



Central (Richmond)



Northern (Manassas)



Eastern (Norfolk)



Western (Roanoke)

# DEPARTMENT OF FORENSIC SCIENCE UPDATE

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Linda C. Jackson, Director

Presented to the Forensic Science Board

April 21, 2021





# Meeting Materials

Virginia.gov > Department of Forensic Science > About DFS > Forensic Science Board > Meetings and Meeting Minutes

## Meetings and Meeting Minutes

Forensic Science Board

Statutes Related to Board

Meetings and Meeting Minutes

Annual Reports

### Meeting Minutes and Notices

Meeting minutes and all Upcoming Public Meeting Notices are posted on the Virginia Regulatory Town Hall website.

### Upcoming Meetings

<https://www.dfs.virginia.gov/about-dfs/forensic-science-board/meetings-and-meeting-minutes/>



# COVID-19 Updates

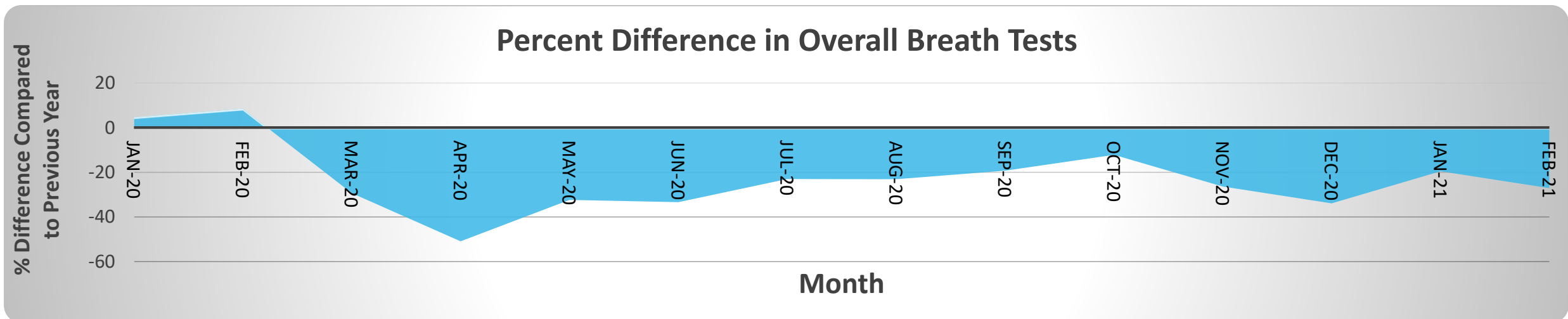
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- Maintaining examination capabilities in all laboratories
- Developed internal disinfection capability
- Continuing to encourage alternate work schedules and teleworking, where possible



# COVID-19: Breath Alcohol

- Compared to 2019, January and February 2020 were on track to have a comparable number of breath tests
- Since March 2020, number of breath tests have been significantly lower





# Workload Statistics - 2020 to 2021

CY Q1	Submissions		
	2020	2021	% change
DME	58	45	-22%
Controlled Substances	9,183	6,991	-24%
Firearms & Toolmarks	2,016	1,980	-2%
Forensic Biology	1,436	1,527	6%
Latent Prints & Impressions	564	502	-11%
Toxicology	2,591	2,692	4%
Trace Evidence	162	162	0%
TOTAL	16,010	13,899	-13%

CY Q1	Backlog (end of March)		
	2020	2021	% change
DME	123	61	-50%
Controlled Substances	10,749	1,573	-85%
Firearms & Toolmarks	1,569	2,714	73%
Forensic Biology	1,953	2,091	7%
Latent Prints & Impressions	803	616	-23%
Toxicology	1,140	1,499	31%
Trace Evidence	98	129	32%
TOTAL	16,435	8,683	-47%

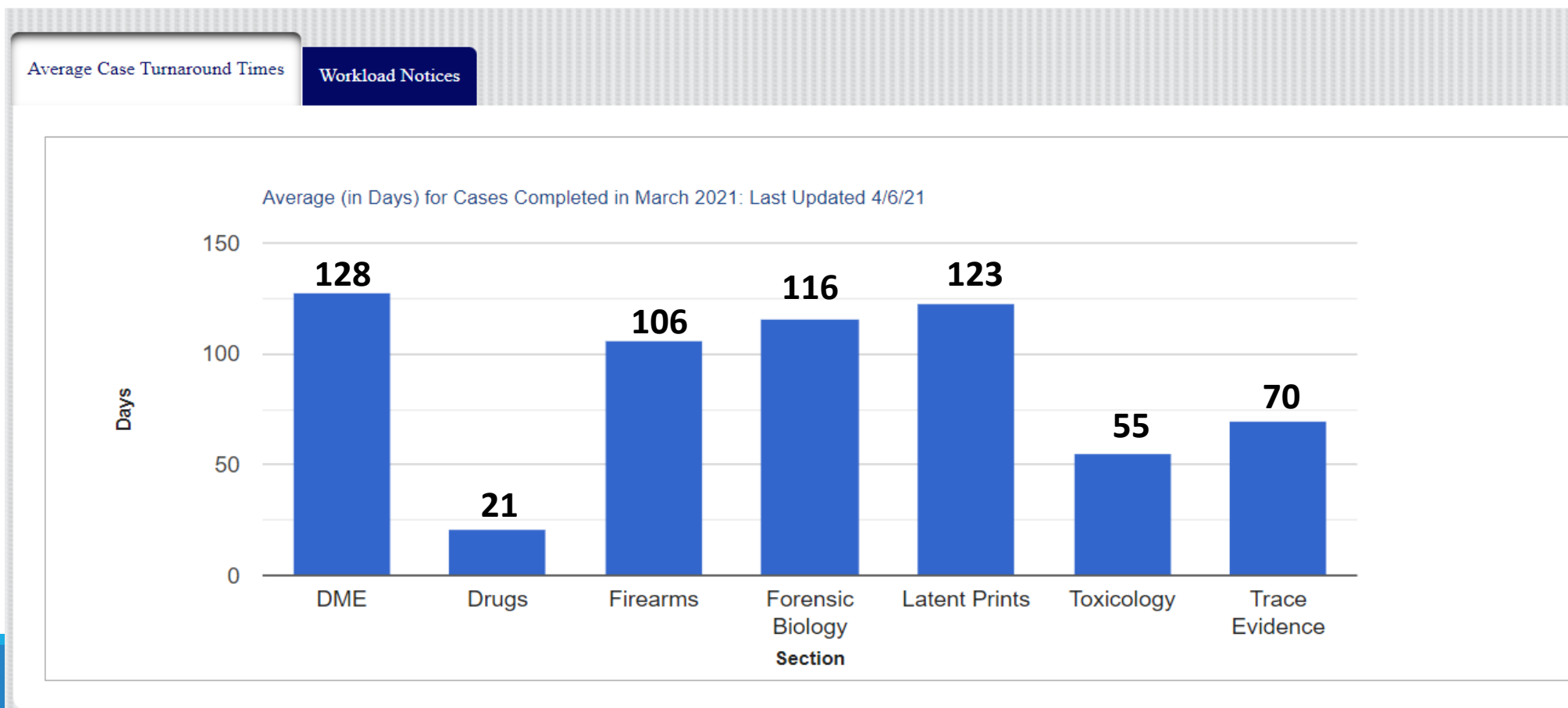
**NOTE:**  
Many factors affect the changes to backlogs.



