

# **Indiana State Department of Toxicology**

## **2024 Annual Report**



## **Overview**

The Indiana State Department of Toxicology (ISDT) provides forensic toxicology services for the state of Indiana through its laboratory testing and breath test program. ISDT has maintained its ongoing accreditation by ANAB for forensic toxicology testing and breath alcohol calibration since 2019.

**Mission:** Provide quality testing for alcohol and drugs, a dependable breath test program, expert testimony, and education on the science of forensic toxicology.

**Vision:** To provide quality forensic toxicology services for the state of Indiana.

**Values:** All programs in the Department operate with the following values at their core:

Quality

Impartiality

Transparency

Customer Focus

Employee Growth

## **Budget**

The Department's budget is comprised of general fund appropriations, dedicated fund appropriations (from breath test program fees), and, when awarded, federal grants. ISDT's general fund appropriations for state FY24 (July 1, 2023-June 30, 2024) were \$2,760,026, and its dedicated fund appropriations were \$355,000. The Indiana Criminal Justice Institute (ICJI) awarded ISDT \$2,354,138 in National Highway Traffic Safety Administration grant funds for federal fiscal year 2024 (October 1, 2023-September 30, 2024). These funds were used for reduction of ISDT's laboratory case backlog/turnaround times, the purchase of supplies, equipment, and instruments, and salary and benefits for three Forensic Scientists and an Analytical Laboratory Supervisor.

**Table 1: Department of Toxicology Funding**

<b>Fund</b>	<b>Amount</b>
General fund	\$2,760,026
Dedicated fund	\$355,000
Grant fund	\$2,354,138
Total	\$5,469,164

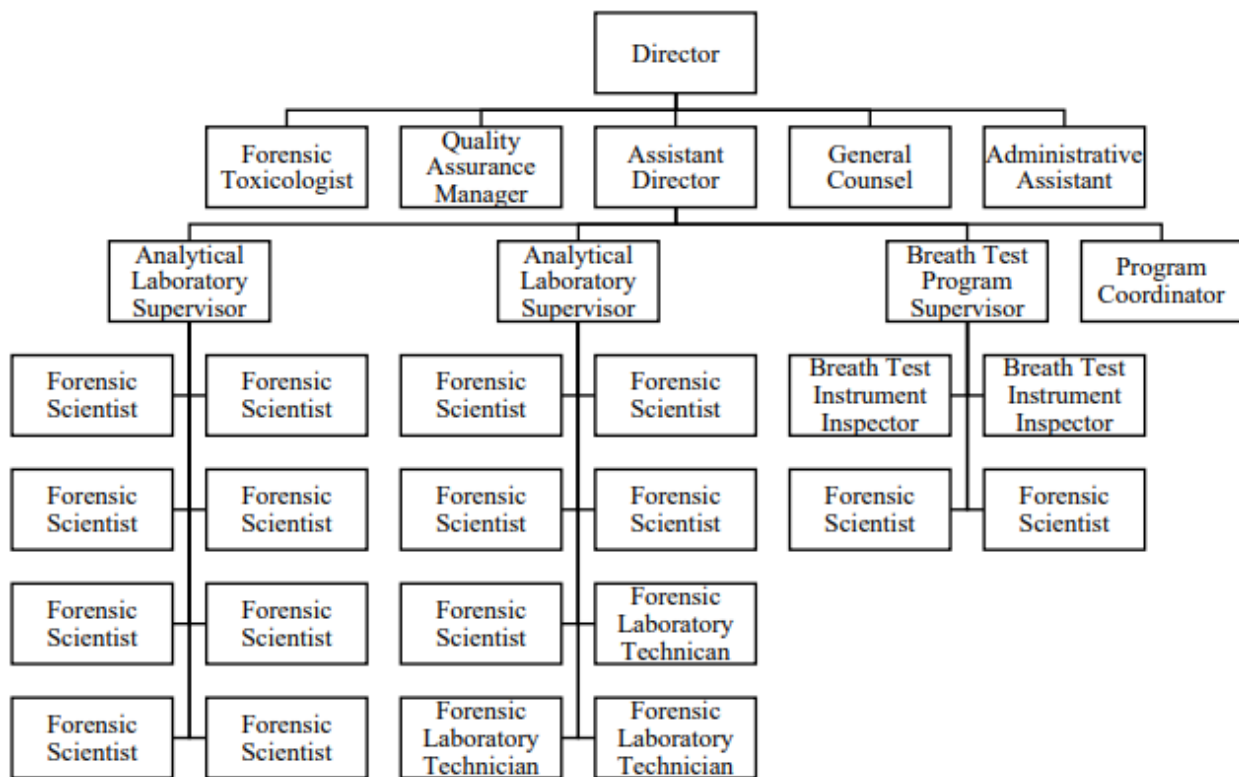
## Staffing

ISDT ended 2024 with 28 of its 30 positions filled, as detailed in **Table 2**. See **Figure 1: ISDT Organizational Chart**. ISDT added three Forensic Scientist positions in 2024: two for the laboratory and one for the breath test program.

