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Bulletin

Publicly Funded Forensic Crime Laboratories, 2020

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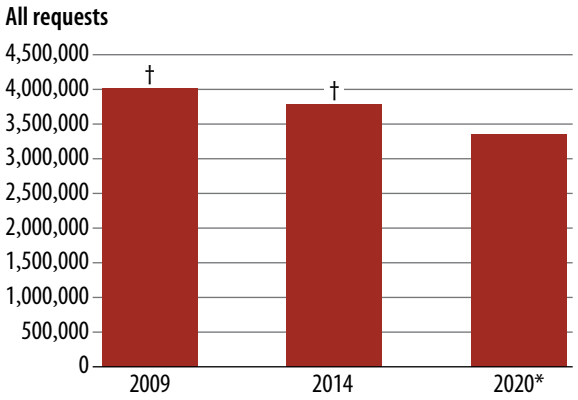
Nationwide, 326 publicly funded forensic crime laboratories and multilab systems received more than 3.3 million requests for service in 2020 (figure 1). This was down 12% from the nearly 3.8 million requests in 2014. A third (33%) of all requests received by crime labs in 2020 were to analyze controlled substances. (See table 1.)

Crime labs perform a variety of forensic analyses for federal, state, and local criminal justice agencies, examining and reporting on physical evidence collected during criminal investigations.

To increase knowledge of crime lab operations and how they change over time, the Bureau of Justice Statistics (BJS) periodically conducts the Census of Publicly Funded Forensic Crime Laboratories (CPFFCL). The CPFFCL covers all forensic crime labs that are solely funded by a government or whose parent organization is a federal, state, county, or municipal agency. Findings in this report are based on the 2020 CPFFCL, which gathered data on the workloads, staffing, resources, policies, procedures, and budgets of the 326 standalone labs and multilab systems (totaling 423 individual labs) in 2020, as well as counts of employees and service requests in 2019.

FIGURE 1
Number of requests received by publicly funded forensic crime laboratories, 2009, 2014, and 2020



Note: Excludes requests that were outsourced to other labs. Counts are rounded to the nearest thousand. See table 1 for estimates and appendix table 1 for standard errors.
*Comparison year.
†Difference with comparison year is significant at the 95% confidence level.
Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2009, 2014, and 2020.

HIGHLIGHTS

- In 2020, the 326 publicly funded forensic crime laboratories and multilab systems in the United States received 3.3 million requests for service.
- Requests for controlled substances analysis accounted for a third (33%) of all requests that crime labs received in 2020.
- State-run crime labs received nearly 60% of all requests in 2020.
- At yearend 2020, crime labs had a backlog of about 710,900 requests that had not been completed within 30 days of submission.
- Forty-seven percent of all crime labs outsourced some of their work to other labs in 2020.
- Crime labs employed 15,600 full-time-equivalent employees at yearend 2020 and had about 1,500 job vacancies.
- In 2020, crime labs nationwide had a combined operating budget of approximately $2 billion.
- About 9 in 10 crime labs in 2020 were accredited by a professional organization.
- Approximately 87% of crime labs had a laboratory information system in 2020.

Terms and definitions

Analyst or examiner—An investigator in a forensic crime laboratory who inspects, analyzes, and interprets physical evidence, writes reports, and delivers testimony in court about the evidence.

Case—A single criminal investigation. A case may involve multiple requests to different disciplines, departments, or units within a crime lab.

Laboratory information management system (LIMS)—A computerized system used to manage, compile, or track requests or evidence

Request—The submission of one or more items of physical evidence from a criminal investigation (i.e., case) to a specialized area of a crime lab. Multiple submissions of new evidence from a case to one or more areas of a crime lab are counted as separate requests. Crime labs may refer to a request as a "request for service," "forensic service request," "client request," or "assignment."

Backlogged request—A request that was submitted to a specialized area of a crime lab and was not completed within 30 days of submission.

Forensic disciplines—The Census of Publicly Funded Forensic Crime Laboratories collects information on the following forensic disciplines:

Controlled substances analysis—The identification of drugs and other substances whose possession or use, in either legal or illicit dosages, is restricted by government.

Crime scene analysis—The identification, documentation, collection, and interpretation of physical evidence where a suspected crime has occurred, at a location external to a crime lab facility.

Digital evidence analysis—The investigation of various types of analog or multimedia evidence, such as the recovery, extraction, and analysis of computer files, film, tape, and magnetic and optical media. This excludes activities such as reviewing surveillance footage.

Firearms analysis—The examination and comparison of evidence resulting from the discharge or use of a firearm.

Forensic biology—Includes the disciplines of biology screening and DNA analysis. Biology screening is the examination of evidence for the presence of stains from blood, saliva, and other physiological fluids. DNA analysis is the process used to develop a DNA profile from arrested or convicted persons as required by federal and state laws or from casework samples collected from crime scenes, victims, or suspects. These profiles and samples are compared against DNA databases to check for possible matches. Two approaches to DNA analysis are direct to DNA and probabilistic genotyping.

Direct to DNA—An approach that analyzes DNA in a sample before moving to serology to maximize the chances of obtaining eligible profiles in the Combined DNA Index System (CODIS). CODIS is a computer software program that operates national, state, and local databases of DNA profiles from convicted persons, unsolved crime scene evidence, and missing persons. This approach is used for processing sexual assault kits to identify male and female DNA present in a sample.

Probabilistic genotyping—An approach in DNA analysis that is used when the sample containing the DNA in question is degraded or when the sample may contain DNA from multiple persons. Probabilistic genotyping uses statistical models to estimate the likelihood that the DNA from the person of interest matches DNA found in the sample in question.

Impressions analysis—The identification, documentation, collection, and interpretation of two- and three-dimensional impressions and imprints found at crime scenes, including shoe and tire prints.

Latent prints analysis—The development or comparison of fingerprint or palmprint impressions.

Questioned documents analysis—The examination of printed, typed, or written material to identify its source or determine if alterations have been made. These analyses could include other means of gaining information about the material or the circumstances surrounding its production.

Toolmarks analysis—The comparison of marks made by various tools to determine what type of tool left a mark on a piece of evidence.

Toxicology—The analysis of biological samples for the presence of drugs and other potentially toxic materials. Includes antemortem blood alcohol content analysis, antemortem drug analysis, and postmortem analysis.

Trace evidence analysis—Any analytical procedure using microscopy, chemical, or instrumental techniques. Includes the examination of gunshot residue, explosives, hair, fibers, and fire debris.

Crime labs received about 3.3 million requests in 2020, a third of which were for controlled substances analysis

Publicly funded forensic crime laboratories reported the total number of requests they received and completed by type in 2020.[1] The number of completed requests may not equal the number of requests received in a given year for several reasons. The number of completed requests may include requests received in a previous year. Criminal justice agencies could also cancel requests before labs completed them if the request was no longer needed, such as when an investigation closed. In 2020, crime labs received a total of 3.3 million requests and completed 3.2 million (table 1). The most common request was for controlled substances analysis (33% of all requests), followed by DNA databasing of samples from arrested or convicted persons (20%) and toxicology analysis (19%).

The distribution of the types of requests has changed somewhat over time. While controlled substances analysis accounted for one-third of requests in 2009 (34%), 2014 (33%), and 2020, DNA databasing accounted for 26% of requests in 2009 and 20% of requests in 2020.

Controlled substances analysis was the most commonly performed forensic analysis across crime labs in 2020

Publicly funded forensic crime laboratories receive a variety of requests to perform forensic functions from police departments, prosecutors, courts, correctional facilities, and other criminal justice agencies as they collect evidence during criminal investigations. An investigation may generate multiple requests. For example, fingerprint and DNA evidence from the same case may lead to two or more requests for analysis to be conducted by a crime lab.

In 2020, the majority (80%) of crime labs performed controlled substances analysis (table 2). Most state (88%) and county (86%) labs performed controlled substances analysis, while about 66% of federal and municipal labs did so. About 65% of all crime labs analyzed latent prints, while 61% conducted firearms or toolmarks analysis. Fifty-nine percent of crime labs engaged in forensic biology. Of those labs that engaged in forensic biology, 97% engaged in forensic biology casework, 94% in sexual assault casework, 46% in probabilistic genotyping, 44% in direct to DNA analysis, 32% in DNA databasing of samples from convicted persons, and 21% in DNA databasing of samples from arrested persons.

Less than half of crime labs conducted toxicology (47%), crime scene (46%), or trace evidence analysis (42%). A third (34%) analyzed impressions. Less than a quarter (23%) of labs conducted digital evidence analysis, and 12% analyzed questioned documents.

A greater percentage of state labs (78%) than county (64%) or municipal (45%) labs engaged in forensic biology. A greater percentage of state labs also performed toxicology analysis (68%) than county (47%) or municipal (35%) labs. A lower percentage of state labs (15%) than federal (38%) or municipal (34%) labs analyzed digital evidence.

[1]They also provided the total number of requests received in 2019.

TABLE 1

Requests received and completed by publicly funded forensic crime laboratories, by type of request, 2009, 2014, and 2020

	Received						Completed					
	2009		2014		2020*		2009		2014		2020*	
Type of request	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All requests	4,020,000 †	100%	3,783,000 †	100%	3,346,000	100%	3,830,000 †	100%	3,646,000 †	100%	3,218,000	100%
Controlled substances analysis	1,358,000 †	33.8	1,265,000 †	33.4	1,088,000	32.5	1,261,000 †	32.9	1,197,000 †	32.8	1,026,000	31.9
Crime scene analysis	188,000 †	4.7	171,000	4.5	144,000	4.3	188,000 †	4.9	170,000	4.7	144,000	4.5
Digital evidence analysis	33,000	0.8	25,000	0.7	27,000	0.8	33,000	0.9	24,000	0.7	26,000	0.8
DNA databasing	1,053,000 †	26.2 †	908,000 †	24.0	671,000	20.1	1,027,000 †	26.8 †	904,000 †	24.8	650,000	20.2
Firearms/toolmarks analysis	147,000 †	3.7 †	154,000 †	4.1 †	225,000	6.7	132,000 †	3.5 †	142,000 †	3.9 †	199,000	6.2
Forensic biology casework	260,000 †	6.5 †	333,000	8.8 †	339,000	10.1	239,000 †	6.2 †	296,000 ‡	8.1 †	318,000	9.9
Impressions analysis	11,000	--	7,000	--	7,000	--	11,000	--	7,000	--	8,000 !	--
Latent prints analysis	270,000 †	6.7 †	295,000 †	7.8 †	180,000	5.4	274,000 †	7.1 †	301,000 †	8.3 †	172,000	5.3
Questioned documents analysis	13,000 †	--	9,000 †	--	2,000	--	12,000 †	--	9,000 †	--	2,000	--
Toxicology	629,000	15.6 †	566,000	15.0 †	629,000	18.8	606,000	15.8 †	554,000	15.2 †	643,000	20.0
Trace evidence analysis	58,000 †	1.4 †	49,000 ‡	1.3	34,000	1.0	47,000 †	1.2 ‡	41,000	1.1	31,000	1.0

Note: Excludes requests that were outsourced to other labs. Completed requests may exceed received requests if a request completed in one year had been received in a previous year. Criminal justice agencies could also cancel requests before labs completed them if the request was no longer needed, such as when an investigation closed. Counts are rounded to the nearest thousand. Details may not sum to totals due to rounding. See appendix table 1 for standard errors.

