

The World Bank  
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Washington DC 20433

# **Population of Vehicles in Mexico City's Metropolitan area and their Emission levels**

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STRATEGY

**THE DEVELOPMENT OF THE VEHICLE EMISSIONS TEST PROGRAM IN MEXICO.....**

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# **The Development of the Vehicle Emissions Test Program in Mexico The Mexico City Metropolitan Area**

## **Structure and Location**

The City of Mexico and its metropolitan area form one of the largest urban concentrations in the world with a population of over 20 million inhabitants and with a vehicle population of over 3 million. This metropolitan zone (the Metropolitan Zone of the Valley of Mexico, known as the ZMVM for its initials in Spanish), is formed by the Federal District which is the capital of the Republic of Mexico together with 18 surrounding municipalities from the state of Mexico. The ZMVM is located in a valley surrounded by mountains at 2240 m. altitude. It has a warm climate throughout the year with monthly average temperatures between 12 and 18 degrees centigrade. The average monthly relative humidity is between 50 and 67 percent.

Each of the two Federal Entities involved (the Federal District and the State of Mexico) have autonomous control of their own emissions programs. A Metropolitan Ambient Commission (CAM) was formed to coordinate actions between them but does not have any direct overall control at the operational level and because of this, important practical differences exist between ostensibly identical programs in force in the same emissions catchment area.

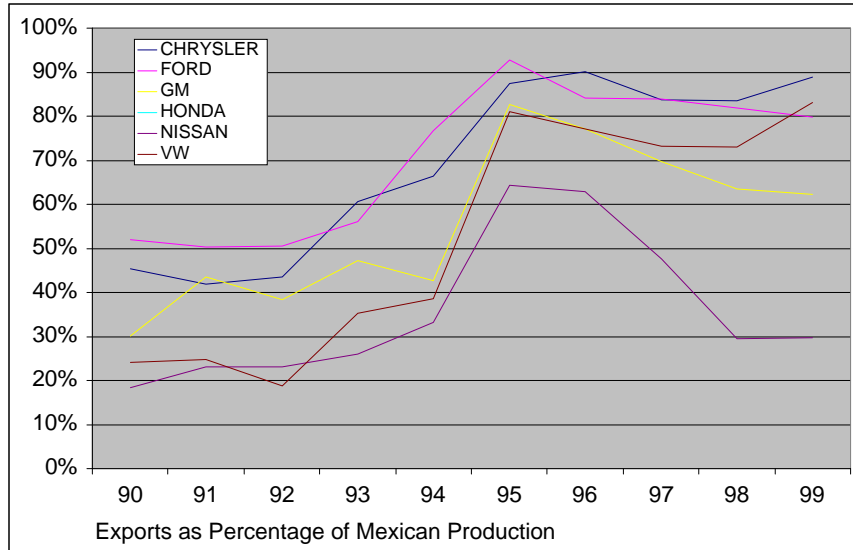
## **Ozone**

This high altitude (approximately 50% higher than Denver Co) gives Mexico City a higher incidence of ultraviolet radiation which, when combined with hydrocarbon and NO<sub>x</sub> ambient emissions, excentuates the formation of ozone. The problem is enhanced by the fact that the City is located in a valley surrounding by mountains causing sufficient air stagnation for the thermal inversions to be a problem particularly in the winter months. Also, throughout the year, there are often not sufficient ground level prevailing winds to blow the contamination generated within the city, elsewhere.

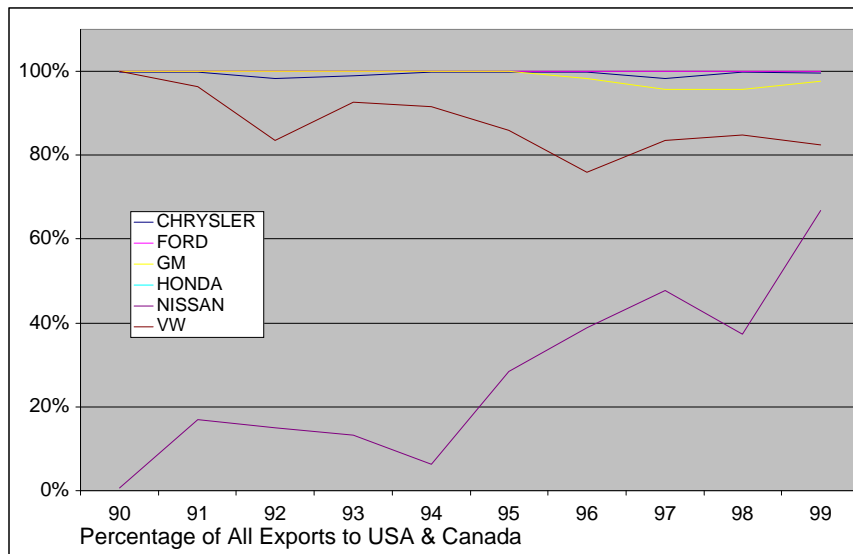
During the 1980s it was appreciated by some that ozone would become a major problem and that vehicular emissions control would be required to maintain a satisfactory air quality.

### 1. The Mexican Automotive Industry

During the 1970s and previous decades, the national policy had been towards developing a self-sustaining industrial base in the country. The automotive industry, whose industrial importance cannot be overestimated, was legislated into increasing national integration by sourcing locally their component needs and eliminating imports both of components and finished vehicles. This industrial policy played an important part in building the industrial base that Mexico today enjoys, but it can be argued that the volume of vehicles that were built and sold in Mexico was not sufficient to justify this policy. As a result, the automotive industry became uncompetitive on a worldwide level and the incorporation of new technology was delayed.



The opening of the economy culminating in the Free Trade Agreements, however has changed drastically this situation resulting in the majority of the Auto Manufacturers producing more vehicles for export than for local consumption.



The majority of the Auto Manufacturers are currently exporting principally to North America where strict emissions control legislation and vehicle emissions warranties exist.

## Emissions Control Technology

<i>Vehicle Emissions Control Technology in Mexico</i>	
1960-1972	Positive Crankcase Ventilation (PCV)
1972	Evaporative Control (Canister)
1973-1977	Electronic Ignition
1978-1980	Altitude Compensation for carburetors

1981-1984	Computerized Ignition
1985-1989	Fuel injection
1991	Catalytic converters Introduced
1993	3 way catalytic converters in most vehicles

Source: AMIA

As can be seen in this table, almost no catalytic converters were introduced into the Mexican market until 1991 and it wasn't until 1993 that three way closed loop catalytic converters became available in the majority of vehicles despite their having appeared in the North American market as early as 1984.

2. The Mexico City Vehicle Emissions Verification Program
3. Overview

<b>Emissions Verification Program in the City of Mexico</b>	
1982	Voluntary Inspection program is initiated, operated by the Mexico City Government
1988	Obligatory annual emissions inspection for 1982 and earlier model years with BAR'84 (3 gas) equipment & procedures Test & Repair Centers Authorized
1992	Obligatory Test for all Vehicles Changed to BAR'90 (4 gas) equipment & static test procedure.
1993	Test-only Centers operated by the Mexico City Government are closed and multi-lane "Macrocenters" are opened Dyno test introduced for Intensive usage Vehicles
1996	Test & Repair centers closed. New Verificenters Authorized Day-without-a-car Program Started
1997	"Clean" Cars Exempted from Day-without-a-car Program More Verificenters Authorized
Jul 97	Hybrid Test Protocol of CAM97 is started (ASM Test Procedure)
1999	CAM97 Test Procedure fully adopted Obligatory Cat Converter change for 1993 model year vehicles
2000	NOx limits added. Obligatory Cat Converter change for 94 & 95 model year vehicles

4. 1982

In 1982, a voluntary inspection program was initiated, operated by the Mexico City government's own test centers, measuring hydrocarbons and carbon monoxide.

5. 1988

During 1988, a law was passed requiring an annual emissions check for all vehicles of 1982 and previous model years. This emissions verification was conducted in test centers operated by the city government and in independent test and repair garages. The equipment and static test procedures used met the BAR'84 (California Air Resources Board Bureau of Automotive Repair 3 gas) standard. It was soon appreciated that since this equipment was of manual operation requiring the test technicians to read the instruments and write the result on the inspection report, often the reported figure bore no relationship whatsoever to the instrument readings.

6. 1992

This same problem in California led to the development of the BAR'90 specification in which computerized equipment automatically generated the test reports hence eliminating this source of error. This specification was finally adopted in Mexico City in 1992 when a static test procedure measuring 4 gases was implemented to check the emissions from all the vehicles circulating in the city on an annual basis.

Concurrently, a bid proposal had been generated in 1991 to create independent multi-lane test-only "Macro-centers" in which some of the lanes would be equipped with dynamometers to allow dynamic loaded-mode testing. The dynamometers had originally been specified to allow testing of those vehicles with catalytic converters but this was re-evaluated. It did not seem to make much sense to focus the highest emissions control investment on the cleanest vehicles and thus the dynamic dynamometer tests were instead used to verify the emissions from the intensive usage vehicles since these were arguably the highest contributors to the emissions inventory. Other lanes in the Macrocenters were equipped with BAR'90 static test equipment to cover the remaining vehicles.

#### 7. 1993

These centers were in full time operations during 1993. At the same time, strong lobbying by the independent garages forced the city government to close their own test centers. During 1993, 500 Test & Repair centers (with six makes of BAR'90 style equipment) and 24 Macro-centers (with three makes of equipment) were operating in the city. The macro centers each had 5 or more test lanes and were privately operated by different industrial groups, each with several centers.

All private vehicles were subject to a 2 speed static test procedure (Low Idle and at 2500 rpm.). The intensive usage vehicles, principally being those owned by companies, were subjected to a low idle static test followed by a road load 40 kph dynamometer test. The load applied equated to 3.5 bhp for 4 cylinder, 7.6 bhp for 6 cylinder and 9.6 bhp for 8 cylinder engined vehicles.

This side-by-side operation allowed a direct comparison to be made between the test and repair garages and the test-only Macrocenters. Both had distinct advantages.

### **Test & Repair vs. Test-only Centers**

The test and repair garages were by far the most convenient for the vehicle owners in that they eliminated the Ping-Pong effect. Most vehicle owners took their vehicles to the garage for a tune-up and to get through the emissions test allowing a one-stop solution to this requirement. They were not caught between a garage that argued that they had correctly repaired and tuned-up the vehicle and the Macro-center that reported the vehicle out of limits. Because of this, most private vehicles went to the test and repair garages whilst the intensive usage vehicles had to go to the Macrocenters for the dynamometer test. None of the test and repair garages were equipped with dynamometers. The test and repair garages were also more convenient to the equipment manufacturers because their utilization factor was lower requiring a higher number of test units to be installed.

On the other hand, the test-only Macrocenters were far easier for the government inspectors to supervise and allowed better technical and administrative control to be enforced. Since these centers were concentrated in few industrial groups specializing in emissions verification, they facilitated the adoption of new technology and generated more uniform results between centers.

Over time, the results from the test and repair centers degenerated. The garages were obliged to return the vehicles to their owner with the corresponding emissions approval certificate attached and many soon found that they could cut back on the cost of the repair services performed if they cheated on the emissions test. Hence whilst the test and repair garages were very convenient to the end-user their impact on reducing emissions was considerably less than the test-only centers. It finally got to stage where an estimated 50 percent of the

vehicles that went through the test and repair centers obtained their approval certificate fraudulently.

The public opinion was of a highly faulted emissions control program - which got very close to being shut down permanently at this time.

This led to the program being totally restructured during 1995 with major changes being enforced as of January 1996.

#### 8. 1996

At this time, despite the political implications, the licenses were withdrawn from all the 600 test and repair centers. The number of test-only Macrocenters was increased from the then current 26 to 33 having between them, 180 test lanes. A series of stringent quantity assurance controls and technical changes were added to the multilane center operation and a new public identity was generated repositioning them as test-only "Verificenters".

### **The Verificenter Program**

The main changes that were applied and enforced were as follows:

- 1) A dynamometer test applying road load at 40 kph followed by a low idle static test was applied to all light duty vehicles (both private and intensive usage). Heavy-duty vehicles, because their size and weight considerations were not dynamometer tested and were subjected to the 2 speed static test as in BAR'90. Whilst in BAR'90 the low idle static test occurs before the high idle test, here the procedure was reversed. It was found that since the vehicle engine's operation at low idle is intrinsically more unstable, that statistically more relevant data was obtained if this stage occurred after the previous warm-up stage at 2500 rpm or on the dynamometer.
- 2) A centralized operation in each test center was required with "blind" test lanes. The test results, which had previously been available to the tester in the test lane were now only available at the exit station from the center. This required rewriting much of the software to network the systems connecting a data entry station in each test lane to each physical test station, via centralized databases and computers controlling the lanes and printing the reports at the exit from the Verificenter.
- 3) Electronic security was added via specific access codes for each operational function and checksum algorithms protecting all registers. These measures were designed to restrict tampering of the test results by the personal in the Verificenter.
- 4) Additional technical and administrative audits were also structured for all test centers, some by government inspectors and others by independent certification authorities and ecological groups.
- 5) Gas calibration audits were required on each test lane every 30 days. These audits had to be performed by independent accredited materials standard laboratories using EPA protocol 1% certified gas traceable to NIST.
- 6) Permanent government inspectors were installed in each test Center for the following two-year period.

7) Video cameras were installed monitoring the operation in each test lane of each test Center. This allowed real-time video auditing by the government directly from its ecology offices and continuous 24-hour video recording of the test area. These recordings had to be handed in by the center to ecology on a weekly basis.

8) Vehicle monitoring systems were also installed in all centers generating real-time information and alarms on the number of vehicles entering and leaving each test lane and each center. The systems monitored the time each vehicle remained in the test position. This information was monitored by the government directly from its ecology offices and was also used to generate waiting time information for the general public which is displayed on an electronic scoreboard at the entrance to each Verificenter.

9) Rigid recording and reporting rules were enforced for the general operation of each center and for all incidents in the center. ISO 9000 certification was made a requirement for all test centers.

As a result of these actions, the quality of the emissions tests improved substantially. During the second semester of 1995, the test and repair centers reported a reject rate of 5.8 percent whilst the macro centers reported to reject rate of 10.3 percent. During the first semester of 1996, under these new operating rules, the reject percentage from the Verificenters in Mexico City rose 22.5 percent<sup>1</sup>.

### **The "Day-without-a-Car" Program**

At the same time, (first semester of 1996) major changes were made in the program affecting the type of certificates that were issued to the vehicles. Mexico City initiated a "day without a car" program which was originally defined to limit the vehicle emissions during the winter months only. As has been previously mentioned, the Valley of Mexico suffered from severe thermal inversions during the winter months when the highest concentrations of ozone are measured at street level. Data available at that time showed the highest ozone levels to occur between October and March each year. Of the precursors to ozone, 71.5 percent by weight of the NO<sub>x</sub> was originated by transport vehicles and 54.1 percent by weight of the HC was originated by the same source<sup>2</sup>.

To combat this, it was decided to limit the operation of all the vehicles in the ZMVM during the winter months, by one day a week. During an emissions contingency, (defined as when the air quality index was over three times the internationally accepted standard) only the cleanest vehicles would be allowed to operate. Hence, different certificates were issued to the vehicles, through a mixture of emissions and technology level, each with a different and highly visible windscreen sticker.

**Certificate ONE**, was issued to those vehicles that:

- met stricter emissions levels and
- had fuel injection and

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<sup>1</sup> DGCA: 1996

<sup>2</sup> Proaire: 1995 data

- had license plates from the Federal District or from the state of Mexico. This limited the vehicle's operation by one day per week according to its license plate termination.

**Certificate TWO** was issued to all the vehicles that met the normal emissions limits but did not meet the other conditions. These vehicles were also subject to one day without a car per week plus they were not able to operate on the days that were declared to be ambient contingency days.

All the vehicles had to get through the emissions tests. The program did not contemplate any waiver for those vehicles that failed their emissions tests or where the cost of repair was above a certain figure hence the only options that the vehicle owner had was to get through the test or to not use his vehicle in the ZMVM. The windshield stickers were very effective in controlling this since they were readily visible to any policeman on duty and the fine imposed for operating a vehicle without an emissions sticker was sufficiently high to maintain the police force's interest in looking out for offenders. All traffic police were empowered to stop those vehicles without stickers.

There was a high level of acceptance amongst the general public for this measure to control the vehicle emissions during the winter months, but before the winter season was over, the Mexico City Mayor decreed the program as permanent causing the general level of acceptance to take a nosedive. Twenty-four percent of the journeys within the ZMVM were by private car<sup>3</sup> and whilst most people were willing to make an extra effort to live without their car one day a week during the winter months, they were not so willing to do it on a permanent basis. The public transport system in the city was crowded, insufficient and in many ways deficient. The solution that many families adopted was to buy an additional older vehicle ensuring that the license plates termination on each of their vehicles restricted their movement to different days of the week. Hence, this measure to restrict the use of vehicles ended up by causing an increase in the number of vehicles in the city nullifying to a great extent the positive results expected. Those families that obtained an additional vehicle, were forced to use this older and more contaminating car on those days that their cleaner and newer car could not circulate. It also modified the traffic patterns particularly at weekends when all vehicles were allowed to circulate, providing that an emissions contingency was not enforced. Here, each family member could drive a different car and Saturdays became one of the most intense traffic days of the week.

9. 1997

To partially solve this problem, for the first semester of 1997 a third certificate type was added.

**The certificate ZERO** allowed vehicles to operate on all the days of the week.

The certificates ZERO was issued to those vehicles that:

- met the most stringent emissions limits
- were of model year 1993 or later
- were fitted with a OEM catalytic converter
- had a fuel injection

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<sup>3</sup> INEGI: 1994



- had a gross vehicle weight of less than 2727 kgs.
- had license plates from the Federal District or from the state of Mexico.

This measure allowed the newer cars to be used every day of the week and effectively limited the "day without a car" program to those cars of pre-1993 model years plus vehicles of higher gross vehicle weights (particularly SUVs and pickups). The newer model year cars that did not obtain the zero certificates because of their emissions levels or more importantly because they had out-of-state plates were also restricted. Since its implementation, the difference between the certificate ONE and certificate TWO has gradually dropped due to there being less and less emissions contingency days. Although the two types of certificates are still handled separately there is now little effective difference between them.

### **Distribution by Type of Certificate**

During the first semester of 1997, twenty-four percent of private cars obtained the ZERO certificate, 20 percent obtained the certificate ONE and 56 percent obtained the TWO. For intensive usage vehicles the percentages are slightly different with 26 percent obtaining the ZERO, 18 percent the ONE and 56 percent the certificate TWO. For these two types of vehicle, 22 percent and 21 percent rejects were recorded respectively<sup>4</sup>.

### **False Passes**

With these measures, it was estimated that during the first semester of 1997, 73 percent of all vehicles obtained their emissions certificates correctly. It was estimated that eight percent of vehicles obtained a false approval due to incorrect practices in the test process in the Verificenter and that an additional 19 percent of vehicles obtained their certificate through incorrect practices by the garage that tuned the vehicle prior to the test. Here, tuning the vehicle "Late and lean" became a common practice and the vehicle would be re-tuned having passed the test. Whilst these percentages may seem high, they compare very favorably with the more than 50 percent figure from the test and repair centers.

Whilst great strides have been made in improving the quality of the emissions control program, there was still several areas that needed to be attacked to resolve problems.

### **Principal Remaining Problems**

- 1) The elimination of the test and repair centers caused a major bottleneck in the remaining Verificenter test lanes. This was particularly evident at the end of each month when extremely long queues were formed of irate vehicle owners looking to get a test during the last few days of their assigned time-slot.
- 2) The test protocol that is being used applied a road load to the vehicle via the dynamometer at 40 kph for 30 seconds and then a second stage of no-load at low idle for 30 seconds. This was not sufficient to warm up and ignite the catalytic converter on a lot of vehicles and as such could not detect if the catalytic converter was working.

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<sup>4</sup> DGCA 1 Semester 1997

It was easy to circumvent the test by tuning "lean and late" and/or by other methods. Since NOx was not being measured, there was not any element of control to restrict this. The use of NOx measurement as an element of control is independent of the need to measure it due to its importance as a critical precursor for ozone.

3) The test protocol did not generate sufficiently stable or repetitive test results or with sufficiently low measurement uncertainties to allow its use with the new lower limits that were to be enforced.

### **Increasing installed test capacity.**

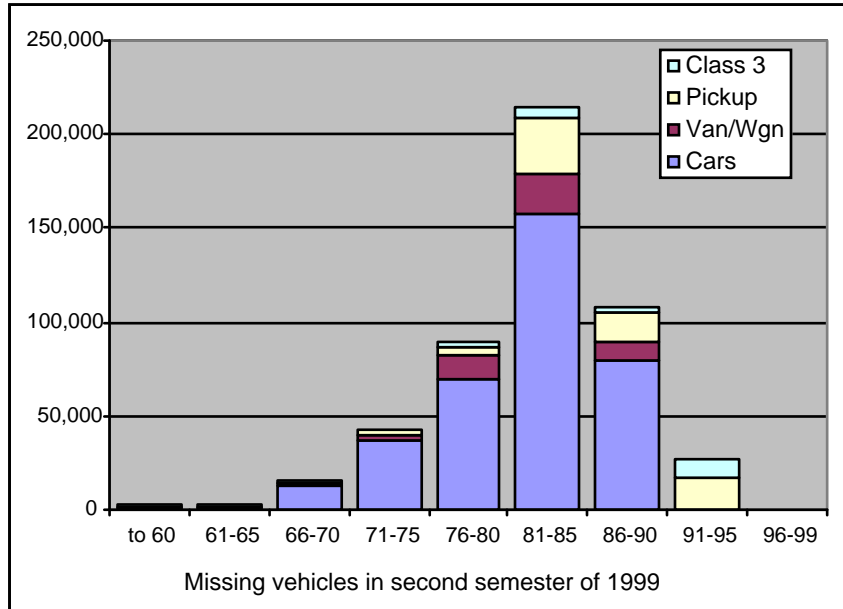
The installed capacity problem was solved by a new bid proposal which increased the total number of Verificenters to 76 with an authorization to operate 337 test lanes. These started operating during 1997 and brought the installed capacity to approximately three times the vehicle population. This number of test lanes was that which probably best maintained the balance between the quality of service to the end-user (i.e. waiting time) and center profitability. If there are too few centers, the profitability of each center is very high because it will be working closer to its installed capacity but the appreciation of the general public is low because of poor quality of service. This is particularly true at the end of the month due to the well-known Mexican trait of doing everything at the last moment. If there are too many centers then the waiting time will usually be negligible as well as the return on investment for the center. This puts a strong pressure on each center to behave unethically if by doing so will improve its profitability. This is especially true for those centers that have to pay back bank loans at the prevalent high interest rates. As a result some centers modified their operational procedures to attract more clients. This involved not charging for rejects, turning a blind eye to visual inspection failures and in some cases getting vehicles falsely through the test procedure.

When there were few centers, the companies were so highly profitable that they were willing to police themselves to ensure that they did not lose the opportunity of remaining in this excellent business. When there are many centers, the quality of service increases dramatically but so does the requirement for government supervision. Unless the extent and sophistication of that supervision increases proportionately to the total number of centers, their effectiveness in controlling and reducing emissions will suffer.

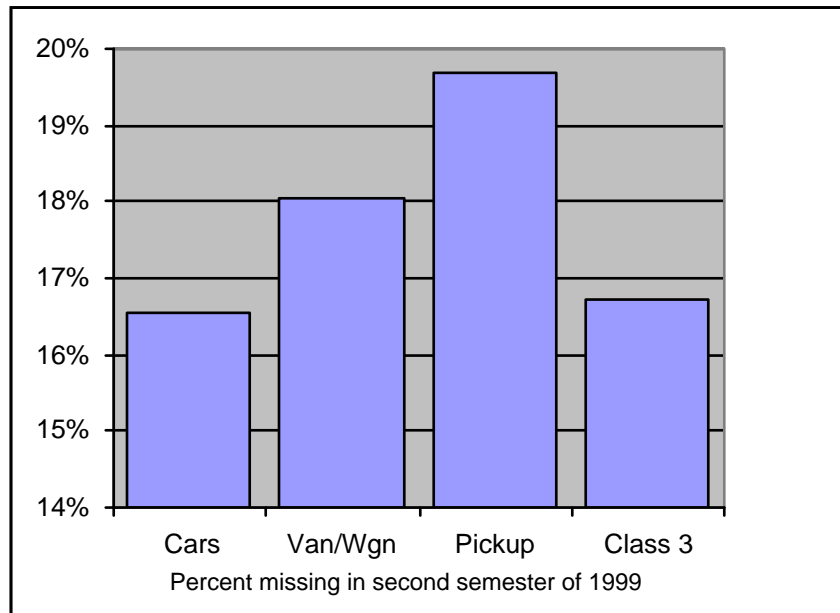
This became more than evident when the state of Mexico, during 1998 authorized additional Verificenters and test lanes, many of which surrounded the Federal District. By 1999, the two federal entities had between them 154 Verificenters operating a total of 572 test lanes. The two entities involved did not share a common balanced determination to maintain high standards in the emissions verification program causing an important number of vehicles to escape from the test program.

At the same time, during 1998 and 1999, in a move to reduce the public's perception of corruption among the police force, the traffic police were forbidden from detaining vehicles because of Verification Sticker violations – this being an exclusive faculty of the Ecological police – of reduced number. As a result, it became feasible to drive around the city without a sticker on the windshield without being pestered.

## Missing Vehicles



In 1997, those vehicles with Federal District license plates had to verify in the Federal District. This restriction was later eliminated allowing the vehicle owner to choose in which Federal Entity to test. Due to the lack of centralized operational control of the two programs, this added flexibility caused control to be lost. Between the first semester of 1997 and the second semester of 1999, approximately 500,000 vehicles that should have been tested apparently disappeared from the program.



This represents 16.8 percent of the vehicle population. It can be expected that the vehicles that disappeared were principally those that would have had difficulty in passing their corresponding emissions test requirements. Of these, the 1981-85 model year range was the most affected with approximately 158,000 cars, 20,000 vans/wagons, 31,000 pickups and 5000 Class 3 vehicles disappearing from the program.

## **Technical Improvements**

To address the technical problems, during 1995- 96 considerable work was done by the Mexico City government to define a new protocol from which a hybrid version went into effect for the second semester of 1997. The new protocol consisted of an Acceleration Simulation Mode test (known as CAM 97) whose objectives were:

1. to generate more repeatable test results
2. to reduce the measurement uncertainties
3. to permit the use of stricter test limits
4. and to reduce False Approvals

## **CAM'97**

The CAM 97 protocol has the following elements in common with the BAR 97 specification:

- both measure HC, CO, CO<sub>2</sub>, O<sub>2</sub> and NO<sub>x</sub>
- both use zero air to calibrate the measuring instruments
- both require daily calibration of the dynamometer and the measuring instruments
- both have similar test protocols
- both contemplate the electronic transmission of data
- both use bar code readers
- and both include a training module

The principal differences between the CAM 97 protocol and the BAR 97 protocol are as follows:

- the CAM 97 protocol is for multi-lane operation designed for test-only centers with multiple test lanes where BAR 97 was designed for independent Test and Repair type centers
- the CAM 97 protocol is designed for high productivity test lanes with up to 150 tests per lane per day with centralized administration and printing in the test Center (vs. BAR average of 45).
- the CAM 97 protocol does not require a open communications link with the government center for each test. It is structured to have the information of the vehicle population installed in each center via CD and to generate database files with electronic signatures in each register which are later transmitted to Ecology.
- The Reject/Approval decision is made by the computer in the test center, not by the computer in the government offices. Because of this, the CAM97 specification has multiple access levels and privileges and many additional security checks and balances than are included in BAR97.

The use of loaded-mode constant speed testing (Acceleration Simulated Mode) had been proven to be accessible in investment and cost with over 15 million test having been conducted in Mexico before 1997. It allows repeatable measurements to be made with acceptable measurement errors. Whilst this test specification measures exhaust gas concentrations (in ppm or percent) it was designed to be updated to mass flow measurement (grams/ km) at a later date.

## CAM Test Protocol

The dynamic test procedure adopted has the vehicle operating in two stages. The first stage, at 24 kph, applies a load to the vehicle that equates to 50 percent of the maximum acceleration rate that the vehicle has in the FTS 75 test procedure. This is the same as the ASM5015 test procedure. The vehicle then accelerates to 40 kph where road load is applied for a total of 70 seconds. Here, the CAM97 procedure applies 15.5 percent less load than that in California. This overcomes the problem that is found in BAR97 with similar loading being applied to the engine under both operating conditions.

Although the same load is applied during the first stage of the test as in California, in real terms, for the majority of vehicles, this results in up to 23 percent more relative load to the engine due to the altitude reducing its effective total power output. During the 24 kph section of the test between 8 and 24 bhp are applied to the dynamometer according to the vehicles weight.

In the 40 kph section of the test, for those vehicles with 4 cylinder engines, 3.5 bhp is applied to the dynamometer. 6 cylinder engined vehicles have 7.6 bhp applied and 8 cylinder vehicles have 9.6 bhp applied.

The combined effect was to increase the range of evaluation to an engine torque relationship of up to 4:1.

During the second semester 1997 a hybrid test was instigated which combined these two stages with the previous test where the vehicle certification was conducted as before but with information being gathered for statistical purposes from the new sections of the protocol.

## Measurement Uncertainties

With the change in test procedures and test equipment mandated by the CAM 97 specification the measurement uncertainties involved in the gas measurement were substantially reduced.

HC Measurement uncertainties against a measurement of 100 ppm	
BAR'90	CAM'97
Residuales: < 25 ppm	Residuales: < 7 ppm
Bench: < 12 ppm	Bench: < 4 ppm
Cal Gas: < 2 ppm	Cal Gas: < 2 ppm
Total: < 39 ppm	Total: < 13 ppm
<b>39% of the Reading</b>	<b>13% of the Reading</b>

For HC, if we look at the strictest emissions limits that are applied, of 100 ppm, the measurement uncertainties with the previous equipment and specifications was 39 percent and by going to CAM 97 these were reduced to 13 percent.

<b>CO Measurement uncertainties against a measurement of 1.00 %</b>	
<b>BAR'90</b>	<b>CAM'97</b>
Background: < 0.02 %	Background: < 0.02 %
Bench: < 0.06 %	Bench: < 0.03 %
Cal Gas: < 0.02 %	Cal Gas: < 0.02 %
Total: < 0.10 %	Total: < 0.07 %
<b>10% of the Reading</b>	<b>7% of the Reading</b>

For CO, the strictest limits that were being applied was one percent and under these conditions the measurement uncertainties with the previous equipment and test specifications was 10 percent and this was reduced to 7 percent.