**Table 2: Department of Toxicology Staffing as of 12/31/24**

Position	Staff	Position	Staff
Director	1	Analytical Lab Supervisor	2
Assistant Director	1	Forensic Scientist- Lab	13
Forensic Toxicologist	1	Forensic Laboratory Technician	3
General Counsel	1	Breath Alcohol Supervisor	1
Quality Assurance Manager	1	Breath Test Instrument Inspector	2
Program Coordinator	1	Forensic Scientist- Breath Test	2 (1 vacant)
Administrative Assistant	1 (1 vacant)		

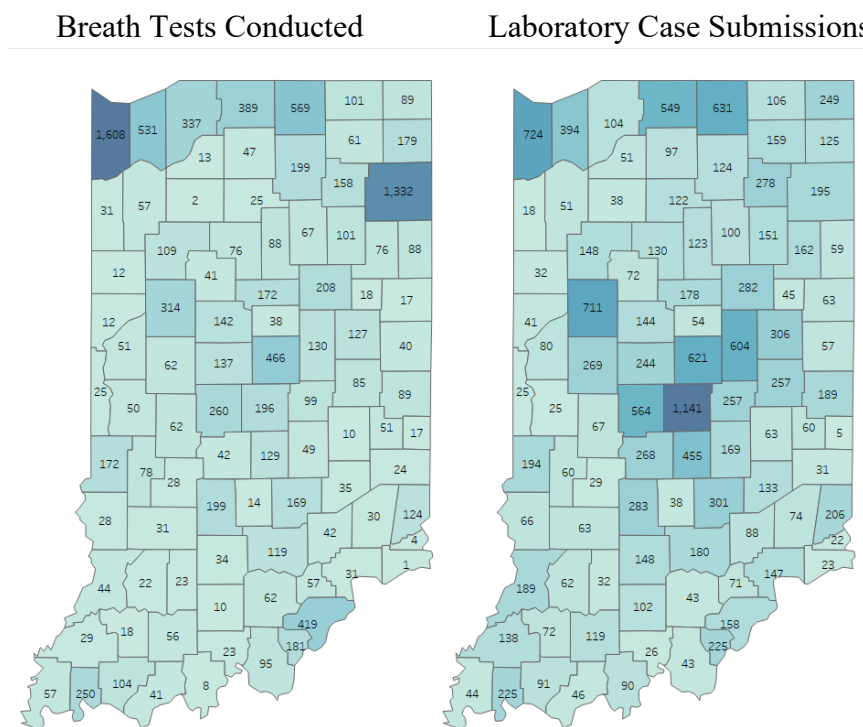
**Figure 1: ISDT Organizational Chart**



## Customers

The maps in **Figure 2** show the numbers by county for completed evidentiary breath tests administered and cases submitted to ISDT for laboratory analysis in 2024. By statute all evidentiary breath tests are required to be performed on instruments certified by ISDT; consequently, the numbers of breath tests listed here account for all evidentiary breath tests conducted in the state last year. The numbers listed for laboratory submissions, however, only account for cases submitted to ISDT, as law enforcement agencies may have testing done by laboratories other than ISDT (e.g., private laboratories, other public laboratories, hospitals).

