

Quest Diagnostics Incorporated  
3 Giralda Farms  
Madison, NJ 07940



## News From Quest Diagnostics

### Quest Diagnostics Contacts:

Barb Short (Media): 973-520-2800

Laure Park (Investors): 973-520-2900

## Cocaine Use Among U.S. Workers Declines Sharply in 2008, According to Quest Diagnostics Drug Testing Index™

*Methamphetamine Use Drops While Amphetamine Use Continues to Rise*

*Random Drug Testing Programs May Deter Use, Data Show*

**MADISON, N.J. – May 6, 2009** – Cocaine use among U.S. employees and job applicants in the general U.S. workforce declined sharply in 2008, according to the annual Quest Diagnostics Drug Testing Index™ (DTI), based on 5.7 million urine drug tests performed last year by Quest Diagnostics (NYSE: DGX), the nation’s leading provider of drug testing services. In addition, methamphetamine use in the general workforce declined year over year, yet positive urine tests for amphetamine showed an uptick in worker use of this stimulant drug.

To view a multimedia version of this news release with all charts and maps, click [here](#).

“We now know that the implementation of workplace drug testing programs has significantly reduced drug abuse in worker populations subject to drug testing,” according to Robert Willette, Ph.D., President of Duo Research and former Chief of the Research Technology Branch of the National Institute on Drug Abuse. “This impact is evidenced in a variety of surveys and other data sources, one of the most valuable being the Quest Diagnostics Drug Testing Index. While many substances are showing declines in use, a significant trend upward that will be important to watch is the rise in amphetamine positives. This coincides with survey and emergency room data, and could be tied to the significant increase in drugs prescribed for Attention Deficit/Hyperactivity Disorder (ADHD). Similar trends are seen with the increased use and abuse of pain medications.”

Employers that implement drug testing programs do so for a variety of reasons, most often to protect the health and well-being of employees and avert business risk associated with drug-induced judgments. The 2008 DTI summarizes 7.3 million urine drug test results of the U.S. workforce, including both the general U.S. workforce and federally mandated safety-sensitive workforce, which includes pilots, bus drivers, and nuclear power plant operators. The DTI looks at ‘recent use,’ as measured by laboratory analysis of a urine sample, which detects drug use within the prior one to three days.

### **Sustained drop in overall drug use**

Overall recent drug use in the combined U.S. workforce has sustained a 19-year decline since Quest Diagnostics first published the Drug Testing Index in 1989, summarizing data from 1988, when 13.6 percent of workers tested positive for drug use. In 2008, 3.6 percent of the combined U.S. workforce tested positive in a urine drug test compared to 3.8 percent in 2007. Experts credit effective drug testing programs with positively influencing worker behavior and, in recent years, have cited law enforcement's impact on the decreased availability and increasing costs of illicit substances as a factor in recent drug use declines.

### **Cocaine and methamphetamine use decline sharply; amphetamine use increases**

Positivity rates of recent use of cocaine in the general U.S. workforce dropped 29 percent (0.58 percent of all urine drug tests in 2007 to 0.41 percent in 2008) continuing a steep decline. In 2006, 0.72 percent of urine tests showed recent use of cocaine. While methamphetamine positivity in the general U.S. workforce also dropped 21 percent (0.14 percent in 2007 to 0.11 percent in 2008), the positivity rate for amphetamine increased more than 12 percent, from 0.40 percent to 0.45 percent.

Cocaine, methamphetamine and amphetamine are each a type of stimulant, typically used to increase alertness and relieve fatigue. Stimulants are also used for euphoric effects or may be used to counteract the "down" feeling of tranquilizers or alcohol. Possible side effects of stimulants include increased heart and respiratory rates, elevated blood pressure, dilated pupils and decreased appetite. High doses may cause irregular heartbeat, loss of coordination or collapse. Indications of possible misuse may include excessive activity, talkativeness, irritability or nervousness.

### **Random drug testing programs appear to deter use**

Random drug testing programs appear to deter drug use, DTI data show. In the federally mandated safety-sensitive workforce, where employees expect random drug testing, the drug positivity rate is far lower than the rate of positivity among job applicants in that same workforce. However, in the general workforce, where employees are far less likely to expect random drug testing, the drug use positivity rate is dramatically higher than that of job applicants.

"At first, it may not be surprising that in the safety-sensitive workforce random drug test positivity is nearly 18 percent lower than pre-employment positivity," according to Barry Sample, Ph.D., Director of Science and Technology for Quest Diagnostics' Employer Solutions Division. "Pre-employment drug testing is an important frontline filter to help ensure a drug-free workforce. However, we see a more complex story when these rates are compared to the general workforce, where employees are far less likely to expect random drug testing. Here, the random urine test positivity rate is 47 percent higher than the pre-employment urine test positivity rate."

Random urine test positivity among safety-sensitive workers was 1.4 percent, according to the 2008 DTI, nearly 18 percent lower than the pre-employment positivity rate of 1.7 percent. Those employed in the safety-sensitive workforce understand that they can be subject to a random drug test at any time. In the general workforce, where random urine testing is not typically required of employees nor expected, the random urine test positivity rate was 47 percent higher than that workforce's pre-employment positivity rate. The

general U.S. workforce pre-employment urine testing positivity rate reached 3.6 percent, while the general U.S. workforce random urine testing positivity rate reached 5.3 percent.

For the full 2008 Quest Diagnostics Drug Testing Index, visit the Quest Diagnostics web site at [http://www.questdiagnostics.com/employersolutions/dti/2009\\_05/dti\\_index.html](http://www.questdiagnostics.com/employersolutions/dti/2009_05/dti_index.html).

**About the Drug Testing Index™ (DTI)**

The [Quest Diagnostics Drug Testing Index](#) is published as a public service for government, media and industry and has been considered a benchmark for national trends since its inception in 1988. It examines positivity rates—the proportion of positive results for each drug to all such drug tests performed—among three major testing populations: federally mandated, safety-sensitive workers; the general workforce; and the combined U.S. workforce. Federally mandated, safety sensitive workers include pilots, bus and truck drivers, and workers in nuclear power plants, for whom routine drug testing is mandated by the U.S. Department of Transportation and the Nuclear Regulatory Commission.

**About Quest Diagnostics**

Quest Diagnostics is the world's leading provider of diagnostic testing, information and services that patients and doctors need to make better healthcare decisions. The company offers the broadest access to diagnostic testing services through its network of laboratories and patient service centers, and provides interpretive consultation through its extensive medical and scientific staff. Quest Diagnostics is a pioneer in developing innovative new diagnostic tests and advanced healthcare information technology solutions that help improve patient care. Additional company information is available at: [www.questdiagnostics.com](http://www.questdiagnostics.com).

**Overall Positivity Rates By Drug Category – Urine Drug Tests**  
(For Combined U.S. Workforce, as a percentage of all such tests)

	2004	2005	2006	2007	2008
Overall	4.5%	4.1%	3.8%	3.8%	3.6%

**Percent Testing Positive for Cocaine – Urine Drug Tests**  
(For General U.S. Workforce, as a percentage of all such tests)

	2004	2005	2006	2007	2008
Positivity Rates for Cocaine	0.72%	0.70%	0.72%	0.58%	0.41%
% Difference Cocaine	N/A	-3.2%	2.9%	-19.4%	-29.3%

Percent Testing Positive for Methamphetamine and Amphetamine – Urine Drug Tests  
(For General U.S. Workforce, as a percentage of all such tests)

	2004	2005	2006	2007	2008
Positivity for Amphetamine	0.45%	0.44%	0.38%	0.40%	0.45%
Positivity for Methamphetamine	0.33%	0.28%	0.18%	0.14%	0.11%

	2004	2005	2006	2007	2008
% Difference Amphetamine	N/A	-2.2%	-13.6%	5.3%	12.5%
% Difference Methamphetamine	N/A	-15.2%	-35.7%	-22.2%	-21.4%

Positivity Rates By Testing Reason – Urine Drug Tests  
(For Federally Mandated, Safety-Sensitive Workforce)

Testing Reason	2004	2005	2006	2007	2008
Pre-Employment	2.7%	2.6%	2.3%	2.0%	1.7%
Random	1.8%	1.8%	1.5%	1.5%	1.4%

Positivity Rates By Testing Reason – Urine Drug Tests  
(For General U.S. Workforce)

Testing Reason	2004	2005	2006	2007	2008
Pre-Employment	4.1%	3.9%	3.9%	3.9%	3.6%
Random	7.1%	6.6%	5.5%	5.7%	5.3%

(tables follow)

**Table 1. Annual Positivity Rates – Urine Drug Tests  
(For Combined U.S. Workforce)**

*(More than 7.3 million tests from January to December 2008)*

<b>Year</b>	<b>Drug Positive Rate</b>
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%
1999	4.6%
2000	4.7%
2001	4.6%
2002	4.4%
2003	4.5%
2004	4.5%
2005	4.1%
2006	3.8%
2007	3.8%
2008	3.6%

**Table 2. Positivity Rates By Testing Category – Urine Drug Tests**

<b>Testing Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Federally Mandated, Safety-Sensitive Workforce	2.3%	2.3%	2.0%	1.8%	1.6%
General U.S. Workforce	4.9%	4.5%	4.4%	4.4%	4.2%
Combined U.S. Workforce	4.5%	4.1%	3.8%	3.8%	3.6%

**Table 3. Positivity Rates By Testing Reason – Urine Drug Tests  
(For Federally Mandated, Safety-Sensitive Workforce)**  
*(More than 1.6 million tests from January to December 2008)*

<b>Testing Reason</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Follow-Up	3.3%	3.1%	3.0%	2.8%	2.2%
For Cause	14.1%	13.4%	12.4%	11.1%	9.9%
Periodic	0.51%	0.76%	0.59%	0.75%	0.71%
Post-Accident	2.9%	3.0%	2.7%	2.6%	2.3%
Pre-Employment	2.7%	2.6%	2.3%	2.0%	1.7%
Random	1.8%	1.8%	1.5%	1.5%	1.4%
Returned to Duty	2.9%	3.0%	3.2%	3.3%	3.1%

**Table 4. Positivity Rates By Testing Reason – Urine Drug Tests  
(For General U.S. Workforce)**  
*(Approximately 5.7 million tests from January to December 2008)*

<b>Testing Reason</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Follow-Up	10.0%	9.6%	7.4%	7.7%	7.6%
For Cause	27.8%	28.3%	18.1%	19.2%	22.0%
Periodic	1.9%	2.4%	1.9%	1.4%	1.4%
Post-Accident	5.7%	5.8%	5.7%	5.8%	5.6%
Pre-Employment	4.1%	3.9%	3.9%	3.9%	3.6%
Random	7.1%	6.6%	5.5%	5.7%	5.3%
Returned to Duty	5.5%	6.0%	5.8%	5.6%	5.3%

**Table 5. Positivity Rates By Drug Category – Urine Drug Tests**  
**(For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all such tests)**  
*(More than 1.6 million tests from January to December 2008)*

