

Executive Summary Report

SMOG CHECK Statewide

November 2015

1. Testing Volume

	All Tests	Failed	Percent (%) Failed
Initial Test	804,976	94,346	11.72%
Total	906,983	116,879	12.89%

2. Certification Volume

	Certificates Issued	Percent (%) Certificates Issued	No Certificates Issued	Percent (%) No Certificates Issued
Initial Test	700,887	87.07%	104,089	12.93%
Total	779,159	85.91%	127,824	14.09%

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	352,767	86.59%	54,648	13.41%
Non-STAR Test Only	19,751	90.89%	1,979	9.11%
STAR Test and Repair	201,800	86.44%	31,654	13.56%
Non-STAR Test and Repair	122,973	90.47%	12,959	9.53%
Total	697,291	87.32%	101,240	12.68%

*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	28,449	14.40%
All Visual	8,408	1.38%	9,147	4.63%
All Functional	45,032	7.42%	25,324	12.80%
OBDII	43,982	7.24%	13,948	7.06%
Overall	50,559	8.33%	43,787	22.10%

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	40,476	92,180	31,267	72,172
Non-Directed	192,978	315,235	170,533	280,595
Total	233,454	407,415	201,800	352,767

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	343	82	134	52
Non-Directed	135,589	21,648	122,839	19,699
Total	135,932	21,730	122,973	19,751

7. Initial Test Failures by Program Area

Program Areas	OIS			BAR-97		
	Initial Tests	Failed	Percent (%) Failed	Initial Tests	Failed	Percent (%) Failed
Enhanced	529,365	44,431	8.39%	157,332	36,181	23.00%
Partial	26,111	2,133	8.17%	11,046	2,571	23.30%
Basic	46,651	3,549	7.61%	22,189	3,322	15.00%
Change of Ownership	5,156	446	8.65%	1,816	435	24.00%
No Program	0	0	0.00%	7	0	0.00%
Unknown	0	0	0.00%	5,303	1,278	24.10%
Total Program Area	607,283	50,559	8.33%	197,693	43,787	22.10%

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	294,973	26,852	9.10%	112,442	25,777	22.90%
STAR Test Only Suspended	60	2	3.33%	13	2	15.40%
Non-STAR Test Only	18,327	1,200	6.55%	3,403	613	18.00%
STAR Test and Repair	174,888	15,053	8.61%	58,566	13,716	23.40%
STAR Test and Repair Suspended	0	0	0.00%	1	1	100.00%
Non-STAR Test and Repair	114,653	7,155	6.24%	21,279	3,316	15.60%
Test and Repair/Dealer	3,068	169	5.51%	467	52	11.10%
Business Fleet	14	0	0.00%	2	0	0.00%
Permanent Fleet Registered	0	0	0.00%	8	0	0.00%
Referee	151	50	33.10%	362	197	54.40%
Govt Fleet	1,149	78	6.79%	1,150	113	9.83%
Total	607,283	50,559	8.33%	197,693	43,787	22.10%

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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	2,207	94	2,301
STAR Regular Test and Repair CAP Basic	153	0	0	0	153
STAR Regular Test and Repair CAP COO	0	65	0	0	65
STAR Test Only	14	1	1,888	27	1,930
Non-STAR Regular Test and Repair	479	36	2,252	245	3,012
Non-STAR Test Only	18	1	394	16	429
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	271	10	323
Unknown Type	0	0	2	0	2
Total	791	106	7,121	393	8,411

