



PRINCE WILLIAM COUNTY

Prince William County, Virginia Internal Audit Report – Public Safety Communications Center Service Level Assessment

February 22, 2023



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TRANSMITTAL LETTER



February 22, 2023

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Pursuant to the internal audit plan for calendar year ("CY") 2022 for Prince William County, Virginia ("County" / "PWC"), approved by the Board of County Supervisors ("BOCS"), we hereby present the internal audit and service level assessment of the Department of Public Safety Communications ("PSC") consolidated call processing and dispatch center. We will be presenting this report to the Board Audit Committee of Prince William County at the next scheduled meeting on May 16, 2023.

Our report is organized into the following sections:

Executive Summary	This provides a high-level overview and summary of the observations noted in this internal audit and the respective risk ratings.
Background	This provides an overview of the function within the process, as well as pertinent operational control points and related requirements.
Objectives and Approach	The objectives of this internal audit are expanded upon in this section, as well as the various phases of our approach.
Observations Matrix	This section describes the observations noted during this internal audit and recommended actions, as well as Management's response, responsible parties, and estimated completion date.

We would like to thank the staff and all those involved in assisting our firm with this internal audit.

Respectfully Submitted,

RSM US LLP

Internal Audit



EXECUTIVE SUMMARY

Background

The County's Department of Public Safety Communications ("DPSC") is responsible for managing the flow of information for the County's public safety agencies for both 911 emergency and non-emergency situations through its consolidated call processing and dispatch center ("Center"). DPSC employees include telecommunicators ("TCs") who answer multi-lined phone systems to receive calls and use secured Computer Aided Dispatch terminals and an 800 Megahertz radio system to process and dispatch calls. TCs also enter, clear, and modify confidential data in the Virginia Criminal Information Network and the National Crime Information Center to assist police officers and other jurisdictions with various law enforcement, fire, and emergency rescue tasks.

All DPSC employees undergo an extensive background/onboarding process prior to being granted ability to process public safety communications at the Center that include an aptitude test, reference checks, criminal history investigations, and a polygraph test. All DPSC call takers, apart from teletype operators, must also complete a basic telecommunicator training course to be able to operate systems and process calls. The basic TC training includes learning modules, live instructors, on-the-floor training, and administration of a final exam prior to employee release to solo duty. During the classroom training, daily observation reports (DOR) are completed by supervisors in the training unit. During the on the floor (on the job) training, the Communications Training Officers complete the DORs, which are signed off by the supervisors.

Call taker and Center performance is continuously monitored through ongoing live listening of active calls by supervisors, key performance indicators measurement and related monthly reporting, monthly quality assurance procedures over calls for each individual call taker, and annual performance/merit evaluations.

Overall Summary / Highlights

The observations identified during our assessment are detailed within the pages that follow. We have assigned relative risk or value factors to each observation identified. Risk ratings are the evaluation of the severity of the concern and the potential impact on the operations of each item. There are many areas of risk to consider in determining the relative risk rating of an observation, including financial, operational, and/or compliance, as well as public perception or 'brand' risk.

Objectives and Scope

The primary purpose of this internal audit was to assess the current staffing levels in the DPSC and examine the documented policies, procedures, and related and related system of controls surrounding employee training and certification and consumer data protection.

As part of our internal audit, we performed the following:

- Assessed Center staffing levels in relation to established metrics such as the volume and length of calls processed, wait time, dropped calls, etc.;
- Evaluated the impact of Next Generation 911 ("NG911") on employee workload and service levels;
- Assessed the Center's staffing retention and turnover and the potential impact on relevant performance metrics;
- Evaluated the impact of the DPSC's designation as an independent department on quality of service, intra-County relationships, etc.;
- Evaluated the process to monitor progress towards the goals outlined in the DPSC's Strategic Plan;
- Reviewed the applicable policies and procedures to identify gaps related to controls;
- Assessed controls over the protection of caller data;
- Reviewed DPSC adherence to personnel training and certification requirements; and
- Assessed adequacy of records and documentation to establish an audit trail and verified procedures are appropriately followed.

Where applicable, the testing period utilized was July 1, 2021 through June 30, 2022.

Fieldwork was performed during August 2022 through December 2022.

Summary of Observation Ratings

(See page 3 for risk rating definitions)

	High	Moderate	Low
DPSC Center	-	-	1

We would like to thank all County team members who assisted us throughout this internal audit.



EXECUTIVE SUMMARY – CONTINUED

Observations Summary

The following is a summary of the observations noted in the areas reviewed. Each detailed observation is included in the observation matrix section of the report. Improvement opportunities have been provided following the detailed observations section. Definitions of the rating scale are included below.

Summary of Observations	
Observation	Rating
1. Quality Assurance Program	Low

Provided below are the observation risk rating definitions for the detailed observations.