<b>NOx Measurement uncertainties against a measurement of 500 ppm</b>	
<b>BAR'90</b>	<b>CAM'97</b>
Background: < 25 ppm	Background: < 25 ppm
Cell: < 32 ppm	Cell: < 25 ppm
Cal Gas: < 10 ppm	Cal Gas: < 10 ppm
Total: < 67 ppm	Total: < 60 ppm
<b>13.4% of the Reading</b>	<b>12% of the Reading</b>

For NOx, looking at a reading of 500 ppm, the tolerances with the new equipment specification was set to 12 percent. however, to this must be added an uncertainty of 13.3% in the load and speed applied by a correctly calibrated and maintained dynamometer (3% for torque and 10% for speed)

This protocol was finally fully adopted with its corresponding emissions limits in the first semester of 1999. At this time, the nitrous oxide emissions were not used as a cause of rejection. This was later introduced in the first semester of 2000.

The new extended test protocol was benign for the majority of vehicles resulting in lower emissions readings from the same vehicle vs. the previous procedure. As an example, for those vehicles of up to 1985 model year and of less than 2727 kgs Gross Vehicle Weight, where the previous test procedure had a limit of 350 ppm HC and 3.5 percent CO, with the CAM 97 test procedure, equivalent limits giving the same reject rate, would be of the order of 270 ppm HC, 3.0 percent CO, and 1500 ppm of NOx.

For those vehicles of the same GVW but of the 1986-90 model year range where the traditional limits applied were 300 ppm HC and 3.0 percent of CO, a similar reject rate would be obtained with the CAM 97 test procedure against limits of 220 ppm HC and 2.5 percent CO combined with a limit of 1500 ppm NOx.

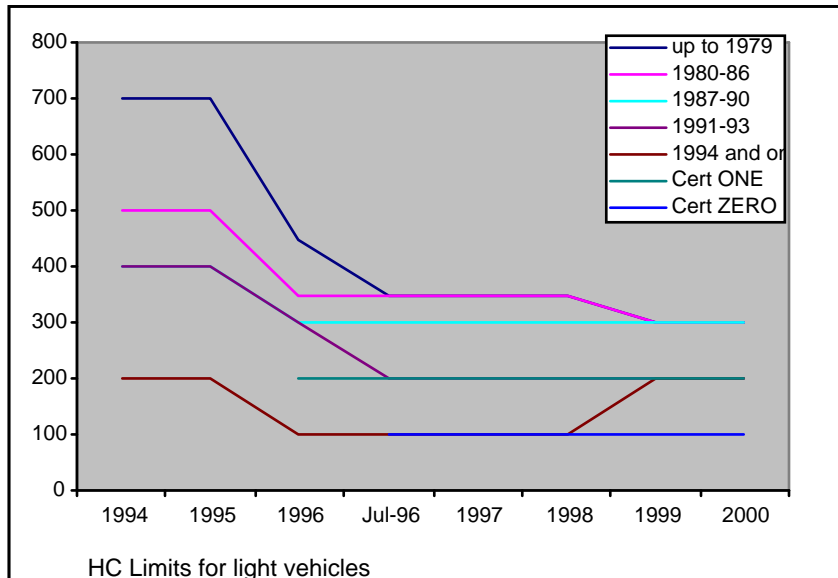
10. 1999

## **Emission Limits**

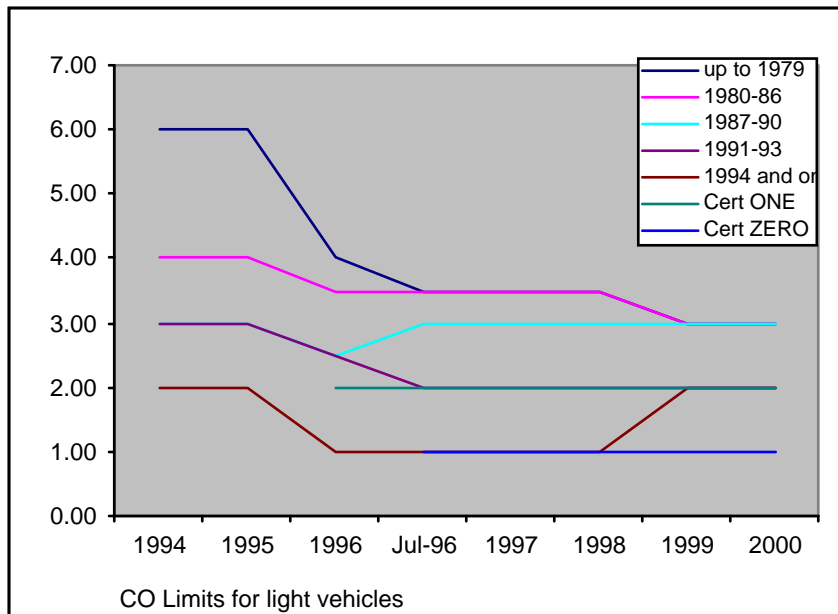
As a reflection of this, new emissions limits were published for the first semester of 1999 simplifying in the model year range is and reducing the maximum values. The following graphs illustrate the limit development process over the years.

It can be appreciated that as an incentive to remove older vehicles from the population, the current mandatory established emission limits are at a level that were not met by many of

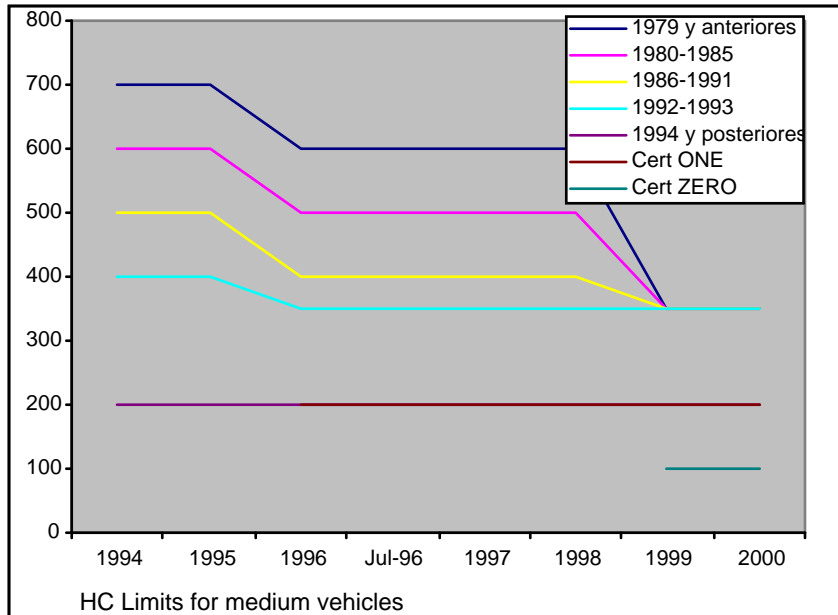
these vehicles when they were new. This tends to push these vehicles out of the ZMVM and into the rest of the country.



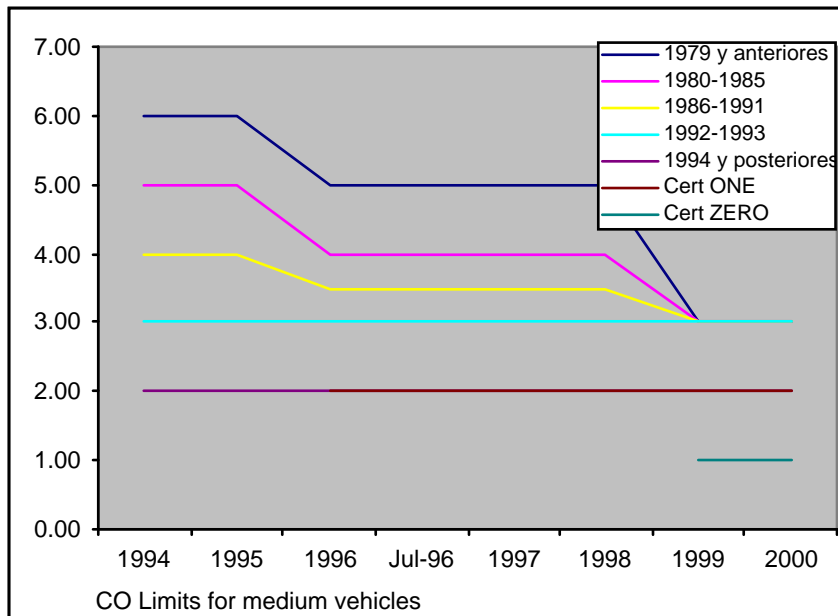
In 1999, a maximum HC limit of 300 ppm was established for all vehicles of less than 2727 kgs GVW up to the 1990 model year with a limit of 200 ppm for newer vehicles. To exempt from the day without a car program the vehicle had to meet had to be within a limit of 100 ppm HC.



For the same vehicles, the CO limit was set for 1999 at 3.0 percent for vehicles of up to the 1990 model year and 2.0 percent thereafter. Being within a 1.0 percent limit was a requisite for exempting the day without a car program



For vehicles of over 2727 kgs GVW, a limit of 350 ppm HC was established in 1999 for up to the 1993 model year and 200 ppm thereafter. The exemption level for the day without a car program was also set to 100 ppm.



As far as CO is concerned, a limit of 3.0 percent was established in 1999 for up to the 1993 model year and 2.0 percent thereafter. A target of 1.0 percent was again established to exempt the day without a car program.

### Catalytic Converter Replacement

During the first semester of 1999, a voluntary program was established to replace the catalytic converters on the 1993 model year vehicles. The change in catalytic converters was



only obligatory for those vehicles that had NOx emissions > 800 ppm. During the course of this program, it was seen that the 800 ppm level was unrealistically low and this figure was increased to 1200 ppm.

During the second semester 1999, all 1993 model year vehicles were required to change the catalytic converters independently of the emissions reading obtained in the test.

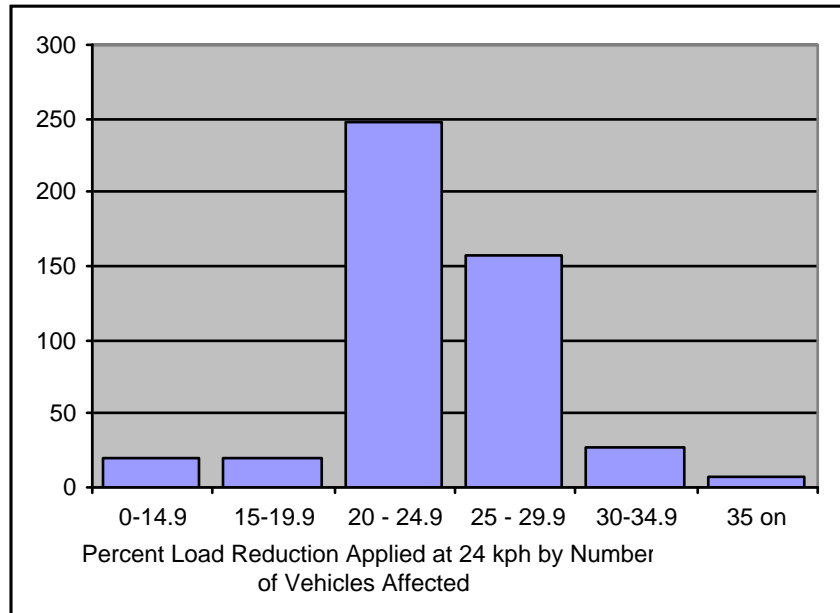
11. 2000

During the first semester of 2000, this program of the catalytic converter renewal was made obligatory for the 1994 model year cars and in the second semester of 2000 for the 1995 model year as well. The emissions results shown in the corresponding section of this report would not seem to justify the changes for the 94-95 model year vehicles.

### **NOx Limits**

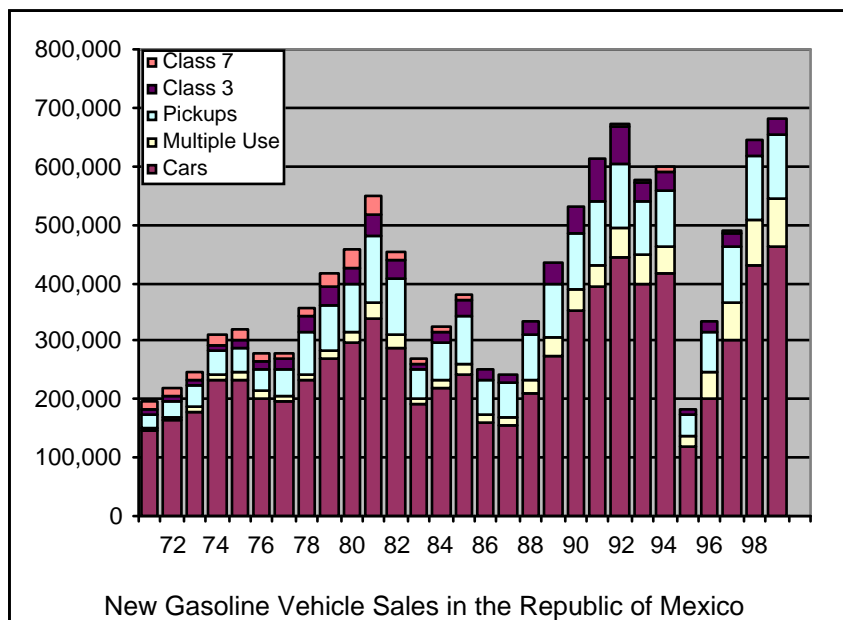
During the first semester of 2000, NOx limits were finally established for all vehicles. To obtain a certificate ZERO the vehicle has to generate less than 1200 ppm of NOx. To obtain a certificate ONE up to 1500 ppm of NOx is allowed and to obtain a certificate TWO up to 2500 ppm NOx emissions are permissible.

Having established these limits, it was discovered that they were causing unnecessary hardship to a number of vehicles, not allowing them to obtain the desired certificate, and as a result, the government decided to reduce the dynamometer load that is applied to the vehicle during the 24 kph stage of the test on 481 different vehicle types.



The applied reduction was between 8 and 53 percent (average reduction 24.4 percent) of the previous CAM 5024 (ASM5015) figure allowing them to reduce the NOx concentration from these vehicles without affecting the published limits.

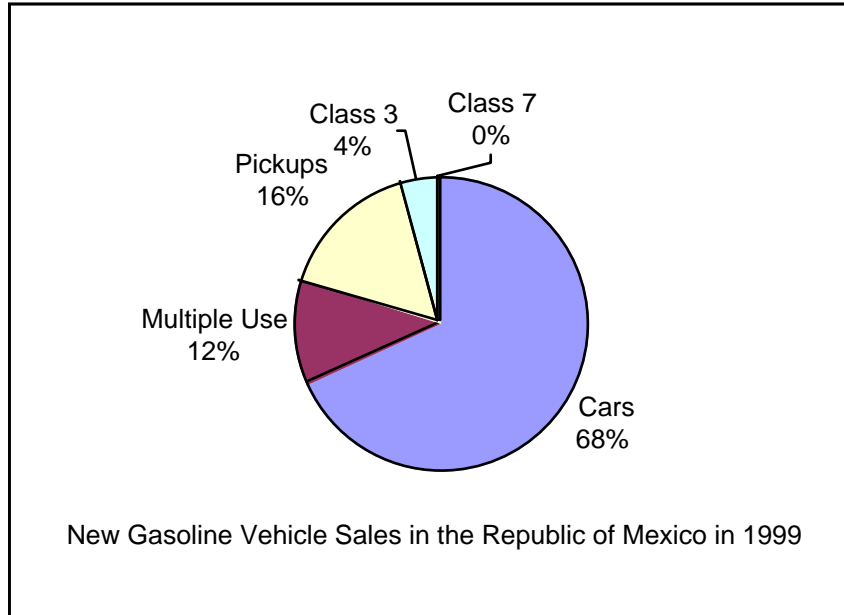
5. Vehicle Sales in Mexico
6. Gasoline Vehicle Sales in Mexico



From 1951 to date, a total of 13.1 million gasoline powered vehicles have been sold within the country of Mexico. Of these, 8.8 million (66.8 %) were cars, 2.3 million (17.6 %) were pickups, 824,000 (6.3 %) were class 3 vehicles, 788,000 ( 6.0 %) were vans or wagons, and 448,000 (43.4 %) were class 5 & seven gasoline powered vehicles.

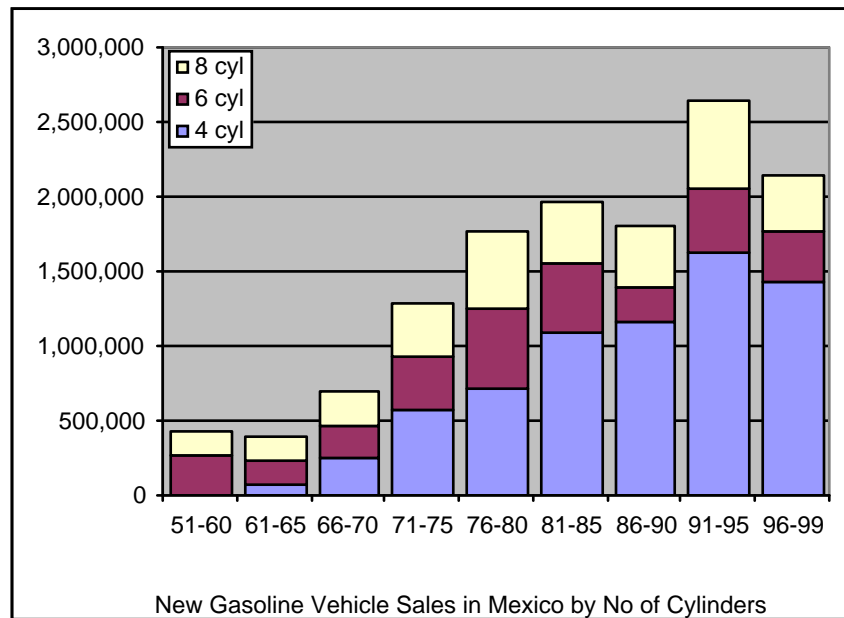
Since the mid-1970s, the sale of new gasoline vehicles in the Republic of Mexico has been very volatile, caused by major fluctuations in the economy that often appear to have been related to the six-year presidential cycle. As an example, in 1994, 597,602 gasoline vehicles were sold in the Republic of Mexico. However, the "Error of December" in December 1994 caused an economic crisis in the country that resulted in total vehicle sales in 1995 of only 184,810, this being only 31 percent of the previous years total. Other factors have also influenced vehicle sales over the years. Between 1986 and 1991, the sale of class 5 and 7 vehicles with gasoline engines was prohibited in Mexico. This governmental action was intended to favor state owned companies.

These pronounced fluctuations in new vehicle sales obviously impact the way the vehicle population in Mexico is conformed.



In 1999, the total sales of new gasoline powered vehicles in the Republic of Mexico reached 682,316 vehicles. Of these, 68 percent were cars, 12 percent were vans or wagons (multiple use), 16 percent were pickups, 4 percent class 3 and less than 0.5 percent class 7.

12. Sales by number of cylinders.

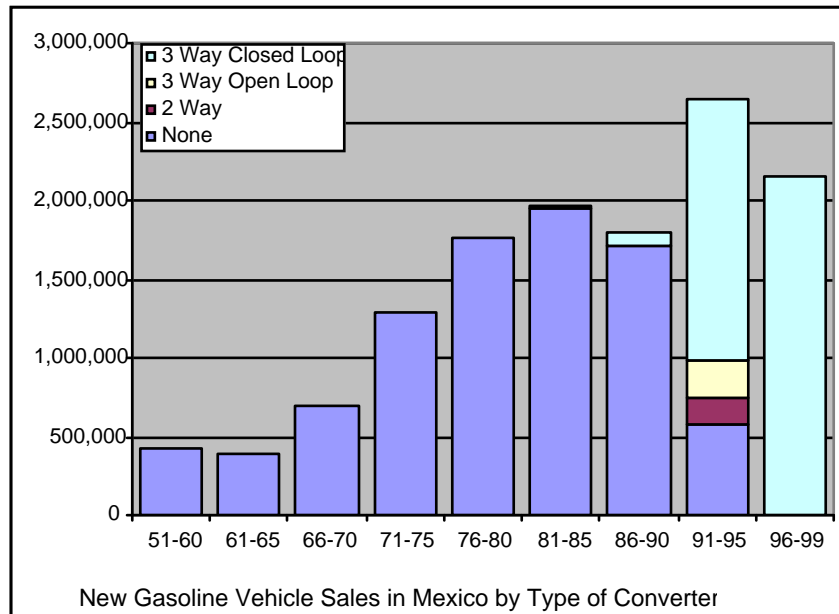


Of the new gasoline powered vehicles sold in the Republic of Mexico, the greatest sales increase has taken place in 4 cylinder engines. Over the period of 1996 to 1999, 4 cylinder engines accounted for 66.5 percent, 6 cylinder engines for 15.8 percent, and 8 cylinder engines for 17.7 percent of the total of 2,151,677 vehicles that was sold in the Republic of Mexico during this period.

This increase has occurred principally in cars, and to a lesser extent in pickups. Whilst class 3 and gasoline powered class 7, still use exclusively 8 cylinder engines, the segment of vans

and wagons has changed dramatically from, historically, 4 cylinder engines to 6 and 8 cylinder versions with the introduction of Sports Utility Vehicles.

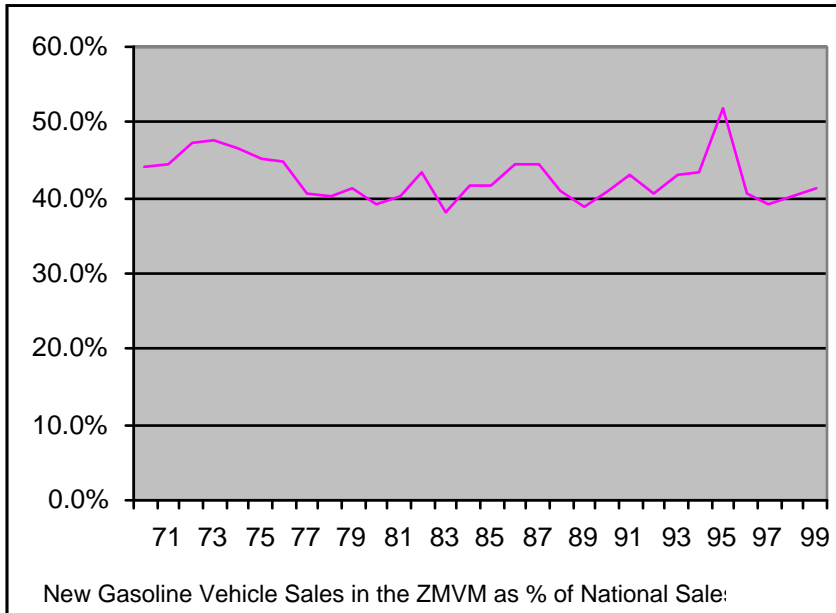
13. Sales by type of catalytic converter.



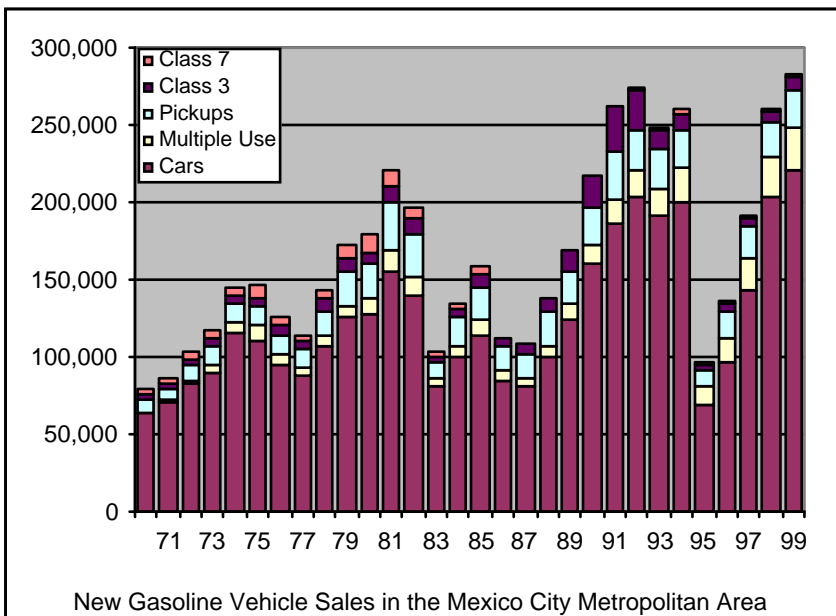
This graph well illustrates how new gasoline powered vehicles have entered the market of the Republic of Mexico over the last few years. Up until 1984, no vehicles had been sold in Mexico with catalytic converters. As of this year, some imported vehicles were introduced with catalytic converters. They were ineffective due to the complete lack of lead free gasoline in the country.

During the period of 1991-1995, 2.6 million vehicles that was sold into the Republic of Mexico, 570,000 had no catalytic converter, 175,000 had 2 way converters, these vehicles were carbureted. 238,000 vehicles had three way open loop systems, (also carbureted) and the remaining 1.7 million vehicles had three way closed loop catalytic converters. From 1996 to date, all new vehicles sold into the national market have been equipped with three way closed loop converters except a limited number of heavy vehicles, principally Ford, whose sales were authorized without a converter exclusively for use with LPG and natural gas.

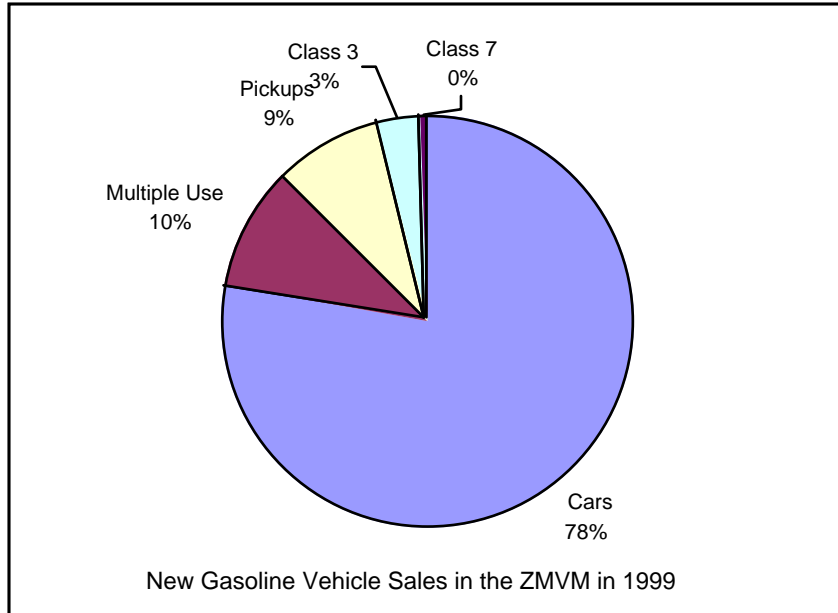
14. ZMVM as a percent of National.Sales



Over the last 50 years, new gasoline vehicle sales in the ZMVM have accounted for an average of 42.2 percent of all sales at the national level. This percentage has varied from a low of 38.2 percent (in 1983) to a high of 51.8 percent in 1995.



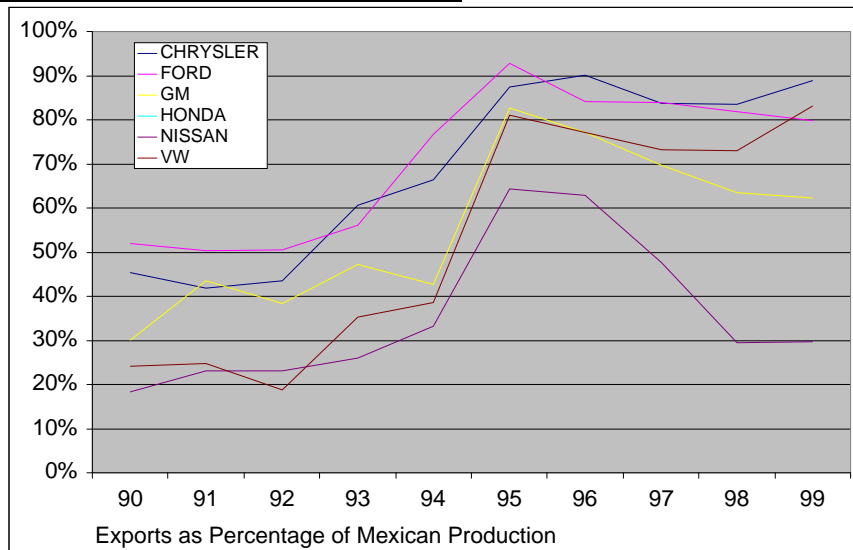
Accordingly, the distribution of new gasoline vehicle sales over time in the ZMVM bears the same shape as that at the national level reaching a high of 282,818 units in 1999. The distribution by type of vehicle, however, is different than that at the national level.



In Mexico City and its metropolitan area, during 1999, 77.8 percent of all gasoline powered vehicles sold were cars, 9.7 percent were vans or wagons, 8.6 percent were pickups, 3.4 percent class 3 vehicles and 0.5 percent class 5 & 7 trucks and busses.

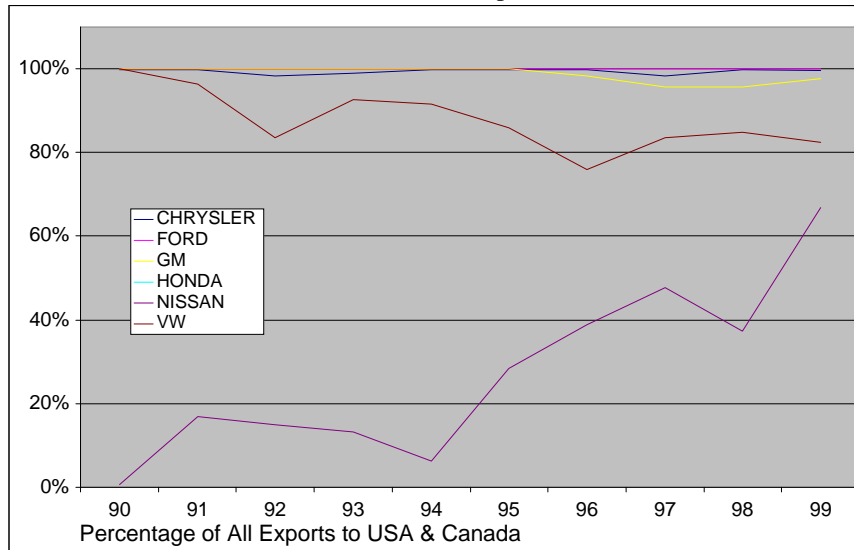
7. Export Sales from Mexico

15. National Sales as a Percent of Total Production



It is interesting to note that all the manufacturers (except Honda and Nissan), produce in Mexico more than double the number of vehicles that they sell in the country. The remainder are exported. For Chrysler and Ford, the Mexican market accounts for only 10-20 percent of their total production in this country.