# March 2021 Turnaround Times

Virginia.gov > Department of Forensic Science > About DFS > Average Case Turnaround Times

## Average Case Turnaround Times





# Turnaround Times

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- Toxicology
  - Increase in Submissions (+9% in CY20 vs. CY19)
  - Staffing in Central Laboratory
  - Central OCME Outsourcing Selected Cases to NMS
- Firearms
  - Increase in Submissions (+13% in CY20 vs. CY19)
  - Three examiners in training and one in hiring process



# Turnaround Times

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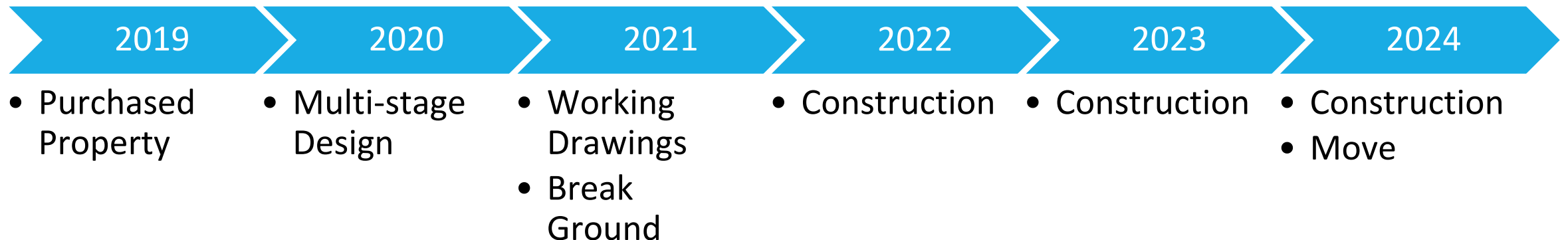
- Latent Prints
  - Fully staffed
  - 2 Forensic Scientists recently completed training and are now fully qualified
  - 2 currently training in Latent Prints, 1 in Impressions





# Central Laboratory Capital Project

- Preliminary drawings were submitted to Division of Engineering and Buildings (DEB)
- All comments by DEB reviewers have been successfully addressed
- DFS was just advised that it received the funding requested to proceed with the Central Laboratory Construction Project





# Accreditation

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- Preparing for our off-site surveillance visit scheduled in May
- Accreditation Certificates and Scopes are posted on the website (<https://www.dfs.virginia.gov/about-dfs/accreditation/accreditation-documentation/>)
  - Trigger Pull is outside scope



# Forensic Training

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## 102<sup>nd</sup> Forensic Science Academy (FSA)

- Mostly students from the cancelled session last summer
- Graduated April 1<sup>st</sup>

103<sup>rd</sup> FSA begins April 26<sup>th</sup>

104<sup>th</sup> FSA begins September 13<sup>th</sup>

# Board of Pharmacy - Expedited Scheduling

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DFS recommended six (6) compounds in January 2021. The compounds were considered at the Board's March 30th meeting and are pending final approval.

## **Synthetic Opioids:**

- Brorphine
- para-Chlorofentanyl
- Metonitazene
- Etazene

## **Depressant properties:**

- Meclonazepam

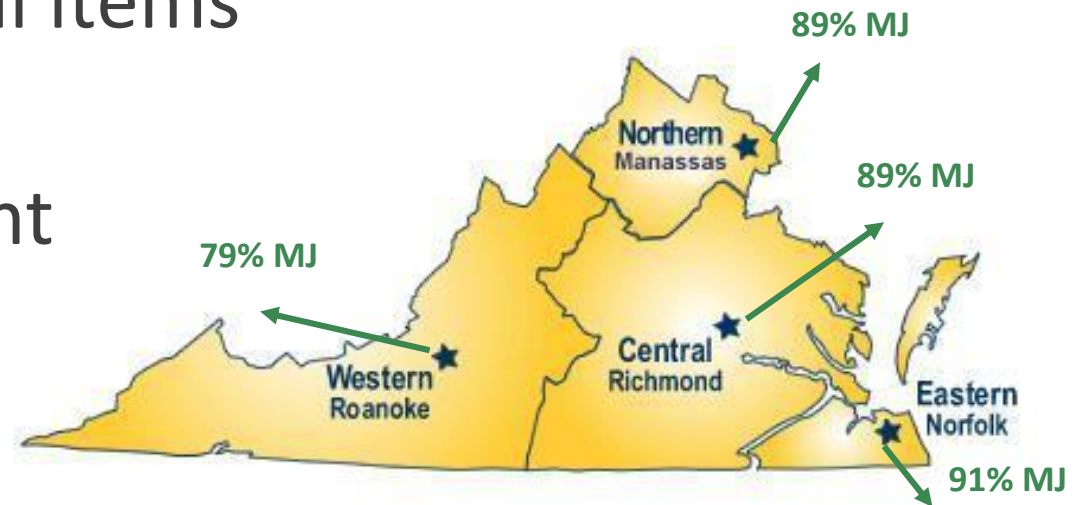
## **Cannabimimetic Agents:**

- 5-fluoro EDMB-PICA



# Cannabis Update

- Semi-quantitative (SQ) method implemented January 24, 2020
- CY2020: 8,594 items analyzed and reported as Marijuana or Cannabis (13% of all items analyzed)
- 7,451 items were described as “plant material”
  - 87% were reported as Marijuana
  - 13% were reported as Cannabis





