

2020 Annual Report and Industry Insights



Drug Testing Index™ and Industry Insights

A comprehensive analysis of
workforce drug use trends





The Quest Diagnostics Drug Testing Index™ (DTI) reveals insights into patterns of drug use among the American workforce. Published annually since 1988, the Drug Testing Index examines positivity rates for workplace drugs tested by the company on behalf of employers. Quest Diagnostics publishes these findings as a public service for government, employers, policymakers, and the general public.

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Workforce Drug Testing Positivity Climbed to Highest Rate in 16 Years, New Quest Diagnostics Drug Testing Index™ Analysis

The rate of workforce drug positivity hit a sixteen-year high in 2019, according to a new analysis released today by Quest Diagnostics, the world's leading provider of diagnostic information services. Positivity rates in the combined U.S. workforce increased in urine drug tests, climbing to the highest level since 2004 (4.5%) and more than 28% percent higher than the thirty-year low of 3.5 percent recorded between 2010 and 2012.

In addition to overall increases in workforce drug positives, specific regions of the United States, particularly the Midwest, experienced dramatic increases in positivity for cocaine and methamphetamine as well as marijuana.

The Quest Diagnostics findings generally align with other research. Drug deaths in the United States rose 5 percent in 2019, driven largely by methamphetamine, cocaine and fentanyl, following a decline in 2018. During the first few months of 2020, drug deaths increased about 13 percent compared with last year, attributable partly to social isolation and other disruptions caused by COVID-19.

“There is no question that before COVID-19, rates of workplace drug positivity were trending in the wrong direction, based on our Quest Diagnostics data. The enormous strain caused by COVID-19 may prove to be an accelerant on this disturbing trend,” said Dr. Barry Sample, senior director of science and technology, Quest Diagnostics.

“Organizations will need to consider the impact of COVID-19 not only on workplace safety but also as a health concern for their employees for some time to come.”

Positivity rates for methamphetamine surged in the Midwest

Over the last five years, methamphetamine positivity in the general U.S. workforce testing increased nearly 12 percent (0.17% in 2015 versus 0.19% in 2019). The Midwest region experienced year-over-year increases, driven primarily by double-digit increases in the East North Central region during this period. Over the past five years, methamphetamine positivity in the Midwest increased nearly 78 percent (0.09% in 2015 versus 0.16% in 2019). Illinois (0.03% in 2015 versus 0.10% in 2019), Indiana (0.14% in 2015 versus 0.29% in 2019), Michigan (0.014% in 2015 versus 0.05 in 2019), and Ohio (0.04% in 2015 versus 0.11% in 2019) increased at least two-fold; while Wisconsin (0.05% in 2015 versus 0.09% in 2019) nearly doubled.

“While the national debate on drug misuse in the workforce has focused primarily on marijuana, increasing positivity rates for cocaine and methamphetamine are also cause for concern,” said Dr. Sample. “Positivity by drug and region can be random and unpredictable. Our data is a reminder that it is important to remain vigilant about all drug misuse in the workforce.

Between 2019 and 2018, methamphetamine positivity inched up nearly 6 percent (0.18% in 2018 versus 0.19% in 2019) in general U.S. workforce tests and fell 6.3 percent



(0.15% in 2018 versus 0.16% in 2019) in federally mandated, safety-sensitive testing. Methamphetamine positivity changed little in the general U.S. workforce (up 12 percent) and was flat in federally mandated, safety sensitive testing over five years.

The increased positivity rates for methamphetamine in urine test results were bolstered by similar patterns in other specimen types. Oral fluid methamphetamine positivity, which also assesses recent use, was up 4.3 percent since 2018 and up 69 percent since 2015; while methamphetamine positivity from hair tests, which gauges a pattern of drug use over time, was up 20 percent since 2018 and 60 percent since 2015.

Cocaine positivity increased in the Midwest and West

Cocaine positivity in the general U.S. workforce testing increased in the Midwest and West regions over the

“Testing with multiple specimen types can reveal a fuller understanding of patterns of misuse than one alone.”



past five years. Cocaine positivity in the Midwest increased by 40 percent (0.20% in 2015 versus 0.28% in 2019) and in the West by 53 percent (0.15% in 2015 versus 0.23% in 2019). The Midwest was 20 percent less than the national rate in 2015 but 3.7 percent above the national rate in 2019, suggesting a surge in positivity in the region last year.

In the West, where cocaine positivity has been historically far lower, the cocaine positivity rate rose from 40 percent below the national rate in 2015 to 14.8 percent below in 2019. These increases in the West were primarily driven by increasing positivity in Colorado (0.19% in 2015 versus 0.30% in 2019), Nevada (0.13% in 2015 versus 0.22% in 2019), and Oregon (0.09% in 2015 versus 0.13% in 2019).

Opiate positivity declines throughout United States

In the general U.S. workforce, positivity for opiates in urine drug testing continues to decline across all opiate categories. Urine drug test positivity for opiates (primarily codeine and/or morphine) in the general U.S. workforce declined more than 19 percent (0.31% in 2018 versus 0.25% in 2019) and 49 percent over five years (0.49% in 2015 versus 0.25% in 2019). Among the more specific tests for other prescription opiates, the positivity for the semi-synthetic opiates (hydrocodone and/or hydromorphone) dropped 26 percent over the past year (0.50% in 2018 versus 0.37% in 2019) and more than 45 percent over five years (0.68% in 2015 versus 0.37% in 2019). Similarly, positivity for oxycodones (oxycodone and/or oxymorphone) declined 21 percent (0.43% in 2018 versus 0.34% in 2019) over the past year and nearly 55 percent over five years (0.75% in 2015 versus 0.34% in 2019).

Marijuana most commonly detected drug in U.S. workforce

Marijuana continues to top the list of the most commonly detected illicit substances across all workforce categories (general U.S. workforce; federally mandated, safety-sensitive workforce; and combined U.S. workforce, which includes the prior two populations) and specimen types (urine, oral fluid, and hair).

In the general U.S. workforce, marijuana positivity increased nearly 11 percent in urine testing (2.8% in 2018 versus 3.1% in 2019) and 29 percent since 2015 (2.4%). In the Midwest, marijuana positivity outpaced national increases in positivity in 2018 and 2019. Marijuana positivity increased in the Midwest by nearly 14 percent (2.9% in 2018 versus 3.3% in 2019). The West region also outpaced national positivity and saw double digit increases, as compared to the previous year, in 2017 through 2019. Marijuana positivity



increased in the West by 24 percent (3.3% in 2018 versus 4.1% in 2019) and 78 percent since 2015 (2.3%).

“Marijuana continues to be an enduring presence in the U.S. workforce. Changing attitudes toward its use could pose heightened risks especially in safety-sensitive positions and those states exploring legalization,” said Dr. Sample.

Positivity rates for heroin continue to decline in general U.S. and federally mandated, safety-sensitive workforce testing

Urine drug test results for the general U.S. workforce for heroin use, indicated by the presence of the 6-acetylmorphine (6-AM) metabolite, declined 33 percent (0.03% in 2018 versus 0.02% in 2019) and 50 percent decline since its peak in 2015 and 2016 (0.04%).

Positivity for 6-AM in the federally mandated, safety-sensitive workforce declined 15 percent between 2018 and 2019 (0.013% versus 0.011%), with a decrease of more than 45 percent since 2015 (0.02%).

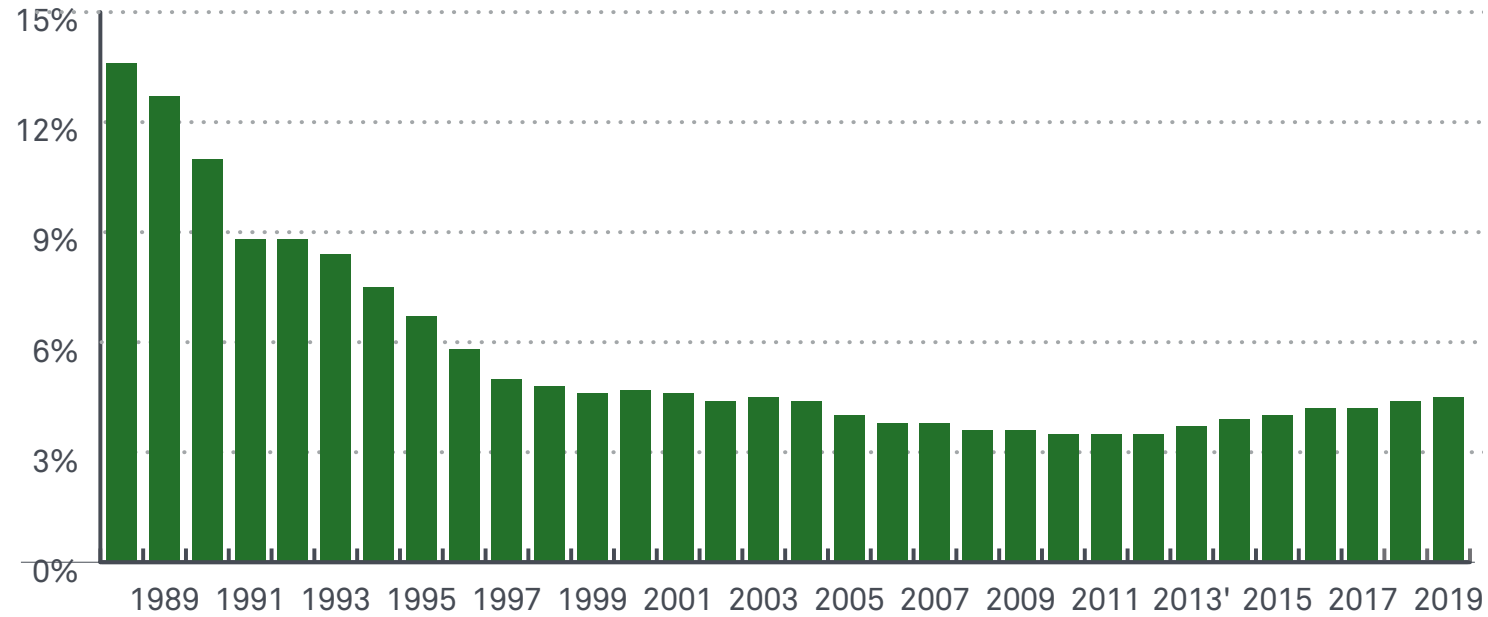
Workforce positivity increases significantly in multiple industries

The Quest Diagnostics Drug Testing Index Industry Insights of general U.S. workforce positivity rates, based on more than 18 million urine drug test results (between 2015 and 2019), shows year-over-year increases in overall workplace drug positivity in 15 of the 17 sectors reported. The Retail Trade industry had the highest overall positivity rate (4.7% in 2015, 5.1% in 2016, 5.3% in 2017, 5.4% in 2018 and 5.5% in 2019) across all five years of the analysis. The Other Services (not including Public Administration) category, which includes services not listed in the other categories such as grantmaking, advocacy, and providing personal services, also had a 5.5% positivity rate in 2019. The Accommodations and Food Service category had the highest workforce positivity for marijuana, at 4.8%, a relative increase of 65 percent over five years (2.9% in 2015 versus 4.8% in 2019).

For more information about the Quest Diagnostics Drug Testing Index, visit [QuestDiagnostics.com/DTI](https://www.questdiagnostics.com/DTI).

Annual Positivity Rates | *Annual Report*

Urine Drug Tests - For Combined U.S. Workforce



Nearly 9 million tests from January to December 2019

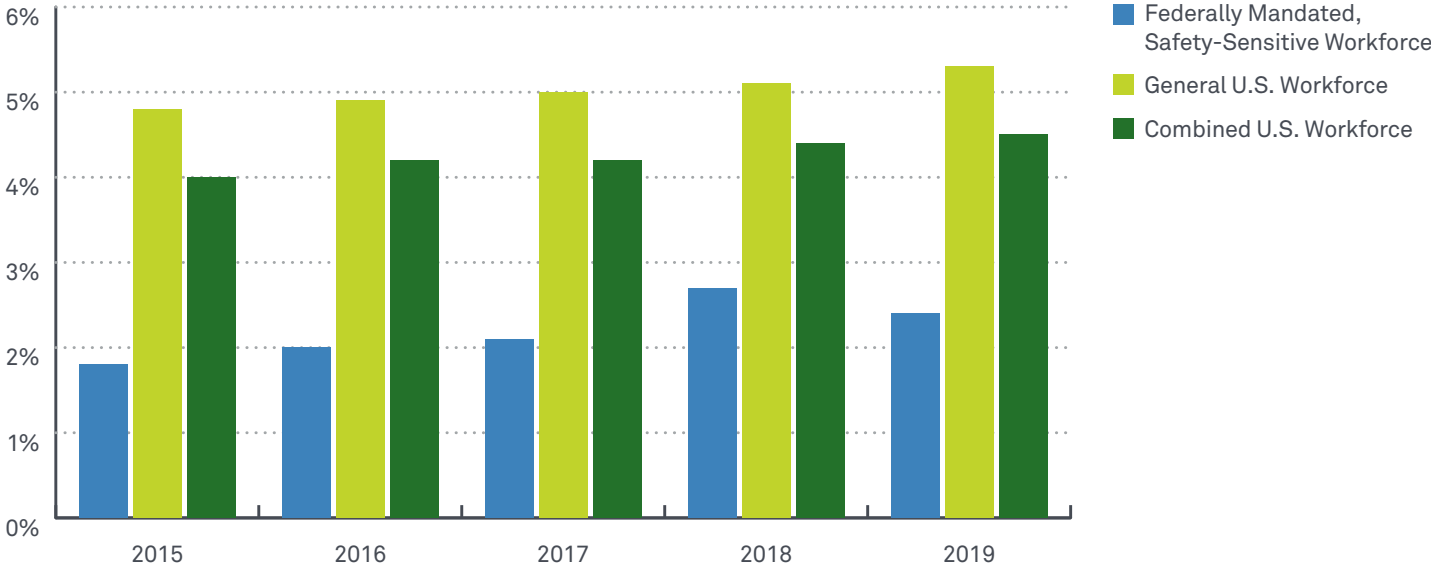
Year	Drug Positivity Rate
1988	13.6%
1989	12.7%
1990	11.0%
1991	8.8%
1992	8.8%
1993	8.4%
1994	7.5%
1995	6.7%
1996	5.8%
1997	5.0%
1998	4.8%

Year	Drug Positivity Rate
1999	4.6%
2000	4.7%
2001	4.6%
2002	4.4%
2003	4.5%
2004	4.4%
2005	4.0%
2006	3.8%
2007	3.8%
2008	3.6%
2009	3.6%

Year	Drug Positivity Rate
2010	3.5%
2011	3.5%
2012	3.5%
2013	3.7%
2014	3.9%
2015	4.0%
2016	4.2%
2017	4.2%
2018	4.4%
2019	4.5%