**Figure 2: Maps of breath tests conducted and laboratory submissions**



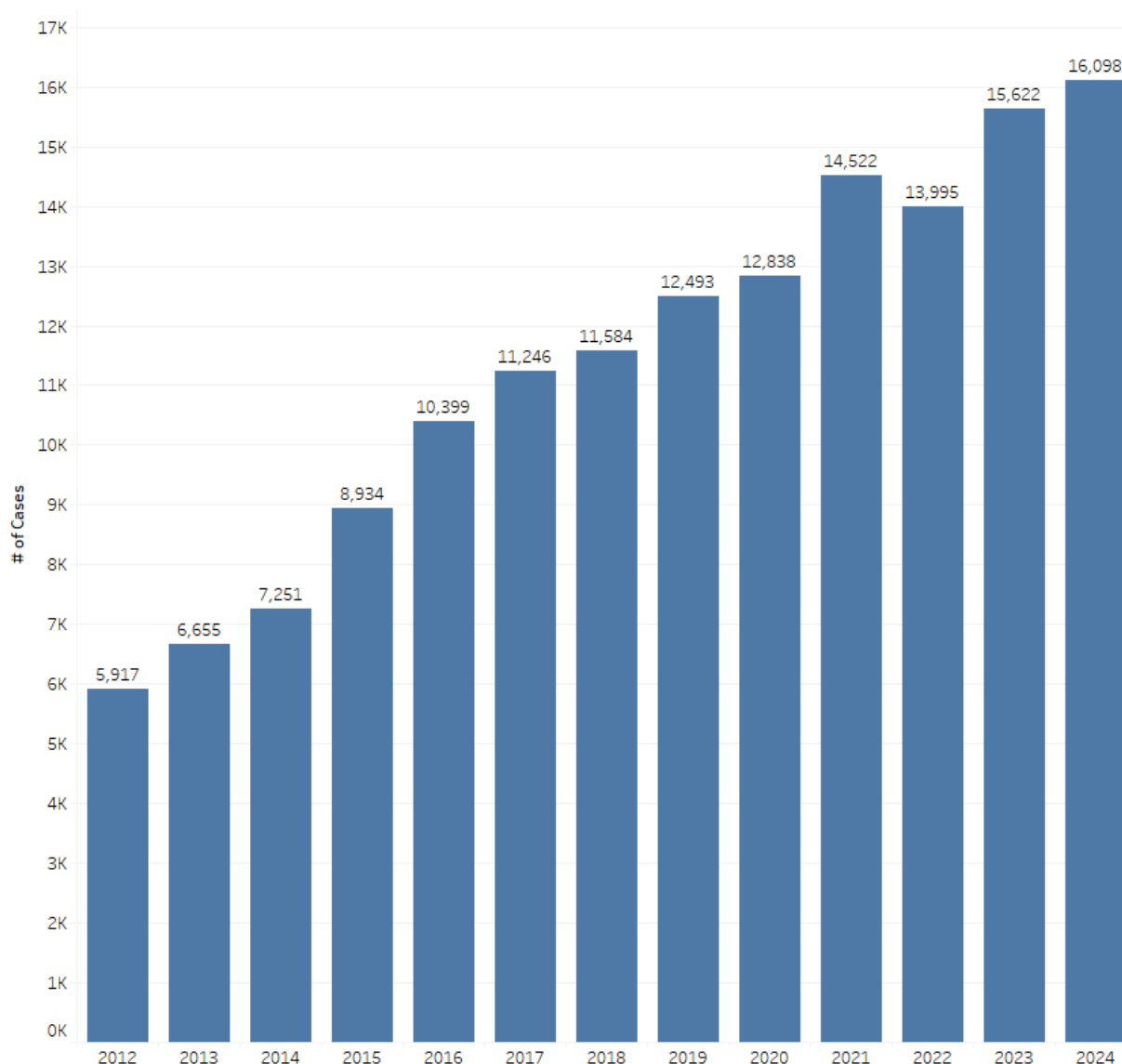
## Analytical Laboratory Services

ISDT analyzed blood specimens submitted by 428 agencies in 2024. Submissions were received from coroners, town marshals, and state and local law enforcement agencies. Most agencies submit specimens for analysis in evidence collection kits provided by the Department. Agencies may submit evidence for alcohol analysis, drug analysis, or both. Numbers of case submissions received each year since ISDT became a state agency are shown in **Figure 3**.

In order to decrease turnaround times for all laboratory submissions and allow focus of resources where the need is most critical, ISDT implemented a change in the laboratory testing policy, effective July 1, 2023, for non-fatal/serious bodily injury traffic-related cases. Under the policy, where both alcohol and drug testing are requested, the drug testing request is canceled if the subject alcohol test result is  $\geq 0.10$  g/100 mL.

**Figure 3: Laboratory Case Submissions**

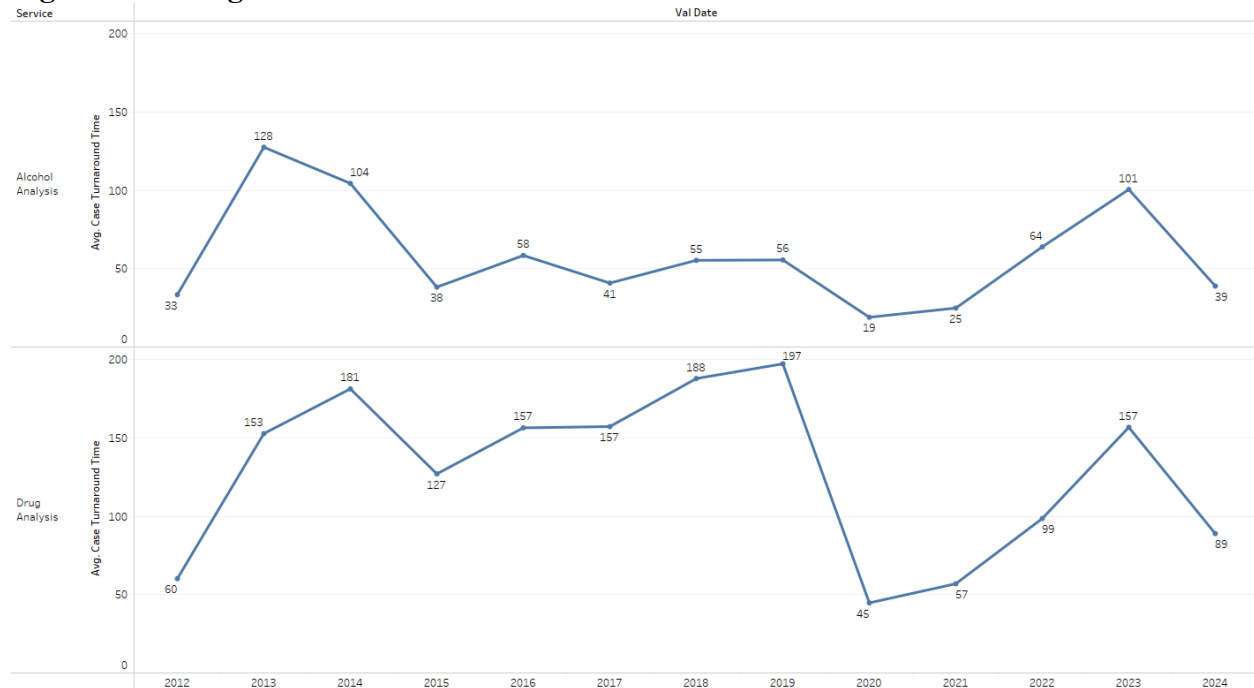
*Note: values may differ from previous Annual Reports due to changes in methodology used in data compilation.*



Cases submitted in 2024 included 12,589 requests for alcohol analysis and 9,292 requests for drug analysis, for a total of 21,881 testing requests.