<b>Drug Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Overall	2.3%	2.3%	2.0%	1.8%	1.6%
Amphetamines	0.31%	0.35%	0.28%	0.25%	0.26%
Cocaine	0.57%	0.60%	0.58%	0.44%	0.32%
Marijuana	1.2%	1.1%	0.94%	0.88%	0.77%
Opiates	0.17%	0.18%	0.17%	0.18%	0.20%
PCP	0.04%	0.04%	0.03%	0.04%	0.04%

**Table 6. Positivity Rates By Drug Category – Urine Drug Tests**  
**(For General U.S. Workforce, as a percentage of all such tests)**  
*(Approximately 5.7 million tests from January to December 2008)*

<b>Drug Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Overall	4.9%	4.5%	4.4%	4.4%	4.2%
Amphetamines	0.52%	0.48%	0.42%	0.44%	0.48%
Barbiturates	0.27%	0.25%	0.23%	0.24%	0.25%
Benzodiazepines	0.58%	0.58%	0.62%	0.67%	0.70%
Cocaine	0.72%	0.70%	0.72%	0.58%	0.41%
Marijuana	2.9%	2.5%	2.4%	2.3%	2.1%
Methadone	0.21%	0.23%	0.22%	0.23%	0.22%
Opiates	0.32%	0.32%	0.32%	0.35%	0.38%
Oxycodones		0.56% <sup>1</sup>	0.64% <sup>2</sup>	0.88% <sup>3</sup>	0.83% <sup>3</sup>
PCP	0.01%	0.02%	0.02%	0.02%	0.02%
Propoxyphene	0.63%	0.57%	0.55%	0.58%	0.56%

**Table 7. Positivity Rates By Drug Category – Urine Drug Tests**  
**(For Combined U.S. Workforce, as a percentage of all such tests)**  
*(More than 7.3 million tests from January to December 2008)*

<b>Drug Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Overall	4.5%	4.1%	3.8%	3.8%	3.6%
Amphetamines	0.49%	0.46%	0.39%	0.40%	0.43%
Barbiturates	0.27%	0.25%	0.23%	0.24%	0.25%
Benzodiazepines	0.58%	0.58%	0.62%	0.67%	0.70%
Cocaine	0.70%	0.69%	0.69%	0.55%	0.39%
Marijuana	2.6%	2.3%	2.0%	2.0%	1.8%
Methadone	0.21%	0.23%	0.22%	0.23%	0.22%
Opiates	0.29%	0.29%	0.28%	0.32%	0.34%
Oxycodones		0.56% <sup>1</sup>	0.64% <sup>2</sup>	0.88% <sup>3</sup>	0.83% <sup>3</sup>
PCP	0.02%	0.02%	0.02%	0.02%	0.02%
Propoxyphene	0.63%	0.57%	0.55%	0.58%	0.56%

<sup>1</sup>More than 200,000 tests

<sup>2</sup>Approximately 400,000 tests

<sup>3</sup>More than 500,000 tests



**Table 8. Non-Negative Rates By Specimen Validity Test (SVT)<sup>4</sup> Category – Urine Drug Tests (For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all such tests)**  
*(More than 1.6 million tests from January to December 2008)*

<b>SVT Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Acid-Base	0.01%	0.01%	0.00%	0.01%	0.02%
Invalid	0.08%	0.12%	0.12%	0.11%	0.11%
Oxidizing Adulterants	0.02%	0.00%	0.00%	0.00%	0.00%
Substitution	0.06%	0.05%	0.05%	0.05%	0.05%

**Table 9. Non-Negative Rates By Specimen Validity Test (SVT)<sup>4</sup> Category – Urine Drug Tests (For General U.S. Workforce, as a percentage of all such tests)**  
*(Approximately 5.7 million tests from January to December 2008)*

<b>SVT Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Acid-Base	0.01%	0.00%	0.00%	0.00%	0.00%
Invalid	0.10%	0.16%	0.15%	0.13%	0.12%
Oxidizing Adulterants	0.01%	0.00%	0.00%	0.00%	0.00%
Substitution	0.03%	0.01%	0.01%	0.01%	0.01%

<sup>4</sup>Specimen 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.

**Table 10. Non-Negative Rates By Drug/SVT Category – Urine Drug Tests  
(For Federally Mandated, Safety-Sensitive Workers, as a Percentage of All Non-Negatives)  
(More than 29 thousand non-negative test results from January to December 2008)**

<b>Drug/SVT Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Acid/Base	0.32%	0.27%	0.15%	0.47%	0.86%
Amphetamines	12.7%	14.8%	12.6%	12.7%	14.4%
Cocaine	23.2%	25.4%	26.3%	22.2%	17.7%
Invalid	--	--	5.7%	5.5%	6.4%
Marijuana	52.4%	47.8%	43.8%	45.2%	44.3%
Opiates	7.1%	7.7%	7.8%	9.2%	11.0%
Oxidizing Adulterants	0.42%	0.06%	0.00%	0.00%	0.00%
PCP	1.4%	1.8%	1.6%	2.1%	2.3%
Substituted	2.4%	2.3%	2.2%	2.7%	3.0%

**Table 11. Non-Negative Rates By Drug/SVT Category – Urine Drug Tests  
(For General U.S. Workforce, as a Percentage of All Non-Negatives)  
(More than 254 thousand non-negative test results from January to December 2008)**

<b>Drug/SVT Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Acid/Base	0.11%	0.06%	0.04%	0.04%	0.04%
Amphetamines	10.0%	10.1%	8.8%	9.2%	10.7%
Barbiturates	2.7%	2.7%	2.6%	2.8%	3.3%
Benzodiazepines	5.0%	5.4%	6.1%	6.9%	8.2%
Cocaine	13.8%	14.7%	15.0%	12.2%	9.2%
Invalid	--	--	3.2%	2.8%	2.6%
Marijuana	55.0%	53.0%	49.5%	48.8%	46.3%
Methadone	1.7%	2.0%	2.0%	2.2%	2.5%
Methaqualone	0.00%	0.00%	0.00%	0.00%	0.00%
Opiates	6.1%	6.6%	6.6%	7.4%	8.4%
Oxidizing Adulterants	0.16%	0.05%	0.00%	0.00%	0.00%
Oxycodones	--	--	0.74%	1.5%	1.8%
PCP	0.28%	0.31%	0.31%	0.35%	0.38%
Propoxyphene	4.9%	4.9%	4.9%	5.6%	6.3%
Substituted	0.49%	0.26%	0.27%	0.26%	0.26%

**Table 12. Non-Negative Rates By Drug/SVT Category – Urine Drug Tests  
(For Combined U.S. Workforce, as a Percentage of All Non-Negatives)  
(More than 283 thousand non-negative test results from January to December 2008)**

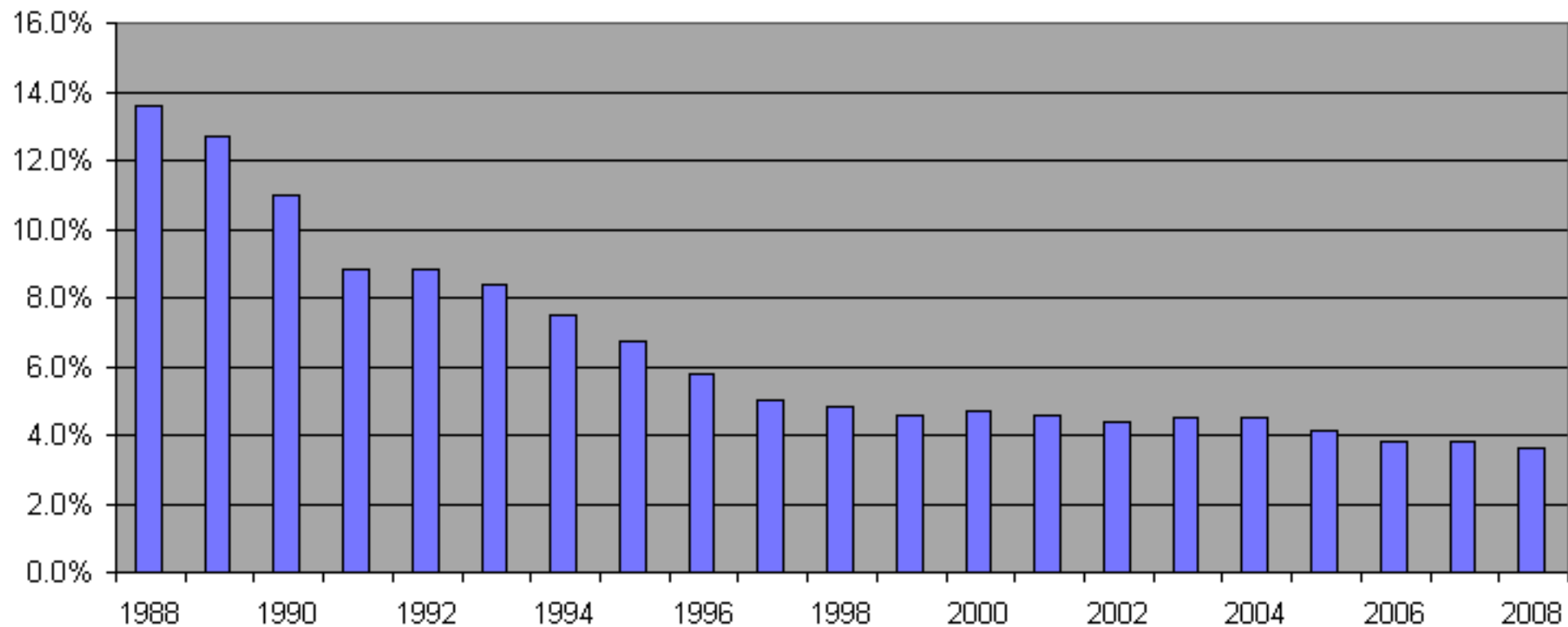
<b>Drug/SVT Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Acid/Base	0.13%	0.08%	0.05%	0.09%	0.12%
Amphetamines	10.2%	10.6%	9.3%	9.6%	11.1%
Barbiturates	2.5%	2.5%	2.3%	2.5%	2.9%
Benzodiazepines	4.5%	4.9%	5.4%	6.1%	7.4%
Cocaine	14.7%	15.7%	16.4%	13.2%	10.0%
Invalid	--	--	3.5%	3.0%	3.0%
Marijuana	54.8%	52.5%	48.8%	48.4%	46.1%
Methadone	1.5%	1.8%	1.8%	2.0%	2.3%
Methaqualone	0.00%	0.00%	0.00%	0.00%	0.00%
Opiates	6.2%	6.7%	6.7%	7.6%	8.7%
Oxidizing Adulterants	0.19%	0.09%	0.00%	0.00%	0.00%
Oxycodones	--	--	0.65%	1.4%	1.6%
PCP	0.38%	0.45%	0.46%	0.53%	0.57%
Propoxyphene	4.4%	4.4%	4.3%	5.0%	5.7%
Substituted	0.66%	0.45%	0.49%	0.51%	0.54%