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

‡Difference with comparison year is significant at the 90% confidence level.

--Less than 0.5%.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2009, 2014, and 2020.

TABLE 2

Percent of publicly funded forensic crime laboratories, by jurisdiction of lab and forensic function performed, 2020

Forensic function performed	All crime labs	Jurisdiction			
		Federal	State*	County	Municipal
Controlled substances analysis	79.7%	66.2% †	87.7%	85.9%	66.2% †
Latent prints analysis	65.4%	72.0% †	55.1%	58.5% ‡	87.7% †
Print development	96.8	100	100	92.6 †	96.3 †
Comparisons analysis	89.7	77.8 †	96.4	89.1 †	89.1 †
Firearms/toolmarks analysis	60.9%	21.4% !	67.3%	64.9%	68.0%
Forensic biology	59.4%	21.4% !	77.8%	64.3% †	45.1% †
Forensic biology casework	97.0	84.4 !	98.8	98.2	93.1 †
Sexual assault casework	93.9	41.7 !	96.3	95.0	100 †
Probabilistic genotyping	45.9	25.6 !	44.5	44.0	59.3 †
Direct to DNA	43.7	15.2 !	49.6	35.8 †	51.9
DNA databasing of convicted person samples	32.5	26.5 !	58.0	13.1 !	3.4 !
DNA databasing of arrested person samples	20.9	41.7 !	32.2	9.9 !	6.9 !
Toxicology	46.8%	8.7% !	68.3%	47.0% †	34.7% †
Antemortem blood alcohol content analysis	95.5	62.8 !	97.1	93.0 †	100 †
Antemortem drug analysis	64.1	100 !	64.9	72.4 †	40.4 !
Postmortem analysis	39.5	100 !	42.8	47.8 ‡	4.3 !
Crime scene analysis	46.2%	31.5% !	39.0%	42.0%	72.1% †
Evidence collection	97.9	100 !	97.6	95.0 †	100 †
Scene reconstruction	52.8	28.4 !	65.8	48.8 †	51.2 †
Trace evidence analysis	41.8%	47.2%	51.9%	38.2% †	27.9% †
Fire debris analysis	72.6	42.2 !	84.9	69.3 †	70.9 †
Chemical unknown analysis	62.4	100 †	57.1	49.9 †	65.5 †
Paint analysis	46.5	42.2 !	52.7	46.7 †	32.3 !
Hair examination	44.9	41.5 !	46.8	44.1	44.2 !
Fiber examination	45.0	41.8 !	52.7	35.9 †	43.2 !
Gunshot residue testing	41.3	7.4 !	43.7	49.9 †	48.4 !
Explosives analysis	27.7	41.5 !	33.2	16.5 !	21.5 !
Impressions analysis	33.6%	11.9% !	40.6%	33.8% †	34.6% †
Footwear analysis	94.7	100 !	100	90.1 †	90.5 †
Tire tread analysis	72.8	71.8 !	90.6	59.3 †	59.2 †
Digital evidence analysis	22.9%	37.9% †	15.4%	17.1%	34.5% †
Smartphone/tablet/mobile device analysis	89.5	92.0 †	80.5	87.6 ‡	95.7 †
Storage media analysis	88.1	92.0	87.1	100 †	77.8 †
Traditional cellphone analysis	81.7	92.0 †	80.5	80.9	76.2
Laptop/desktop computer analysis	74.3	83.9 !	67.1	80.9 †	68.4
Video analysis	67.9	58.4 !	56.1 !	75.2	77.1
GPS/navigation systems analysis	48.0	73.2 !	48.7 !	49.3 !	32.0 !
Audio files analysis	41.2	54.8 !	31.2 !	44.1 !	37.9 !
Cloud/server analysis	37.3	27.1 !	24.6 !	50.1 !	43.2 !
Questioned documents analysis	11.9%	21.5% !	12.2%	6.2% !	13.8% !
Total number of standalone labs/multilab systems	326	40	113	102	71
Number of individual labs	423	40	208	103	72

Note: Percentages reported for subfunctions are based on labs that performed the overall function (e.g., of the 55% of state crime labs that performed latent prints analysis, 100% performed print development). See appendix table 2 for standard errors.

*Comparison group.

†Difference with comparison group is significant at the 95% confidence level.

‡Difference with comparison group is significant at the 90% confidence level.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

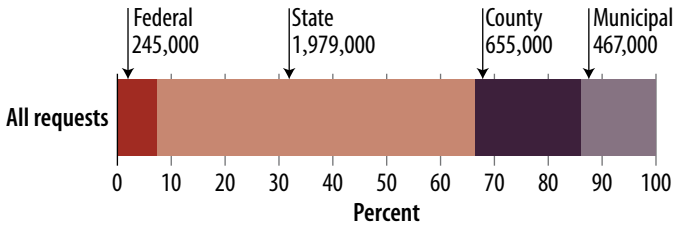
Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

About 60% of all requests in 2020 were received by state labs

State-run forensic crime laboratories received nearly 2 million requests for service in 2020, accounting for almost 60% of all requests (figure 2). County labs received 655,000 requests (20% of all requests), municipal labs received 467,000 (14%), and federal labs received 245,000 (7%).

The types of requests that crime labs received in 2020 varied by the jurisdiction they served. Controlled substances analysis was the most common request received by federal (49% of all their requests), county (37%), and state (32%) labs (table 3). For municipal labs, requests for crime scene (19%) and controlled substances (19%) analysis were most common. Requests for DNA databasing of samples from arrested or convicted persons accounted for 28% of all requests received by state labs. Twenty-eight percent of requests received by county labs and 20% received by state labs were for toxicology analysis, compared to 11% of requests received by municipal labs.

FIGURE 2
Requests received by publicly funded forensic crime laboratories, by jurisdiction of lab, 2020



Note: Excludes requests that were outsourced to other labs. Details may not sum to totals due to rounding. See table 3 for estimates and appendix table 3 for standard errors.
Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

TABLE 3
Percent of requests received by publicly funded forensic crime laboratories, by jurisdiction of lab and type of request, 2020

		Jurisdiction			
Type of request	All crime labs	Federal	State*	County	Municipal
All requests	100%	100%	100%	100%	100%
Controlled substances analysis	32.5%	49.1% †	32.4%	36.6% †	18.7% †
Crime scene analysis	4.3%	1.1% !	0.6% !	5.8%	19.3%
Digital evidence analysis	0.8%	1.1% !	--	0.5%	3.3% †
DNA databasing	20.1%	37.3% !	28.3%	1.1% !	2.8% !
Arrested person samples	10.6	19.3 !	14.8	0.6 !	2.6 !
Convicted person samples	6.8	7.8 !	10.4	--	--
Firearms/toolmarks analysis	6.7%	1.4% !	4.4%	9.5% †	15.6% †
Forensic biology	10.1%	1.4% !	9.9%	11.0%	14.4% †
Sexual assault casework	2.6	--	3.2	2.0 †	2.2 †
Impressions analysis	--	--	--	--	1.4% !
Latent prints analysis	5.4%	5.8% †	3.3%	6.2% †	13.1% †
Questioned documents analysis	--	--	--	--	--
Toxicology	18.8%	1.8% !	19.8%	27.8%	11.1% †
Trace evidence analysis	1.0%	0.9% !	1.1%	1.4%	--
Total number of requests	3,346,000	245,000	1,979,000	655,000	467,000

Note: Excludes requests that were outsourced to other labs. Details may not sum to totals due to rounding. See appendix table 3 for standard errors.
*Comparison group.
†Difference with comparison group is significant at the 95% confidence level.
‡Difference with comparison group is significant at the 90% confidence level.
--Less than 0.5%.
! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.
Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

Crime labs reported a backlog of about 710,900 requests at yearend 2020

Many factors affect the workload of a crime lab, such as how complex the requested analyses are and what staff and other resources the lab has available. Crime labs reported the number and type of backlogged requests they had as of 2020. A request was considered backlogged if it had not been completed and reported to the submitting agency within 30 days of submission. At yearend 2020, crime labs had a total backlog of 710,900 requests (table 4). In comparison, there were 895,500 backlogged requests at yearend 2009 and 570,100 backlogged requests at yearend 2014. Some crime labs responded to the COVID-19 pandemic by suspending operations during 2020, which partly accounted for the increase in backlogged requests from yearend 2014 to yearend 2020.

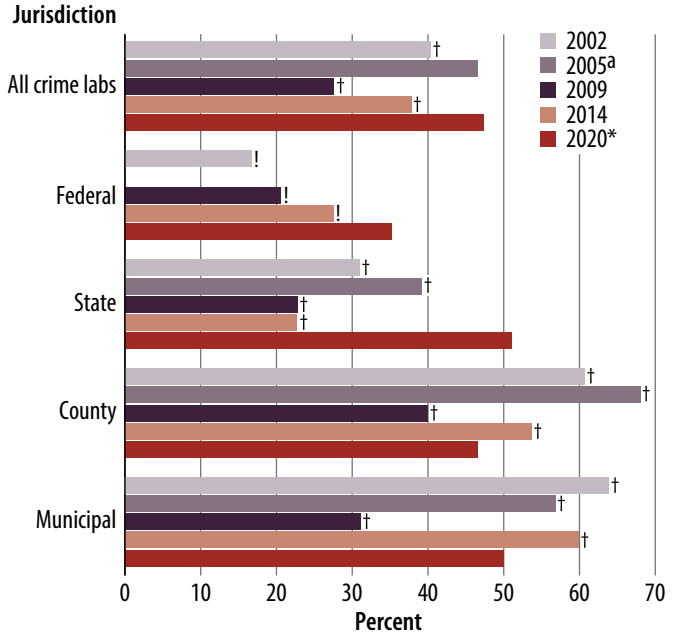
From yearend 2014 to yearend 2020, the backlog increased for firearms or toolmarks analysis (up 97%), DNA databasing (up 87%), controlled substances analysis (up 22%), forensic biology casework (up 17%), and toxicology analysis (up 16%). The backlog decreased for analysis of digital evidence (down 76%), impressions (down 75%), questioned documents (down 63%), latent prints (down 37%), and trace evidence (down 25%).

