

Executive Summary Report

SMOG CHECK Statewide

June 2016

1. Testing Volume

	All Tests	Failed	Percent (%) Failed
Initial Test	1,019,122	106,659	10.47%
Total	1,136,698	131,497	11.57%

2. Certification Volume

	Certificates Issued	Percent (%) Certificates Issued	No Certificates Issued	Percent (%) No Certificates Issued
Initial Test	905,011	88.80%	114,111	11.20%
Total	996,745	87.69%	139,953	12.31%

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	447,160	88.30%	59,226	11.70%
Non-STAR Test Only	25,679	92.22%	2,165	7.78%
STAR Test and Repair	273,937	88.38%	36,011	11.62%
Non-STAR Test and Repair	153,707	92.35%	12,739	7.65%
Total	900,483	89.10%	110,141	10.90%

*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	30,132	13.80%
All Visual	10,462	1.31%	9,183	4.20%
All Functional	54,100	6.76%	24,997	11.40%
OBDII	52,929	6.61%	14,191	6.49%
Overall	61,253	7.65%	45,406	20.80%

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	48,227	102,990	37,960	82,255
Non-Directed	261,721	403,396	235,977	364,905
Total	309,948	506,386	273,937	447,160

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	350	130	155	103
Non-Directed	166,096	27,714	153,552	25,576
Total	166,446	27,844	153,707	25,679

7. Initial Test Failures by Program Area

Program Areas	OIS			BAR-97		
	Initial Tests	Failed	Percent (%) Failed	Initial Tests	Failed	Percent (%) Failed
Enhanced	697,417	53,935	7.73%	173,406	37,299	21.50%
Partial	34,769	2,661	7.65%	12,329	2,772	22.50%
Basic	61,649	4,209	6.83%	25,183	3,609	14.30%
Change of Ownership	6,631	448	6.76%	1,895	368	19.40%
No Program	0	0	0.00%	2	0	0.00%
Unknown	0	0	0.00%	5,841	1,358	23.20%
Total Program Area	800,466	61,253	7.65%	218,656	45,406	20.80%

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	383,763	32,059	8.35%	122,623	26,006	21.20%
STAR Test Only Suspended	237	17	7.17%	23	10	43.50%
Non-STAR Test Only	24,155	1,375	5.69%	3,689	652	17.70%
STAR Test and Repair	242,551	19,567	8.07%	67,397	15,061	22.30%
STAR Test and Repair Suspended	257	17	6.61%	19	0	0.00%
Non-STAR Test and Repair	143,650	7,856	5.47%	22,796	3,210	14.10%
Test and Repair/Dealer	3,583	172	4.80%	371	36	9.70%
Business Fleet	4	0	0.00%	1	0	0.00%
Permanent Fleet Registered	0	0	0.00%	4	0	0.00%
Referee	206	92	44.70%	370	200	54.10%
Govt Fleet	2,060	98	4.76%	1,367	231	16.90%
Total	800,466	61,253	7.65%	218,656	45,406	20.80%

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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	2,214	100	2,314
STAR Regular Test and Repair CAP Basic	152	0	0	0	152
STAR Regular Test and Repair CAP COO	0	67	0	0	67
STAR Test Only	14	0	1,862	27	1,903
Non-STAR Regular Test and Repair	474	39	2,265	244	3,022
Non-STAR Test Only	18	3	421	18	460
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	7	0	7
Total	781	112	7,137	400	8,430