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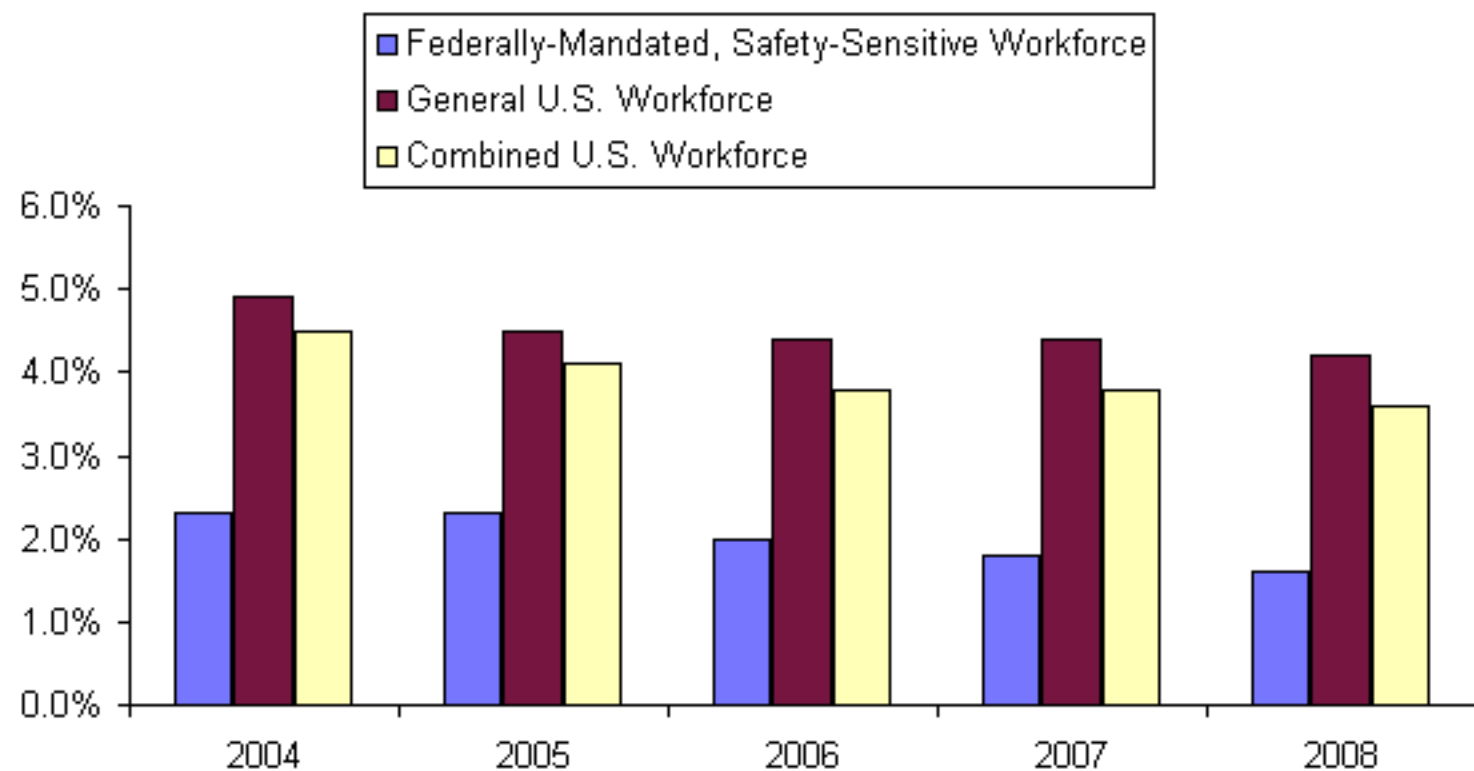
## Annual Positivity Rates - Urine Drug Tests

*(For Combined U.S. Workforce)*

*(More than 7.3 million tests from January to December 2008)*

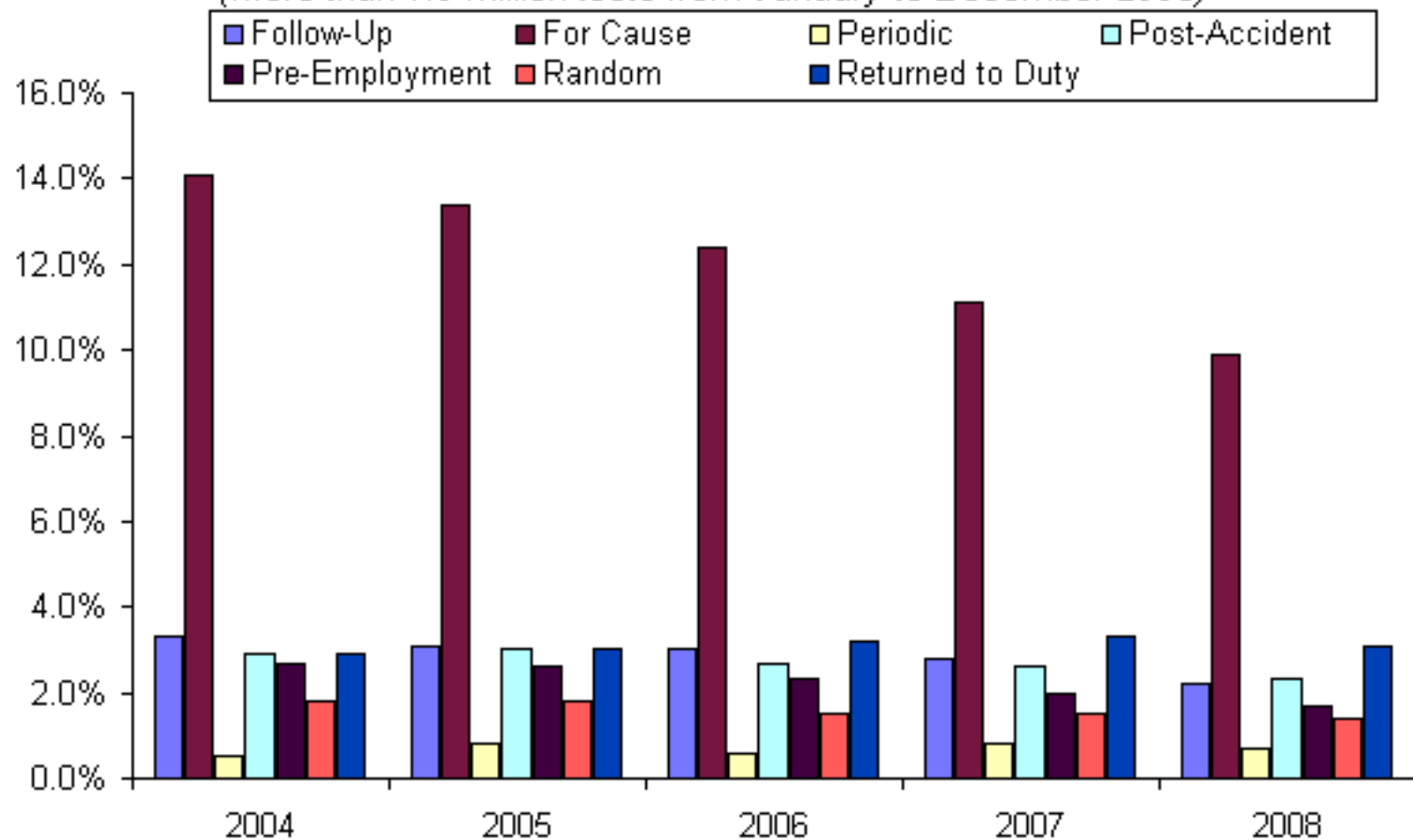


## Positivity Rates By Testing Category - Urine Drug Tests



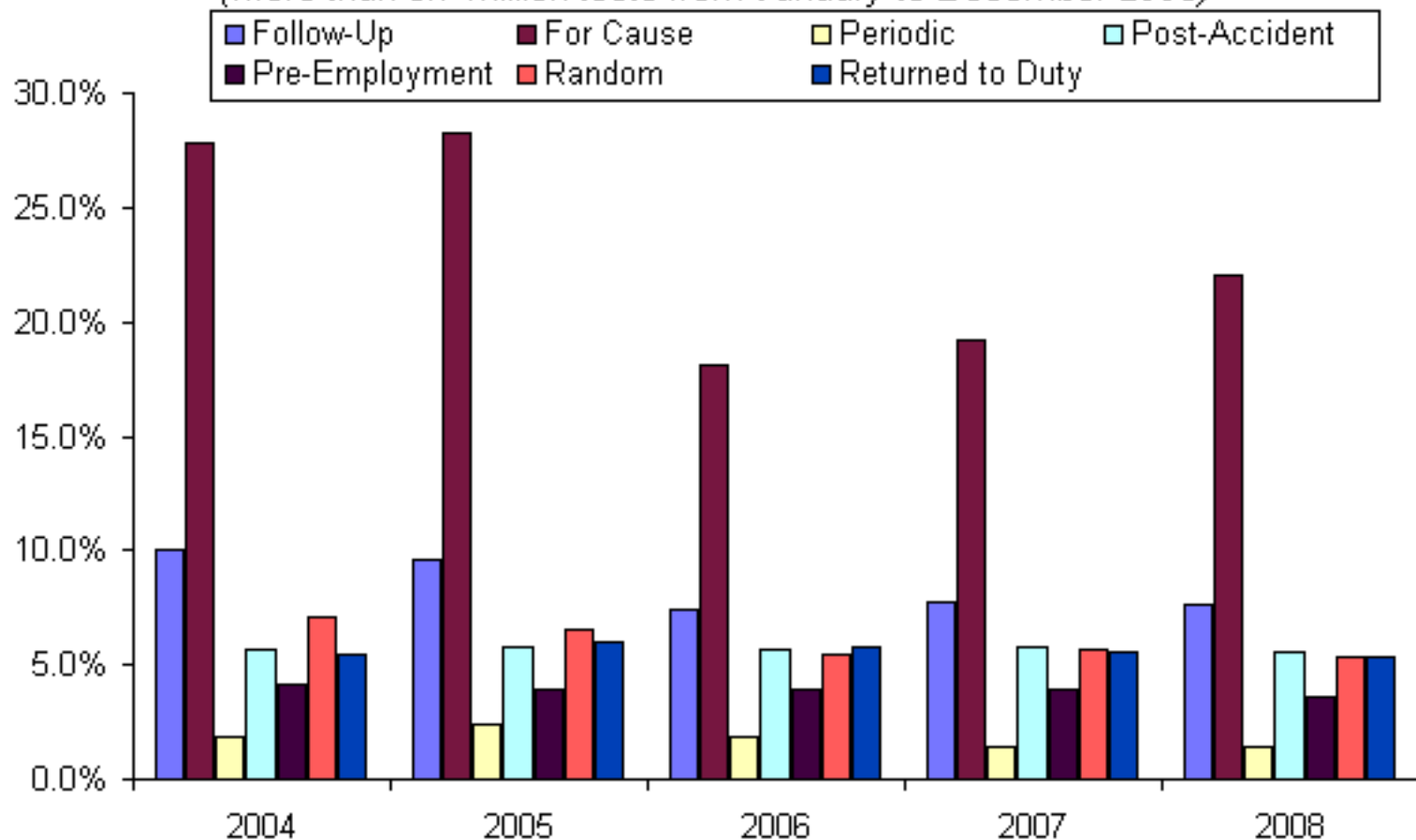
## Positivity Rates By Testing Reason - Urine Drug Tests (For Federally Mandated Safety-Sensitive Workforce)