47% of crime labs outsourced some forensic work in 2020

To address demand for forensic services, publicly funded forensic crime laboratories may outsource work to other public or private labs. In 2020, about 47% of crime labs outsourced some of their work to other labs (figure 3).

FIGURE 3

Percent of publicly funded forensic crime laboratories that outsourced requests, by jurisdiction of lab, 2002, 2005, 2009, 2014, and 2020



Note: See appendix table 5 for estimates and standard errors.

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

[a]The federal 2005 estimate is not shown separately due to a low response rate, but is included in the 2005 estimate for all crime labs.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2005, 2009, 2014, and 2020.

TABLE 4

Backlogged requests in publicly funded forensic crime laboratories, by type of request, yearend 2009, 2014, and 2020

	Yearend 2009		Yearend 2014		Yearend 2020*	
Type of backlogged request	Number	Percent	Number	Percent	Number	Percent
All requests	895,500 †	100%	570,100 †	100%	710,900	100%
Controlled substances analysis	139,200 †	15.5 †	213,700 †	37.5	260,600	36.7
Digital evidence analysis	1,600	--	7,800 †	1.4 †	1,900	--
DNA databasing of arrested/ convicted person samples	502,500 †	56.1 †	64,800 ‡	11.4	121,000	17.0
Firearms/toolmarks analysis	48,300	5.4	51,100	9.0	101,000	14.2
Forensic biology casework	103,500 †	11.6 †	107,800 ‡	18.9	126,100	17.7
Impressions analysis	6,100 †	0.7 †	2,400 †	--	600	--
Latent prints analysis	49,500	5.5	69,400 †	12.2 †	43,900	6.2
Questioned documents analysis	2,600 †	--	800 †	--	300	--
Toxicology	27,600 †	3.1 †	40,000	7.0	46,400	6.5
Trace evidence analysis	14,700 †	1.6 †	12,200 †	2.1 †	9,200	1.3

Note: Excludes requests that were outsourced to other labs. Requests were considered backlogged if they had not been examined and reported to the submitting agency within 30 days of submission. Counts are rounded to the nearest hundred. Details may not sum to totals due to rounding. See appendix table 4 for standard errors.

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

‡Difference with comparison year is significant at the 90% confidence level.

--Less than 0.5%.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2009, 2014, and 2020.

In comparison, 38% of crime labs outsourced work in 2014. About half of state (51%), municipal (50%), and county (47%) labs and more than a third (35%) of federal labs outsourced work in 2020.

Most (72%) crime labs outsourcing any work in 2020 outsourced requests for forensic biology (table 5). Among crime labs outsourcing forensic biology work, 85% outsourced sexual assault casework and 55% outsourced forensic biology casework. About two-thirds (64%) of crime labs outsourcing any work outsourced toxicology requests. Thirty percent of crime labs that outsourced requests did so for controlled substances analysis, while 25% outsourced trace evidence analysis.

TABLE 5

Percent of publicly funded forensic crime laboratories that outsourced requests, by type of request, 2020

Type of outsourced request	Percent
Controlled substances analysis	29.9%
Crime scene analysis	2.4% !
Digital evidence analysis	13.6% !
Firearms/toolmarks analysis	19.3%
Forensic biology	71.6%
Forensic biology casework	54.5
DNA databasing of arrested person samples	25.8 !
DNA databasing of convicted person samples	19.2 !
Sexual assault casework	85.4
Impressions analysis	8.4% !
Latent prints analysis	12.3%
Questioned documents analysis	6.2% !
Toxicology	64.4%
Trace evidence analysis	25.1%

Note: Percentages are based on labs that performed the forensic service and outsourced requests (e.g., of the labs that performed forensic biology and outsourced any requests, 71.6% outsourced at least some of such requests). See appendix table 6 for standard errors.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

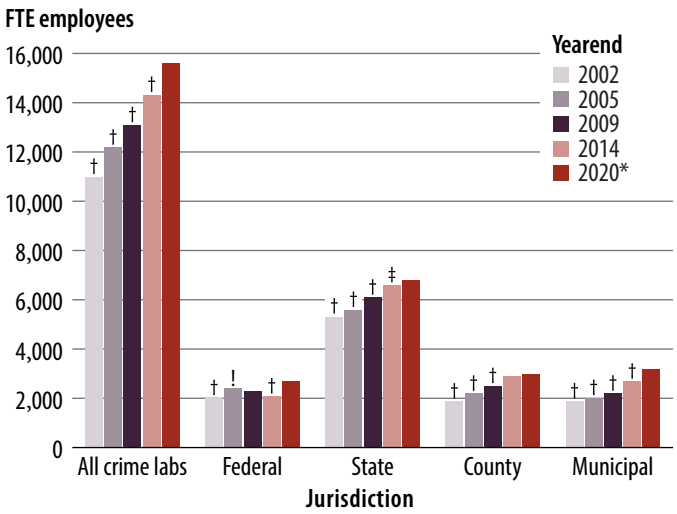
Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

In 2020, a total of 15,600 full-time-equivalent employees worked in crime labs

Publicly funded forensic crime laboratories employed 15,600 full-time-equivalent (FTE) employees at yearend 2020 (figure 4). (The number of FTE employees is the number of full-time employees plus half the number of part-time employees.) Overall, the number of employees increased with each year of data collection. At yearend 2020, crime labs employed about 42% more FTE employees than at yearend 2002. State and municipal labs had consistent growth in the number of FTE employees since yearend 2002. The number of FTE employees in federal labs varied from about 2,000 at yearend 2002 to 2,700 at yearend 2020.

FIGURE 4

Number of full-time-equivalent employees in publicly funded forensic crime laboratories, by jurisdiction of lab, yearend 2002, 2005, 2009, 2014, and 2020



Note: The number of full-time-equivalent (FTE) employees is the number of full-time employees plus half the number of part-time employees. Counts are rounded to the nearest hundred. Details may not sum to totals due to rounding. See appendix table 7 for estimates and standard errors.

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

‡Difference with comparison year is significant at the 90% confidence level.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2005, 2009, 2014, and 2020.

Of the 15,600 FTE employees in crime labs in 2020, the largest portion worked in state labs (43%), followed by municipal (20%), county (19%), and federal (17%) labs (table 6). Sixty-two percent of FTE employees in all crime labs were analysts or examiners: 56% were full-performance analysts or examiners and 6% were in training. About 12% of all FTE employees had managerial roles, 8% worked in technical support, 6% were crime scene technicians, and 5% had other roles.

Crime labs had more than 1,500 job vacancies in 2020

State crime laboratories employed the most FTE employees at 6,800, followed by municipal labs with 3,200 FTE employees (table 7). About three-quarters (74% or 241) of all crime labs employed fewer than 50 FTE employees.

Nationwide, crime labs had a total of about 1,200 hires and 1,100 separations in 2020. While hires outnumbered separations, more than 1,500 jobs remained vacant at yearend 2020. State labs accounted for the highest portion of hires (41%), separations (37%), and job vacancies (41%). Across all crime labs, those employing 100 or more FTE employees accounted for more than half of hires (51%), separations (52%), and job vacancies (56%). About half (52%) of all FTE employees worked in crime labs that employed 100 or more FTE employees.

TABLE 6

Percent of full-time-equivalent employees in publicly funded forensic crime laboratories, by jurisdiction of lab and type of employee, 2020

		Jurisdiction			
Type of employee	All crime labs	Federal	State*	County	Municipal
Analyst/examiner	61.6%	49.5% †	68.4%	61.3% †	57.6% †
In training	5.9	2.5 †	7.3	5.4 †	6.2 †
Full performance	55.7	47.0 †	61.1	55.9 †	51.4 †
Managerial	12.5%	17.2% †	11.7%	12.4% †	10.3% †
Clerical/administrative	7.1%	11.3% †	6.6%	6.7%	4.9% †
Crime scene technician	5.9%	3.6% †	1.2%	8.3% †	15.5% †
Technical support	7.7%	10.5% †	8.6%	5.1% †	5.7% †
Other	5.3%	7.8%	3.5%	6.2% †	5.9% †
Total number of FTE employees	15,620	2,680	6,760	2,970	3,200

Note: The number of full-time-equivalent (FTE) employees is the number of full-time employees plus half the number of part-time employees. Details may not sum to totals due to rounding. See appendix table 8 for standard errors.

*Comparison group.

†Difference with comparison group is significant at the 95% confidence level.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

TABLE 7

Full-time-equivalent employees, hires, separations, and job vacancies in publicly funded forensic crime laboratories, by jurisdiction and size of lab, 2020

	Standalone labs/ multilab systems		FTE employees[a,b,c]		Hires[c,d]		Separations[c,d]		Net change[c]		Job vacancies[b,c]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All crime labs	326	100%	15,620	100%	1,210	100%	1,120	100%	80	100%	1,530	100%
Jurisdiction												
Federal	41	12.6%	2,680	17.2% †	260	21.7% †	190	17.0% †	70	84.3%	420	27.4% †
State*	112	34.4	6,760	43.3	500	41.2	420	37.4	80	92.3	620	40.6
County	102	31.3	2,970	19.0 †	200	16.5 †	240	21.3 †	-40	-46.8 †	190	12.4 †
Municipal	71	21.8	3,200	20.5 †	250	20.6 †	270	24.4 †	-30	-29.8 †	300	19.6 †
Size[e]												
100 or more FTE employees**	41	12.6%	8,170	52.3%	610	50.6%	580	51.9%	30 !	33.0% !	860	56.0%
50–99	44	13.6	2,890	18.5 †	200	16.8 †	200	18.1 †	<5	--	250	16.2 †
25–49	78	24.0	2,760	17.7 †	240	20.1 †	200	17.7 †	40	52.3	290	18.8 †
10–24	90	27.7	1,410	9.1 †	110	9.5 †	100	8.7 †	20	21.2	110	7.0 †
9 or fewer	72	22.1	380	2.4 †	40	2.9 †	40	3.6 †	-10	-6.8 †	30	1.9 †

Note: Details may not sum to totals due to rounding. See appendix table 9 for standard errors.

*Comparison group among lab jurisdictions.

**Comparison group among lab sizes.

†Difference with comparison group is significant at the 95% confidence level.

--Less than 0.5%.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

[a]The number of full-time-equivalent (FTE) employees is the number of full-time employees plus half the number of part-time employees.

[b]Estimates are as of yearend 2020.

[c]Counts are rounded to the nearest ten and may not sum to totals due to rounding. Percentages are based on unrounded counts of employees.

[d]Includes analysts or examiners, managerial staff, clerical or administrative staff, crime scene technicians, and technical support staff. Excludes employees in other job functions.