16. Exports to North America as a Percent of Total Exports

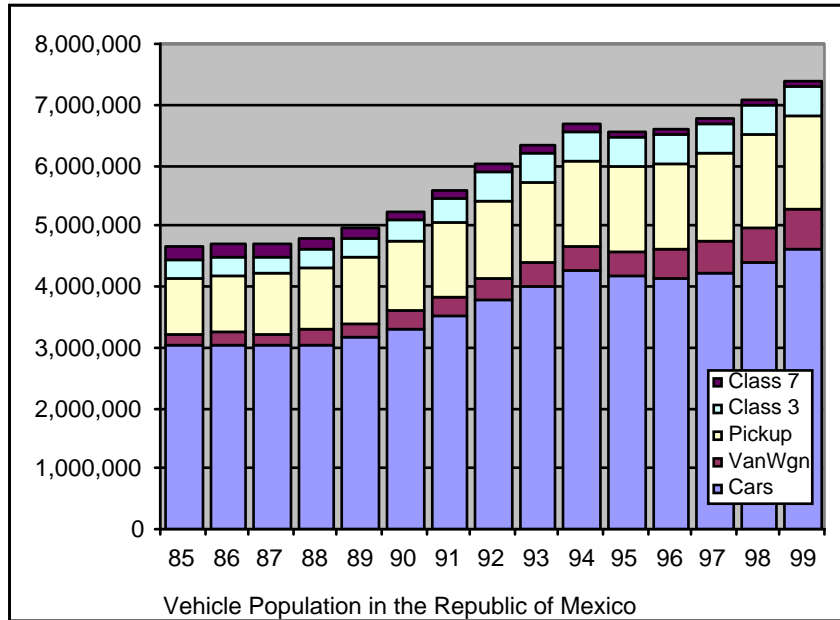


Of those vehicles that are exported, by far the largest market is the USA & Canada, accounting for over 80% of all exports, except for Nissan – which is catching up fast. The previous two graphs, when analyzed together, show, without any doubt, the logistical advantages to the vehicle manufacturers of incorporating technological changes in those vehicles destined for the Mexican Market simultaneously with their export program.



8. Population of Vehicles in Mexico.

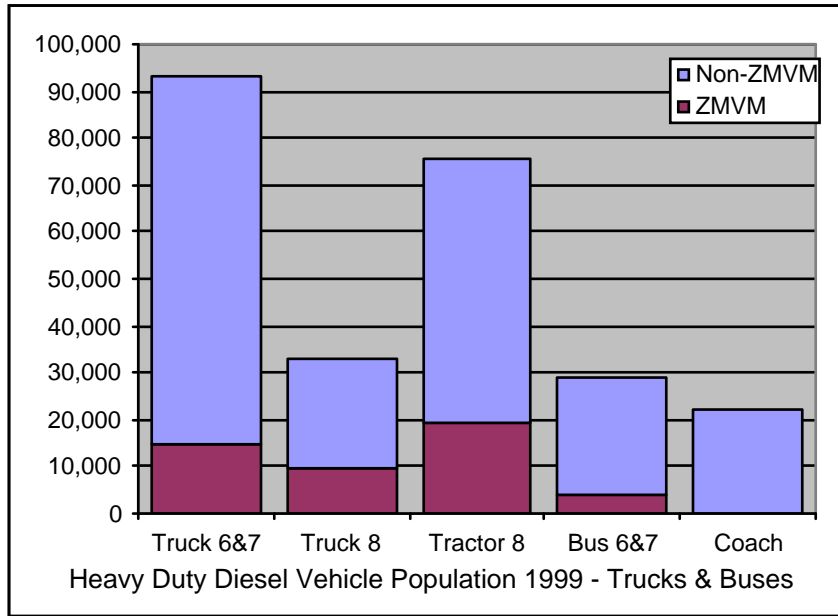
17. Gasoline Vehicle Population in the Republic of Mexico



At the national level, Mexico, as of December 1999, had a population of 7,379,164 gasoline powered vehicles. Of these 4,617,757 are cars (62.6 percent), 1,555,614 are pickups (21.1 percent), 639,950 are vans or wagons (8.7 percent), 477,929 are class 3 vehicles (6.5 percent), and 87,887 are class 5 & 7 vehicles (1.2 percent). Considering that the total population in 1985 was 4,657,949 gasoline powered vehicles, this represents an average growth rate of 3.1 percent per year.

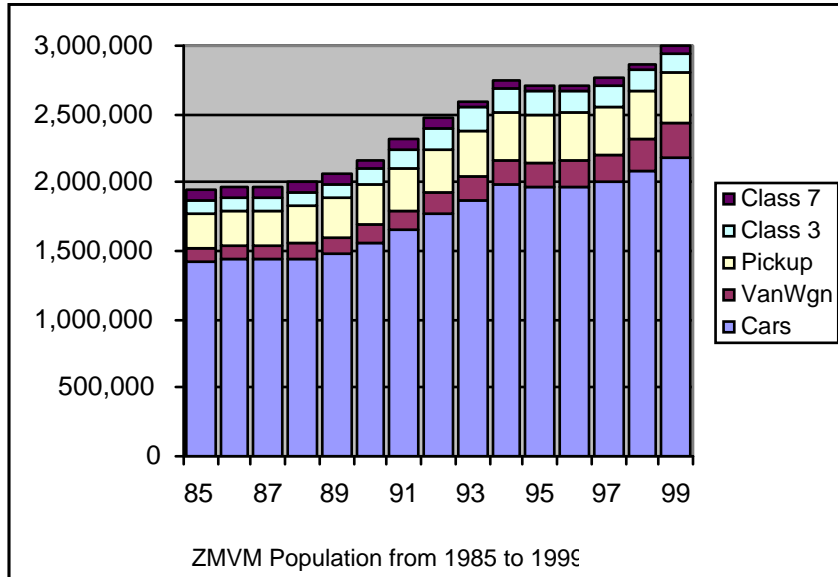
Over this 15 year period, cars have gone from 65.1 percent to 62.6 percent of the total population whilst pickups have gone from 19.7 percent to 21.1 percent. The number of class 3 vehicles in this population has gone from 4.9 percent in 1985 to 1.2 percent in 1999 with a similar tendency being shown by class 5 & 7 vehicles going from 4.9 percent to 1.2 percent. The number of vans and wagons has increased however going from 4.1 percent of the total population in 1985 to 8.7 percent of the population by the end of 1999.

18. Diesel Vehicle Population in the Republic of Mexico

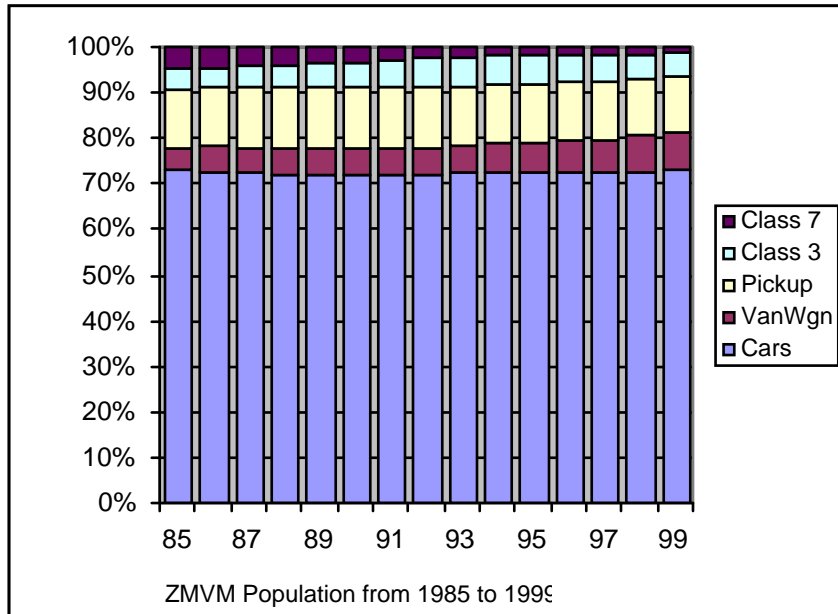


Added to this total gasoline population of 7,379,164 vehicles, the country of Mexico has a fleet of 252,914 diesel powered vehicles, mostly for heavy-duty usage. This national population, as of December 1999, of diesel vehicles is split as follows: There are 93,100 class 6 & 7 trucks at the national level of which 19 percent are based in the ZMVM (14,970 units). These trucks are mainly for pickup and delivery or short haul operations. The class 8 truck fleet consists of 33,190 rigid trucks and 75,373 tractor units on the national level. 40.5 percent of the rigid class eight trucks were bought in the ZMVM geographical area. 34.2 percent of the class eight tractor units were also bought in this geographical area. This accounts for 9,560 and 19,200 units respectively. In the class 6 & 7 bus fleet, at the national level there are 28,980 diesel engined units of which 15.8 percent were bought in the ZMVM geographical area. This accounts for 3,951 vehicles. In the Republic of Mexico there are 22,270 long distance, Greyhound style, coaches. It is not possible, with the data on hand, to proportion these to different cities in the country because of the type of operation and routes that these vehicles cover. As far as we are aware no reliable data has been generated for long haul vehicles (trucks or coaches) on how much time is spent or distance covered by them in metropolitan areas. This information would be useful to determine the effect that these vehicles have on the local urban air quantity.

19. Gasoline Vehicle Population in the Mexico City Metropolitan Area  
 20. By Type of Vehicle



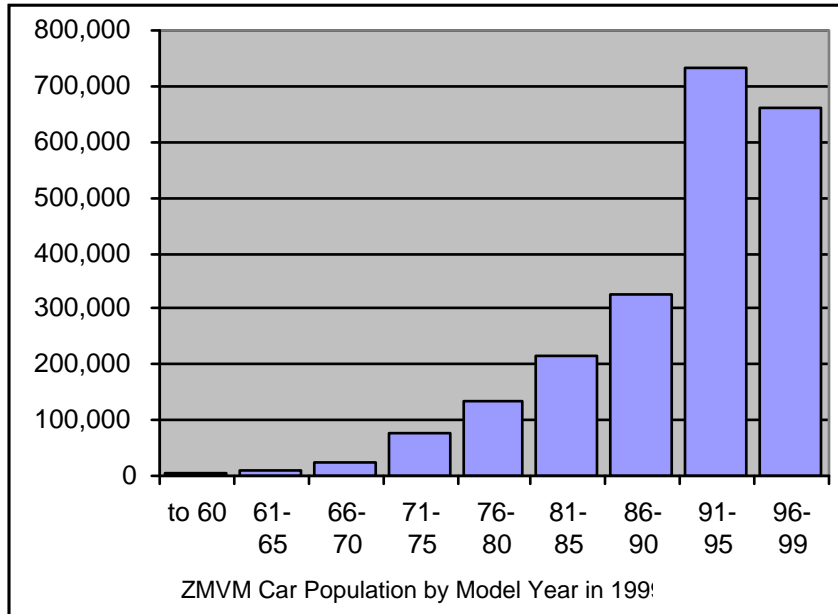
Within the Mexico City metropolitan area, the gasoline powered vehicle population has increased from 1,955,243 vehicles in 1985 to 2,992,272 vehicles by the end of 1999. Of these in 1999, 2,183,256 are cars, 369,122 are pickups, 245,400 are vans or wagons, 153,503 are class 3 vehicles, and 40,990 are class 5 & 7 gasoline powered vehicles.



The participation of each type of vehicle in the Mexico City metropolitan area population over a 15 year period has been basically constant with the exception of vans and wagons whose participation has increased from 5.2 percent in 1985 to 8.2 percent in 1999 with a corresponding decrease in class 3 and class 5 & 7 vehicles. Class 5 & 7 vehicles represented 4.8 percent of the total population in 1985 and by 1999 in this figure has been reduced to 1.4 percent. These vehicles have been substituted by similar or heavier

vehicles with diesel engines and as such do not figure in this gasoline powered vehicle population.

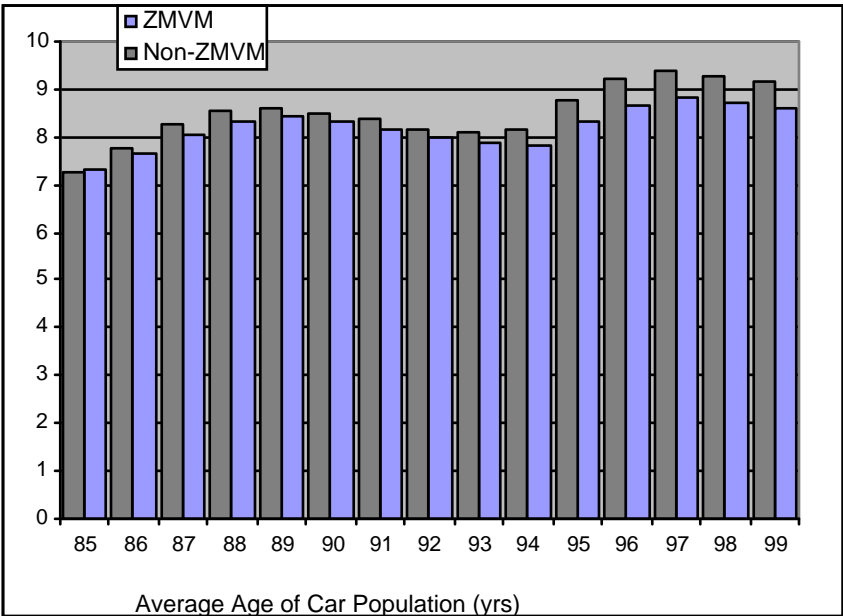
21. Car Population in the ZMVM by Model Year



Of the total population of 2.2 million cars in the ZMVM in 1999, 64 percent are of 1991-99 model year, with approximately half of these (30.4 percent) or 662,871 vehicles being of 1996 model year or more recent.

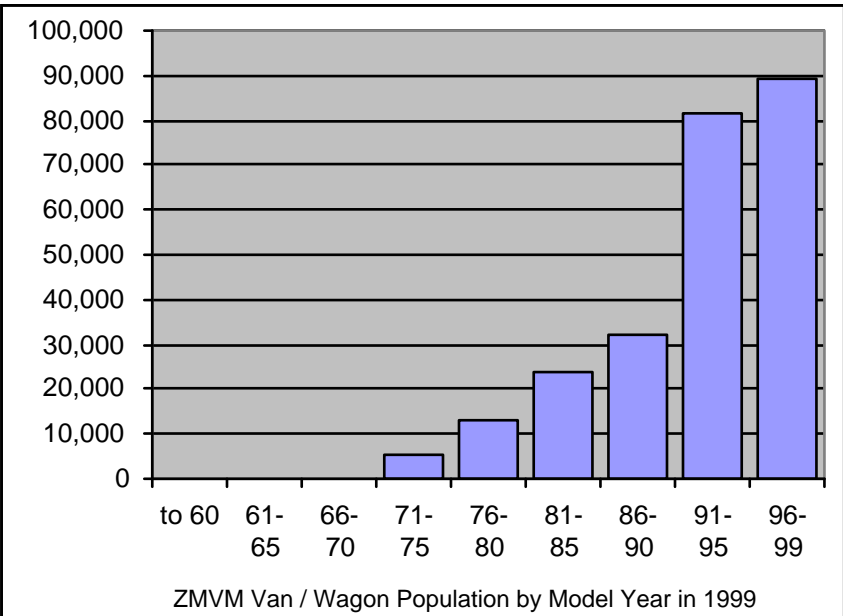
Of the 36 percent of vehicles that are prior to the 1991 model year, 325,978 (14.9 percent) are of 1986 - 1990 vintage whilst 215,577 (9.9 percent) are of 1981 - 85 model years. The remaining 11.2 percent of the car population are all vehicles of up to 1980 model year.

22. Car Population in Mexico by Age



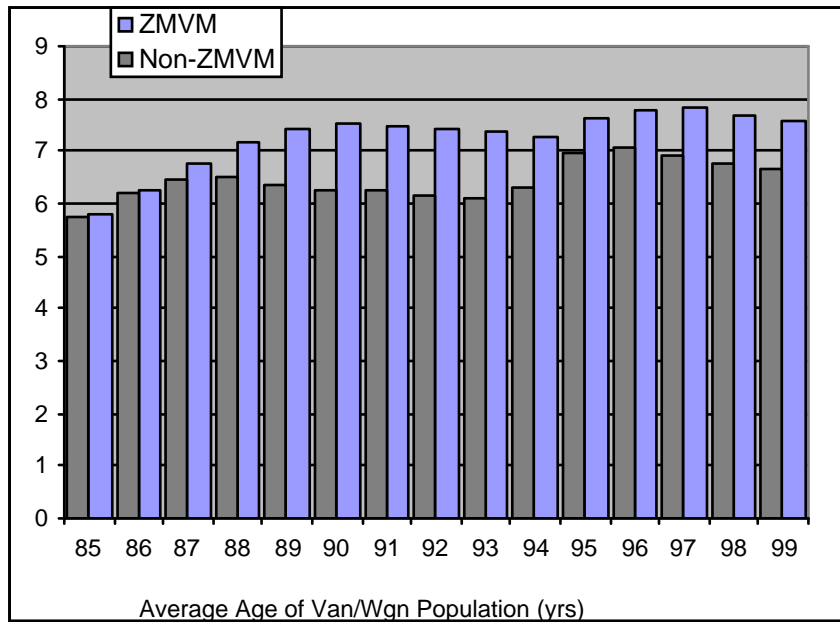
As a result, the average age of the car population in the ZMVM has increased over this 15 year period from 7.3 years to 8.6 years. In this same time frame cars in the rest of the country have changed from an average age of 7.3 years in 1985 to 9.2 years in 1999.

23. Van/Wagon Population in the ZMVM by Model Year



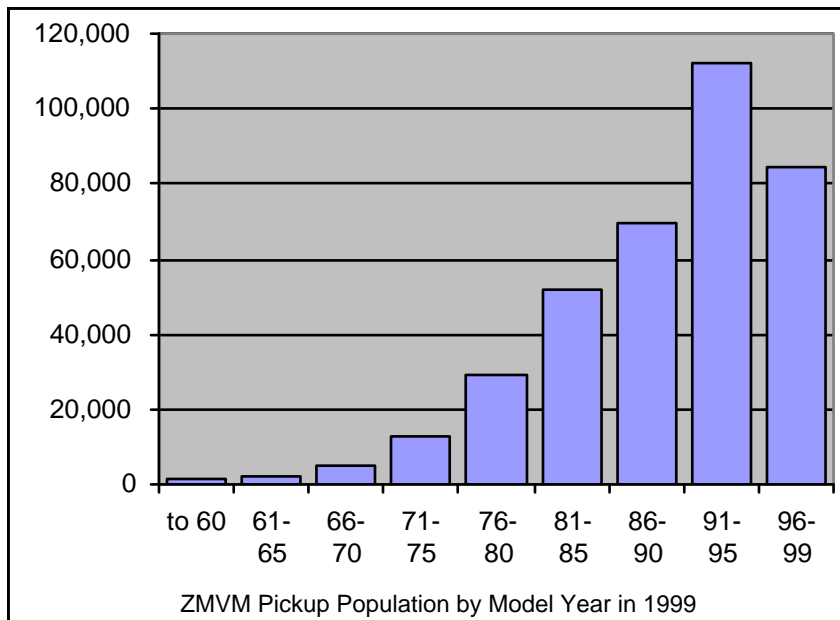
69.5 percent of the population of vans and wagons in the ZMVM at the end of 1999 are of 1991 or more recent model years. This represents 170,678 vehicles out of the total population of 245,400 vans and wagons at the end of 1999. The remaining 30 percent of this population is principally of model years 1971 - 1990. The population of 1996 to 1999 model years accounts for 36.3 percent of the total van / wagon Mexico City population.

24. Van/Wagon Population in Mexico by Age



In 1985, the van/wagon segment of the Mexico City vehicle population had an average age of 5.8 years. Now, in 1999, it's average age is 7.6 years. For the population in Mexico excluding the ZMVM the average age was 5.75 years in 85 and is now 6.7 years.

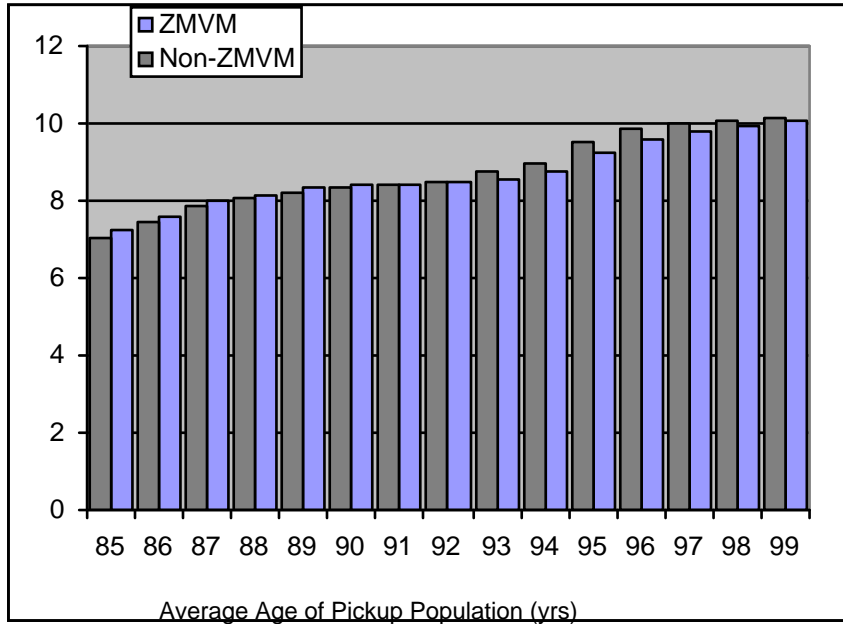
25. Pickup Population in the ZMVM by Model Year



By the end of 1999, Mexico City and its metropolitan area had a population of 369,122 pickups. Of these, 53.4 percent are of 1991 or more recent model years but only 84,831 (23.4 %) are of 1996 or more recent vintage. Whilst pickups and van / wagons have a similar number of vehicles in the population of 1996 to 1999 model years, it can be seen in that the quantity of older vehicles is far greater for pickups.

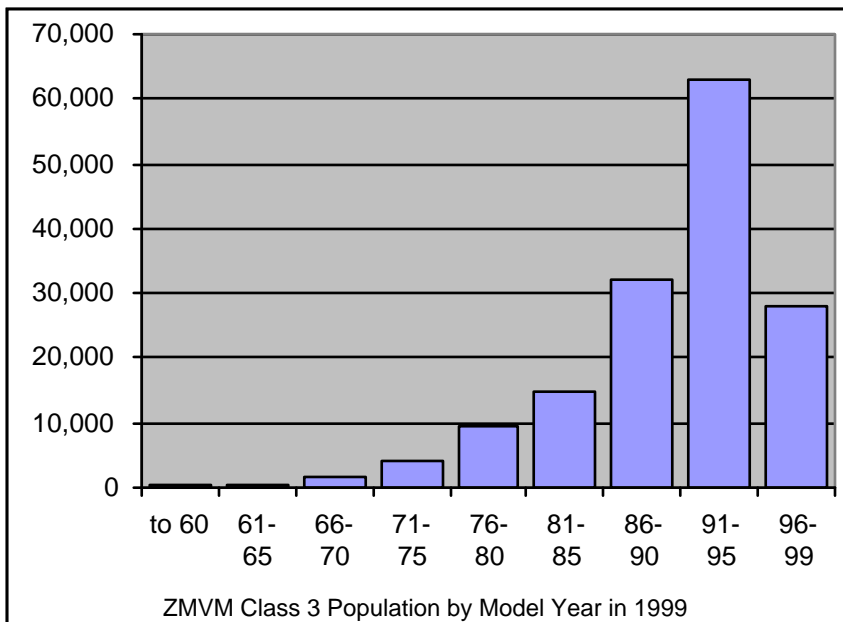
13.8 percent of the pickup population is prior to 1981 model year. 14.0 percent of the population is between 1981 - 85 model years and 18.8 percent to the population ( 69,379 vehicles) is of 86 - 90 model years.

26. Pickup Population in Mexico by Age



In 1985, the pickup population in the ZMVM at an average age of 7.2 years whilst the population in the rest of the country was 7.0 years old. By 1999, this average age has increased to 10.1 years in the whole country (including the ZMVM).

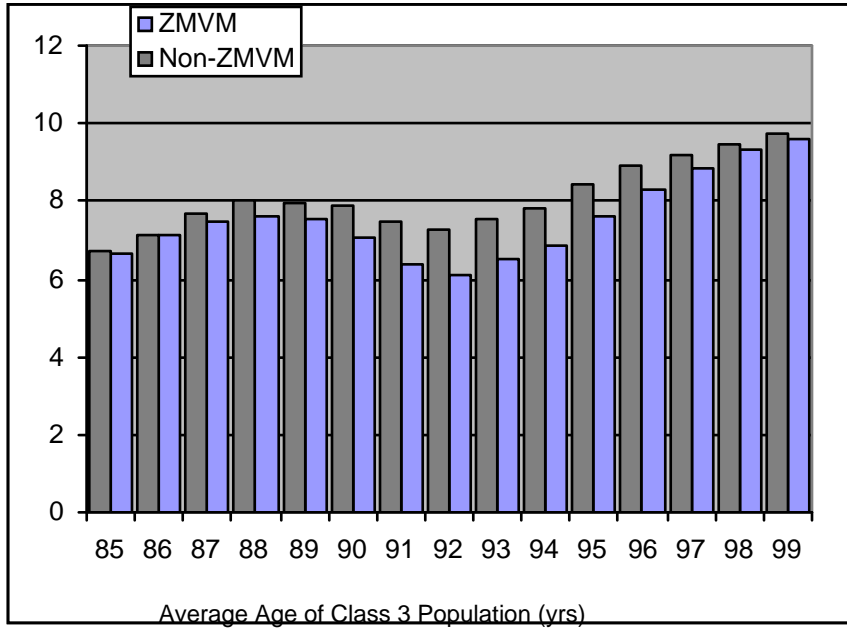
27. Class 3 Population in the ZMVM by Model Year



At the end of 1999 Mexico City and its metropolitan area had a population of 153,503 class 3 vehicles. The substitution of the VW Combi with class 3 based minibuses mainly

accounts for the large number of these vehicles from 1991 to 1995 model years (41.0% of the total population). Historically, the most used vehicle for the pickup and delivery cycle in Mexico City was a class 3 (10,000 lb.) stake truck. In this duty cycle, the introduction of vans has recently substituted in this class of vehicle to a great extent. Here, 40.8 percent of the current total population (62,613 vehicles) is prior to the 1991 model year.

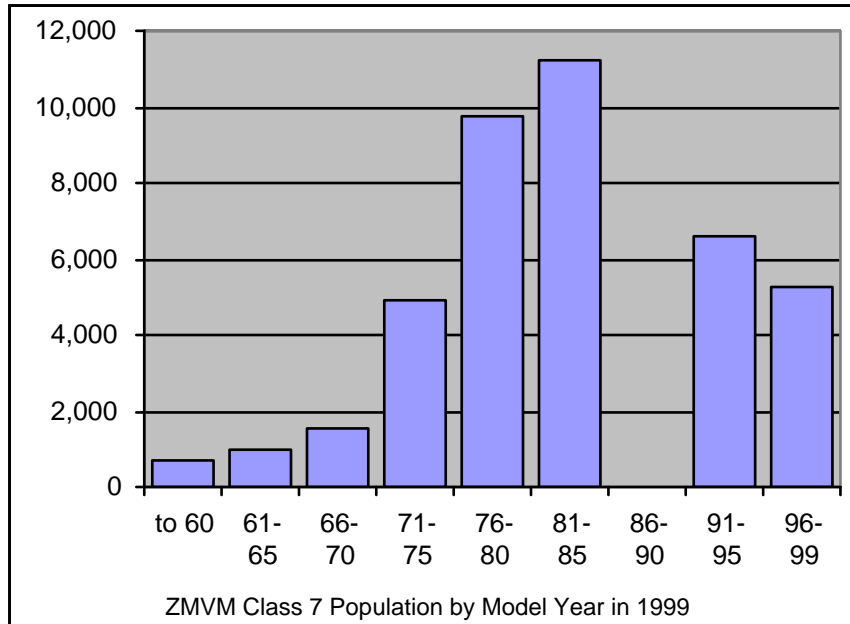
28. Class 3 Population in Mexico by Age



The class 3 population in the ZMVM is now 9.6 years old and in the rest of the country 9.7 years old. This is up from an average age of 6.7 years for both geographical areas in 1985.

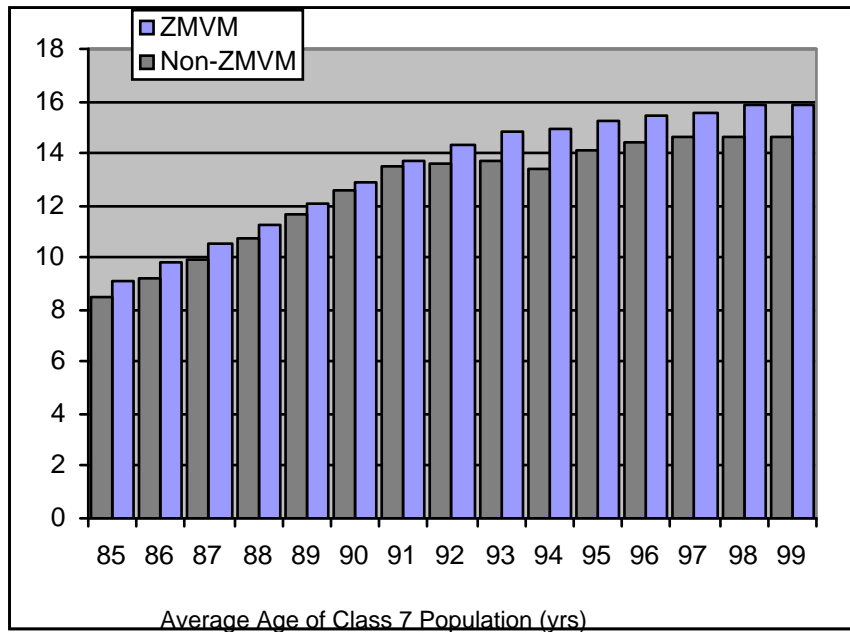


29. Class 5&7 Population in the ZMVM by Model Year



A Mexican automotive decree that was in effect between 1986 and 1991 limited to the ability of the vehicle manufacturers to sell heavy vehicles with gasoline engines. As a result, there are no vehicles in this range of model years in the population. Of the total of 40,990 gasoline powered class 5 & 7 vehicles in the ZMVM population, only 29 percent (11,864 vehicles) are of 1991 model year or more recent vintage. The other 71 percent are principally of 1976 to 1985 model years.

