

# REPORT OF THE DATA-SHARING AND DATA-DRIVEN DECISION-MAKING TASK FORCE

December, 2019

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## **Task Force Membership**

Senator Jane English, Co-Chair Representative Stephen Meeks, Co-Chair

Senator Will Bond Representative Justin Boyd

Senator Breanne Davis Representative Karilyn Brown

Senator Lance Eads Representative Fredrick Love

Senator Greg Leding Representative Austin McCollum

Senator James Sturch Representative David Whitaker

#### INTRODUCTION

The Data-Sharing and Data-Driven Decision-Making Task Force was created by Act 943 of 2019.

The Task Force was explicitly charged to:

- 1) Reduce the inconsistency of data
- 2) Create up-to-the-moment data, creating a better policy making process
- 3) Establish a shared services model for statewide data sharing
- 4) Improve delivery of services to the state's citizens through data

The Task Force is comprised of six (6) members of the Arkansas Senate appointed by the Senate President Pro Tempore, and six (6) members of the Arkansas House of Representatives appointed by the Speaker of House.

#### **STUDY ISSUES**

Since the passage of Act 943 of 2019, the Task Force has held seven (7) meetings. The Task Force received testimonies from technological authorities, including the Department of Information Systems (DIS), Acxiom, Arkansas Legislative Audit, and the chief data officers of Indiana and North Carolina. The testimonies provided to the Task Force included topics such as:

- 1) Creation of a centralized data hub
- 2) State agencies providing information regarding their inventory in data assets
- 3) Average cost of a Data Hub Management System
  - Amount of employees at the data hub
  - Cost in return on investment
- 4) Utilization of data in terms of financial and sociological benefits
  - Whether the state can save funds by using data
  - Whether more accessible data will benefit the citizens
- 5) Protection of the data hub from financial gain on the part of the state
  - Ensure the state will not seek to sell the citizens' data for profit
  - Ensure that data will be used ethically by the state
- 6) Protection of individuals' data stored in the data hub
  - A possible identifier-type based system acting as a firewall
  - A Rosetta stone component to ensure, even if an identifier is extracted, data cannot be accessed
  - A possible cybersecurity agency
- 7) Process of data collection and utilization
- 8) Legal barriers regarding data
  - Proof-of-concepts
  - Legislation
  - Costs of data-sharing agreements
- 9) Possible time frame to enact the data hub

#### **ENTITIES ENGAGED WITH THE TASK FORCE**

#### The Department of Information Services (DIS)/ Data and Transparency Panel (DTP)

DIS provides maintenance and manages daily operations for the State of Arkansas' network. DIS also provides information technology products to various state agencies, schools, cities and more. They have been involved in the groundwork of studying Arkansas' data. Act 912 of 2017 created the Chief Data Officer and Chief Privacy Officer positions, and the Data and Transparency Panel (DTP), which have all been involved in the Data-Sharing and Data-Driven Decision-Making Task Force. DIS cites a few of its core competencies as:

- Internet connectivity
- Secure Data Center Hosting
- Virtual Private Cloud for Public Sector
- Data Analytics
- Voice over Internet Protocol
- Voicemail and Email
- Audio and Video Conferencing
- Tape, Data Storage and Backup Services
- Network Security
- Windows Desktop Support
- Application Development
- Cybersecurity
- Business Continuity
- Disaster Planning and Recovery
- Systems Integration

The tasks of the DTP are to perform a feasibility and cost study on a statewide data warehouse program, evaluate and identify data to be included in the statewide data warehouse, recommend procedures necessary for the implementation of a statewide data warehouse, and evaluate and identify data that may be provided to the public in accordance with data standards and specifications.

Act 936 of 2019 required the DTP to create a Longitudinal Data System (LDS) for the state. The LDS's focuses are centered on: education workforce outcomes, and better understanding of the evolving needs of Arkansas' economy in terms of education and employment opportunities. The DTP has decided to create a sub-panel, the State Longitudinal Data System Sub-Panel, in which the sole focus is creating a blue-print for the system. The members of the sub-panel are existing employees from state agencies and stake-holders. The sub-panel is currently gathering: regulations, statutes, compliance, security, and governance needs from the agencies and data assets; therefore, the data governance charter, data-sharing policies, and other policies can be defined. The DTP stated the key implementation considerations are: data-sharing agreements, data security policies, data privacy policies, data governance, funding considerations, identification standards, data quality standards, data dictionary and technology.

