

Executive Summary Report

Smog Check Statewide February 2020

1. TESTING VOLUME

Testing Volume	All Tests	Failed	Percent (%) Failed
Initial Test	879,196	90,397	10.28%
Total	963,134	103,888	10.79%

2. CERTIFICATION VOLUME

Certification Volume	Certificates Issued	Percent (%) Certificates Issued	No Certificates Issued	Percent (%) No Certificates Issued
Initial Test	782,076	88.95%	97,120	11.05%
Total	851,834	88.44%	111,300	11.56%

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	413,710	88.73%	52,542	11.27%
Non-STAR Test Only	17,255	90.90%	1,727	9.10%
STAR Test and Repair	225,196	88.80%	28,399	11.20%
Non-STAR Test and Repair	120,365	92.27%	10,087	7.73%
Total	776,526	89.33%	92,755	10.67%

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

4. INITIAL TEST FAILURES BY FAILURE TYPE

Initial Test Failure	OIS Failed	OIS Percent (%) Failed	BAR-97 Failed	BAR-97 Percent (%) Failed
All Emissions	NA	NA	12,862	10.88%
All Visual	10,341	1.36%	4,544	3.85%
All Functional	58,774	7.72%	13,766	11.65%
OBDII	57,744	7.59%	8,337	7.06%
Overall	65,771	8.64%	24,626	20.84%

5. INITIAL TEST 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	27,718	62,551	22,174	51,147
Non-Directed	225,877	403,701	203,022	362,563
Total	253,595	466,252	225,196	413,710

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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	294	49	223	39
Non-Directed	130,158	18,933	120,142	17,216
Total	130,452	18,982	120,365	17,255

7. INITIAL TEST FAILURES BY PROGRAM AREA

Program Areas	OIS Initial Tests	OIS Failed	OIS Percent (%) Failed	BAR-97 Initial Tests	BAR-97 Failed	BAR-97 Percent (%) Failed
Enhanced	658,773	57,375	8.71%	94,917	20,078	21.20%
Partial	36,492	3,167	8.68%	7,596	1,712	22.50%
Basic	60,195	4,766	7.92%	10,980	1,796	16.40%
Change of Ownership	5,565	463	8.32%	640	182	28.40%
No Program	0	0	0.00%	0	0	0.00%
Unknown	0	0	0.00%	4,038	858	21.20%
Total Program Area	761,025	65,771	8.64%	118,171	24,626	20.80%

8. INITIAL TEST FAILURES BY STATION TYPE

Station Types	OIS Initial Tests	OIS Failed	OIS Percent (%) Failed	BAR-97 Initial Tests	BAR-97 Failed	BAR-97 Percent (%) Failed
STAR Test Only	394,812	36,715	9.30%	71,440	14,551	20.40%
STAR Test Only Suspended	2,105	149	7.08%	167	37	22.20%
Non-STAR Test Only	16,979	1,264	7.44%	2,003	358	17.90%
STAR Test and Repair	218,124	19,157	8.78%	35,471	8,030	22.60%
STAR Test and Repair Suspended	608	45	7.40%	50	13	26.00%
Non-STAR Test and Repair	123,036	7,789	6.33%	7,416	1,263	17.00%
Test and Repair/Dealer	2,478	130	5.25%	2	1	50.00%
Business Fleet	390	22	5.64%	0	0	0.00%
Permanent Fleet Registered	19	1	5.26%	0	0	0.00%
Referee	443	368	83.10%	244	136	55.70%
Government Fleet	2,031	131	6.45%	1,378	237	17.20%
Total	761,025	65,771	8.64%	118,171	24,626	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 Test and Repair	111	48	1,877	76	2,112
STAR Test Only	17	1	1,726	34	1,778
STAR Sub-total	128	49	3,603	110	3,890
Non-STAR Test and Repair	496	46	2,155	243	2,940
Non-STAR Test Only	25	7	376	30	438
Non-STAR Sub-total	521	53	2,531	273	3,378
Basic Area Dealer	60	0	0	0	60
Business Fleet	0	0	4	0	4
Permanent Fleet Registered	3	2	46	4	55
Referee	5	0	27	0	32
Government Fleet	41	5	299	13	358
Repair Only	2	0	42	1	45
Unknown Type	0	0	22	1	23
Other Station Sub-Total	111	7	440	19	577
Total	760	109	6,574	402	7,845