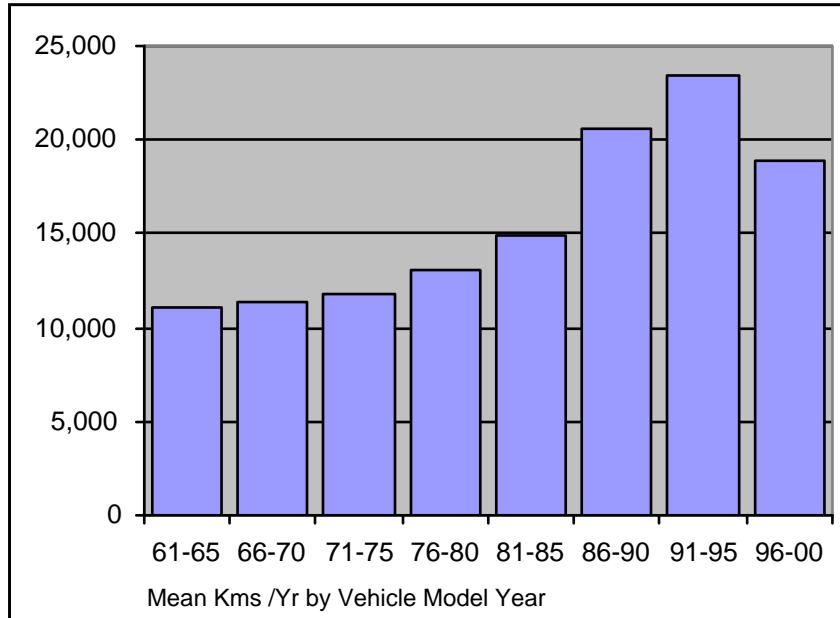
30. Class 5&7 Population in Mexico by Age



The oldest population of vehicles is undoubtedly the class 5 & 7 gasoline powered vehicles in the ZMVM. This population at the end of 1999 is 15.8 years old on average whilst in the rest of the country this gasoline powered population is 14.7 years old. In 1985, in the ZMVM population the average age was 9.1 years whilst for the rest the

country the average age was 8.5 years. This is markedly different for the diesel powered fleet of vehicles in the same vehicle weight class where the average age is approximately half this current value.

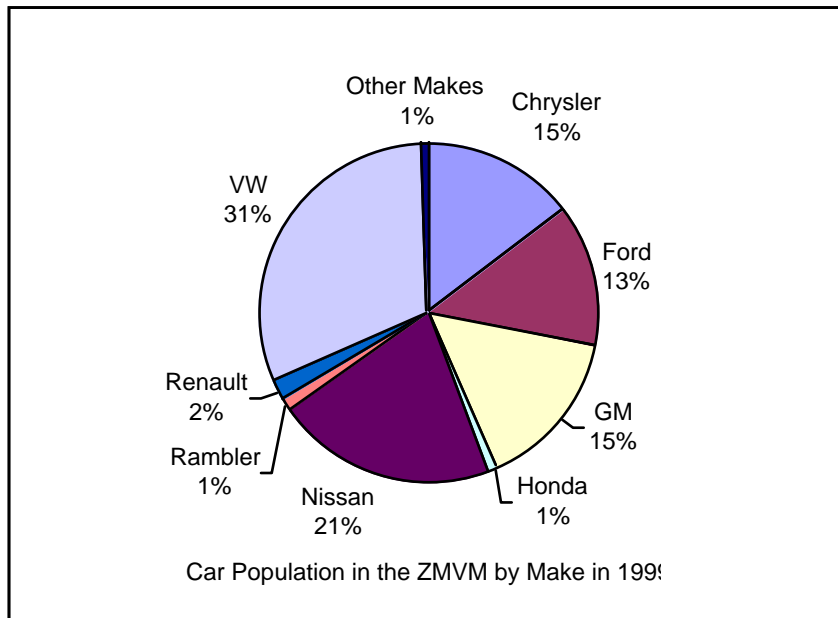
31. Mean Kms per Year by Vehicle Model Year



For the total ZMVM population, the newer vehicles of 1996-1999 model year cover an average of 18,830 kilometers per year. For vehicles of 1991 to 1995 model year this mean distance traveled per year goes up to 23,450 whilst for the following segment of 86 - 90 model years the mean kilometers per year is 20,540.

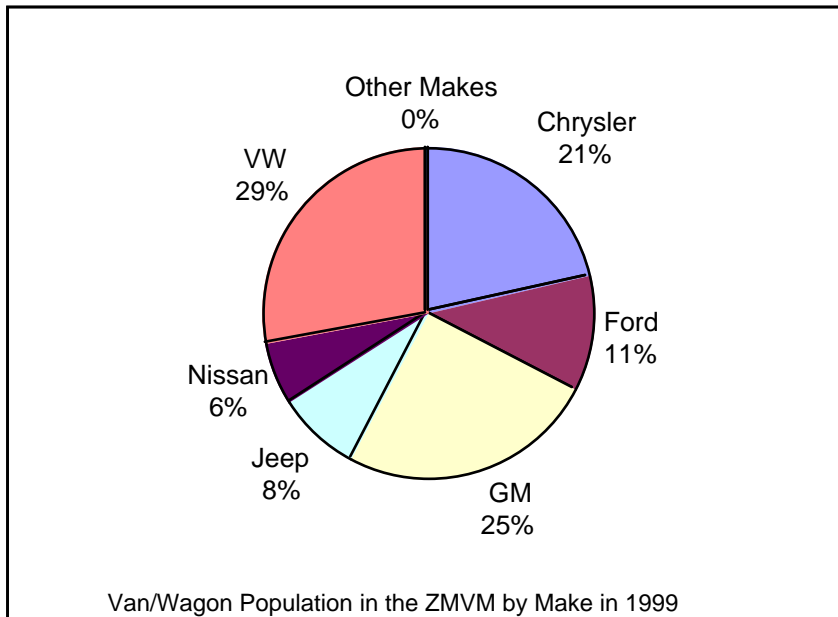
As you can see in the above graph, older vehicles tend to have lower annual mileages reaching a plateau of around 11,000 kilometers per year for vehicles in the 1960 - 1975 vintage.

32. Population of Cars in the ZMVM by Make



Of the total population of 2.18 million cars in 1999 in the ZMVM, 31 percent (673,324 vehicles) are Volkswagen, 21 percent Nissan (465,145 units), 15 percent are GM (327,139 cars), 15 percent are Chrysler (322,654 vehicles), 13 percent Ford (293,790). Renault, Rambler (American Motors) and Honda are the principal brands with lower volumes.

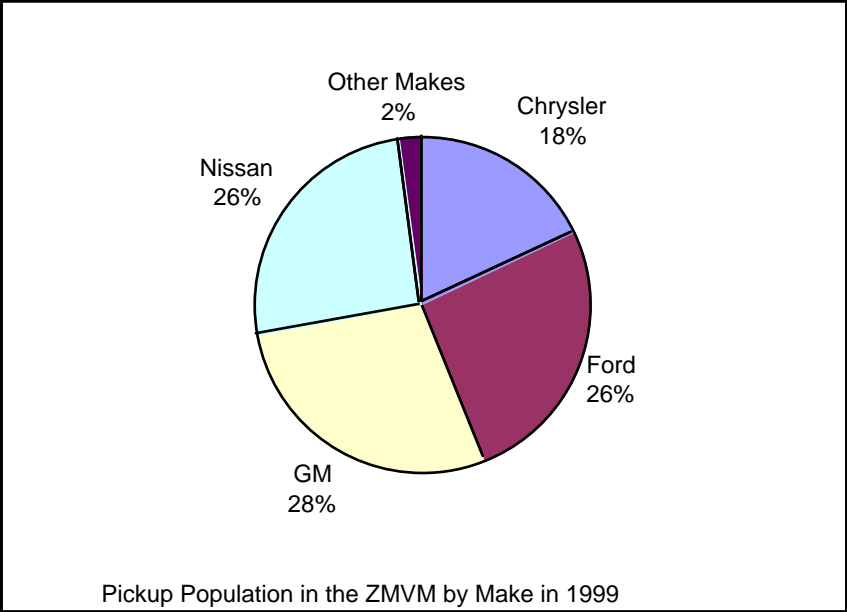
33. Population of Vans/Wagons in the ZMVM by Make



By the end of 1999 in the ZMVM there was a total population of 245,400 vans and wagons. Of these, 68,037 are Volkswagen Panels and Combis accounting for 29 percent of the total population. GM with 25 percent of the population has 61,194 vehicles. Chrysler with 21 percent has 52,635 vehicles whilst Ford with 11 percent has 27,802. Jeep is a strong contender with 20,124 vehicles and eight percent of this population. The

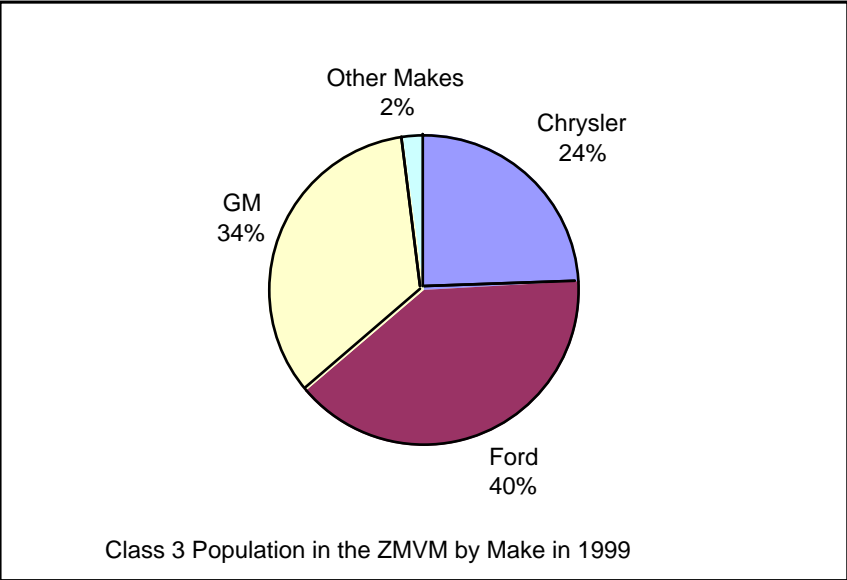
other brand worth mentioning is Nissan with six percent of the population at 15,110 vehicles.

34. Population of Pickups in the ZMVM by Make



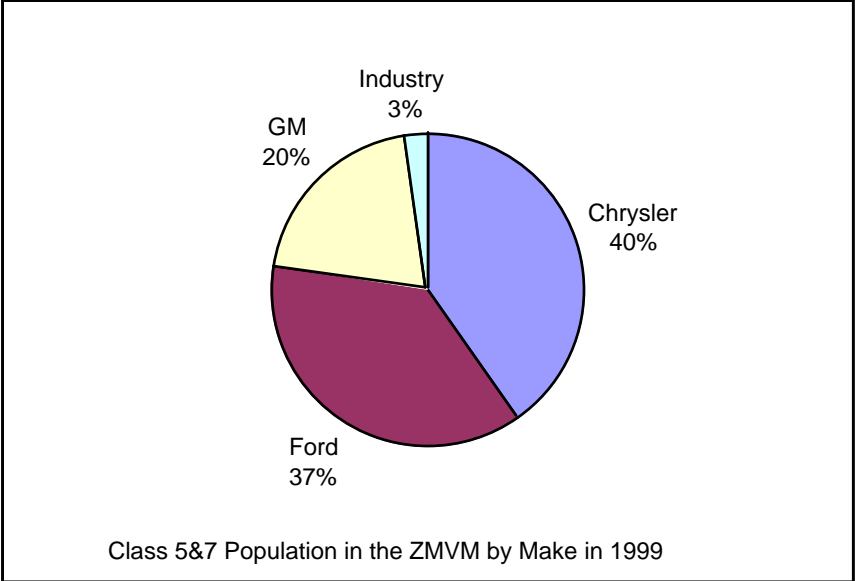
The ZMVM had a population of 369,122 pickups at the end of 1999. Of these, 103,711 (28 percent) are GM; 95,507 (26 percent) are Ford, and 95,171 (26 percent) are Nissan. Chrysler accounts for 18 percent with 66,555 units whilst the other 7 makes total 8177 units.

35. Population of Class 3 in the ZMVM by Make



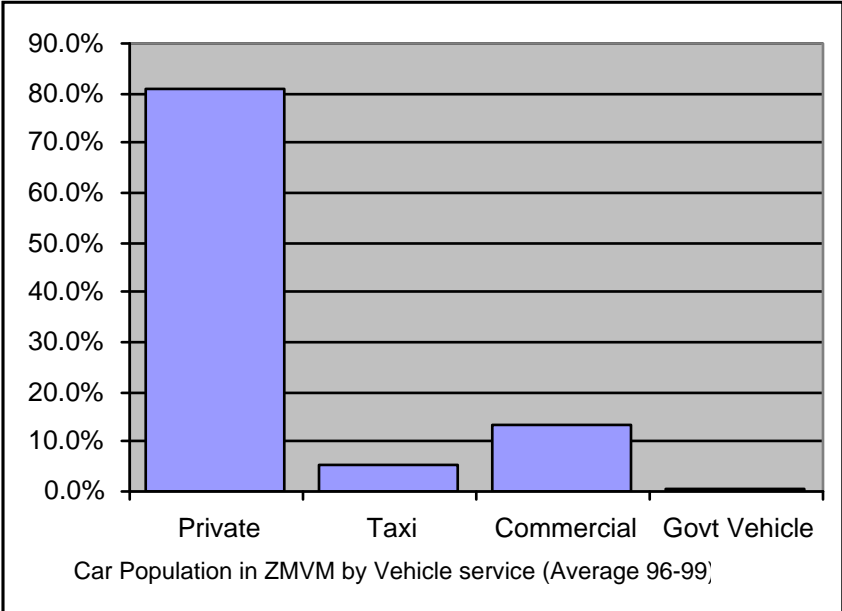
The ZMVM population of 153,503 class 3 units at the end of 1999 is divided principally between three makes. Ford, with 40 percent of the population has 60,485 units. GM, has 34 percent of the population or 52,621 units whilst Chrysler with 24 percent of the population has 27,078 units. Three other makes contribute 3319 units to this population.

36. Population of Class 5&7 in the ZMVM by Make



The Class 5 & 7 gasoline powered population (including L. P. G. and natural gas vehicles) in the ZMVM at the end of 1999 was 40,990 units. Of these, Chrysler accounts for 40 percent of the population with 16,556 units. Ford has 37 percent of the population with 15,262 units and GM has 8144 units accounting for 20 percent of the population.

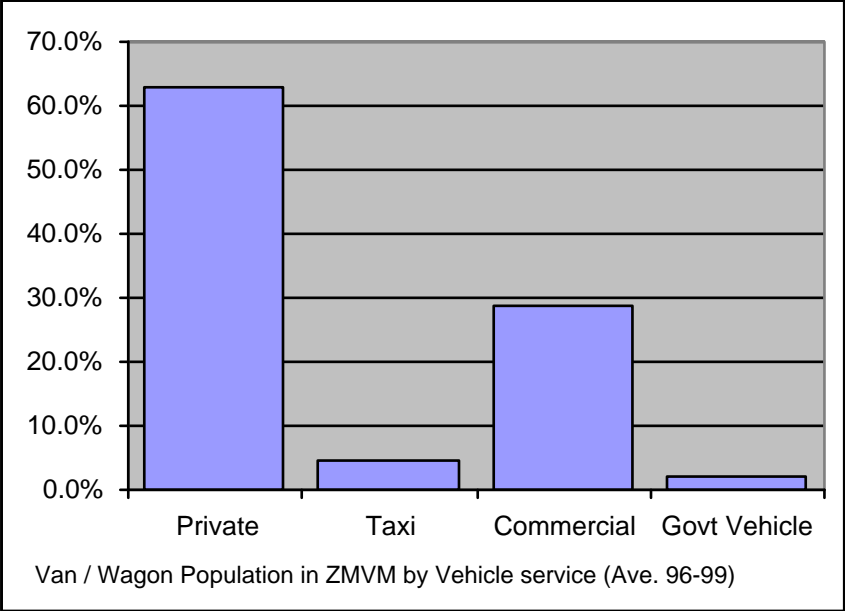
37. Population of Cars in the ZMVM by Service



Approximately 81 percent of the cars that are within the ZMVM are registered as being private vehicles.

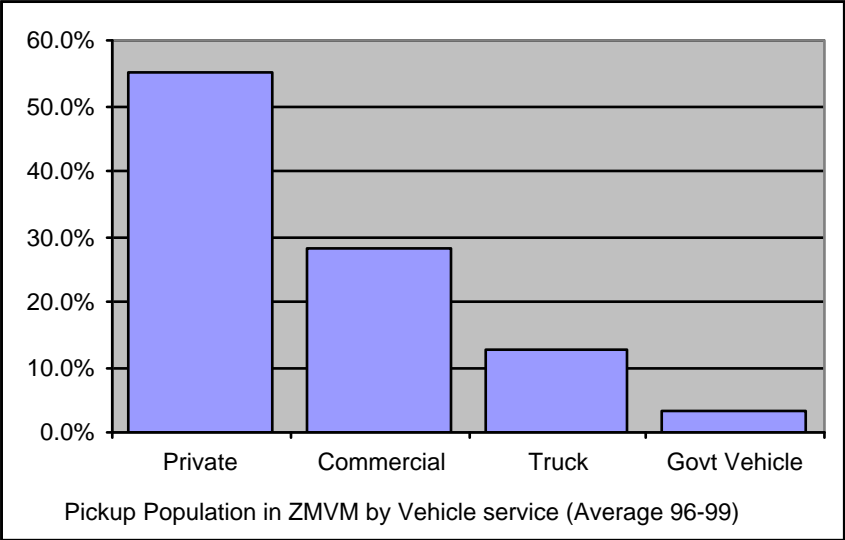
Taxis account for 45.1 percent of the car population, government vehicles for 0.7 percent of the population with the other 13.3 percent being cars registered to businesses.

38. Population of Van/Wagons in the ZMVM by Service



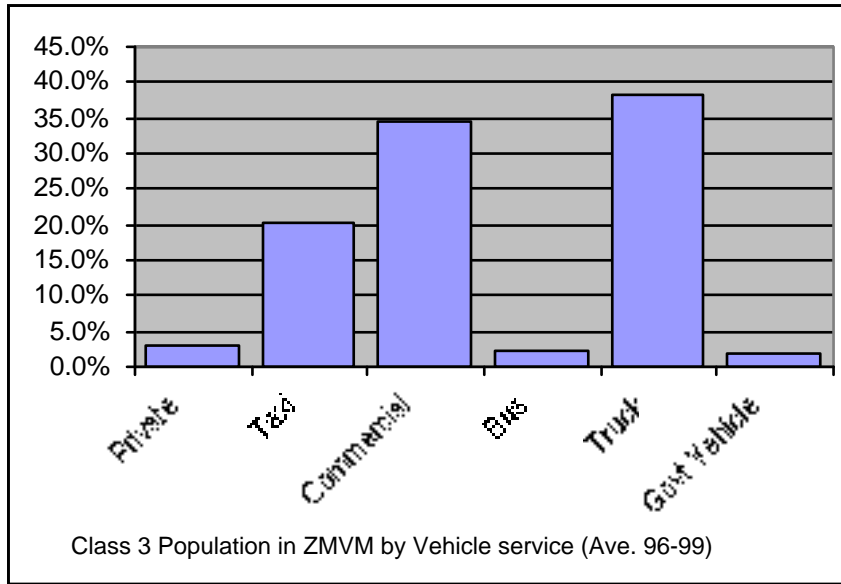
For the Van / Wagon segment of vehicles, 63 percent of the ZMVM population is registered as private vehicles, 4.5 percent registered for taxi usage, 2.3 percent as government vehicles, and the remaining 28.6 percent are registered to businesses.

39. Population of Pickups in the ZMVM by Service



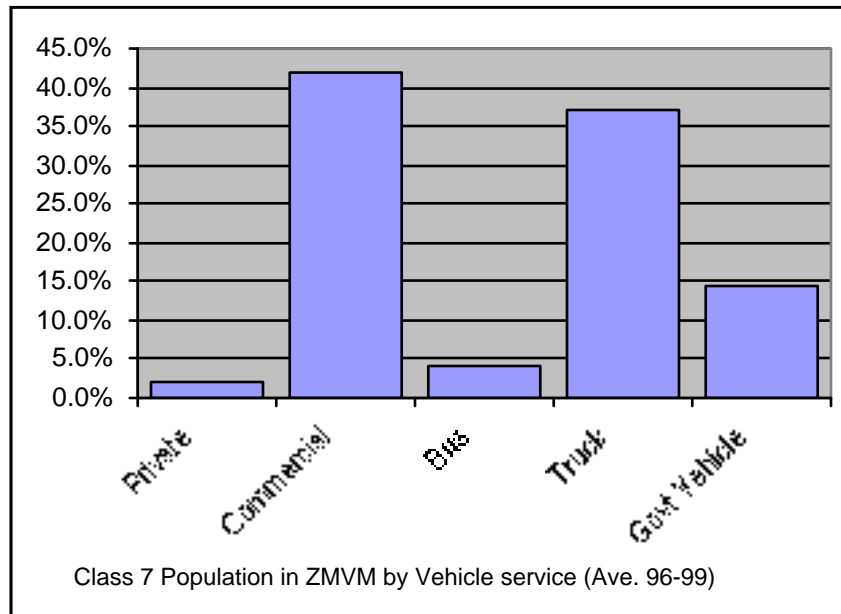
For pickups in the ZMVM population, 55.3 percent registered as private vehicles, 28.3 percent are registered to businesses for their own usage, 12.8 percent are registered to transport companies and 3.4 percent are registered as government vehicles.

40. Population of Class 3 Vehicles in the ZMVM by Service



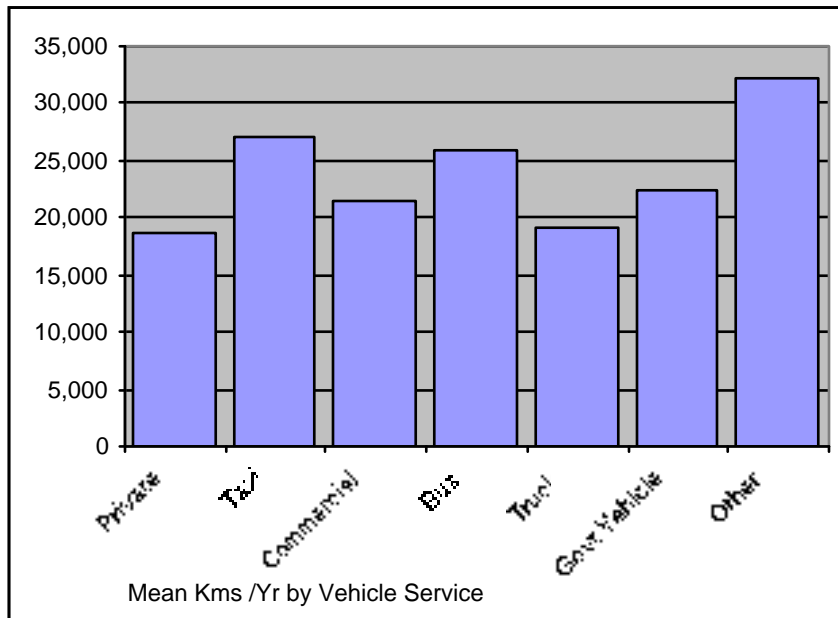
For class 3 vehicles that are within the ZMVM population, 2.9 percent are shown to be private vehicles (mainly for agricultural products), 28.2 percent are shown as fixed route taxes (minibuses), 34.6 percent are registered to businesses for the own usage, 2.1 percent are registered as a buses (school and employee transport and for public service), 38.1 percent are registered to transport companies and 2.0 percent as government vehicles.

41. Population of Class 5&7 Vehicles in the ZMVM by Service



For those class 5 & 7 vehicles that are within the gasoline powered ZMVM population, 44.2 percent are registered to businesses for the own usage, 34.1 percent to transport companies, 18.5 percent as government vehicles, 1.7 percent as buses for either school or employee transport, and 1.5 percent as private vehicles.

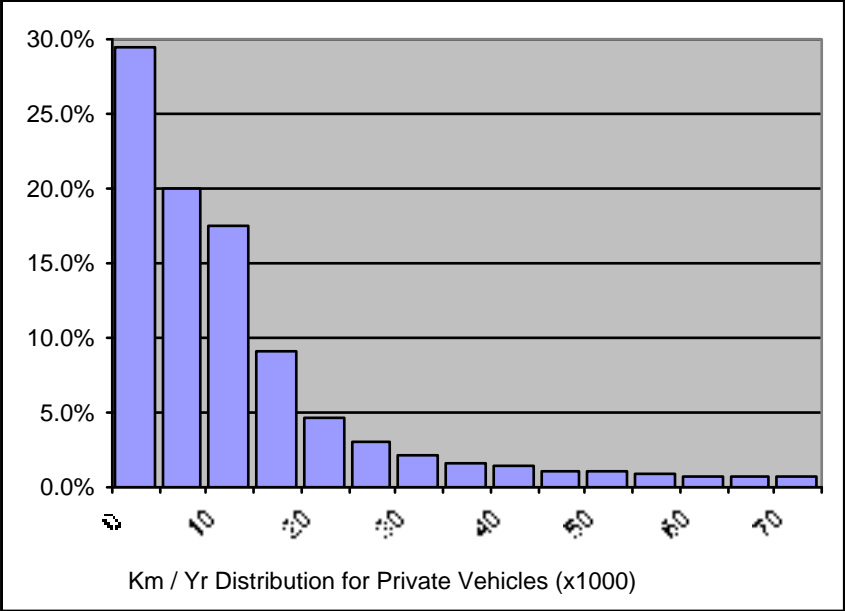
42. Mean kilometers per year in the ZMVM by Vehicle Service



On average, the vehicles in the ZMVM population cover a mean distance of 19,820 kilometers per year. Of these, private vehicles have the lowest average yearly kilometers at 18,700 whilst all the commercial uses have higher yearly runs. Taxis have on average yearly mean distances covered of 27,130 kilometers whilst those vehicles that are registered to companies for their own usage (commercial) have an average yearly mileage of 21,540 kilometers. Buses (gasoline powered) have an average kilometers per year of 25,870 whilst gasoline powered trucks that are for hire (transport companies) have an average of 19,190 kilometers per year. Government vehicles are showing an average of 22,360 kilometers per year.

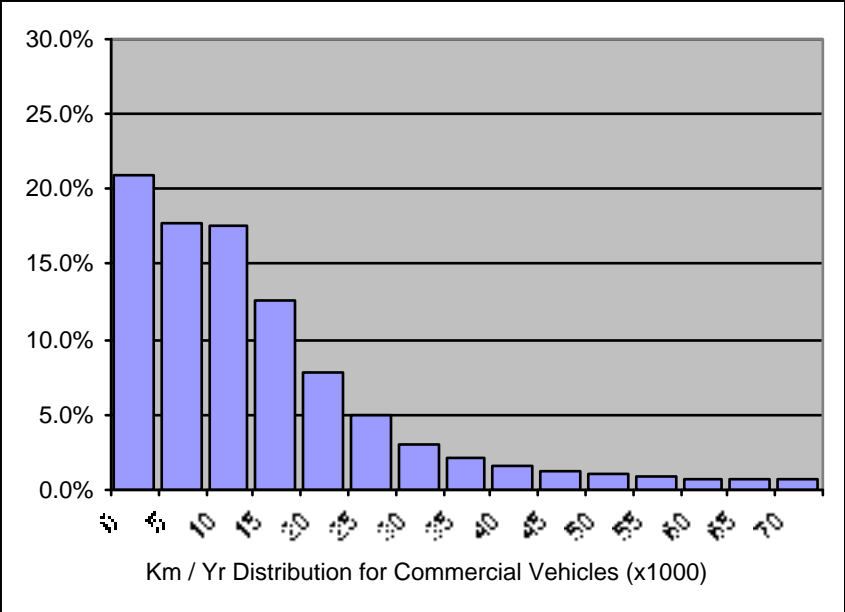


43. Mean kilometers per year Distribution in the ZMVM for Private Vehicles



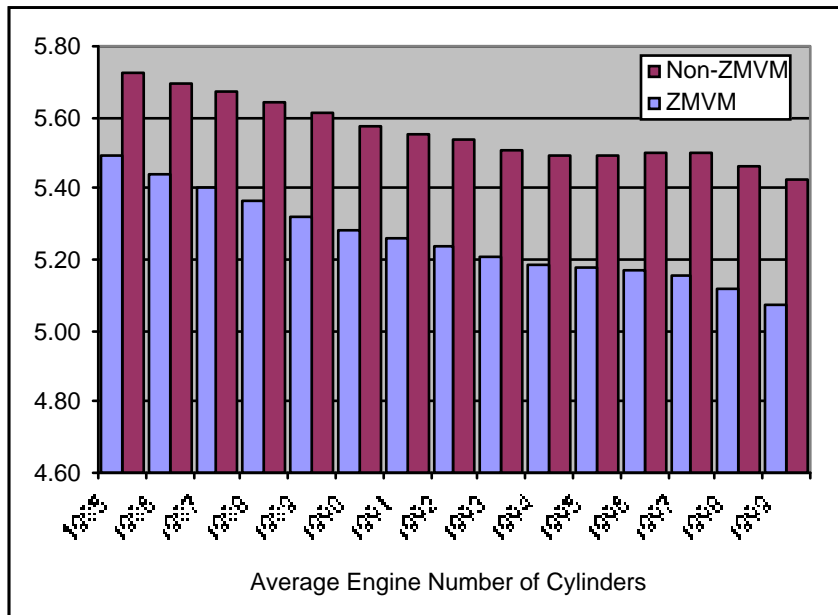
Approximately one-third (29.5 percent) of all the private vehicles in the ZMVM population cover an average distance per year of less than 5000 kilometers. Sixty-seven percent of this group of vehicles covers an average distance per year of less than 15,000 kilometers.

44. Mean kilometers per year Distribution in the ZMVM for Commercial Vehicles



For commercial vehicles, only 21 percent cover less than 5000 kilometers per year and 56 percent have per year mileages of less than 15,000 kilometers, however two-thirds of these vehicles (68.8 percent) cover less than 20,000 kilometers per year.

