

Executive Summary Report

SMOG CHECK Statewide

May 2016

1. Testing Volume

	All Tests	Failed	Percent (%) Failed
Initial Test	1,034,226	111,571	10.79%
Total	1,154,548	136,773	11.85%

2. Certification Volume

	Certificates Issued	Percent (%) Certificates Issued	No Certificates Issued	Percent (%) No Certificates Issued
Initial Test	915,062	88.48%	119,164	11.52%
Total	1,009,070	87.40%	145,478	12.60%

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	455,456	87.98%	62,213	12.02%
Non-STAR Test Only	23,474	91.66%	2,136	8.34%
STAR Test and Repair	275,605	88.09%	37,256	11.91%
Non-STAR Test and Repair	155,595	92.20%	13,154	7.80%
Total	910,130	88.80%	114,759	11.20%

*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	32,775	14.00%
All Visual	10,711	1.34%	10,174	4.35%
All Functional	54,595	6.82%	27,653	11.80%
OBDII	53,426	6.67%	15,402	6.59%
Overall	62,014	7.75%	49,557	21.20%

7. Initial Test Failures by Program Area

Program Areas	OIS			BAR-97		
	Initial Tests	Failed	Percent (%) Failed	Initial Tests	Failed	Percent (%) Failed
Enhanced	697,592	54,488	7.81%	185,649	40,811	22.00%
Partial	34,456	2,647	7.68%	13,306	2,994	22.50%
Basic	61,679	4,422	7.17%	26,688	3,796	14.20%
Change of Ownership	6,694	457	6.83%	2,015	460	22.80%
No Program	0	0	0.00%	2	1	50.00%
Unknown	0	0	0.00%	6,145	1,495	24.30%
Total Program Area	800,421	62,014	7.75%	233,805	49,557	21.20%

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	386,460	32,567	8.43%	131,209	28,438	21.70%
STAR Test Only Suspended	290	29	10.00%	78	27	34.60%
Non-STAR Test Only	21,836	1,364	6.25%	3,774	658	17.40%
STAR Test and Repair	240,750	19,544	8.12%	72,111	16,355	22.70%
STAR Test and Repair Suspended	352	16	4.55%	47	6	12.80%
Non-STAR Test and Repair	144,594	8,036	5.56%	24,155	3,470	14.40%
Test and Repair/Dealer	3,703	201	5.43%	413	56	13.60%
Business Fleet	4	0	0.00%	0	0	0.00%
Permanent Fleet Registered	0	0	0.00%	4	0	0.00%
Referee	274	134	48.90%	454	279	61.50%
Govt Fleet	2,158	123	5.70%	1,560	268	17.20%
Total	800,421	62,014	7.75%	233,805	49,557	21.20%

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	51,102	109,679	40,004	86,968
Non-Directed	261,759	407,990	235,601	368,488
Total	312,861	517,669	275,605	455,456

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	436	99	183	70
Non-Directed	168,313	25,511	155,412	23,404
Total	168,749	25,610	155,595	23,474

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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	2,219	100	2,319
STAR Regular Test and Repair CAP Basic	153	0	0	0	153
STAR Regular Test and Repair CAP COO	0	67	0	0	67
STAR Test Only	14	0	1,885	27	1,926
Non-STAR Regular Test and Repair	476	38	2,262	245	3,021
Non-STAR Test Only	17	3	391	16	427
Repair Only	2	1	48	0	51
Basic Area Dealer	73	0	0	0	73
Business Fleet	0	0	3	0	3
Permanent Fleet Registered	2	0	13	0	15
Referee	5	0	27	0	32
Government Fleet	41	2	277	11	331
Unknown Type	0	0	6	0	6
Total	783	111	7,131	399	8,424