10. Number of Stations Conducting Test by Equipment Type

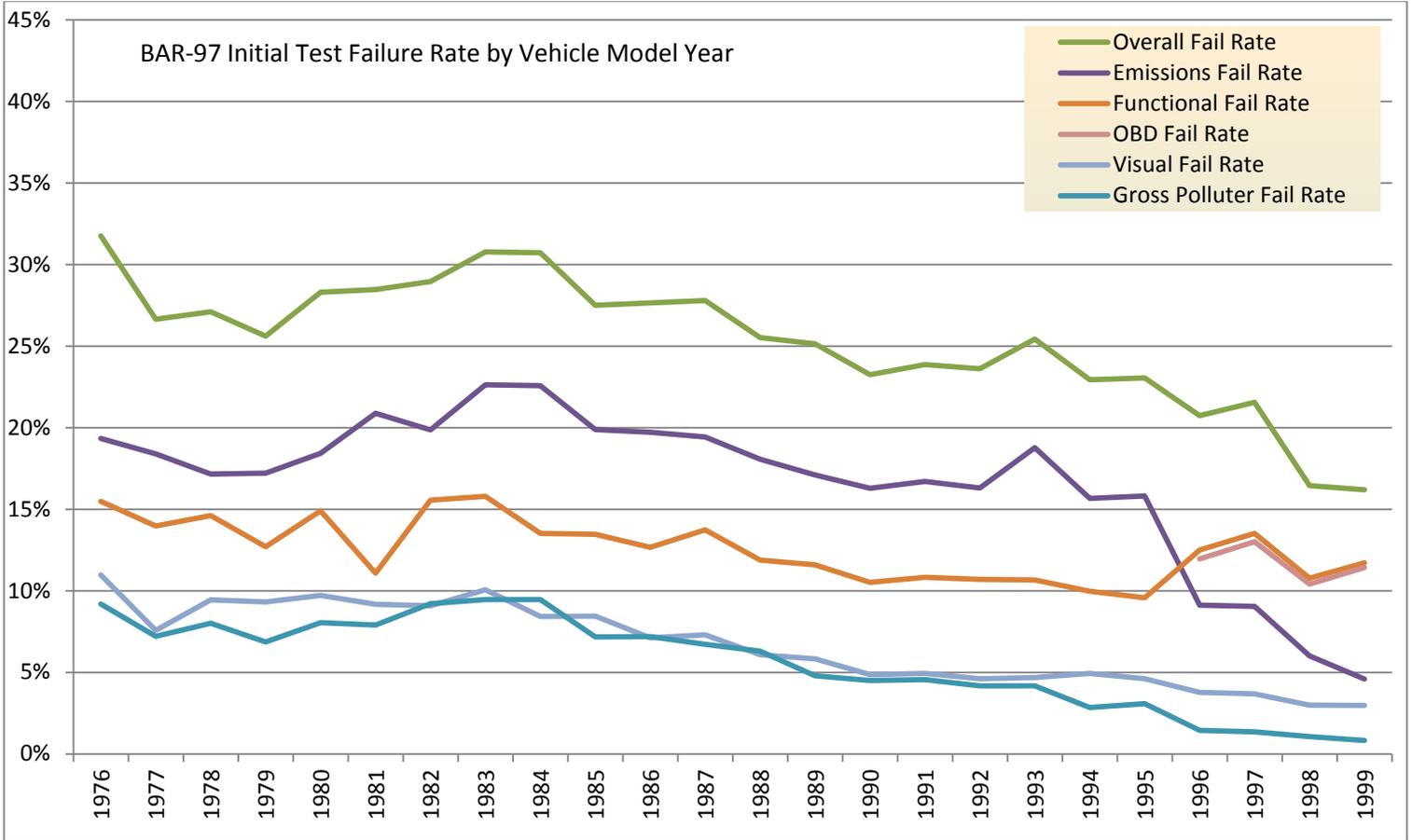
Station Type	Equipment Type		
	BAR-97 Only	OIS Only	BAR-97 & OIS
STAR Regular Test and Repair CAP Enhanced	3	158	2,141
STAR Regular Test and Repair CAP Basic	0	4	93
STAR Regular Test and Repair CAP COO	0	7	56
STAR Test Only	3	30	1,811
Non-STAR Regular Test and Repair	2	1,458	988
Non-STAR Test Only	4	77	158
Basic Area Dealer	0	26	44
Business Fleet	0	0	1
Permanent Fleet Registered	0	0	0
Referee	0	0	31
Government Fleet	11	90	73
Unknown Type	0	0	6
Total	23	1,850	5,402