# Cannabis Update

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- SQ method updated December 11, 2020
  - Expanded to include cannabis extracts
  - Changed administrative threshold from 2% to 1%  $\Delta$ 9-THC
  - Changed internal standard from androstenedione to testosterone
- Quantitation of THC via GC-MS in selected ion monitoring (SIM) mode
  - Validation in progress



COMMONWEALTH of VIRGINIA  
DEPARTMENT OF FORENSIC SCIENCE

OFFICE OF THE DIRECTOR  
A Nationally Accredited Laboratory

700 NORTH 5TH STREET  
RICHMOND, VIRGINIA 23219  
(804) 786-2281 FAX (804) 786-6857

**NOTICE OF DFS POLICY CHANGE**

To: All Agencies Served by DFS  
From: Linda Jackson, Department Director   
Date: February 10, 2021  
RE: Latent Print Database (AFIS/NGI) Search Results

The Latent Print Section utilizes the Virginia Automated Fingerprint Identification System (AFIS) and the Next Generation Identification (NGI) system to provide investigative information about individuals potentially associated with criminal events through the search of partial latent prints recovered from evidence against databases of known exemplars (fingerprints and palm prints).

The known exemplars obtained as a result of a database search could potentially contain characteristics very similar to those present in the partial latent print (considered a "close non-match"). A comparison conclusion is an examiner's opinion based upon the interpretation of the details present in the latent print and the known exemplar. Historically, examiners have been able to differentiate between a close non-match and an identification; however, due to the increasing size of the databases and the advancements in matching algorithms, this task is becoming more difficult. Accordingly, the Department has implemented additional quality assurance measures and reporting requirements to minimize the risks for more complex latent prints.

Below is an example of the language that will be included on the Certificate of Analysis for instances where the risk of a potential close non-match is higher due to the complexity of the latent print.

*Due to the nature of latent print 1P2 and given the higher chance of a coincidental match in a large database, similar corresponding characteristics could be observed in the friction ridge skin of a different person.*

The result of a database search is intended to provide an investigative lead, and any possible connection or involvement of the individual to the case must be determined through further investigation.

Please contact the Latent Print Section Supervisor for your service area at the number listed if you have any questions or concerns.

Laboratory	Section Contact	Phone Number
Central (Richmond)	Amanda Lane	(804) 588-4029
Eastern (Norfolk)	Chris Claytor	(757) 355-5950
Northern (Manassas)	Jessica Davis	(703) 334-9752
Western (Roanoke)	Kate Adolf	(540) 283-5975



# Latent Prints

- New language on Certificates of Analysis for potential association.
  - For complex latent prints
  - When searched in a database
    - Virginia Automated Fingerprint Identification System (AFIS)
    - Next Generation Identification (NGI) System
- Clarifies that the information provided is an investigative lead and the connection of the individual to the case must be determined through further investigation.





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NOTICE REGARDING FORENSIC BIOLOGY (DNA)

To: All Agencies Served by Department of Forensic Science Laboratories  
From: Linda C. Jackson, Director *LCJ*  
Date: March 22, 2021  
RE: Impact of Shortage of DNA Testing Supplies on Forensic Biology Case Processing

The Forensic Biology (DNA) Section is currently experiencing a shortage of DNA testing supplies due to the fact that these supplies are also used by COVID-19 testing laboratories. The supplies have a direct impact on the use of robotics in the testing of forensic samples, which DFS relies on for case processing. This is a nationwide issue impacting crime laboratories across the country, and DFS anticipates the shortage will continue into the summer, and perhaps beyond, as manufacturers attempt to increase production.

Due to the limited supplies, robotic processing of samples has been greatly reduced, resulting in longer completion times for DNA testing and an increase of backlogged cases. The Forensic Biology Section statewide has re-directed resources to manually process samples and has had to take further action in re-prioritizing which cases are being processed. Evidence in crimes against persons cases and cases with upcoming court dates are being given highest priority, while cases related to other crimes (e.g., property crimes) are being processed on a limited basis, as the laboratory is able.

We recognize the impact that increased turnaround times has on the criminal justice process and will continue our efforts to obtain additional supplies. However, we wanted to advise our users to expect longer turnaround times for DNA cases and, unfortunately, we do not expect the issue to be resolved quickly.

For general questions about the supply shortage and its impact on case processing, please contact Biology Program Manager Brad Jenkins at (804) 588-4025. For case specific questions, please contact the Forensic Biology Supervisor at the DFS laboratory that provides services to your agency:

Central (Richmond)	Lisa Schiermeier-Wood	(804) 588-4083
Eastern (Norfolk)	Anne Pollard	(757) 355-5983
Northern (Manassas)	Karen Ambrozy	(703) 334-9743
Western (Roanoke)	Nicole Harold	(540) 283-5945



# Forensic Biology

- National pipette tip shortage
  - Impacts use of robotics
  - Manual sample processing is more time consuming
- Case prioritization
  - Evidence in crimes against persons cases
  - Cases with upcoming court dates
  - Others will be processed as lab is able





Virginia Department of Forensic Science (DFS)  
Court Testimony Evaluation Form

Please return completed form to Quality Assurance Supervisor Robyn Larson  
EMAIL: Robyn.Larson@dfs.virginia.gov

Please complete a short questionnaire to help our laboratory maintain its high level of service in expert witness testimony. The laboratory's accreditation necessitates feedback from our customers; we welcome honest and direct evaluations. To speak with someone, contact Quality Assurance Supervisor Robyn Larson at 804-588-4094.

Date of Testimony: \_\_\_\_\_ Witness Name: \_\_\_\_\_

Court Location: \_\_\_\_\_ Laboratory Case Number: \_\_\_\_\_

Defendant(s) Name: \_\_\_\_\_ Area of Testimony: \_\_\_\_\_

Please rate the DFS witness in the following categories based upon the testimony given. The rating system is as follows: (5) Excellent, (4) Very Good, (3) Good, (2) Average, (1) Poor, and (N/A) Not Applicable.

If a rating of (1) Poor is given, please explain in the space provided or attach additional pages, if needed.