Observation Risk Rating Definitions	
Rating	Explanation
Low	Observation presents a low risk (i.e., impact on financial statements, internal control environment, brand, or business operations) to the organization for the topic reviewed and/or is of low importance to business success/achievement of goals.
Moderate	Observation presents a moderate risk (i.e., impact on financial statements, internal control environment, brand, or business operations) to the organization for the topic reviewed and/or is of moderate importance to business success/achievement of goals. Action should be in the near term.
High	Observation presents a high risk (i.e., impact on financial statements, internal control environment, brand, or business operations) to the organization for the topic reviewed and/or is of high importance to business success/achievement of goals. Action should be taken immediately.



BACKGROUND

Overview

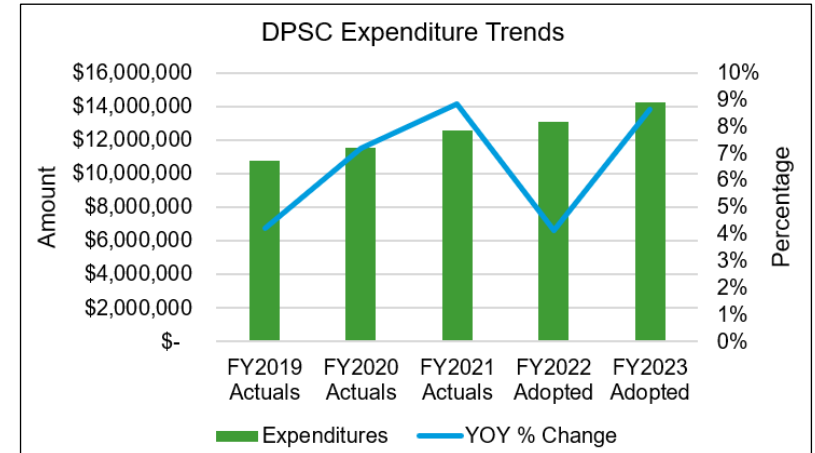
Per Virginia Code Ann. § 56-484.16, every county, city, or town in the commonwealth shall be served by an enhanced 911 ("E-911") system. The DPSC provides this mandated service for the County. The Board of County Supervisors has approved resolutions to enact additional local mandates for which the Center has responsibility.

The DPSC oversees communications, control, and information support services to the County's Police Department, four incorporated town police departments (Dumfries, Occoquan, Quantico, and Haymarket), the County Fire and Rescue System, as well as the Fire/Rescue Departments of the Cities of Manassas and Manassas Park, so they may effectively address citizens' safety issues and concerns. DPSC employees apply training, certifications, and other acquired skills to process calls, often providing immediate medical care instructions over the telephone before response services arrive on the scene. Telecommunicators, receive information concerning emergency and non-emergency problems and complaints and enter calls for service in the Computer Aided Dispatch ("CAD") system. Based on established policy and procedure, the relevant information is sent to the appropriate police and fire and rescue services. DPSC employees actively track each incident and update information in CAD as a situation progresses.

The communications center is staffed 24 hours a day, 365 days a year, to process calls and meet the public safety communication needs of the County. Administratively, the communications center is managed under the Department of Public Safety Communications (prior to the start of FY 2022, the communications center was managed under the auspices of the Police/Fire and Rescue departments) and accounts for 3.3% of the total budgeted expenditures for Public Safety for the fiscal year ending ("FY") 2023. The DPSC is funded through revenue from other localities, revenue from the Commonwealth, and local tax support.

The following table and chart provide a visual representation of the year-over-year ("YOY") data trends among DPSC budgeted annual expenditure and staffing levels in terms of full-time equivalents ("FTE") over the most recent five-year period from FY2019 to FY2023. The below information was obtained from the County's FY2023 Budget.

DPSC Expenditure Trends					
	FY2019 Actuals	FY2020 Actuals	FY2021 Actuals	FY2022 Adopted	FY2023 Adopted
Expenditures	\$10,770,016	\$11,544,079	\$12,563,413	\$13,084,704	\$14,214,892
YOY % Change	4.20%	7.19%	8.83%	4.15%	8.64%





