

Executive Summary Report

SMOG CHECK Statewide

January 2016

1. Testing Volume

	All Tests	Failed	Percent (%) Failed
Initial Test	951,563	106,859	11.23%
Total	1,063,597	130,892	12.31%

2. Certification Volume

	Certificates Issued	Percent (%) Certificates Issued	No Certificates Issued	Percent (%) No Certificates Issued
Initial Test	837,489	88.01%	114,074	11.99%
Total	924,420	86.91%	139,177	13.09%

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	419,683	87.49%	59,983	12.51%
Non-STAR Test Only	23,809	90.94%	2,373	9.06%
STAR Test and Repair	243,361	87.60%	34,450	12.40%
Non-STAR Test and Repair	146,400	91.68%	13,286	8.32%
Total	833,253	88.33%	110,092	11.67%

*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	29,286	14.50%
All Visual	10,186	1.36%	9,437	4.68%
All Functional	54,990	7.33%	26,358	13.10%
OBDII	53,859	7.18%	14,912	7.40%
Overall	61,681	8.22%	45,178	22.40%

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	42,795	96,812	32,919	75,934
Non-Directed	235,016	382,854	210,442	343,749
Total	277,811	479,666	243,361	419,683

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	347	105	146	65
Non-Directed	159,339	26,077	146,254	23,744
Total	159,686	26,182	146,400	23,809

7. Initial Test Failures by Program Area

Program Areas	OIS			BAR-97		
	Initial Tests	Failed	Percent (%) Failed	Initial Tests	Failed	Percent (%) Failed
Enhanced	656,536	54,411	8.29%	161,818	37,563	23.20%
Partial	31,297	2,551	8.15%	11,034	2,565	23.20%
Basic	56,441	4,244	7.52%	21,616	3,298	15.30%
Change of Ownership	5,673	475	8.37%	1,759	405	23.00%
No Program	0	0	0.00%	1	0	0.00%
Unknown	0	0	0.00%	5,388	1,347	25.00%
Total Program Area	749,947	61,681	8.22%	201,616	45,178	22.40%

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	363,822	32,395	8.90%	115,844	26,460	22.80%
STAR Test Only Suspended	0	0	0.00%	0	0	0.00%
Non-STAR Test Only	22,746	1,567	6.89%	3,436	655	19.10%
STAR Test and Repair	218,026	18,828	8.64%	59,785	14,365	24.00%
STAR Test and Repair Suspended	0	0	0.00%	0	0	0.00%
Non-STAR Test and Repair	139,205	8,469	6.08%	20,481	3,237	15.80%
Test and Repair/Dealer	3,835	227	5.92%	446	55	12.30%
Business Fleet	1	0	0.00%	2	0	0.00%
Permanent Fleet Registered	0	0	0.00%	0	0	0.00%
Referee	188	63	33.50%	322	171	53.10%
Govt Fleet	2,124	132	6.21%	1,300	235	18.10%
Total	749,947	61,681	8.22%	201,616	45,178	22.40%

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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	2,202	98	2,300
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	1,904	27	1,946
Non-STAR Regular Test and Repair	479	38	2,277	248	3,042
Non-STAR Test Only	18	1	378	17	414
Repair Only	2	1	49	0	52
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	273	11	326
Unknown Type	0	0	1	0	1
Total	791	107	7,142	402	8,442