	5	4	3	2	1	N/A
1. Was the witness on time?						
2. Did the witness come prepared with relevant documents?						
3. Was the witness presentable in appearance?						
4. Did the witness speak clearly and distinctly?						
5. Did the witness answer questions concisely and responsively?						
6. Did the witness show poise and perform well under direct examination?						
7. Did the witness show poise and perform well under cross examination?						
8. Did the witness provide testimony that was unbiased?						
9. Did the witness demonstrate knowledge of the technical subject?						
10. Was the witness able to convey technical information to a lay jury/court in an understandable manner?						
11. Was the witness' testimony consistent with the work reported on the Certificate of Analysis?						
<b>OVERALL RATING:</b>						

ADDITIONAL COMMENTS (attach additional page(s), if necessary):

Reviewer Name: \_\_\_\_\_ Telephone/Email: \_\_\_\_\_

Reviewer Title/Role: [ ] Prosecutor [ ] Defense Attorney [ ] Other Officer of the Court please specify: \_\_\_\_\_

DFS Use Only:

Review with Employee: \_\_\_\_\_ Date: \_\_\_\_\_

Review by Laboratory Director: \_\_\_\_\_ Date: \_\_\_\_\_



# Testimony Review

- Increasing use of testimony evaluation by attorneys due to COVID-19
- Testimony must be reviewed by another examiner competent in the discipline at least once an accreditation cycle

# Budget and Resources

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# Biennial FY21/FY22 Budget

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	FY21	FY22	MEL*
General Fund	\$53,039,134	\$53,220,854	328
Non-general Fund	\$2,414,280	\$2,358,980	3
<b>Total</b>	<b>\$55,453,414</b>	<b>\$55,579,834</b>	<b>331</b>

\*Maximum Employment Level



# Budget - FY22

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Toxicology Research grant position - 1 FTE

- Authorization to spend non-general funds
- FY22 \$79,950

Two Information Technology positions - 2 FTE

- FY22 \$246,880

Increased maintenance cost of lab equipment

- FY22 \$368,000

One Financial Management position - 1 FTE

- FY22 \$104,800

# Grant Applications – Need Approval to Accept Funds

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## DMV Highway Safety Grant

DFS applied to the DMV for highway safety funds for the Breath Alcohol (BA) Section. Funds will be used to reimburse law enforcement officers who travel for breath alcohol instruction, for continuing education for BA staff, and to continue monthly data plans and software subscriptions for staff smartphones (related to continuity of operations).

Total funds requested: Federal = \$278,055

Matching = \$69,514 (in-kind)

## DMV Highway Safety Grant

DFS applied to the DMV for highway safety funds for the Toxicology Section. Funds will be used to increase the capacity in the Toxicology Section by continuing employment of four part-time FLS II positions and adding four full-time FLS III positions. The goal is to reduce the Toxicology Medical Examiner case turnaround time to provide faster data to the DMV Traffic Records Electronic Data System.

Total funds requested: Federal = \$293,317

Matching - \$73,329 (in-kind and cash)



# Workload / Backlog Updates

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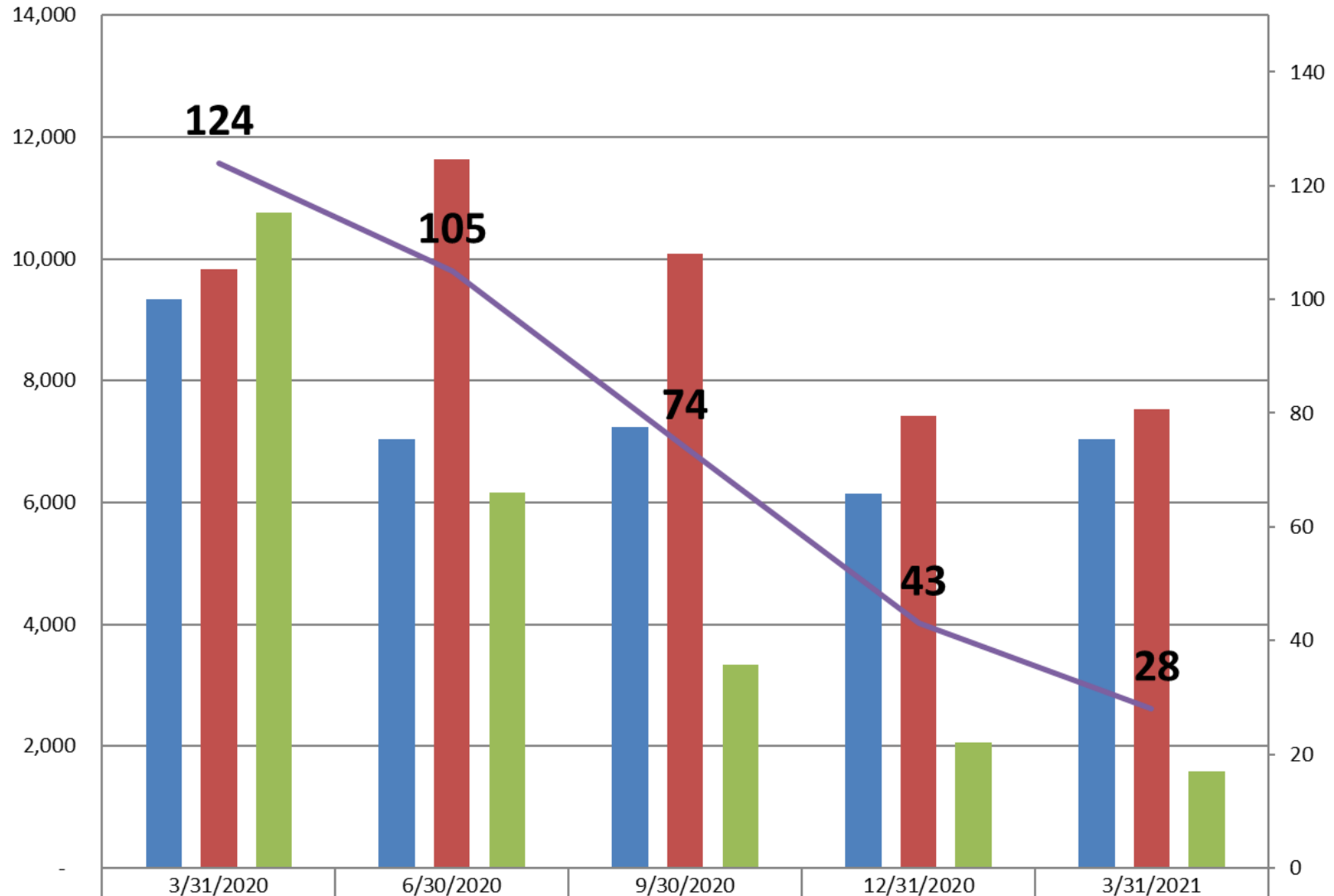
## Case Statistics Terminology

- Received – Total cases received or created in the Quarter
- Completed – Total cases completed in the Quarter
- Caseload – Case backlog at the end of the Quarter