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



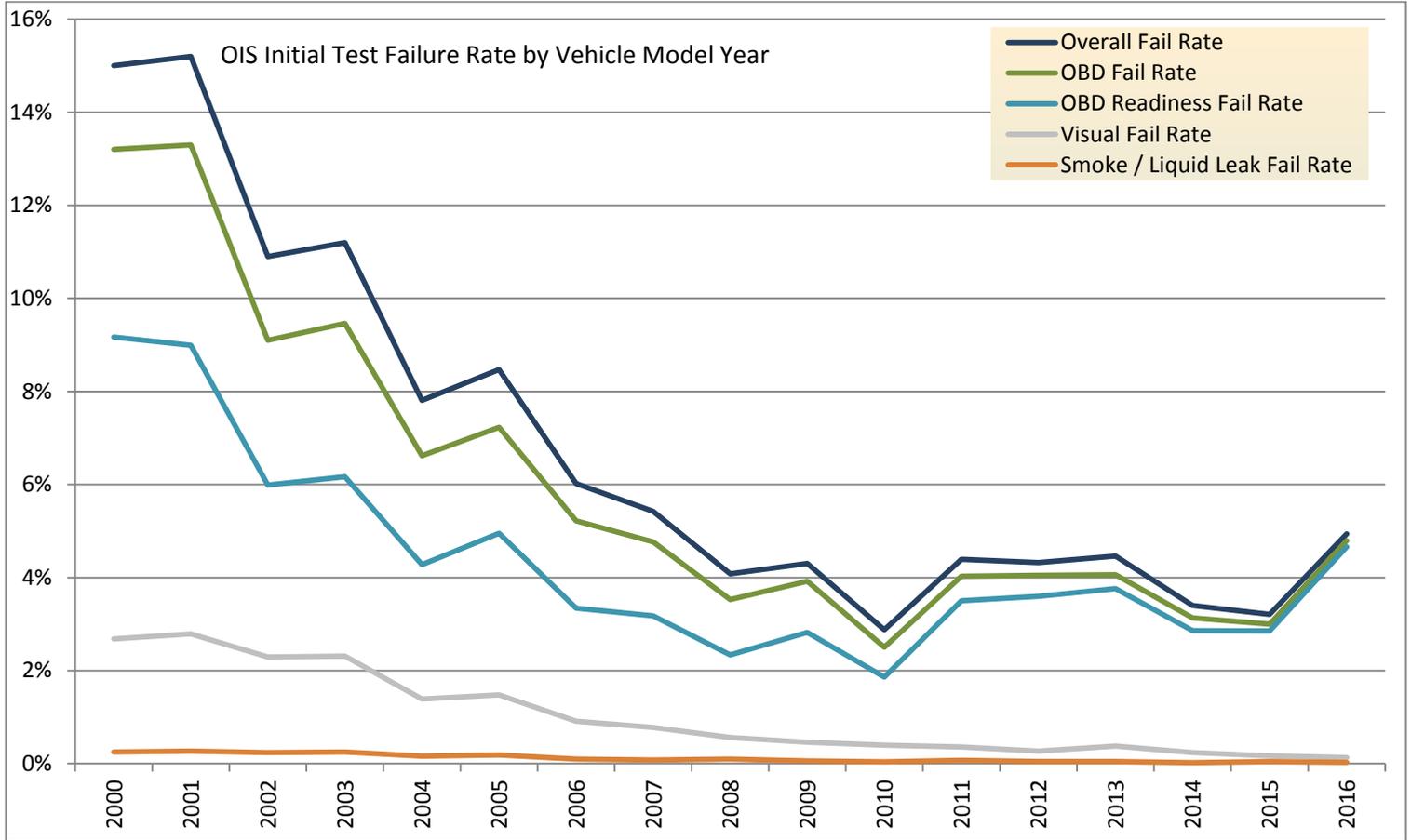
Note: Please see tabular data in Table 17 for BAR-97 tests conducted on other vehicle model years not shown in chart.