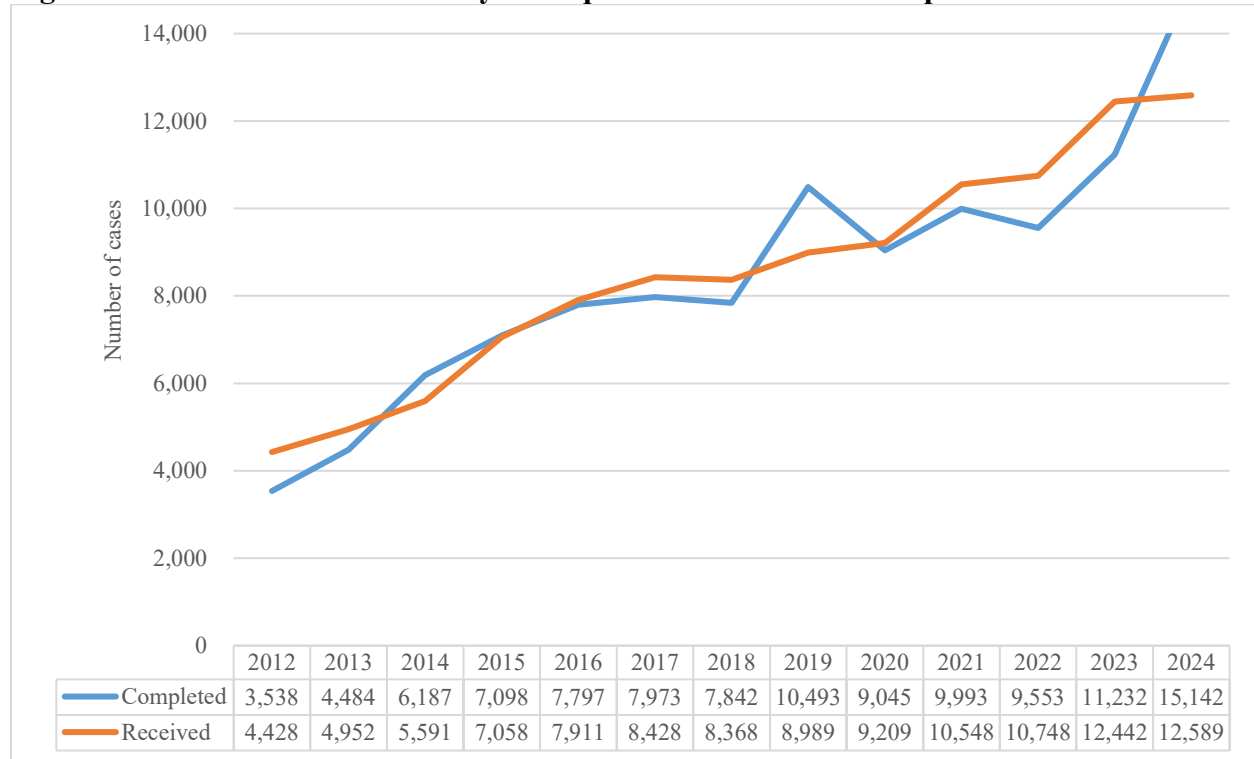
ISDT defines turnaround time as the time from receipt of evidence to the date of the toxicology report. In 2024, the average turnaround time was 39 days for alcohol analysis and 89 days for drug analysis (compared to 101 days for alcohol analysis and 157 days for drug analysis in 2023), as shown in **Figure 4**. Average turnaround times decreased in 2024 due to many factors, including Forensic Scientists completing training, continuation of drug testing policy of traffic cases when the alcohol result is  $\geq 0.100$  g/100 mL, and improved efficiencies in workflows.

