

# Executive Summary Report

## SMOG CHECK Statewide

### December 2015

#### 1. Testing Volume

	All Tests	Failed	Percent (%) Failed
Initial Test	869,220	98,785	11.36%
Total	975,278	122,001	12.51%

#### 2. Certification Volume

	Certificates Issued	Percent (%) Certificates Issued	No Certificates Issued	Percent (%) No Certificates Issued
Initial Test	760,026	87.44%	109,194	12.56%
Total	841,464	86.28%	133,814	13.72%

#### 3. Certification Volume by Station Type\*

Station Types	Certificates Issued on Initial Test	Percent (%) Certificates Issued	No Certificates Issued on Initial Test	Percent (%) No Certificates Issued
STAR Test Only	377,150	87.03%	56,200	12.97%
Non-STAR Test Only	21,892	89.98%	2,438	10.02%
STAR Test and Repair	219,900	86.75%	33,584	13.25%
Non-STAR Test and Repair	136,976	90.69%	14,067	9.31%
Total	755,918	87.67%	106,289	12.33%

\*Note: Excludes Basic area dealer, Fleets, and Referee stations

#### 4. Initial Test Failures by Failure Type

	OIS		BAR-97	
	Failed	Percent (%) Failed	Failed	Percent (%) Failed
All Emissions	NA	NA	27,953	14.20%
All Visual	8,962	1.33%	8,937	4.56%
All Functional	49,785	7.40%	25,304	12.90%
OBDII	48,732	7.24%	14,019	7.15%
Overall	55,711	8.28%	43,074	22.00%

#### 5. Initial Tests at All STAR Stations

Vehicles	Test and Repair Station Initial Tests	Test-Only Station Initial Tests	Test and Repair Station Certificates Issued	Test-Only Station Certificates Issued
Directed	40,894	91,776	31,729	72,146
Non-Directed	212,590	341,574	188,171	305,004
Total	253,484	433,350	219,900	377,150

#### 6. Initial Tests at All Non-STAR Stations

Vehicles	Test and Repair Station Initial Tests	Test-Only Station Initial Tests	Test and Repair Station Certificates Issued	Test-Only Station Certificates Issued
Directed	356	106	139	49
Non-Directed	150,687	24,224	136,837	21,843
Total	151,043	24,330	136,976	21,892

#### 7. Initial Test Failures by Program Area

Program Areas	OIS			BAR-97		
	Initial Tests	Failed	Percent (%) Failed	Initial Tests	Failed	Percent (%) Failed
Enhanced	586,291	48,875	8.34%	156,054	35,638	22.80%
Partial	28,676	2,415	8.42%	10,853	2,493	23.00%
Basic	52,536	3,962	7.54%	22,441	3,320	14.80%
Change of Ownership	5,518	459	8.32%	1,737	406	23.40%
No Program	0	0	0.00%	2	0	0.00%
Unknown	0	0	0.00%	5,112	1,217	23.80%
Total Program Area	673,021	55,711	8.28%	196,199	43,074	22.00%

#### 8. Initial Test Failures by Station Type

Station Types	OIS			BAR-97		
	Initial Tests	Failed	Percent (%) Failed	Initial Tests	Failed	Percent (%) Failed
STAR Test Only	322,286	29,090	9.03%	111,064	25,060	22.60%
STAR Test Only Suspended	24	0	0.00%	4	1	25.00%
Non-STAR Test Only	20,699	1,475	7.13%	3,631	721	19.90%
STAR Test and Repair	195,115	16,787	8.60%	58,369	13,692	23.50%
STAR Test and Repair Suspended	0	0	0.00%	1	0	0.00%
Non-STAR Test and Repair	129,702	7,983	6.15%	21,341	3,239	15.20%
Test and Repair/Dealer	3,639	203	5.58%	436	37	8.49%
Business Fleet	7	1	14.30%	0	0	0.00%
Permanent Fleet Registered	0	0	0.00%	2	0	0.00%
Referee	203	69	34.00%	379	214	56.50%
Govt Fleet	1,346	103	7.65%	972	110	11.30%
Total	673,021	55,711	8.28%	196,199	43,074	22.00%