Positivity Rates by Testing Category | *Annual Report*

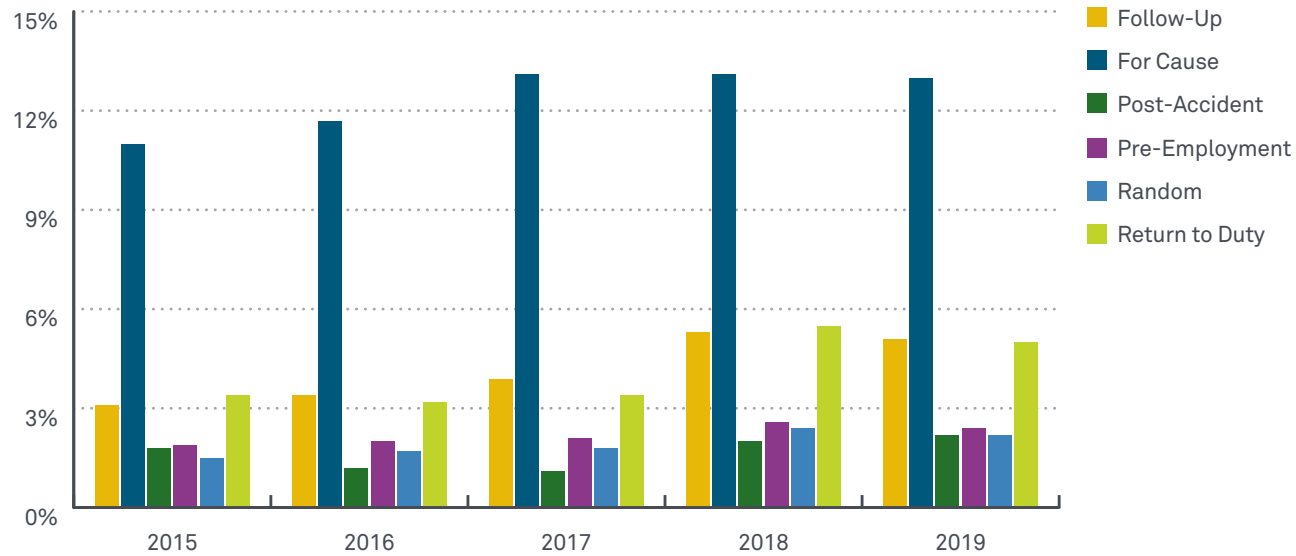
Urine Drug Tests



Testing Category	2015	2016	2017	2018	2019
Federally Mandated, Safety-Sensitive Workforce	1.8%	2.0%	2.1%	2.7%	2.4%
General U.S. Workforce	4.8%	4.9%	5.0%	5.1%	5.3%
Combined U.S. Workforce	4.0%	4.2%	4.2%	4.4%	4.5%

Positivity Rates by Testing Reason | *Annual Report*

Urine Drug Tests – For Federally Mandated, Safety-Sensitive Workforce

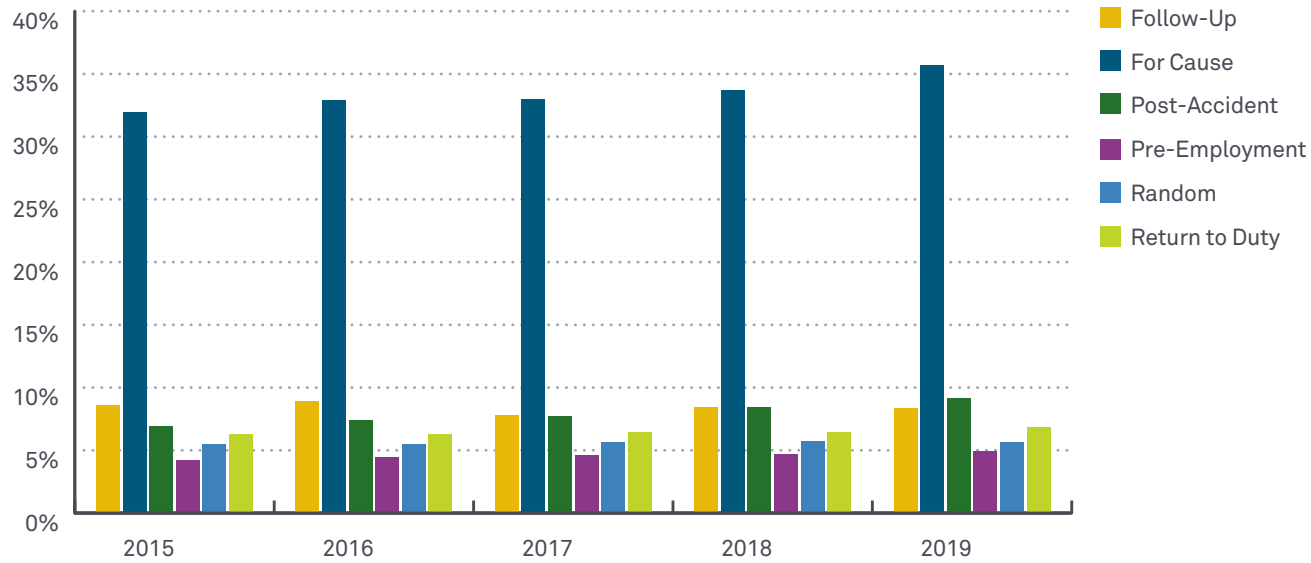


More than 2.4 million tests from January to December 2019

Testing Reason	2015	2016	2017	2018	2019
Follow-Up	3.1%	3.4%	3.9%	5.3%	5.1%
For Cause	11.0%	11.7%	13.1%	13.1%	13.0%
Post-Accident	2.8%	3.0%	3.1%	4.7%	4.5%
Pre-Employment	1.9%	2.0%	2.1%	2.6%	2.4%
Random	1.5%	1.7%	1.8%	2.4%	2.2%
Return to Duty	3.4%	3.2%	3.4%	5.5%	5.0%

Positivity Rates by Testing Reason | *Annual Report*

Urine Drug Tests – For General U.S. Workforce

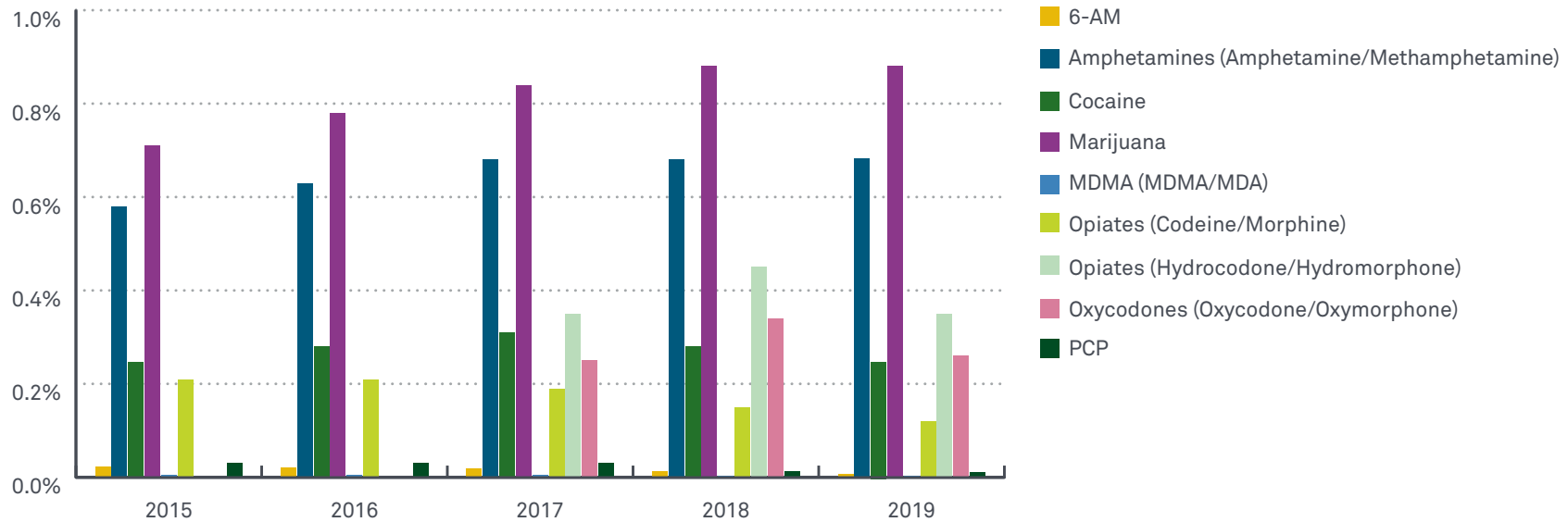


More than 6 million tests from January to December 2019

Testing Reason	2015	2016	2017	2018	2019
Follow-Up	8.6%	8.9%	7.8%	8.4%	8.3%
For Cause	31.9%	32.9%	33.0%	33.7%	35.7%
Post-Accident	6.9%	7.4%	7.7%	8.4%	9.1%
Pre-Employment	4.2%	4.4%	4.6%	4.7%	4.9%
Random	5.5%	5.5%	5.6%	5.7%	5.6%
Return to Duty	6.3%	6.3%	6.4%	6.4%	6.8%

Positivity Rates by Drug Category | *Annual Report*

Urine Drug Tests – For Federally Mandated, Safety-Sensitive Workforce, as a Percentage of All Such Tests



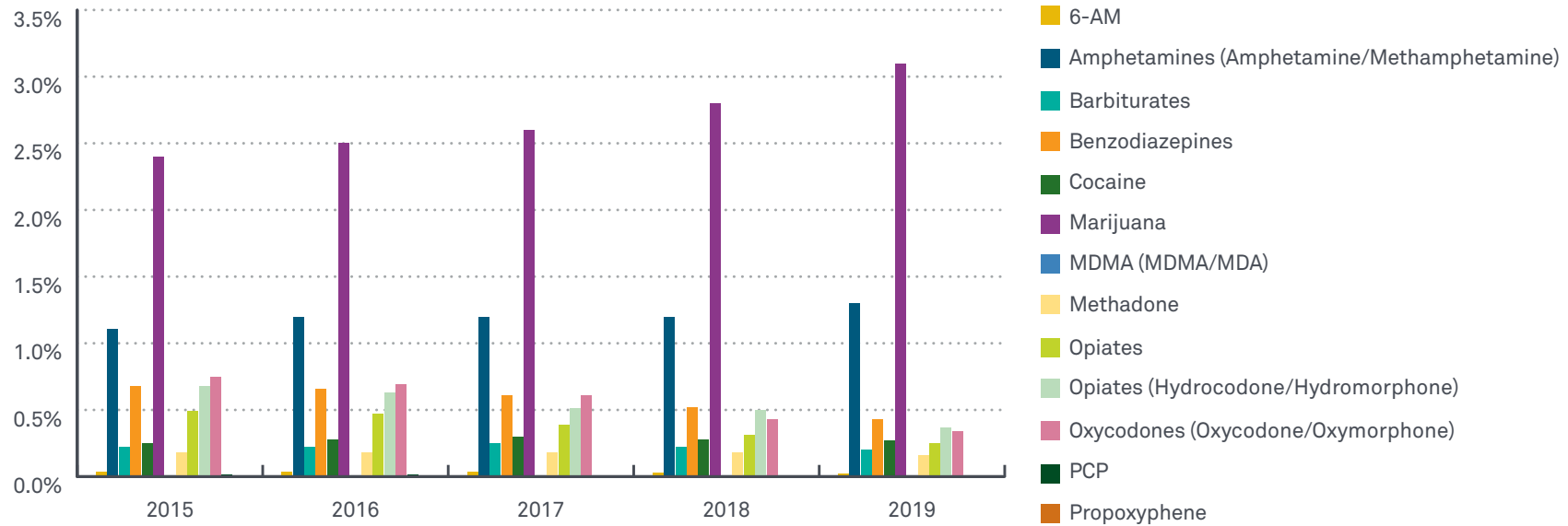
More than 2.4 million tests from January to December 2019

Drug Category	2015	2016	2017	2018	2019
6-AM	0.02%	0.02%	0.019%	0.013%	0.011%
Amphetamines (Amphetamine/Methamphetamine)	0.58%	0.63%	0.68%	0.68%	0.68%
Cocaine	0.26%	0.28%	0.31%	0.28%	0.25%
Marijuana	0.71%	0.78%	0.84%	0.88%	0.88%
MDMA (MDMA/MDA)	0.005%	0.005%	0.005%	0.003%	0.003%
Opiates (Codeine/Morphine)	0.21%	0.21%	0.19%	0.15%	0.12%
Opiates (Hydrocodone/Hydromorphone)	-	-	0.35% ¹	0.45%	0.35%
Oxycodones (Oxycodone/Oxymorphone)	-	-	0.25% ¹	0.34%	0.26%
PCP	0.03%	0.03%	0.03%	0.013%	0.011%

¹2017 Federal employee testing October through December

Positivity Rates by Drug Category | *Annual Report*

Urine Drug Tests – For General U.S. Workforce, as a Percentage of All Such Tests



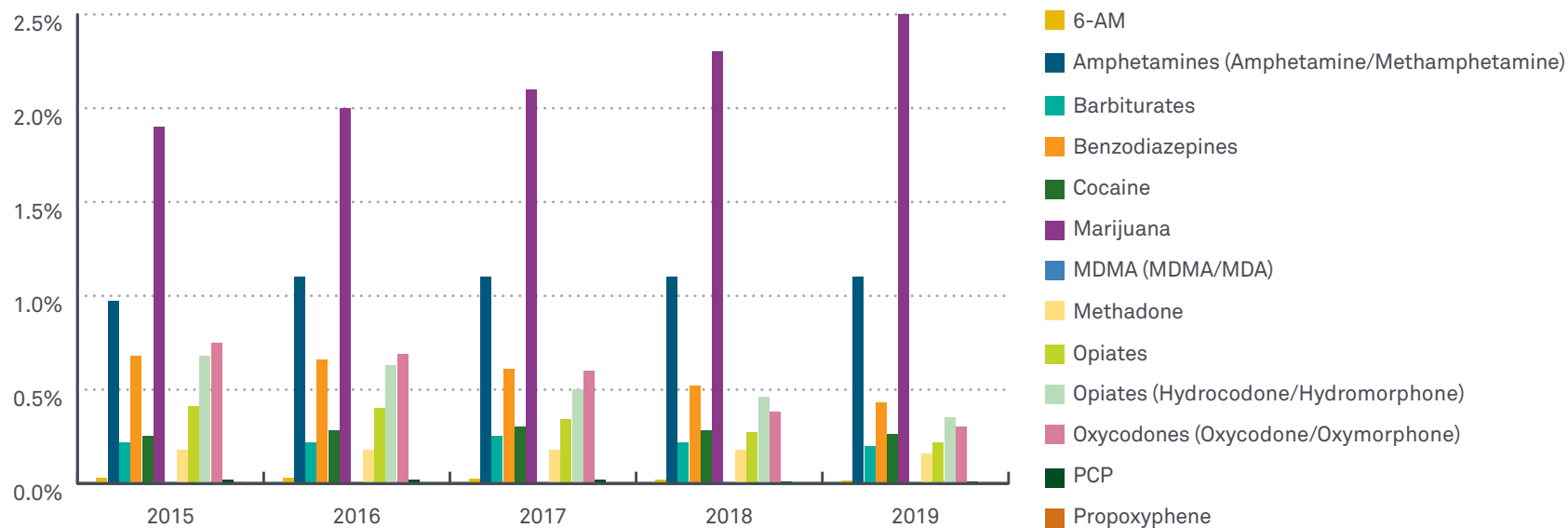
More than 6 million tests from January to December 2019