(More than 1.6 million tests from January to December 2008)



## Positivity Rates By Testing Reason - Urine Drug Tests (For General U.S. Workforce)

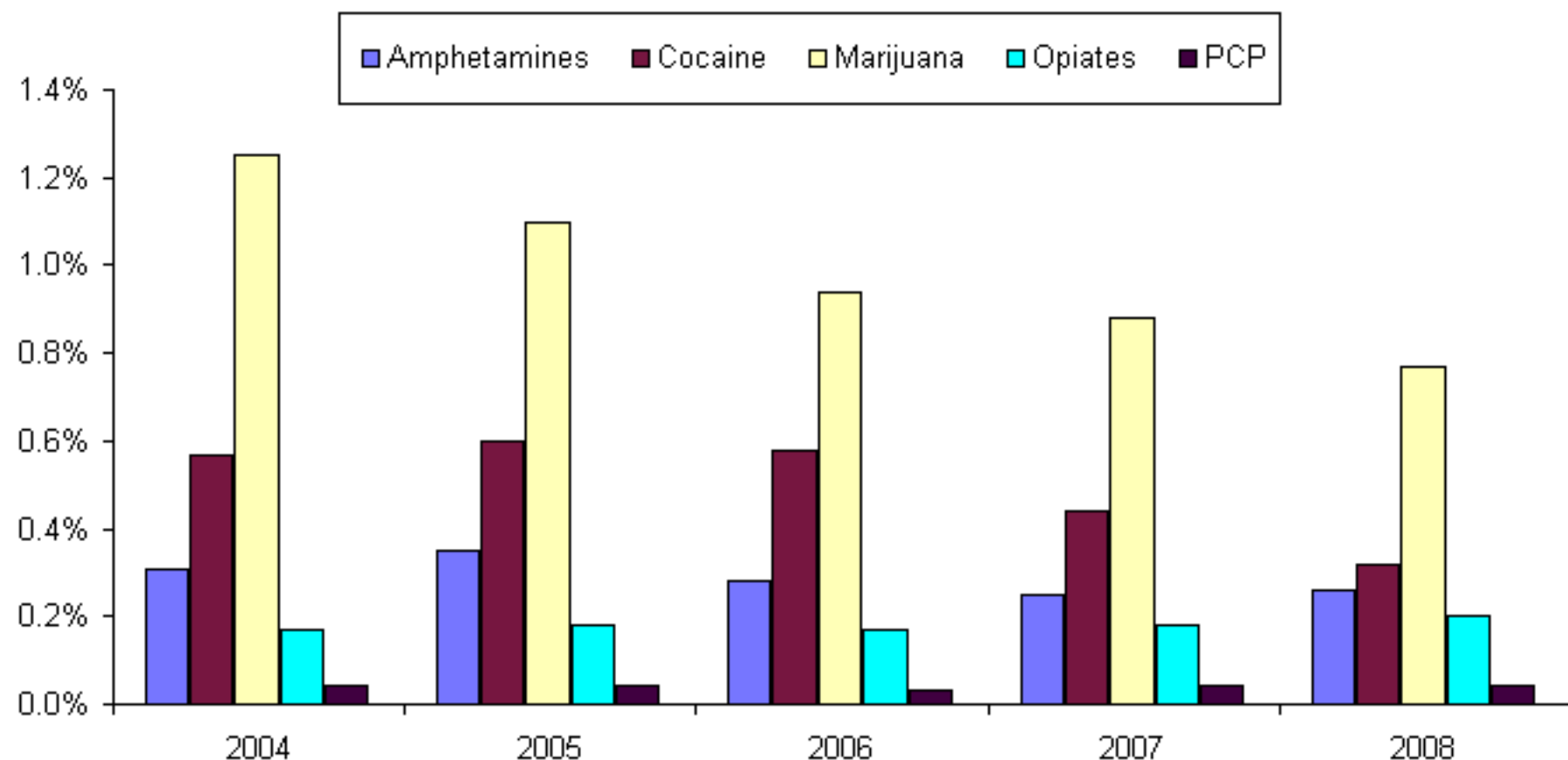
(More than 5.7 million tests from January to December 2008)



## Positivity Rates By Drug Category - Urine Drug Tests

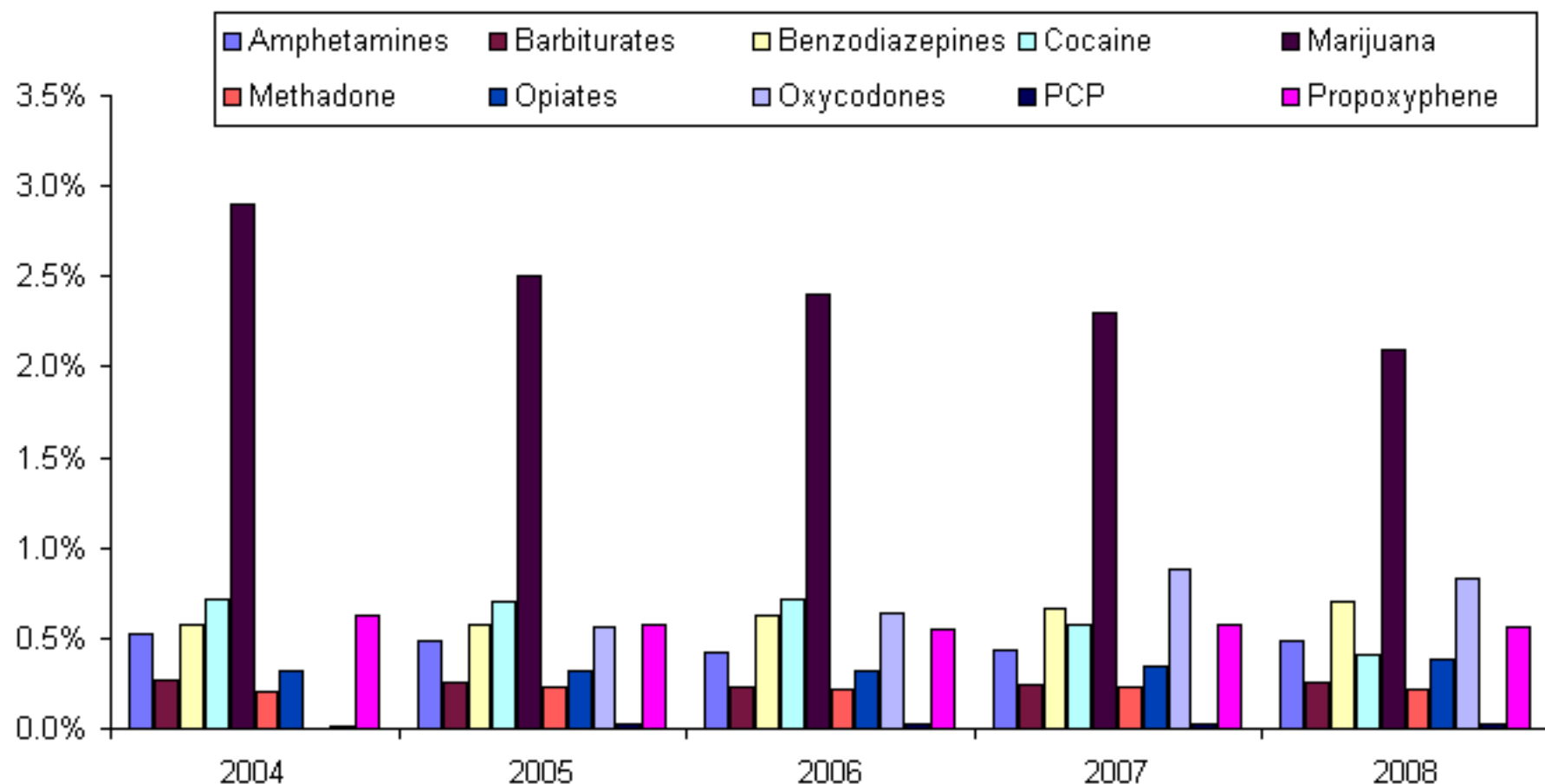
*(For Federally-Mandated, Safety-Sensitive Workforce,  
as a percentage of all such tests)*

*(More than 1.6 million tests from January to December 2008)*

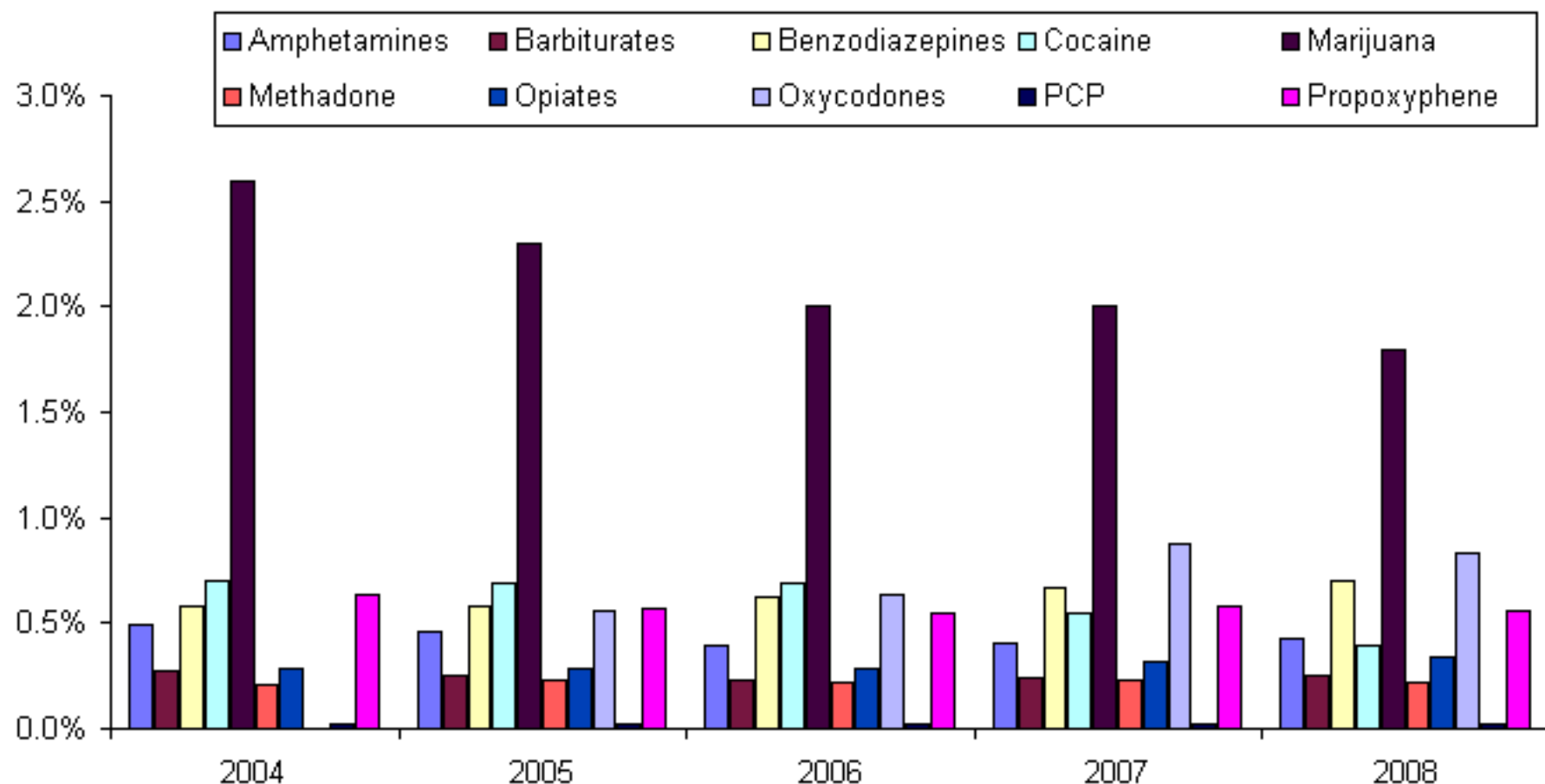




**Positivity Rates By Drug Category - Urine Drug Tests**  
*(For General U.S. Workforce, as a percentage of all such tests)*  
*(More than 5.7 million tests from January to December 2008)*