10. Number of Stations Conducting Test by Equipment Type

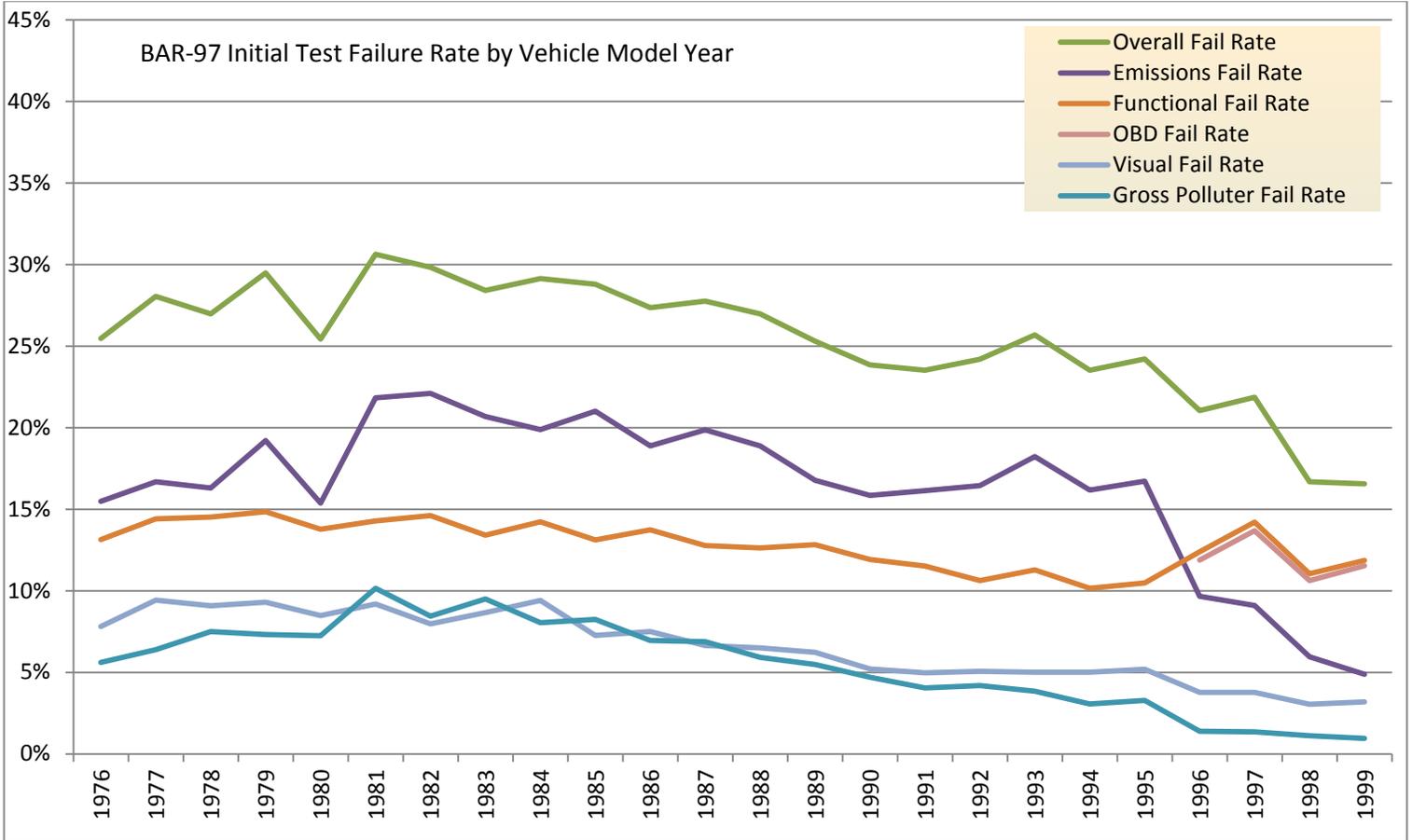
Station Type	Equipment Type		
	BAR-97 Only	OIS Only	BAR-97 & OIS
STAR Regular Test and Repair CAP Enhanced	3	135	2,160
STAR Regular Test and Repair CAP Basic	1	5	92
STAR Regular Test and Repair CAP COO	1	7	63
STAR Test Only	7	30	1,838
Non-STAR Regular Test and Repair	3	1,415	1,035
Non-STAR Test Only	1	75	145
Basic Area Dealer	0	25	45
Business Fleet	0	2	0
Permanent Fleet Registered	1	0	0
Referee	0	0	31
Government Fleet	16	86	65
Unknown Type	1	0	5
Total	34	1,780	5,479