## Executive Summary Report

### SMOG CHECK Statewide

#### December 2015

#### 9. Number of Licensed Stations by Type/Privilege and Program Area

Station Type	Basic	Change of Ownership	Enhanced	Partial	Total
STAR Regular Test and Repair CAP Enhanced	0	0	2,203	96	2,299
STAR Regular Test and Repair CAP Basic	153	0	0	0	153
STAR Regular Test and Repair CAP COO	0	64	0	0	64
STAR Test Only	14	1	1,873	27	1,915
Non-STAR Regular Test and Repair	484	37	2,265	245	3,031
Non-STAR Test Only	18	1	410	15	444
Repair Only	2	1	48	0	51
Basic Area Dealer	76	0	0	0	76
Business Fleet	0	0	3	0	3
Permanent Fleet Registered	4	0	28	1	33
Referee	5	0	27	0	32
Government Fleet	40	2	271	11	324
Unknown Type	0	0	1	0	1
<b>Total</b>	<b>796</b>	<b>106</b>	<b>7,129</b>	<b>395</b>	<b>8,426</b>

#### 10. Number of Stations Conducting Test by Equipment Type

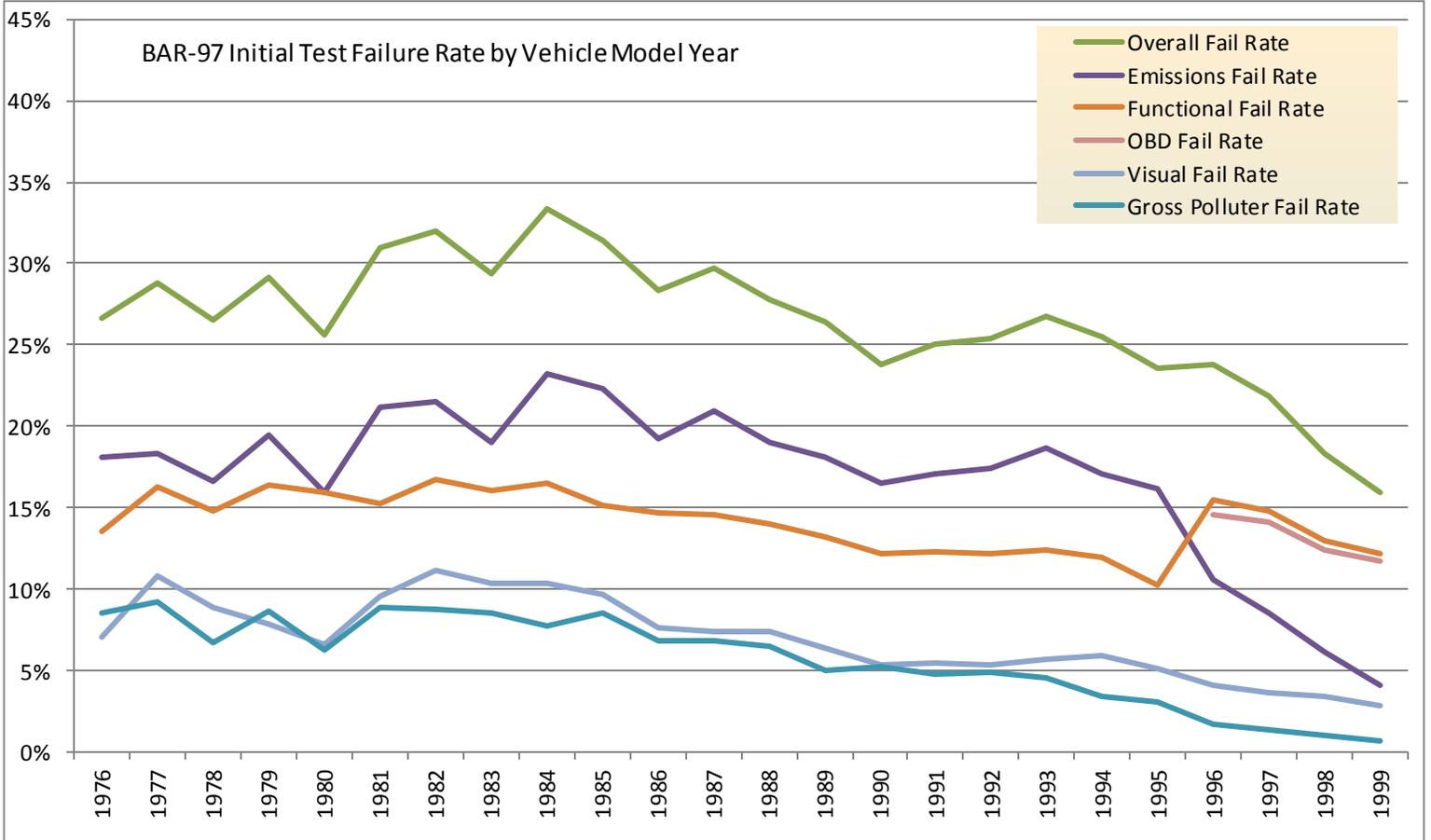
Station Type	Equipment Type		
	BAR-97 Only	OIS Only	BAR-97 & OIS
STAR Regular Test and Repair CAP Enhanced	2	126	2,158
STAR Regular Test and Repair CAP Basic	1	3	93
STAR Regular Test and Repair CAP COO	0	7	59
STAR Test Only	1	20	1,838
Non-STAR Regular Test and Repair	6	1,330	1,115
Non-STAR Test Only	3	59	172
Basic Area Dealer	0	18	55
Business Fleet	0	1	0
Permanent Fleet Registered	1	0	0
Referee	0	0	31
Government Fleet	41	59	56
Unknown Type	1	0	0
<b>Total</b>	<b>56</b>	<b>1,623</b>	<b>5,577</b>