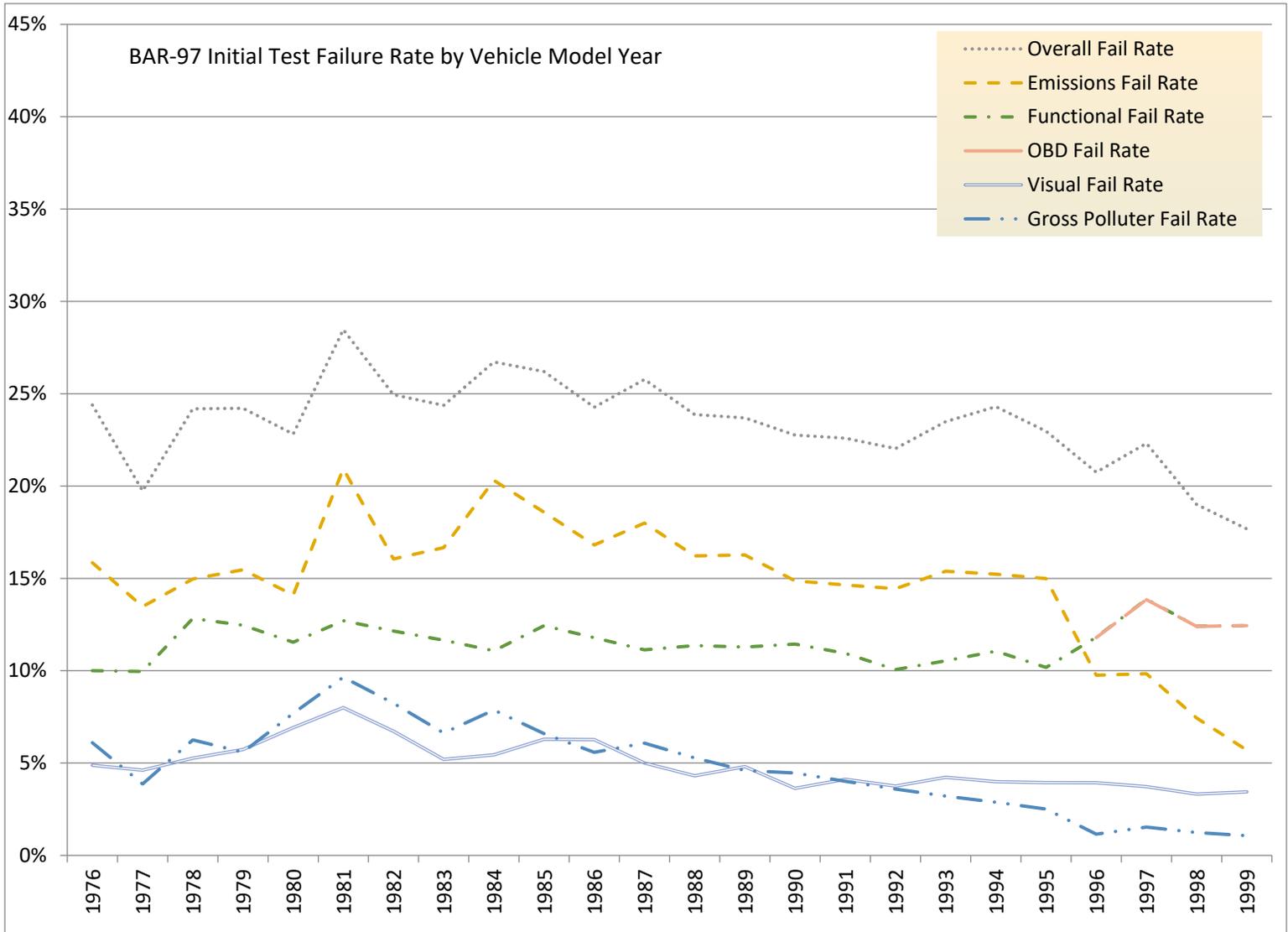
10. NUMBER OF STATIONS CONDUCTING TEST BY EQUIPMENT TYPE