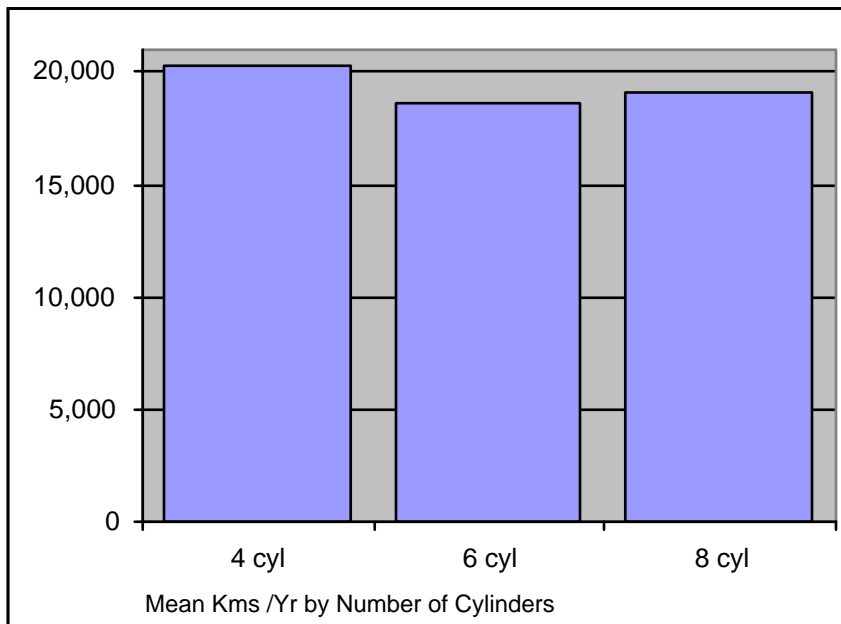
45. Mean Number of Engine Cylinders per Vehicle



Overall, the population of vehicles in the ZMVM has gone from an average number of cylinders in 1985 of 5.5 to an average of 5.1 in 1999.

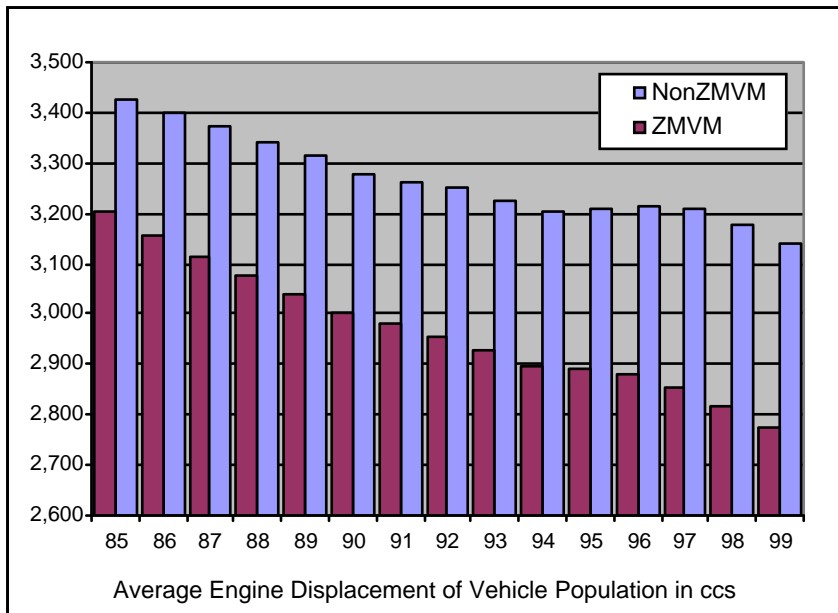
In the rest of the country vehicles tend to have larger engines hence the average number cylinders in the vehicle population in 1985 was 5.7 whilst today it is 5.4.

46. Mean kilometers per year in the ZMVM by Number of Engine Cylinders



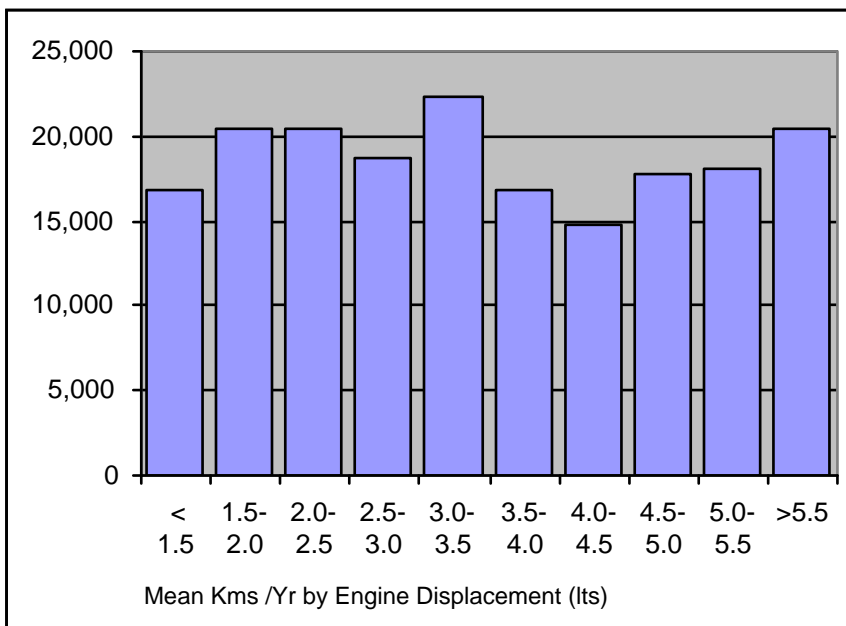
Those vehicles with four cylinder engines in the ZMVM population have a slightly higher annual mileage than the other two groups. The vehicles with four cylinder engines have a mean annual mileage of 20,230 kilometers whilst those with six cylinder engines show an average of 18,650 and those with eight cylinder engines show an average of 19,150 kilometers. The overall average distance run for the vehicles in the ZMVM fleet is 19,820 kms.

47. Mean Engine Displacement per Vehicle



The rest of Mexico (excluding the ZMVM) uses larger displacement engines than does the metropolitan area of the country's capital city. In 1985, the average engine displacement outside of the ZMVM was 3.4 liters whilst in the ZMVM the average engine displacement was 3.2 liters. By 1999 the average displacement has dropped in both cases. Outside of the ZMVM the average displacement is 3.14 liters whilst within the ZMVM the average displacement is 2.77 liters.

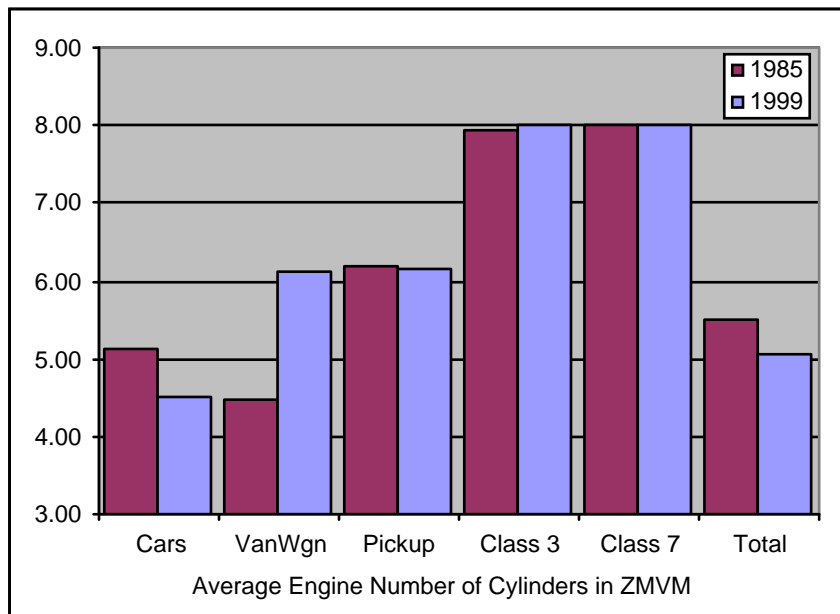
48. Mean kilometers per year in the ZMVM by Engine Displacement



Here, we look out at the relationship of mean kilometers per year run by those vehicles in the ZMVM population segmented by engine displacement. It can be seen in that for those vehicles with four cylinder engines, the vehicles with the larger displacement engines tend to cover higher mileages than those with lower displacements. The same

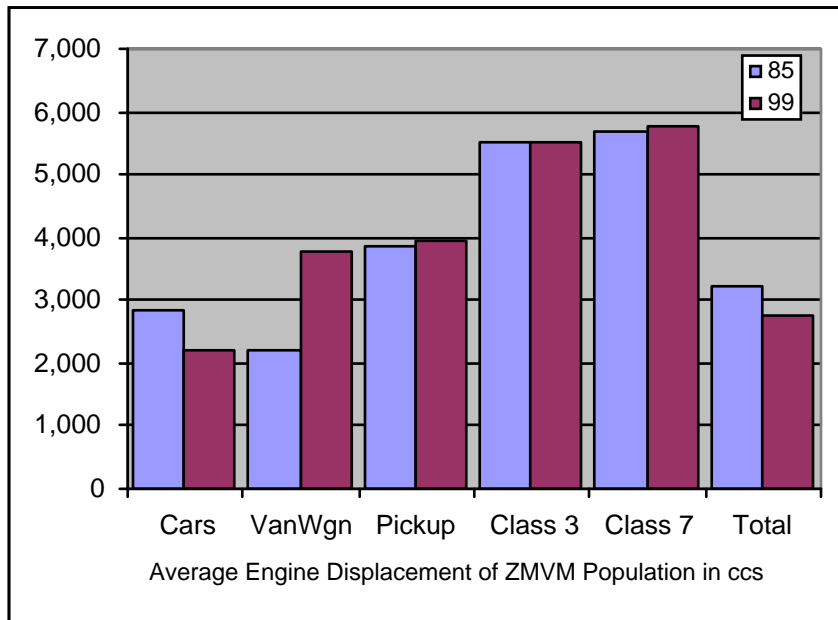
tendency is evident for those vehicles with eight cylinder engines however no clear tendency can be seen for those vehicles with six cylinder engines. For the vehicles with four cylinder engines, those with a displacement of less than 1.5 liters have an average annual mileage of 16,860 whilst those with engine displacements above 1.5 liters have an annual mileage of 20,380. For those vehicles with eight cylinder engines, the annual mileages vary between 14,750 and 20,360 according to engine displacement.

49. Mean Number of Cylinders in the ZMVM by Type of Vehicle



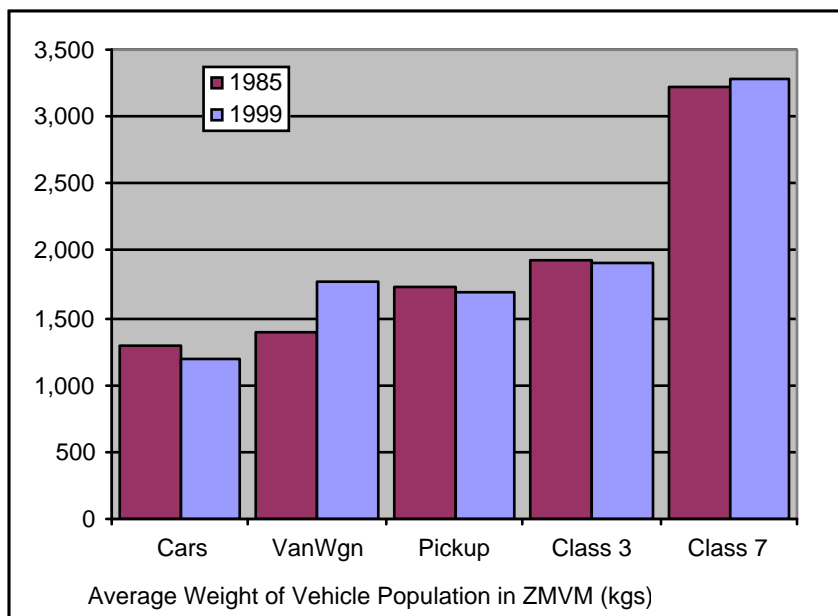
The average number of cylinders for cars in the ZMVM population in 1999 is 4.5, down from an average of 5.1 in 1985. In the van wagon segment the average number cylinders in 1999 is 6.1 up from the average of 4.5 in 1985. For pickups, in 1999, the average number of cylinders is steady in 6.2, the same as it was in 1985. Also for class 3, there has been no change in the average number of cylinders in the ZMVM population, saying stable at 7.95 - 7.99 over the 15 year period. Gasoline powered Class 5 & 7 vehicles have always used exclusively 8 cylinder engines.

50. Mean Engine Displacement in the ZMVM by Type of Vehicle



For cars within the ZMVM the average displacement has dropped from 2.86 liters to 2.21 liters over this 15 year period. For the van / wagon segment the average engine displacement has increased from 2.21 liters in 1985 to 3.77 liters in 1999. The pickup segment has shown only a slight movement; in 1985 the average displacement was 3.88 liters and in 1999 this has changed to 3.97 liters. For class 3 vehicles that has been no detectable change in their average displacement whilst for class 5 & 7 vehicles the same situation appears where the average displacement has changed by only 77 cc to 5.8 liters in 1999.

51. Mean Vehicle Weight in the ZMVM by Type of Vehicle

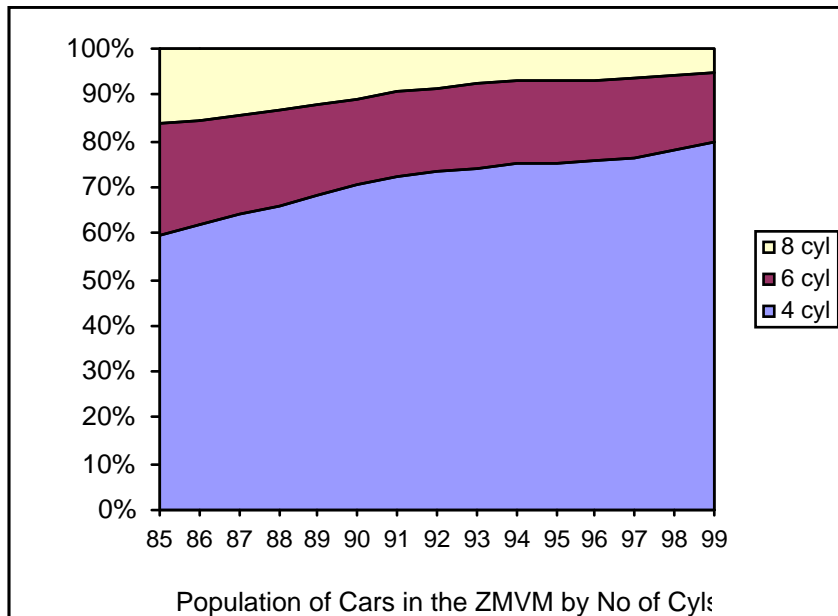


The changes in the average number of cylinders and average engine displacement in the vehicles in the ZMVM population are also reflected by the changes in the average vehicle

weights. In 1985 the cars in the vehicle population, on average, had a weight of 1289 kilos, this being the unladen weight of the vehicle with the driver, fuel and 50 kilos load. By 1999 this average weight for cars had dropped 8% to 1189 kilos. The average weight of the van/wagon segment over this 15 year period has increased by 28 percent from 1383 kilos in 1985 to 1773 kilos in 1999. Pickups, over the 15 year period under investigation, have shown a weight change of 2.7 percent going from 1735 kilos 1985 down to 1689 kilos in 1999. For class 3 vehicles the weight change has been only 1.1 percent going from 1931 kilos in 1985 down to 1910 kilos in 1999. The class 5 & 7 gasoline powered vehicles increased in weight over this period by 1.8 percent from 3225 kilos to 3284 kilos in 1999.

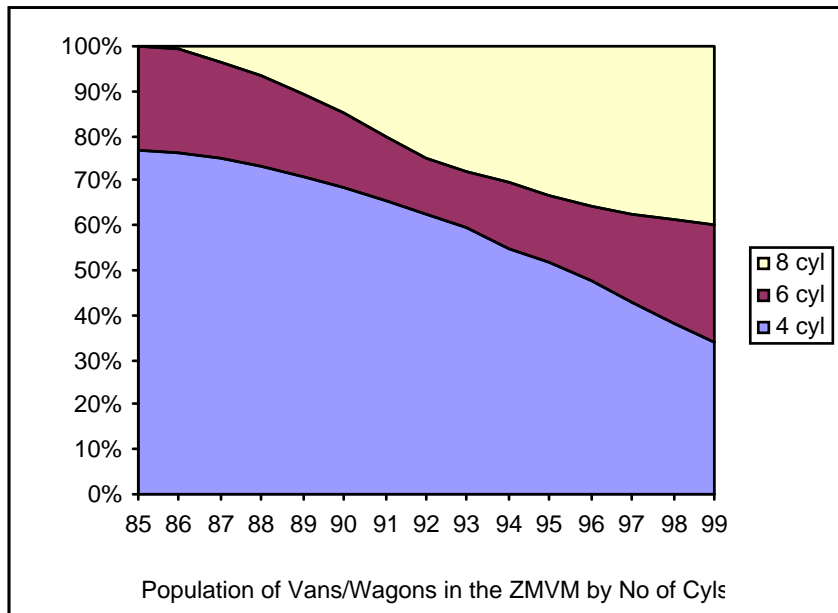
The average vehicle for the complete ZMVM population has dropped by 7.3 percent over this 15 year period going from 1472 kilos in 1985 to 1365 kilos in 1999. It is important to note that the average vehicles in the ZMVM population are lighter than those in the rest of Mexico (excluding the ZMVM). In 1999 overall mean weight of the vehicles outside of the ZMVM is 6.8 percent greater than those within the capital city's metropolitan area.

52. Population of Cars in the ZMVM by Average Number of Cylinders



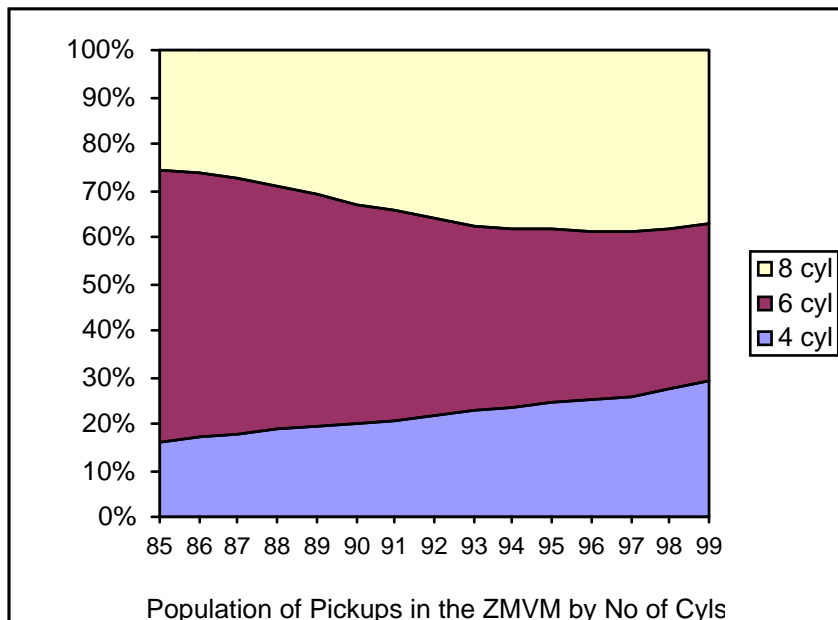
The percentage of cars with 4 cylinder engines in the population of the ZMVM has increased from 59.8 percent to 79.8 percent during the 15 years since 1985. This 20 point increase has been offset by a 9 point reduction in the number of six cylinder engines (from 23.8 down to 14.8 percent of the population) and 11 point reduction in the number of 8 cylinder engines down from 16.4 to 5.4 percent of the population over this period.

53. Population of Van/Wagons in the ZMVM by Average Number of Cylinders



In 1985 there were no vans or wagons in the ZMVM population with 8 cylinder engines. In 1999 was this type of engine accounts for 39.8 percent of the population. Over the same time frame the number of vans and wagons with six cylinder engines has increased from 23.2 to 26.3 percent whilst the number of units with 4 cylinder engines has decreased drastically from 76.8 percent in 1985 to 33.9 percent in 1999. The vehicles that have most participated in this reduction are the Volkswagen Panel and Combi.

54. Population of Pickups in the ZMVM by Average Number of Cylinders

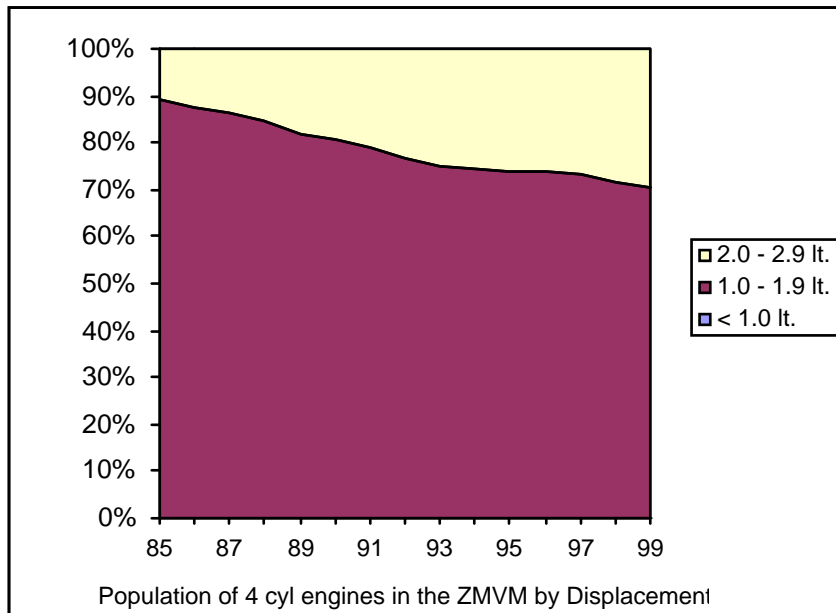


The configuration of the population of pickups in the ZMVM has also changed. The number of 4 cylinder engines in this population has increased from 16.1 percent in 1985 to 29.4 percent in 1999. The participation of six cylinder engines has reduced from 58.3

percent to 53.3 percent over the same period whilst the penetration of the 8 cylinder engine has increased from 25.6 percent to 37.3 percent.

Class 3 and class 5 & 7 vehicles have always used exclusively 8 cylinder engines and this has not changed over the 15 years that the population is being monitored.

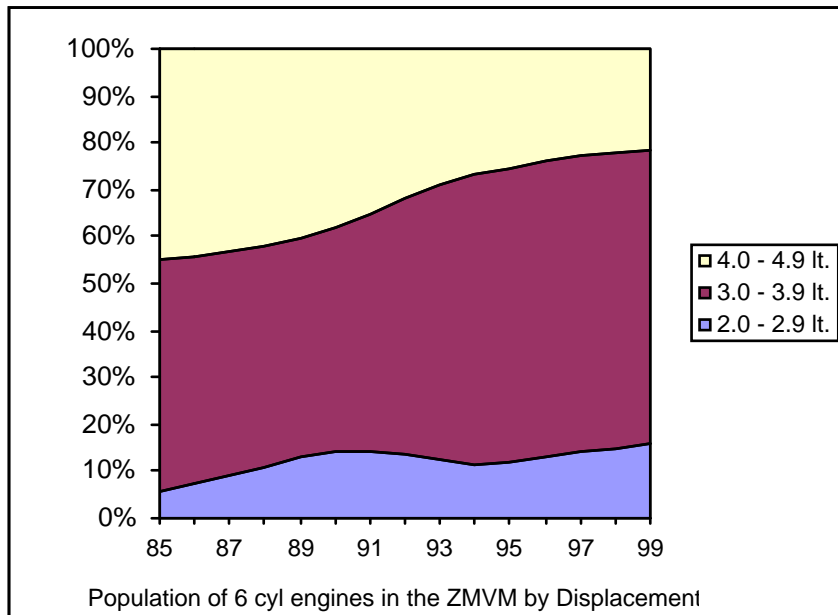
55. Population of 4 cyl Engines in the ZMVM by Displacement



The 4 cylinder engines in the ZMVM population have also increased in displacement of over this period. In 1985, 89.4 percent of the population of 4 cylinder engines had a displacement of between one and two liters. By 1999 only 70.7 percent of the population of 4 cylinder engines fitted in this category. Correspondingly, the number of 4 cylinder engines with displacements between two and three liters has increased over this 15 year period from 10.6 percent to 29.3 percent.

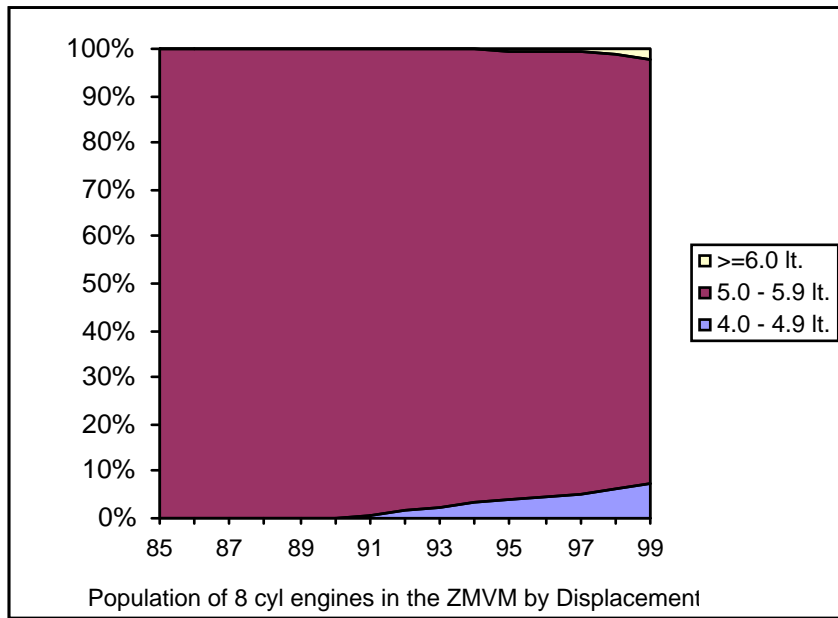


56. Population of 6 cyl Engines in the ZMVM by Displacement



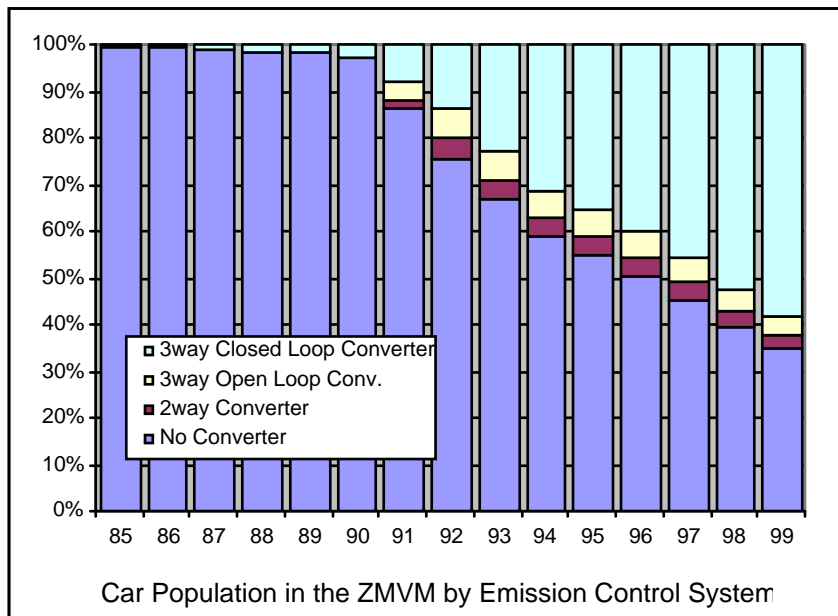
The population of six cylinder engines, over the last 15 years, has become smaller in terms of engine displacement. In 1985, 49.5 percent of all six cylinder engines had displacements between three and four liters. 44.6 percent had displacements between four and five liters and the remaining 5.9 percent had smaller 2 to 3 liter engines. By 1999 the percentage of six cylinder engines with displacements of between three and four liters had increased to 62.6 percent whilst the percentage of six cylinder engines with displacements between four and five liters has gone down to 21.6 percent. The smaller two to three liter engines by 1999 configured 15.9 percent of the population.

57. Population of 8 cyl Engines in the ZMVM by Displacement



In 1985, all the population of 8 cylinder engines had displacements of between five and 6 liters. Over the last 15 years this is hardly changed, however smaller four to five liter engines have started to make inroads and in 1999 account for 7.3 percent of the population.

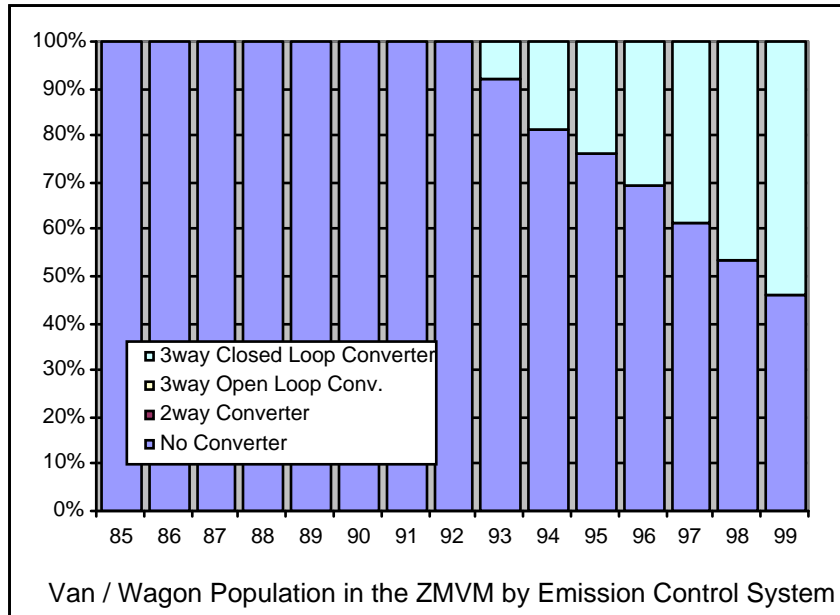
58. Car Population in the ZMVM by Type of Catalytic Converter



In 1985, 99.5 percent of the population of cars in the ZMVM did not have any catalytic converter. The remainder were imported units that probably met current U.S. federal specifications. By 1999 the configuration of the population has changed considerably. Now, only 34.7 percent of the car population is without a converter. 58.4 percent has a 3 way closed loop catalytic converter, 3.9 percent as a three way open loop catalytic converter and the remaining 2.9 percent as a two-way oxidizing converter.