# Executive Summary Report

## SMOG CHECK Statewide

### December 2015

#### 11. BAR-97 Initial Test Failure Rate by Vehicle Model Year



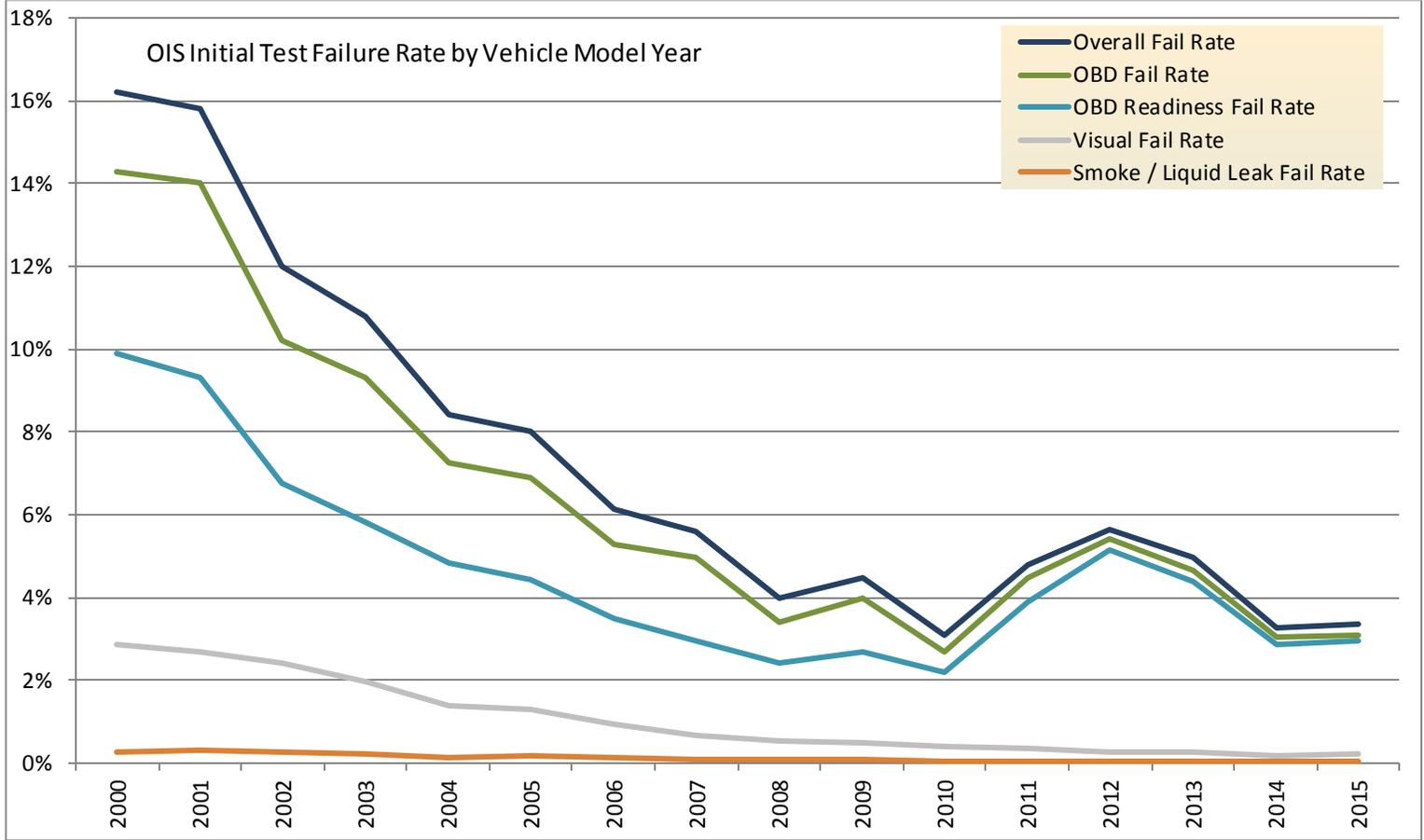
Note: Please see tabular data in Table 17 for BAR-97 tests conducted on other vehicle model years not shown in chart.

# Executive Summary Report

## SMOG CHECK Statewide

### December 2015

#### 12. OIS Initial Test Failure Rate by Vehicle Model Year



Note: Please see tabular data in Table 18 for OIS tests conducted on other vehicle model years not shown in chart.

## Executive Summary Report

### SMOG CHECK Statewide December 2015

#### 13. Referee Activity

	OIS Certificates Issued	BAR-97 Certificates Issued
Certificate of Compliance	213	288
Certificate of Non Compliance	0	0
Parts Cost	78	25
Hardship Extensions	1	1
Exempt Vehicle	0	33
Exempted by Directive	10	71
Parts Exemption	38	5
Unknown Outcome	0	0
Permanently Exempt Vehicle	0	0