[e]Size is based on the number of FTE employees in a standalone lab or multilab system.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

Changes in staffing and requests for service in publicly funded forensic crime laboratories between 2019 and 2020

The 2020 Census of Publicly Funded Forensic Crime Laboratories collected information on the total number of persons employed and new requests for service received in crime labs in 2019 and 2020. Crime labs had about 16,410 full-time-equivalent (FTE) employees in 2019, about 5% more than the 15,620 in 2020 **(table 8)**. State and county labs had more FTE employees in 2019 than in 2020.

While the number of requests received across all crime labs in 2020 was not statistically different from the number received in 2019, federal labs received about 49% more requests in 2020 (245,000) than in 2019 (164,000). Municipal labs received about 8% fewer requests in 2020 (467,000) than in 2019 (507,000).

TABLE 8

Number of full-time-equivalent employees in and requests received by publicly funded forensic crime laboratories, by jurisdiction of lab, 2019 and 2020

	FTE employees[a]		Requests[b]	
Jurisdiction	2019	2020*	2019	2020*
All crime labs	16,410 †	15,620	3,461,000	3,346,000
Federal	2,710	2,680	164,000 †	245,000
State	7,240 †	6,760	2,095,000	1,979,000
County	3,120 ‡	2,970	695,000	655,000
Municipal	3,340	3,200	507,000 †	467,000

Note: Details may not sum to totals due to rounding. See appendix table 10 for standard errors.

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

‡Difference with comparison year is significant at the 90% confidence level.

[a]The number of full-time-equivalent (FTE) employees is the number of full-time employees plus half the number of part-time employees. Counts are rounded to the nearest ten.

[b]Counts are rounded to the nearest thousand.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

Crime labs had a combined annual operating budget of about $2 billion in 2020

In 2020, state crime laboratories accounted for just over half (51% or $1 billion) of the approximately $2 billion annual operating budget of all crime labs (table 9). County labs accounted for about 22% of the total budget, municipal labs for about 16%, and federal labs for about 11%. Across all crime labs, those with 100 or more FTE employees accounted for about 46% of the total budget, while those with 25 to 49 FTE employees accounted for 20%.

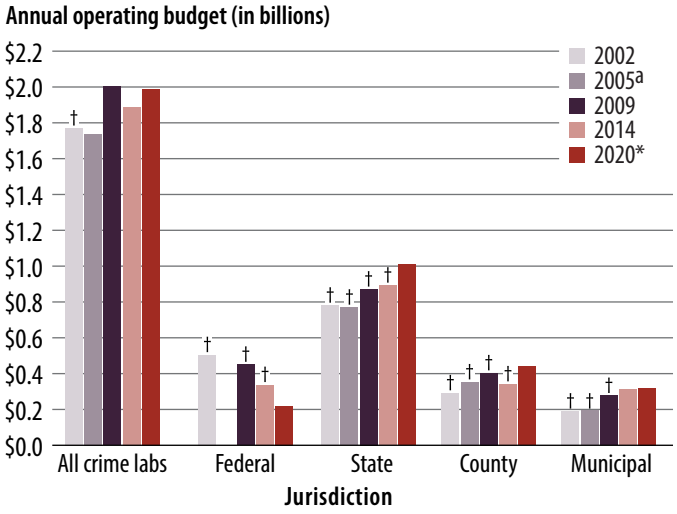
The average operating budget per standalone lab or multilab system in 2020 was about $6.7 million. The average budget was $10.9 million per state, $5.5 million per federal, $5.0 million per municipal, and $4.4 million per county lab or multilab system.

The overall average budget per request was $620 in 2020. State labs had the lowest budget per request at about $550, while federal labs had the highest at about $900 per request.

The combined operating budget of all crime labs increased between 2002 and 2020, from about $1.8 billion (adjusted to 2020 dollars) to $2 billion (figure 5). Operating budgets increased among state, county, and municipal labs and decreased among federal labs during this period.

FIGURE 5

Annual operating budgets of publicly funded forensic crime laboratories, by jurisdiction of lab, 2002, 2005, 2009, 2014, and 2020



Note: Estimates are adjusted to 2020 dollars and may differ from previously reported statistics. See *Methodology*. See appendix table 12 for estimates and standard errors.

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

[a]The federal 2005 estimate is not shown separately due to a low response rate, but is included in the 2005 estimate for all crime labs.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2005, 2009, 2014, and 2020.

TABLE 9

Annual operating budgets of publicly funded forensic crime laboratories, by jurisdiction and size of lab, 2020

	Total operating budget		Average operating budget	
	Number[a]	Percent	Per standalone lab/ multilab system[a]	Per request[b]
All crime labs	$1,988,285,000	100%	$6,711,000	$620
Jurisdiction				
Federal	$219,296,000	11.0%	$5,517,000 †	$900 †
State*	$1,008,837,000	50.7	$10,884,000	$550
County	$440,603,000	22.2	$4,421,000 †	$670 †
Municipal	$319,548,000	16.1	$4,978,000 †	$730 †
Size[c]				
100 or more FTE employees**	$912,630,000	45.9%	$23,390,000	$570
50–99	$346,996,000	17.5	$8,657,000 †	$580
25–49	$403,745,000	20.3	$5,473,000 †	$630 ‡
10–24	$264,562,000	13.3	$3,331,000 †	$1,010 †
9 or fewer	$60,352,000	3.0	$943,000 †	$600

Note: Details may not sum to totals due to rounding. See appendix table 11 for standard errors.

*Comparison group among lab jurisdictions.

**Comparison group among lab sizes.

†Difference with comparison group is significant at the 95% confidence level.

‡Difference with comparison group is significant at the 90% confidence level.

[a]Estimates are rounded to the nearest thousand.

[b]Estimates are rounded to the nearest ten.

[c]Size is based on the number of full-time-equivalent (FTE) employees in a standalone lab or multilab system. The number of FTE employees is the number of full-time employees plus half the number of part-time employees.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

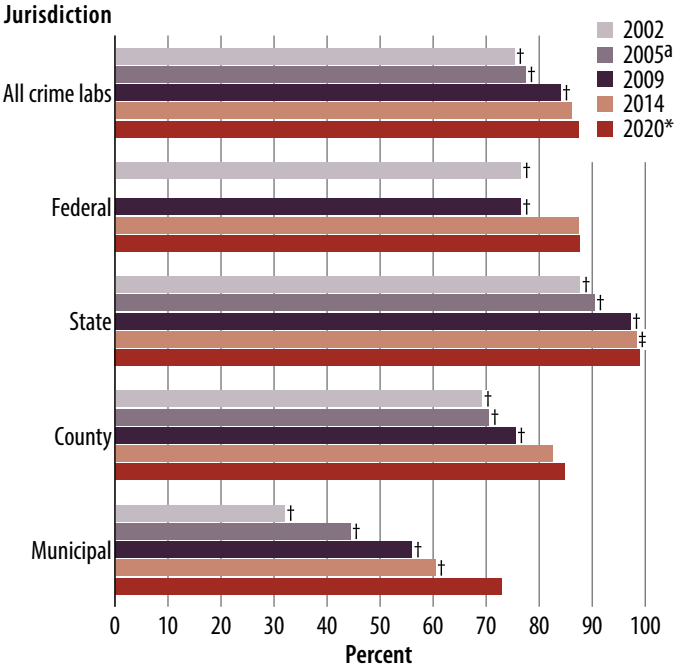
The majority (72%) of crime labs in the United States received funding from federal grants (table 10). This was also true for state (96%), county (75%), and municipal (64%) labs. About 44% of all crime labs received funding from state or local grants. About 34% received fees from services performed, while 20% received funds from asset forfeitures.

About 87% of crime labs in 2020 had a laboratory information management system

A laboratory information management system (LIMS) is software that allows crime labs to manage, compile, or track requests or evidence to be analyzed. About 87% of all publicly funded forensic crime laboratories had a LIMS in 2020, an increase from 75% in 2002 (figure 6). Almost all (99%) state labs had a LIMS in 2020, while 88% of federal labs and 85% of county labs had a LIMS. In 2020, about three-quarters (73%) of municipal labs had a LIMS.

FIGURE 6

Percent of publicly funded forensic crime laboratories with a laboratory information management system, 2002, 2005, 2009, 2014, and 2020



Note: See appendix table 14 for estimates and standard errors.
*Comparison year.
†Difference with comparison year is significant at the 95% confidence level.
‡Difference with comparison year is significant at the 90% confidence level.
[a]The federal 2005 estimate is not shown separately due to a low response rate, but is included in the 2005 estimate for all crime labs.
Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2005, 2009, 2014, and 2020.

TABLE 10

Percent of publicly funded forensic crime laboratories, by selected types of funding received and jurisdiction and size of lab, 2020

	Asset forfeitures	Donations	Fees	Federal grants	State/local grants
All crime labs	20.2%	5.5%	33.8%	71.6%	43.7%
Jurisdiction					
Federal	38.1% †	0% †	9.5% !	9.6% !	9.6% !
State*	10.7	12.3	37.7	96.2	42.1
County	15.2 †	0 †	49.4 †	75.1 †	61.5 †
Municipal	31.8 †	6.0 !	19.1 †	63.7 †	40.6
Size[a]					
100 or more FTE employees**	20.4% !	7.7% !	35.2%	91.6%	61.6%
50–99	25.1 !	11.8 !	41.1 †	75.8 †	52.5 †
25–49	26.5	3.0 !	29.9 †	77.0 †	47.0 †
10–24	13.0 !	6.8 !	32.0	67.5 †	32.7 †
9 or fewer	19.2	1.6 !	35.0	56.6 †	38.1 †

Note: See appendix table 13 for standard errors.
*Comparison group among lab jurisdictions.
**Comparison group among lab sizes.
†Difference with comparison group is significant at the 95% confidence level.
! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.
[a]Size is based on the number of full-time-equivalent (FTE) employees in a standalone lab or multilab system. The number of FTE employees is the number of full-time employees plus half the number of part-time employees.
Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

In 2020, about 13% of crime labs had resources directed primarily to research

About 13% of all publicly funded forensic crime laboratories in 2020 had resources directed primarily to research (table 11). A third (33%) of all crime labs with 100 or more FTE employees had resources dedicated primarily to research.

Almost all crime labs had safety and wellness resources for their employees in 2020

In 2020, almost all (99%) crime labs made safety and wellness resources available to their employees, either directly or through an external agency (table 12). Nearly all crime labs had employee assistance programs (97%), while 9 in 10 provided web-based resources (91%) or behavior or stress management (89%). Most crime labs with fewer than 10 FTE employees provided employee assistance programs (93%), behavior or stress management (84%), or web-based resources (84%). Sixty-three percent of those small crime labs provided mental health debriefing (support or interventions following traumatic events), and 52% had proactive resiliency programs.