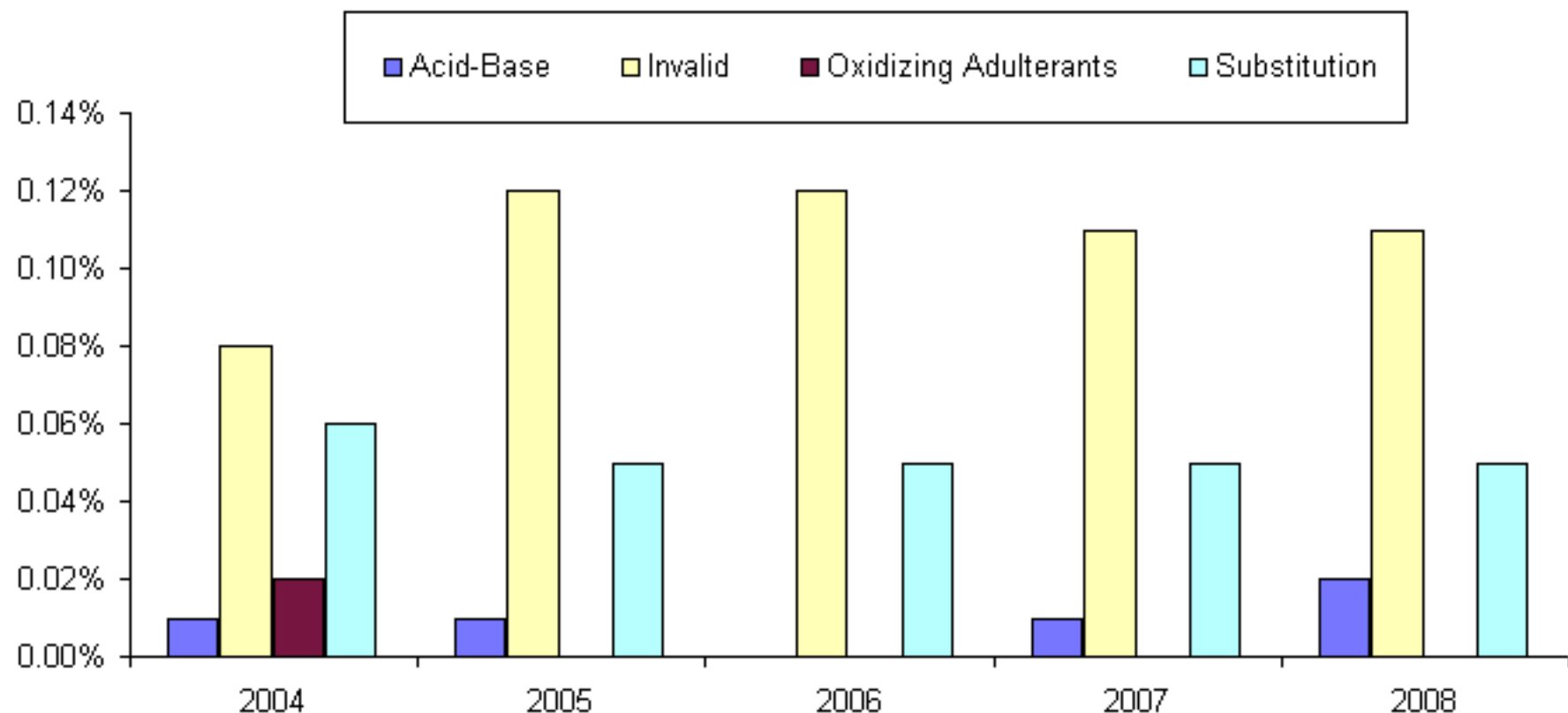
**Positivity Rates By Drug Category - Urine Drug Tests**  
*(For Combined U.S. Workforce, as a percentage of all such tests)*  
*(More than 7.3 million tests from January to December 2008)*



## Non-Negative Rates By Specimen Validity Test (SVT) Category Urine Drug Tests

*(For Federally Mandated, Safety-Sensitive Workforce,  
as a percentage of all such tests)*

*(More than 1.6 million tests from January to December 2008)*

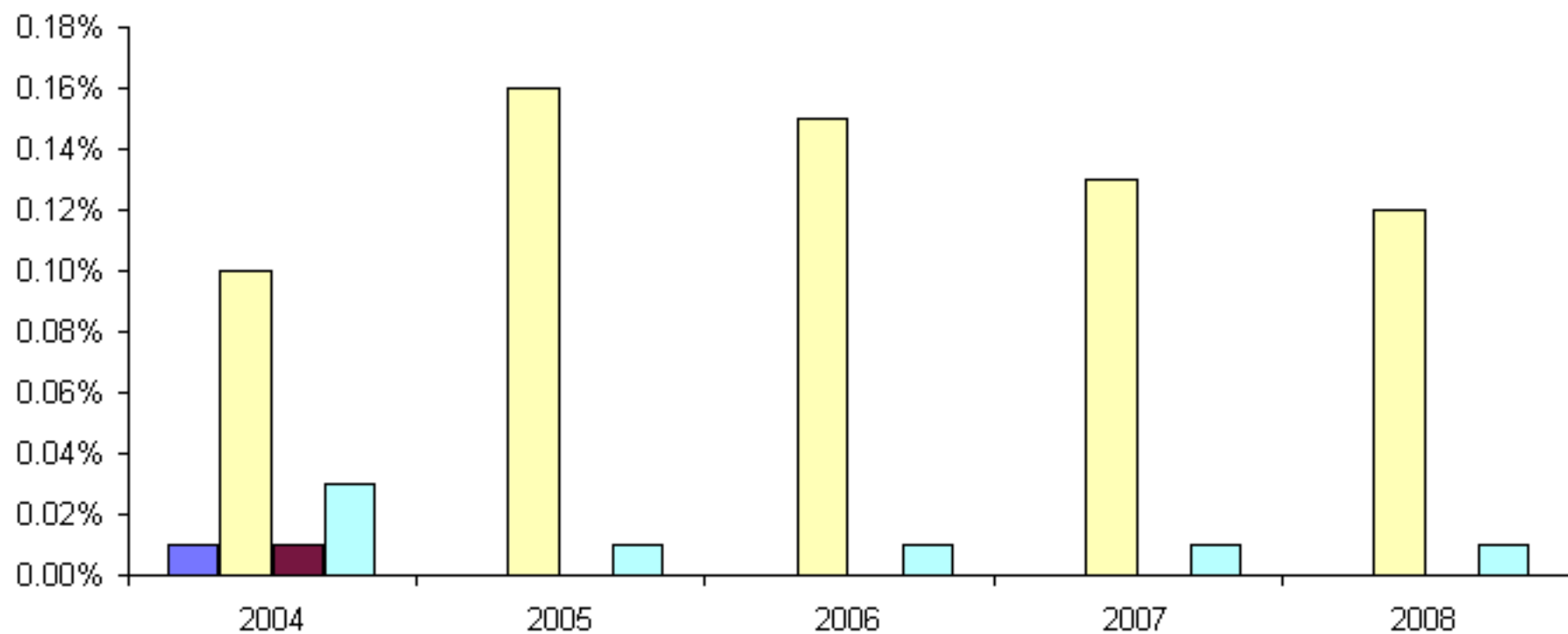


## Non-Negative Rates By Specimen Validity Test (SVT) Category Urine Drug Tests

*(For General U.S. Workforce, as a percentage of all such tests)*

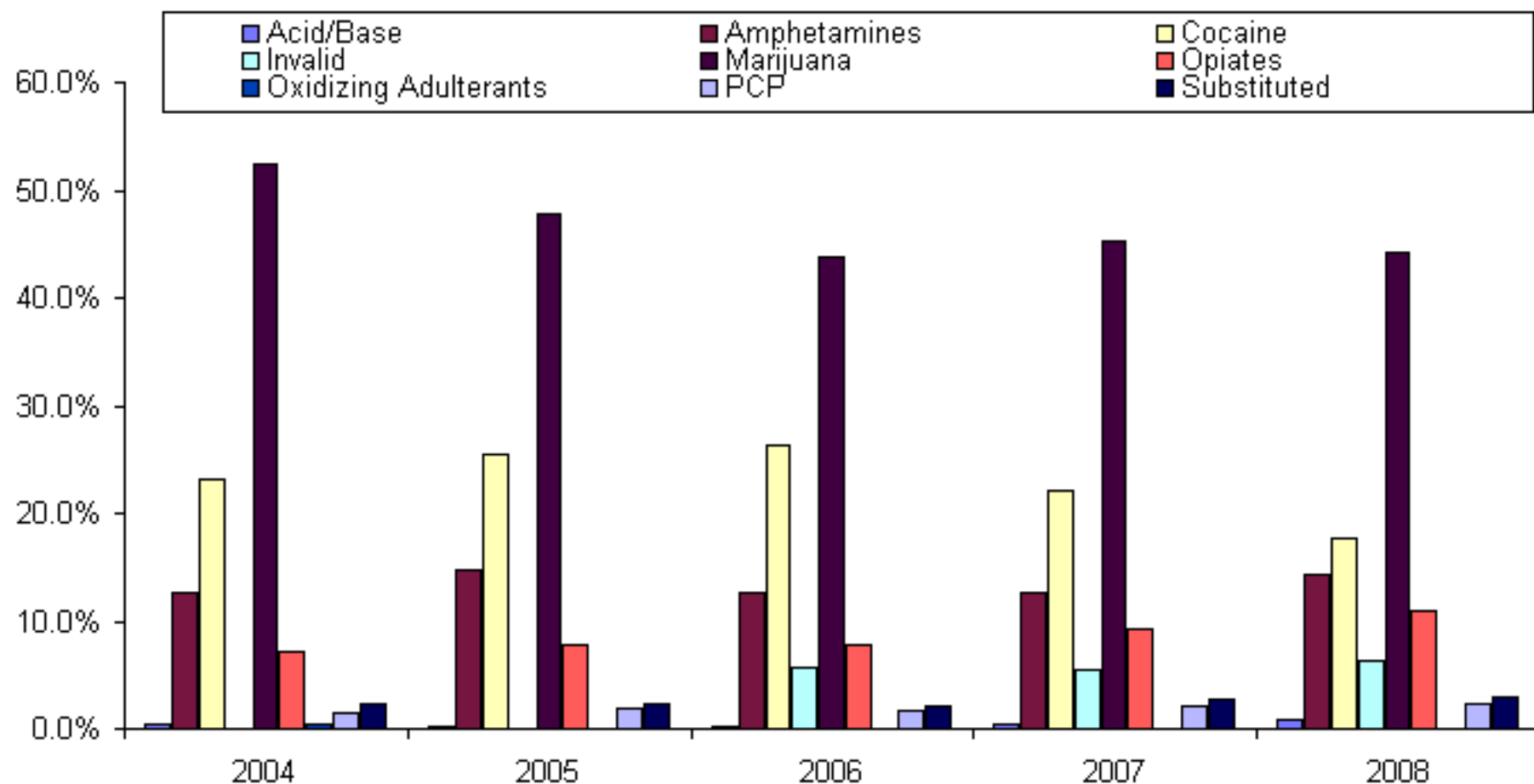
*(More than 5.7 million tests from January to December 2008)*