Station Type	BAR-97 Only	OIS Only	BAR-97 & OIS
STAR Test and Repair	1	231	1,823
STAR Test Only	3	60	1,667
<i>STAR Sub-total</i>	4	291	3,490
Non-STAR Test and Repair	3	1,982	277
Non-STAR Test Only	1	108	76
<i>Non-STAR Sub-total</i>	4	2,090	353
Basic Area Dealer	0	55	1
Business Fleet	0	3	0
Permanent Fleet Registered	0	12	0
Referee	0	0	31
Government Fleet	10	128	31
Unknown Type	0	2	17
<i>Other Station Sub-Total</i>	10	200	80
Total	18	2,581	3,923

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11. BAR-97 INITIAL TEST FAILURE RATE BY VEHICLE MODEL YEAR

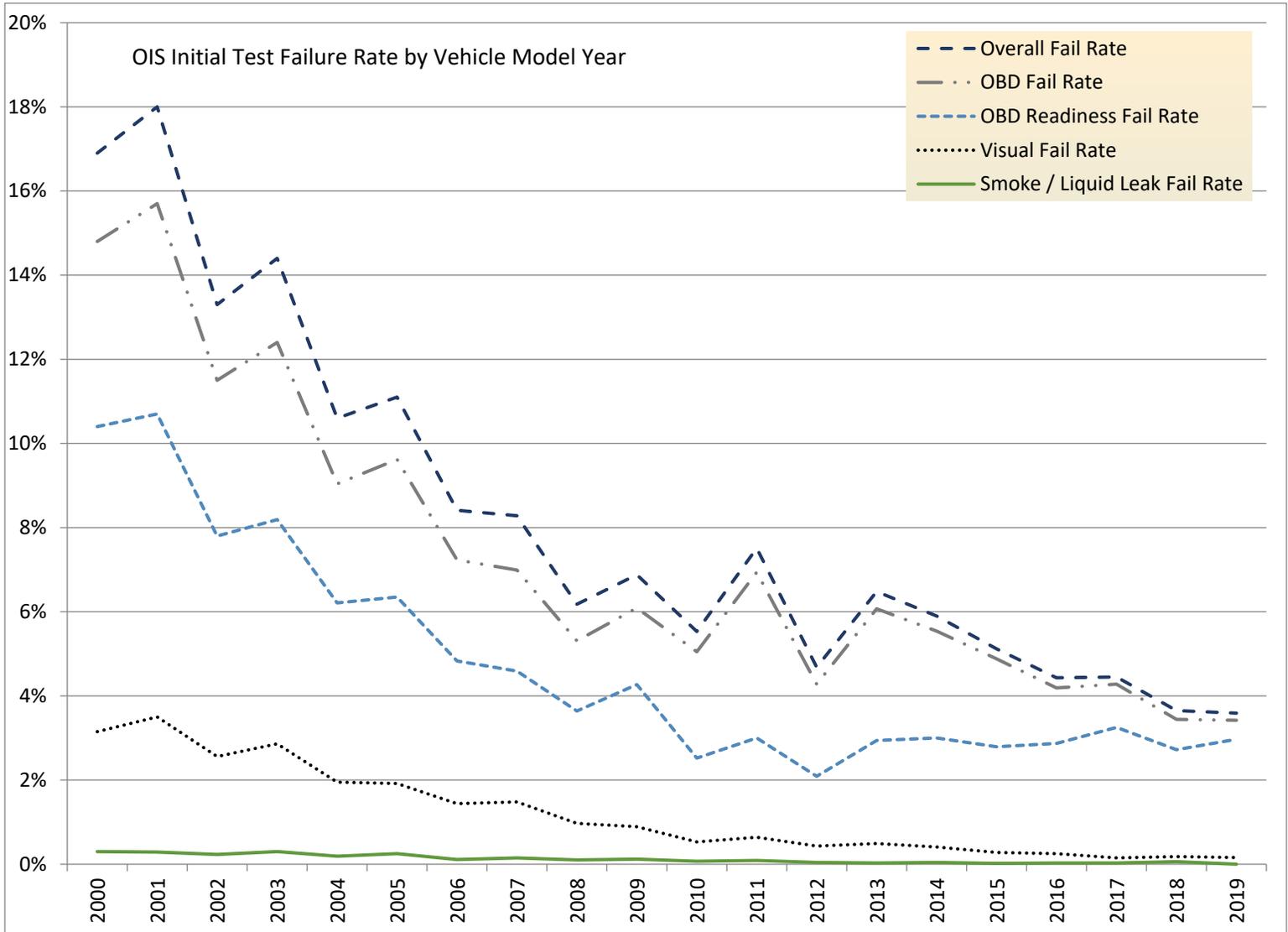


Note: Please see tabular data in Table 18 for BAR-97 tests conducted on other vehicle model years not shown in chart.

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12. OIS INITIAL TEST FAILURE RATE BY VEHICLE MODEL YEAR



Note: Please see tabular data in Table 19 for OIS tests conducted on other vehicle model years not shown in chart.

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13. REFEREE ACTIVITY

Referee Activity	OIS Certificates Issued	BAR-97 Certificates Issued
Certificate of Compliance	285	195
Certificate of Non-Compliance	0	0
Parts Cost	37	6
Hardship Extensions	0	0
Exempt Vehicle	0	26
Exempted by Directive	4	2
Parts Exemption	4	0
Unknown Outcome	0	0
Permanently Exempt Vehicle	0	0
Temporarily Exempt Vehicle	0	0
Total	330	229

14. ACTIVE TECHNICIANS

License Type	Technician Count
EA (Inspect and Repair Enhanced)	0
EB (Inspect and Repair Basic)	0
EI (Repair Only)	0
EO (Inspect Only)	2,761
EO and EI (Inspect and Repair)	2,916