Drug Category	2015	2016	2017	2018	2019
6-AM	0.04%	0.04%	0.03%	0.03%	0.02%
Amphetamines (Amphetamine/Methamphetamine)	1.1%	1.2%	1.2%	1.2%	1.3%
Barbiturates	0.22%	0.22%	0.25%	0.22%	0.20%
Benzodiazepines	0.68%	0.66%	0.61%	0.52%	0.43%
Cocaine	0.25%	0.28%	0.30%	0.28%	0.27%
Marijuana	2.4%	2.5%	2.6%	2.8%	3.1%
MDMA (MDMA/MDA)	0.005%	0.004%	0.005%	0.006%	0.008%

Drug Category	2015	2016	2017	2018	2019
Methadone	0.18%	0.18%	0.18%	0.18%	0.16%
Opiates	0.49%	0.47%	0.39%	0.31%	0.25%
Opiates (Hydrocodone/Hydromorphone)	0.68%	0.63%	0.51%	0.50%	0.37%
Oxycodones (Oxycodone/Oxymorphone)	0.75%	0.69%	0.61%	0.43%	0.34%
PCP	0.016%	0.013%	0.013%	0.012%	0.011%
Propoxyphene	0.003%	0.002%	0.001%	0.001%	0.000%

Positivity Rates by Drug Category | *Annual Report*

Urine Drug Tests – For Combined U.S. Workforce, as a Percentage of All Such Tests



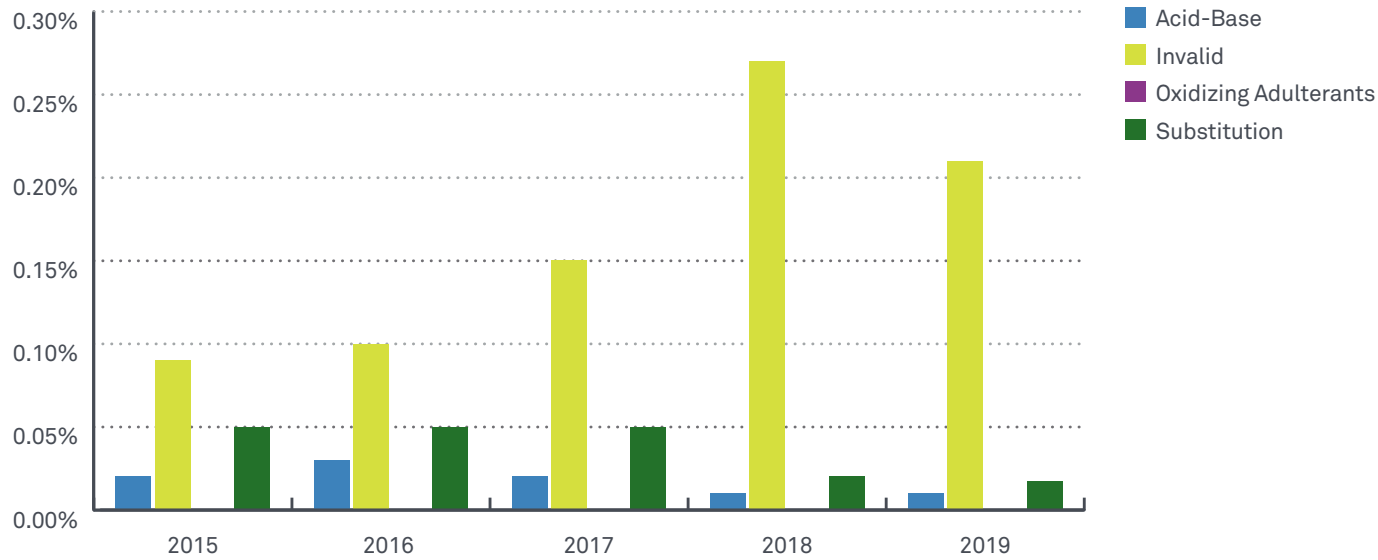
Nearly 9 million tests from January to December 2019

Drug Category	2015	2016	2017	2018	2019
6-AM	0.03%	0.03%	0.02%	0.019%	0.015%
Amphetamines (Amphetamine/Methamphetamine)	0.97%	1.1%	1.1%	1.1%	1.1%
Barbiturates	0.22%	0.22%	0.25%	0.22%	0.20%
Benzodiazepines	0.68%	0.66%	0.61%	0.52%	0.43%
Cocaine	0.25%	0.28%	0.30%	0.28%	0.26%
Marijuana	1.9%	2.0%	2.1%	2.3%	2.5%
MDMA (MDMA/MDA)	0.005%	0.004%	0.005%	0.005%	0.005%

Drug Category	2015	2016	2017	2018	2019
Methadone	0.18%	0.18%	0.18%	0.18%	0.16%
Opiates	0.41%	0.40%	0.34%	0.27%	0.22%
Opiates (Hydrocodone/Hydromorphone)	0.68%	0.63%	0.50%	0.46%	0.35%
Oxycodones (Oxycodone/Oxymorphone)	0.75%	0.69%	0.60%	0.38%	0.30%
PCP	0.019%	0.016%	0.016%	0.012%	0.011%
Propoxyphene	0.003%	0.002%	0.001%	0.001%	0.000%

Non-Negative Rates by Specimen Validity Test (SVT)² Category | *Annual Report*

Urine Drug Tests – For Federally Mandated, Safety-Sensitive Workforce, as a Percentage of All Such Tests



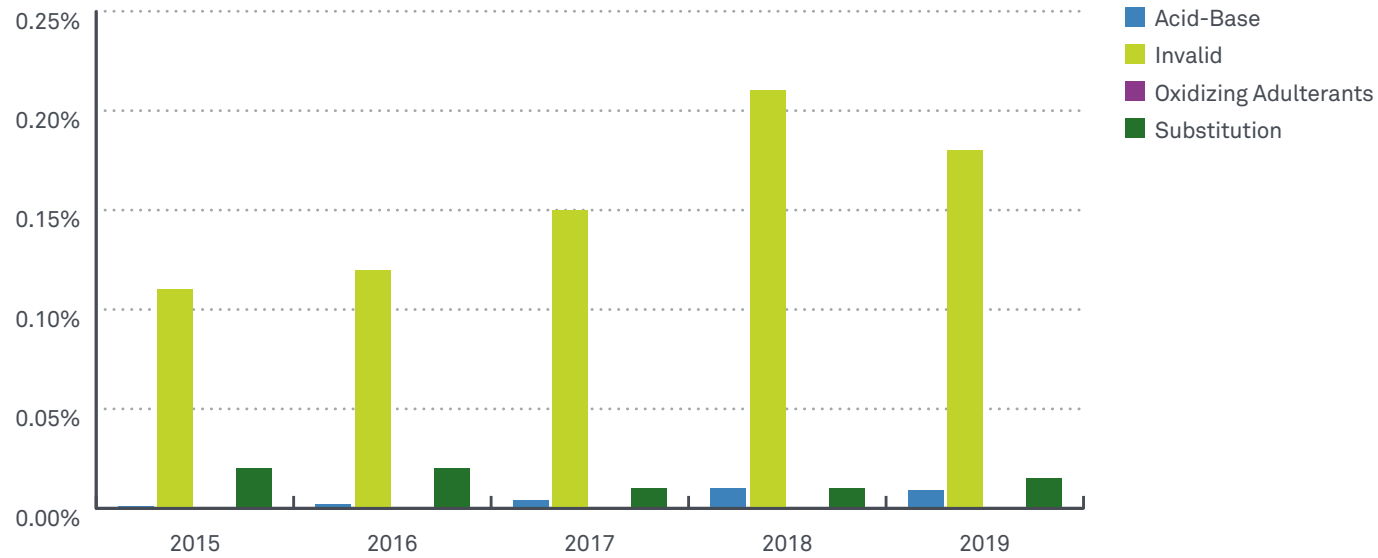
More than 2.4 million tests from January to December 2019

SVT Category	2015	2016	2017	2018	2019
Acid-Base	0.02%	0.03%	0.02%	0.013%	0.010%
Invalid	0.09%	0.10%	0.15%	0.27%	0.21%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Substitution	0.05%	0.05%	0.05%	0.019%	0.017%

²Specimen validity testing is the evaluation of a specimen to determine if it is consistent with a normal human specimen. Tests for specimen validity include tests to determine whether a specimen is adulterated or substituted.

Non-Negative Rates by Specimen Validity Test (SVT) Category | *Annual Report*

Urine Drug Tests – For General U.S. Workforce, as a Percentage of All Such Tests

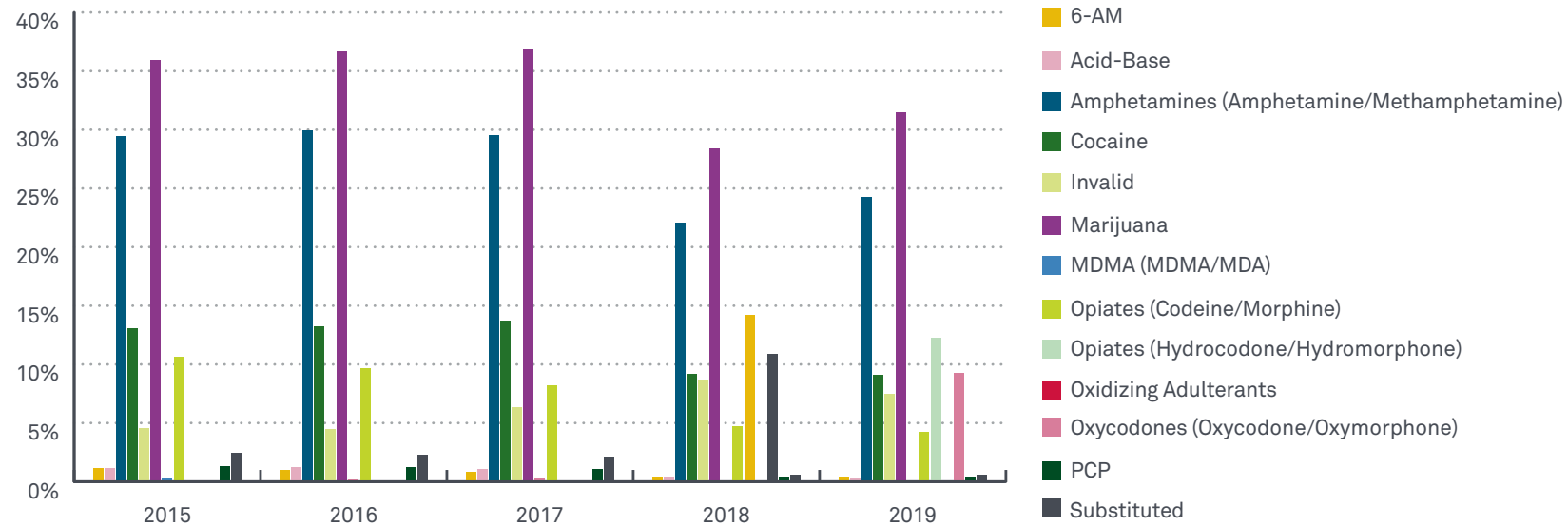


More than 6 million tests from January to December 2019

SVT Category	2015	2016	2017	2018	2019
Acid-Base	0.001%	0.002%	0.004%	0.010%	0.009%
Invalid	0.11%	0.12%	0.15%	0.21%	0.18%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Substitution	0.017%	0.015%	0.014%	0.014%	0.015%

Non-Negative Rates by Drug/SVT Category | *Annual Report*

Urine Drug Tests – For Federally Mandated, Safety-Sensitive Workforce, as a Percentage of All Non-Negatives



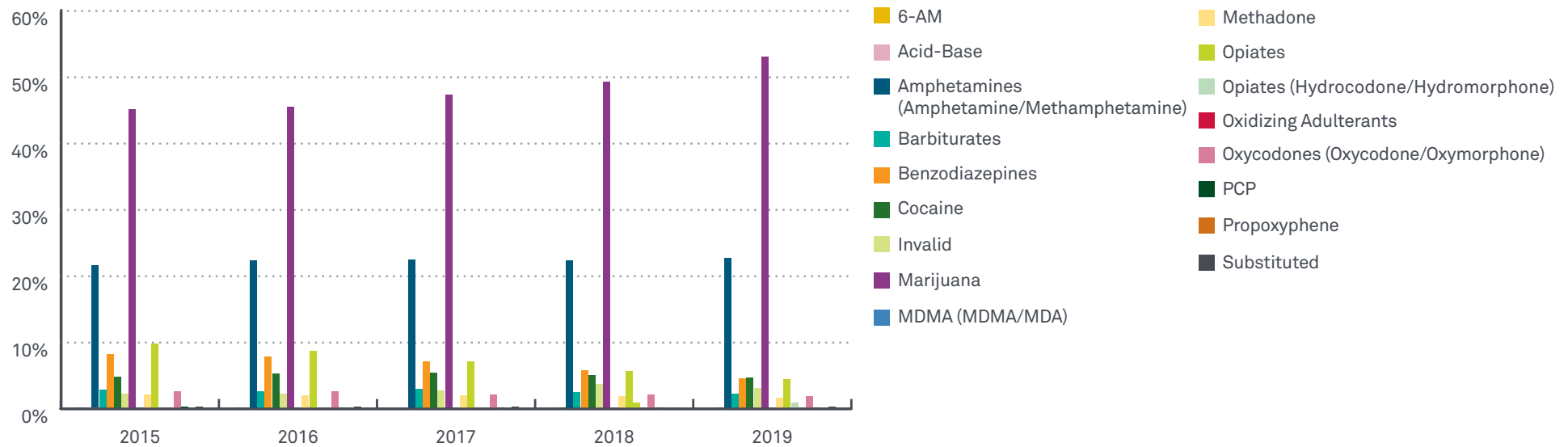
Nearly 70 thousand non-negative test results from January to December 2019

Drug/SVT Category	2015	2016	2017	2018	2019
6-AM	1.1%	0.99%	0.82%	0.40%	0.40%
Acid-Base	1.1%	1.2%	1.0%	0.41%	0.34%
Amphetamines (Amphetamine/Methamphetamine)	29.5%	29.9%	29.5%	22.1%	24.3%
Cocaine	13.1%	13.3%	13.7%	9.2%	9.1%
Invalid	4.6%	4.5%	6.4%	8.7%	7.5%
Marijuana	35.9%	36.7%	36.8%	28.4%	31.5%
MDMA (MDMA/MDA)	0.24%	0.21%	0.23%	0.09%	0.09%

Drug/SVT Category	2015	2016	2017	2018	2019
Opiates (Codeine/Morphine)	10.7%	9.7%	8.2%	4.7%	4.2%
Opiates (Hydrocodone/Hydromorphone)	-	-	-	14.2%	12.3%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Oxycodones (Oxycodone/Oxymorphone)	-	-	-	10.9%	9.3%
PCP	1.3%	1.2%	1.1%	0.41%	0.41%
Substituted	2.5%	2.3%	2.2%	0.62%	0.61%

Non-Negative Rates by Drug/SVT Category | *Annual Report*

Urine Drug Tests – For General U.S. Workforce, as a Percentage of All Non-Negatives