10. Number of Stations Conducting Test by Equipment Type

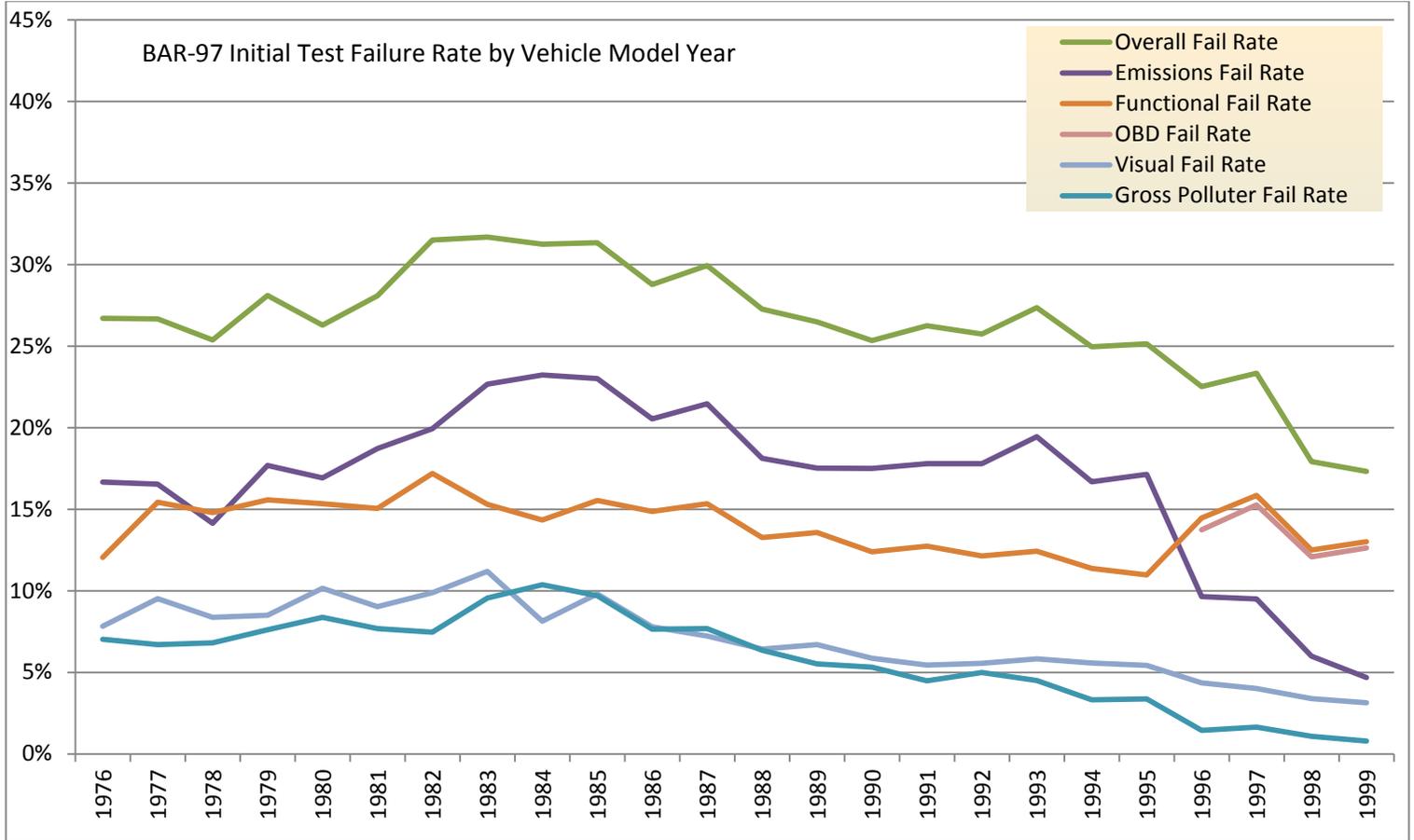
Station Type	Equipment Type		
	BAR-97 Only	OIS Only	BAR-97 & OIS
STAR Regular Test and Repair CAP Enhanced	2	137	2,131
STAR Regular Test and Repair CAP Basic	0	2	96
STAR Regular Test and Repair CAP COO	0	9	61
STAR Test Only	1	32	1,849
Non-STAR Regular Test and Repair	5	1,342	1,085
Non-STAR Test Only	5	63	150
Basic Area Dealer	0	18	55
Business Fleet	1	1	0
Permanent Fleet Registered	0	0	0
Referee	0	0	31
Government Fleet	25	70	51
Unknown Type	0	0	0
Total	39	1,674	5,509