TABLE 11

Percent of publicly funded forensic crime laboratories with resources directed primarily to research, by jurisdiction and size of lab, 2002, 2009, 2014, and 2020

	2002	2009	2014	2020*
All crime labs	12.3%	7.2% †	13.8%	13.4%
Jurisdiction				
Federal	51.4% !	30.7% !	56.1%	17.7% !
State	7.9	5.7	10.8	9.3 !
County	11.2 !	4.7 !	10.8 !	16.2
Municipal	9.3 !	1.6 !	4.0 !	13.5 !
Size[a]				
100 or more FTE employees	22.4% !	43.3% !	41.2% !	33.1%
50–99	32.6	20.8 !	28.7	16.6 !
25–49	13.5 !	1.5 !	24.0 †	16.0
10–24	6.3 !	3.7 !	1.6 !	5.1 !
9 or fewer	7.9 !	1.7 !	6.7 !	8.0 !

Note: Data on resources for research were not collected in the 2005 census. See appendix table 15 for standard errors.

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

[a]Size is based on the number of full-time-equivalent (FTE) employees in a standalone lab or multilab system. The number of FTE employees is the number of full-time employees plus half the number of part-time employees.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2009, 2014, and 2020.

TABLE 12

Percent of publicly funded forensic crime laboratories, by selected employee safety and wellness resources and jurisdiction and size of lab, 2020

	Any resource	Behavior/stress management	Employee assistance programs	Mental health debriefing[a]	Proactive resiliency programs	Web-based resources
All crime labs	98.6%	89.1%	96.9%	73.7%	58.7%	91.5%
Jurisdiction						
Federal	100% †	91.1% ‡	97.0%	71.5%	61.9%	100% †
State*	99.1	94.4	99.1	73.7	61.3	95.3
County	96.6 †	78.3 †	92.3 †	65.0 †	49.1 †	81.4 †
Municipal	100 †	95.4	100 †	87.2 †	66.3 †	95.1
Size[b]						
100 or more FTE employees**	100%	91.8%	100%	89.3%	81.8%	97.5%
50–99	97.7 †	93.0	95.3 †	75.1 †	64.6 †	92.9 †
25–49	100	88.9	98.6 †	78.7 †	59.9 †	91.7 †
10–24	100	90.5	97.5 †	69.9 †	49.4 †	94.0 †
9 or fewer	95.1 †	83.9 †	93.5 †	63.0 †	52.0 †	83.9 †

Note: Includes crime labs that reported providing the resource directly or through an external agency. See appendix table 16 for standard errors.

*Comparison group among lab jurisdictions.

**Comparison group among lab sizes.

†Difference with comparison group is significant at the 95% confidence level.

‡Difference with comparison group is significant at the 90% confidence level.

[a]Support or interventions following traumatic events.

[b]Size is based on the number of full-time-equivalent (FTE) employees in a standalone lab or multilab system. The number of FTE employees is the number of full-time employees plus half the number of part-time employees.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

9 in 10 crime labs in 2020 were accredited by a professional organization

Third-party professional forensic-science accreditation organizations assess a crime lab's policies and procedures to evaluate its technical competency and ability to generate valid forensic findings and interpret results. These organizations periodically monitor accredited crime labs to ensure they maintain the standards required to comply with industry best practices. Crime labs can be accredited in one or more forensic disciplines.

Ninety percent of all publicly funded forensic crime laboratories were accredited in at least one discipline in 2020, up from about 88% in 2014 (table 13). In 2020, almost all state labs (98%) had some form of accreditation, as did 94% of federal labs, 86% of county labs, and 82% of municipal labs. All crime labs with 25 to 99 FTE employees had at least one accredited discipline in 2020. Most crime labs with 100 or more FTE employees (97%) or 10 to 24 FTE employees (95%) were accredited, while 64% of crime labs with fewer than 10 FTE employees were accredited in at least one discipline.

TABLE 13

Percent of publicly funded forensic crime laboratories accredited by a professional organization, by jurisdiction and size of lab, 2014 and 2020

	2014	2020*
All crime labs	88.4% †	90.4%
Jurisdiction		
Federal	88.5%	93.7%
State	98.8 ‡	98.0
County	85.2	86.3
Municipal	66.9 †	82.2
Size[a]		
100 or more FTE employees	100% †	97.4%
50–99	100	100
25–49	97.8	100
10–24	89.9 †	94.7
9 or fewer	70.0 †	64.3

Note: See appendix table 17 for standard errors.

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

‡Difference with comparison year is significant at the 90% confidence level.

[a]Size is based on the number of full-time-equivalent (FTE) employees in a standalone lab or multilab system. The number of FTE employees is the number of full-time employees plus half the number of part-time employees.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2014 and 2020.

98% of crime labs in 2020 used declared testing to evaluate their analysts' proficiency

Forensic crime laboratories may test the proficiency of their analysts or examiners by evaluating their performance against preestablished criteria and comparing test results from different labs. In blind tests, the examiner or crime lab is not aware the test is being conducted. In declared tests, the examiner knows the sample to be analyzed is a test sample. In random case reanalysis, the examiner's work is randomly selected for reanalysis by another examiner. In a round robin (or challenge) test, measurements or analyses are performed independently several times. Crime labs may also perform competency testing to evaluate the knowledge and abilities of their analysts or examiners before they perform independent forensic casework.

In 2020, about 98% of crime labs conducted some form of proficiency testing, with 98% performing declared tests, 32% random case reanalysis, 11% blind tests, 7% round robin tests, and 9% some other test (table 14). A greater percentage of state labs (43%) than municipal or county labs (both 24%) conducted random case reanalysis. About 87% of all crime labs performed competency testing of their analysts or examiners.

TABLE 14

Percent of publicly funded forensic crime laboratories, by proficiency and competency testing performed and jurisdiction and size of lab, 2020

	Proficiency testing[a]						
	Any	Blind	Declared	Random case reanalysis	Round robin/challenge testing	Other	Competency testing
All crime labs	97.9%	10.6%	97.9%	31.6%	7.0%	9.3%	86.8%
Jurisdiction							
Federal	100%	26.4% !	100% †	30.2% !	23.2% !	22.9% !	93.9%
State*	100	1.9 !	98.2	43.3	4.6 !	5.6 !	91.3
County	96.6 †	10.9 !	97.7	24.0 †	5.7 !	13.3	85.5 †
Municipal	95.1 †	15.2 !	96.6 ‡	24.4 †	3.4 !	1.6 !	77.4 †
Size[b]							
100 or more FTE employees**	100%	7.8% !	97.5%	43.2%	16.0% !	7.5% !	100%
50–99	100	24.4 !	97.6	42.4	8.8 !	8.5 !	100
25–49	100	10.8 !	100 †	32.6 †	6.0 !	10.7 !	97.2 †
10–24	98.6 †	7.7 !	96.3	28.5 †	5.5 !	10.9 !	85.1 †
9 or fewer	92.0 †	6.8 !	98.2	20.4 †	3.5 !	7.2 !	61.9 †

Note: Labs could conduct more than one type of proficiency testing. See appendix table 18 for standard errors.

*Comparison group among lab jurisdictions.

**Comparison group among lab sizes.

†Difference with comparison group is significant at the 95% confidence level.

‡Difference with comparison group is significant at the 90% confidence level.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

[a]Includes crime labs that reported performing proficiency testing of their analysts or examiners.

[b]Size is based on the number of full-time-equivalent (FTE) employees in a standalone lab or multilab system. The number of FTE employees is the number of full-time employees plus half the number of part-time employees.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

78% of crime labs in 2020 performed technical reviews on all their casework

Forensic crime laboratories can also perform technical reviews of casework. A technical review is the evaluation of reports, notes, data, or other documentation by a qualified second party to ensure there is appropriate and sufficient support for the actions, results, conclusions, opinions, and interpretations in the casework. These technical reviews can be conducted internally or by other crime labs. Almost all (99%) crime labs technically reviewed at least some of their casework in 2020, and 78% technically reviewed all their casework (table 15). About 87% of federal and state labs technically reviewed all casework, while 78% of county labs and 59% of municipal labs did so.

More than 99% of crime labs had written standard operating procedures (table 16). Most had management system documents such as policy and objective statements (97%) and performance verification checks (97%). Most crime labs (95%) also had structured training programs.

TABLE 15

Percent of publicly funded forensic crime laboratories, by technical reviews performed and jurisdiction and size of lab, 2020

	Technically reviewed		
	Some/all casework	All casework	Some casework
All crime labs	98.9%	78.1%	20.8%
Jurisdiction			
Federal	100%	87.1%	12.9% !
State*	100	86.7	13.3
County	97.7 †	78.5 †	19.2 †
Municipal	98.2 †	59.0 †	39.3 †
Size[a]			
100 or more FTE employees**	100%	81.5%	18.5% !
50–99	100	70.5 †	29.5
25–49	100	87.0 †	13.0 !
10–24	98.6 †	81.6	17.0
9 or fewer	96.7 †	66.9 †	29.8

Note: See appendix table 19 for standard errors.

*Comparison group among lab jurisdictions.

**Comparison group among lab sizes.

†Difference with comparison group is significant at the 95% confidence level.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

[a]Size is based on the number of full-time-equivalent (FTE) employees in a standalone lab or multilab system. The number of FTE employees is the number of full-time employees plus half the number of part-time employees.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

TABLE 16

Percent of publicly funded forensic crime laboratories, by selected operational procedures and jurisdiction and size of lab, 2020

	Written standard operating procedures	Performance verification checks	Structured training program	Management system documents[a]
All crime labs	99.6%	97.4%	94.9%	97.5%
Jurisdiction				
Federal	100%	93.9% †	87.3% †	100% †
State*	100	100	99.0	99.0
County	98.9 †	97.7 †	91.0 †	95.4 †
Municipal	100	95.1 †	98.4	96.7 †
Size[b]				
100 or more FTE employees**	100%	100%	96.7%	100%
50–99	100	100	100 †	100
25–49	100	100	96.9	100
10–24	100	97.2 †	97.5	98.6 †
9 or fewer	98.4 †	91.9 †	85.4 †	90.4 †

Note: See appendix table 20 for standard errors.

*Comparison group among lab jurisdictions.

**Comparison group among lab sizes.

†Difference with comparison group is significant at the 95% confidence level.

[a]Includes policy and objective statements.

[b]Size is based on the number of full-time-equivalent (FTE) employees in a standalone lab or multilab system. The number of FTE employees is the number of full-time employees plus half the number of part-time employees.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

94% of crime labs had a written code of ethics in 2020

Forensic crime laboratories typically have a written code of ethical conduct to ensure that examiners and analysts perform analyses within their area of expertise, provide objective findings and testimony, and avoid conflicts of interest. Crime labs may create their own or adopt an existing code of ethics. In 2020, about 94% of all crime labs had a written code of ethics: 14% created and 80% adopted their code of ethics (table 17). A greater percentage of municipal labs (21%) than state labs (15%) created their code of ethics. About 86% of crime labs with fewer than 10 FTE employees maintained a code of ethics, with 81% having adopted an existing code of ethics.