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



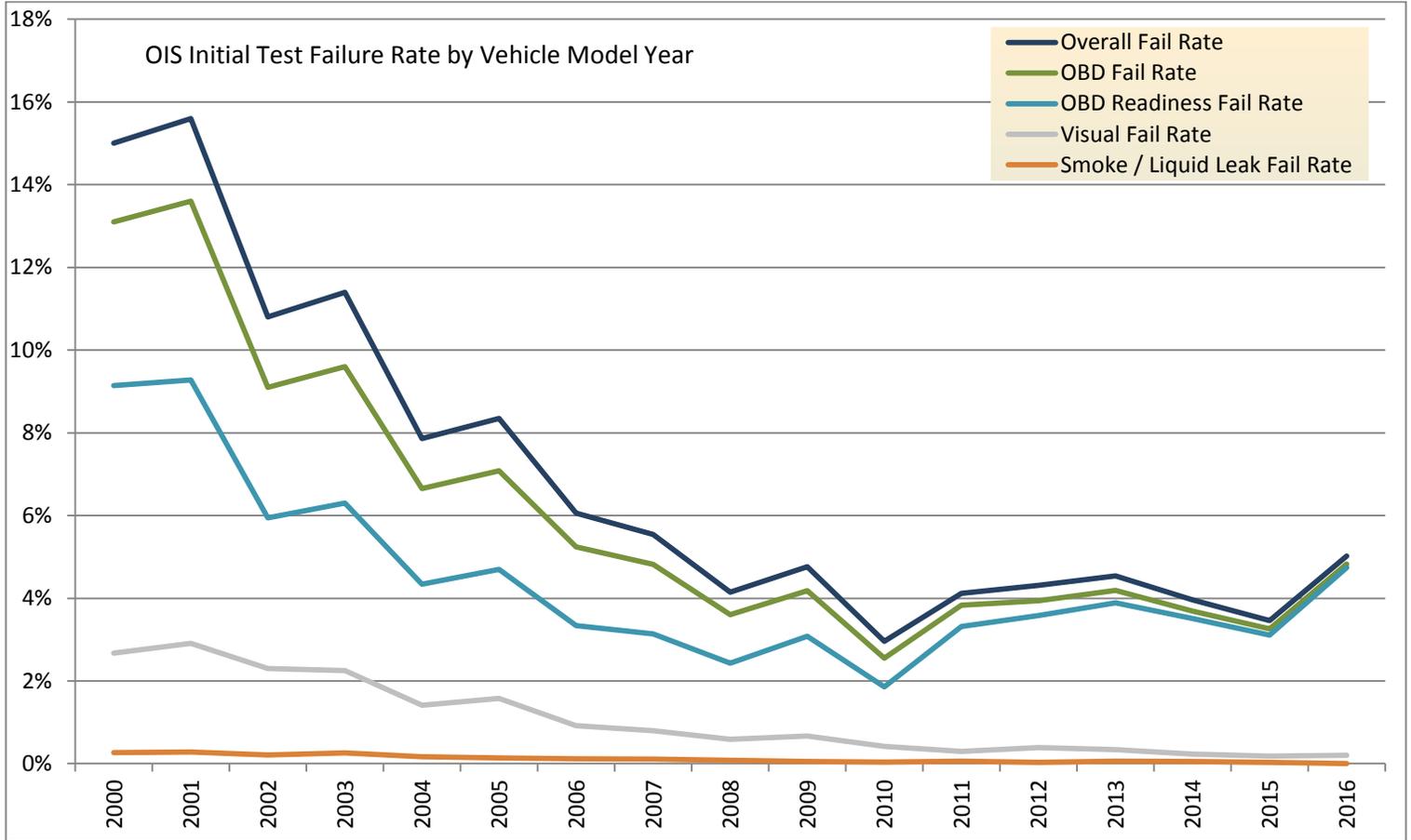
Note: Please see tabular data in Table 17 for BAR-97 tests conducted on other vehicle model years not shown in chart.