■ Acid-Base    ■ Invalid    ■ Oxidizing Adulterants    ■ Substitution



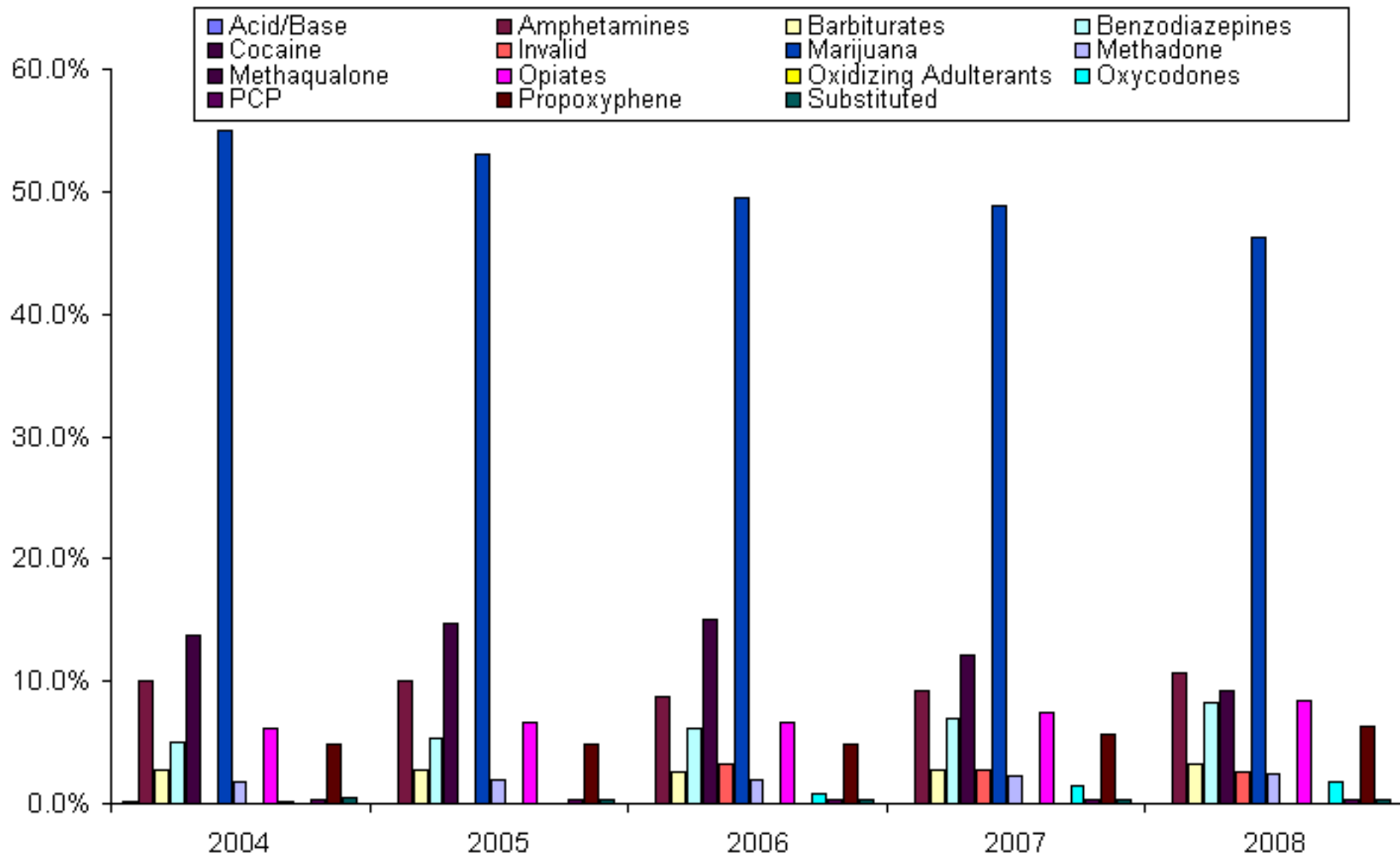
**Non-Negative Rates By Drug/SVT Category - Urine Drug Tests**  
*(For Federally Mandated, Safety-Sensitive Workers,  
as a Percentage of All Non-Negatives)*

*(More than 29 thousand non-negative test results from January to December 2008)*



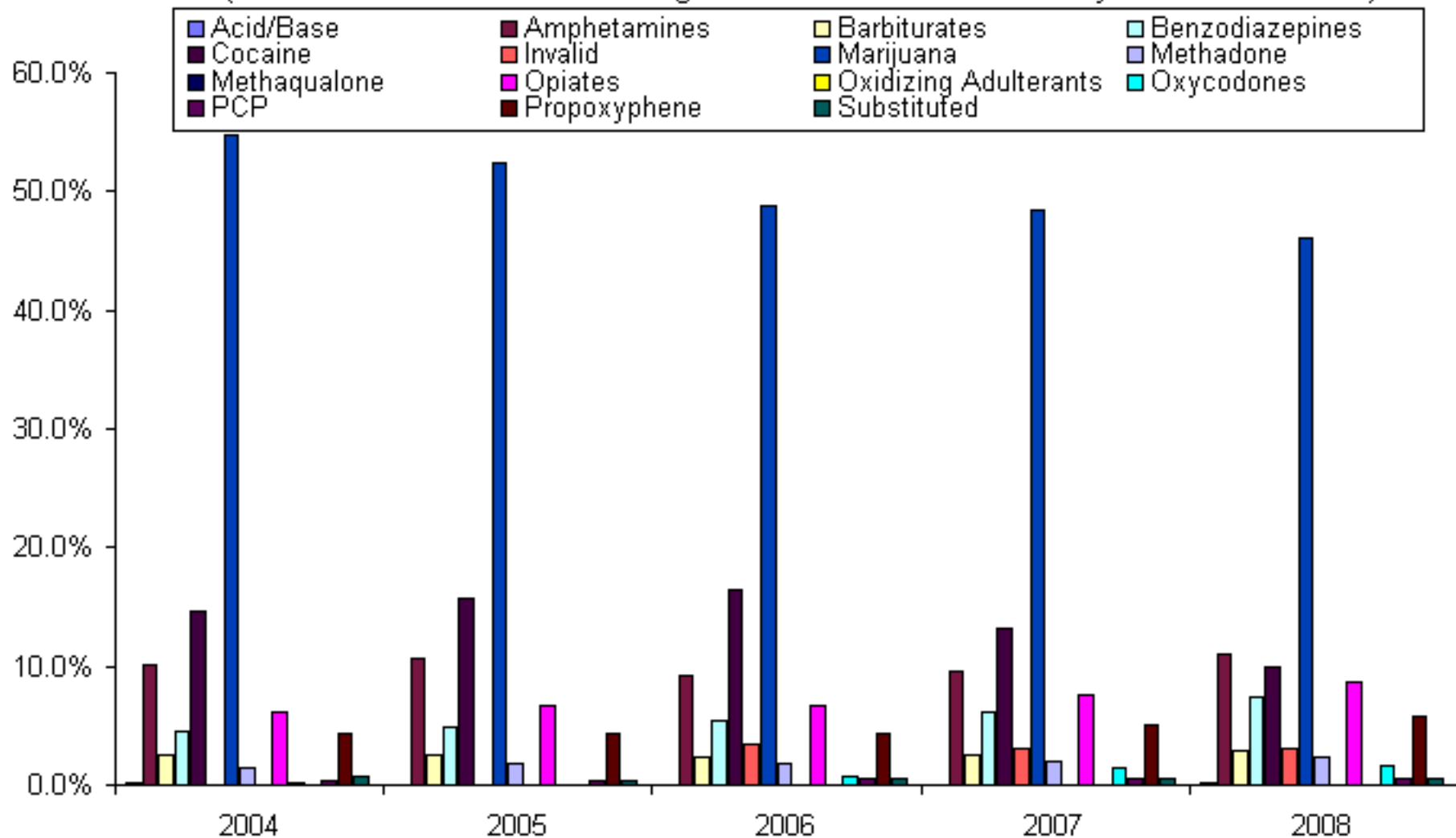
## Non-Negative Rates By Drug/SVT Category - Urine Drug Tests (For General U.S. Workforce, as a Percentage of All Non-Negatives)

*(More than 254 thousand non-negative test results from January to December 2008)*