BACKGROUND – CONTINUED

Organization

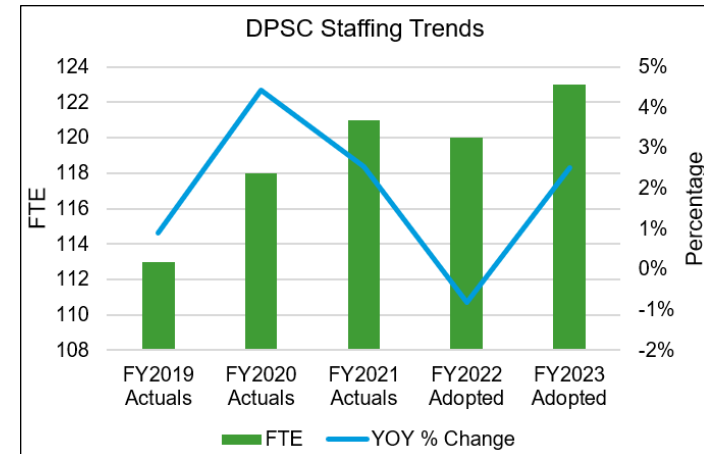
The Center employs personnel in the following positions:

- Director
- Assistant Director
- Manager
- Supervisor
- Telecommunicator (Levels 1, 2, and 3, depending on internal training/competency requirements fulfilled)
- Teletype Operator
- Senior Personnel Analyst
- Fiscal Specialist
- Radio Administrator

At any given time, the call processing floor must staff a minimum of six (6) call takers, four (4) police dispatchers, three (3) fire and rescue dispatchers, three (3) managers/supervisors, and one (1) teletype operator. Dispatchers and managers/supervisors are cross-trained to step in as call takers if call volume is demanding. Employees stop/start shifts at 6 am or 6pm, depending on their shift assignment, working in 12-hour schedules assigned based on seniority and skill level.

The following table and chart provide visual representations of the year-over-year data trends among DPSC staffing levels, in terms of annual budgeted full-time equivalents, over the most recent five-year period from FY2019 to FY2023.

DPSC Staffing Trends					
	FY2019 Actuals	FY2020 Actuals	FY2021 Actuals	FY2022 Adopted	FY2023 Adopted
FTE	113	118	121	120	123
YOY % Change	0.89%	4.42%	2.54%	-0.83%	2.50%





BACKGROUND – CONTINUED

Call Processing

Telecommunicators utilize guide card protocol and physical notebooks manually navigated through based on situational prompts to triage emergency and non-emergency calls. For emergency calls, a CAD incident record is created, and the caller's address/location is automatically pulled in, manually confirmed, and edited if needed; the telecommunicator, in a notes section of the incident record, manually captures other details of the emergency. From there, based on the incident type, telecommunicators route the call for service to the appropriate agency discipline (i.e., police and/or fire and rescue). The relevant call information is automatically populated on the dispatcher's computer monitor; the dispatchers do not communicate directly with the caller. Call takers remain in communication with the caller until the appropriate help has arrived on the scene or the situation is stable. all communications processing, supervisors can listen to active calls, intervene/take over calls if necessary, and manage volatile call volume.

The following table shows the call volume received at the Center in FY2022. 407,886 calls were processed, divided into 233,182 (57%) non-emergency and 174,704 (43%) emergency calls. During FY2022, the average duration of an emergency call ranged from 2:07 to 2:39, with an annual average call length of 2:17.

FY2022 DPSC Call Processing Trends			
	Non-Emergency Calls	Emergency Calls	Average Emergency Call Length
JUL '21	20,379	15,555	2:19
AUG '21	21,411	15,734	2:11
SEP '21	19,753	14,894	2:08
OCT '21	20,089	16,164	2:07
NOV '21	18,416	14,279	2:07
DEC '21	18,721	14,914	2:20
JAN '22	18,000	14,254	2:17
FEB '22	17,316	12,339	2:14
MAR '22	19,029	13,792	2:13
APR '22	18,841	13,697	2:21
MAY '22	20,696	14,808	2:22
JUN '22	20,531	14,274	2:39
Average	19,432	14,559	2:17
Total	233,182	174,704	



BACKGROUND – CONTINUED

Call Processing – Continued

The following table shows call volume and processing trends from FY2019 to FY2023, as compared to FTE.

Metric	FY2019 Actuals	FY2020 Actuals	FY2021 Actuals	FY2022 Actuals	FY2023 Adopted
911 Calls Answered	158,192	159,008	157,465	174,704	160,000
Answered in 10 Secs	88%	85%	86%	91%	86%
FTE	113	118	121	120	123
DPSC Expense	\$10,770,016	\$11,544,079	\$12,563,413	\$13,084,704	\$14,214,892
% of Public Safety Budget	4%	4%	4%	4%	3%

Comparisons

Organizations of all types and sizes recognize the value of comparing themselves to other organizations. The process of comparisons yields valuable information to leaders and decision-makers. There are, however, some dangers inherent in comparisons since no county is the perfect comparison to Prince William County. The following jurisdictions have been selected for comparison to Prince William County: Arlington County, Fairfax County, and Loudoun County.

The table and chart below compare several metrics across fiscal years 2019 through 2023, including total emergency calls answered per capita, calls answered within 10 seconds, and total full-time equivalents (“FTE”) per capita.