Temporarily Exempt Vehicle	0	0
<b>Total</b>	<b>340</b>	<b>423</b>

#### 14. Active Technicians

License Type	Technician Count
EA (Test and Repair Enhanced)	2
EB (Test and Repair Basic)	1
EI (Repair Only)	1
EO (Test Only)	2,509
EO (Test and Repair)	5,112
<b>Total</b>	<b>7,625</b>

#### 15. Inspection Costs by Station and Test Type

Station Type	BAR-97 Initial Test Count	Average BAR-97 Inspection Cost	OIS Initial Test Count	Average OIS Inspection Cost	Total Initial Test Count	Overall Average Inspection Cost
STAR Test and Repair	57,929	\$48.36	192,839	\$46.65	250,768	\$47.05
STAR Test Only	110,246	\$47.44	316,765	\$48.61	427,011	\$48.31
Non-STAR Test and Repair	21,184	\$44.57	123,223	\$53.64	144,407	\$52.31
Non-STAR Test Only	3,482	\$42.05	14,186	\$45.16	17,668	\$44.55
Test and Repair/Dealer	431	\$43.56	3,490	\$56.71	3,921	\$55.26
<b>Total</b>	<b>193,272</b>	<b>\$47.29</b>	<b>650,527</b>	<b>\$48.95</b>	<b>843,799</b>	<b>\$48.57</b>