**Figure 4: Average Case Turnaround Time**

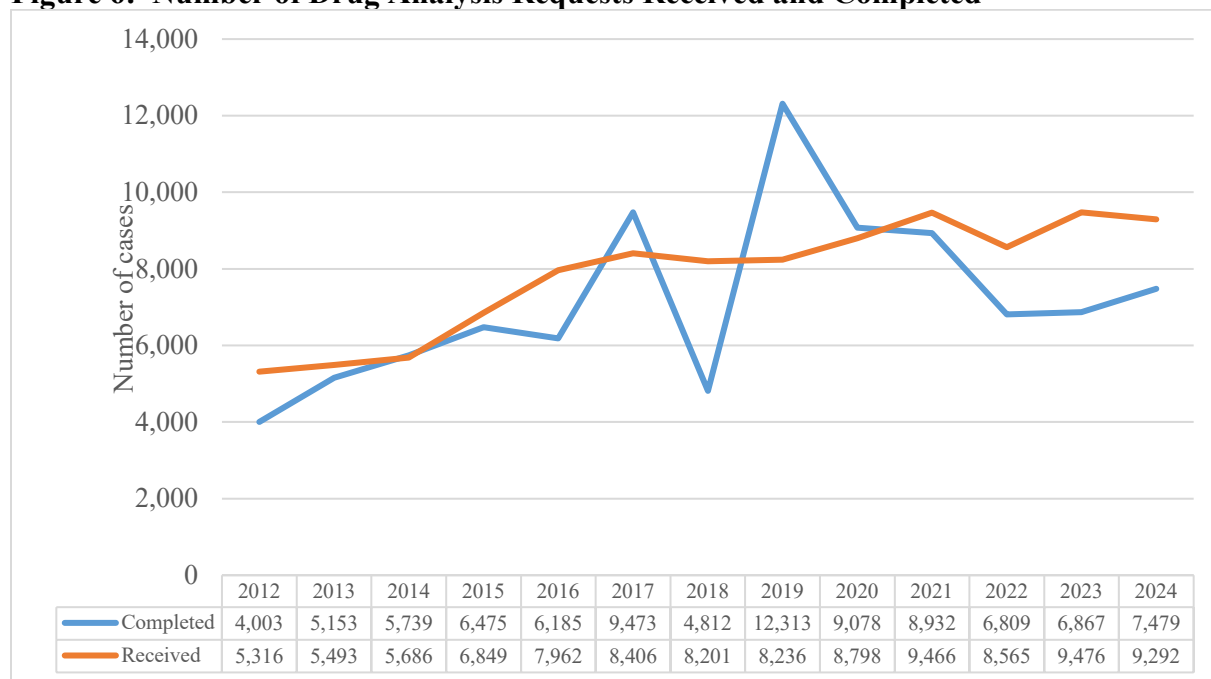


ISDT completed 15,142 requests for alcohol analysis and 7,479 requests for drug analysis in 2024, as shown in **Figure 5** and **Figure 6**, respectively. All alcohol analysis is completed by ISDT staff, while some drug analysis is outsourced.

**Figure 5: Number of Alcohol Analysis Requests Received and Completed**



**Figure 6: Number of Drug Analysis Requests Received and Completed**



Of the specimens ISDT screened for drugs in 2024, 72.1% were positive for one or more drugs or drug metabolites, compared to 66.7% in 2023 and 67.6% in 2022. This change in the percentage of positive cases may be due to the change in non-fatal/serious bodily injury traffic-related cases. The distribution of positive results by drug class over the last four years is shown in **Table 3**.

**Table 3: Drug Class Positivity**

Drug Class	Year			
	2021	2022	2023	2024
Cannabinoids	53.4%	56.0%	60.9%	58.7%
Stimulants	39.6%	36.6%	34.5%	39.7%
Opioids	29.0%	25.8%	24.7%	24.0%
Benzodiazepines/Z-drugs	18.8%	18.7%	18.1%	16.6%
Cocaine	9.3%	10.1%	9.4%	10.4%
Cyclobenzaprine	1.0%	1.3%	1.1%	1.4%
Barbiturates	0.7%	0.6%	0.6%	0.7%
Carisoprodol	0.2%	0.2%	0.3%	0.3%
Buprenorphine	0.2%	0.1%	0.3%	0.3%

Agencies submitting specimens to ISDT for testing indicate offense information on the Toxicology Analysis Request form (TAR). Of the cases received in 2024, ~97% were traffic related, which was consistent with past years.

**Table 4: Case Offenses**

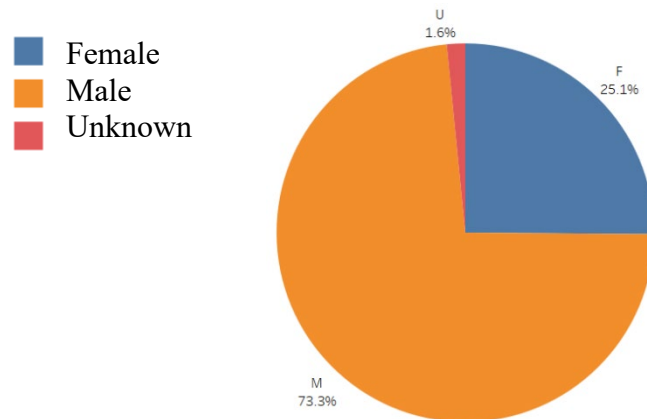
*Note: percentages add up to greater than 100% because cases can be submitted with multiple offenses listed.*

Traffic/Non-Traffic	Offense	% of cases
Traffic	Operating Vehicle While Intoxicated	75.9%
	Personal Injury/Serious Bodily Injury Crash	15.6%
	Property Damage Crash	15.3%
	Fatal Crash	3.2%
	Other: Traffic Related	2.7%
	Traffic Stop	< 0.1%
Non-Traffic	Death Investigation	0.9%
	Other: Non-Traffic Related	0.8%
	Overdose	0.2%
	Neglect/Endangerment	0.2%
	Homicide	0.1%
	Suicide	0.1%
	Sexual Assault	0.1%
	Officer Involved	0.1%
	Public Intoxication	< 0.1%
Traffic or Non-Traffic Juvenile		0.9%
Unknown		1.3%



As indicated by submitting agencies on the TAR, the majority (73.3%) of specimens submitted for alcohol analysis were from male subjects, and 25.1% were from female subjects, which is consistent with past years (see **Figure 7**).