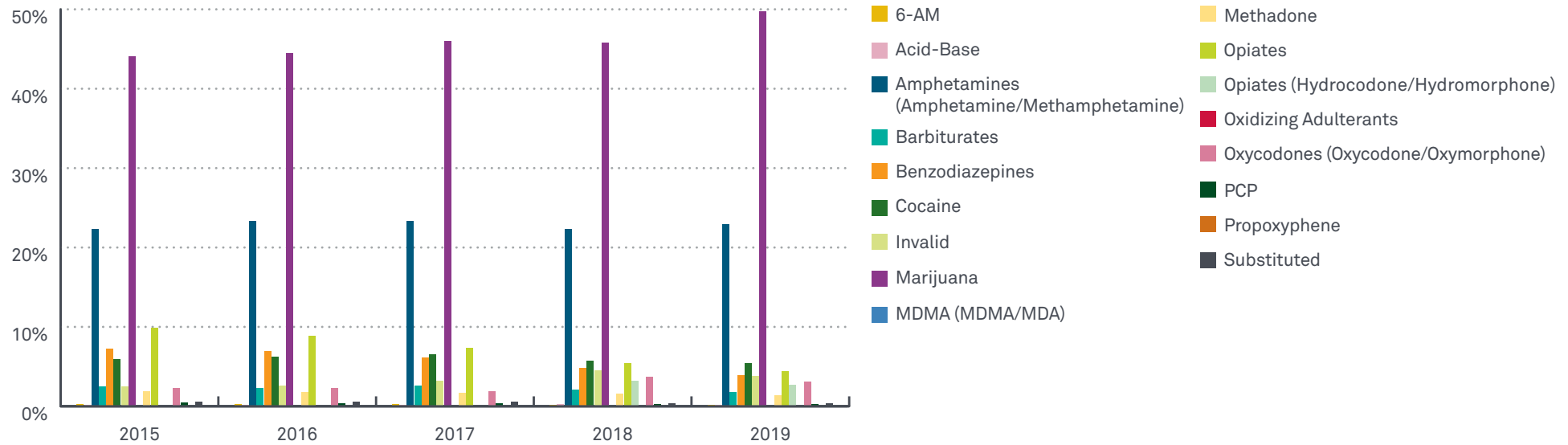
More than 360 thousand non-negative test results from January to December 2019

Drug/SVT Category	2015	2016	2017	2018	2019
6-AM	0.16%	0.15%	0.12%	0.12%	0.09%
Acid-Base	0.03%	0.03%	0.07%	0.17%	0.16%
Amphetamines (Amphetamine/Methamphetamine)	21.3%	22.3%	22.4%	22.3%	22.7%
Barbiturates	2.8%	2.6%	3.0%	2.5%	2.2%
Benzodiazepines	8.2%	7.8%	7.1%	5.8%	4.6%
Cocaine	4.9%	5.2%	5.5%	5.1%	4.7%
Invalid	2.2%	2.3%	2.7%	3.7%	3.1%
Marijuana	45.2%	45.5%	47.4%	49.3%	53.1%
MDMA (MDMA/MDA)	0.03%	0.03%	0.03%	0.04%	0.05%

Drug/SVT Category	2015	2016	2017	2018	2019
Methadone	2.1%	2.1%	2.0%	1.9%	1.7%
Opiates	9.8%	8.7%	7.2%	5.6%	4.5%
Opiates (Hydrocodone/Hydromorphone)	-	-	-	0.91%	0.87%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Oxycodones (Oxycodone/Oxymorphone)	2.6%	2.6%	2.1%	2.2%	1.9%
PCP	0.31%	0.24%	0.24%	0.20%	0.20%
Propoxyphene	0.03%	0.02%	0.016%	0.010%	0.005%
Substituted	0.32%	0.28%	0.26%	0.24%	0.26%

Non-Negative Rates by Drug/SVT Category | *Annual Report*

Urine Drug Tests – For Combined U.S. Workforce, as a Percentage of All Non-Negatives



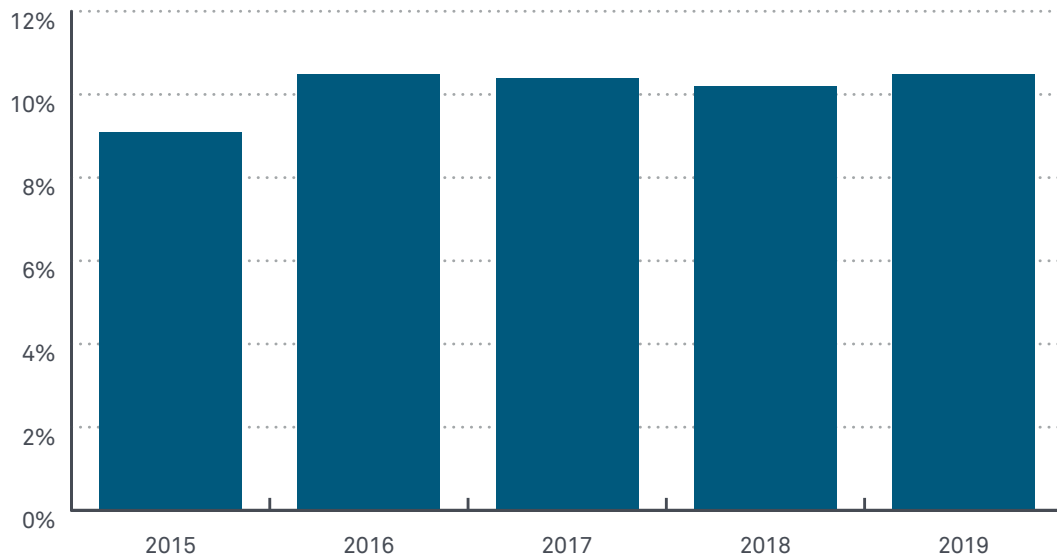
More than 430 thousand non-negative test results from January to December 2019

Drug/SVT Category	2015	2016	2017	2018	2019
6-AM	0.28%	0.25%	0.21%	0.17%	0.14%
Acid-Base	0.16%	0.17%	0.20%	0.21%	0.19%
Amphetamines (Amphetamine/Methamphetamine)	22.3%	23.2%	23.4%	22.3%	22.9%
Barbiturates	2.5%	2.3%	2.6%	2.0%	1.8%
Benzodiazepines	7.2%	6.9%	6.2%	4.8%	3.9%
Cocaine	5.9%	6.2%	6.5%	5.8%	5.4%
Invalid	2.5%	2.6%	3.2%	4.5%	3.8%
Marijuana	44.1%	44.5%	46.0%	45.8%	49.7%
MDMA (MDMA/MDA)	0.06%	0.05%	0.06%	0.05%	0.06%

Drug/SVT Category	2015	2016	2017	2018	2019
Methadone	1.9%	1.8%	1.7%	1.6%	1.4%
Opiates	9.9%	8.9%	7.3%	5.5%	4.4%
Opiates (Hydrocodone/Hydromorphone)	-	-	-	3.2%	2.7%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Oxycodones (Oxycodone/Oxymorphone)	2.3%	2.3%	1.9%	3.7%	3.1%
PCP	0.43%	0.36%	0.35%	0.24%	0.23%
Propoxyphene	0.03%	0.02%	0.014%	0.008%	0.004%
Substituted	0.58%	0.52%	0.51%	0.31%	0.31%

Positivity Rates by Testing Category | *Annual Report*

Oral Fluid Drug Tests – For General U.S. Workforce

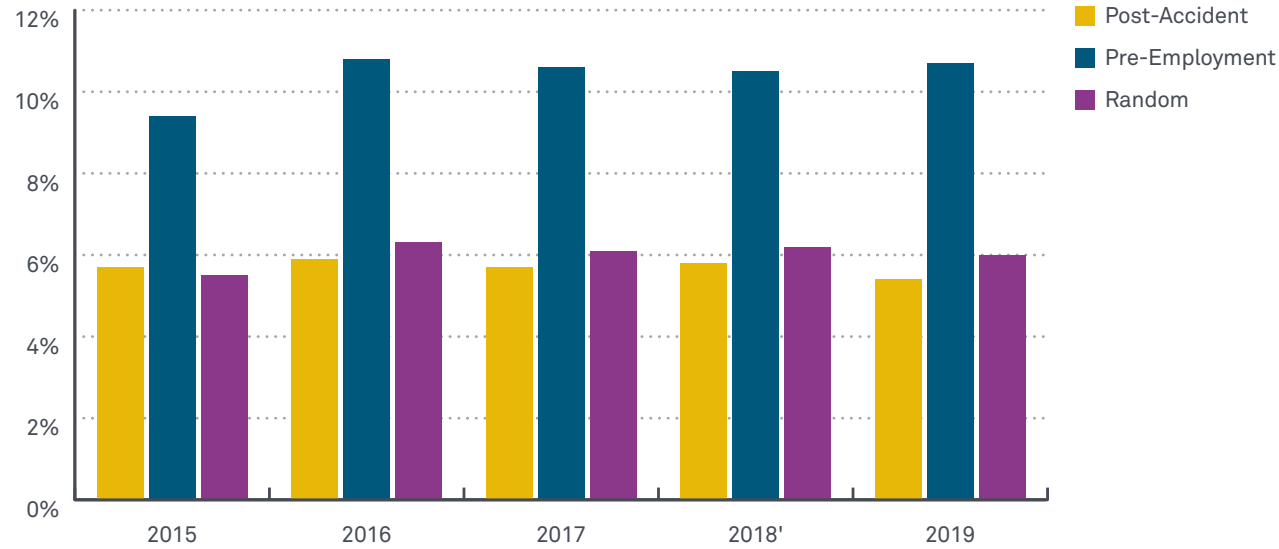


More than 1.6 million tests from January to December 2019

Testing Category	2015	2016	2017	2018	2019
General U.S. Workforce	9.1%	10.5%	10.4%	10.2%	10.5%

Positivity Rates by Testing Reason | *Annual Report*

Oral Fluid Drug Tests – For General U.S. Workforce

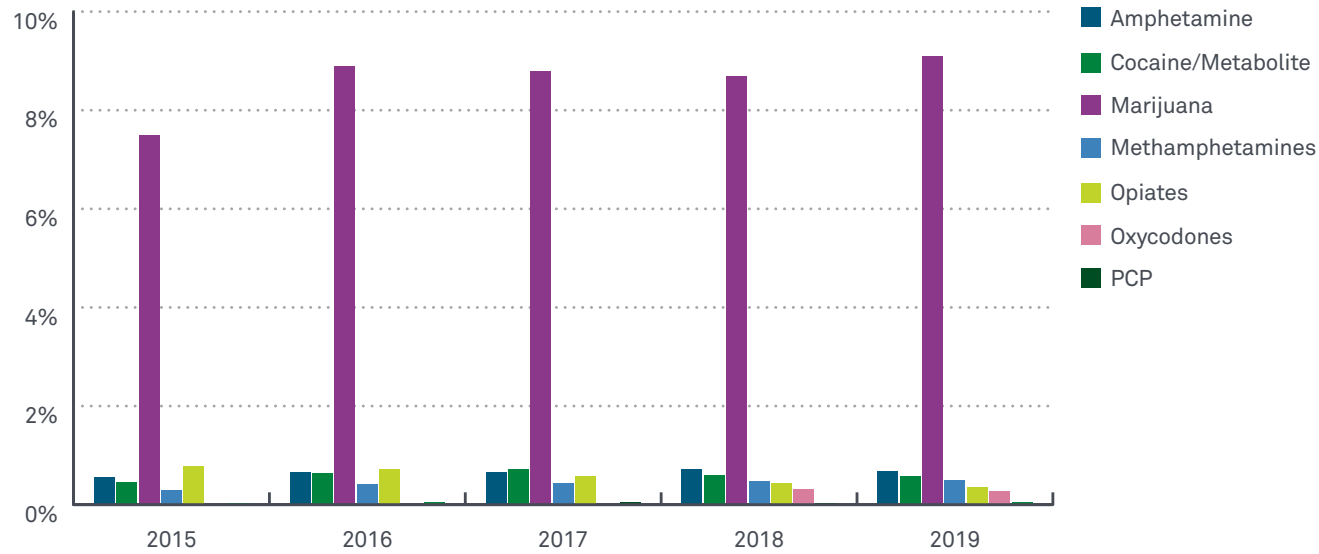


More than 1.6 million tests from January to December 2019

Testing Reason	2015	2016	2017	2018	2019
Post-Accident	5.7%	5.9%	5.7%	5.8%	5.4%
Pre-Employment	9.4%	10.8%	10.6%	10.5%	10.7%
Random	5.5%	6.3%	6.1%	6.2%	6.0%

Positivity Rates by Drug Category | *Annual Report*

Oral Fluid Drug Tests – For General U.S. Workforce

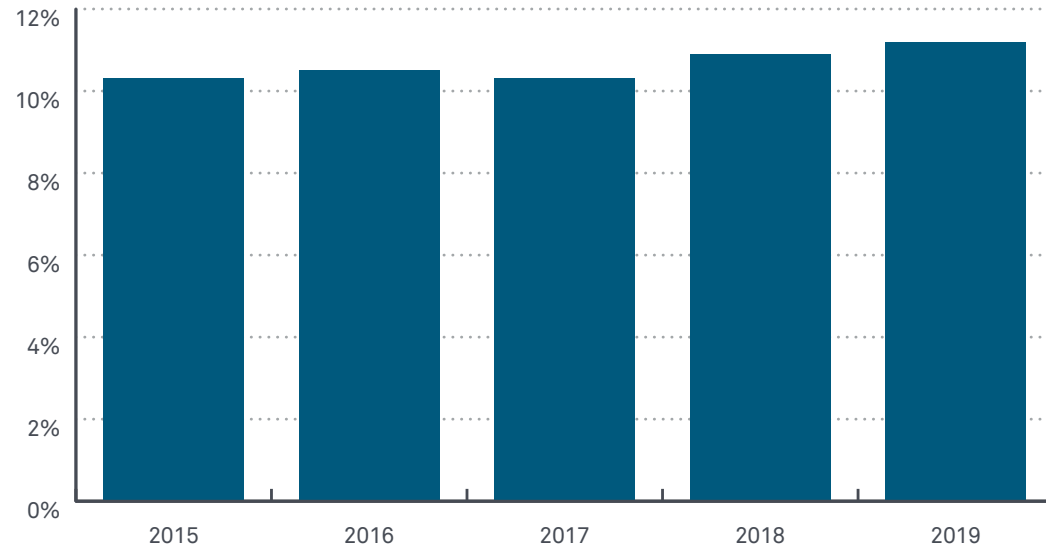


More than 1.6 million tests from January to December 2019

Drug Category	2015	2016	2017	2018	2019
Amphetamine	0.56%	0.66%	0.66%	0.73%	0.67%
Cocaine/Metabolite	0.46%	0.63%	0.73%	0.59%	0.57%
Marijuana	7.5%	8.9%	8.8%	8.7%	9.1%
Methamphetamines	0.29%	0.42%	0.43%	0.47%	0.49%
Opiates	0.78%	0.71%	0.57%	0.44%	0.35%
Oxycodones	-	-	-	0.31%	0.28%
PCP	0.04%	0.05%	0.06%	0.04%	0.05%