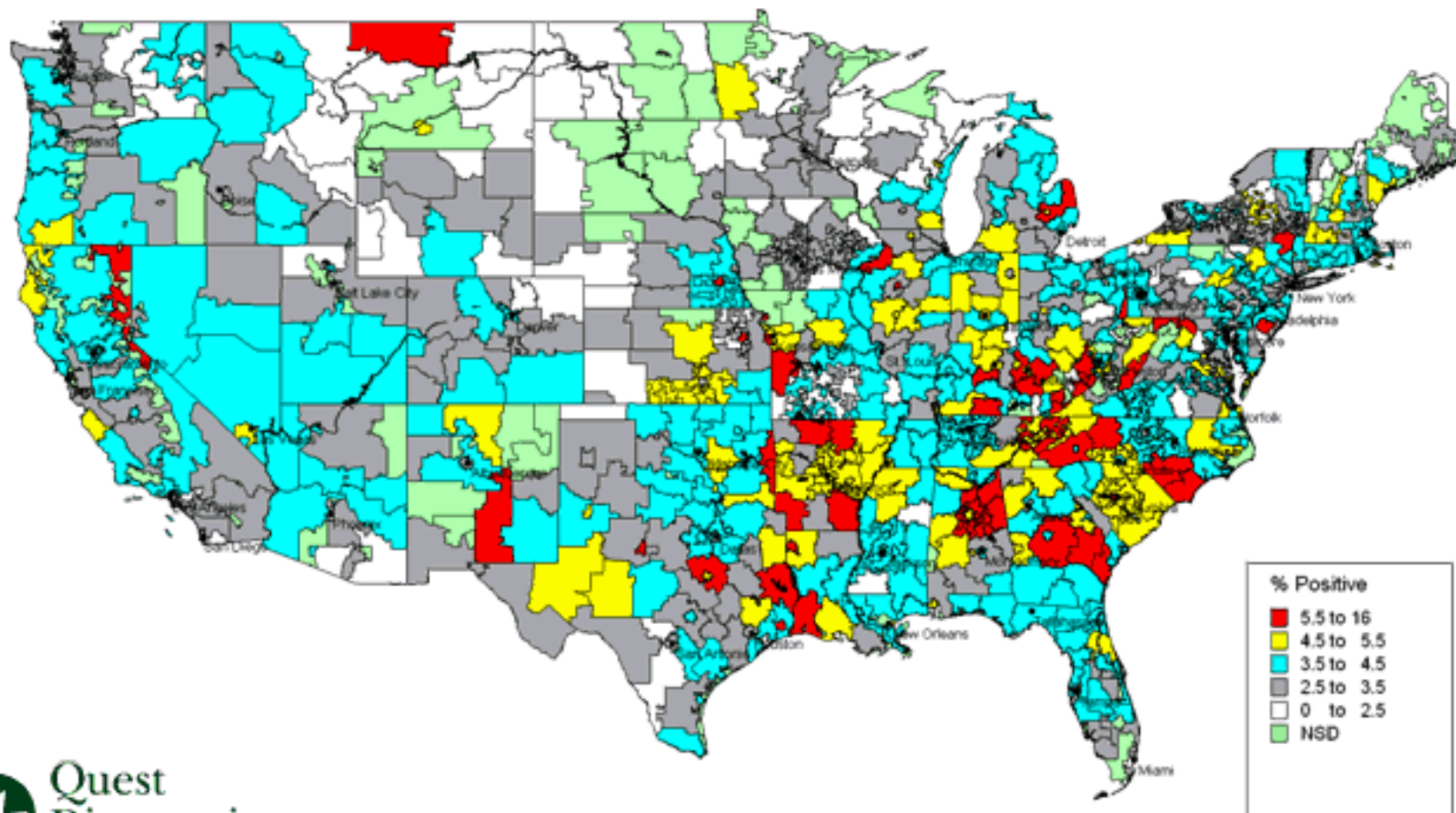
## Non-Negative Rates By Drug/SVT Category - Urine Drug Tests (For Combined U.S. Workforce, as a Percentage of All Non-Negatives)

*(More than 283 thousand non-negative test results from January to December 2008)*



# Overall Positivity by 3-Digit Zipcode

January–December 2008

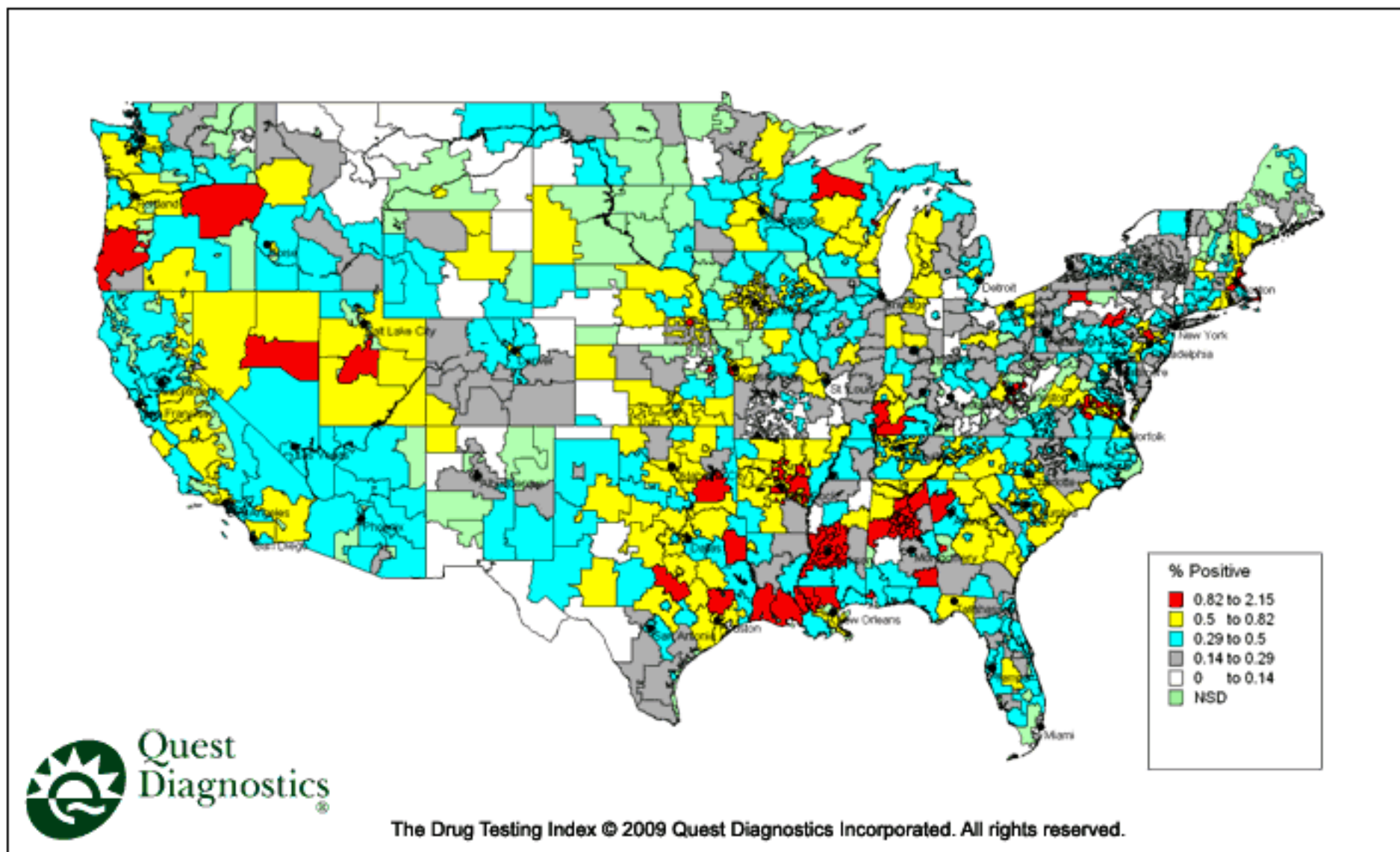


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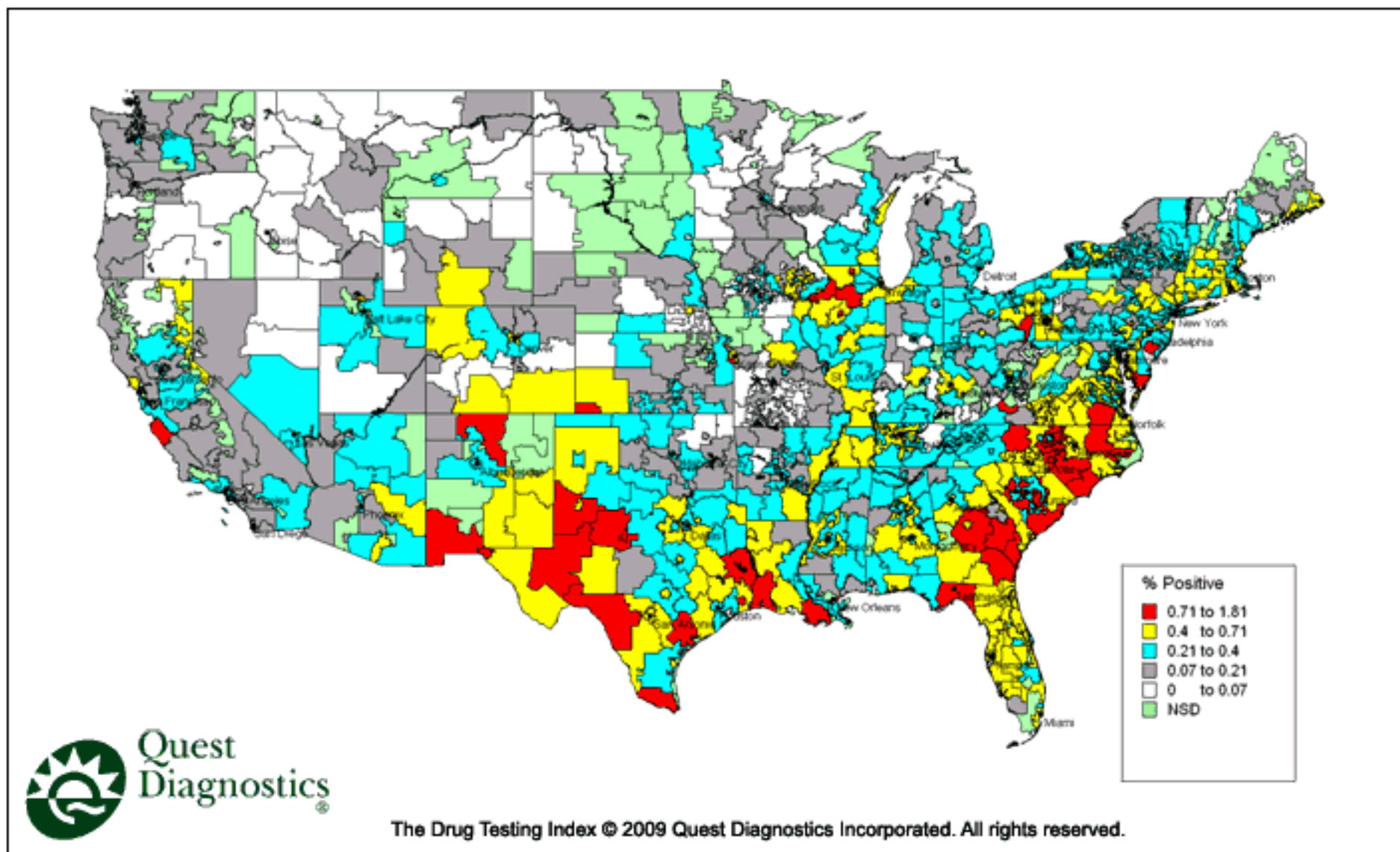
# Amphetamines Positivity by 3-Digit Zipcode