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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	252	288
Certificate of Non Compliance	0	1
Parts Cost	75	18
Hardship Extensions	0	0
Exempt Vehicle	1	27
Exempted by Directive	8	69
Parts Exemption	30	5
Unknown Outcome	0	0
Permanently Exempt Vehicle	0	0
Temporarily Exempt Vehicle	0	0
Total	366	408

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)	2,677
EO + EI (Inspect and Repair)	4,765
Total	7,445

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	69,934	\$49.19	233,297	\$46.70	303,231	\$47.27
STAR Test Only	126,579	\$47.11	357,388	\$48.78	483,967	\$48.34
Non-STAR Test and Repair	23,640	\$45.28	131,074	\$52.95	154,714	\$51.78
Non-STAR Test Only	3,701	\$41.39	14,782	\$42.78	18,483	\$42.50
Test and Repair/Dealer	388	\$49.51	3,404	\$57.19	3,792	\$56.41
Total	224,242	\$47.47	740,439	\$48.78	964,681	\$48.48

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	43	\$40.44	6,536	\$49.18	69,866	\$49.21	226,761	\$46.63
STAR Test Only	212	\$21.21	2,949	\$34.81	126,367	\$47.15	354,439	\$48.89
Non-STAR Test and Repair	15	\$43.80	58,653	\$61.71	23,615	\$45.27	72,421	\$45.85
Non-STAR Test Only	49	\$30.18	3,991	\$46.70	3,648	\$41.55	10,791	\$41.33
Test and Repair/Dealer	0	\$0.00	1,162	\$63.08	388	\$49.51	2,242	\$54.14
Total	319	\$26.25	73,291	\$58.71	223,884	\$47.51	667,148	\$47.69

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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	620	197	31.77%	19.35%	9.19%	15.48%	10.97%	NA
1977	859	229	26.66%	18.39%	7.22%	13.97%	7.57%	NA
1978	985	267	27.11%	17.16%	8.02%	14.62%	9.44%	NA
1979	976	250	25.61%	17.21%	6.86%	12.70%	9.32%	NA
1980	597	169	28.31%	18.43%	8.04%	14.91%	9.72%	NA
1981	632	180	28.48%	20.89%	7.91%	11.08%	9.18%	NA
1982	694	201	28.96%	19.88%	9.22%	15.56%	9.08%	NA
1983	994	306	30.78%	22.64%	9.46%	15.79%	10.06%	NA
1984	1,731	532	30.73%	22.59%	9.47%	13.52%	8.43%	NA
1985	2,272	625	27.51%	19.89%	7.17%	13.47%	8.45%	NA
1986	3,056	845	27.65%	19.73%	7.20%	12.66%	7.13%	NA
1987	3,391	943	27.81%	19.43%	6.72%	13.74%	7.31%	NA
1988	4,244	1,083	25.52%	18.07%	6.31%	11.88%	6.08%	NA
1989	5,556	1,397	25.14%	17.10%	4.79%	11.59%	5.83%	NA
1990	7,181	1,670	23.26%	16.29%	4.51%	10.53%	4.86%	NA
1991	8,526	2,035	23.87%	16.70%	4.55%	10.83%	4.93%	NA
1992	8,968	2,117	23.61%	16.31%	4.18%	10.70%	4.61%	NA
1993	10,872	2,766	25.44%	18.78%	4.18%	10.67%	4.68%	NA
1994	15,246	3,499	22.95%	15.67%	2.84%	9.97%	4.93%	NA
1995	16,024	3,693	23.05%	15.81%	3.08%	9.58%	4.62%	NA
1996	22,759	4,722	20.75%	9.12%	1.44%	12.50%	3.77%	11.96%
1997	24,944	5,381	21.57%	9.05%	1.36%	13.53%	3.69%	13.02%
1998	37,324	6,142	16.46%	6.02%	1.07%	10.77%	3.00%	10.42%
1999	35,490	5,749	16.20%	4.60%	0.82%	11.73%	2.98%	11.43%
2000	724	128	17.68%	6.63%	2.35%	11.88%	2.35%	11.05%
2001	401	88	21.95%	7.23%	2.99%	19.70%	1.75%	19.45%
2002	469	38	8.10%	4.05%	1.07%	5.97%	1.49%	5.54%
2003	345	29	8.41%	3.19%	0.87%	6.09%	1.16%	5.80%
2004	657	34	5.18%	1.98%	0.61%	3.20%	0.91%	3.04%
2005	284	24	8.45%	3.87%	1.06%	5.28%	1.06%	5.28%
2006	594	33	5.56%	1.68%	0.51%	4.04%	0.51%	3.87%
2007	197	12	6.09%	2.54%	1.02%	3.55%	1.52%	3.55%
2008	435	6	1.38%	0.69%	0.23%	0.46%	0.46%	0.23%
2009	73	4	5.48%	0.00%	0.00%	4.11%	1.37%	4.11%
2010	130	3	2.31%	0.77%	0.00%	2.31%	0.00%	2.31%
2011	51	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2012	54	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2013	38	2	5.26%	0.00%	0.00%	2.63%	2.63%	2.63%
2014	35	2	5.71%	0.00%	0.00%	0.00%	5.71%	0.00%
2015	55	3	5.45%	1.82%	0.00%	3.64%	1.82%	1.82%
2016	169	2	1.18%	1.18%	0.00%	0.00%	1.18%	0.00%
2017	4	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All Model Years	218,656	45,406	20.77%	11.17%	2.61%	11.43%	4.20%	6.49%