Total	5,677

15. INSPECTION COSTS BY STATION AND TEST TYPE¹

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	35,393	\$55.18	216,483	\$48.75	251,876	\$49.65
STAR Test Only	71,243	\$50.22	391,856	\$49.34	463,099	\$49.47
Non-STAR Test and Repair	7,400	\$54.94	121,047	\$57.76	128,447	\$57.59
Non-STAR Test Only	1,970	\$42.97	16,745	\$42.45	18,715	\$42.50
Test and Repair/Dealer	2	\$70.25	2,344	\$65.65	2,346	\$65.66
Total	116,008	\$51.91	748,475	\$50.42	864,483	\$50.62

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16. INSPECTION COSTS BY STATION AND EQUIPMENT TYPE¹

Station Type	BAR-97 Initial Test Count ²	Average BAR-97 Inspection Cost ²	OIS Initial Test Count ³	Average OIS Inspection Cost ³	BAR-97 Inspection Cost ⁴	Average BAR-97 Inspection Cost ⁴	OIS Initial Test Count ⁴	Average OIS Inspection Cost ⁴
STAR Test and Repair	0	\$0.00	11,771	\$49.93	35,393	\$55.18	204,712	\$48.68
STAR Test Only	319	\$50.33	5,962	\$49.01	70,924	\$50.22	385,894	\$49.34
Non-STAR Test and Repair	3	\$57.25	87,804	\$61.00	7,397	\$54.94	33,243	\$49.20
Non-STAR Test Only	1	\$51.75	7,717	\$42.59	1,969	\$42.97	9,028	\$42.33
Test and Repair/Dealer	0	\$0.00	2,344	\$65.65	2	\$70.25	0	\$0.00
Total	323	\$50.40	115,598	\$58.12	115,685	\$51.92	632,877	\$49.02

¹Note: Smog Check Inspectors are asked to enter their inspection costs once per month. These costs may or may not include any discounts and may not reflect the actual inspection cost. Additionally, inspection costs entries in excess of \$99 cannot be entered into the BAR-97 software.