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



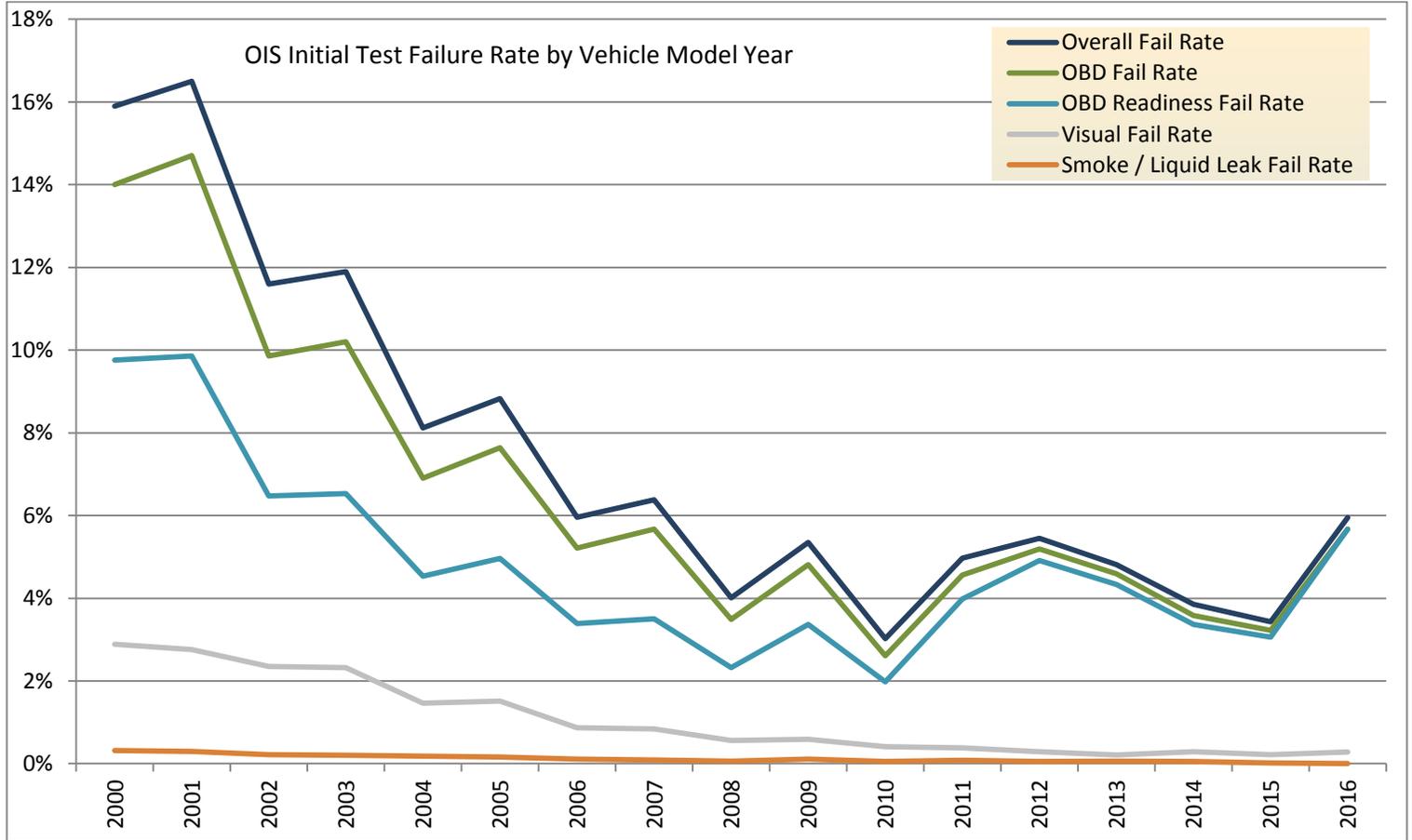
Note: Please see tabular data in Table 17 for BAR-97 tests conducted on other vehicle model years not shown in chart.

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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.

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13. Referee Activity

	OIS Certificates Issued	BAR-97 Certificates Issued
Certificate of Compliance	234	253
Certificate of Non Compliance	0	0
Parts Cost	76	21
Hardship Extensions	1	0
Exempt Vehicle	0	19
Exempted by Directive	2	65
Parts Exemption	26	2
Unknown Outcome	0	0
Permanently Exempt Vehicle	0	0
Temporarily Exempt Vehicle	0	0
Total	339	360

14. Active Technicians

License Type	Technician Count
EA (Inspect and Repair Enhanced)	1
EB (Inspect and Repair Basic)	1
EI (Repair Only)	1
EO (Inspect Only)	2,545
EO + EI (Inspect and Repair)	5,027
Total	7,575