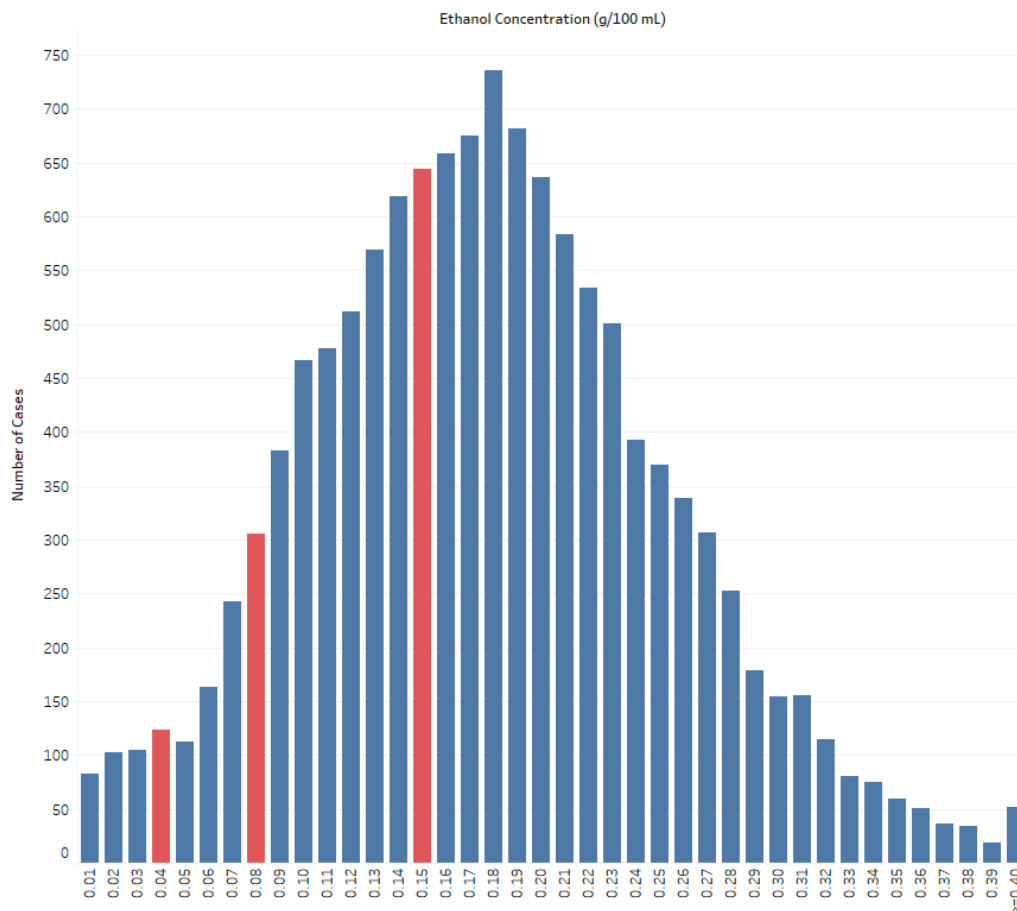
**Figure 7: Subject Gender in Blood Alcohol Cases**



**Figure 8** shows the number of cases reported by subject blood alcohol concentration (BAC). BAC was greater than or equal to 0.08 g/100 mL in ~93% of cases and greater than or equal to 0.015 g/100 mL in ~66% of cases.

**Figure 8: Blood Alcohol Result Distribution**

*Note: red bars indicate the statutory alcohol limits for commercial driver license holders (0.040 g/100 mL of blood) and operation of a vehicle (0.080 and 0.150 g/100 mL of blood)*



## Breath Test Program

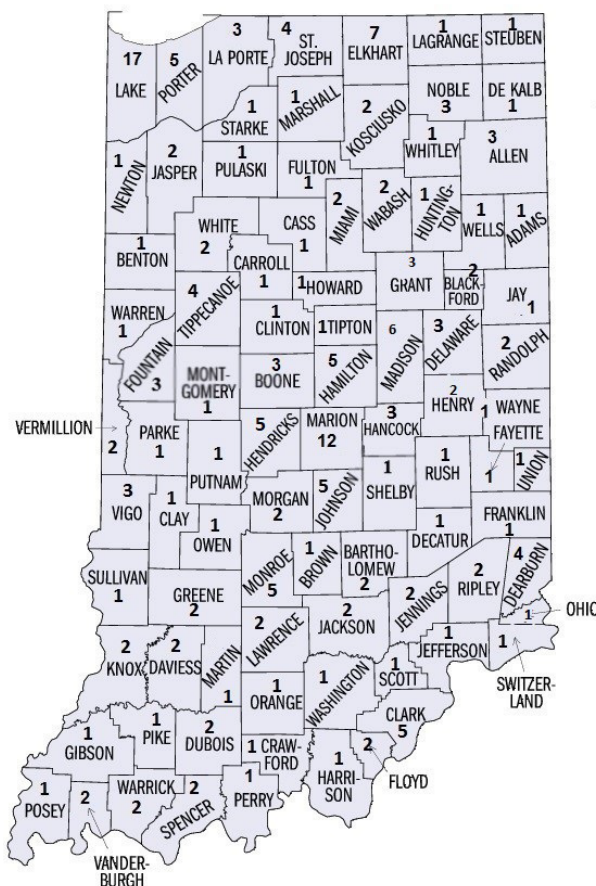
Indiana Administrative Code Title 260 requires ISDT to inspect and certify each breath test instrument deployed for evidentiary use at least once every 180 days. All 205 deployed breath test instruments remained certified during 2024, with ~700 inspections completed. Breath test instruments are deployed throughout the state, as shown in **Figure 9**.

ISDT conducted 14 breath test operator classes in 2024, with enrollment for each class limited to 36 students. A total of 467 law enforcement officers were trained and certified as breath test operators in 2024. At the end of 2024, the state had 4,462 certified breath test operators employed by 342 law enforcement agencies.

To maintain certification, a breath test operator must be recertified at least every two years from the month of the last certification or recertification. In 2024, 2,375 operators were recertified, as compared to 1,122 operators in 2023 and 2,435 operators in 2022. The majority of recertifications typically occur in even numbered years due to the initial deployment of the Intox EC/IR II breath test instruments in 2014. Breath test operator certifications and instrument certifications are available on the ISDT website (<https://www.in.gov/isdt/instrument-and-operator-certifications/>).