#### **Indiana Management Performance Hub (IMPH)**

IMPH was created through Executive Order 14-06 of 2014. The performance hub gathers data and utilizes it to address issues in the state of Indiana, such as the opioid epidemic, educational statistics, and the safety level of their roads. A specific example of how they implement their technology toward the opioid epidemic is through geographically mapping each area where an overdose occurred. With that data, the state can determine the location where the problem is the greatest and address the situation as needed.

#### **Government Data Analytics Center (GDAC)**

As part of North Carolina's Department of Information, GDAC was first created through Session Law 2007-323, in which the Statewide Data Integration was formed. GDAC now works to connect data, improve economic opportunities, create cyber security, and educate the state's workforce. For example, one specific benefit of integrating data into the GDAC system is the decision-making process concerning criminal justice. Through various aspects of an individual's data, the state can conclude how dangerous an inmate is, and whether or not the inmate should be released. Aside from governmental relationships, there is both a public and private partnership implemented with GDAC.

#### Acxiom

Acxiom, a data based company, specializes in people-based marketing. To achieve this, they ethically gather an individual's data, then analyze aspects such as age, birthdate, and gender. With an individual's unique data, Acxiom helps their clients match that data with products an individual is likely to purchase. Many of Acxiom's clients are Fortune 500 companies.

Some of the more specific areas of their company include:

- Audience Cloud
- Strategy Services
- Managed Services
- Risk Solutions
- Unified Data Layer

#### Arkansas Legislative Audit (ALA)

Arkansas Legislative Audit provided testimony to the Task Force regarding data and its continual evolution. They stated that a proposed data hub would need to be ever-changing in accordance with dynamic data changes, but that data is essential, especially regarding governmental analytics. The ALA presented a specific example of data analytics through a case from the state of Michigan, who used their data warehouse to discover a gap in child immunization. Their recommendations included:

- Creating a data warehouse should be a priority for the state
- Explore the option of drawing upon existing employees from different agencies and placing them in the data warehouse program
- Where it pertains to cybersecurity, agencies should have a respectable amount of independence

#### Overview of Testimonies Provided to the Task Force

These entities provided testimonies and information on the process of data-sharing and data-driven decision-making. They each provided information regarding how data could be used in governmental operations such as keeping up with crime statistics, and/or the probability of whether a person will be a repeat offender, depending on data variables. Another important aspect presented by these entities were statistics in data regarding education and how, by utilizing comprehension of the data, the state could improve the quality of learning for its students. These entities stressed to the Task Force that this can also be done in ethical ways concerning individual's personal data. In essence, they provided an understanding of how data works in terms of finding a more definitive solution to a problem.

#### **FINANCIAL BENEFITS OF A DATA HUB**

The Task Force has sought to learn the financial benefits of a centralized 'data hub' and how it would benefit the tax payers in the state of Arkansas. With the testimonies presented to the Task Force, data was shared on some of these benefits.

#### Arkansas – Department of Information Systems (DIS)

DIS stated that for the first five years, the cost to establish and maintain a data warehouse program would be over \$3.9 million annually, but the return on investment will counter balance that cost. From years six and beyond, the funding requested annually would be \$2.8 million. Some of the benefits highlighted in their presentation to the Task Force include:

- Effectiveness of Pre-K
- Combating the Opioid Crisis
- From Education to Workforce
- Recidivism
- Reducing Poverty
- Mental Health Services
- Economic Development

DIS specifically mentioned current crime and prison population. Use of a data hub could project the likelihood that certain inmates would not be repeat offenders. With just a 1% reduction in recidivism, DIS estimates the state could save \$8.1 million in three years in terms of crime and housing.

#### Indiana

Indiana's Management Performance Hub presented financial numbers regarding terms of costs and return on investment to the Task Force. For every \$1.00 dollar investment by the taxpayers, \$4.50 was saved, yielding a 450% return on investment. They also explained that their project costs were over \$8.7 million with 20 full time employees. The project costs in other states equaled \$20.6 million, giving Indiana a savings of over \$11 million. The 2018 annual report of the Performance Hub estimated that Indiana would receive a \$40 million return on investment.

#### **North Carolina**

North Carolina has not yet delved into the cost aspect of their GDAC. They presented variables such as fraud and identity theft prevention through data. GDAC stated that it relies on the individual state agencies to provide the cost benefits data. Data for the individual agencies was not presented.