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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	293	307
Certificate of Non Compliance	0	0
Parts Cost	76	30
Hardship Extensions	0	0
Exempt Vehicle	3	29
Exempted by Directive	5	114
Parts Exemption	53	2
Unknown Outcome	0	0
Permanently Exempt Vehicle	0	0
Temporarily Exempt Vehicle	0	0
Total	430	482

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)	2,657
EO + EI (Inspect and Repair)	4,849
Total	7,509

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	71,792	\$48.89	232,524	\$46.66	304,316	\$47.19
STAR Test Only	130,259	\$47.28	361,327	\$48.76	491,586	\$48.37
Non-STAR Test and Repair	23,970	\$44.60	132,811	\$52.92	156,781	\$51.65
Non-STAR Test Only	3,705	\$40.16	14,874	\$42.93	18,579	\$42.37
Test and Repair/Dealer	413	\$50.12	3,517	\$57.46	3,930	\$56.69
Total	230,139	\$47.39	745,695	\$48.77	975,834	\$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	72	\$44.89	5,561	\$50.50	71,720	\$48.89	226,963	\$46.57
STAR Test Only	156	\$23.58	2,348	\$31.34	130,103	\$47.31	358,979	\$48.87
Non-STAR Test and Repair	4	\$72.19	57,628	\$62.02	23,966	\$44.59	75,183	\$45.94
Non-STAR Test Only	39	\$38.92	3,734	\$46.12	3,666	\$40.17	11,140	\$41.85
Test and Repair/Dealer	0	\$0.00	1,260	\$63.80	413	\$50.12	2,257	\$53.93
Total	271	\$32.17	70,531	\$59.28	229,868	\$47.41	675,164	\$47.68

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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	730	186	25.48%	15.48%	5.62%	13.15%	7.81%	NA
1977	923	259	28.06%	16.68%	6.39%	14.41%	9.43%	NA
1978	1,067	288	26.99%	16.31%	7.50%	14.53%	9.09%	NA
1979	1,010	298	29.50%	19.21%	7.33%	14.85%	9.31%	NA
1980	566	144	25.44%	15.37%	7.24%	13.78%	8.48%	NA
1981	728	223	30.63%	21.84%	10.16%	14.29%	9.20%	NA
1982	828	247	29.83%	22.10%	8.45%	14.61%	7.97%	NA
1983	1,073	305	28.42%	20.69%	9.51%	13.42%	8.67%	NA
1984	1,890	551	29.15%	19.89%	8.04%	14.23%	9.42%	NA
1985	2,423	698	28.81%	21.01%	8.25%	13.12%	7.26%	NA
1986	3,420	936	27.37%	18.89%	6.96%	13.74%	7.51%	NA
1987	3,677	1,021	27.77%	19.88%	6.88%	12.78%	6.64%	NA
1988	4,659	1,257	26.98%	18.89%	5.92%	12.64%	6.50%	NA
1989	6,151	1,557	25.31%	16.78%	5.48%	12.84%	6.23%	NA
1990	7,664	1,828	23.85%	15.85%	4.70%	11.93%	5.22%	NA
1991	9,143	2,151	23.53%	16.14%	4.05%	11.53%	4.98%	NA
1992	9,629	2,330	24.20%	16.45%	4.20%	10.64%	5.06%	NA
1993	11,719	3,012	25.70%	18.23%	3.84%	11.29%	5.01%	NA
1994	16,478	3,876	23.52%	16.17%	3.06%	10.16%	5.01%	NA
1995	17,265	4,181	24.22%	16.72%	3.28%	10.48%	5.20%	NA
1996	24,444	5,145	21.05%	9.67%	1.39%	12.40%	3.77%	11.88%
1997	26,316	5,758	21.88%	9.11%	1.36%	14.22%	3.77%	13.68%
1998	39,397	6,573	16.68%	5.96%	1.11%	11.05%	3.04%	10.63%
1999	37,768	6,253	16.56%	4.88%	0.96%	11.86%	3.19%	11.54%
2000	786	147	18.70%	7.25%	3.18%	14.38%	1.91%	14.38%
2001	389	119	30.59%	6.43%	2.31%	27.25%	3.08%	27.25%
2002	487	50	10.27%	4.52%	2.26%	8.42%	1.23%	7.80%
2003	392	46	11.73%	5.36%	1.53%	7.14%	2.04%	6.89%
2004	669	35	5.23%	2.54%	1.20%	3.89%	0.60%	3.74%
2005	288	27	9.38%	5.90%	1.74%	6.60%	0.69%	6.25%
2006	609	20	3.28%	2.63%	0.49%	1.31%	0.16%	1.31%
2007	190	8	4.21%	1.58%	0.00%	3.16%	1.05%	3.16%
2008	437	12	2.75%	1.37%	0.46%	1.60%	0.46%	1.37%
2009	66	7	10.61%	0.00%	0.00%	9.09%	1.52%	9.09%
2010	134	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2011	46	2	4.35%	2.17%	0.00%	2.17%	2.17%	2.17%
2012	45	1	2.22%	0.00%	0.00%	0.00%	2.22%	0.00%
2013	40	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2014	35	1	2.86%	0.00%	0.00%	2.86%	0.00%	0.00%
2015	69	2	2.90%	2.90%	0.00%	0.00%	1.45%	0.00%
2016	155	3	1.94%	1.29%	0.00%	0.65%	1.29%	0.00%
All Model Years	233,805	49,557	21.20%	11.36%	2.66%	11.83%	4.35%	6.59%