There were 12,146 attempted (conducted) breath tests in 2024, with 8,758 tests (~72%) completed, which is consistent with the number of completed breath tests in 2023. A breath test is completed when the subject delivers two breath samples with measurable results that agree with each other within 0.020 g/210L of breath.

### Figure 9: Deployed Breath Test Instruments

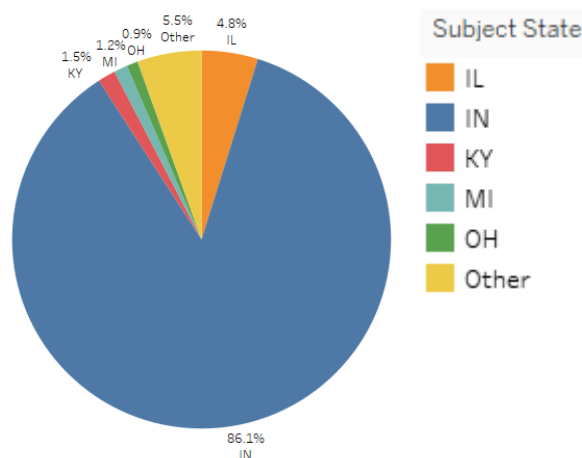


The number of attempted breath tests by county is shown in **Table 5**. The ten counties with the most attempted breath tests account for approximately 51% of all attempted breath tests in 2024.

**Table 5: County and Number of Subject Tests Attempted**

Lake	1608	Madison	130	Noble	61	Gibson	29
Allen	1332	Johnson	129	Scott	57	Owen	28
Elkhart	569	Delaware	127	Posey	57	Sullivan	28
Porter	531	Dearborn	124	Jasper	57	Fulton	25
Hamilton	466	Jackson	119	Dubois	56	Vermillion	25
Clark	419	White	109	Fayette	51	Franklin	24
St. Joseph	389	Warrick	104	Fountain	51	Crawford	23
La Porte	337	Huntington	101	Parke	50	Martin	23
Tippecanoe	314	La Grange	101	Shelby	49	Daviess	22
Hendricks	260	Hancock	99	Marshall	47	Blackford	18
Vanderburgh	250	Harrison	95	Knox	44	Pike	18
Grant	208	Wayne	89	Morgan	42	Union	17
Kosciusko	199	Steuben	89	Jennings	42	Jay	17
Monroe	199	Adams	88	Spencer	41	Brown	14
Marion	196	Miami	88	Carroll	41	Starke	13
Floyd	181	Henry	85	Randolph	40	Benton	12
De Kalb	179	Clay	78	Tipton	38	Warren	12
Vigo	172	Wells	76	Decatur	35	Rush	10
Howard	172	Cass	76	Lawrence	34	Orange	10
Bartholomew	169	Wabash	67	Jefferson	31	Perry	8
Whitley	158	Putnam	62	Newton	31	Ohio	4
Clinton	142	Washington	62	Greene	31	Pulaski	2
Boone	137	Montgomery	62	Ripley	30	Switzerland	1