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	61,967	\$48.65	215,109	\$46.62	277,076	\$47.07
STAR Test Only	119,224	\$47.07	355,207	\$48.64	474,431	\$48.24
Non-STAR Test and Repair	21,217	\$44.65	130,651	\$53.45	151,868	\$52.22
Non-STAR Test Only	3,517	\$41.48	15,019	\$44.72	18,536	\$44.11
Test and Repair/Dealer	471	\$50.48	3,654	\$57.13	4,125	\$56.37
Total	206,396	\$47.21	719,640	\$48.87	926,036	\$48.50

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	42	\$40.15	5,365	\$51.39	61,924	\$48.66	209,744	\$46.50
STAR Test Only	110	\$35.00	2,738	\$38.66	119,114	\$47.08	352,469	\$48.71
Non-STAR Test and Repair	7	\$44.10	55,652	\$62.40	21,207	\$44.64	74,999	\$46.81
Non-STAR Test Only	79	\$30.98	3,172	\$45.34	3,438	\$41.72	11,847	\$44.56
Test and Repair/Dealer	0	\$0.00	833	\$63.02	471	\$50.48	2,821	\$55.39
Total	238	\$34.84	67,760	\$59.78	206,154	\$47.22	651,880	\$47.73

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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
1976	498	133	26.71%	16.67%	7.03%	12.05%	7.83%	NA
1977	641	171	26.68%	16.54%	6.71%	15.44%	9.52%	NA
1978	764	194	25.39%	14.14%	6.81%	14.79%	8.38%	NA
1979	893	251	28.11%	17.69%	7.61%	15.57%	8.51%	NA
1980	502	132	26.29%	16.93%	8.37%	15.34%	10.16%	NA
1981	598	168	28.09%	18.73%	7.69%	15.05%	9.03%	NA
1982	657	207	31.51%	19.94%	7.46%	17.20%	9.89%	NA
1983	732	232	31.69%	22.68%	9.56%	15.30%	11.20%	NA
1984	1,437	449	31.25%	23.24%	10.37%	14.34%	8.14%	NA
1985	1,968	617	31.35%	23.02%	9.71%	15.55%	9.81%	NA
1986	2,731	786	28.78%	20.54%	7.65%	14.87%	7.80%	NA
1987	3,166	948	29.94%	21.48%	7.68%	15.35%	7.23%	NA
1988	3,828	1,044	27.27%	18.13%	6.35%	13.27%	6.43%	NA
1989	5,412	1,434	26.50%	17.52%	5.52%	13.58%	6.71%	NA
1990	6,555	1,661	25.34%	17.51%	5.32%	12.39%	5.87%	NA
1991	7,887	2,070	26.25%	17.79%	4.49%	12.74%	5.44%	NA
1992	8,108	2,087	25.74%	17.80%	5.00%	12.15%	5.56%	NA
1993	10,347	2,831	27.36%	19.45%	4.50%	12.43%	5.83%	NA
1994	13,718	3,426	24.97%	16.69%	3.32%	11.38%	5.58%	NA
1995	16,357	4,114	25.15%	17.14%	3.37%	10.97%	5.43%	NA
1996	19,346	4,359	22.53%	9.65%	1.45%	14.46%	4.36%	13.75%
1997	23,944	5,589	23.34%	9.50%	1.65%	15.86%	4.01%	15.27%
1998	33,142	5,938	17.92%	5.99%	1.09%	12.50%	3.39%	12.09%
1999	34,741	6,018	17.32%	4.68%	0.80%	13.01%	3.14%	12.64%
2000	588	109	18.54%	6.80%	3.23%	12.93%	2.04%	12.41%
2001	325	68	20.92%	5.54%	1.54%	17.23%	2.77%	17.23%
2002	363	29	7.99%	3.58%	0.83%	4.13%	1.38%	3.86%
2003	298	27	9.06%	3.69%	1.68%	5.70%	1.01%	5.37%
2004	437	21	4.81%	2.29%	0.69%	3.20%	0.23%	2.97%
2005	241	19	7.88%	4.98%	1.66%	3.32%	2.07%	2.90%
2006	480	21	4.38%	2.92%	1.46%	1.04%	1.25%	1.04%
2007	183	8	4.37%	1.09%	0.00%	3.28%	0.00%	3.28%
2008	306	6	1.96%	0.98%	0.33%	0.65%	0.33%	0.65%
2009	66	4	6.06%	3.03%	3.03%	3.03%	0.00%	3.03%
2010	63	1	1.59%	0.00%	0.00%	1.59%	0.00%	1.59%
2011	46	2	4.35%	2.17%	0.00%	2.17%	2.17%	2.17%
2012	25	1	4.00%	4.00%	0.00%	4.00%	0.00%	4.00%
2013	25	1	4.00%	4.00%	0.00%	0.00%	4.00%	0.00%
2014	34	1	2.94%	0.00%	0.00%	2.94%	0.00%	2.94%
2015	106	1	0.94%	0.94%	0.00%	0.00%	0.94%	0.00%
2016	58	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All Model Years	201,616	45,178	22.41%	11.71%	2.82%	13.07%	4.68%	7.40%