Name	Comparable Jurisdictions			
	2019 Population (est.)*	2020 Population (Census)*	2021 Population (est.)*	2022 Population (est.)*
Prince William, VA	473,901	482,204	488,629	498,244
Arlington, VA	238,392	238,643	233,574	244,847
Fairfax, VA	1,152,000	1,150,309	1,114,000	1,164,025
Loudoun, VA	410,100	420,959	428,435	432,085

*United States Census Bureau



BACKGROUND – CONTINUED

Call Processing – Continued

Comparisons – Continued

Comparable Jurisdictions						
County	Metric	FY2019 Actuals	FY2020 Actuals	FY2021 Actuals	FY2022 Actuals	FY2023 Adopted
PWC	911 Calls Answered	158,192	159,008	157,465	174,704	160,000
PWC	911 Calls Answered Per Capita	.33	.33	.32	.35	.32
PWC	911 Calls Answered per FTE	1,400	1,348	1,301	1,456	1,301
PWC	Answered in 10 Secs	88%	85%	86%	91%	86%
PWC	FTE	113	118	121	120	123
Arlington	911 Calls Answered	99,096	90,106	83,037	94,871	95,000
Arlington	911 Calls Answered Per Capita	.42	.38	.36	.39	.39
Arlington	911 Calls Answered per FTE	1,694	1,540	1,496	1,824	1,845
Arlington	Answered in 10 Secs ¹	N/A	N/A	N/A	N/A	N/A
Arlington	FTE	58.5	58.5	55.5	52	51.5
Fairfax	911 Calls Answered	434,011	421,619	446,979	479,695	479,695
Fairfax	911 Calls Answered Per Capita	.38	.37	.40	.41	.41
Fairfax	911 Calls Answered per FTE	2,117	1,952	2,069	2,170	2,151
Fairfax	Answered in 10 Secs	91%	94%	95%	90%	90%
Fairfax	FTE	205	216	216	221	223
Loudoun	911 Calls Answered	N/A	N/A	195,480	208,640	238,758
Loudoun	911 Calls Answered Per Capita	N/A	N/A	.46	.48	.53
Loudoun	911 Calls Answered per FTE	N/A	N/A	2,878	2,990	3,486
Loudoun	Answered in 10 Secs	N/A	N/A	N/A	N/A	N/A
Loudoun	FTE	42	42	49	49	49

¹ Arlington County reports on calls answered within 15 and 20 seconds. See page 16 for related process improvement opportunity #1.

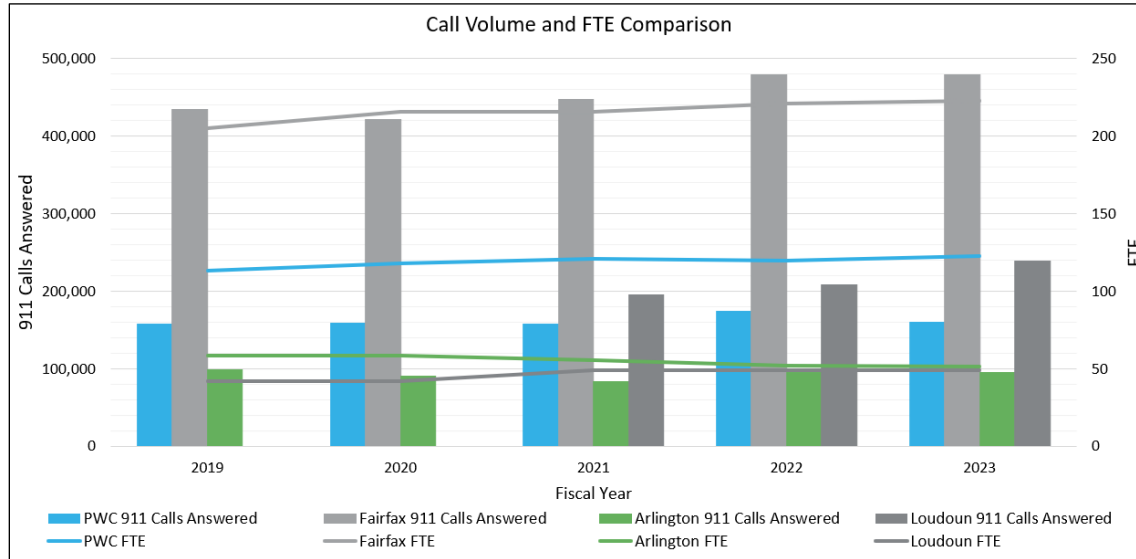


BACKGROUND – CONTINUED

Call Processing – Continued

Comparisons – Continued

The chart below compares call volume to FTE across fiscal years 2019 through 2023. As no jurisdictional comparison is equal, the County’s volume and FTE is most similar to Arlington.