10. Number of Stations Conducting Test by Equipment Type

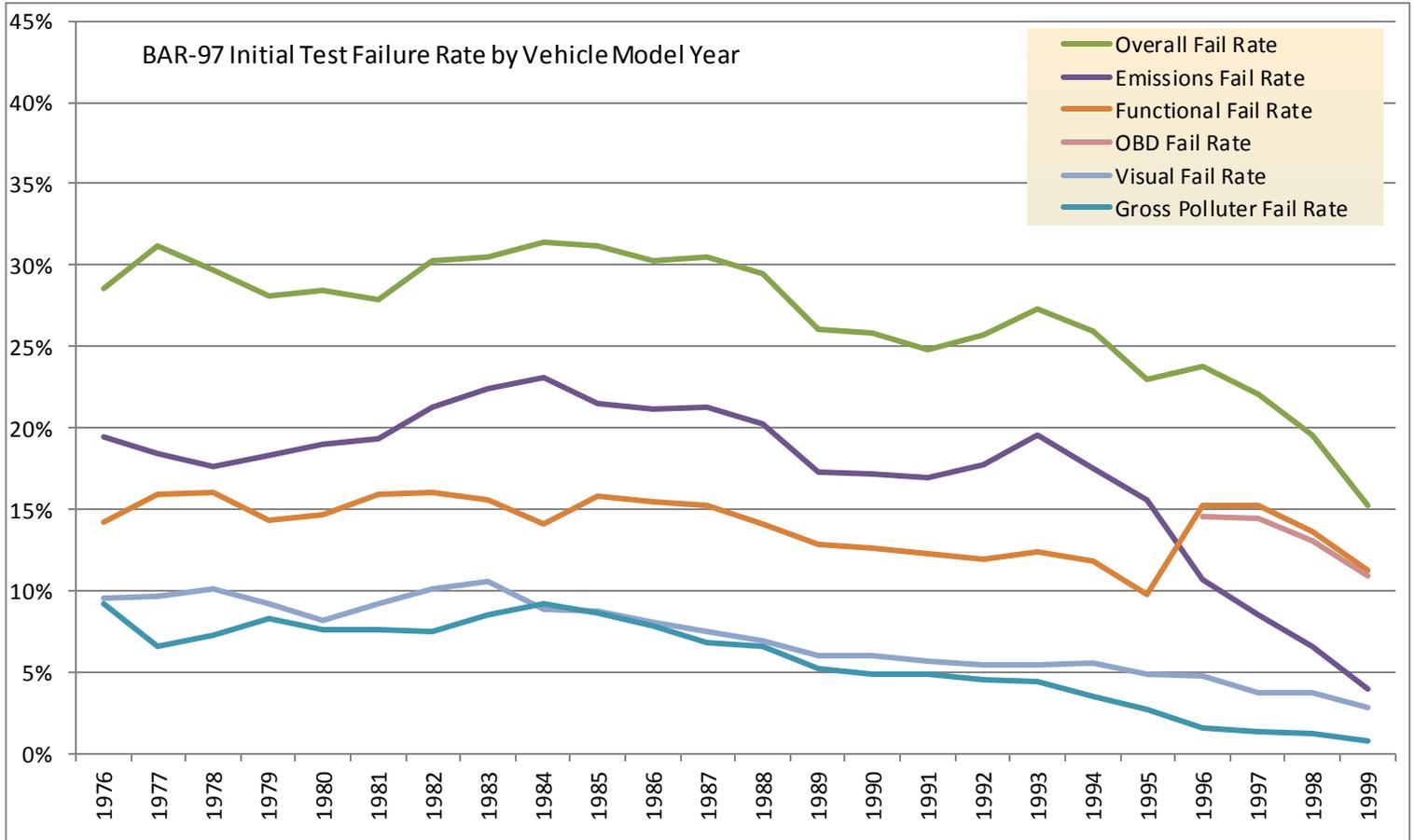
Station Type	Equipment Type		
	BAR-97 Only	OIS Only	BAR-97 & OIS
STAR Regular Test and Repair CAP Enhanced	4	125	2,171
STAR Regular Test and Repair CAP Basic	1	3	93
STAR Regular Test and Repair CAP COO	0	5	53
STAR Test Only	3	23	1,854
Non-STAR Regular Test and Repair	10	1,297	1,123
Non-STAR Test Only	2	56	162
Basic Area Dealer	0	21	52
Business Fleet	0	1	1
Permanent Fleet Registered	1	0	0
Referee	0	0	31
Government Fleet	49	62	61
Unknown Type	1	0	1
Total	71	1,593	5,602