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
1989	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1990	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1995	1	1	100.00%	100.00%	0.00%	100.00%	100.00%	0.00%
1996	10	1	10.00%	10.00%	0.00%	10.00%	0.00%	0.00%
1997	17	4	23.50%	23.50%	0.00%	23.50%	17.60%	0.00%
1998	322	34	10.60%	8.07%	2.48%	7.45%	4.35%	0.62%
1999	1,046	163	15.60%	14.70%	1.34%	14.20%	9.27%	0.48%
2000	67,496	10,135	15.00%	13.40%	2.68%	13.20%	9.17%	0.25%
2001	43,705	6,628	15.20%	13.60%	2.79%	13.30%	8.99%	0.27%
2002	81,302	8,847	10.90%	9.34%	2.29%	9.10%	5.99%	0.24%
2003	46,021	5,165	11.20%	9.70%	2.31%	9.46%	6.17%	0.25%
2004	95,808	7,483	7.81%	6.79%	1.39%	6.62%	4.28%	0.16%
2005	49,934	4,227	8.47%	7.42%	1.48%	7.23%	4.95%	0.19%
2006	103,802	6,254	6.02%	5.33%	0.91%	5.22%	3.34%	0.10%
2007	46,051	2,497	5.42%	4.86%	0.78%	4.77%	3.18%	0.08%
2008	87,797	3,586	4.08%	3.63%	0.56%	3.53%	2.34%	0.10%
2009	19,705	848	4.30%	3.98%	0.46%	3.92%	2.82%	0.06%
2010	85,308	2,455	2.88%	2.54%	0.40%	2.50%	1.86%	0.04%
2011	13,750	604	4.39%	4.09%	0.36%	4.03%	3.50%	0.07%
2012	17,563	758	4.32%	4.10%	0.27%	4.05%	3.60%	0.05%
2013	12,754	569	4.46%	4.11%	0.38%	4.06%	3.76%	0.05%
2014	12,810	435	3.40%	3.15%	0.24%	3.13%	2.86%	0.02%
2015	11,221	360	3.21%	3.06%	0.17%	3.00%	2.85%	0.05%
2016	3,989	197	4.94%	4.81%	0.13%	4.79%	4.66%	0.03%
2017	52	2	3.85%	3.85%	0.00%	3.85%	3.85%	0.00%
All Model Years	800,466	61,253	7.65%	6.76%	1.31%	6.61%	4.51%	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	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).