Positivity Rates by Testing Category | *Annual Report*

Hair Drug Tests – For General U.S. Workforce

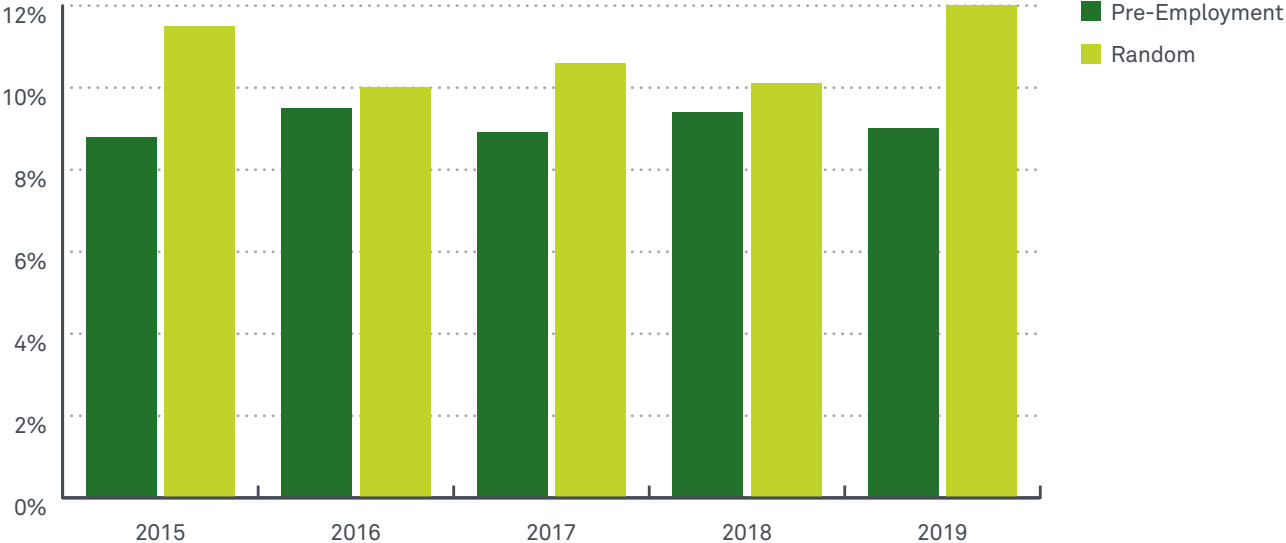


More than 120 thousand tests from January to December 2019

Testing Category	2015	2016	2017	2018	2019
General U.S. Workforce	10.3%	10.5%	10.3%	10.9%	11.2%

Positivity Rates by Testing Reason | *Annual Report*

Hair Drug Tests – For General U.S. Workforce

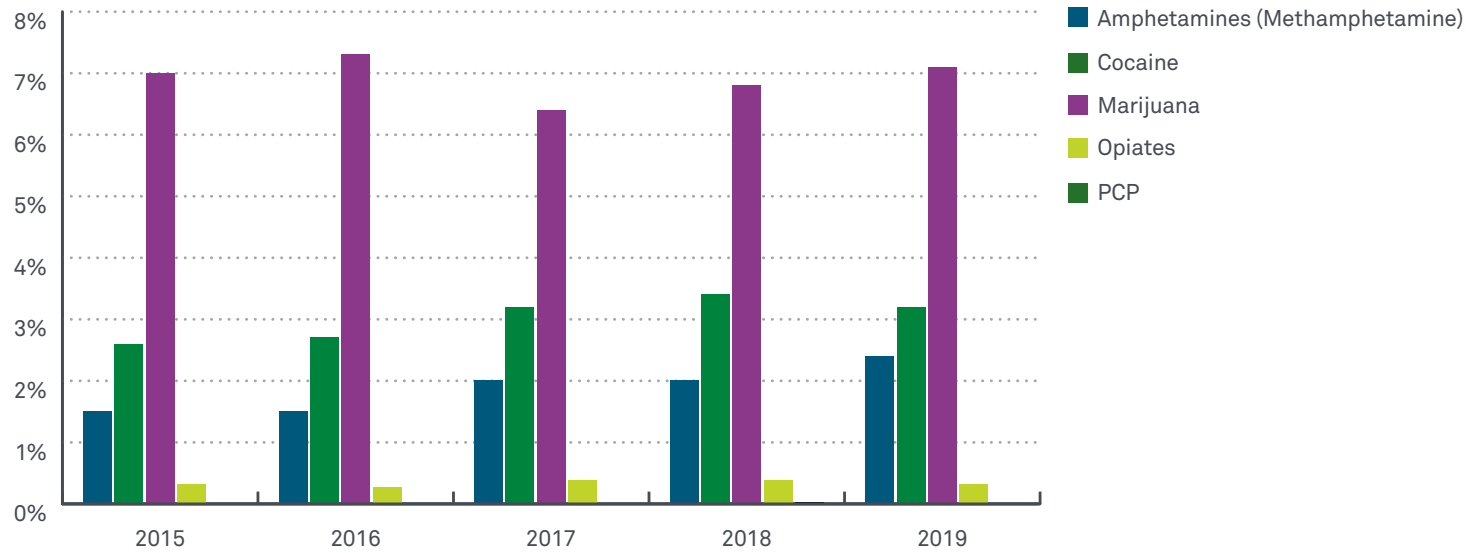


More than 120 thousand tests from January to December 2019

Testing Reason	2015	2016	2017	2018	2019
Pre-Employment	8.8%	9.5%	8.9%	9.4%	9.0%
Random	11.5%	10.0%	10.6%	10.1%	12.0%

Positivity Rates by Drug Category | *Annual Report*

Hair Drug Tests – For General U.S. Workforce



More than 120 thousand tests from January to December 2019

Drug Category	2015	2016	2017	2018	2019
Amphetamines (Methamphetamine)	1.5%	1.5%	2.0%	2.0%	2.4%
Cocaine	2.6%	2.7%	3.2%	3.4%	3.2%
Marijuana	7.0%	7.3%	6.4%	6.8%	7.1%
Opiates	0.32%	0.27%	0.38%	0.39%	0.32%
PCP	0.012%	0.012%	0.014%	0.016%	0.012%

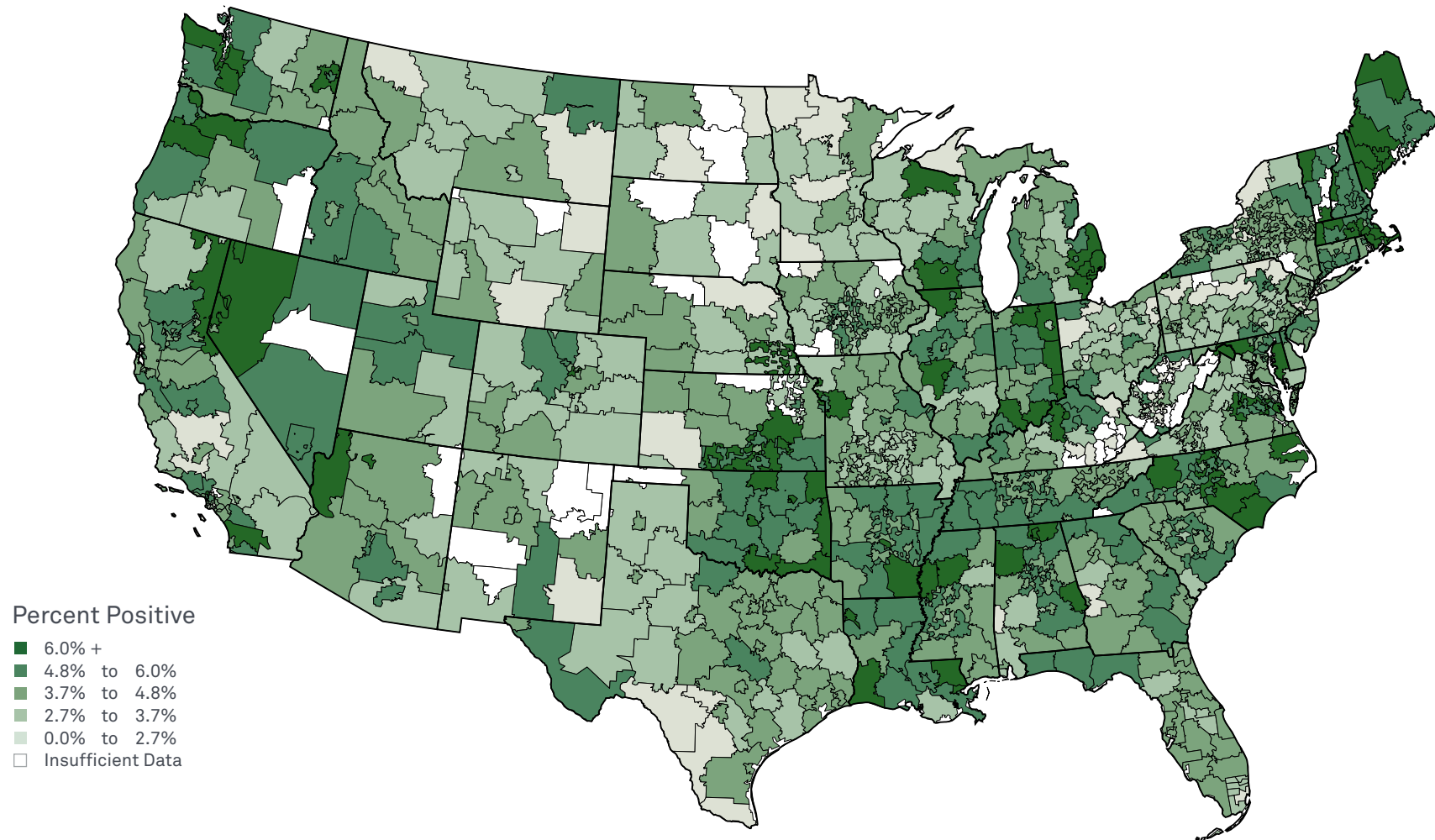
3-Digit Zip Code Drug Positivity Maps

Urine Drug Tests – For Combined U.S. Workforce

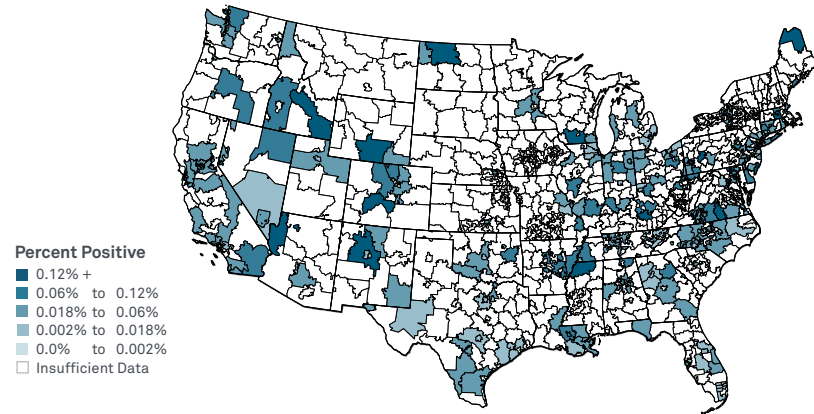
January - December 2019

For an interactive map with positivity rates and trend lines by three-digit zip code in the United States, visit [QuestDiagnostics.com/DrugMap](https://www.questdiagnostics.com/DrugMap).

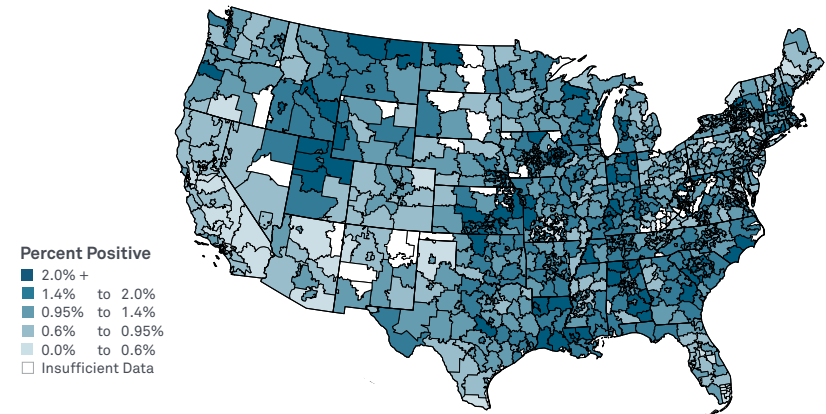
Overall Positivity



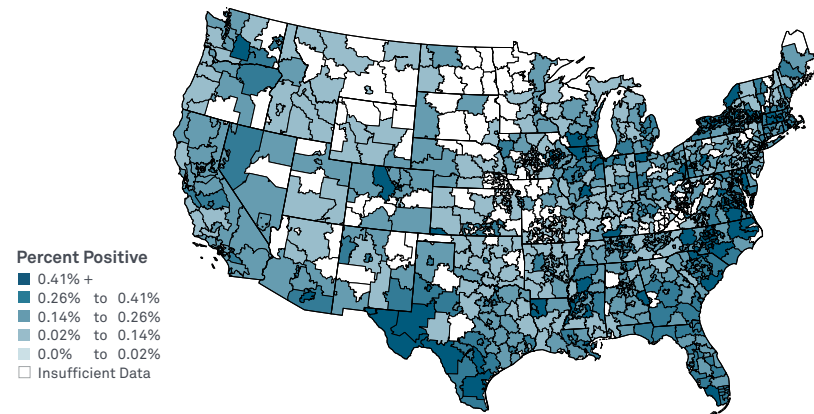
6-AM Positivity



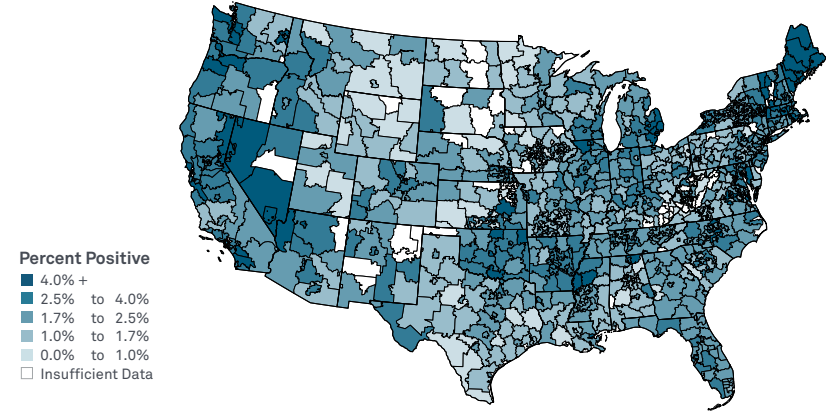
Amphetamines Positivity



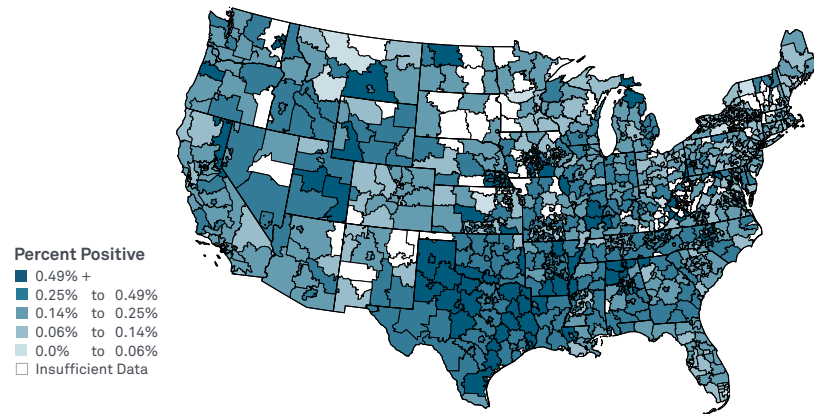
Cocaine Positivity



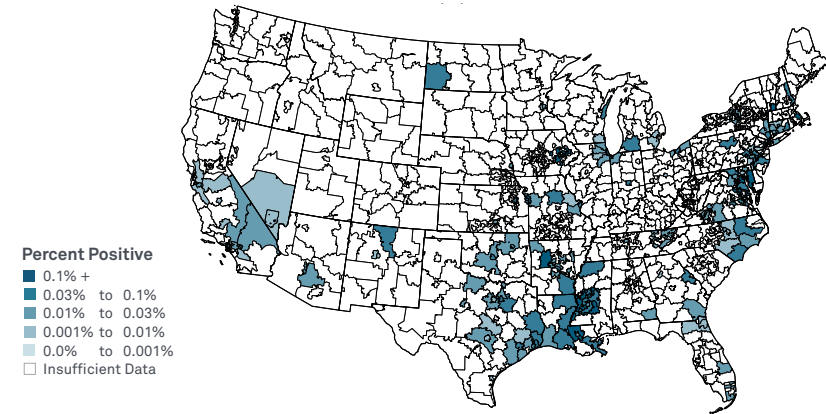
Marijuana Positivity



Opiates Positivity



PCP Positivity



A photograph of two construction workers on a rooftop. One worker in the foreground is wearing a white hard hat and a yellow safety vest over a plaid shirt, leaning over a set of architectural blueprints. The second worker, wearing a yellow hard hat and a yellow safety vest, stands behind him, pointing towards a building under construction in the background. The scene is set against a bright sky with a halftone dot pattern overlay on the right side.