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



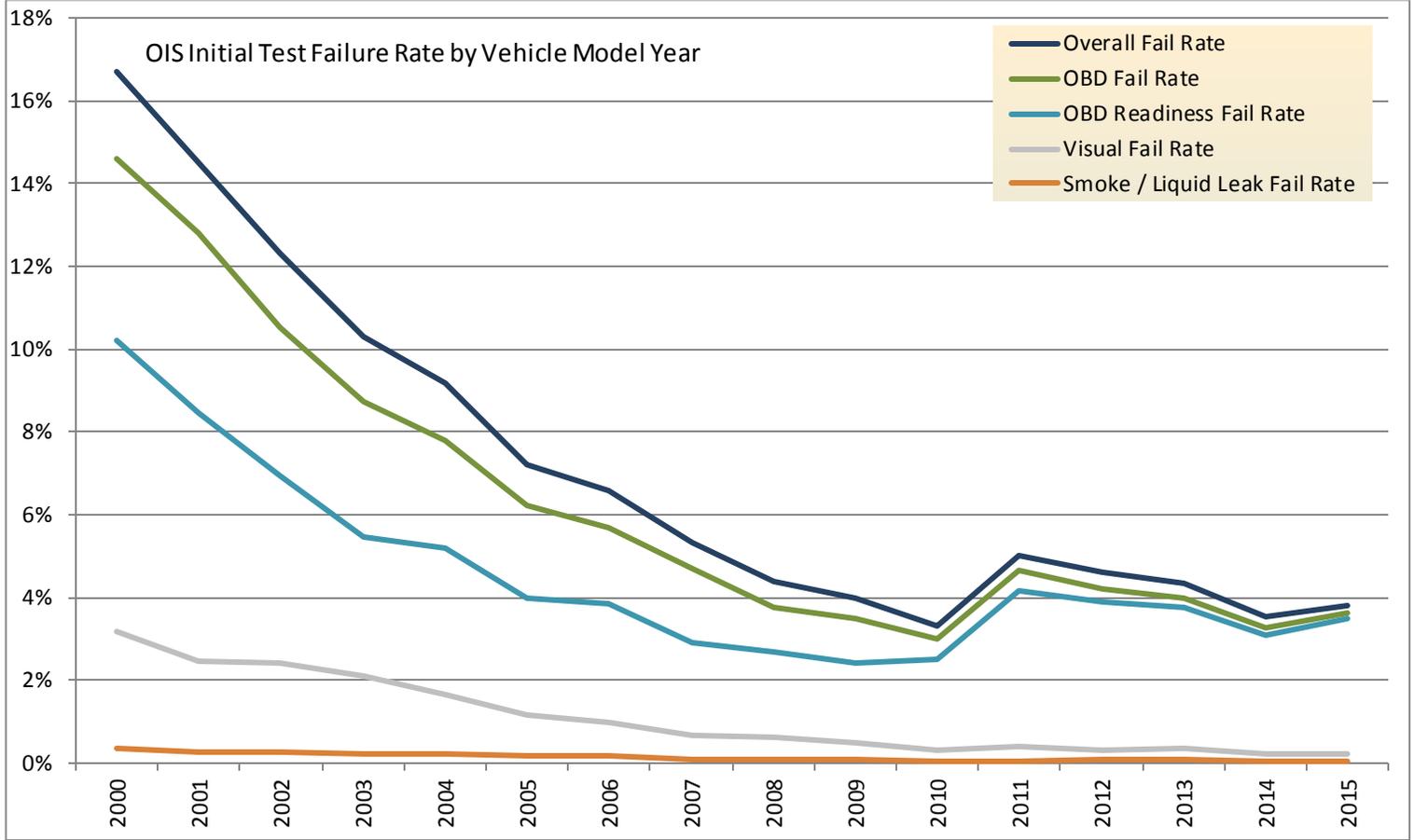
Note: Please see tabular data in Table 17 for BAR-97 tests conducted on other vehicle model years not shown in chart.