BACKGROUND – CONTINUED

Call Processing – Continued

Comparisons – Continued

The table below compares public safety communications expense as a percentage of total public safety communications expense, across fiscal years 2019 through 2023.

Comparable Jurisdictions						
County	Metric	FY2019 Actuals	FY2020 Actuals	FY2021 Actuals	FY2022 Actuals	FY2023 Adopted
PWC	PSC Expense	\$10,770,016	\$11,544,079	\$12,563,413	\$13,084,704	\$14,214,892
PWC	Total PS Budget	\$275,946,545	\$292,466,171	\$304,071,806	\$308,770,655	\$326,385,421
PWC	% of Public Safety Budget	4%	4%	4%	4%	3%
Arlington	PSC Expense	\$10,545,228	\$10,849,999	\$10,992,779	\$11,526,541	\$11,121,797
Arlington	Total PS Budget	\$144,778,022	\$149,210,523	\$149,796,458	\$157,196,992	\$163,441,588
Arlington	% of Public Safety Budget	7%	7%	7%	7%	7%
Fairfax	PSC Expense	\$46,223,267	\$46,396,672	\$49,425,400	\$43,448,172	\$78,378,033
Fairfax	Total PS Budget	\$505,886,750	\$512,650,063	\$522,006,631	\$543,943,643	\$569,657,905
Fairfax	% of Public Safety Budget	9%	9%	9%	8%	14%
Loudoun	PSC Expense	\$3,890,711	\$4,634,919	\$5,682,633	\$5,538,505	\$5,760,369
Loudoun	Total PS Budget	\$192,189,479	\$209,531,009	\$233,761,307	\$249,083,388	\$277,247,519
Loudoun	% of Public Safety Budget	2%	2%	2%	2%	2%

PWC exhibits the second lowest public safety communications expense as a percentage of total public safety expense compared to the other jurisdictions from fiscal years 2019 to 2023. As mentioned above in the previous comparison, PWC has the lowest emergency call volume per FTE. Fairfax and Arlington Counties exhibit a similar correlation: Fairfax County has highest public safety communications expense as a percentage of total public safety expense and the second highest call volume processed per FTE; Arlington County has the second highest public safety communications expense as a percentage of total public safety expense and the third highest call volume processed per FTE.

A positive relationship could be drawn between public safety communications expense as a percentage of public safety expense and FTE call-processing ability: the higher the public safety communications department expense as a percentage of total public safety expense, the higher the annual call volume processed per FTE (with the exception of Loudoun County).



BACKGROUND – CONTINUED

Call Processing – Continued

Data Security and Monitoring

Each CAD incident record generated for an emergency call is stored in the local CAD system and is accessible by all users by entering certain record parameters (e.g., date range, address, incident type, call taker, etc.) on an incident recall screen. CAD record information is stored in a separate data warehouse for five years, with access restricted to supervisors, managers, and directors. Due to the nature of public safety communications, there is a legitimate need for all call takers to have access to CAD records, so access to records is not restricted to designated times of community need; all employees are vetted extensively as a preventative control to inappropriate usage of caller data. The CAD system allows for historical data reporting, including user access information. Quarterly, the DPSC Director audits authorized users of the CAD system, physical building, and County Network based on the current employee roster. Motorola (the provider of the Center's CAD system) can also perform a variety of infrastructure-type audits at the County's request or before a significant upgrade; audit activities can include evaluation of storage space across application and database servers, the accuracy of SQL job execution, consistency of application versions, and several other firmware-related checks.

Next Generation 911 ("NG911")

Considering technological advancements and widespread access to various modes of communication, the DPSC implemented NG911, which is an advanced communication system that allows callers to transmit videos and pictures to 911 operators via mobile devices. NG911 expands possibilities and opportunities for the public to communicate and share valuable information with public safety employees. Before the implementation of NG911, the DPSC had already been accepting text to 911 via their Call Handling Equipment since July 2017, and now the texts are processed through the NG911 systems instead. Currently, only texts are accepted – no video or other forms of media can be processed.

As of June 2021, the DPSC implemented NG911 to join the Emergency Services IP Network ("ESINet") and transfer service to AT&T. The increased demands of NG911 data require additional staffing to perform the labor and time-intensive workload of providing text, photos, and video to authorized recipients. The FY2023 approved budget includes two public safety telecommunicator specialist positions to accommodate the increased responsibilities associated with NG911; the cost for the two positions is \$163,567.