TABLE 17

Percent of publicly funded forensic crime laboratories with a written code of ethics, by jurisdiction and size of lab, 2020

	Had code of ethics	Created own code of ethics	Adopted existing code of ethics
All crime labs	94.3%	14.2%	80.1%
Jurisdiction			
Federal	90.2% †	9.3% !	80.9%
State*	96.0	14.9	81.0
County	95.5	10.6 !	84.9 †
Municipal	92.2 †	20.9 †	71.3 †
Size[a]			
100 or more FTE employees**	94.2%	17.7% !	76.5%
50–99	96.9	18.9 !	78.0
25–49	95.6	14.4 !	81.2 ‡
10–24	98.6 †	17.5	81.1 ‡
9 or fewer	85.8 †	4.8 !	81.0 ‡

Note: See appendix table 21 for standard errors.

*Comparison group among lab jurisdictions.

**Comparison group among lab sizes.

†Difference with comparison group is significant at the 95% confidence level.

‡Difference with comparison group is significant at the 90% confidence level.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

[a]Size is based on the number of full-time-equivalent (FTE) employees in a standalone lab or multilab system. The number of FTE employees is the number of full-time employees plus half the number of part-time employees.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

Methodology

Overview

The Bureau of Justice Statistics (BJS) has conducted the Census of Publicly Funded Forensic Crime Laboratories (CPFFCL) periodically since 2002. The 2020 CPFFCL is the fifth collection in the series, with RTI International serving as the data collection agent. The CPFFCL collects information on the workload, staffing, resources, policies, and procedures of all federal, state, county, and municipal forensic crime laboratories that are solely funded by government or are overseen by a government agency. The CPFFCL includes crime labs that employ one or more full-time scientists (1) who possess a minimum of a bachelor's degree in chemistry, physics, biology, criminalistics, forensic science, or a closely related field and (2) whose principal functions are examining physical evidence in criminal matters and providing reports and testimony to courts of law with respect to such evidence. Privately funded crime labs and agencies that engage exclusively in evidence collection and documentation are excluded from the CPFFCL.

Data collection and response rate

To update the data collection instrument, BJS and RTI conducted a data quality review of the 2014 questionnaire. They also held a focus group meeting at the American Society of Crime Laboratory Directors Symposium, an expert panel review, and a series of cognitive interviews with participants from various crime labs and levels of government. The data collection instrument was provided to eligible crime labs as a web-based form, fillable PDF, and printable form that could be mailed back to the project team.

BJS based the 2020 CPFFCL population frame on the 2014 CPFFCL, a list of Paul Coverdell laboratory grantees provided by the National Institute of Justice, a list of labs participating in Project FORESIGHT, and a list of laboratories that conducted drug chemistry analyses provided by the Drug Enforcement Administration's National Forensic Laboratory Information System (NFLIS-Drug). BJS and RTI also conducted web searches for lists of crime labs, such as those maintained by state associations.

The 2020 CPFFCL was sent to every eligible crime lab identified through these lists and directories. A total of 423 individual labs, constituting 326 standalone labs and multilab systems, received the questionnaire. Ninety percent (293) of standalone labs and multilab systems responded to the CPFFCL, as did 90% (382) of individual labs (table 18). Among standalone labs and multilab systems, response rates ranged from 80% for federal labs to 93% for state labs. Among individual labs, response rates ranged from 80% for federal labs to 92% for state labs. Findings in this report are based on data for the 326 standalone labs and multilab systems.

Unit nonresponse and weighting

To adjust for unit nonresponse, BJS calculated nonresponse weights. Crime labs were divided into weighting classes (or strata) based on their jurisdiction (federal, state, county, or municipal) and number of full-time-equivalent (FTE) employees (fewer than 10, 10 to 24, 25 to 49, and more than 50). In some cases, when weighting classes were very small, they were combined with similar classes to form a larger group. For example, there were two federal labs with fewer than 10 FTE employees in 2020, so these labs were combined with federal labs that had 10 to 24 FTE employees. FBI labs

TABLE 18
Response rates of publicly funded forensic crime laboratories, by jurisdiction of lab, 2020

	Standalone labs/multilab systems			Individual labs		
Jurisdiction	Eligible	Responded	Response rate	Eligible	Responded	Response rate
All crime labs	326	293	89.9%	423	382	90.3%
Federal	40	32	80.0	40	32	80.0
State	113	105	92.9	208	192	92.3
County	102	93	91.2	103	94	91.3
Municipal	71	63	88.7	72	64	88.9

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

and labs in U.S. territories each had their own weighting class. For nonresponding crime labs, employee counts from the 2014 or 2009 CPFFCL were used. If these were unavailable, BJS and RTI conducted outreach and web research to confirm the number of FTE employees.

The nonresponse adjustment weight was calculated as follows:

$$w_i = \frac{\sum_1^{n_i} E_i}{\sum_1^{n_i} R_i} \times R_i$$

where:

n_i = the number of laboratory types in weighting class i

E_i = 1 if laboratory n is eligible, 0 if ineligible

R_i = 1 if laboratory n is a respondent, 0 if a nonrespondent.

This resulted in nonresponse adjustment weights for 17 weighting classes (table 19).

TABLE 19
Nonresponse adjustment weights for publicly funded forensic crime laboratories, by stratum, 2020

Stratum	Nonresponse adjustment weight
Federal	
50 or more FTE employees	1.3750
25–49	1.2500
Fewer than 25	1.2500
State	
50 or more FTE employees	1.0270
25–49	1.1765
10–24	1.0294
Fewer than 10	1.1176
County	
50 or more FTE employees	1.0625
25–49	1.0800
10–24	1.0435
Fewer than 10	1.1724
Municipal	
50 or more FTE employees	1.0625
25–49	1.0769
10–24	1.2500
Fewer than 10	1.1111
FBI	1.0000
U.S. territory	1.3333

Note: The number of full-time-equivalent (FTE) employees is the number of full-time employees plus half the number of part-time employees.
Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

Comparability to prior reports

Except for estimates of staff size, budget, and workload, 2002, 2005, and 2009 CPFFCL findings in prior reports were not adjusted for unit or item nonresponse. For this report, data from earlier CPFFCL collections were adjusted following the same procedures described in *Publicly Funded Forensic Crime Laboratories: Resources and Services, 2014* (NCJ 250151, BJS, November 2016) and *Publicly Funded Forensic Crime Laboratories: Quality Assurance Practices, 2014* (NCJ 250152, BJS, November 2016). BJS adjusted budget estimates for 2002, 2005, 2009, and 2014 to reflect 2020 dollars by using the Federal Reserve Economic Data index titled Government consumption expenditures and gross investment: State and local (implicit price deflator) (https://fred.stlouisfed.org/series/A829RD3A086NBEA).

Accuracy of estimates

Although the CPFFCL was designed as a census, due to unit nonresponse and the use of nonresponse adjustment weights, some error may have been generated when producing estimates. Standard error estimates for this report were produced using the IBM SPSS Complex Samples package. The Taylor Series Linearization method for a "stratified without replacement" design was used for these calculations. (See the appendix tables for standard error estimates.)

These standard error estimates may be used to construct confidence intervals around percentages and counts presented in this report. For example, the 95% confidence interval around the percentage of crime labs with a code of ethics in 2020 is 94.3% ± 1.96 × 0.52%, resulting in a confidence interval of 93.3% to 95.3%. The 95% confidence interval around the number of requests for services received in 2020 is 3,346,000 ± 1.96 × 55,042, resulting in a confidence interval of 3,238,118 to 3,453,882. All comparisons discussed in this report reflect statistically significant results.

APPENDIX TABLE 1

Standard errors for table 1: Requests received and completed by publicly funded forensic crime laboratories, by type of request, 2009, 2014, and 2020

	Received						Completed					
	2009		2014		2020		2009		2014		2020	
Type of request	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All requests	57,609	~	56,050	~	55,042	~	56,623	~	55,354	~	56,382	~
Controlled substances analysis	13,576	0.34%	35,034	0.93%	25,615	0.77%	14,035	0.37%	33,119	0.91%	25,434	0.79%
Crime scene analysis	3,471	0.09	15,445	0.41	13,431	0.40	3,469	0.09	15,468	0.42	13,455	0.42
Digital evidence analysis	824	0.02	5,717	0.15	4,683	0.14	816	0.02	5,760	0.16	4,749	0.15
DNA databasing	57,036	1.42	92,675	2.45	50,820	1.52	56,036	1.46	99,145	2.72	57,140	1.78
Firearms/toolmarks analysis	1,611	0.04	6,562	0.17	10,643	0.32	1,391	0.04	5,346	0.15	9,554	0.30
Forensic biology casework	2,088	0.05	15,979	0.42	10,368	0.31	2,074	0.05	6,465	0.18	9,990	0.31
Impressions analysis	478	0.01	1,175	0.03	3,638	0.11	543	0.01	1,184	0.03	4,253	0.13
Latent prints analysis	2,462	0.06	27,682	0.73	7,297	0.22	2,457	0.06	28,055	0.77	6,541	0.20
Questioned documents analysis	2,103	0.05	2,657	0.07	216	0.01	1,801	0.05	2,451	0.07	211	0.01
Toxicology	14,100	0.35	46,775	1.24	48,699	1.46	13,305	0.35	45,821	1.26	49,221	1.53
Trace evidence analysis	1,662	0.04	7,084	0.19	4,732	0.14	1,668	0.04	6,609	0.18	4,506	0.14

~Not applicable.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2009, 2014, and 2020.