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
0	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1986	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1987	2	1	50.00%	50.00%	0.00%	50.00%	50.00%	0.00%
1989	2	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1993	2	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1994	1	1	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%
1995	2	1	50.00%	50.00%	50.00%	50.00%	50.00%	0.00%
1996	6	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1997	16	4	25.00%	25.00%	0.00%	25.00%	6.25%	0.00%
1998	278	42	15.10%	14.40%	0.72%	13.70%	8.63%	0.72%
1999	1,018	179	17.60%	15.50%	3.14%	15.10%	10.80%	0.39%
2000	68,106	10,213	15.00%	13.30%	2.67%	13.10%	9.14%	0.27%
2001	44,423	6,919	15.60%	13.80%	2.91%	13.60%	9.28%	0.28%
2002	80,401	8,716	10.80%	9.31%	2.30%	9.10%	5.94%	0.21%
2003	45,763	5,209	11.40%	9.87%	2.25%	9.60%	6.30%	0.26%
2004	98,048	7,703	7.86%	6.83%	1.41%	6.65%	4.34%	0.17%
2005	48,192	4,023	8.35%	7.23%	1.58%	7.08%	4.70%	0.14%
2006	105,901	6,415	6.06%	5.36%	0.92%	5.24%	3.34%	0.12%
2007	47,974	2,656	5.54%	4.93%	0.80%	4.82%	3.14%	0.11%
2008	87,841	3,647	4.15%	3.68%	0.59%	3.60%	2.43%	0.08%
2009	18,736	891	4.76%	4.23%	0.67%	4.18%	3.08%	0.05%
2010	83,091	2,461	2.96%	2.59%	0.42%	2.55%	1.86%	0.04%
2011	12,851	529	4.12%	3.89%	0.30%	3.83%	3.32%	0.06%
2012	17,306	746	4.31%	3.98%	0.39%	3.94%	3.58%	0.03%
2013	12,605	572	4.54%	4.25%	0.34%	4.19%	3.89%	0.06%
2014	13,223	524	3.96%	3.74%	0.23%	3.69%	3.51%	0.05%
2015	11,064	383	3.46%	3.29%	0.18%	3.26%	3.11%	0.03%
2016	3,543	178	5.02%	4.83%	0.20%	4.83%	4.74%	0.00%
2017	24	1	4.17%	4.17%	0.00%	4.17%	4.17%	0.00%
All Model Years	800,421	62,014	7.75%	6.82%	1.34%	6.67%	4.56%	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	
		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 OBD II systems that may require the BAR-97 test.

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