#### 16. Inspection Costs by Station and Equipment Type

Station Type	BAR-97 Equipment Only		OIS Equipment Only		Both Equipment (BAR-97 + OIS)			
	BAR-97 Initial Test Count	Average BAR-97 Inspection Cost	OIS Initial Test Count	Average OIS Inspection Cost	BAR-97 Initial Test Count	Average BAR-97 Inspection Cost	OIS Initial Test Count	Average OIS Inspection Cost
STAR Test and Repair	38	\$43.30	4,773	\$52.23	57,891	\$48.36	188,066	\$46.51
STAR Test Only	2	\$21.75	1,913	\$37.90	110,244	\$47.44	314,852	\$48.68
Non-STAR Test and Repair	13	\$44.85	51,786	\$64.39	21,171	\$44.57	71,437	\$45.85
Non-STAR Test Only	41	\$57.91	3,053	\$46.20	3,441	\$41.86	11,133	\$44.87
Test and Repair/Dealer	0	\$0.00	852	\$62.46	431	\$43.56	2,638	\$54.85
<b>Total</b>	<b>94</b>	<b>\$49.43</b>	<b>62,377</b>	<b>\$61.73</b>	<b>193,178</b>	<b>\$47.29</b>	<b>588,150</b>	<b>\$47.60</b>

## Executive Summary Report

### SMOG CHECK Statewide

#### December 2015

17. Tabular Data for BAR-97 Initial Tests by Vehicle Model Year

Model Year	Initial Tests	Failed Overall	Percent (%) Failed Overall	Percent (%) Failed Emissions	Percent (%) Failed Gross Polluters	Percent (%) Failed Functional	Percent (%) Failed Visual	Percent (%) Failed OBDII
1934	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	NA
1957	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	NA
1974	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	NA
1976	548	146	26.64%	18.07%	8.58%	13.50%	7.12%	NA
1977	673	194	28.83%	18.28%	9.21%	16.34%	10.85%	NA
1978	777	206	26.51%	16.60%	6.69%	14.80%	8.88%	NA
1979	892	260	29.15%	19.51%	8.63%	16.37%	7.85%	NA
1980	546	140	25.64%	15.93%	6.23%	15.93%	6.59%	NA
1981	595	184	30.92%	21.18%	8.91%	15.29%	9.58%	NA
1982	647	207	31.99%	21.48%	8.81%	16.69%	11.13%	NA
1983	782	230	29.41%	19.05%	8.57%	16.11%	10.36%	NA
1984	1,449	484	33.40%	23.19%	7.80%	16.49%	10.42%	NA
1985	1,891	595	31.46%	22.32%	8.57%	15.18%	9.68%	NA
1986	2,762	783	28.35%	19.19%	6.88%	14.70%	7.64%	NA
1987	3,307	982	29.69%	20.90%	6.80%	14.54%	7.38%	NA
1988	3,621	1,006	27.78%	18.97%	6.49%	14.00%	7.46%	NA
1989	5,126	1,354	26.41%	18.10%	5.05%	13.21%	6.34%	NA
1990	6,285	1,498	23.83%	16.47%	5.20%	12.22%	5.39%	NA
1991	7,853	1,967	25.05%	17.11%	4.85%	12.30%	5.45%	NA
1992	7,646	1,943	25.41%	17.45%	4.96%	12.16%	5.32%	NA
1993	9,995	2,670	26.71%	18.64%	4.55%	12.40%	5.67%	NA
1994	12,722	3,250	25.55%	17.12%	3.41%	11.92%	5.90%	NA
1995	17,577	4,149	23.60%	16.17%	3.08%	10.20%	5.12%	NA
1996	16,424	3,910	23.81%	10.61%	1.69%	15.47%	4.09%	14.57%
1997	25,161	5,499	21.86%	8.60%	1.40%	14.77%	3.66%	14.16%
1998	27,577	5,042	18.28%	6.18%	1.08%	12.95%	3.44%	12.38%
1999	37,309	5,971	16.00%	4.11%	0.75%	12.16%	2.84%	11.75%
2000	503	132	26.24%	10.74%	4.37%	18.49%	2.19%	18.09%
2001	417	69	16.55%	5.76%	0.72%	11.99%	2.88%	11.75%
2002	329	41	12.46%	6.08%	2.13%	6.99%	2.43%	6.38%
2003	409	38	9.29%	3.91%	1.71%	6.36%	1.47%	6.36%
2004	309	32	10.36%	3.88%	1.62%	7.44%	1.94%	7.12%
2005	390	29	7.44%	3.85%	0.77%	5.13%	1.54%	4.62%
2006	401	11	2.74%	2.00%	0.00%	1.75%	0.50%	1.75%
2007	319	17	5.33%	3.76%	0.31%	3.45%	0.31%	3.13%
2008	309	14	4.53%	3.24%	0.32%	2.27%	1.62%	2.27%
2009	183	14	7.65%	3.28%	1.09%	6.01%	0.00%	5.46%
2010	47	2	4.26%	4.26%	0.00%	4.26%	0.00%	4.26%
2011	32	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2012	24	2	8.33%	8.33%	0.00%	4.17%	8.33%	4.17%
2013	28	1	3.57%	0.00%	0.00%	0.00%	3.57%	0.00%
2014	36	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2015	143	2	1.40%	1.40%	0.00%	0.00%	1.40%	0.00%
2016	152	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All Model Years	196,199	43,074	21.95%	11.49%	2.76%	12.90%	4.56%	7.15%