# Controlled Substances

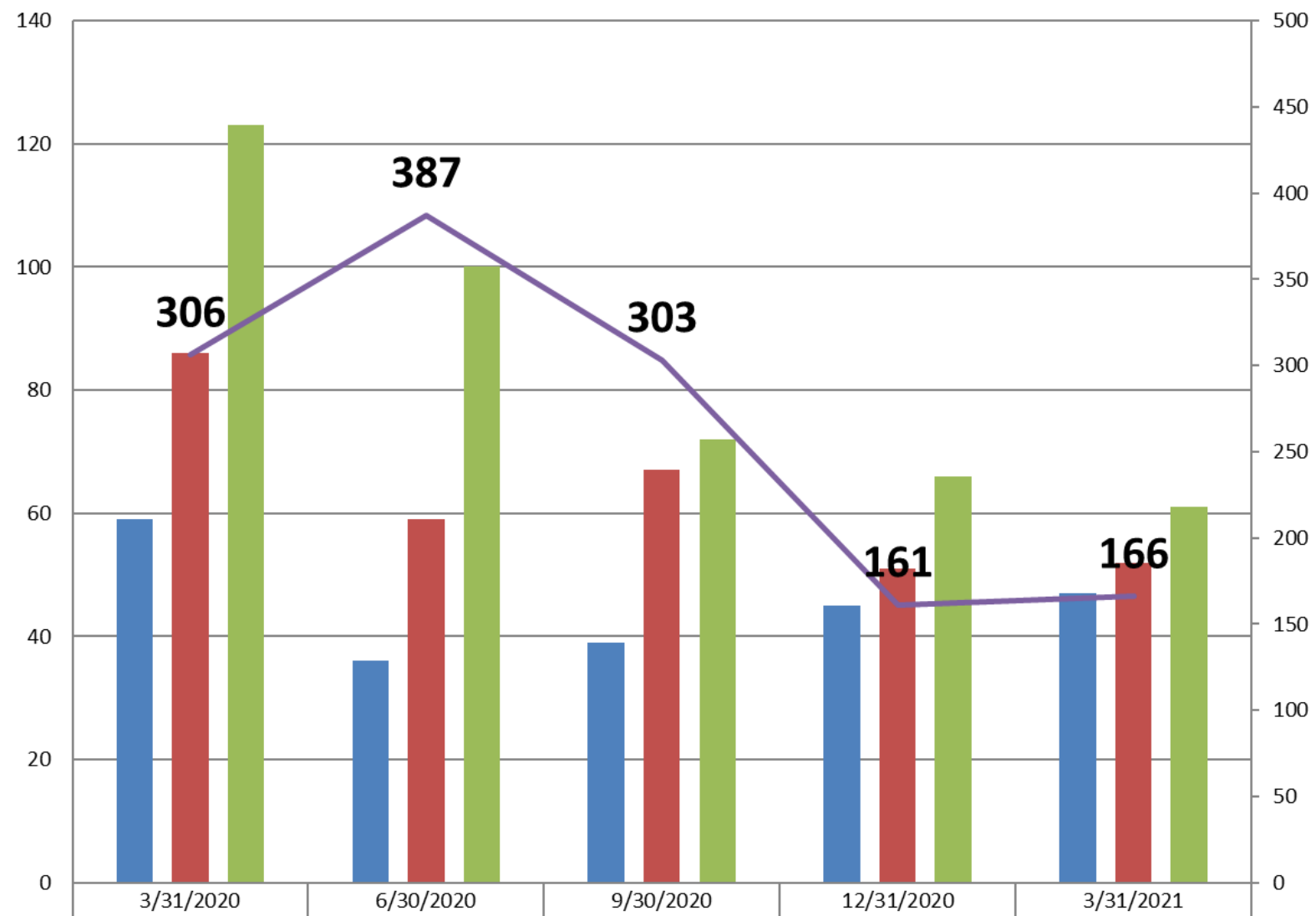
Number of Cases

Number of Days



<span style="color: blue;">■</span> Cases Received*	9,326	7,045	7,239	6,148	7,046
<span style="color: red;">■</span> Cases Completed	9,836	11,636	10,076	7,416	7,533
<span style="color: green;">■</span> Caseload	10,761	6,170	3,333	2,066	1,578
<span style="color: purple;">—</span> Average Days in System	124	105	74	43	28