APPENDIX TABLE 2

Standard errors for table 2: Percent of publicly funded forensic crime laboratories, by jurisdiction of lab and forensic function performed, 2020

		Jurisdiction			
Forensic function performed	All crime labs	Federal	State	County	Municipal
Controlled substances analysis	0.75%	3.08%	0.74%	1.14%	2.13%
Latent prints analysis	0.77%	3.55%	1.01%	1.49%	1.16%
Print development	0.43	0.00	0.00	1.08	1.01
Comparisons analysis	0.81	4.17	0.78	1.20	1.40
Firearms/toolmarks analysis	0.82%	3.28%	1.02%	1.42%	1.98%
Forensic biology	0.75%	3.28%	0.86%	1.15%	1.89%
Forensic biology casework	0.47	7.18	0.20	0.68	1.15
Sexual assault casework	0.69	7.09	0.59	0.86	0.00
Probabilistic genotyping	1.01	5.92	1.37	1.68	2.90
Direct to DNA	1.00	7.36	1.36	1.55	2.77
DNA databasing of convicted person samples	0.84	7.66	1.32	1.13	0.84
DNA databasing of arrested person samples	0.70	7.09	1.05	1.01	1.15
Toxicology	0.78%	2.12%	1.06%	1.52%	1.96%
Antemortem blood alcohol content analysis	0.65	13.04	0.63	1.23	0.00
Antemortem drug analysis	1.15	0.00	1.43	2.01	3.45
Postmortem analysis	1.14	0.00	1.46	2.22	1.05
Crime scene analysis	0.87%	3.86%	1.22%	1.48%	1.71%
Evidence collection	0.27	0.00	0.40	0.85	0.00
Scene reconstruction	1.38	4.86	1.93	2.33	2.70
Trace evidence analysis	0.86%	4.09%	1.16%	1.34%	1.72%
Fire debris analysis	1.40	6.54	1.33	2.20	3.69
Chemical unknown analysis	1.21	0.00	1.64	2.31	3.63
Paint analysis	1.36	6.54	1.54	2.24	2.97
Hair examination	1.37	6.27	1.58	2.30	3.64
Fiber examination	1.36	6.54	1.54	2.22	3.33
Gunshot residue testing	1.19	3.50	1.50	2.31	3.44
Explosives analysis	1.25	6.27	1.53	1.57	2.41
Impressions analysis	0.77%	2.60%	1.05%	1.32%	2.01%
Footwear analysis	0.83	0.00	0.00	1.86	2.45
Tire tread analysis	1.30	11.52	1.15	2.40	3.26
Digital evidence analysis	0.84%	4.31%	0.91%	1.17%	1.92%
Smartphone/tablet/mobile device analysis	1.23	3.51	3.10	2.24	1.05
Storage media analysis	1.29	3.51	2.62	0.00	2.62
Traditional cellphone analysis	1.63	3.51	3.10	3.13	3.07
Laptop/desktop computer analysis	1.85	4.82	3.52	3.13	3.13
Video analysis	2.14	7.41	3.22	3.13	3.07
GPS/navigation systems analysis	2.17	6.67	3.08	3.69	3.31
Audio files analysis	2.25	7.83	2.83	3.70	3.47
Cloud/server analysis	2.08	6.37	2.49	3.71	3.59
Questioned documents analysis	0.59%	3.60%	0.70%	0.58%	1.08%

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 3

Standard errors for table 3: Percent of requests received by publicly funded forensic crime laboratories, by jurisdiction of lab and type of request, 2020

		Jurisdiction			
Type of request	All crime labs	Federal	State	County	Municipal
Controlled substances analysis	0.77%	5.83%	0.82%	1.69%	1.70%
Crime scene analysis	0.40%	0.54%	0.32%	0.96%	2.12%
Digital evidence analysis	0.14%	0.56%	0.12%	0.12%	0.80%
DNA databasing	1.52%	0.00%	2.49%	0.55%	2.59%
Arrested person samples	2.02	0.06	3.40	0.56	0.00
Convicted person samples	0.54	0.00	0.91	0.02	0.00
Firearms/toolmarks analysis	0.32%	0.66%	0.34%	0.46%	1.59%
Forensic biology	0.31%	0.31%	0.30%	0.70%	1.53%
Sexual assault casework	0.10	0.00	0.15	0.10	0.29
Impressions analysis	0.11%	0.00%	0.00%	0.01%	0.78%
Latent prints analysis	0.22%	0.95%	0.20%	0.37%	1.10%
Questioned documents analysis	0.01%	0.05%	0.01%	0.01%	0.02%
Toxicology	1.46%	0.00%	1.49%	5.81%	1.53%
Trace evidence analysis	0.14%	0.22%	0.22%	0.27%	0.05%

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 4

Standard errors for table 4: Backlogged requests in publicly funded forensic crime laboratories, by type of request, yearend 2009, 2014, and 2020

	Yearend 2009		Yearend 2014		Yearend 2020	
Type of backlogged request	Number	Percent	Number	Percent	Number	Percent
All requests	10,124	~	12,693	~	59,244	~
Controlled substances analysis	2,848	0.32%	14,860	2.61%	17,172	2.42%
Digital evidence analysis	97	0.01	198	0.03	282	0.04
DNA databasing of arrested/convicted person samples	8,961	1.00	14,746	2.59	27,739	3.90
Firearms/toolmarks analysis	997	0.11	4,182	0.73	42,260	5.94
Forensic biology casework	1,172	0.13	5,477	0.96	8,054	1.13
Impressions analysis	914	0.10	512	0.09	98	0.01
Latent prints analysis	693	0.08	4,983	0.87	4,113	0.58
Questioned documents analysis	518	0.06	237	0.04	57	0.01
Toxicology	931	0.10	5,680	1.00	5,174	0.73
Trace evidence analysis	153	0.02	796	0.14	769	0.11

~Not applicable.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2009, 2014, and 2020.

APPENDIX TABLE 5

Estimates and standard errors for figure 3: Percent of publicly funded forensic crime laboratories that outsourced requests, by jurisdiction of lab, 2002, 2005, 2009, 2014, and 2020

	Estimate					Standard error				
Jurisdiction	2002	2005	2009	2014	2020*	2002	2005	2009	2014	2020
All crime labs	40.3% †	46.6%	27.6% †	37.8% †	47.4%	0.88%	1.14%	0.40%	0.92%	0.93%
Federal	16.7 !	/	20.6 !	27.5 !	35.2	2.80	~	2.10	5.18	4.17
State	31.0 †	39.2 †	22.8 †	22.7 †	51.0	1.20	0.36	0.45	0.59	1.19
County	60.7 †	68.0 †	40.0 †	53.7 †	46.6	1.82	1.03	0.70	1.91	1.45
Municipal	63.9 †	56.8 †	31.1 †	59.9 †	50.0	2.35	2.26	1.26	2.92	2.12

*Comparison year.
†Difference with comparison year is significant at the 95% confidence level.
~Not applicable.
/The federal 2005 estimate is not shown separately due to a low response rate, but is included in the 2005 estimate for all crime labs.
! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.
Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2005, 2009, 2014, and 2020.

APPENDIX TABLE 6

Standard errors for table 5: Percent of publicly funded forensic crime laboratories that outsourced requests, by type of request, 2020

Type of outsourced request	Percent
Controlled substances analysis	1.26%
Crime scene analysis	0.60%
Digital evidence analysis	1.42%
Firearms/toolmarks analysis	1.17%
Forensic biology	1.24%
Forensic biology casework	1.59
DNA databasing of arrested person samples	2.93
DNA databasing of convicted person samples	2.50
Sexual assault casework	0.96
Impressions analysis	0.92%
Latent prints analysis	1.17%
Questioned documents analysis	1.13%
Toxicology	1.34%
Trace evidence analysis	1.34%

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 7

Estimates and standard errors for figure 4: Number of full-time-equivalent employees in publicly funded forensic crime laboratories, by jurisdiction of lab, yearend 2002, 2005, 2009, 2014, and 2020

	Yearend estimate					Standard error				
Jurisdiction	2002	2005	2009	2014	2020*	2002	2005	2009	2014	2020
All crime labs	11,000 †	12,200 †	13,100 †	14,300 †	15,600	102	387	105	123	263
Federal	2,000 †	2,400 !	2,300	2,100 †	2,700	68	376	97	59	227
State	5,300 †	5,600 †	6,100 †	6,600 ‡	6,800	58	40	39	66	81
County	1,900 †	2,200 †	2,500 †	2,900	3,000	48	54	7	17	58
Municipal	1,900 †	2,000 †	2,200 †	2,700 †	3,200	7	61	7	84	88

Note: The number of full-time-equivalent employees is the number of full-time employees plus half the number of part-time employees. Counts are rounded to the nearest hundred. Details may not sum to totals due to rounding.

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

‡Difference with comparison year is significant at the 90% confidence level.

! Interpret with caution. Estimate is based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2005, 2009, 2014, and 2020.

APPENDIX TABLE 8

Standard errors for table 6: Percent of full-time-equivalent employees in publicly funded forensic crime laboratories, by jurisdiction of lab and type of employee, 2020

		Jurisdiction			
Type of employee	All crime labs	Federal	State	County	Municipal
Analyst/examiner	1.07%	5.06%	0.81%	1.35%	2.14%
In training	0.11	0.22	0.13	0.36	0.28
Full performance	1.05	5.10	0.78	1.32	2.02
Managerial	0.27%	1.45%	0.18%	0.29%	0.35%
Clerical/administrative	0.14%	0.67%	0.16%	0.18%	0.17%
Crime scene technician	0.21%	0.80%	0.10%	0.42%	0.65%
Technical support	0.16%	0.68%	0.21%	0.21%	0.30%
Other	0.49%	2.72%	0.15%	0.35%	0.63%
Total number of FTE employees	263	227	81	58	88

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 9

Standard errors for table 7: Full-time-equivalent employees, hires, separations, and job vacancies in publicly funded forensic crime laboratories, by jurisdiction and size of lab, 2020

	FTE employees		Hires		Separations		Net change		Job vacancies	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All crime labs	263	~	27	~	21	~	20	~	81	~
Jurisdiction										
Federal	227	1.45%	19	1.55%	10	0.92%	13	15.56%	77	5.05%
State	81	0.52	10	0.86	8	0.72	10	12.44	16	1.07
County	58	0.37	7	0.59	9	0.80	7	8.65	9	0.59
Municipal	88	0.56	16	1.30	14	1.21	8	9.37	14	0.93
Size										
100 or more FTE employees	321	2.05%	28	2.33%	21	1.89%	15	17.29%	80	5.26%
50–99	74	0.48	7	0.58	8	0.70	7	8.52	14	0.92
25–49	31	0.20	8	0.63	8	0.72	10	12.27	14	0.91
10–24	21	0.13	5	0.42	4	0.36	5	6.40	8	0.50
9 or fewer	8	0.05	3	0.22	3	0.22	3	3.33	3	0.18

~Not applicable.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 10

Standard errors for table 8: Number of full-time-equivalent employees in and requests received by publicly funded forensic crime laboratories, by jurisdiction of lab, 2019 and 2020

	FTE employees		Requests	
Jurisdiction	**2019**	**2020**	**2019**	**2020**
All crime labs	282	263	69,181	55,042
Federal	224	227	16,327	13,359
State	131	81	54,571	47,770
County	62	58	35,495	20,864
Municipal	91	88	16,778	11,571

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 11

Standard errors for table 9: Annual operating budgets of publicly funded forensic crime laboratories, by jurisdiction and size of lab, 2020

		Average operating budget	
	Total operating budget	Per standalone lab/multilab system	Per request
All crime labs	$64,781,748	$218,652	$17
Jurisdiction			
Federal	$19,143,274	$481,592	$91
State	$57,433,988	$619,662	$25
County	$14,644,099	$146,948	$20
Municipal	$17,807,225	$277,427	$34
Size			
100 or more FTE employees	$47,582,145	$886,302	$20
50–99	$20,660,165	$370,310	$30
25–49	$32,919,534	$446,296	$24
10–24	$37,769,597	$474,086	$152
9 or fewer	$6,949,722	$108,139	$76