Note: Some model year 1975 and older vehicles required a Referee inspection (for example, engine changes). Vehicle model years 2000 and newer were tested on the BAR-97 because they may not be compatible with the OIS test (for example, a non-OBD-II certified vehicle).

See Table 19 for Smog Check requirements.

## Executive Summary Report

### SMOG CHECK Statewide December 2015

#### 18. Tabular Data for OIS Initial Tests by Vehicle Model Year

Model Year	Initial Tests	Failed Overall	Percent (%) Failed Overall	Percent (%) Failed Functional	Percent (%) Failed Visual	Percent (%) Failed OBDII	Percent (%) Failed OBDII Readiness	Percent (%) Failed Smoke and/or Liquid Leak
1993	2	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1995	3	1	33.30%	33.30%	0.00%	33.30%	33.30%	0.00%
1996	8	2	25.00%	12.50%	12.50%	12.50%	0.00%	0.00%
1997	16	4	25.00%	25.00%	0.00%	25.00%	25.00%	0.00%
1998	322	66	20.50%	16.80%	3.73%	14.90%	8.70%	1.86%
1999	1,040	163	15.70%	14.30%	2.02%	13.60%	9.42%	0.77%
2000	45,093	7,294	16.20%	14.60%	2.87%	14.30%	9.89%	0.28%
2001	54,201	8,572	15.80%	14.30%	2.70%	14.00%	9.31%	0.30%
2002	51,679	6,214	12.00%	10.50%	2.43%	10.20%	6.76%	0.25%
2003	63,492	6,881	10.80%	9.54%	1.97%	9.32%	5.81%	0.22%
2004	57,003	4,788	8.40%	7.40%	1.41%	7.26%	4.84%	0.15%
2005	73,034	5,846	8.00%	7.08%	1.31%	6.91%	4.44%	0.16%
2006	63,579	3,892	6.12%	5.43%	0.92%	5.28%	3.48%	0.14%
2007	77,459	4,320	5.58%	5.05%	0.69%	4.96%	2.97%	0.09%
2008	49,711	1,972	3.97%	3.51%	0.55%	3.42%	2.44%	0.08%
2009	38,563	1,718	4.46%	4.07%	0.48%	4.00%	2.69%	0.07%
2010	35,981	1,118	3.11%	2.74%	0.42%	2.68%	2.18%	0.06%
2011	13,003	624	4.80%	4.52%	0.35%	4.49%	3.91%	0.03%
2012	17,342	982	5.66%	5.44%	0.29%	5.41%	5.16%	0.03%
2013	11,059	548	4.96%	4.71%	0.29%	4.67%	4.37%	0.05%
2014	10,866	355	3.27%	3.10%	0.19%	3.05%	2.88%	0.06%
2015	8,477	283	3.34%	3.14%	0.21%	3.08%	2.96%	0.06%
2016	1,088	68	6.25%	5.97%	0.28%	5.97%	5.79%	0.00%
All Model Years	673,021	55,711	8.28%	7.40%	1.33%	7.24%	4.89%	0.16%