Number of Cases **Digital and Multimedia Evidence** Number of Days



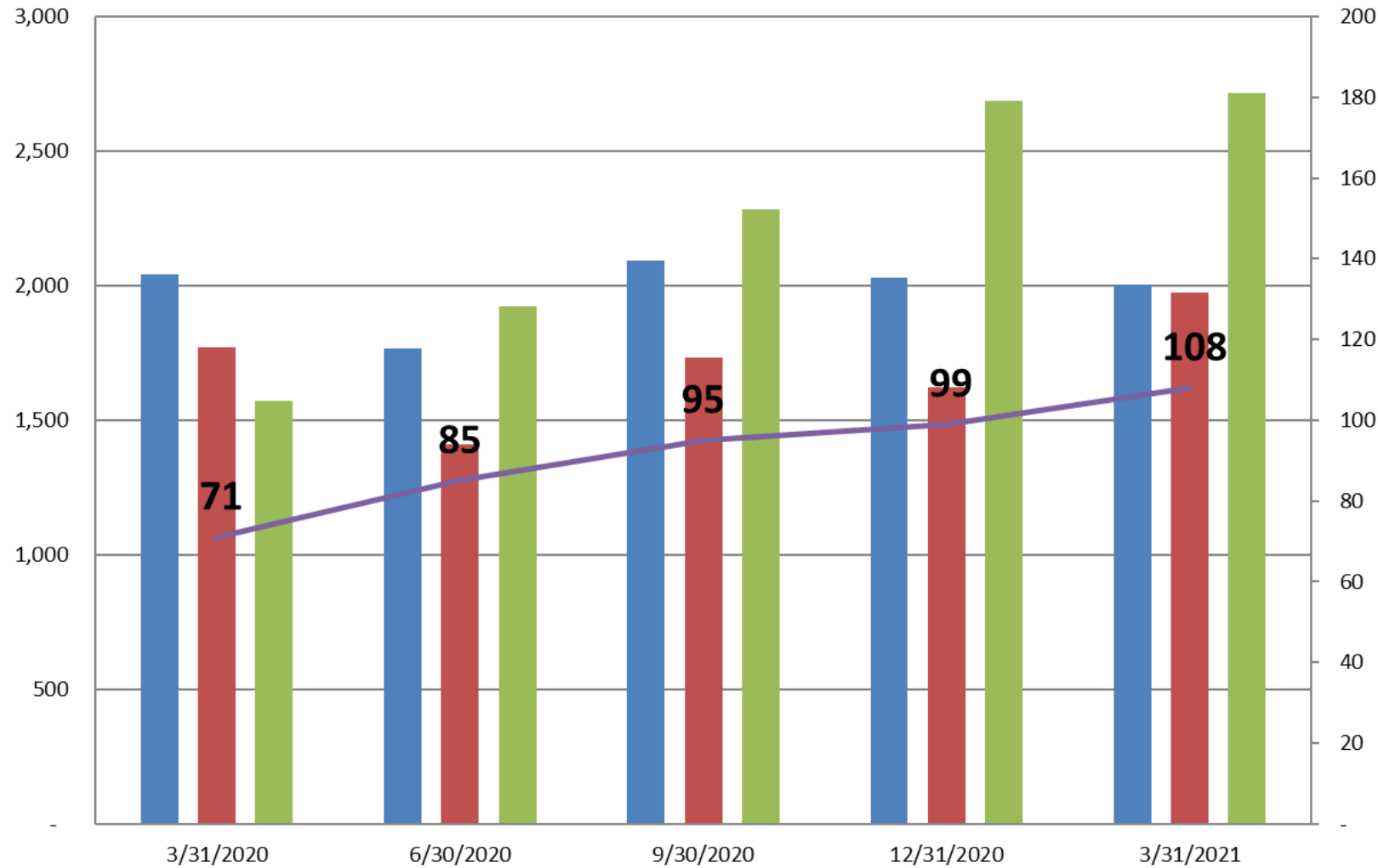
<span style="color: blue;">■</span> Cases Received*	59	36	39	45	47
<span style="color: red;">■</span> Cases Completed	86	59	67	51	52
<span style="color: green;">■</span> Caseload	123	100	72	66	61
<span style="color: purple;">—</span> Average Days in System	306	387	303	161	166



# Firearms & Toolmarks

Number of Cases

Number of Days

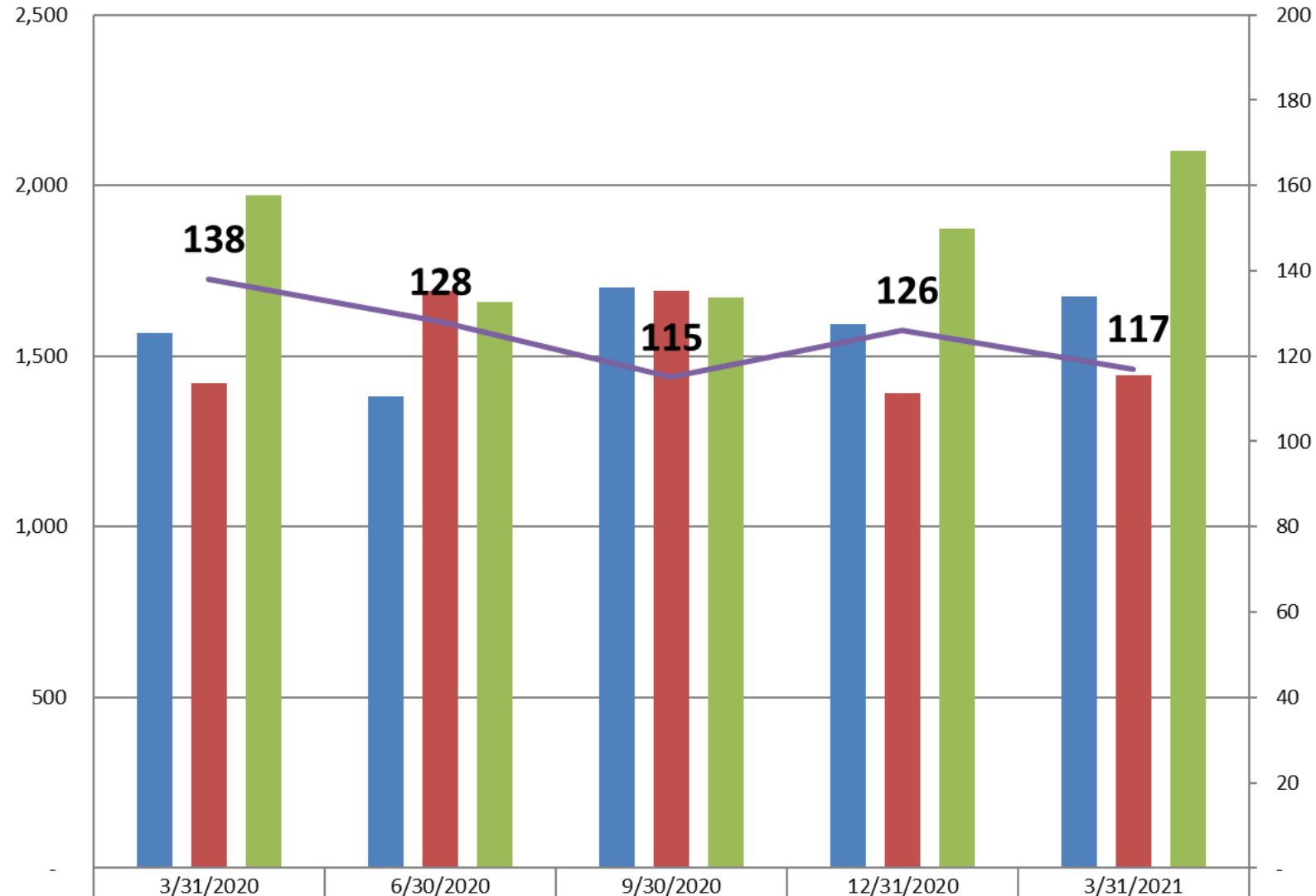


	3/31/2020	6/30/2020	9/30/2020	12/31/2020	3/31/2021
Cases Received*	2,041	1,767	2,092	2,029	2,005
Cases Completed	1,769	1,412	1,734	1,624	1,975
Caseload	1,570	1,925	2,283	2,688	2,718
Average Days in System	71	85	95	99	108