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 12

Estimates and standard errors for figure 5: Annual operating budgets of publicly funded forensic crime laboratories, by jurisdiction of lab, 2002, 2005, 2009, 2014, and 2020

	Estimate				
Jurisdiction	**2002**	**2005**	**2009**	**2014**	**2020***
All crime labs	$1,769,515,000 †	$1,738,446,000	$2,003,455,000	$1,886,652,000	$1,988,285,000
Federal	$505,469,000 †	/	$450,705,000 †	$338,739,000 †	$219,296,000
State	$781,380,000 †	$777,352,000 †	$870,581,000 †	$893,342,000 †	$1,008,837,000
County	$292,388,000 †	$353,812,000 †	$402,733,000 †	$343,124,000 †	$440,603,000
Municipal	$190,279,000 †	$195,085,000 †	$279,436,000 †	$311,446,000	$319,548,000

	Standard error				
Jurisdiction	**2002**	**2005**	**2009**	**2014**	**2020**
All crime labs	$32,001,208	$139,635,810	$20,492,055	$31,060,156	$64,781,748
Federal	$24,755,481	~	$18,553,759	$26,639,949	$19,143,274
State	$17,738,490	$5,813,915	$8,367,921	$9,062,280	$57,433,988
County	$9,525,450	$8,474,214	$1,766,400	$4,629,195	$14,644,099
Municipal	$2,419,751	$5,085,577	$1,593,766	$12,308,210	$17,807,225

Note: Estimates are adjusted to 2020 dollars and may differ from previously reported statistics.
*Comparison year.
†Difference with comparison year is significant at the 95% confidence level.
~Not applicable.
/The federal 2005 estimate is not shown separately due to a low response rate, but is included in the 2005 estimate for all crime labs.
Source: Bureau of justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2005, 2009, 2014, and 2020.

APPENDIX TABLE 13

Standard errors for table 10: Percent of publicly funded forensic crime laboratories, by selected types of funding received and jurisdiction and size of lab, 2020

	Asset forfeitures	Donations	Fees	Federal grants	State/local grants
All crime labs	0.82%	0.31%	0.81%	0.67%	0.81%
Jurisdiction					
Federal	3.81%	0.00%	2.54%	2.12%	2.12%
State	0.90	0.79	1.17	0.49	1.27
County	1.20	0.00	1.58	1.30	1.47
Municipal	2.05	0.65	1.72	1.98	1.94
Size					
100 or more FTE employees	1.43%	0.94%	1.59%	1.72%	1.84%
50–99	2.44	0.99	2.24	1.41	1.55
25–49	1.86	0.80	1.72	0.99	1.73
10–24	1.37	0.44	1.39	1.47	1.51
9 or fewer	1.83	0.50	2.16	2.08	2.19

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 14

Estimates and standard errors for figure 6: Percent of publicly funded forensic crime laboratories with a laboratory information management system, 2002, 2005, 2009, 2014, and 2020

	Estimate					Standard error				
Jurisdiction	**2002**	**2005**	**2009**	**2014**	**2020***	**2002**	**2005**	**2009**	**2014**	**2020**
All crime labs	75.3% †	77.4% †	84.0% †	86.1%	87.4%	0.84%	1.14%	0.37%	0.75%	0.67%
Federal	76.5 †	/	76.4 †	87.4	87.6	3.85	~	2.39	3.13	2.77
State	87.7 †	90.4 †	97.2 †	98.3 ‡	99.0	1.00	0.26	0.15	0.31	0.32
County	69.2 †	70.5 †	75.5 †	82.6	84.8	1.88	1.36	0.77	1.47	1.15
Municipal	32.0 †	44.4 †	56.0 †	60.4 †	72.9	2.35	2.67	1.40	2.97	1.94

*Comparison year.

†Difference with comparison year is significant at the 95% confidence level.

‡Difference with comparison year is significant at the 90% confidence level.

~Not applicable.

/The federal 2005 estimate is not shown separately due to a low response rate, but is included in the 2005 estimate for all crime labs.

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2005, 2009, 2014, and 2020.

APPENDIX TABLE 15

Standard errors for table 11: Percent of publicly funded forensic crime laboratories with resources directed primarily to research, by jurisdiction and size of lab, 2002, 2009, 2014, and 2020

	2002	2009	2014	2020
All crime labs	0.78%	0.26%	0.56%	0.57%
Jurisdiction				
Federal	7.02%	2.25%	4.89%	2.78%
State	0.69	0.28	0.46	0.59
County	1.25	0.34	0.78	1.11
Municipal	0.21	0.01	0.49	0.92
Size				
100 or more FTE employees	3.55%	2.32%	3.09%	1.64%
50–99	2.17	1.50	2.68	1.25
25–49	1.37	0.43	1.42	1.50
10–24	1.58	0.35	0.23	0.86
9 or fewer	1.37	0.15	1.19	1.25

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2002, 2009, 2014, and 2020.

APPENDIX TABLE 16

Standard errors for table 12: Percent of publicly funded forensic crime laboratories, by selected employee safety and wellness resources and jurisdiction and size of lab, 2020

	Any resource	Behavior/stress management	Employee assistance programs	Mental health debriefing	Proactive resiliency programs	Web-based resources
All crime labs	0.24%	0.53%	0.34%	0.83%	0.92%	0.50%
Jurisdiction						
Federal	0.00%	1.63%	1.36%	3.91%	3.89%	0.00%
State	0.15	0.52	0.15	1.01	1.18	0.51
County	0.74	1.34	0.94	1.50	1.54	1.30
Municipal	0.00	0.79	0.00	1.51	2.10	1.04
Size						
100 or more FTE employees	0.00%	1.56%	0.00%	1.62%	1.65%	0.41%
50–99	0.38	0.78	0.69	2.31	2.67	0.88
25–49	0.00	1.07	0.38	1.64	2.04	0.95
10–24	0.00	0.87	0.66	1.52	1.75	0.75
9 or fewer	1.04	1.66	1.18	2.14	2.21	1.66

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 17

Standard errors for table 13: Percent of publicly funded forensic crime laboratories accredited by a professional organization, by jurisdiction and size of lab, 2014 and 2020

	2014	2020
All crime labs	0.68%	0.58%
Jurisdiction		
Federal	2.89%	1.85%
State	0.25	0.44
County	1.17	1.19
Municipal	2.81	1.58
Size		
100 or more FTE employees	0.00%	0.62%
50–99	0.00	0.00
25–49	0.00	0.00
10–24	1.44	1.07
9 or fewer	1.88	2.14

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2014 and 2020.

APPENDIX TABLE 18

Standard errors for table 14: Percent of publicly funded forensic crime laboratories, by proficiency and competency testing performed and jurisdiction and size of lab, 2020

	Proficiency testing						
	Any	Blind	Declared	Random case reanalysis	Round robin/challenge testing	Other	Competency testing
All crime labs	0.32%	0.64%	0.26%	0.80%	0.59%	0.62%	0.64%
Jurisdiction							
Federal	0.00%	3.60%	0.00%	3.34%	3.87%	3.92%	1.79%
State	0.00	0.22	0.22	1.27	0.33	0.36	0.69
County	0.74	0.85	0.50	1.17	0.80	1.08	1.20
Municipal	1.04	1.68	0.91	1.72	0.91	0.43	1.82
Size							
100 or more FTE employees	0.00%	1.03%	0.41%	1.82%	1.83%	0.70%	0.00%
50–99	0.00	2.60	0.58	2.24	2.18	2.14	0.00
25–49	0.00	1.38	0.00	1.98	1.11	1.46	0.53
10–24	0.62	1.08	0.70	1.32	1.15	0.95	1.38
9 or fewer	1.24	1.09	0.68	1.68	0.94	1.37	2.18

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 19

Standard errors for table 15: Percent of publicly funded forensic crime laboratories, by technical reviews performed and jurisdiction and size of lab, 2020

	Technically reviewed		
	Some/all casework	All casework	Some casework
All crime labs	0.26%	0.76%	0.73%
Jurisdiction			
Federal	0.00%	2.75%	2.75%
State	0.00	0.83	0.83
County	0.61	1.26	1.17
Municipal	0.79	2.12	2.05
Size			
100 or more FTE employees	0.00%	1.79%	1.79%
50–99	0.00	2.16	2.16
25–49	0.00	1.41	1.41
10–24	0.62	1.36	1.29
9 or fewer	0.87	2.03	1.91

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 20

Standard errors for table 16: Percent of publicly funded forensic crime laboratories, by selected operational procedures and jurisdiction and size of lab, 2020

	Written standard operating procedures	Performance verification checks	Structured training program	Management system documents
All crime labs	0.14%	0.37%	0.52%	0.35%
Jurisdiction				
Federal	0.00%	1.79%	2.98%	0.00%
State	0.00	0.00	0.32	0.32
County	0.44	0.61	1.04	0.83
Municipal	0.00	1.04	0.49	0.93
Size				
100 or more FTE employees	0.00%	0.00%	1.69%	0.00%
50–99	0.00	0.00	0.00	0.00
25–49	0.00	0.00	0.91	0.00
10–24	0.00	0.87	0.66	0.62
9 or fewer	0.62	1.31	1.68	1.37

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

APPENDIX TABLE 21

Standard errors for table 17: Percent of publicly funded forensic crime laboratories with a written code of ethics, by jurisdiction and size of lab, 2020

	Had code of ethics	Created own code of ethics	Adopted existing code of ethics
All crime labs	0.52%	0.63%	0.80%
Jurisdiction			
Federal	2.67%	2.45%	3.63%
State	0.66	0.76	0.96
County	0.79	0.90	1.16
Municipal	0.97	1.83	2.04
Size			
100 or more FTE employees	1.70%	1.24%	1.84%
50–99	1.62	1.29	2.04
25–49	0.88	1.50	1.69
10–24	0.62	1.45	1.57
9 or fewer	1.50	1.00	1.71

Source: Bureau of Justice Statistics, Census of Publicly Funded Forensic Crime Laboratories, 2020.

The Bureau of Justice Statistics of the U.S. Department of Justice is the principal federal agency responsible for measuring crime, criminal victimization, criminal offenders, victims of crime, correlates of crime, and the operation of criminal and civil justice systems at the federal, state, tribal, and local levels. BJS collects, analyzes, and disseminates reliable statistics on crime and justice systems in the United States, supports improvements to state and local criminal justice information systems, and participates with national and international organizations to develop and recommend national standards for justice statistics. Kevin M. Scott, PhD, is the acting director.

This report was written by Connor Brooks. Elizabeth J. Davis verified the report.

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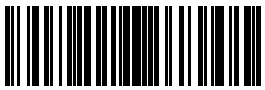

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