key Findings and Key Takeaway Crosswalk

Key Takeaway Focus Area	Key Takeaway	Addressed Key Finding #	Addressed Key Finding Description
Procurement	4. Construction procurement does not consider prior contractor performance	PR1.1	ArDOT adheres to State procurement and transportation laws that limit its flexibility and do not necessarily apply.
		PR1.2	Low bid procurement is viewed by staff as a cultural and financial necessity.
		PR2.1	Pre-qualification and bonding approximate likelihood of project completion, but do not screen for quality.
		PR2.2	The Standard Specifications mandate certain performance criteria, but do not screen for quality.
		PR3	Anecdotes and data suggest some existing quality issues that may be improved through alternate contractor strategies.
	5. Alternative contracting and project delivery methods can be strengthened to help manage construction quality and cost	PR3	Anecdotes and data suggest some existing quality issues that may be improved through alternate contractor strategies.
		PR4.1	ArDOT takes advantage of legislation that allows consideration of qualifications in some procurement.
		PR4.2	Alternative contract methods have allowed ArDOT to influence contractor behavior.
	6. ArDOT lacks formal systems to identify and implement procurement efficiencies outside of construction	PR1.1	ArDOT adheres to State procurement and transportation laws that limit its flexibility and do not necessarily apply.
		PR1.2	Low bid procurement is viewed by staff as a cultural and financial necessity.
		PR3	Anecdotes and data suggest some existing quality issues that may be improved through alternate contractor strategies.
		PR5.1	ArDOT is not using data to understand procurement trends and identify efficient practices.
		PR5.2	E&P has minimal authority to facilitate implementation of efficient procurement practices.

# Current State Key Findings and Key Takeaway Crosswalk

Key Takeaway Focus Area	Key Takeaway	Addressed Key Finding #	Addressed Key Finding Description
Expenditures	7. Lack of formalized project and portfolio management practice limit ArDOT's ability to optimize projects and maintenance activities	EX1	Project development, construction, and maintenance functions present unique resource management challenges.
		EX4	The construction project development process may be enhanced through formalized project management tools that increase accountability, identify process efficiencies, and facilitate collaboration across teams.
		EX5.1	Existing project management tools may have broader applications for construction staff.
		EX5.2	Change orders are not formally reviewed to identify potential efficiencies or problematic contractors.
		EX6	Scheduling and evaluation of maintenance activities may be improved through the use of project management tools.
	8. Opportunities may currently exist to yield project development cost savings	EX2.1	Formal protocols around the use of practical design are lacking.
		EX2.2	ArDOT has not taken advantage of the full benefits of Value Engineering.
		EX3.1	Engineer's estimates are not formally evaluated to identify future design cost efficiencies.
	Additional Findings	EX3.2	Right of Way (ROW) faces external obstacles to reducing costs.
		EX7.1	ArDOT is taking steps to strengthen its internal audit practices.
		EX7.2	External audits are primarily conducted by Legislative Audit and FHWA.

# Current State Key Findings and Key Takeaway Crosswalk

Focus Area	Key Takeaway	Addressed Key Finding #	Addressed Key Finding Description
Information Technology	9. IT investments are not clearly tied to business need and lack ArDOT specific governance	IT1.1	ArDOT appears to be approaching data center modernization phases, however, there does not appear to be a formal plan for integration.
		IT1.2	ArDOT has preliminarily identified staff’s software needs but efforts to align technology purchases across the Department has not been universally implemented.
		IT1.4	ArDOT recognized that IT customer support is of critical importance and is looking to secure a supporting ITSM tool.
		IT1.5	Although ArDOT is making progress on developing Disaster Recovery (DR) platform, they currently lack a cyber security function, policies, and standards.
		IT2.1	ArDOT has not developed a Governance Structure to ensure IT investments support objectives, manage enterprise risk, and meet external stakeholder needs.
		IT2.2	There is no overarching Enterprise architecture or “Blueprint” to standardize and organize IT infrastructure and solutions to align with business goals.
		IT2.3	ArDOT has not adopted a service catalog nor defined service level expectations which has led to confusion on what IT will deliver, when it will deliver it, and how support is distributed.
	Additional Findings	IT1.3	ArDOT has enlisted a number of vendors to rapidly implement Enterprise Infrastructure upgrades.
		IT2.4	ArDOT's efforts to establish a project management infrastructure to ensure effective delivery of IT projects is still in its infancy.

# Current State Key Findings and Key Takeaway Crosswalk

Focus Area	Key Takeaway	Addressed Key Finding #	Addressed Key Finding Description
People Capabilities	10. Limited human capital programming to mitigate current and future talent retention and recruitment challenges	PC1	Employee engagement and retention are challenges for ArDOT.
		PC2.1	ArDOT staff value the Department's benefits, but dissatisfaction with compensation is widespread.
		PC2.2	ArDOT faces strong competitors who offer higher wages for both entry-level and experienced professionals.
		PC4.1	Career pathways are not defined or clearly communicated to staff.
		PC5.1	While training is offered, there are no formal learning pathways that define training plans.
		PC5.2	On-the-job training is often preferred, but difficult to institutionalize.
		OS3.1	Standard operating procedures (SOPs) are extensive, but not regularly updated.
		OS3.2	Minimizing knowledge loss is a strategic priority for ArDOT, but efforts are not mature.
	Additional Findings	PC3.1	Staff have positive relationships with managers, but lack confidence in leadership.
		PC3.2	ArDOT is exploring flexible work strategies to alleviate staffing challenges.
		PC4.2	Staff lack confidence in the performance evaluation process.



## Assumptions

1. The findings and takeaways included in the presentation are a point in time representation based on interviews conducted with the Arkansas Department of Transportation (ArDOT) staff members and various external stakeholders and a review of documents ArDOT provided to Guidehouse from September 2019 – February 2020. Findings are subject to change based on mitigating documentation and clarifications provided by ArDOT subsequent to the publication of this report.