Drug Testing Index™ Industry Insights

Quest examines patterns of industry-specific workplace drug use among the American workforce

The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies of Canada, Mexico, and the U.S., in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the economy. Defining an industry using a production-oriented concept means companies with the same NAICS code share production processes and technologies when producing goods and services. Simply put, a NAICS code identifies a company's primary business activity and allows a comparison of companies in like industries across the continent.

Using a hierarchical structure, NAICS is a six-digit coding system that classifies all economic activity into 20 industry sectors. Five sectors produce goods and 15 provide some type of service. Each digit in a NAICS code gradually narrows the categories. The first two digits of the NAICS

code indicate the industry sector — the largest business sector in which a company operates. The third digit is the subsector and the fourth digit is the industry group. The fifth digit designates the NAICS industry and the sixth and final digit designates a company's national industry.

In 1997, the Standard Industrial Classification (SIC) 4-digit system was replaced by NAICS to simplify and modernize the comparison of industries. NAICS undergoes a planned review every five years to ensure it remains relevant.

Our data was classified by the industry sector identifier of a company's headquarters location using the most recent system, *2017 NAICS Manual: United States*, detailing 1,057 industries. For more information, visit www.census.gov/eos/www/naics/.



North American Industry Classification System

Methodology

This report of drug use patterns by industry is based on a five-year analysis of American companies who drug test with Quest Diagnostics. Data from more than 14 million urine drug tests includes overall positivity rates by industry and by drug category for marijuana, cocaine, opiates, amphetamines, amphetamine, and methamphetamine.

- Data includes laboratory-based urine drug tests submitted by the general U.S. workforce for routine testing. Rehabilitation, criminal justice, and federally-mandated, safety-sensitive testing data are excluded. Positive results are tabulated prior to Medical Review Officer (MRO) evaluation.
- Each company is categorized by a single NAICS code. If a company can be categorized by multiple NAICS codes, it is assigned one code based on its largest revenue-producing output.
- An industry must meet an average annual minimum volume of at least 50,000 urine drug tests to be included in our output. Three NAICS sectors are not included in our data due to insufficient volume. Those sectors are: Agriculture, Forestry, Fishing and Hunting (11); Management of Companies & Enterprises (55); and Arts, Entertainment & Recreation (71).
- Shifts in customers and testing volume may influence positivity rates over time.
- More than 90 percent of our general U.S. workforce urine testing volume has been categorized. Data is excluded if a company is unable to be reliably classified into a category.

Industry Descriptions



21 | Mining

Activities of this sector are extracting naturally occurring mineral solids, such as coal and ore; liquid minerals, such as crude petroleum; and gases, such as natural gas; and beneficiating (e.g., crushing, screening, washing, and flotation) and other preparation at the mine site, or as part of mining activity.



22 | Utilities

Activities of this sector are generating, transmitting, and/or distributing electricity, gas, steam, and water and removing sewage through a permanent infrastructure of lines, mains, and pipe.



23 | Construction

Activities of this sector are erecting buildings and other structures (including additions); heavy construction other than buildings; and alterations, reconstruction, installation, and maintenance and repairs.



31-33 | Manufacturing

Activities of this sector are the mechanical, physical, or chemical transformation of materials, substances, or components into new products.



42 | Wholesale Trade

Activities of this sector are selling or arranging for the purchase or sale of goods for resale; capital or durable nonconsumer goods; and raw and intermediate materials and supplies used in production; and providing services incidental to the sale of the merchandise.



44-45 | Retail Trade

Activities of this sector are retailing merchandise generally in small quantities, to the general public and providing services incidental to the sale of the merchandise.



48-49 | Transportation & Warehousing

Activities of this sector are providing transportation of passengers and cargo, warehousing and storing goods, scenic and sightseeing transportation, and supporting these activities.



51 | Information

Activities of this sector are distributing information and cultural products, providing the means to transmit or distribute these products as data or communications, and processing data.



52 | Finance & Insurance

Activities of this sector involve the creation, liquidation, or change in ownership of financial assets (financial transactions) and/or facilitating financial transactions.



53 | Real Estate, Rental & Leasing

Activities of this sector are renting, leasing, or otherwise allowing the use of tangible or intangible assets (except copyrighted works), and providing related services.



54 | Professional, Scientific & Technical Services

Activities of this sector are performing professional, scientific, and technical services for the operations of other organizations.



56 | Administrative Support, Waste Management & Remediation Services

Activities of this sector are performing routine support activities for the day-to-day operations of other organizations.



61 | Educational Services

Activities of this sector are providing instruction and training in a wide variety of subjects.



62 | Health Care & Social Assistance

Activities of this sector are providing health care and social assistance for individuals.



72 | Accommodation & Food Services

Activities of this sector are providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.



81 | Other Services (except Public Administration)

Activities of this sector are providing services not elsewhere specified, including repairs, religious activities, grantmaking, advocacy, laundry, personal care, death care, and other personal services.



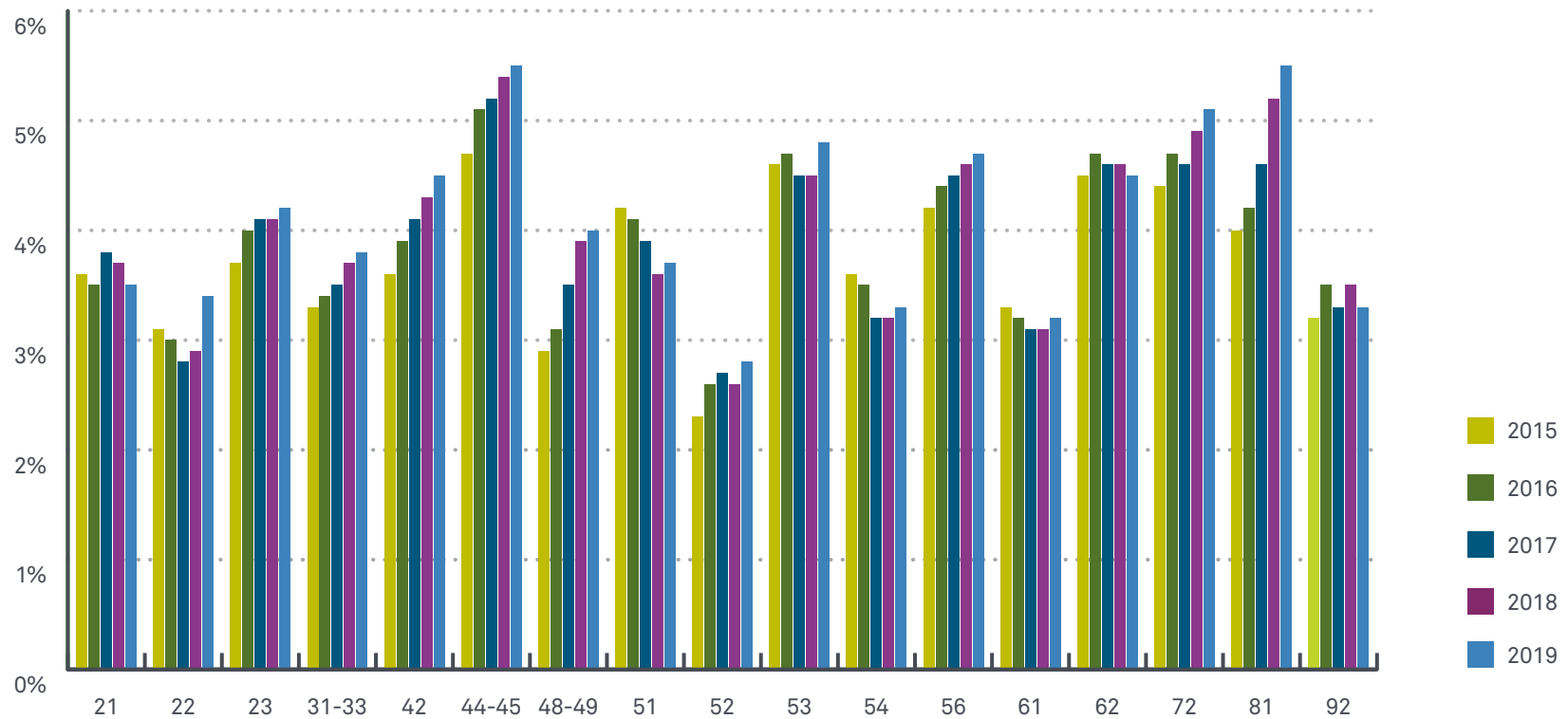
92 | Public Administration

Activities of this sector are administration, management, and oversight of public programs by Federal, State, and local governments.

Source: United States Census Bureau, Office of Management and Budget

Overall Positivity Rates | *Industry Insights*

Urine Drug Tests - General U.S. Workforce

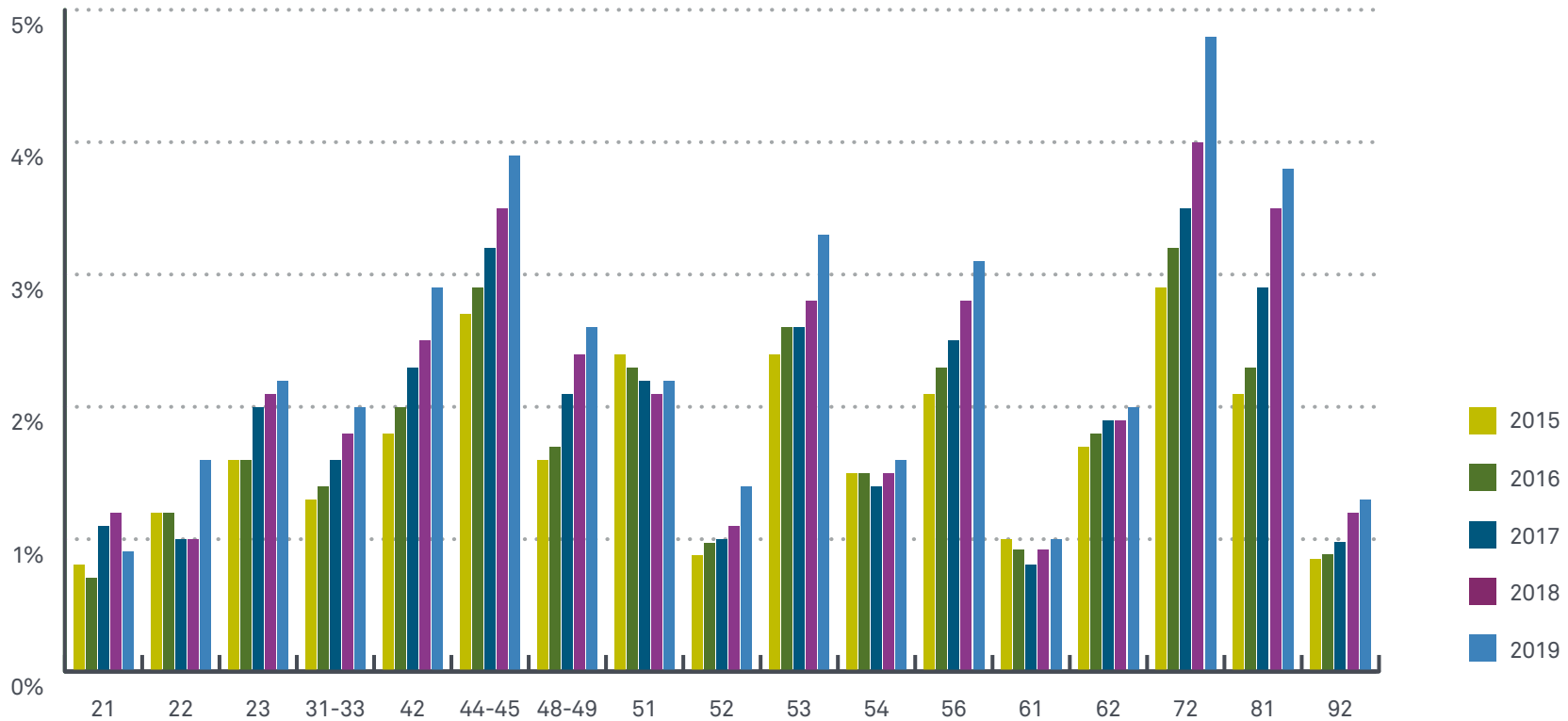


Industry	2015	2016	2017	2018	2019
Accommodation & Food Services ⁷²	4.4%	4.7%	4.6%	4.9%	5.1%
Administrative Support, Waste Management & Remediation Services ⁵⁶	4.2%	4.4%	4.5%	4.6%	4.7%
Construction ²³	3.7%	4.0%	4.1%	4.1%	4.2%
Educational Services ⁶¹	3.3%	3.2%	3.1%	3.1%	3.2%
Finance & Insurance ⁵²	2.3%	2.6%	2.7%	2.6%	2.8%
Health Care & Social Assistance ⁶²	4.5%	4.7%	4.6%	4.6%	4.5%
Information ⁵¹	4.2%	4.1%	3.9%	3.6%	3.7%
Manufacturing ³¹⁻³³	3.3%	3.4%	3.5%	3.7%	3.8%