²BAR-97 Equipment Only

³OIS Equipment Only

⁴Both Equipment (BAR-97 and OIS)

17. REPAIR COSTS

Repair Station Type	All Cost Ranges	Vehicles Repaired	Average Cost	(All Cost Ranges) Vehicles Repaired	(All Cost Ranges) Average Cost
STAR Repairs (Test and Repair, Non-CAP)	\$1-100	1,028	\$51	4,580	\$433
	\$101-250	1,046	\$173		
	\$251-500	1,221	\$364		
	\$501-650	407	\$569		
	Over \$650	878	\$1,223		
Non-STAR Repairs (Test and Repair)	\$1-100	339	\$45	1,323	\$432
	\$101-250	360	\$173		
	\$251-500	296	\$363		
	\$501-650	90	\$580		
	Over \$650	238	\$1,404		
Repair Only	\$1-100	0	\$0	0	\$0
	\$101-250	0	\$0		
	\$251-500	0	\$0		
	\$501-650	0	\$0		
	Over \$650	0	\$0		
CAP Repairs	\$1-100	0	\$0	145	\$699
	\$101-250	4	\$198		
	\$251-500	35	\$391		
	\$501-650	32	\$596		
	Over \$650	74	\$916		
Total Repairs	\$1-100	1,367	\$49	6,048	\$439
	\$101-250	1,410	\$173		
	\$251-500	1,552	\$364		
	\$501-650	529	\$573		
	Over \$650	1,190	\$1,240		

Note: Non-CAP repair costs are based solely on Smog Check Inspector entries. The majority of non-CAP repairs are not entered into the repair database and therefore not included in this summary.

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18. 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	410	100	24.39%	15.85%	6.10%	10.00%	4.88%	NA
1977	542	107	19.74%	13.47%	3.87%	9.96%	4.61%	NA
1978	608	147	24.18%	14.97%	6.25%	12.83%	5.26%	NA
1979	698	169	24.21%	15.47%	5.59%	12.46%	5.73%	NA
1980	390	89	22.82%	14.10%	7.69%	11.54%	6.92%	NA
1981	425	121	28.47%	20.94%	9.65%	12.71%	8.00%	NA
1982	461	115	24.95%	16.05%	8.24%	12.15%	6.72%	NA
1983	558	136	24.37%	16.67%	6.63%	11.65%	5.20%	NA
1984	1,029	275	26.72%	20.31%	7.87%	11.08%	5.44%	NA
1985	1,351	354	26.20%	18.58%	6.59%	12.44%	6.29%	NA
1986	1,755	426	24.27%	16.81%	5.58%	11.79%	6.27%	NA
1987	2,022	521	25.77%	18.00%	6.08%	11.13%	5.00%	NA
1988	2,367	565	23.87%	16.22%	5.28%	11.36%	4.31%	NA
1989	3,369	798	23.69%	16.27%	4.60%	11.28%	4.81%	NA
1990	3,994	909	22.76%	14.87%	4.46%	11.44%	3.63%	NA
1991	4,414	997	22.59%	14.64%	4.01%	10.94%	4.12%	NA
1992	4,404	970	22.03%	14.44%	3.59%	10.06%	3.75%	NA
1993	5,420	1,273	23.49%	15.39%	3.21%	10.54%	4.23%	NA
1994	7,050	1,713	24.30%	15.23%	2.88%	11.06%	3.99%	NA
1995	8,279	1,902	22.97%	14.99%	2.51%	10.18%	3.94%	NA
1996	10,824	2,246	20.75%	9.76%	1.15%	11.81%	3.93%	11.79%
1997	13,100	2,923	22.31%	9.84%	1.53%	13.87%	3.72%	13.85%
1998	19,409	3,688	19.00%	7.44%	1.24%	12.41%	3.32%	12.40%
1999	21,208	3,749	17.68%	5.70%	1.07%	12.44%	3.44%	12.44%
2000	366	50	13.66%	6.56%	3.28%	7.38%	3.01%	7.38%
2001	239	40	16.74%	8.79%	1.67%	10.04%	2.93%	10.04%
2002	321	45	14.02%	4.98%	1.25%	8.72%	2.80%	8.72%
2003	273	35	12.82%	6.96%	2.20%	8.06%	2.20%	8.06%
2004	409	36	8.80%	3.42%	0.98%	6.11%	2.20%	6.11%
2005	302	27	8.94%	3.31%	1.32%	5.96%	0.66%	5.96%
2006	504	32	6.35%	2.38%	0.40%	3.37%	1.98%	3.37%
2007	257	19	7.39%	2.72%	0.78%	5.84%	1.17%	5.84%
2008	306	14	4.58%	2.29%	1.31%	2.29%	0.65%	2.29%
2009	87	2	6.90%	3.45%	2.30%	3.77%	2.30%	3.45%
2010	75	5	6.67%	0.00%	0.00%	4.00%	2.67%	4.00%
2011	119	3	2.52%	0.84%	0.84%	2.52%	0.84%	2.52%
2012	259	7	2.70%	0.39%	0.00%	2.32%	0.77%	1.93%
2013	50	3	6.00%	2.00%	0.00%	0.00%	6.00%	0.00%
2014	44	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2015	57	2	3.51%	0.00%	0.00%	1.75%	0.00%	1.75%
2016	45	3	6.67%	0.00%	0.00%	4.44%	6.67%	4.44%
2017	59	2	3.39%	1.69%	0.00%	1.69%	3.39%	1.69%
2018	84	1	1.19%	0.00%	0.00%	0.00%	1.19%	0.00%
2019	178	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2020	47	1	2.13%	2.13%	0.00%	0.00%	2.13%	0.00%
Other	3	2	66.67%	33.33%	0.00%	33.33%	0.00%	0.00%
All Model Years	118,171	24,626	20.84%	10.88%	2.43%	11.65%	3.85%	7.06%