#### **Other States**

DIS provided information regarding other states that did not present to the Task Force. Among those mentioned, benefits cited were:

- Georgia detected \$25 million over two years in fraudulent tax returns
- New York raised collections by \$100 million while reducing fraudulent refunds by \$1.2 billion
- Washington State recovered more than \$10 million per year in fraudulent tax refunds

#### **TASK FORCE RECOMMENDATIONS**

The Data-Sharing and Data-Driven Decision-Making Task Force makes the following recommendations:

- 1. All state agencies accept and work toward a data hub for the state of Arkansas. The Task Force understands that agencies can become protective about their data, but the agencies must realize that they are stewards of the data not owners. The state directs the way data is used, not the agencies.
- 2. Arkansas Research Center continue to assist agencies.
- 3. The Legislature should consider and pass legislation requiring agencies to negotiate and enter into data-sharing agreements with DIS by a certain date.
- 4. Arkansas Legislature look at increasing the reporting requirements of cybersecurity breaches, and implementing policy to handle the breaches.
- 5. The Arkansas Legislature should create a Technology Committee for the Senate.
- 6. The Arkansas Legislature should create a Division of Data Analytics within DIS, which will be funded through general revenue (Appendix 3).
- 7. Both the Executive and Legislative branches work toward creating a cybersecurity policy.
- 8. The Arkansas Legislative Council should create a Data-Sharing and Data-Driven Decision-Making Subcommittee.
- 9. The data hub should provide a "citizens portal", which will provide Arkansans with easy to access data.

### **CONCLUSION**

The Task Force recognizes that data-sharing is an extremely beneficial aspect of the 21<sup>st</sup> century. If other states are benefiting financially, the Task Force also believes the concentration of all the state agencies' data would reduce duplication of efforts and result in a cost savings to the state. The data would also provide the state and its citizens with an understanding of how to improve quality of life by applying data conclusions. Therefore, the Task Force seeks to create a data hub modeling that of other states by means of either legislation or executive order by the Governor. It is the Task Force's belief that these two methods are the fastest way for the data hub to materialize.

# Stricken language would be deleted from and underlined language would be added to present law. Act 943 of the Regular Session

1	State of Arkansas	A Bill	
2	92nd General Assembly	A DIII	
3	Regular Session, 2019		SENATE BILL 656
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5	By: Senator J. English		
6		E A A ME D E 4'41-1	
7		For An Act To Be Entitled	
8		CREATE THE DATA-SHARING AND DATA-	
9	DECISION-W	AKING TASK FORCE; AND FOR OTHER P	UKPOSES.
10			
11 12		Subtitle	
13	ጥ∩ ሮ₽	EATE THE DATA-SHARING AND DATA-	
14		N DECISION-MAKING TASK FORCE.	
15	DILLYD	N BEGISTON TERRITOR TERROTOR	
16			
17	BE IT ENACTED BY THE G	ENERAL ASSEMBLY OF THE STATE OF A	RKANSAS:
18			
19	SECTION 1. TEMP	ORARY LANGUAGE. DO NOT CODIFY.	Data-Sharing and Data-
20	Driven Decision-Making	Task Force — Creation — Duties.	
21	(a) As used in	this section, "state agency" mean	s a cabinet, agency,
22	institution, authority	, department, board, commission,	bureau, council, or
23	other agency of the St	ate of Arkansas supported by cash	funds or an
24	appropriation of state	or federal funds.	
25	(b) The General	Assembly finds that:	
26	(1) State	agencies contain great amounts o	f valuable information
27	and reports regarding	all aspects of life for the citiz	ens of this state,
28	including without limi	tation health, business, public s	afety, labor, and
29	transportation data;		
30		remendous amount of data maintain	
31	can result in the dupl	ication of efforts, data, records	, and parts of data
32	and the second s	esult in the maintenance of incon	sistent data and
33	records concerning the	DE AT AS DE ME ASSOCIATES NAME MARK	
34		ack of a quick and efficient data	
35		le up-to-the-moment responses to	
36	executive branch inqui	ries impedes the policy-making pr	ocess and ultimately