Note: Some model year 1999 and older vehicles required a Referee inspection, were tested at Beta stations, or were 1998/1999 model year diesels.

See Table 19 for Smog Check requirements.

# Executive Summary Report

## SMOG CHECK Statewide

December 2015

### 19. Smog Check Requirements by Vehicle Type

SMOG CHECK REQUIREMENTS						
BY VEHICLE TYPE						
Fuel Type	Model-Year	GVWR <sup>1</sup>	OBD II Equipped?	Smog Check Required		
				None	OIS Test	BAR-97 Test
All <sup>2</sup> (except Diesel)	Four model-years and newer <sup>3</sup>	All	All	X		
	Fifth and sixth model-years <sup>4</sup>	All	All	X		
	1975 and earlier	All	All	X		
Gasoline & Flex Fuel (Methanol or Ethanol)	1976-1999	All	All			X
	2000 and newer	14,000 and less	Yes <sup>5</sup>		X	
		Over 14,000	All	No		
Hybrid	2000 and newer	14,000 and less	All		X	
Dedicated Propane and Natural Gas (CNG, LNG, or LPG)	1976-1999	14,000 and less	All			X
		Over 14,000	All	X		
	2000 and newer	14,000 and less	Yes		X	
		Over 14,000	All	No		
Diesel	1976-1997	All	All	X		
	1998 and newer	14,000 and less	All		X	
		Over 14,000	All		X <sup>6</sup>	
Full Electric Powered	All	All	All	X		
Motorcycle	All	All	All	X		
Other Vehicles: Two Cylinder Engine, Two-stroke Engine, Off-highway Registered	All	All	All	X		

<sup>1</sup> Gross vehicle weight rating

<sup>2</sup> Includes gasoline, flex fuel, hybrid, dedicated propane, and natural gas vehicles. A Smog Check is required for all out-of-state 1976 model-year and newer vehicles registering in California for the first time and other initial registration events determined by the Department of Motor Vehicles.

<sup>3</sup> Vehicles four model-years and newer are not subject to biennial (every other year) or change-of-ownership Smog Checks. Add four to the model-year of a vehicle to determine the first year a vehicle will be subject to a change-of-ownership Smog Check. For example, a 2010 model-year vehicle will be first subject a change-of-ownership Smog Check in 2014 (2010+4=2014).

<sup>4</sup> Fifth and sixth model-year vehicles are not subject to biennial Smog Checks. However, a change-of-ownership Smog Check is required. Add six to the model-year of a vehicle to determine the first year a vehicle will be subject to a biennial Smog Check. For example, a 2010 model-year vehicle will be first subject to a biennial Smog Check in 2016 (2010+6=2016).

<sup>5</sup> In the future, BAR may identify some vehicles that have GVWR of 14,000 and less or that have problematic OBDII systems that may require the BAR-97 test.

<sup>6</sup> Fleet vehicles are subject to the ARB Periodic Smoke Inspection Program (PSIP).