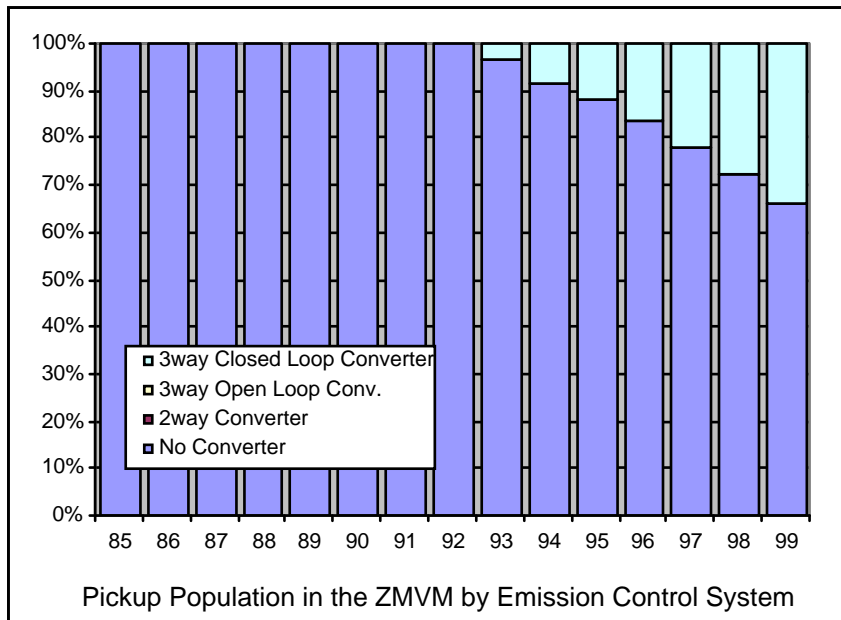
The 3 way closed loop catalytic converters started appearing in the market in 1990 (1991 model year) whilst the two-way converters and three way open loop converters were only introduced into the population during '91 and 92. These latter two types of converters were used exclusively in cars over this period of time and do not appear in any of the other segments of the vehicle population.

59. Van/Wagon Population in the ZMVM by Type of Catalytic Converter



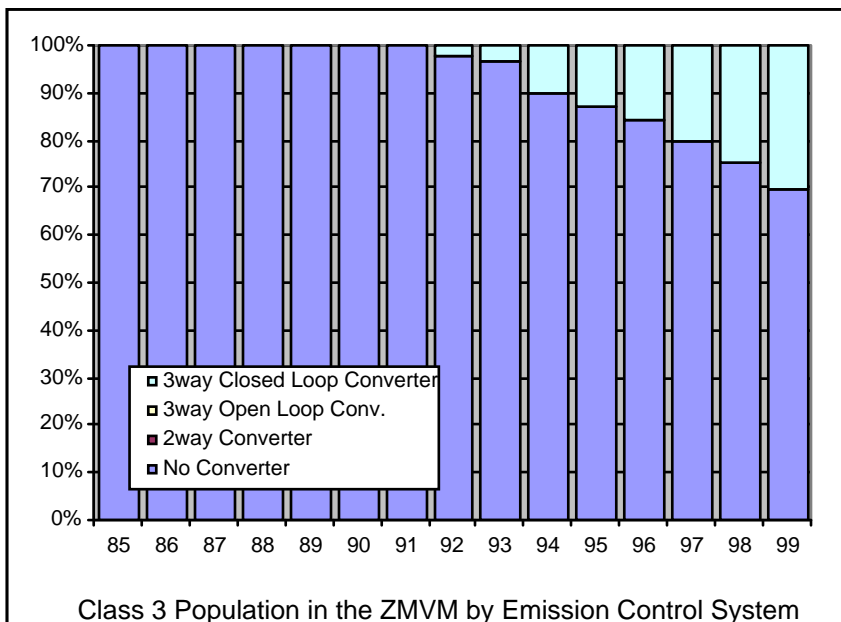
In 1985, the segment of vans and wagons was populated exclusively by vehicles without catalytic converters. Due to their greater gross vehicle weight, these multiple use vehicles were classified under the current emissions regulations for in use vehicles in the same category as pickups and hence three way closed loop converters didn't started appearing in this vehicle population until 1993. By 1999, 54.1 percent of this segment was equipped with a three way closed loop converter whilst 45.9 percent is still without any catalytic converter.

60. Pickup Population in the ZMVM by Type of Catalytic Converter



Similarity, catalytic converters only started appearing in the pickup segment in 1993. Before that, none of these vehicles in the ZMVM population were equipped with catalytic converters. By 1999, 33.9 percent of this population is equipped with a three way closed loop catalytic converter whilst the remaining 66.1 percent does not have any converter fitted.

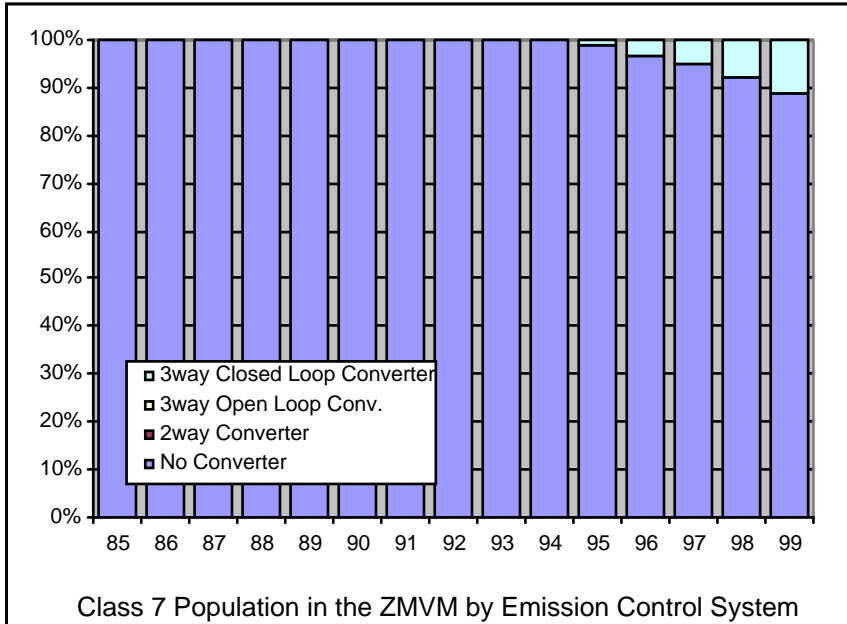
61. Class 3 Population in the ZMVM by Type of Catalytic Converter



In the 1992, the first class 3 minibuses appeared in the ZMVM population fitted with catalytic three way closed loop converters. By 1999, 30.1 percent of this segment of the vehicle population is now fitted with three way closed loop catalytic converters whilst the remaining units are still circulating without any converter. Since all these vehicles can be

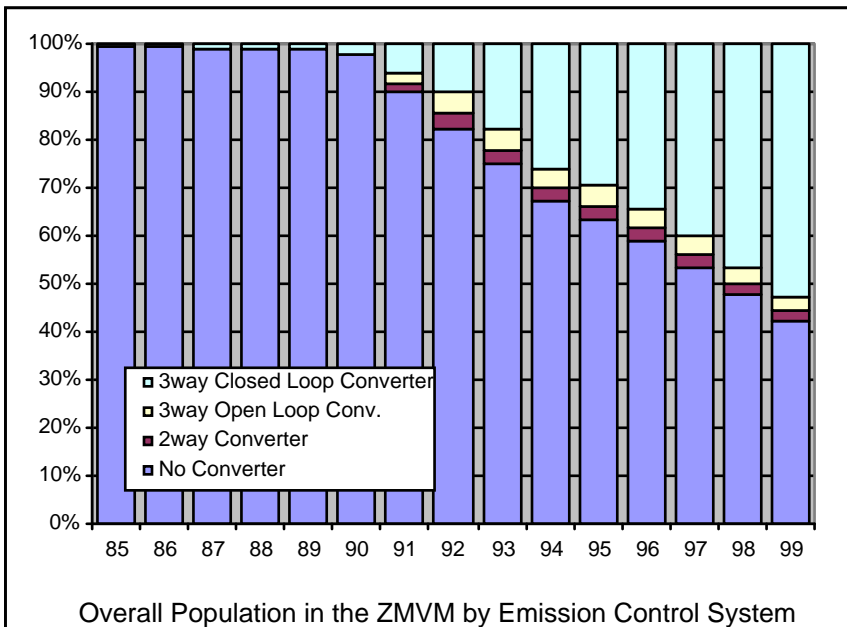
classified as intensive usage, and all have large displacement V-8 engines, the emissions that they produce are out of proportion to their participation in the vehicle fleet.

62. Class 5&7 Population in the ZMVM by Type of Catalytic Converter



For the class 5 & 7 population of gasoline powered vehicles in the ZMVM catalytic converters only started appearing with the 1996 model year. To date, only 11.3 percent of this population of vehicles is fitted with closed loop catalytic converters.

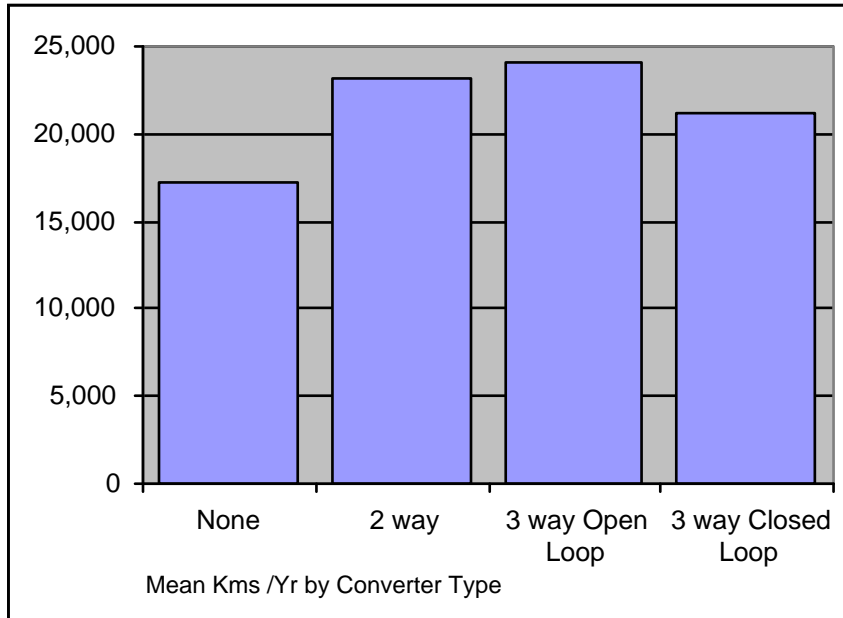
63. Population of Vehicles in the ZMVM by Type of Catalytic Converter



Overall, taking into account the relative number of each category of vehicles, by the end of 1999, 57.9 percent of the gasoline powered vehicle population in the ZMVM is equipped with some form of catalytic converter. Three way closed loop converters have

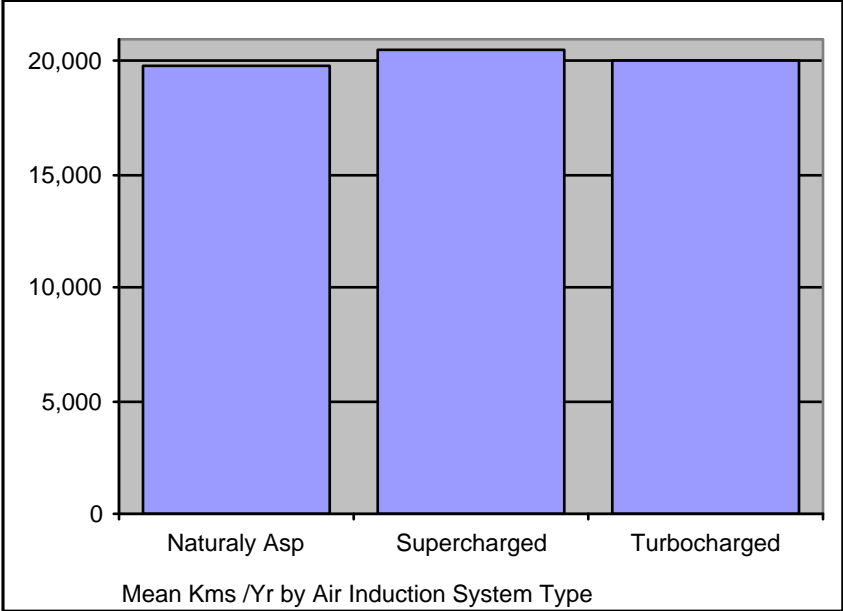
been fitted as original equipment to 52.9 percent of the population whilst another 5 percent is fitted with two-way oxidizing converters or three way open loop converters.

64. Mean kilometers per year in the ZMVM by Type of Catalytic Converter



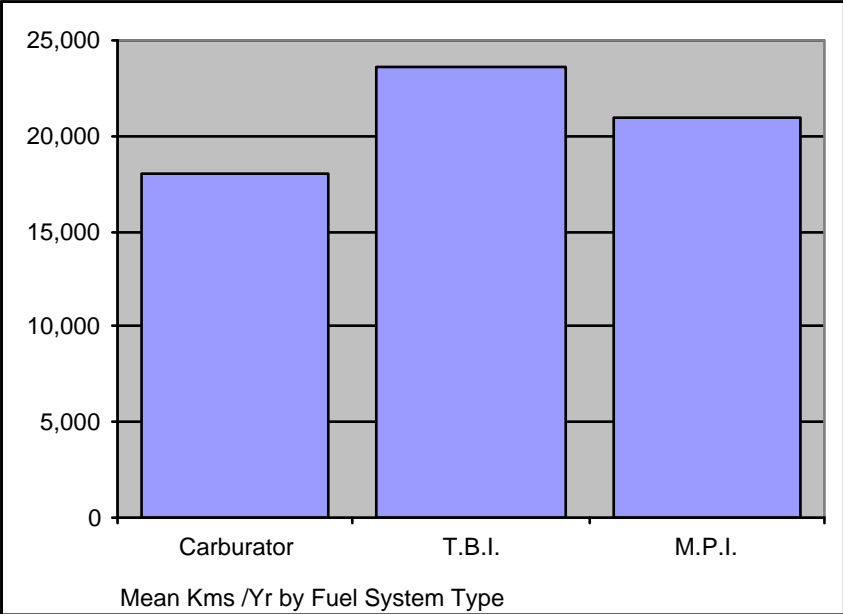
It can be seen here that those vehicles without any catalytic converter have lower average of mileages per year than those with a converter. The vehicles with no converter in the ZMVM population show a mean kilometers per year of 17,270 whilst those with three way closed loop catalytic converters have an average mileage of 21,120. It is interesting to note that those cars manufactured between 1991 and 1992 with two-way oxidizing converters or three way open loop converters showed the highest average annual mileage at 23,160 and 24,070 respectively.

65. Mean kilometers per year in the ZMVM by Type of Engine Air Induction System



There is no discernible difference between the average annual mileages that are accumulated by those vehicles with naturally aspirated engines in the ZMVM population against those with supercharged or turbocharged engines.

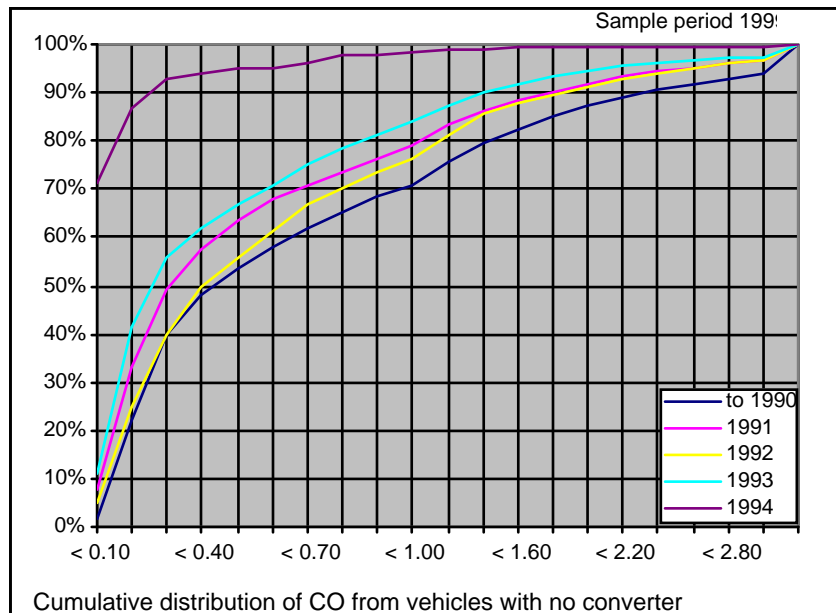
66. Mean kilometers per year in the ZMVM by Type of Engine Fuel System



However, it can be seen that those vehicles with fuel injected engines have higher annual mileages than those with the carbureted engines. This can be attributed to the carbureted engines being older.

## 9. Tailpipe Emissions from Vehicles in Mexico

### 67. CO distribution from vehicles with No Converter



This graph shows the distribution of CO emissions from vehicles in the ZMVM population with no catalytic converter. The graph shows the accumulated distribution of carbon monoxide in the sample obtained during 1999 from vehicles in model years between pre-1990 and 1994. The emissions readings shown on this graph are those obtained during the emissions test at 40 kph with an applied road load. This stage of the emissions test produces the highest carbon monoxide readings whilst the lower speed and high load section of the test (50% load at 24kph) produces higher hydrocarbon and NOx readings.

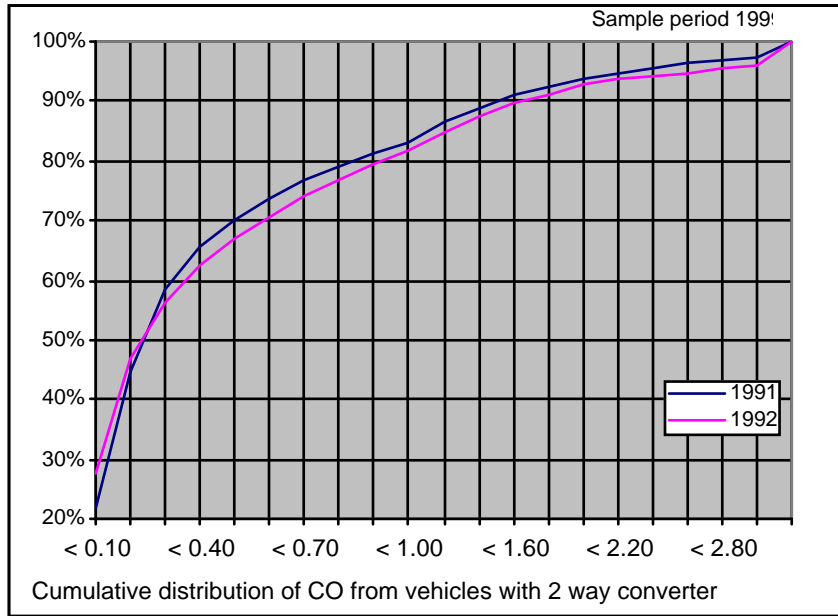
You can see in the accompanying graph that the accumulative curves for vehicles up to 1993 model year are very similar whilst those from the 1994 model year show a cleaner emissions spectrum.

To illustrate to this point, 95 percent of the vehicles from the 1994 model year have carbon monoxide emissions of less than 0.5 percent. At this same concentration level, only 67 percent of vehicles from the 1993 model year are within this 0.5 percent limit. For 1992, only 56 percent have CO emissions lower than 0.5 percent whilst for 1991, 64 percent are within this limit and for all the model years up 1990 only 54 percent were found to be within this limit.

For this limit, you can see that all model years up to 1993 are covered within a 14 point spread whilst the difference between this group and 1994 is more than 30 points.

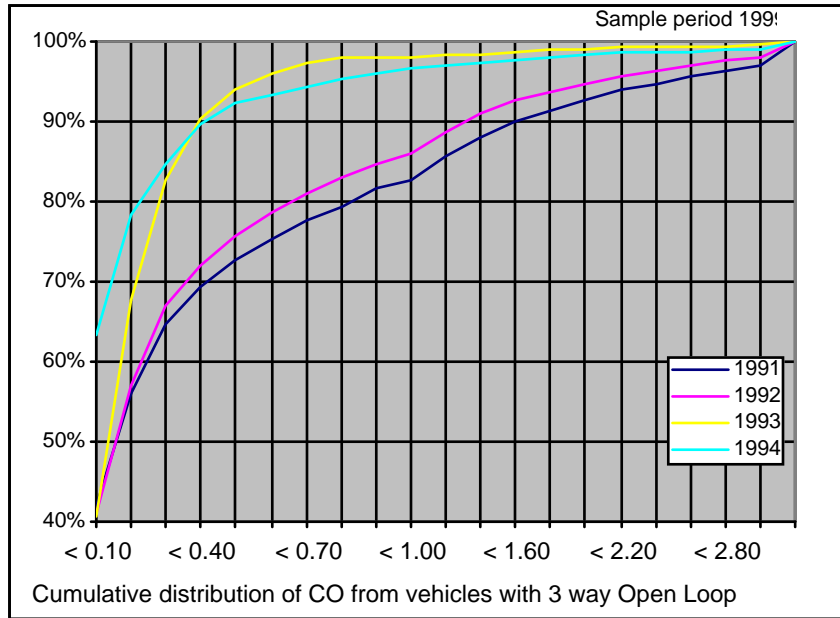


68. CO distribution for vehicles with a Two-Way Catalytic Converter



Here, we can see the distribution of CO emissions from vehicles in the ZMVM population with two-way catalytic converters. Here again, the graph shows the accumulated distribution of carbon monoxide in the sample obtained during 1999 from vehicles produced with this type of converter. You can see that both model years have almost identical carbon monoxide distributions. Using the same example as in the previous graph, you will see that of the 1991 model year vehicles, 70.1 percent of the population have carbon monoxide emissions during this stage of the test of less than 0.5 percent whilst for the 1992 vehicles, 67 percent have emissions of less than 0.5 percent. This compares favorably with the average 60 percent of vehicles, these same model years with no catalytic converter that are within this .05 percent limit.

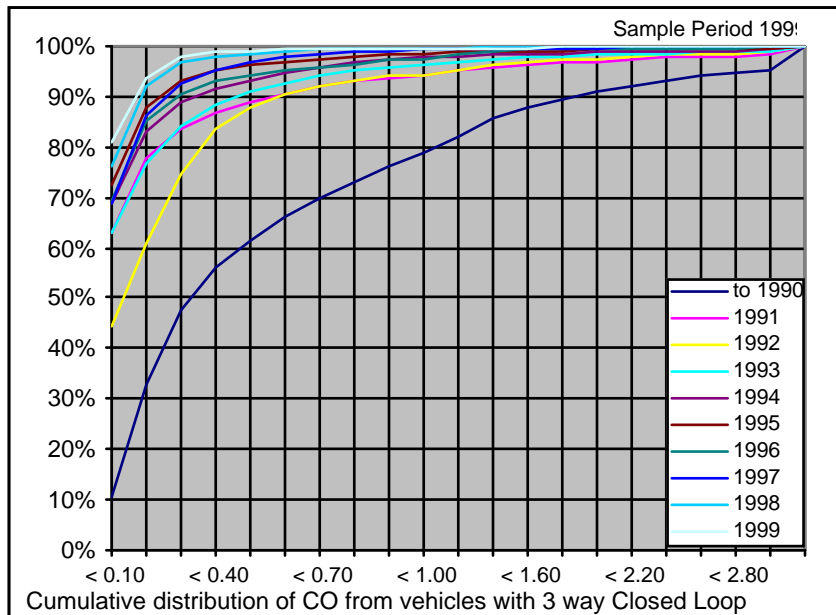
69. CO distribution of vehicles with Three Way Open Loop Catalytic Converters



This graph shows the distribution of carbon monoxide emissions from those vehicles in the ZMVM population with three way open loop catalytic converters. The data was taken in the samples during 1999 and comes from vehicles whose model years are between 1991 and 1994. This data was obtained during the 40 kph stage of the emissions test. You can see that these model years fall into two distinct groups. The 1991 and 1992 model year vehicles have very similar CO emissions spectrums whilst the 1993 and 1994 model year vehicles are considerably cleaner. To continue with the same example, 72.6 percent of the 1991 model year vehicles have CO emissions of less than .5 percent. For the 1992 model year vehicles 75.8 percent have carbon monoxide emissions of less than .5 percent. On comparing these figures to the previous graph, you can see that the three way open loop catalytic converter produces slightly lower CO emissions than the two-way converter in the '91-'92 model years.

The 1993 and 1994 model year vehicles are shown to be considerably cleaner with 93.9 percent and 92.3 percent respectively, being within the 0.5 percent carbon monoxide emissions figure.

70. CO distribution of vehicles with Three Way Closed Loop Catalytic Converters



Between 1984 and 1990, some imported vehicles arrived in the Mexican market with three way closed loop catalytic converters. The widespread use of this type of catalytic converters in Mexico started in 1991 in luxury cars and extended down to the economy and compact car ranges on or after 1993.

In this graph you can see that the vehicles of up to the 1990 model year have higher CO emissions in general than those from later years. In fact, only 61.5 percent of these vehicles have CO emissions of less than 0.5 percent.

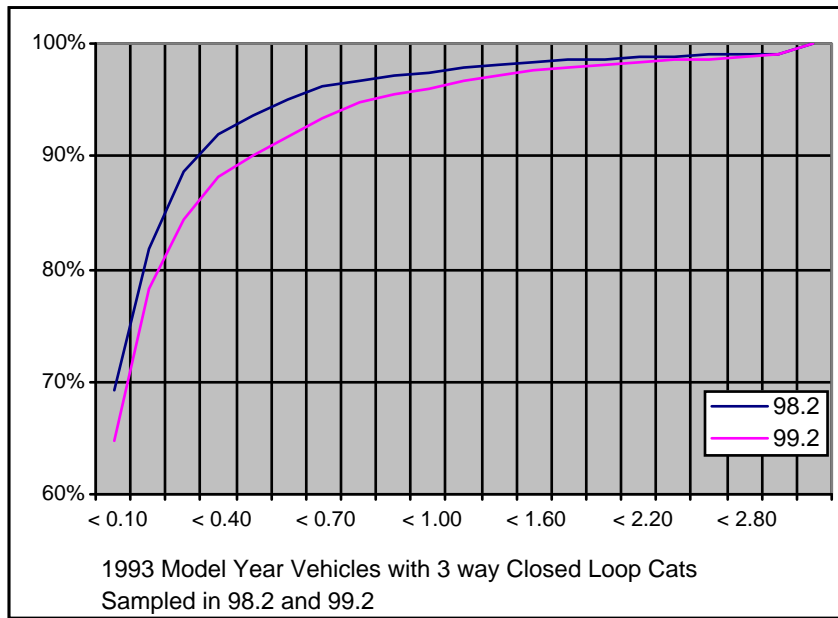
The vehicles of 1991, 1992 and 1993 model years form a sub-group with between 88 percent and 91 percent meeting a 0.5 percent CO target.

The 1991 and 1992 model year vehicles with three way closed loop catalytic converters are cleaner than the corresponding units with three way open loop catalytic converters. However, for the 1993 and 1994 model years the use of a three way closed loop catalytic converter does not show up in lower carbon monoxide emissions against those with open loop units.

It is interesting to note the continuous improvement in carbon monoxide emissions against model year. Even though each model year does not have distinct pass/fail limits, or even distinct technology, there is a direct relationship between carbon monoxide emissions and vehicle model year.

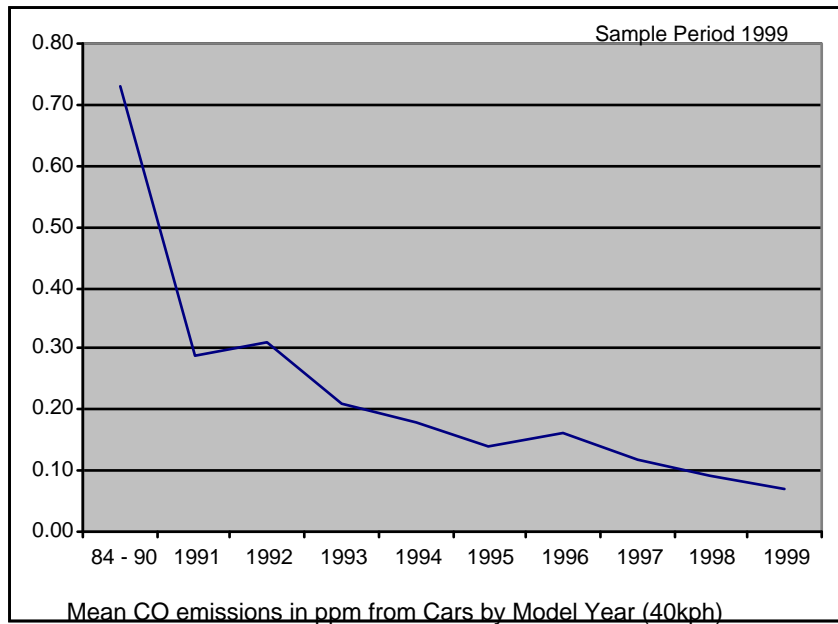
This carbon monoxide data probably does not support any decision to mandate changes of catalytic converter for vehicles with model years from 1994 to date. The spread across all vehicles of these model years to meet the 0.5 percent carbon monoxide level is only 5.9 percentage points. That is, 93.3 percent of the 1994 model year vehicles have less than 0.5 percent carbon monoxide whilst for the 1999 model year, 99.2 percent of vehicles have less than 0.5 percent CO.