Industry	2015	2016	2017	2018	2019
Mining ²¹	3.6%	3.5%	3.8%	3.7%	3.5%
Other Services (except Public Administration) ⁸¹	4.0%	4.2%	4.6%	5.2%	5.5%
Professional, Scientific & Technical ⁵⁴	3.6%	3.5%	3.2%	3.2%	3.3%
Public Administration ⁹²	3.2%	3.5%	3.3%	3.5%	3.3%
Real Estate, Rental & Leasing ⁵³	4.6%	4.7%	4.5%	4.5%	4.8%
Retail Trade ⁴⁴⁻⁴⁵	4.7%	5.1%	5.2%	5.4%	5.5%
Transportation & Warehousing ⁴⁸⁻⁴⁹	2.9%	3.1%	3.5%	3.9%	4.0%
Utilities ²²	3.1%	3.0%	2.8%	2.9%	3.4%
Wholesale Trade ⁴²	3.6%	3.9%	4.1%	4.3%	4.5%

Positivity Rates by Drug: Marijuana | *Industry Insights*

Urine Drug Tests - General U.S. Workforce



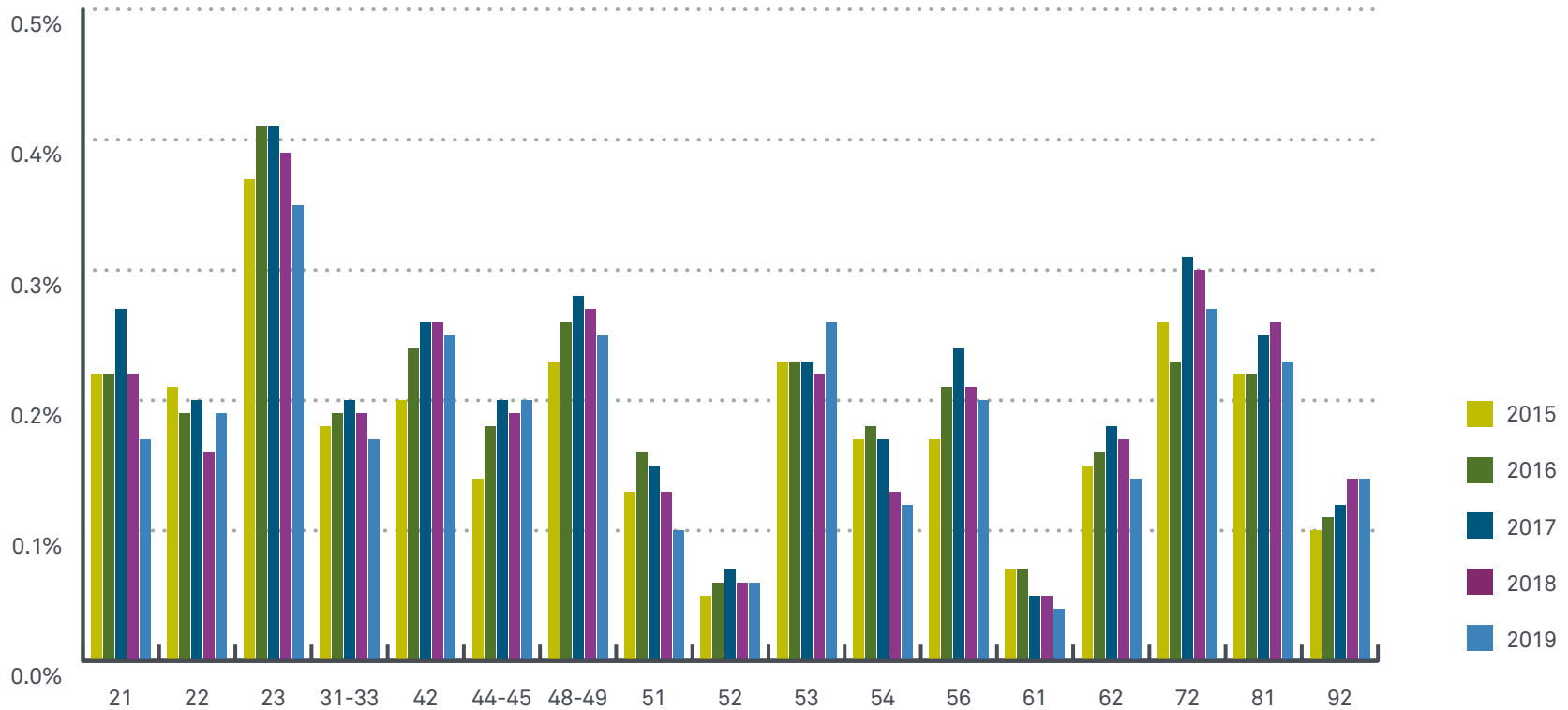
Industry	2015	2016	2017	2018	2019
Accommodation & Food Services ⁷²	2.9%	3.2%	3.5%	4.0%	4.8%
Administrative Support, Waste Management & Remediation Services ⁵⁶	2.1%	2.3%	2.5%	2.8%	3.1%
Construction ²³	1.6%	1.6%	2.0%	2.1%	2.2%
Educational Services ⁶¹	1.0%	0.92%	0.81%	0.92%	1.0%
Finance & Insurance ⁵²	0.88%	0.97%	1.0%	1.1%	1.4%
Health Care & Social Assistance ⁶²	1.7%	1.8%	1.9%	1.9%	2.0%
Information ⁵¹	2.4%	2.3%	2.2%	2.1%	2.2%
Manufacturing ³¹⁻³³	1.3%	1.4%	1.6%	1.8%	2.0%

Industry	2015	2016	2017	2018	2019
Mining ²¹	0.81%	0.71%	1.1%	1.2%	0.91%
Other Services (except Public Administration) ⁸¹	2.1%	2.3%	2.9%	3.5%	3.8%
Professional, Scientific & Technical ⁵⁴	1.5%	1.5%	1.4%	1.5%	1.6%
Public Administration ⁹²	0.85%	0.89%	0.98%	1.2%	1.3%
Real Estate, Rental & Leasing ⁵³	2.4%	2.6%	2.6%	2.8%	3.3%
Retail Trade ⁴⁴⁻⁴⁵	2.7%	2.9%	3.2%	3.5%	3.9%
Transportation & Warehousing ⁴⁸⁻⁴⁹	1.6%	1.7%	2.1%	2.4%	2.6%
Utilities ²²	1.2%	1.2%	1.0%	1.0%	1.6%
Wholesale Trade ⁴²	1.8%	2.0%	2.3%	2.5%	2.9%

(More than 18 million tests from 2015 - 2019)

Positivity Rates by Drug: Cocaine | *Industry Insights*

Urine Drug Tests - General U.S. Workforce

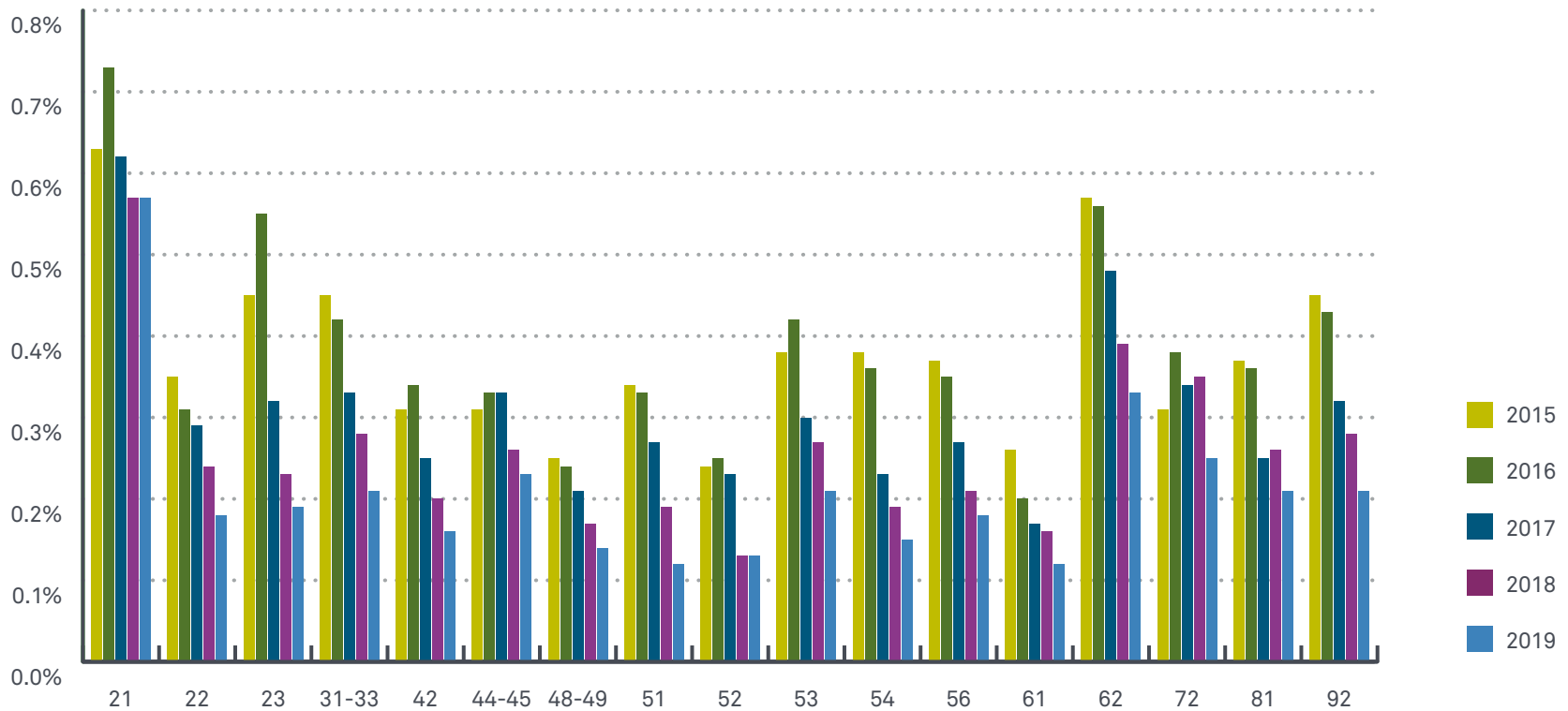


Industry	2015	2016	2017	2018	2019
Accommodation & Food Services ⁷²	0.26%	0.23%	0.31%	0.30%	0.27%
Administrative Support, Waste Management & Remediation Services ⁵⁶	0.17%	0.21%	0.24%	0.21%	0.20%
Construction ²³	0.37%	0.41%	0.41%	0.39%	0.35%
Educational Services ⁶¹	0.07%	0.07%	0.05%	0.05%	0.04%
Finance & Insurance ⁵²	0.05%	0.06%	0.07%	0.06%	0.06%
Health Care & Social Assistance ⁶²	0.15%	0.16%	0.18%	0.17%	0.14%
Information ⁵¹	0.13%	0.16%	0.15%	0.13%	0.10%
Manufacturing ³¹⁻³³	0.18%	0.19%	0.20%	0.19%	0.17%

Industry	2015	2016	2017	2018	2019
Mining ²¹	0.22%	0.22%	0.27%	0.22%	0.17%
Other Services (except Public Administration) ⁸¹	0.22%	0.22%	0.25%	0.26%	0.23%
Professional, Scientific & Technical ⁵⁴	0.17%	0.18%	0.17%	0.13%	0.12%
Public Administration ⁹²	0.10%	0.11%	0.12%	0.14%	0.14%
Real Estate, Rental & Leasing ⁵³	0.23%	0.23%	0.23%	0.22%	0.26%
Retail Trade ⁴⁴⁻⁴⁵	0.14%	0.18%	0.20%	0.19%	0.20%
Transportation & Warehousing ⁴⁸⁻⁴⁹	0.23%	0.26%	0.28%	0.27%	0.25%
Utilities ²²	0.21%	0.19%	0.20%	0.16%	0.19%
Wholesale Trade ⁴²	0.20%	0.24%	0.26%	0.26%	0.25%

Positivity Rates by Drug: Opiates | *Industry Insights*

Urine Drug Tests - General U.S. Workforce



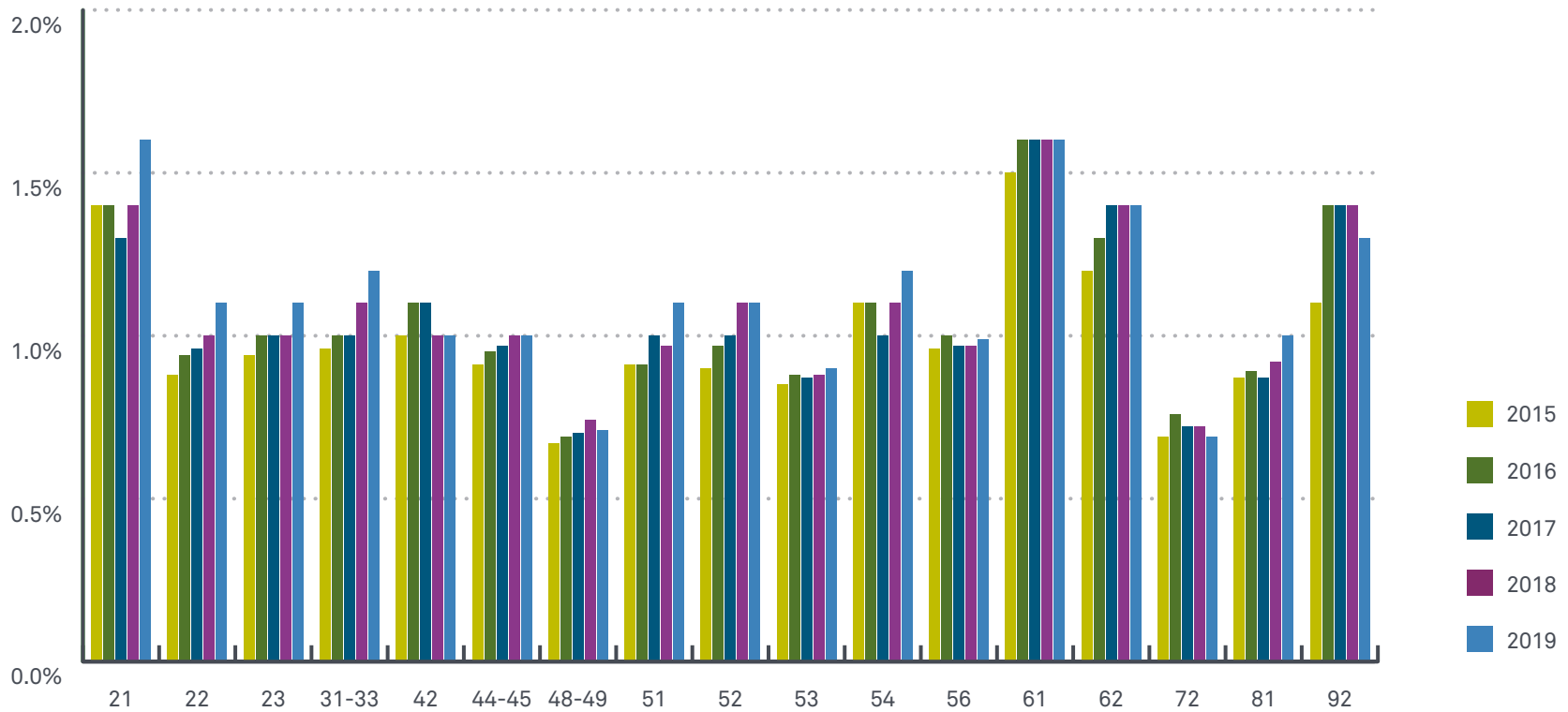
Industry	2015	2016	2017	2018	2019
Accommodation & Food Services ⁷²	0.31%	0.38%	0.34%	0.35%	0.25%
Administrative Support, Waste Management & Remediation Services ⁵⁶	0.37%	0.35%	0.27%	0.21%	0.18%
Construction ²³	0.45%	0.55%	0.32%	0.23%	0.19%
Educational Services ⁶¹	0.26%	0.20%	0.17%	0.16%	0.12%
Finance & Insurance ⁵²	0.24%	0.25%	0.23%	0.13%	0.13%
Health Care & Social Assistance ⁶²	0.57%	0.56%	0.48%	0.39%	0.33%
Information ⁵¹	0.34%	0.33%	0.27%	0.19%	0.12%
Manufacturing ³¹⁻³³	0.45%	0.42%	0.33%	0.28%	0.21%