Training and Certifications

Training

Candidates must complete various screening steps involving tests (e.g., aptitude, personality, typing, hearing, sight, and polygraph), a background check, and a formal interview before receiving an offer. All Center employees, besides Teletype Operators, are cross-trained to be telecommunicators, regardless of rank or position, and must complete an introductory telecommunicator training course. The basic telecommunicator course involves on-the-job training with daily and monthly observation reporting. Upon successful completion of the on-the-job training, the trainee is recommended for progression, and a subsequent examination is administered before the telecommunicator's release for solo duty. Employees must pass the test with a minimum overall score of 80% and demonstrate adequate knowledge of the primary call-taking skills in each section. Tests may be written, practical, or a combination of both.



BACKGROUND – CONTINUED

Training and Certifications – Continued

The following table shows the year-over-year DPSC staffing levels trends, with specific data surrounding trainee success rates, training hours, and employee retention experienced at the DPSC from calendar years 2019 to 2021.

DPSC Annual Staffing Metrics 2019-2021			
	2019	2020	2021
Hired	15	21	15
Released from Probation	10	18	4
Completed Training	10	13	7
All Employees Retained for Three Years or More	78	90	67
Average In-service Training Hours	301	280	302
Separated Employees (terminated, resigned, retired, etc.)	13	7	20
Total No. of Employees/Positions	113	121	121

Certifications

All employees are required to complete a minimum of 24 hours of continuing education related to their position every two years. Additionally, all telecommunicators must comply with other certification requirements to maintain employment and the capability to process calls. In addition to the continuing education requirement, all telecommunicators are required to be certified in the following, which require recertification every two years:

- Emergency Medical Dispatch (EMD) through the Association of Public-Safety Communications Officials (APCO)
- CPR
- Virginia Criminal Information Network

The Center employs in-house instructors to administer CPR certifications and most EMD certification requirements. Additionally, at the beginning of employment, all telecommunicators are required to acquire a one-time certification with the Department of Criminal Justice Services (DCJS) which does not expire.

Certification compliance is monitored by a training department using a manual spreadsheet. Monitoring procedures include a monthly review by Management to identify any certifications with upcoming expirations and contract the employee to confirm they are on track for recertification. Employees also have visibility into their various certification statuses by accessing their training files in ADPSCO. If a telecommunicator's required certification(s) expires, they are permitted to continue work for a 30-day grace period while they take appropriate steps to recertify; if a telecommunicator continues to be out of compliance with the certification requirements, they are removed from the call processing floor and may service the Center in a different capacity until recertified.

Performance Monitoring

Performance monitoring is an ongoing process at the DPSC since their positions are highly sensitive, and adherence to policies, including those designed to facilitate call-taking and emergency-response procedures, is critical to the effective and efficient performance of the Center and its duty to serve PWC citizens. DPSC performance is monitored through key performance metrics, ongoing call monitoring by supervisors, monthly quality assurance ("QA") of calls for each telecommunicator, annual performance evaluations, and adherence to the DPSC strategic plan.



BACKGROUND – CONTINUED

Performance Monitoring – Continued

Quality Assurance

For each telecommunicator, monthly quality assurance is performed by a supervisor to evaluate at least two (2) non-emergency medical calls and by a QA specialist for at least two (2) emergency medical calls. Calls are scored on a 100-point scale, and any assessment that receives a score of 70% or less must be discussed with the telecommunicator, who is required to sign off on the assessment. Calls of a highly sensitive nature are called "red card" calls (i.e., CPR, airway control, obstructed airway, and childbirth calls) and missing children/abduction calls; QA's are performed on all calls in these categories for all telecommunicators each month.

DPSC Strategic Plan

Annually, the DPSC develops a strategic plan that outlines short- and long-term goals along with the planned actions to achieve them or progress towards achieving them during the year. Progress towards these goals is made throughout the year and periodically documented on an official memorandum that evidences specific steps towards strategic goals and justifies lack of progress/delays in achievement.

National Emergency Number Association ("NENA")

NENA is a non-profit organization that works with 9-1-1 professionals nationwide to develop and carry out critical programs and initiatives, facilitate the creation of NG911, and establish industry-leading standards, training, and certifications. NENA standards for 9-1-1 call processing were developed to serve as model standard operating procedures for handling calls received by public safety communicators. NENA operating procedures standardize the method of call handling across jurisdictional boundaries to provide consistency in processing emergency and non-emergency calls and improve service to the public.

NENA standards state the following regarding call answer time:

- 90% of 9-1-1 calls should be answered within 15 seconds; and
- 95% should be answered within 20 seconds.