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 20 for Smog Check requirements.

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19. 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
1996	1	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1997	14	7	50.00%	35.70%	21.40%	28.60%	14.30%	7.14%
1998	189	39	20.60%	18.50%	4.23%	16.40%	8.99%	2.12%
1999	825	134	16.20%	13.50%	3.03%	13.10%	8.97%	0.36%
2000	36,538	6,174	16.90%	15.10%	3.15%	14.80%	10.40%	0.30%
2001	29,830	5,371	18.00%	16.00%	3.50%	15.70%	10.70%	0.29%
2002	47,123	6,270	13.30%	11.70%	2.56%	11.50%	7.80%	0.23%
2003	36,560	5,271	14.40%	12.70%	2.86%	12.40%	8.19%	0.30%
2004	61,517	6,514	10.60%	9.23%	1.95%	9.04%	6.21%	0.19%
2005	42,527	4,730	11.10%	9.87%	1.92%	9.62%	6.35%	0.25%
2006	73,989	6,225	8.41%	7.35%	1.44%	7.23%	4.83%	0.11%
2007	47,697	3,950	8.28%	7.14%	1.48%	6.99%	4.59%	0.15%
2008	66,350	4,098	6.18%	5.41%	0.97%	5.31%	3.64%	0.10%
2009	23,446	1,612	6.88%	6.21%	0.89%	6.09%	4.27%	0.12%
2010	57,820	3,200	5.53%	5.12%	0.53%	5.05%	2.52%	0.07%
2011	30,513	2,293	7.51%	7.03%	0.64%	6.94%	3.00%	0.09%
2012	94,036	4,397	4.68%	4.33%	0.43%	4.28%	2.09%	0.04%
2013	15,612	1,011	6.48%	6.10%	0.49%	6.07%	2.94%	0.03%
2014	15,991	944	5.90%	5.58%	0.41%	5.54%	3.00%	0.04%
2015	17,468	895	5.12%	4.90%	0.28%	4.88%	2.79%	0.02%
2016	24,821	1,099	4.43%	4.21%	0.25%	4.19%	2.87%	0.03%
2017	14,414	642	4.45%	4.31%	0.15%	4.28%	3.25%	0.03%
2018	11,796	430	3.65%	3.50%	0.18%	3.44%	2.72%	0.06%
2019	10,517	378	3.59%	3.42%	0.16%	3.42%	2.97%	0.00%
2020	1,426	83	5.82%	5.82%	0.00%	5.75%	5.19%	0.07%
Other	5	4	80.00%	60.00%	40.00%	60.00%	60.00%	0.00%
All Model Years	761,025	65,771	8.64%	7.72%	1.36%	7.59%	4.88%	0.14%

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 20 for Smog Check Requirements.

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20. SMOG CHECK REQUIREMENTS BY VEHICLE TYPE

Fuel Type	Model-Year	GVWR ¹	OBD II Equipped?	Smog Check Required None	Smog Check Required OIS Test	Smog Check Required 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			
Motorcycle	All	All	All			
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 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).