# Forensic Biology (DNA)

Number of Cases

Number of Days

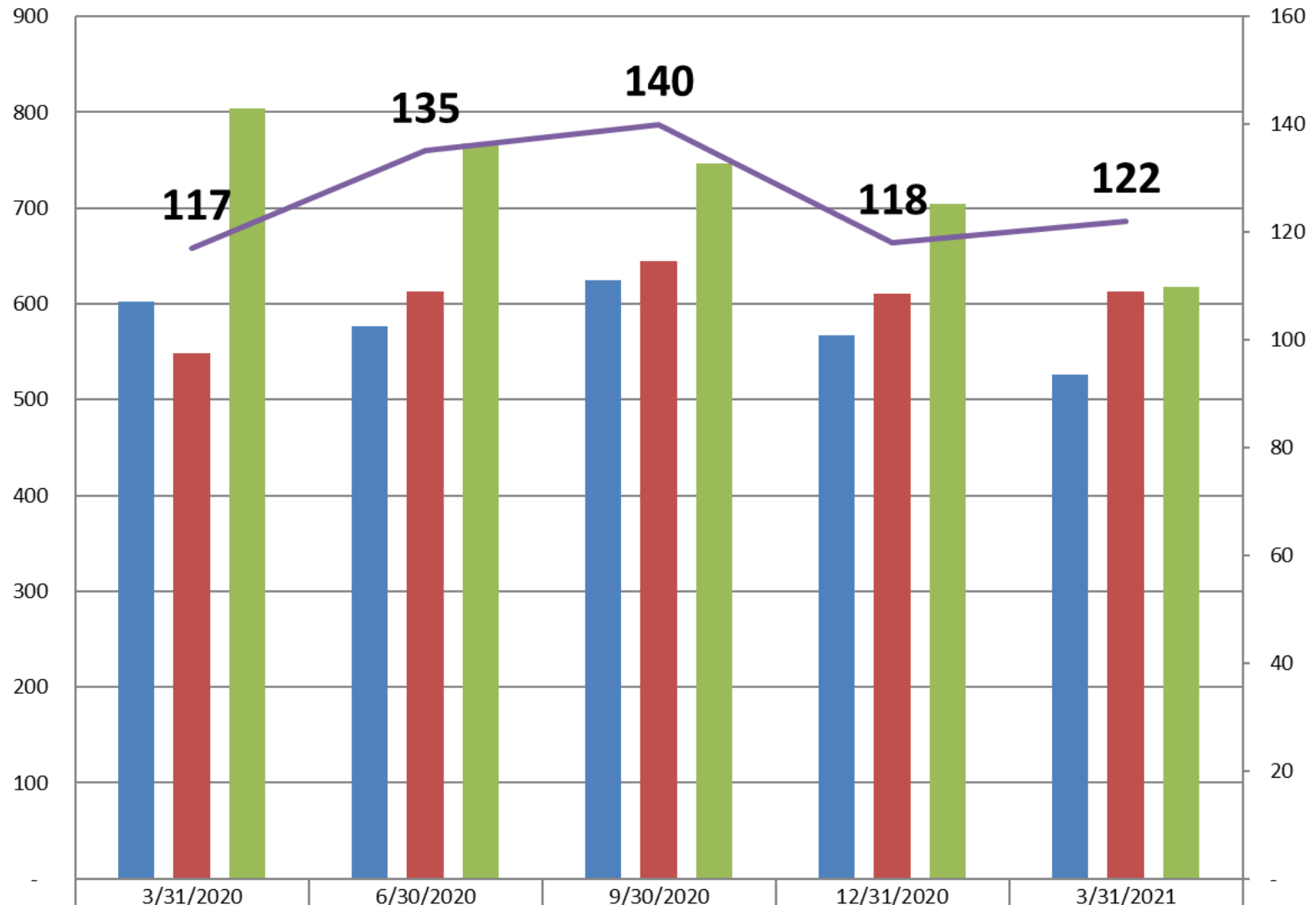


<span style="color: blue;">■</span> Cases Received*	1,566	1,381	1,702	1,595	1,676
<span style="color: red;">■</span> Cases Completed	1,421	1,692	1,691	1,390	1,443
<span style="color: green;">■</span> Caseload	1,970	1,659	1,670	1,875	2,103
<span style="color: purple;">—</span> Average Days in System	138	128	115	126	117