PWC currently measures the answer time of 9-1-1 calls in terms of only the percentage answered at the 10-second interval. The following table illustrates the trend of this KPI for the most recent five-year period at PWC:

Percent of 9-1-1 Calls Answered in 10 Seconds at PWC				
FY2019 Actuals	FY2020 Actuals	FY2021 Actuals	FY2022 Actuals	FY2023 Adopted
88%	85%	86%	91%	86%

Due to the availability of comparable KPI data, PWC's exact ranking compared to the NENA standards cannot be determined. Based on the NENA call answering standards above, fewer calls are expected to be answered within 15 seconds compared to 20 seconds. It can be inferred that approximately 85% of 9-1-1 calls should be answered within 10 seconds. Based on this assumption, PWC consistently answers calls within acceptable time intervals as determined by NENA and, in some cases, has exceeded standard expectations.

Internal Metrics

DPSC monitors call-related performance metrics in addition to the Call Answer goal specified by NENA. These KPIs are calculated monthly and included in a summary metric report with supporting data distributed to employees. Monthly metrics reporting is used to identify trends and potential opportunities for additional training and/or reinforcement of policies and performance goals. Annual KPI information is also included in the approved County budget each fiscal year.



OBJECTIVES AND APPROACH

Objectives

This internal audit aimed to assess the current staffing levels in the DPSC proportionate to the volume and length of calls received during each of the three shift schedules. The audit also examined the documented policies, procedures, and related system of controls surrounding employee training and certification and consumer data protection. Where applicable, the audit period was from July 1, 2021, through June 30, 2022.

Approach

Our audit approach consisted of the following three phases:

Understanding and Documentation of the Process

We conducted interviews with the appropriate representatives from the DPSC to discuss the scope and objectives of the audit work, obtain preliminary data, and establish working arrangements. We obtained and reviewed 1) documented policies and procedures related to the area and 2) other documents deemed necessary and performed walkthroughs of the process(es) and key controls to gain an understanding of the function and assess the design of the process/key controls.

Evaluation of the Design of Process and Controls

This phase aimed to assess the current controls, policies, and procedures in place related to the scope mentioned above.

- Obtained an understanding of the policies, processes, and standards related to the intake, processing, and dispatching of emergency calls and notifications;
- Assessed Center staffing levels concerning established metrics such as the volume and length of calls processed, wait time, dropped calls, etc.;
- Evaluated the impact of Next Generation 911 ("NG911") on employee workload and service levels;
- Assessed the Center's staffing retention and turnover and the potential impact on relevant performance metrics;
- Evaluated the impact of the DPSC's designation as an independent department on quality of service, intra-County relationships, etc.;
- Evaluated the process to monitor progress towards the goals outlined in the DPSC's Strategic Plan;
- Reviewed the applicable policies and procedures to identify gaps related to controls;
- Assessed controls over the protection of caller data;
- Reviewed DPSC adherence to personnel training and certification requirements;
- Assessed adequacy of records and documentation to establish an audit trail and verified procedures were appropriately followed; and
- Documented related process controls, identified observations, and provided recommendations for process improvements.

Reporting

At the conclusion of this audit, we summarized our findings into this report. We have reviewed the results with the appropriate Management personnel and have incorporated Management's response into this report.



OBSERVATIONS MATRIX – CONTINUED

Observation	1. Quality Assurance Program
<p style="text-align: center;">Low</p>	<p>The Center’s call QA program includes monthly QA reviews conducted on different call types for each TC that processed calls during the month in review. For each TC, the documented monthly QA review requirements include: at least two (2) EMD calls, two (2) non-EMD calls, all red card calls (e.g., calls that involve CPR, airway control, obstructed airway, and/or childbirth), and all missing children and abduction calls. A dedicated QA specialist performs the various monthly reviews and communicates the results to management.</p> <p>We selected a sample of five (5) employees and inspected that a QA review was performed for the red card, missing children, and abduction calls processed. Based on these testing procedures, we noted the following:</p> <ul style="list-style-type: none"> • The evidence of a QA review performed over a red card call could not be provided for one (1) of five (5) employees. <p>Additionally, during our review of policies and procedures and performance of detailed testing procedures, the following inconsistency was noted between the documented process description and the observed process operation:</p> <ul style="list-style-type: none"> • The current policy (Administrative Directive 16.8) surrounding the QA program states that QA reviews are conducted on <i>all</i> red card calls, however, based on information and documentation gathered during walkthroughs and testing, a random sampling of QA reviews are conducted on red card calls rather than all instances in the population undergoing QA review. <p>Without accurately documented policies and procedures governing the QA program and completion of the related QA review requirements, there is an increased risk of not identifying improvement opportunities to the overall call-taking process or individual TC performance through the review of call-taking behavior.</p>
<p>Recommendation</p>	<p>We recommend that the current policies and procedures are reviewed for accuracy against current-state operational processes and revised to remove/update inconsistencies between documented policies and how the DPSC operates. The DPSC should follow the policies and procedures outlined in the revision above to avoid inconsistencies in QA review expectations, reduce delays in the completion of QA requirements, and further mitigate the risk that calls are processed without a level of review appropriate to mitigate applicable risks.</p>
<p>Management Action Plan</p>	<p>Response: The policy for the QA program has been updated to reflect that a sampling of red card calls and other high priority calls will be QA’d, vs a specific number, or “all”.</p> <p>Responsible Party: AD of Administration</p> <p>Completion Date: March 22, 2023</p>