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.

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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
1985	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1986	2	1	50.00%	50.00%	0.00%	50.00%	50.00%	0.00%
1990	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1992	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1993	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1995	2	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1996	7	2	28.60%	14.30%	28.60%	14.30%	14.30%	0.00%
1997	14	3	21.40%	21.40%	0.00%	21.40%	14.30%	0.00%
1998	311	46	14.80%	13.50%	2.57%	12.50%	8.04%	0.96%
1999	1,072	194	18.10%	16.00%	3.36%	15.40%	11.60%	0.56%
2000	59,375	9,461	15.90%	14.40%	2.89%	14.00%	9.76%	0.32%
2001	46,257	7,612	16.50%	15.00%	2.76%	14.70%	9.86%	0.30%
2002	69,354	8,063	11.60%	10.10%	2.35%	9.86%	6.47%	0.22%
2003	50,066	5,981	11.90%	10.40%	2.32%	10.20%	6.53%	0.20%
2004	81,769	6,639	8.12%	7.08%	1.46%	6.90%	4.53%	0.18%
2005	54,574	4,818	8.83%	7.80%	1.51%	7.64%	4.96%	0.16%
2006	97,499	5,808	5.96%	5.32%	0.87%	5.21%	3.39%	0.11%
2007	53,991	3,445	6.38%	5.76%	0.84%	5.67%	3.50%	0.09%
2008	78,927	3,165	4.01%	3.56%	0.56%	3.49%	2.32%	0.06%
2009	23,587	1,262	5.35%	4.92%	0.59%	4.81%	3.37%	0.11%
2010	65,432	1,976	3.02%	2.66%	0.41%	2.61%	1.98%	0.05%
2011	13,192	656	4.97%	4.65%	0.38%	4.56%	3.98%	0.08%
2012	21,173	1,154	5.45%	5.23%	0.29%	5.19%	4.91%	0.05%
2013	12,199	587	4.81%	4.65%	0.21%	4.59%	4.33%	0.06%
2014	11,086	427	3.85%	3.63%	0.29%	3.58%	3.37%	0.05%
2015	8,608	295	3.43%	3.24%	0.22%	3.22%	3.06%	0.02%
2016	1,446	86	5.95%	5.67%	0.28%	5.67%	5.67%	0.00%
All Model Years	749,947	61,681	8.22%	7.33%	1.36%	7.18%	4.88%	0.15%

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.

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19. Smog Check Requirements by Vehicle Type

SMOG CHECK REQUIREMENTS						
BY VEHICLE TYPE						
Fuel Type	Model-Year	GVWR ¹	OBD II Equipped?	Smog Check Required		
				None	OIS Test	BAR-97 Test
All ² (except Diesel)	Four model-years and newer ³	All	All	X		
	Fifth and sixth model-years ⁴	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 ⁵		X	
			No			X
	Over 14,000	All				X
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	
			No			X
	Over 14,000	All	X			
Diesel	1976-1997	All	All	X		
	1998 and newer	14,000 and less	All		X	
		Over 14,000	All	X ⁶		
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		

¹ Gross vehicle weight rating

² 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.

³ 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).

⁴ 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).

⁵ In the future, BAR may identify some vehicles that have GVWR of 14,000 and less or that have problematic OBD II systems that may require the BAR-97 test.

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