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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	166	272
Certificate of Non Compliance	1	0
Parts Cost	60	25
Hardship Extensions	1	2
Exempt Vehicle	0	24
Exempted by Directive	6	66
Parts Exemption	32	4
Unknown Outcome	0	0
Permanently Exempt Vehicle	0	0
Temporarily Exempt Vehicle	0	0
Total	266	393

14. Active Technicians

License Type	Technician Count
EA (Test and Repair Enhanced)	1
EB (Test and Repair Basic)	1
EI (Repair Only)	2
EO (Test Only)	2,491
EO (Test and Repair)	5,212
Total	7,707

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	58,231	\$48.25	173,141	\$46.48	231,372	\$46.92
STAR Test Only	111,741	\$47.77	290,906	\$48.62	402,647	\$48.39
Non-STAR Test and Repair	21,074	\$44.91	109,795	\$52.95	130,869	\$51.66
Non-STAR Test Only	3,318	\$42.13	13,434	\$45.35	16,752	\$44.71
Test and Repair/Dealer	465	\$49.67	2,938	\$56.57	3,403	\$55.63
Total	194,829	\$47.52	590,274	\$48.76	785,103	\$48.45

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	55	\$45.57	3,512	\$49.59	58,176	\$48.26	169,629	\$46.41
STAR Test Only	7	\$26.50	792	\$44.73	111,734	\$47.78	290,114	\$48.63
Non-STAR Test and Repair	32	\$44.26	42,929	\$63.11	21,042	\$44.91	66,866	\$46.43
Non-STAR Test Only	39	\$49.47	2,408	\$46.52	3,279	\$42.04	11,026	\$45.10
Test and Repair/Dealer	0	\$0.00	783	\$62.24	465	\$49.67	2,155	\$54.51
Total	133	\$45.39	50,424	\$61.08	194,696	\$47.52	539,850	\$47.61

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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	458	131	28.60%	19.43%	9.17%	14.19%	9.61%	NA
1977	639	199	31.14%	18.47%	6.57%	15.96%	9.70%	NA
1978	787	234	29.73%	17.66%	7.24%	16.01%	10.17%	NA
1979	949	267	28.13%	18.34%	8.32%	14.33%	9.17%	NA
1980	509	145	28.49%	19.06%	7.66%	14.73%	8.25%	NA
1981	553	154	27.85%	19.35%	7.59%	15.91%	9.22%	NA
1982	703	213	30.30%	21.34%	7.54%	16.07%	10.10%	NA
1983	737	225	30.53%	22.39%	8.55%	15.60%	10.58%	NA
1984	1,406	441	31.37%	23.12%	9.25%	14.08%	8.89%	NA
1985	1,950	609	31.23%	21.54%	8.67%	15.79%	8.82%	NA
1986	2,688	815	30.32%	21.13%	7.85%	15.48%	8.04%	NA
1987	3,373	1,029	30.51%	21.23%	6.82%	15.21%	7.56%	NA
1988	3,650	1,075	29.45%	20.25%	6.55%	14.08%	6.99%	NA
1989	5,208	1,358	26.08%	17.30%	5.18%	12.86%	5.99%	NA
1990	6,245	1,610	25.78%	17.17%	4.88%	12.63%	6.07%	NA
1991	8,134	2,018	24.81%	17.00%	4.88%	12.29%	5.73%	NA
1992	7,771	1,999	25.72%	17.77%	4.58%	11.94%	5.52%	NA
1993	10,198	2,781	27.27%	19.59%	4.46%	12.37%	5.46%	NA
1994	12,908	3,353	25.98%	17.53%	3.56%	11.87%	5.55%	NA
1995	18,686	4,292	22.97%	15.57%	2.78%	9.75%	4.84%	NA
1996	15,292	3,646	23.84%	10.65%	1.56%	15.30%	4.82%	14.55%
1997	26,836	5,923	22.07%	8.52%	1.39%	15.21%	3.70%	14.50%
1998	25,455	4,970	19.52%	6.58%	1.21%	13.64%	3.74%	13.10%
1999	38,582	5,893	15.27%	4.01%	0.79%	11.27%	2.88%	10.88%
2000	499	121	24.25%	9.22%	3.81%	18.04%	2.81%	17.64%
2001	510	96	18.82%	6.27%	1.18%	15.29%	2.94%	14.71%
2002	291	37	12.71%	6.53%	2.06%	11.34%	1.03%	11.00%
2003	452	56	12.39%	3.76%	1.11%	9.51%	2.43%	9.29%
2004	283	25	8.83%	3.18%	0.71%	6.01%	0.35%	6.01%
2005	446	30	6.73%	3.59%	0.67%	4.26%	0.22%	4.04%
2006	295	15	5.08%	3.39%	0.34%	4.07%	1.36%	4.07%
2007	391	11	2.81%	1.53%	0.26%	1.28%	0.77%	1.28%
2008	233	8	3.43%	1.72%	0.86%	2.58%	0.43%	2.58%
2009	140	4	2.86%	2.86%	1.43%	1.43%	0.00%	1.43%
2010	37	1	2.70%	0.00%	0.00%	2.70%	0.00%	2.70%
2011	47	1	2.13%	6.38%	0.00%	2.13%	0.00%	2.13%
2012	15	0	0.00%	13.33%	0.00%	0.00%	0.00%	0.00%
2013	14	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2014	22	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2015	240	2	0.83%	0.42%	0.00%	0.42%	0.42%	0.42%
2016	61	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All Model Years	197,693	43,787	22.15%	11.64%	2.75%	12.81%	4.63%	7.06%