**Figure 10: State of Issued Driver License**

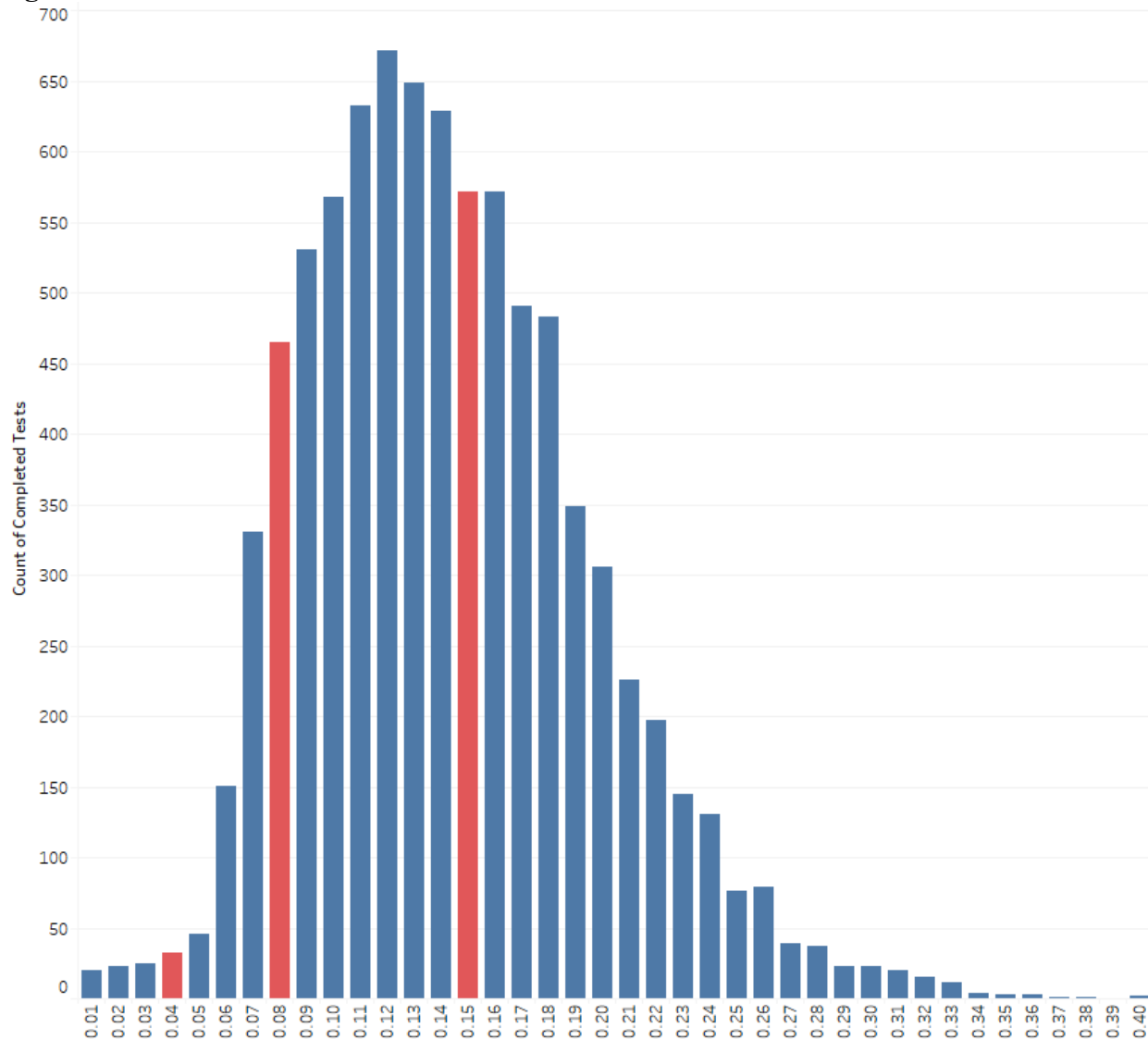


Of the subjects tested in 2024, 86.1% had licenses from Indiana, 4.8% from Illinois, 1.5% from Kentucky, 1.2% from Michigan, 0.9% from Ohio, and the remaining 5.5% were from other states and countries, as show in **Figure 10**.

These numbers are consistent with those reported each year since 2016 when tracking of this information began.

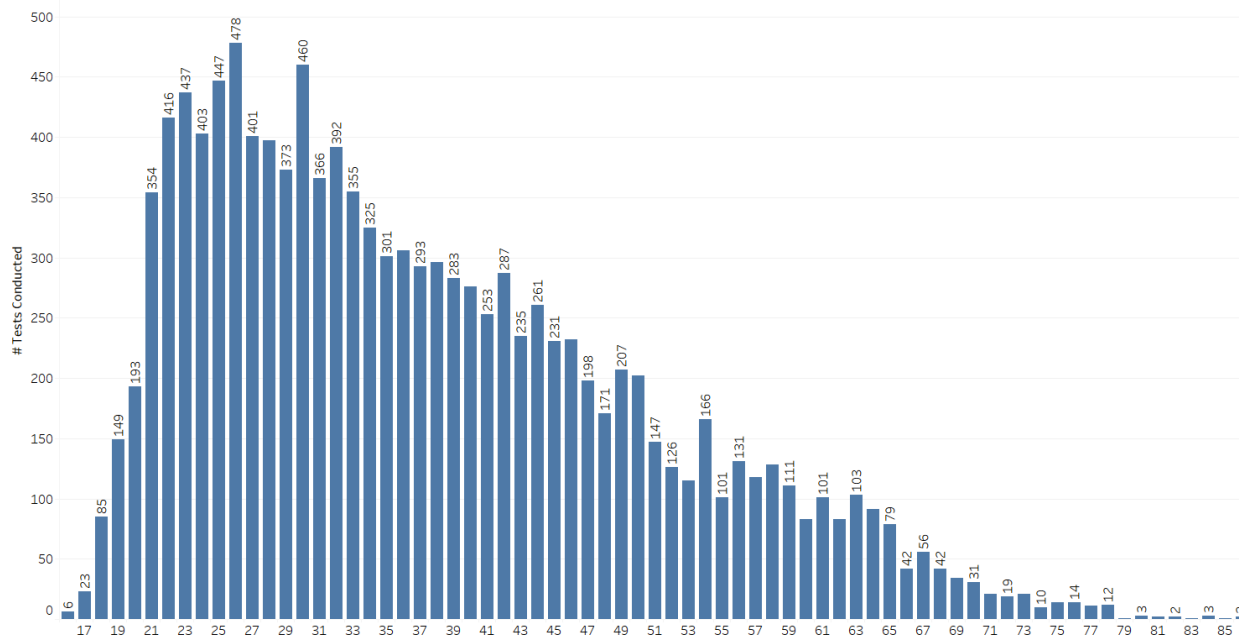
Of the completed breath tests in 2024, ~9% had results between 0.000-0.079 g/210 L of breath, 47.4% had results between 0.080-0.149 g/210 L of breath, and 43.5% had results  $\geq 0.150$  g/210 L of breath, as indicated in **Figure 11**.

**Figure 11: Breath Alcohol Result Distribution**



As shown in **Figure 12**, the subjects tested were between 16 and 86 years of age, with the greatest number of subjects at 26 years of age.

**Figure 12: Number of Breath Alcohol Tests by Subject Age**



## **Ignition Interlock**

There are currently 14 ignition interlock device models certified by ISDT. Certifications are valid for three years. Three device models were recertified in 2024. Vendors of certified device models reported that 1,922 ignition interlock devices were installed in vehicles in Indiana as of December 1<sup>st</sup> 2024, compared to 1,729 in December 2023. This number is a snapshot in time and does not reflect all devices installed over the course of the entire year. A list of all certified ignition interlock device models and contact information for the device providers is available on the ISDT website (<https://www.in.gov/isdt/certified-device-models/>).

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