OBSERVATIONS MATRIX – CONTINUED

Process Improvement Opportunity

1. Use of NENA Call Standards

NENA is a non-profit organization that works with 9-1-1 professionals nationwide to develop standards for 9-1-1 call processing to serve as model standard operating procedures for handling calls received by public safety communicators. NENA operating procedures standardize the method of call handling across jurisdictional boundaries to provide consistency in processing emergency and non-emergency calls and improve service to the public.

NENA standards state the following in regard to call answer time:

- 90% of 9-1-1 calls should be answered within 15 seconds; and
- 95% should be answered within 20 seconds.

The DPSC currently measures and develops KPI reports that include answer time of 9-1-1 calls in terms of the percentage of calls answered at the *10-second interval*. Current DPSC KPI reporting does not include the percentage of calls answered with the 15-second or 20-second intervals the NENA recommends benchmarking against.

While DPSC's establishment of more aggressive call answer goals is appreciated, the DPSC should also consider including 15-second and 20-second call answer time intervals in the percentage of calls answered metrics in their monthly KPI reports and the approved County budget. If KPI measurements have these additional intervals, KPI reporting could be more effectively used to compare DPSC performance at PWC to national standards, enabling a potential method to identify opportunities for improvement, or the ability to highlight performance that exceeds national standards. Performing a periodic review of PWC DPSC metrics compared to NENA standards could indicate the need to hire additional Center employees or re-evaluate center processes.

Management Response (Optional): We started incorporating the NENA standard of 15 and 20 seconds on our monthly report, starting in February 2023, in addition to the current 10 and 40 seconds.

2. Timing of Annual Merit Evaluations

The current policy (Administrative Directive 7.0) surrounding merit evaluations states that "Performance evaluations will be completed and filed on all employees annually, one month before their anniversary/last promotion date" however, based on information and documentation gathered during walkthroughs and testing, annual performance evaluations now occur at the same time each year for all employees (by November 1).

We recommend that the current policies and procedures are reviewed for accuracy against current-state operational processes and revised to remove/update inconsistencies between documented policies and how the DPSC operates. The DPSC should follow the policies and procedures outlined in the revision above to avoid delays in processing merit evaluations and subsequent compensation changes.

Management Response (Optional): Policy will be updated to reflect new County focal date.



OBSERVATIONS MATRIX – CONTINUED

Process Improvement Opportunity – Continued

3. Basic TC Training 6-Month Evaluations

The Basic Telecommunicator course completed by all TCs requires progress evaluations/training milestones, including: daily and monthly observation reports, a 6-month performance evaluation, and an annual performance evaluation that occurs before the employee's first anniversary of hire. The Employee's supervisor performs the 6-month performance evaluation in which they describe areas where the employee is doing well and any deficiencies or areas of improvement, and review the evaluation results with the employee. Afterward, both individuals date and sign the 6-month performance evaluation, which is retained for documentation purposes.

We selected a sample of five (5) employees going through the basic telecommunicator training during our audit period and inspected that a 6-month evaluation was performed on the appropriate date (~6 months after the employee hire date), signed by the employee and supervisor, and retained on file. Based on these testing procedures, we noted the following:

- The 6-month evaluation could not be provided for two (2) of five (5) instances.
- The 6-month evaluation did not include signatures or dates from the employee and supervisor for two (2) of five (5) instances.

Failure to comply with the basic telecommunicator training retention requirements increases the risk of employee performance falling below expectations without remediation, which could lead to errors in call processing, including delays in call handling, delays in police or fire and rescue unit dispatching, and improperly documenting call details in the CAD system. It also increases the risk of mishandling a public safety issue, potentially diminishing the public perception of the DPSC in PWC.

Although there were exceptions noted during testing, there are multiple compensating controls in place to mitigate the associated risks to an acceptable level – daily and monthly observation reports and the annual performance evaluation processes were assessed and all passed testing with no exception.

We recommend that all 6-month Basic TC evaluations are completed, signed, and appropriately retained on file for documentation purposes. Further, we recommend DPSC consider implementing a process to verify the retention of all required evaluations, assessments, and other required personnel documentation.

Management Response (Optional): While the County 6 month evaluation could not be located for these specific employees, they did receive monthly evaluations for the first year of their employment that documents their strengths and weaknesses and performance. We have instituted a process by which we track 6-month evaluations, using our Guardian Tracking system, as well as emailing the evaluation to the HR team for whom this information is responsible.



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