Note: 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
1991	2	1	50.00%	50.00%	50.00%	50.00%	0.00%	0.00%
1992	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1996	6	2	33.30%	33.30%	0.00%	33.30%	16.70%	0.00%
1997	21	5	23.80%	23.80%	9.52%	23.80%	9.52%	0.00%
1998	235	45	19.10%	17.40%	2.98%	14.90%	9.79%	2.55%
1999	875	162	18.50%	16.70%	3.20%	15.40%	11.40%	1.26%
2000	37,191	6,224	16.70%	15.00%	3.18%	14.60%	10.20%	0.36%
2001	60,484	8,771	14.50%	13.10%	2.46%	12.80%	8.46%	0.25%
2002	40,531	4,982	12.30%	10.80%	2.40%	10.50%	6.92%	0.28%
2003	71,111	7,353	10.30%	8.94%	2.08%	8.72%	5.44%	0.22%
2004	42,055	3,857	9.17%	8.05%	1.64%	7.81%	5.21%	0.24%
2005	78,748	5,680	7.21%	6.39%	1.17%	6.21%	3.98%	0.17%
2006	43,653	2,881	6.60%	5.86%	1.00%	5.69%	3.84%	0.16%
2007	86,050	4,569	5.31%	4.81%	0.66%	4.72%	2.90%	0.08%
2008	31,401	1,371	4.37%	3.87%	0.61%	3.78%	2.70%	0.09%
2009	45,420	1,804	3.97%	3.57%	0.49%	3.50%	2.40%	0.08%
2010	18,243	607	3.33%	3.06%	0.29%	3.00%	2.51%	0.06%
2011	12,253	616	5.03%	4.69%	0.41%	4.67%	4.17%	0.02%
2012	10,526	483	4.59%	4.29%	0.32%	4.21%	3.88%	0.09%
2013	10,084	440	4.36%	4.07%	0.35%	4.00%	3.75%	0.07%
2014	10,803	383	3.55%	3.34%	0.23%	3.28%	3.07%	0.06%
2015	6,911	264	3.82%	3.65%	0.20%	3.62%	3.47%	0.03%
2016	679	59	8.69%	8.54%	0.15%	8.54%	8.10%	0.00%
All Model Years	607,283	50,559	8.33%	7.42%	1.38%	7.24%	4.86%	0.17%

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	
		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 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 OBDII systems that may require the BAR-97 test.

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