Industry	2015	2016	2017	2018	2019
Mining ²¹	0.63%	0.73%	0.62%	0.57%	0.57%
Other Services (except Public Administration) ⁸¹	0.37%	0.36%	0.25%	0.26%	0.21%
Professional, Scientific & Technical ⁵⁴	0.38%	0.36%	0.23%	0.19%	0.15%
Public Administration ⁹²	0.45%	0.43%	0.32%	0.28%	0.21%
Real Estate, Rental & Leasing ⁵³	0.38%	0.42%	0.30%	0.27%	0.21%
Retail Trade ⁴⁴⁻⁴⁵	0.31%	0.33%	0.33%	0.26%	0.23%
Transportation & Warehousing ⁴⁸⁻⁴⁹	0.25%	0.24%	0.21%	0.17%	0.14%
Utilities ²²	0.35%	0.31%	0.29%	0.24%	0.18%
Wholesale Trade ⁴²	0.31%	0.34%	0.25%	0.20%	0.16%

(More than 18 million tests from 2015 - 2019)

Positivity Rates by Drug: Amphetamines (Amphetamine and Methamphetamine) | *Industry Insights*

Urine Drug Tests - General U.S. Workforce

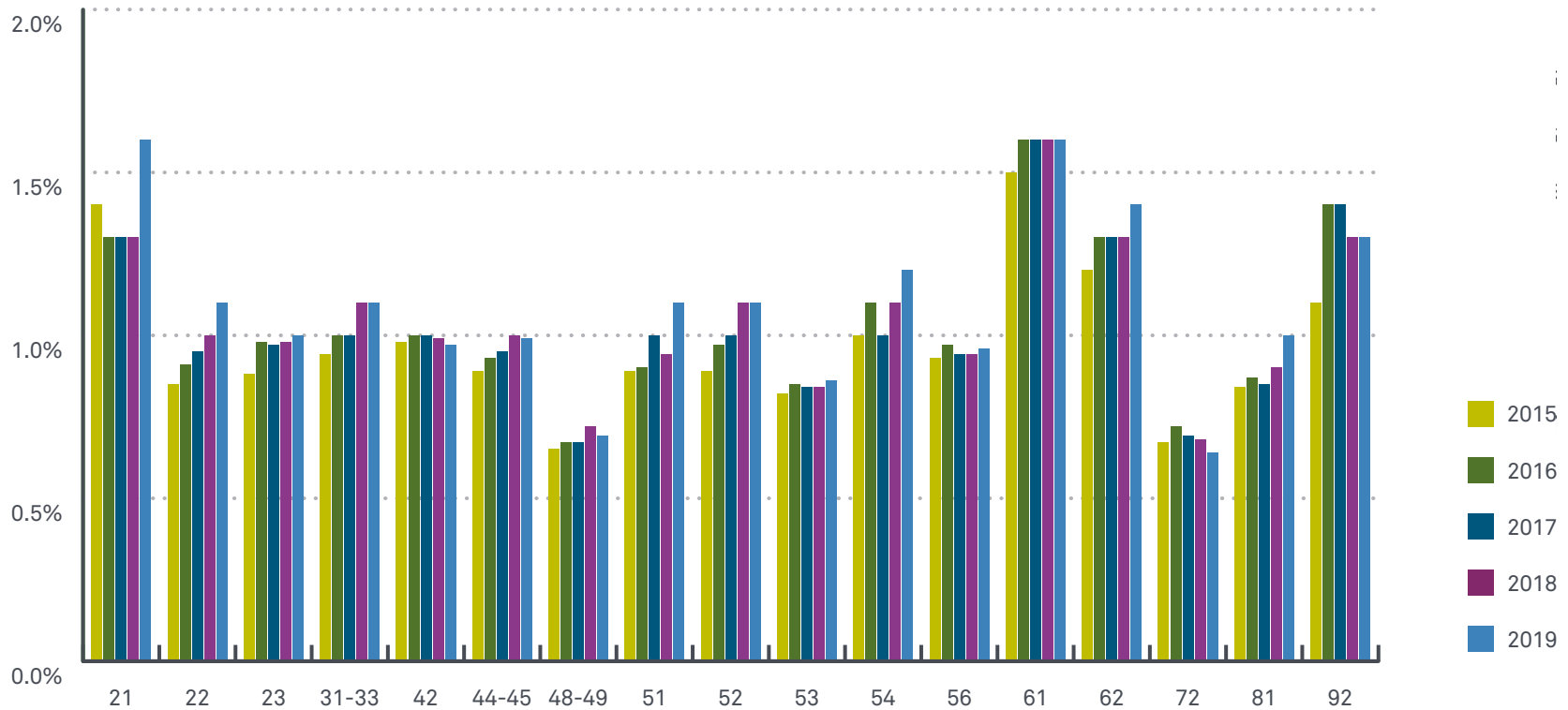


Industry	2015	2016	2017	2018	2019
Accommodation & Food Services ⁷²	0.69%	0.76%	0.72%	0.72%	0.69%
Administrative Support, Waste Management & Remediation Services ⁵⁶	0.96%	1.0%	0.97%	0.97%	0.99%
Construction ²³	0.94%	1.0%	1.0%	1.0%	1.1%
Educational Services ⁶¹	1.5%	1.6%	1.6%	1.6%	1.6%
Finance & Insurance ⁵²	0.90%	0.97%	1.0%	1.1%	1.1%
Health Care & Social Assistance ⁶²	1.2%	1.3%	1.4%	1.4%	1.4%
Information ⁵¹	0.91%	0.91%	1.0%	0.97%	1.1%
Manufacturing ³¹⁻³³	0.96%	1.0%	1.0%	1.1%	1.2%

Industry	2015	2016	2017	2018	2019
Mining ²¹	1.4%	1.4%	1.3%	1.4%	1.6%
Other Services (except Public Administration) ⁸¹	0.87%	0.89%	0.87%	0.92%	1.0%
Professional, Scientific & Technical ⁵⁴	1.1%	1.1%	1.0%	1.1%	1.2%
Public Administration ⁹²	1.1%	1.4%	1.4%	1.4%	1.3%
Real Estate, Rental & Leasing ⁵³	0.85%	0.88%	0.87%	0.88%	0.90%
Retail Trade ⁴⁴⁻⁴⁵	0.91%	0.95%	0.97%	1.0%	1.0%
Transportation & Warehousing ⁴⁸⁻⁴⁹	0.67%	0.69%	0.70%	0.74%	0.71%
Utilities ²²	0.88%	0.94%	0.96%	1.0%	1.1%
Wholesale Trade ⁴²	1.0%	1.1%	1.1%	1.0%	1.0%

Positivity Rates by Drug: Amphetamine | *Industry Insights*

Urine Drug Tests - General U.S. Workforce



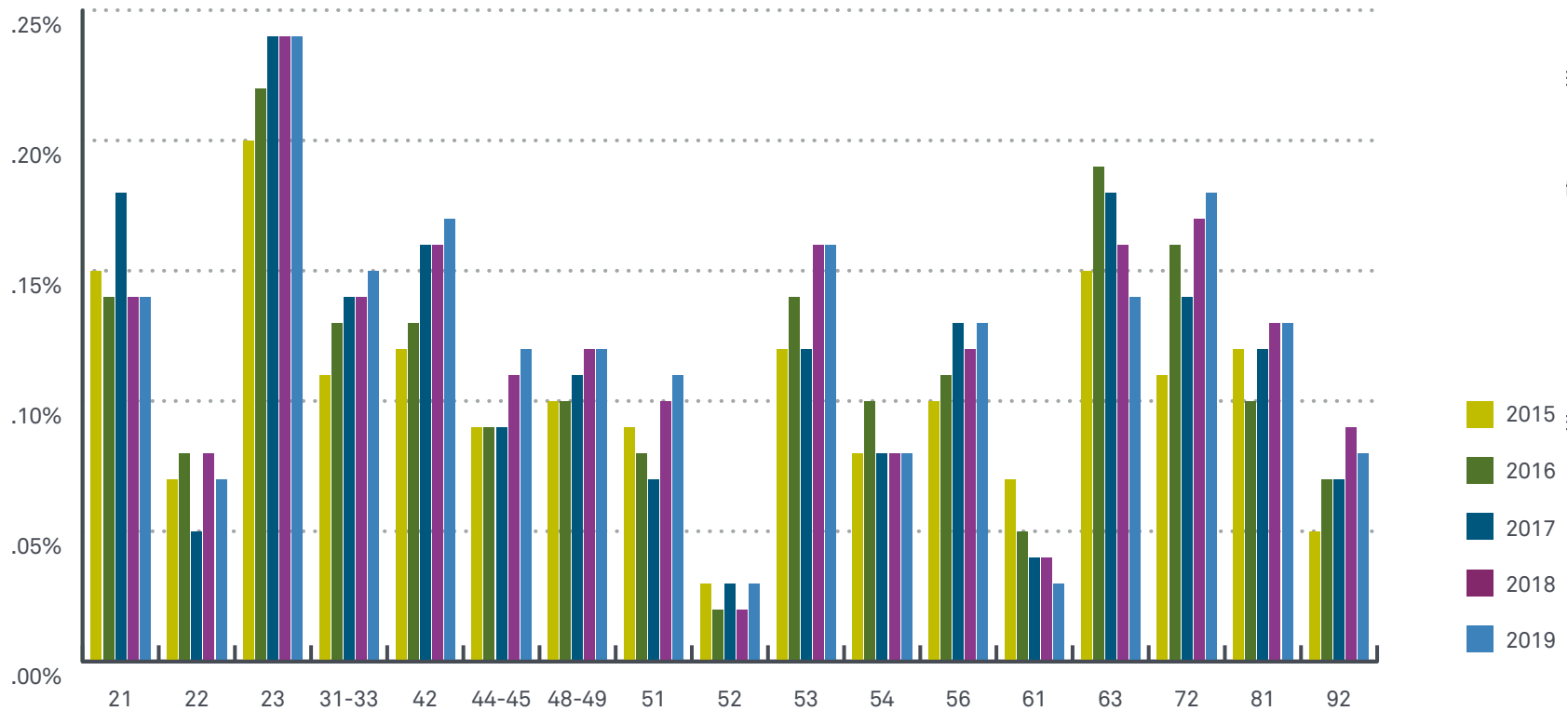
Industry	2015	2016	2017	2018	2019
Accommodation & Food Services ⁷²	0.67%	0.72%	0.69%	0.68%	0.64%
Administrative Support, Waste Management & Remediation Services ⁵⁶	0.93%	0.97%	0.94%	0.94%	0.96%
Construction ²³	0.88%	0.98%	0.97%	0.98%	1.0%
Educational Services ⁶¹	1.5%	1.6%	1.6%	1.6%	1.6%
Finance & Insurance ⁵²	0.89%	0.97%	1.0%	1.1%	1.1%
Health Care & Social Assistance ⁶²	1.2%	1.3%	1.3%	1.3%	1.4%
Information ⁵¹	0.89%	0.90%	1.0%	0.94%	1.1%
Manufacturing ³¹⁻³³	0.94%	1.0%	1.0%	1.1%	1.1%

Industry	2015	2016	2017	2018	2019
Mining ²¹	1.4%	1.3%	1.3%	1.3%	1.6%
Other Services (except Public Administration) ⁸¹	0.84%	0.87%	0.85%	0.90%	1.0%
Professional, Scientific & Technical ⁵⁴	1.0%	1.1%	1.0%	1.1%	1.2%
Public Administration ⁹²	1.1%	1.4%	1.4%	1.3%	1.3%
Real Estate, Rental & Leasing ⁵³	0.82%	0.85%	0.84%	0.84%	0.86%
Retail Trade ⁴⁴⁻⁴⁵	0.89%	0.93%	0.95%	1.0%	0.99%
Transportation & Warehousing ⁴⁸⁻⁴⁹	0.65%	0.67%	0.67%	0.72%	0.69%
Utilities ²²	0.85%	0.91%	0.95%	1.0%	1.1%
Wholesale Trade ⁴²	0.98%	1.0%	1.0%	0.99%	0.97%

(More than 18 million tests from 2015 - 2019)

Positivity Rates by Drug: Methamphetamine | *Industry Insights*

Urine Drug Tests - General U.S. Workforce



Industry	2015	2016	2017	2018	2019
Accommodation & Food Services ⁷²	0.11%	0.16%	0.14%	0.17%	0.18%
Administrative Support, Waste Management & Remediation Services ⁵⁶	0.10%	0.11%	0.13%	0.12%	0.13%
Construction ²³	0.20%	0.22%	0.24%	0.24%	0.24%
Educational Services ⁶¹	0.07%	0.05%	0.04%	0.04%	0.03%
Finance & Insurance ⁵²	0.03%	0.02%	0.03%	0.02%	0.03%
Health Care & Social Assistance ⁶²	0.15%	0.19%	0.18%	0.16%	0.14%
Information ⁵¹	0.09%	0.08%	0.07%	0.10%	0.11%
Manufacturing ³¹⁻³³	0.11%	0.13%	0.14%	0.14%	0.15%

Industry	2015	2016	2017	2018	2019
Mining ²¹	0.15%	0.14%	0.18%	0.14%	0.14%
Other Services (except Public Administration) ⁸¹	0.12%	0.10%	0.12%	0.13%	0.13%
Professional, Scientific & Technical ⁵⁴	0.08%	0.10%	0.08%	0.08%	0.08%
Public Administration ⁹²	0.05%	0.07%	0.07%	0.09%	0.08%
Real Estate, Rental & Leasing ⁵³	0.12%	0.14%	0.12%	0.16%	0.16%
Retail Trade ⁴⁴⁻⁴⁵	0.09%	0.09%	0.09%	0.11%	0.12%
Transportation & Warehousing ⁴⁸⁻⁴⁹	0.10%	0.10%	0.11%	0.12%	0.12%
Utilities ²²	0.07%	0.08%	0.05%	0.08%	0.07%
Wholesale Trade ⁴²	0.12%	0.13%	0.16%	0.16%	0.17%

About Quest Diagnostics

Quest Diagnostics helps empower people to take action to improve health outcomes. Derived from the world's largest database of clinical lab results, our diagnostic insights reveal new avenues to identify and treat disease, inspire healthy behaviors, and improve healthcare management. Quest annually serves one in three adult Americans and half the physicians and hospitals in the United States, and our 47,000 employees understand that, in the right hands and with the right context, our diagnostic insights can inspire actions that transform lives.

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