71. CO distribution by Catalytic Converter Type - 1993 model year



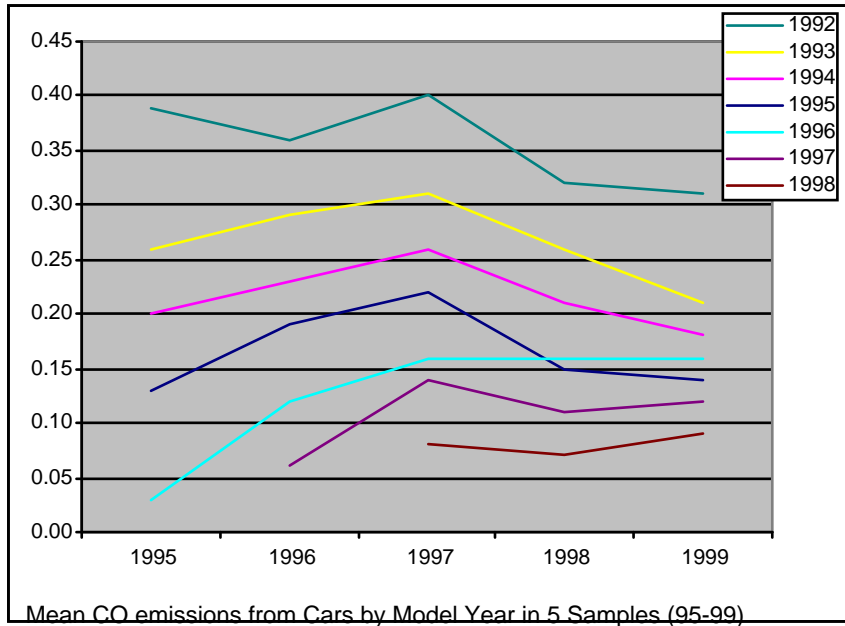
During 1999, the Mexico City government mandated that all 1993 vehicles with three way catalytic converters had to renew their converters for the vehicle to obtain the "zero" sticker that allows it to operate all the days of the week. This converter renewal was voluntary during the 1st semester of 1999 depending on the emissions levels of the vehicle and was made obligatory during the second semester of that year. Thus, if we compare the CO emissions from the 1993 model year vehicles with three way closed loop catalytic converters sampled in the second semester of 1998 and in the second semester of 1999 we should be able to visualize the results of this action.

As you can see in the accompanying graph the emission results of carbon monoxide taken during the 40 kph stage of the test show a deterioration between the second semester of 1998 and the second semester of 99. This is consistent with the other graphs and model years whether there is at a direct relationship between emissions level by model year and a deterioration over time, however, in this specific case we would have expected to see some benefits from the mandatory renewal of catalytic converters.

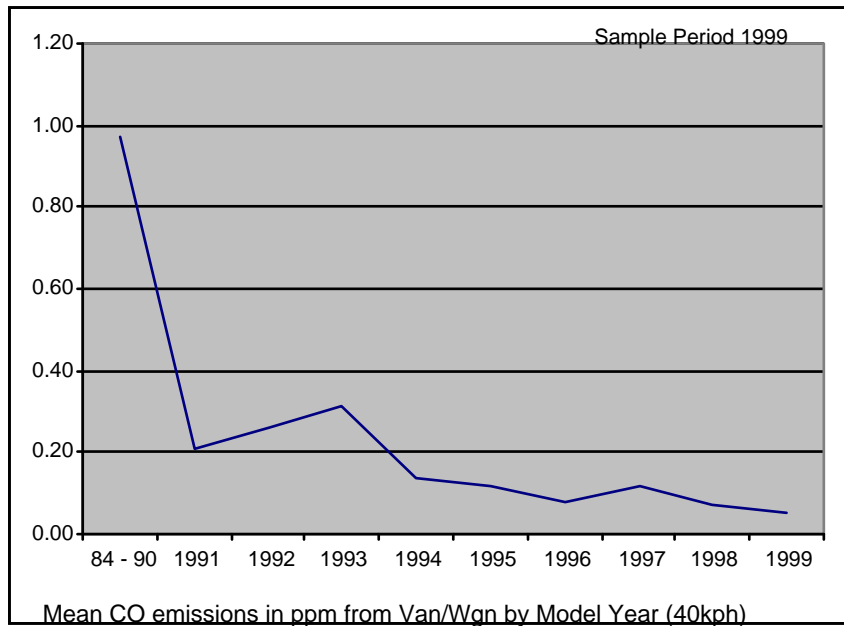
72. Mean CO from Cars

In this graph you can appreciate the almost linear relationship between mean carbon monoxide emissions from cars against vehicle model year. The figures shown here are mean carbon monoxide emissions from the ZMVM population of cars taken from the 1999 sample. The results are those of the 40 kph section of the emissions test where road load is applied to the vehicle. Those vehicles of between the 1984 and 1990 model years have the highest mean CO emissions levels at 0.73 percent average. But from 1991 on, the relationship is almost the linear from a peak of 0.30 percent (average 91-92) down to a mean CO level for 1999 model year cars of 0.06 percent.

73. Mean CO from cars by model year.

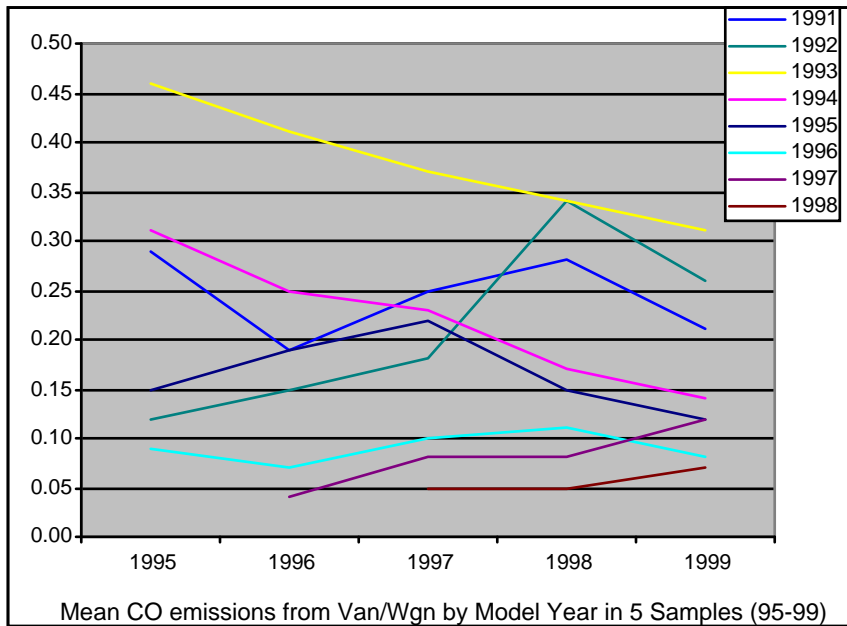


This graph allows a comparison between the samples taken during the during 1995, 96, 97, 98 and 99. For each year, the results shown on this graph are the average of the results from the first and second semester of that year. Here you can see that for almost all model years, the carbon monoxide average emissions from cars in the ZMVM population measured as a concentration (percent) increased between the 1995 sample and the 1997 sample. For those vehicles with older technology (up to 1995 model year), the increase in test time that went into force in the latter half of '97 has apparently helped lower carbon monoxide readings to be reported. For the vehicles of 1996 model year onwards this reduction is not evident and the CO level of emissions from these vehicles has remained sensibly constant.

74. Mean CO from Vans/Wagons.

In the vans/wagon category of vehicles from the ZMVM population, the average CO emissions for those of up to 1990 model year, sampled in 1999, was 0.97 percent. From the 1991 model year onwards an almost linear relationship is again displayed between CO emissions and vehicle model year. Interestingly, the carbon monoxide average emissions went up between 1991 and 93 from 0.21 percent to 0.31 percent but from 94 onwards this level drops consistently to reach 0.05 percent by the 1999 model year. The improvement in mean carbon monoxide emissions from this class of vehicles is very similar to that shown in by cars even though these two segments are of different gross vehicle weights, different legislated limits, and different vehicle technology.

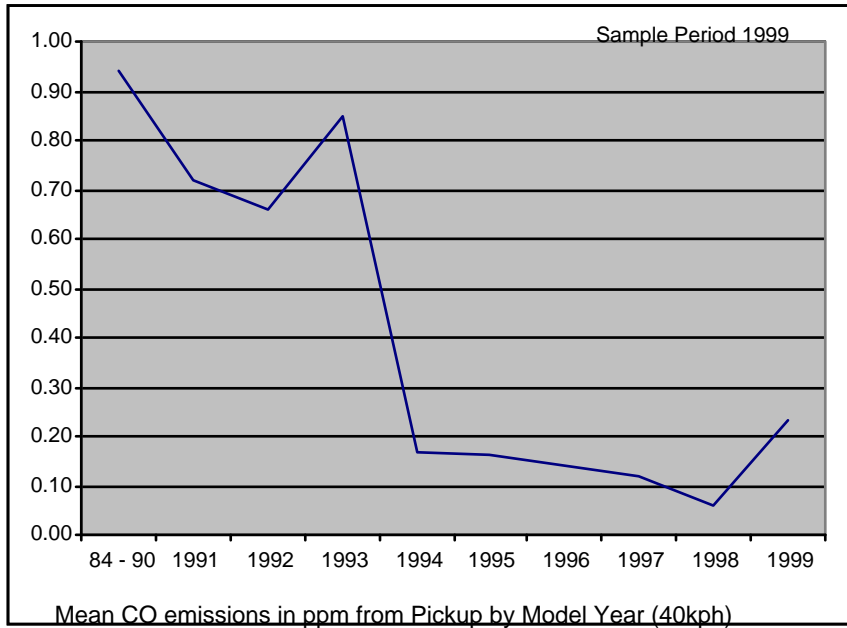
75. Mean CO from vans/wagons by model year.



Here we look at the changes that the mean carbon monoxide emissions levels display between the sample taken in 1995 up to and including the sample taken in 1999. The different model years, here, do not display consistent tendencies. You can see that the 1991 model year maintains an average carbon monoxide level in the band between 0.19 percent and 0.29 percent. The 1992 model year however shows a far wider distribution with the average carbon monoxide levels increasing with time. For the 1993 model year however the CO average levels show an almost straight line reduction over the five-year period. A similar tendency is shown for 1994 but at a lower average level going from 0.31 percent in '95 down to 0.14 percent in 99. For the 1995 model year, between 1997 and 1999 samples the tendency is very similar to 1994, however the average results in the 1995 and 1996 samples are substantially lower than those of this previous model year. For the 1996, 97 and 98 model years the results are consistent and do not show an improvement is carbon monoxide emissions with model year maintaining a need of between 0.5 and 0.12 percent.

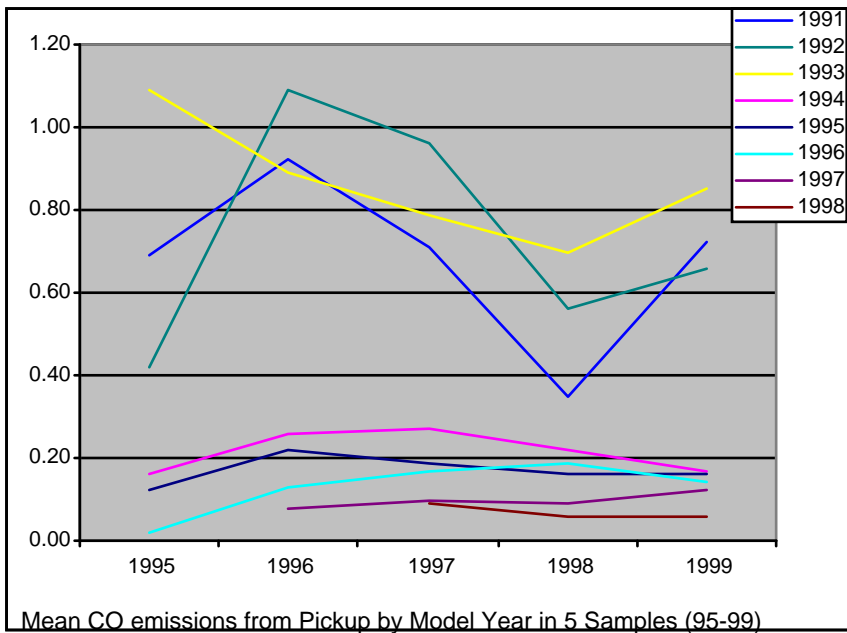


76. Mean CO from Pickups.



The mean carbon monoxide emissions from pickups when shown against vehicle model year, clearly indicate two tendencies. The CO levels are high up until the 1993 model year varying between 0.94 percent and a low of 0.66 percent and then, with the requirements to fit three way closed loop catalytic converters this average level falls dramatically in 1994 to 0.17 percent and drops linearly with age until 1998. Here it is interesting to note that the average carbon monoxide emissions from the 1999 model year vehicles is substantially higher than those from previous model years.

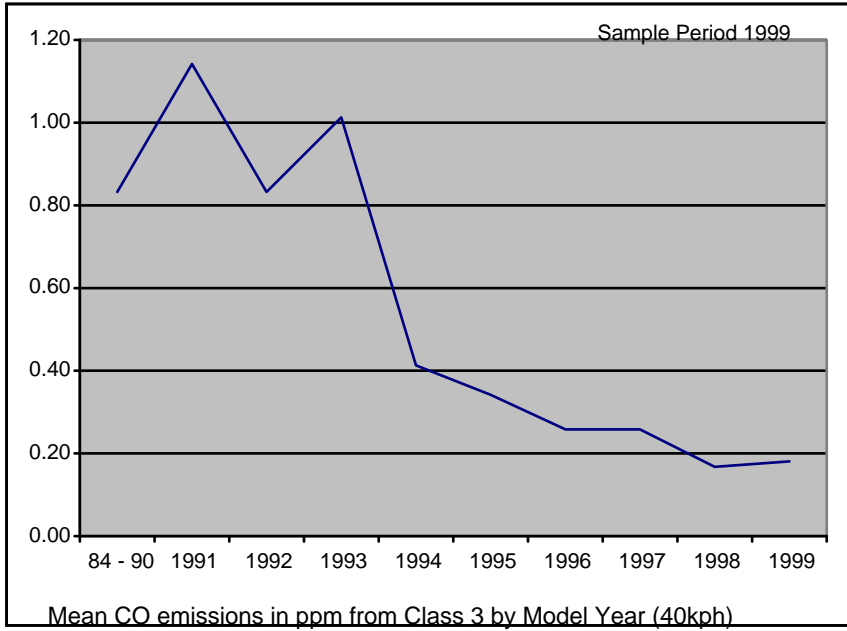
77. Mean CO from pickups by model year.



These two tendencies are also clearly apparent when we see the change in the average carbon monoxide emissions over the 5 different annual sampling periods. The CO emissions from vehicles of the 1994 and later model years are steady over time and fall in

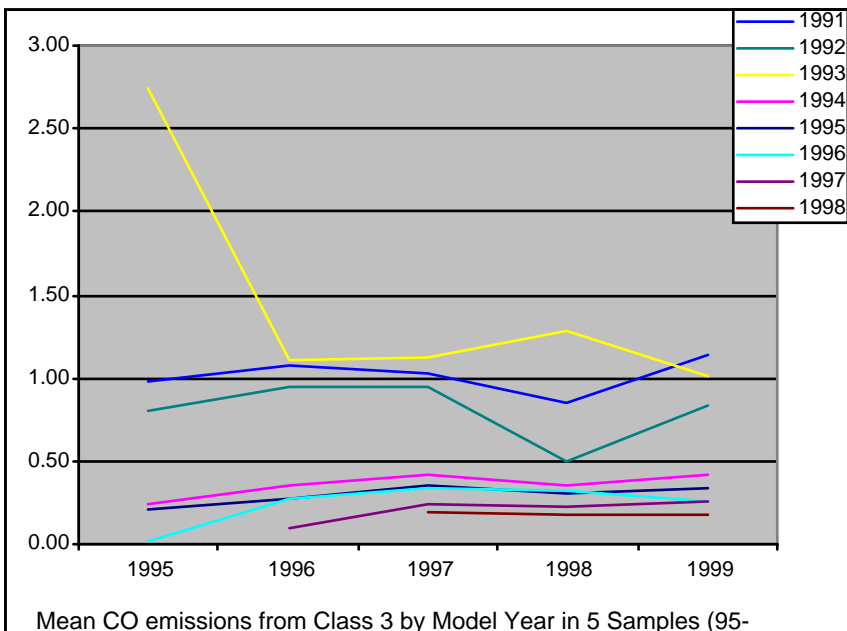
a band between a high of 0.26 percent and 0.06 percent with each model year are having lower average CO emissions than the previous one. For the 91, 92 and 93 model years however the average emissions are substantially higher and less consistent over time.

78. Mean CO from Class 3 Vehicles.



The mean carbon monoxide emissions from class 3 vehicles when shown against vehicle model year, indicate a tendency that is very similar to that shown by the pickups but at almost twice the average concentration.

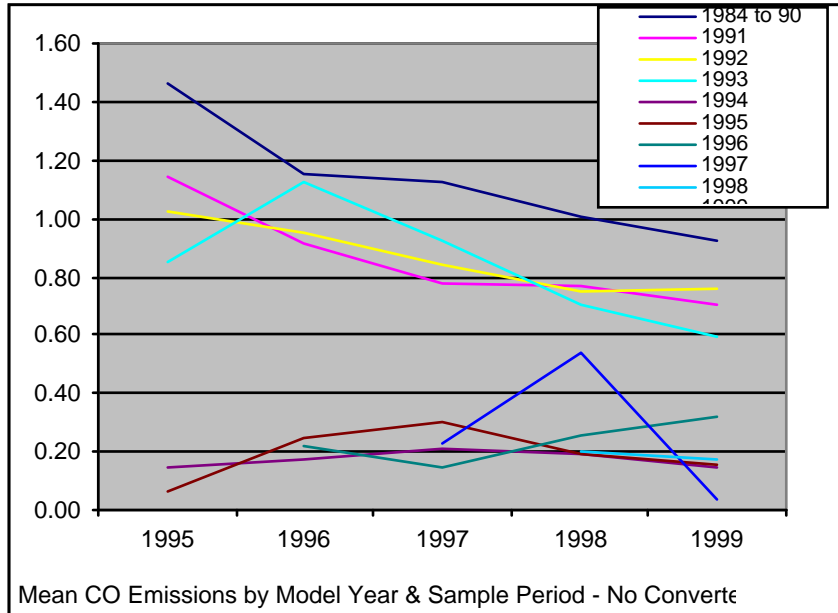
79. Mean CO from Class 3 Vehicles by model year.



Similarly, the change in average carbon monoxide emissions for each model year over the five-year span that our sampling periods cover, show a relationship and tendency is that is also very similar to that presented by the pickups. The exception here is for the 1993 model year where the average carbon monoxide emissions measured in 1995 was

2.75 percent, considerably higher than anything else measured. This 93 model year also showed an increase in emissions during 1998 that was not presented by any of the other vehicle segments.

80. Mean CO emissions by model Year from vehicles with No Catalytic Converter.

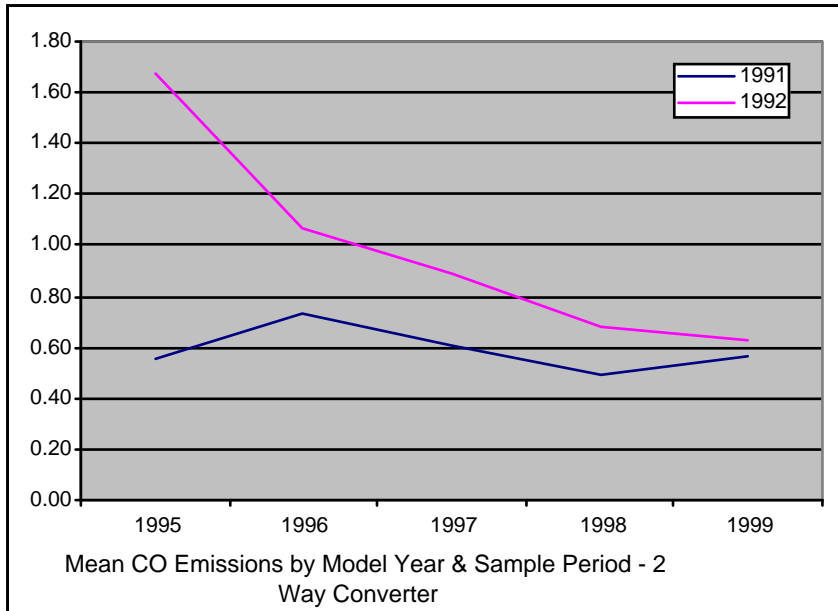


This chart shows the change in mean carbon monoxide emissions, measured during the 40 kph stage of the emissions test, for each model year over the five-year span that our sampling periods cover for all vehicles that are not fitted with Catalytic Converters. Here it can be seen that the different model years fall into two groups: up to 1993 and 1994 on.

For the first group, the mean CO emissions continue dropping each year whilst for the later model years, the mean emissions are stable or increasing. The change in test protocol for '98 and '99 to a longer test time is believed to be the principal reason for the drop in mean emissions for these years.

Whilst there is a definite mean CO improvement from model year to model year, information is not available to support the reasons behind the constant reduction in mean levels from the older model years against sampling period.

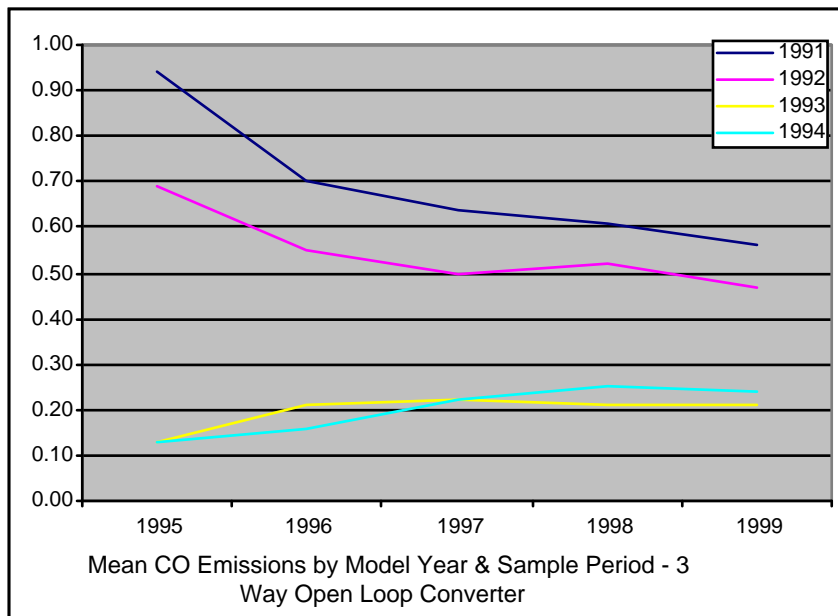
81. Mean CO emissions by model Year from vehicles with 2 Way Catalytic Converters.



This chart shows the change in mean carbon monoxide emissions, measured during the 40 kph stage of the emissions test, for each model year over the five-year span that our sampling periods cover for all vehicles that are fitted with 2 Way Catalytic Converters. Here it can be seen that this covers only 1991 and 1992 model year cars with an unexplained difference between the two.

It is important to note that this group represents the smallest portion of the population.

82. Mean CO emissions by model Year from vehicles with 3 Way Open Loop Catalytic Converters.

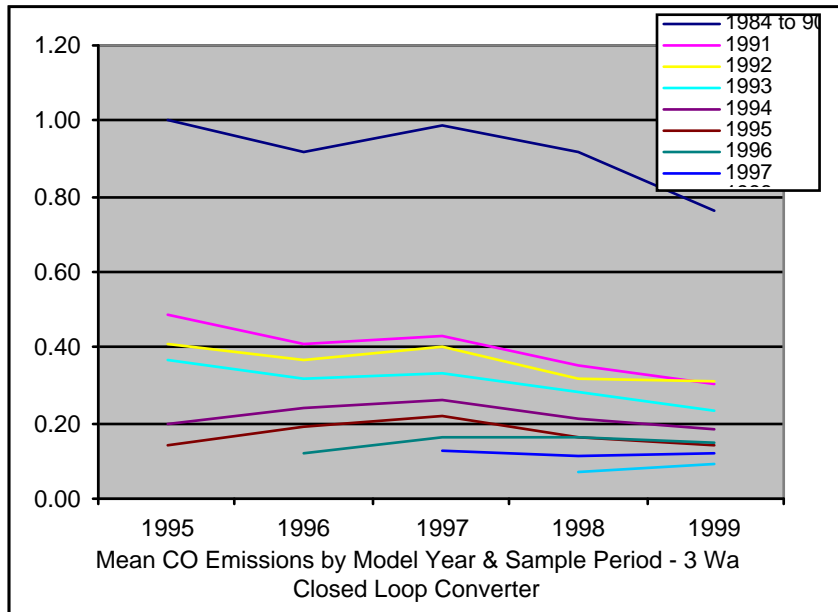


This chart shows the change in mean carbon monoxide emissions, measured during the 40 kph stage of the emissions test, for each model year over the five-year span that our sampling periods cover for all vehicles that are fitted with 3 Way open Loop Catalytic Converters.

Here it can be seen that there is a clear difference between the two model year groups. For the 1991-92 model year group, the mean CO emissions continue dropping each year whilst for the later model years, the mean emissions are stable. If the test protocol had not been changed for '98 and '99 to a longer test time, it is probable that the 1993-94 model year group would have shown an increase.

This graph does not show any evidential benefits from the mandated converter change for the 1993 model year vehicles in 1999.

83. Mean CO emissions by model Year from vehicles with 3 Way Closed Loop Catalytic Converters.

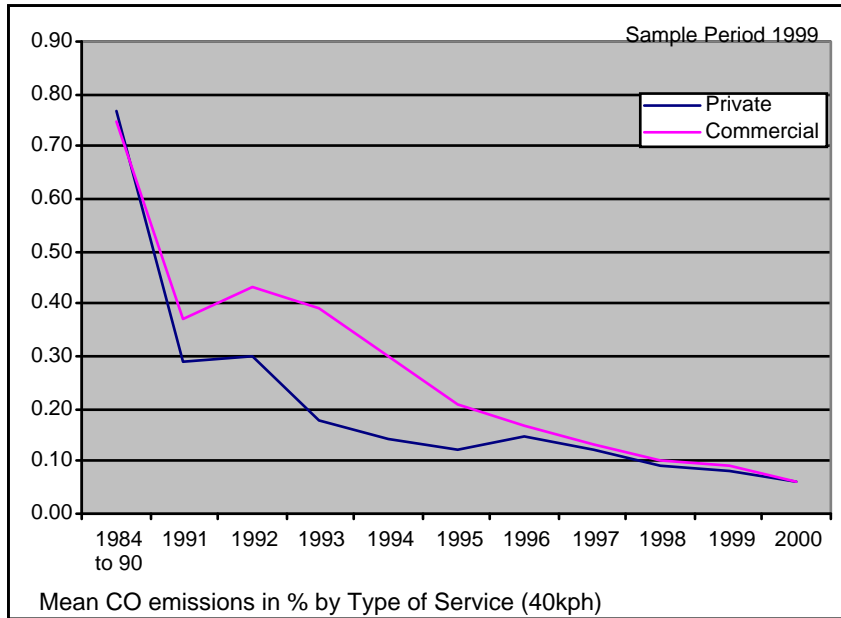


This chart shows the change in mean carbon monoxide emissions, measured during the 40 kph stage of the emissions test, for each model year over the five-year span that our sampling periods cover for all vehicles that are fitted with 3 Way Closed Loop Catalytic Converters.

Here it can be seen that the different model years fall into three groups: pre'91, 1991 to 1993 and 1994 on.

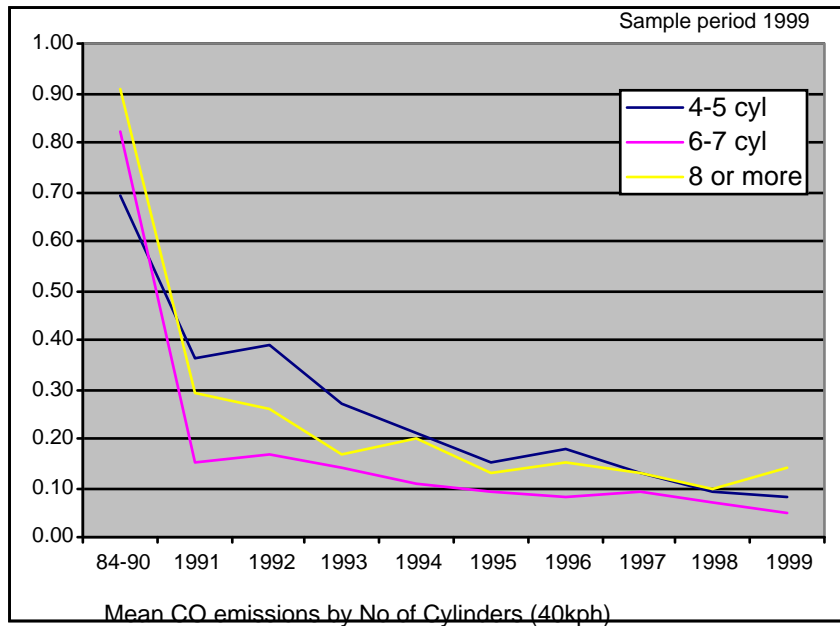
For the first group, it must be assumed that the catalytic converter is not working at all. For the second group, the mean CO emissions continue to drop slightly each year whilst for the later model years, the mean emissions are relatively stable. The change in test protocol for '98 and '99 to a longer test time is believed to be a major cause for the no-increase in levels during 1998 and 1999.

84. Mean CO emissions by type of service.



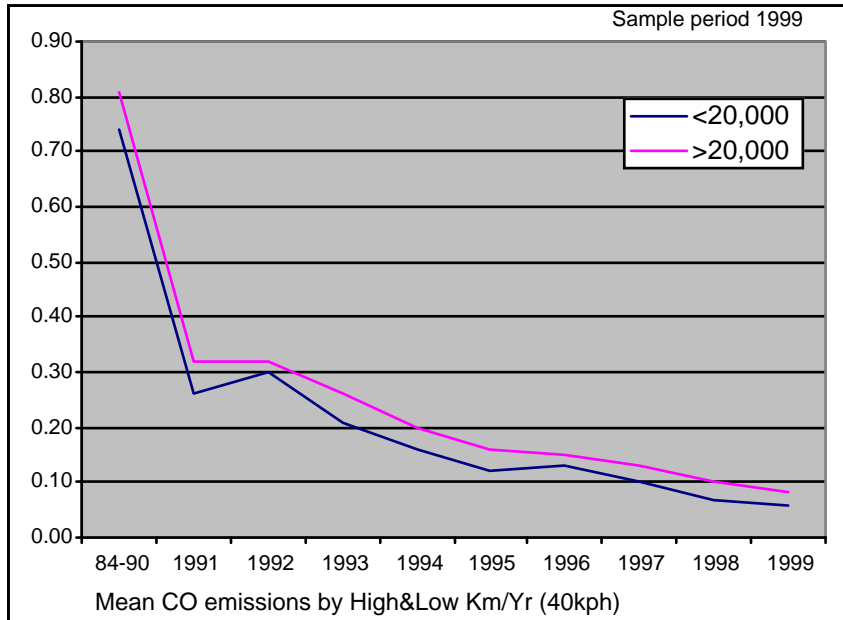
This graph shows the mean carbon monoxide emissions from the ZMVM population, sampled in 1999, by model year and type of service. The data for these graphs comes from the 40 kph section of the emissions test in which a road load is applied to the vehicle. It can be seen that up to and including the 1991 model year, the emissions reported from private and from commercial vehicles are very similar. Between the 1992 and 1995 model years however the commercial vehicles reports considerably higher carbon monoxide average emissions than private vehicles. From the 1996 model year onwards there is no difference reported in mean carbon monoxide emissions by type of service.