January–December 2008



# Cocaine Positivity by 3-Digit Zipcode

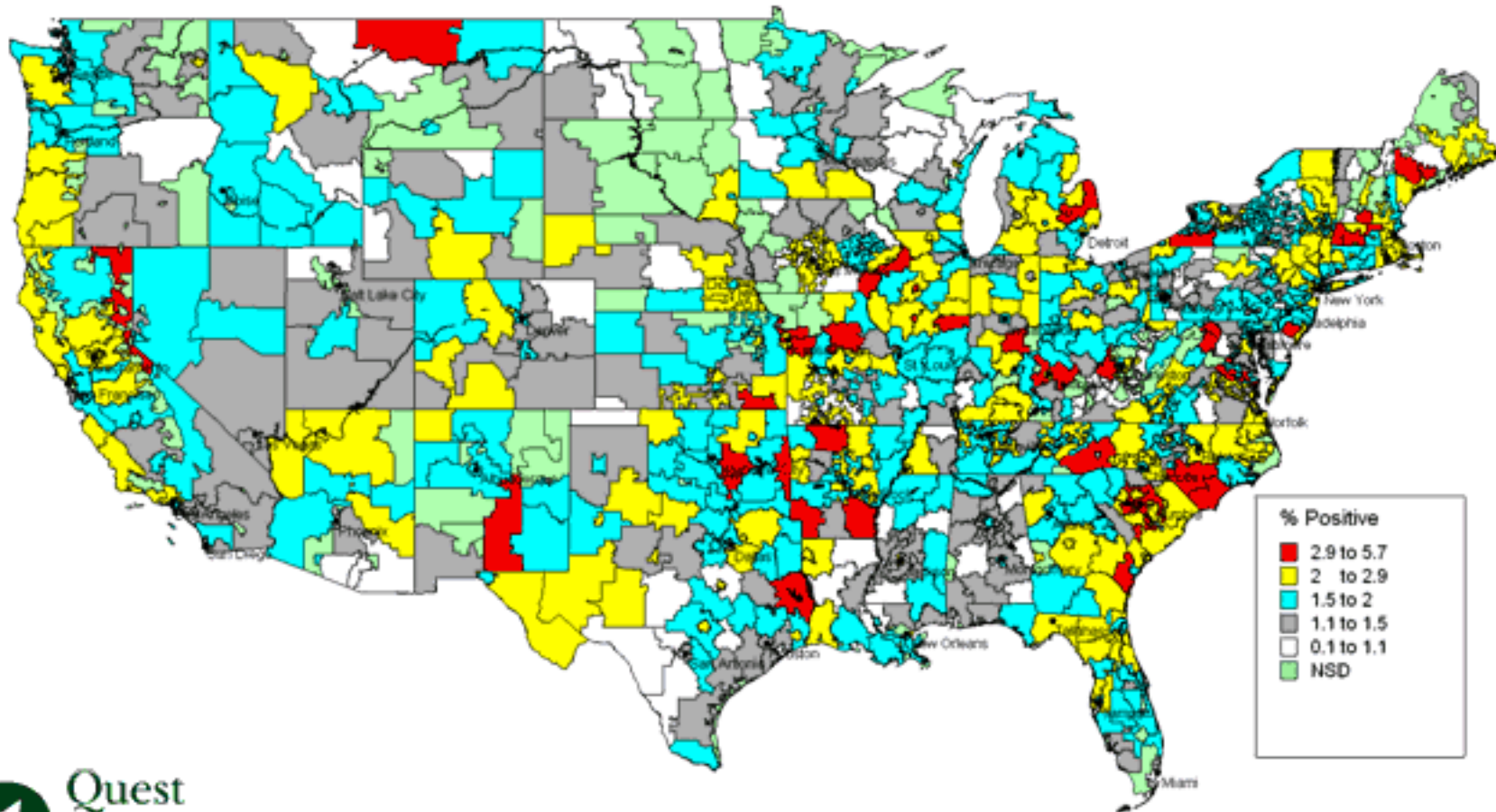
January–December 2008



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# Marijuana Positivity by 3-Digit Zipcode

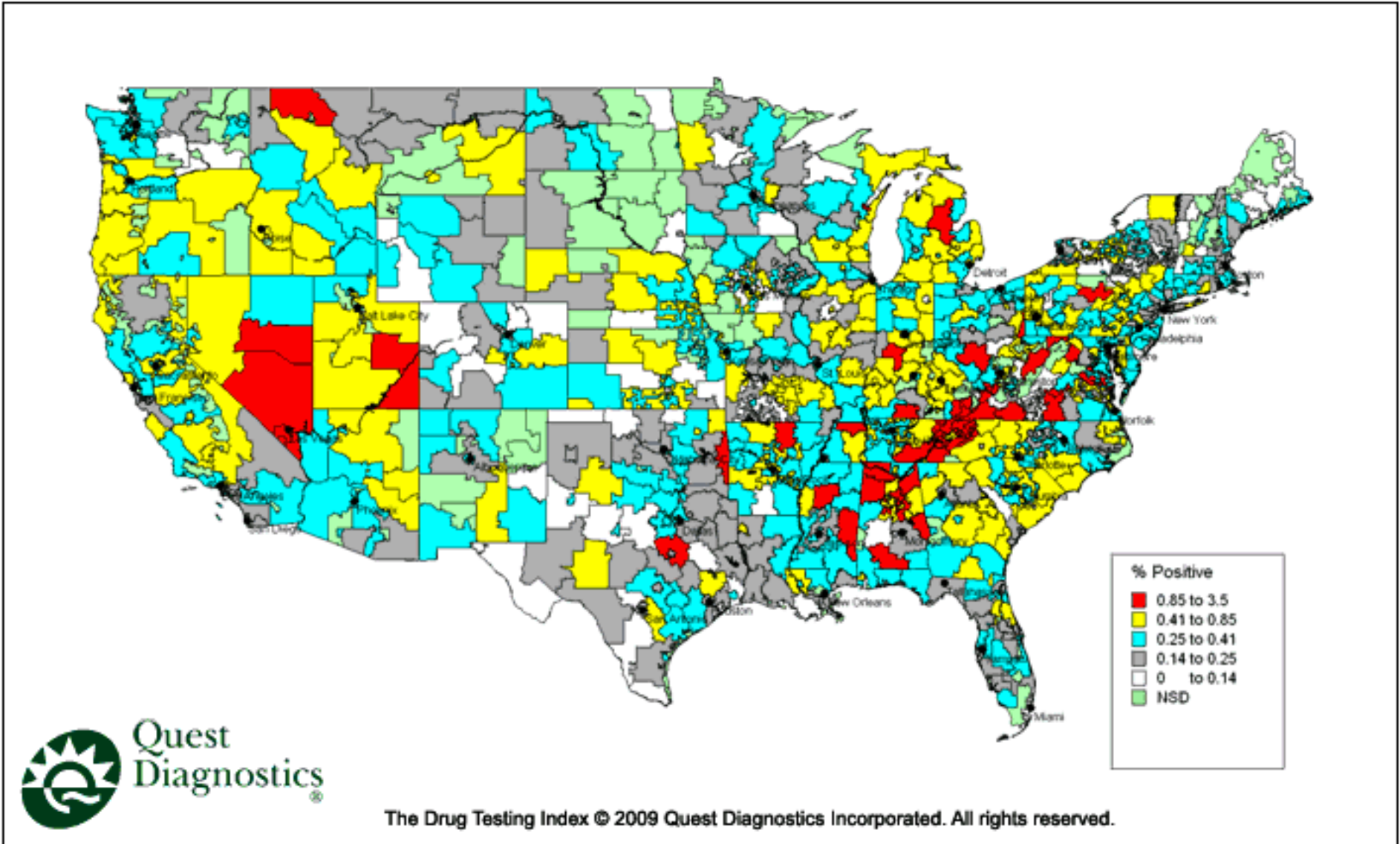
January–December 2008



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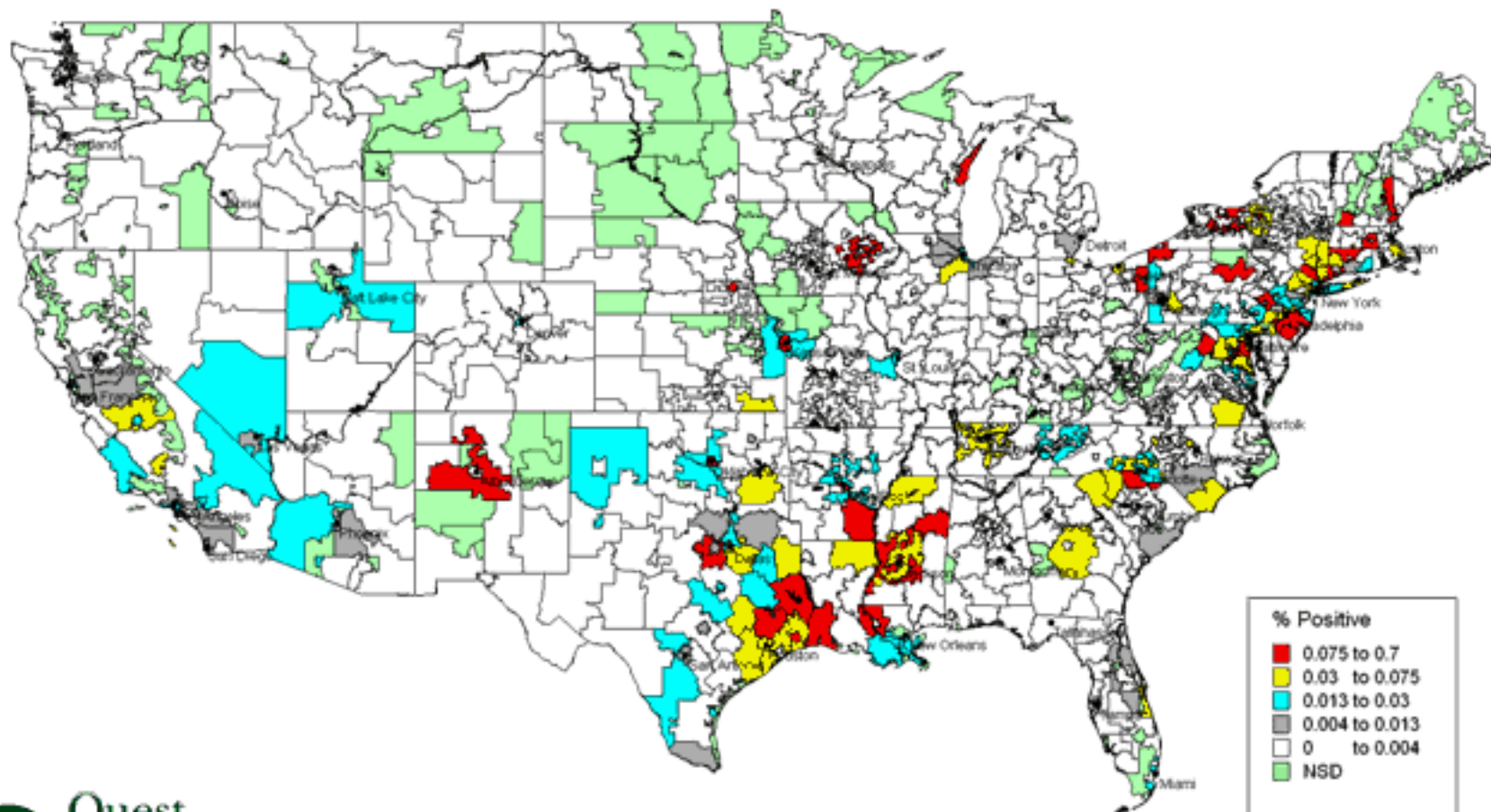
# Opiates Positivity by 3-Digit Zipcode

January–December 2008



# PCP Positivity by 3-Digit Zipcode

January–December 2008



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