# Latent Prints & Impressions

Number of Cases

Number of Days

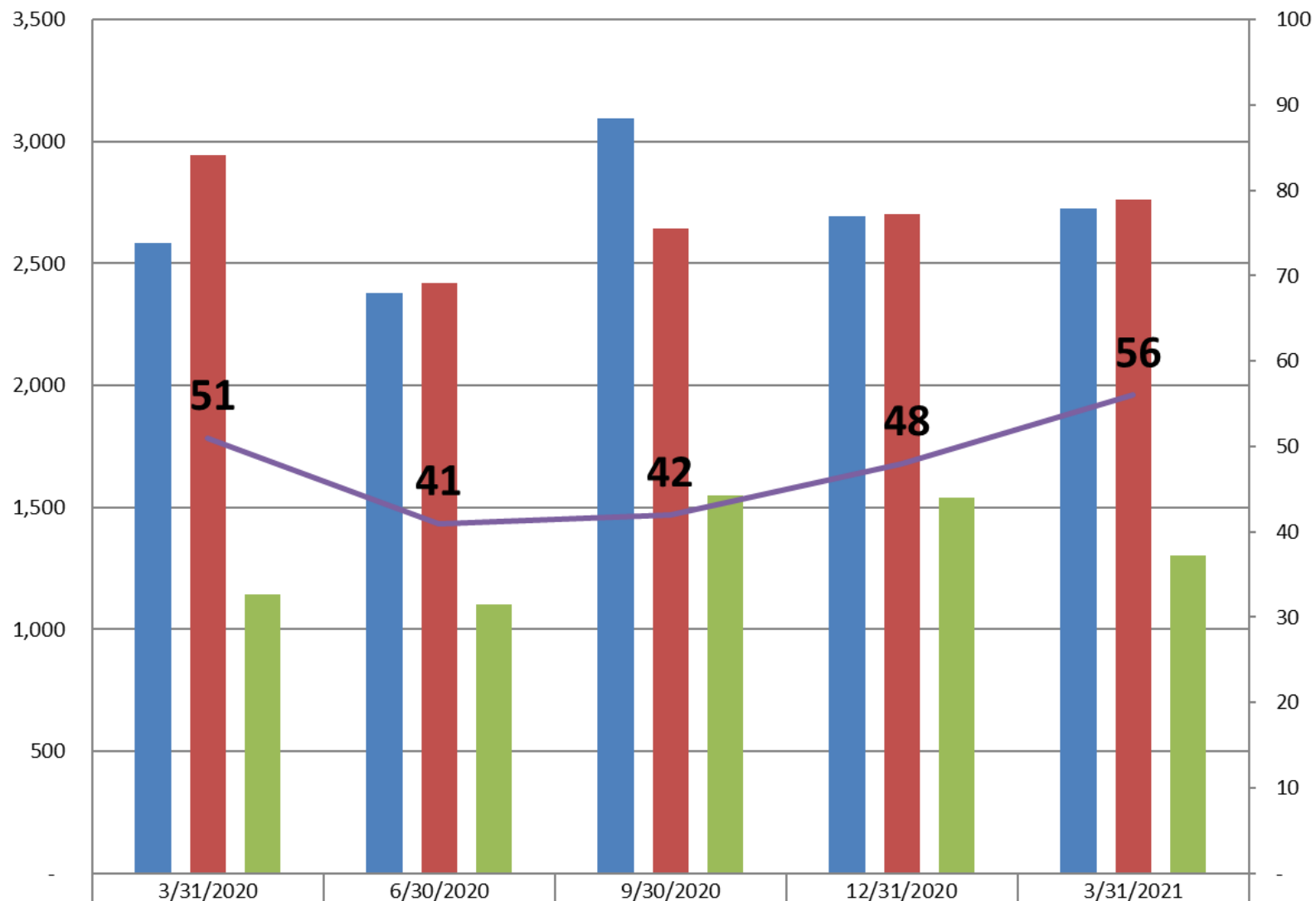


<span style="color: blue;">■</span> Cases Received*	602	577	624	567	526
<span style="color: red;">■</span> Cases Completed	548	613	645	610	613
<span style="color: green;">■</span> Caseload	804	768	747	704	617
<span style="color: purple;">—</span> Average Days in System	117	135	140	118	122

# Toxicology

Number of Cases

Number of Days

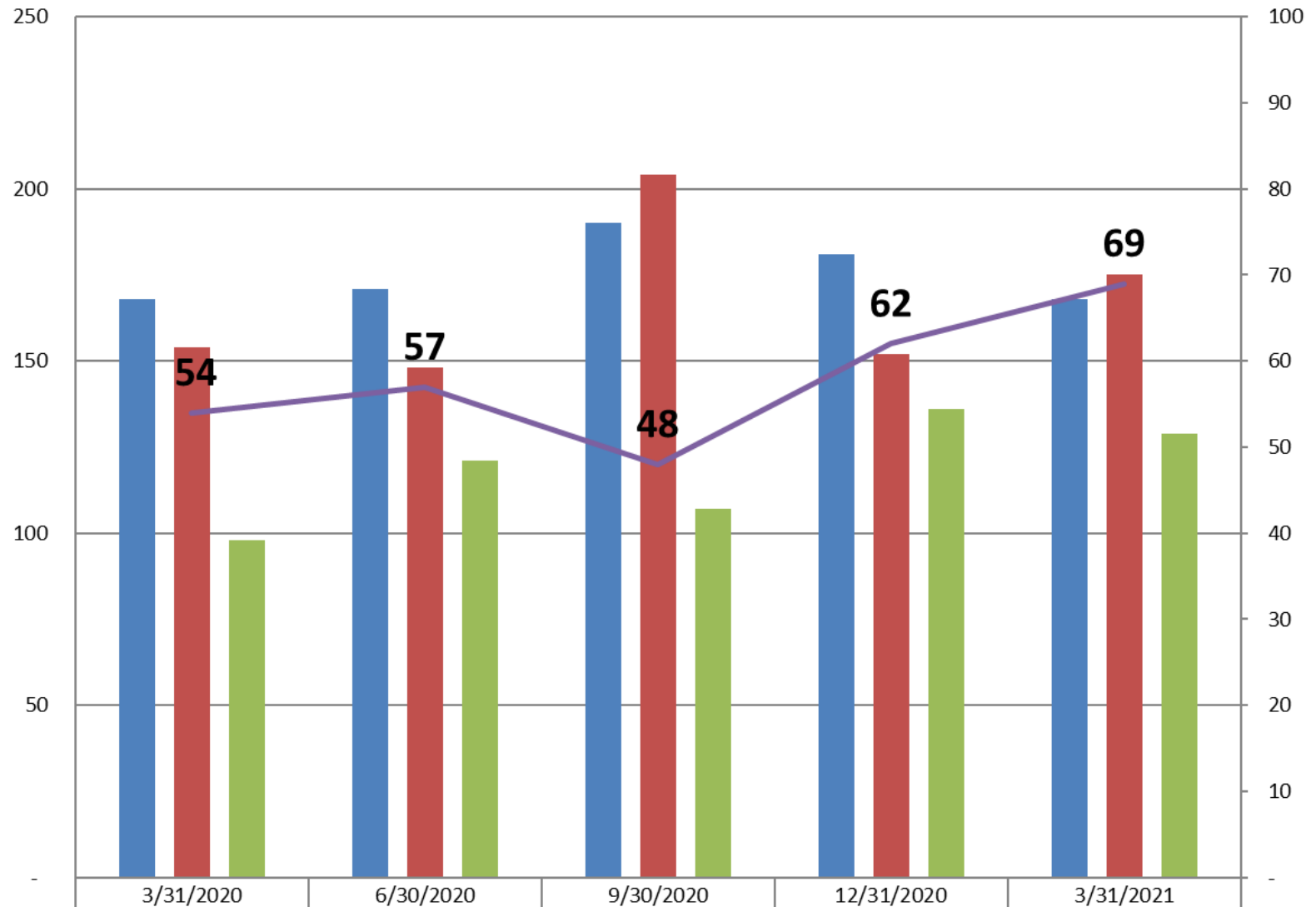


Cases Received*	2,585	2,380	3,094	2,692	2,726
Cases Completed	2,943	2,421	2,645	2,703	2,763
Caseload	1,143	1,102	1,551	1,540	1,303
Average Days in System	51	41	42	48	56

# Trace Evidence

Number of Cases

Number of Days



<span style="color: blue;">■</span> Cases Received*	168	171	190	181	168
<span style="color: red;">■</span> Cases Completed	154	148	204	152	175
<span style="color: green;">■</span> Caseload	98	121	107	136	129
<span style="color: purple;">—</span> Average Days in System	54	57	48	62	69



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Thank you!