1	costs the taxpayers money;
2	(4) Progressive states have evolved to become data-driven
3	governments that use data as a strategic asset to improve the delivery of
4	services to the state's citizens and to become more effective stewards of the
5	citizens' data;
6	(5) The Open Data and Transparency Task Force, created by Acts
7	2015, No. 1282, began to address these problems in Acts 2017, No. 912, by
8	creating the roles of Chief Data Officer of the Department of Information
9	Systems and Chief Privacy Officer of the Department of Information Systems
10	and by creating the Data and Transparency Panel; and
11	(6) The state should continue those efforts by evaluating ways
12	to implement a shared services model for statewide data sharing in order to
13	drive innovation and facilitate efficiency across state agencies, improve the
14	delivery of services, and to better serve the citizens of this state.
15	(c) There is created the Data-Sharing and Data-Driven Decision-Making
16	Task Force.
17	(d)(l) The task force shall consist of the following twelve (12)
18	members:
19	(A) Six (6) members of the Senate appointed by the
20	President Pro Tempore of the Senate; and
21	(B) Six (6) members of the House of Representatives
22	appointed by the Speaker of the House of Representatives.
23	(2) If a vacancy occurs on the task force, the vacancy shall be
24	filled by the same process as the original appointment.
25	(3) The members of the task force shall be paid per diem and
26	$\underline{\text{mileage}}$ as authorized by law for attendance at meetings of interim committees
27	of the General Assembly.
28	(e)(1) The President Pro Tempore of the Senate shall call the first
29	meeting of the task force by July 1, 2019.
30	(2) The President Pro Tempore shall designate a member of the
31	task force to serve as chair of the first meeting of the task force.
32	(3) At the first meeting of the task force, the members of the
33	task force shall elect from its membership a chair or co-chairs and other
34	officers as needed for the transaction of its business.
35	(4)(A) The task force shall conduct its meetings in Pulaski
36	County at the State Capitol building or another site with teleconferencing

1	capabilities.
2	(B) Meetings of the task force shall be held at least
3	one (1) time every month but may occur more often at the call of the chair.
4	(5) The task force shall establish rules and procedures for
5	conducting its business.
6	(6)(A) A majority of the members of the task force shall
7	constitute a quorum for transacting business of the task force.
8	(B) An affirmative vote of a majority of a quorum present
9	shall be required for the passage of a motion or other task force action.
10	(7) The Bureau of Legislative Research shall provide staff for
11	the task force.
12	(f)(1) The purpose of the task force is to study and examine the
13	possibility of implementing a shared services model for statewide data
14	sharing.
15	(2) To achieve this purpose, the task force shall:
16	(A) Evaluate, study, and address the findings set forth in
17	subsection (b) of this section;
18	(B) Recommend specific solutions and legislation necessary
19	to create a statewide data sharing system for maintaining and sharing public
20	data that is owned, controlled, collected, or maintained by a state agency;
21	<u>and</u>
22	(C) Recommend funding mechanisms to support the use of
23	statewide data sharing, including without limitation data analytics, machine
24	learning, and innovative technologies to link data between agencies, to
25	support data driven decision making for all state agencies.
26	(g) If the task force determines it is necessary, it may contract with
27	one (1) or more outside consultants to assist the task force with its study.
28	(h) On or before December 31, 2019, the task force shall file with the
29	Governor, the President Pro Tempore of the Senate, and the Speaker of the
30	House of Representatives a final written report of its activities, findings,
31	and recommendations, including recommendations for proposed legislation.
32	(i) The task force expires on January 1, 2020.
33	
34	SECTION 2. EMERGENCY CLAUSE. It is found and determined by the General
35	Assembly of the State of Arkansas that the lack of a quick and efficient
36	data-driven delivery system that would enable up-to-the-moment responses to

1	legislative branch and executive branch inquiries is harmful to the policy
2	making process of the state; that the lack of availability of a data sharing
3	service for the state causes the unnecessary expenditure of taxpayer dollars
4	by various state agencies to hire consultants and repeat work that may
5	already have been conducted by other entities; and that this act is
6	immediately necessary because it is in the best interests of the state to
7	quickly and efficiently implement a system for data sharing, issue tracking,
8	and progress monitoring between various agencies of the state and branches of
9	government in order to avoid further repetition of tasks and unnecessary
10	expenditures of state funds. Therefore, an emergency is declared to exist,
11	and this act being immediately necessary for the preservation of the public
12	peace, health, and safety shall become effective on:
13	(1) The date of its approval by the Governor;
14	(2) If the bill is neither approved nor vetoed by the Governor,
15	the expiration of the period of time during which the Governor may veto the
16	bill; or
17	(3) If the bill is vetoed by the Governor and the veto is
18	overridden, the date the last house overrides the veto.
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21	APPROVED: 4/12/19
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## STATE OF INDIANA

#### EXECUTIVE DEPARTMENT INDIANAPOLIS

14-06

EXECUTIVE ORDER

ESTABLISHING THE GOVERNOR'S MANAGEMENT AND PERFORMANCE HUB FOR:

TO ALL WHOM THESE PRESENTS MAY COME, GREETINGS.

WHEREAS, Hoosiers can benefit from a comprehensive and coordinated effort by state agencies to share data and improve and strengthen services, maximize the utilization of available resources, and ensure

that state services are available to all Hoosiers;

the Indiana Office of Technology (IOT), established under Ind. Code § 4-13.1-2-1, stores data and WHEREAS, has the responsibility to ensure the protection of data in compliance with all applicable laws;

WHEREAS, state agencies, as defined at Ind. Code § 4-12-1-2(d), administer Indiana taxpayer and federal funds in the name of and on behalf of the State of Indiana; operate on property or in buildings owned, maintained, or leased by the State of Indiana; use vehicles and equipment owned by the State of Indiana; manage and provide benefits to state employees; enter into contracts on behalf of the State of Indiana; and spend, use, and commit other resources and assets owned by the State

WHEREAS. centralized data sharing, correlation, and analysis capacity will enable the state to achieve efficiencies in the administration of state programs and services and to more effectively address public health, public safety, and quality of life issues;

WHEREAS, with any data collection or use of data, state government must protect individual privacy, transparency of government operations, and public safety;

WHEREAS, the Office of Management and Budget (OMB), established under Ind. Code § 4-3-22-3, has been given the statutory authority under Ind. Code § 4-3-22-1 to devote adequate resources to:

- (1) Gather and coordinate data in a timely manner.
- (2) Perform comprehensive and detailed budgeting analysis.
- (3) Put in place comprehensive and effective budgeting practices.
- (4) Coordinate all functions related to budgeting and controlling spending in state government.
- (5) Perform comprehensive and detailed financial analysis.
- (6) Perform comprehensive financial oversight.
   (7) Ensure that effective financial management policies are implemented throughout state government.
- (8) Perform comprehensive and detailed performance analysis.
- Ascertain whether the burdens imposed by laws and rules are justified by their benefits using a rigorous cost benefit analysis.
- (10) Measure the performance of government activities;

WHEREAS, Ind. Code § 4-3-22-15 provides that "all state agencies (as defined in Ind. Code § 4-12-1-2) shall. in addition to complying with all statutory duties applicable to state purchasing, be accountable to the OMB for adherence to policies, procedures, and spending controls established by the OMB and approved by the governor.";

WHEREAS, the OMB is exercising this statutory responsibility through the creation of the Governor's Management and Performance Hub (MPH).

NOW, THEREFORE, I, Michael R. Pence, by virtue of the authority vested in me as Governor of the State of Indiana, do hereby order that:

- 1. The OMB shall create MPH as a tool for continuous process improvement for the State of Indiana.
- 2. IOT shall as directed by OMB work with the agencies with respect to the MPH's data needs and technical requirements to IOT.

- 3. The OMB shall provide recommendations to the Governor on:
  - Opportunities to use data collected by state agencies to drive innovation and efficiency across state agencies;
  - Improvements to information technology systems, practices, and procedures to enhance the security of data retained by state agencies; and
  - c. Opportunities to increase the transparency of state government.
- The OMB and IOT shall collaborate with private and public sector industry experts to ensure the MPH utilizes best practices in data analytics and security.

- All state agencies, as defined in Ind. Code § 4-12-1-2(d), shall participate in the MPH by providing data, information, system access, or other resources to IOT and OMB upon request.
- 6. To the extent data requested by OMB or IOT is maintained as confidential under state or federal law, all agencies shall identify the data as confidential. If the transmission of the data to OMB or IOT is specifically prohibited by state or federal law, agencies shall work with the OMB to identify if any edits, deletions or additional protections can be made to comply with state and federal laws allowing data to be provided to the OMB. Agencies shall provide the data to the OMB with plans and procedures for ensuring data shared with the OMB continues to be protected in accordance with such laws. Agencies shall coordinate with the OMB in the development of data-sharing agreements and shall execute such agreements to facilitate the OMB's receipt and the use of any sensitive data.



IN TESTIMONY WHEREOF, I, Michael R. Pence, have hereunto set my hand and caused to be affixed the Great Seal of the State of Indiana on this seventeenth day of March, 2014.

Michael R. Pence Governor of Indiana

ATTEST:

Connie Lawson Secretary of State

# **Division of Data Analytics**

A General Revenue Division of Department of Information Systems Chief Data Officers oversees the division & works under DIS Director.