85. Mean CO emissions by number of Cylinders.



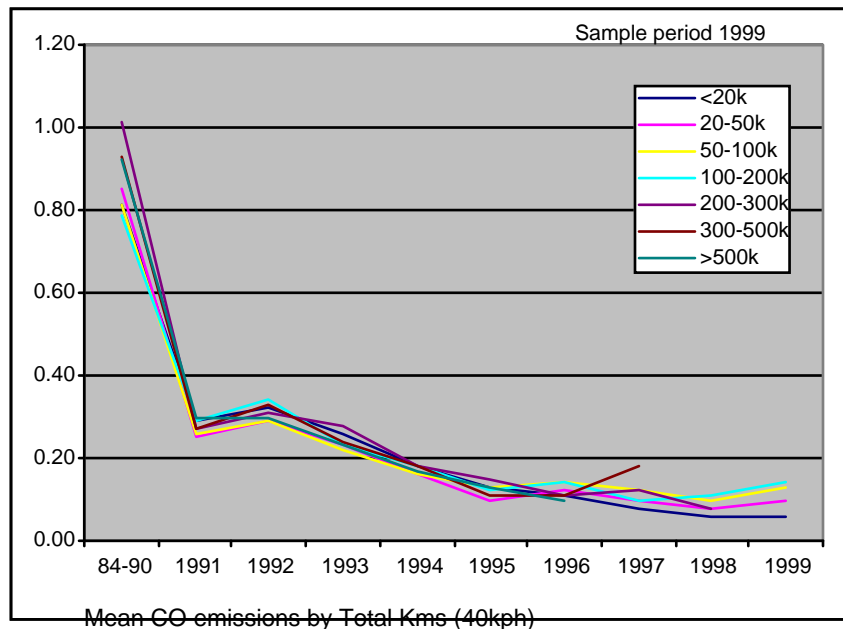
Here we can see the relationship between the mean carbon monoxide emissions from the ZMVM population, sampled in 1999, by model year and by the number of engine cylinders. The data for this graph also comes from the 40 kph section of emissions test in which road load is applied to the vehicle. It can be seen here that from the 1991 model year to date the six cylinder engine generates lower mean carbon monoxide emissions than all the years and that the mean emissions per model year decrease proportionately. In the 1991 model year those vehicles with six cylinder engines show on average 0.15 percent of carbon monoxide and this figure drops linearly to reach 0.05 percent CO for the 1999 model year. Over the same period, those vehicles fitted with 8 cylinder engines saw a decrease in mean carbon monoxide emissions from 0.29 percent in the 1991 model year to 0.14 percent for the 1999 model year. The vehicles with 4 cylinder engines in the sample showed higher mean carbon monoxide emissions for model years between 1991 and 1994 and thereafter emissions levels similar to those reported by 8 cylinder engines.

86. Mean CO emissions by average kilometers per year.



The overall average number of kilometers run per year by vehicles in the ZMVM population is approximately 20,000. For those vehicles that cover less than this average mileage, the mean CO emissions are lower than for those vehicles that cover more than this average mileage. In the above graph it can be seen that the difference is approximately 10 percent or in other words for the 1991 model year the higher mileage vehicles have on average 0.06 percentage points higher mean carbon monoxide emissions than the low of mileage vehicles. This difference drops to 0.02 percentage points for the 1999 model year vehicles.

87. Mean CO emissions by total kilometers.

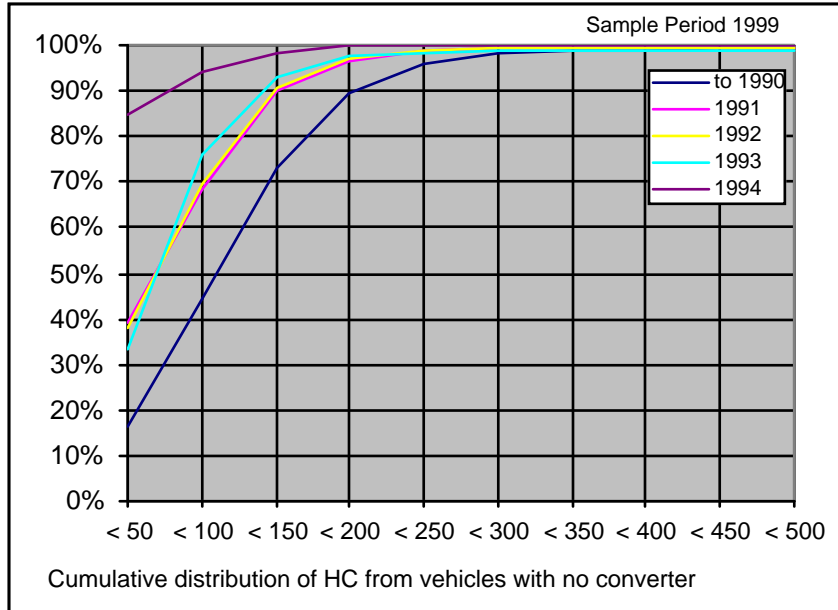


When we analyze the mean carbon monoxide emissions from the vehicles in the ZMVM population, sampled in 1999, by model year and by overall number of kilometers run we



are able to see that the overall total mileage of the vehicle has a negligible effect on its mean carbon monoxide emissions level. The mean carbon monoxide emissions level is more closely related to vehicle model year than to the amount of use the vehicle has had.

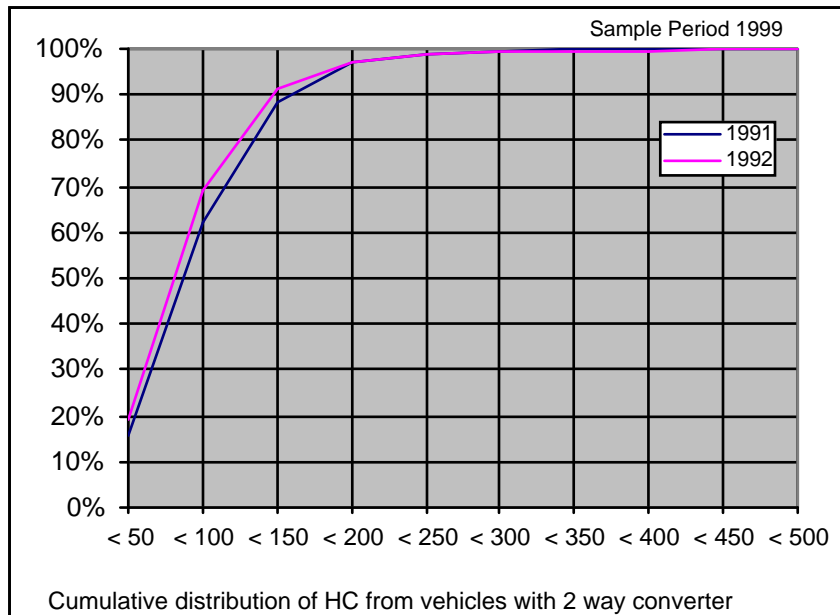
88. Hydrocarbon distribution of vehicles with no converter



This graph shows the cumulative distribution of hydrocarbon emissions from vehicles without a catalytic converter. The sample period for these results is 1999 and the model years of vehicles that are present in the ZMVM fleet without a catalytic converter is between 1984 and 1994. The results shown are from the segment of the test with 50 percent applied load at 24 kph (ASM 5015).

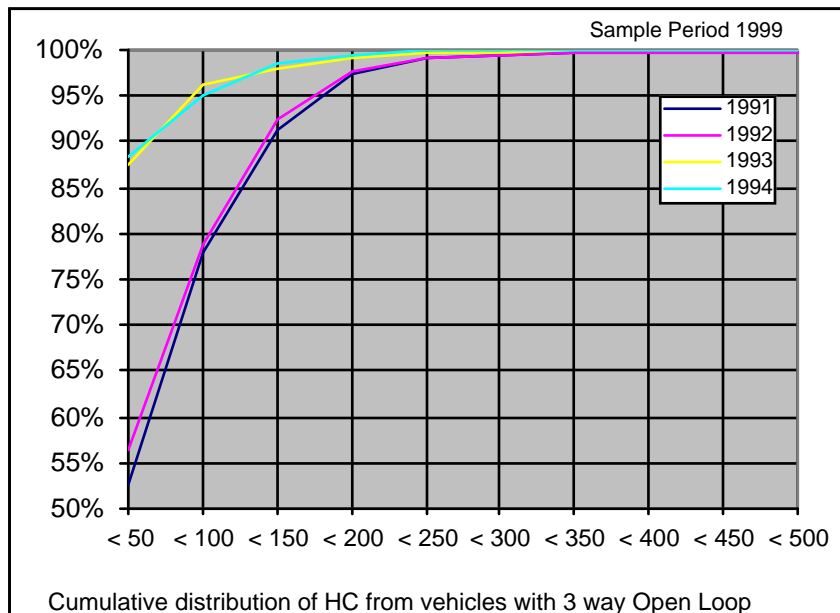
It can be seen in that the emissions levels from these vehicles fall into three distinct groups. The vehicles from model years of up to 1990 have the highest hydrocarbon emissions and only 44.2 percent of vehicles have less than 100 ppm HC. 1991, 1992 and 1993 model years have very similar emissions distributions, where 68.2 percent, 69.5% and 75.9 percent of vehicles, respectively, have less than 100 ppm HC emissions. The vehicles from the 1994 model year with no catalytic converter are sensibly cleaner than the others; 94.3 percent of these vehicles have less than 100 ppm HC emissions.

89. Hydrocarbon distribution of vehicles with the two-way catalytic converters



Cars were sold into the Mexican market fitted with two-way catalytic converters in the 1991 and 1992 model years. The above graph shows a very similar distribution of hydrocarbon emissions from both of these model years. You can see that 62.2 percent and 69.1 percent of these vehicles, respectively, have less than 100 ppm HC emissions. Somewhat surprisingly, this is a slightly lower percentage than in those vehicles from the same model years that were not fitted with a catalytic converter.

90. Hydrocarbon distribution of vehicles with three way open loop catalytic converters



Vehicles were introduced into the ZMVM population fitted with three way open loop catalytic converters during the 1991, 92, 93 and 94 model years. The HC emissions from

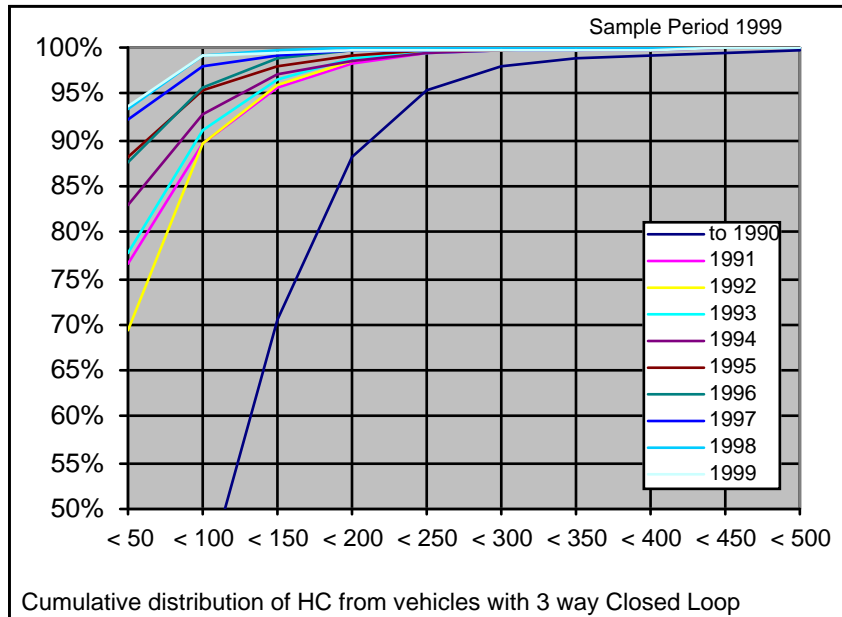
these vehicles were obtained during the 1999 sample period and measured at 50 percent applied load and 24 kph (ASM 5015).

The above graph demonstrates 2 distinct groups. The 1991 and 92 model years have very similar hydrocarbon emissions distributions. 77.8 percent and 78.8 percent of these vehicles respectively have less than 100 ppm HC emissions.

The other group is conformed from the 1993 and 94 model years. For these, 96.1 percent and 95.1 percent respectively have less than 100 ppm HC emissions.

It can be seen in that the 1991 and 92 model year vehicles with three way open loop catalytic converters have lower hydrocarbon emissions than those fitted with two-way catalytic converters. At the 100 ppm HC level, approximately 12 percentage points more vehicles with three way open loop converters meet the less than the 100 ppm HC target. For the 1993 and 1994 model years an improvement of almost 15 percentage points in shown over the 91-92 family.

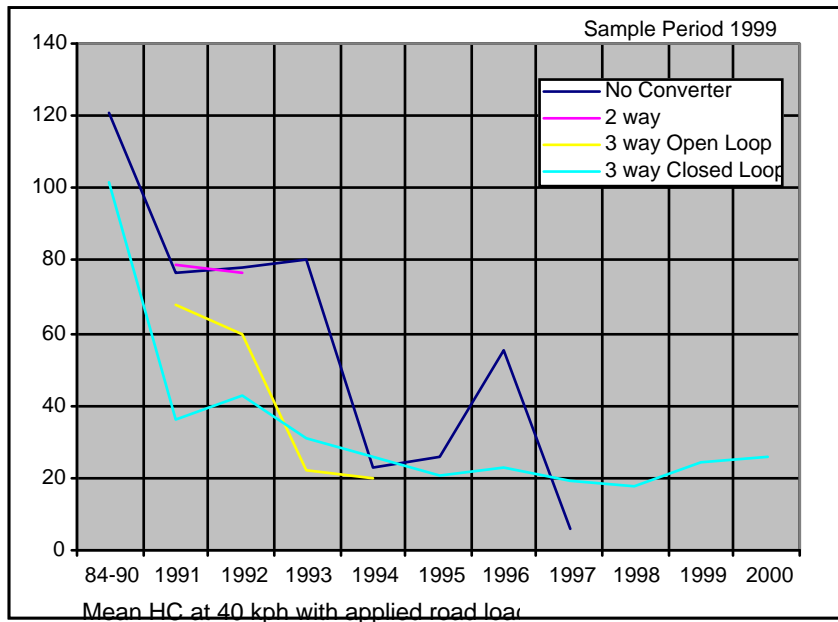
91. Hydrocarbon distribution of vehicles with three way closed loop catalytic converters



If we eliminate the curve corresponding to vehicles from the 1990 or previous model years, it can be seen that there is a direct relationship between the hydrocarbon emissions levels and the vehicles model year.

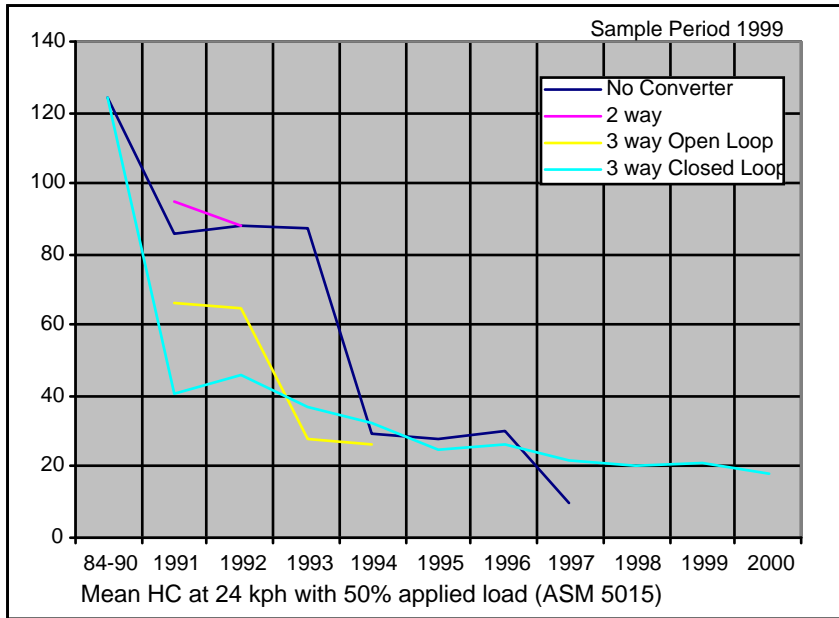
89.6 percent of the vehicles from the 1991 model year fitted with three way closed loop catalytic converters showed a HC emissions level of less than 100 ppm. This figure increases with model year reaching a maximum of 99.1 percent of vehicles from the 1998 and 1999 model years that also meet this criteria. As with the carbon monoxide emissions, the hydrocarbon dirtiest obtained from the different samples does not reflect any improvements in hydrocarbon emissions that can be attributed to the mandated renewal of catalytic converters in 1993 model year vehicles during the second semester of 1999.

92. Mean hydrocarbons at 40 K. P. H. with applied road load



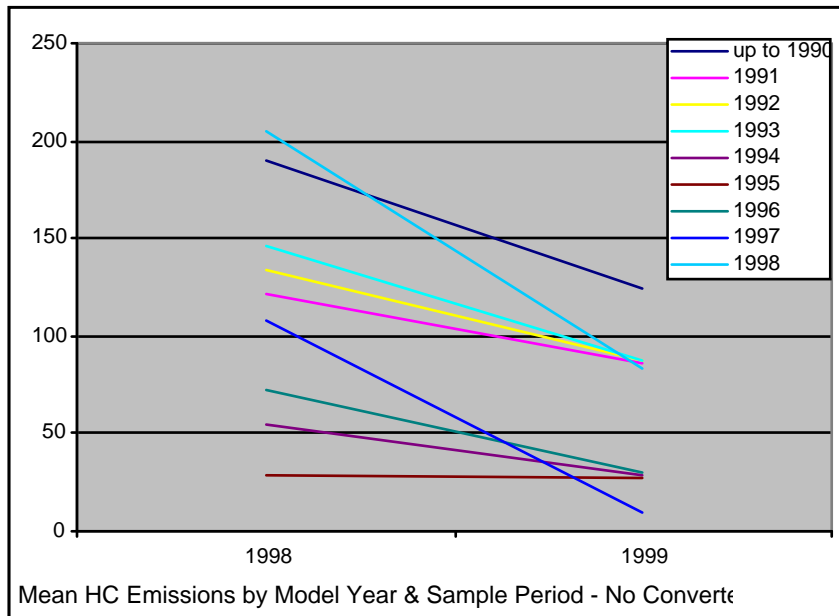
This graph shows the mean hydrocarbon emissions from vehicles in the ZMVM population, sampled during 1999, by vehicle model year and by type of catalytic converter. The data in this curve is taken from the 40 kph section of the emissions test where a road load is applied to the vehicle. Here it can be seen, as expected, that the three way closed loop catalytic converter gives the most consistent results maintaining the mean hydrocarbon emissions at approximately 25 ppm over a wide range of model years going from 1993 through to the 1999 model year. During the transition years of 91, 92, and 93 it can be seen that a big improvement was made by going first to the two-way oxidizing converter and then to a three way open loop catalytic converter. The surprisingly good results from vehicles with no converter in recent model years are due, in great extent, to the success that Ford had with their LPG powered class 7 truck.

93. Mean hydrocarbons at 24 K. P. H. with applied 50% load



This graph is comparable to the previous graph but shows data collected at the low speed high load portion of the emissions test (24 kph.). It can be seen that the distribution of mean HC emissions by model year and by type of converter is very similar to the distribution at 40 kph. but that the levels are approximately 10 percent higher due to the higher load factor. This means an increase of between 2 and 5 ppm for those vehicles fitted with a three way closed loop catalytic converter.

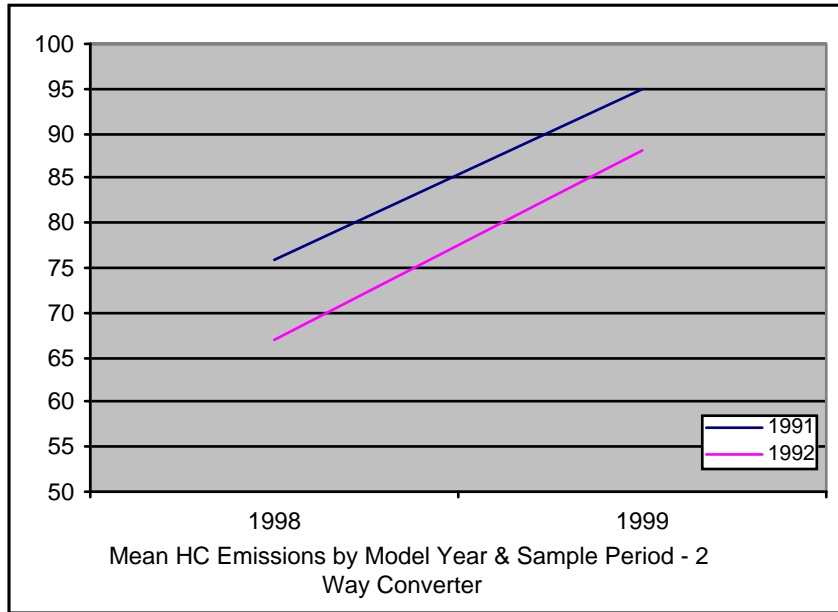
94. Mean HC emissions by model Year from vehicles with No Catalytic Converter.



This chart shows the change in mean hydrocarbon emissions, measured during the 24 kph stage of the emissions test, for each model year over the last two years for all vehicles that are not fitted with Catalytic Converters.

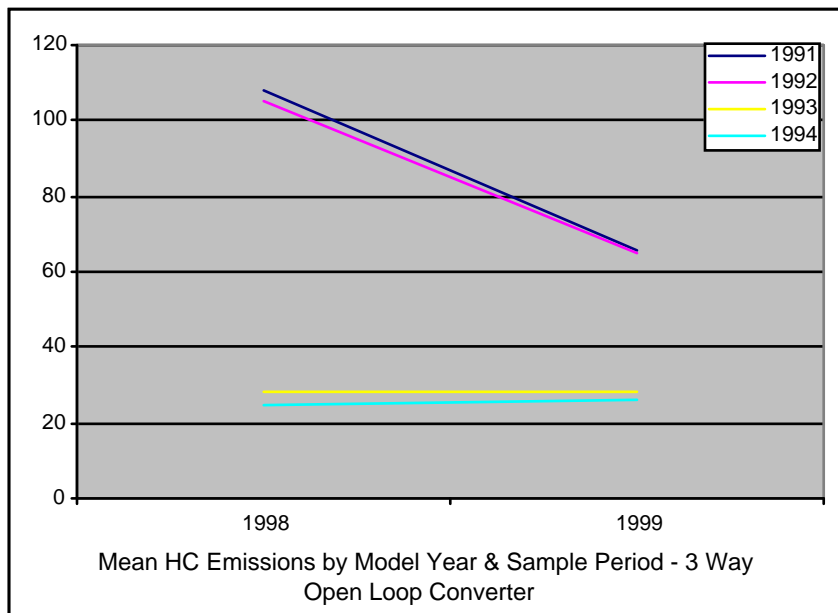
Here it can be seen that the different model years do not form different groups, in fact, the 1998 model year displays similar mean HC levels to the pre-'91 group.

95. Mean HC emissions by model Year from vehicles with 2 Way Catalytic Converters.



This chart shows the change in mean hydrocarbon emissions, measured during the 24 kph stage of the emissions test, for both model years over 1998 and 1999 for all vehicles that are fitted with 2 Way Catalytic Converters.

96. Mean HC emissions by model Year from vehicles with 3 Way Open Loop Catalytic Converters.

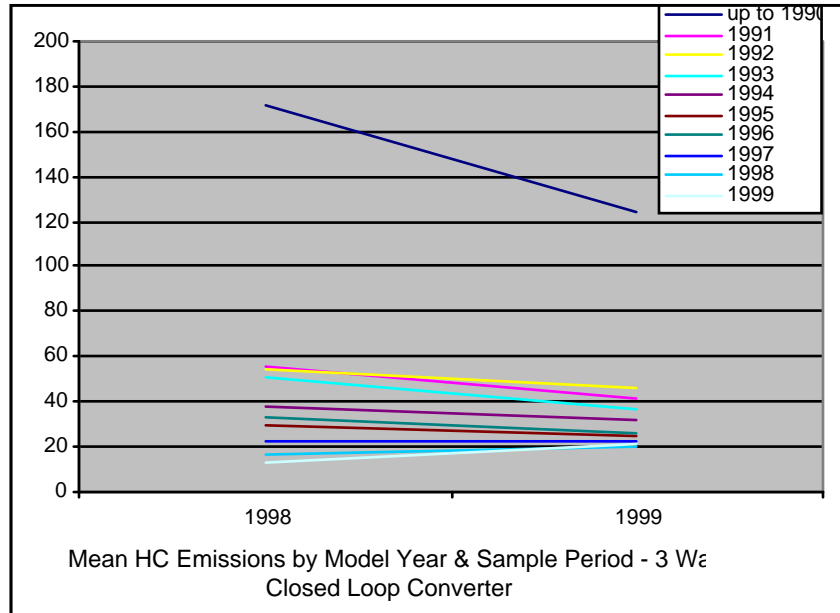


This chart shows the change in mean hydrocarbon emissions, measured during the 24 kph stage of the emissions test for all vehicles that are fitted with 3 Way open Loop Catalytic Converters. Here it can again be seen that there is a clear difference between the two model year groups.

For the 1991-92 model year group, the mean HC emissions continue dropping each year whilst for the later model years, the mean emissions are stable.

This graph does not show any evidential benefits from the mandated converter change for the 1993 model year vehicles in 1999.

97. Mean HC emissions by model Year from vehicles with 3 Way Closed Loop Catalytic Converters.

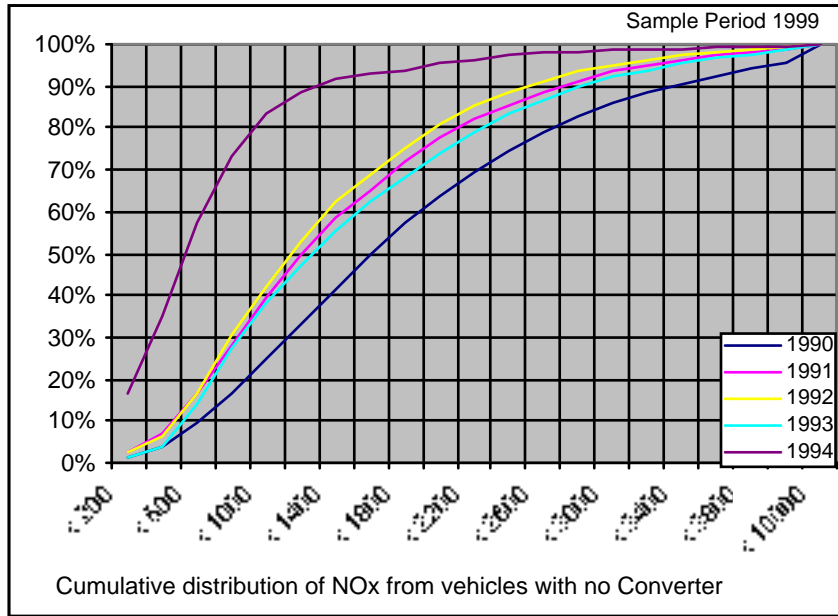


This chart shows the change in mean hydrocarbon emissions, measured during the 24 kph stage of the emissions test, for all vehicles that are fitted with 3 Way Closed Loop Catalytic Converters.

Here it can be seen that the different model years fall into three groups: pre'91, 1991 to 1993 and 1994 on.

Discounting the pre 1991 vehicles, it can be seen that whilst the different model years form a homogeneous group, there is a real improvement in mean HC levels from model year to model year. This is independent of any changes in the test protocol that could modify the readings between the 1998 and 1999 sampling periods.

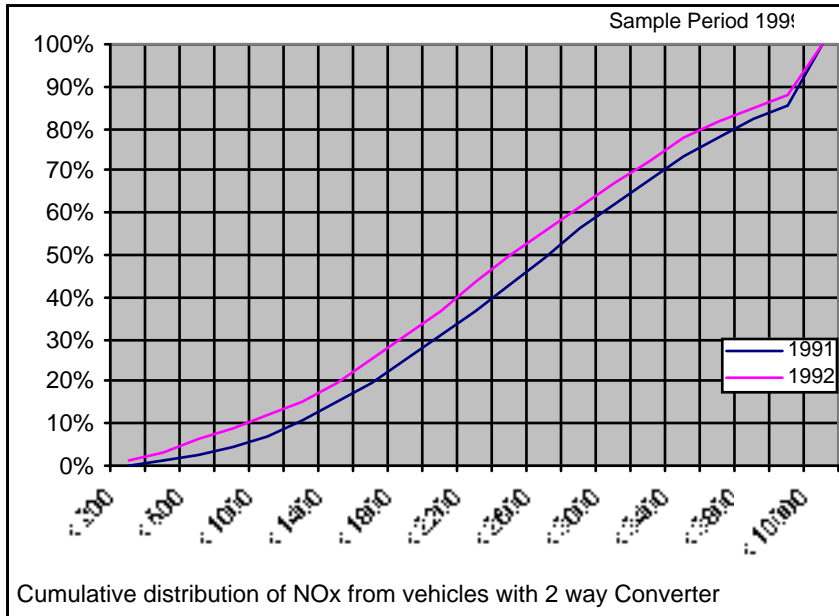
98. NOx distribution of vehicles with no converter



This graph shows the cumulative distribution of NOx emissions sampled during 1999, from vehicles in the ZMVM population with model years between 1984 and 1994. The samples were taken at 24 kph and with a 50 percent applied load (ASM 5015). It can be seen that these model years form three distinct groups. The vehicles of up to 1990 model year are by far the dirtiest and only 33.1 percent of the vehicles had NOx emissions of less than 1200 ppm. The 1991, 92 and 93 model years have very similar nitrous oxide emission distributions. For these, between 47.3 percent and 52.7 percent of the vehicles of each model year have less than 1200 ppm of NOx emissions. As with the other gases, the 1994 model year vehicles with no converter are considerably cleaner than the other models. Of these, 88.4 percent of vehicles have less than 1200 ppm of NOx emissions under this test procedure.

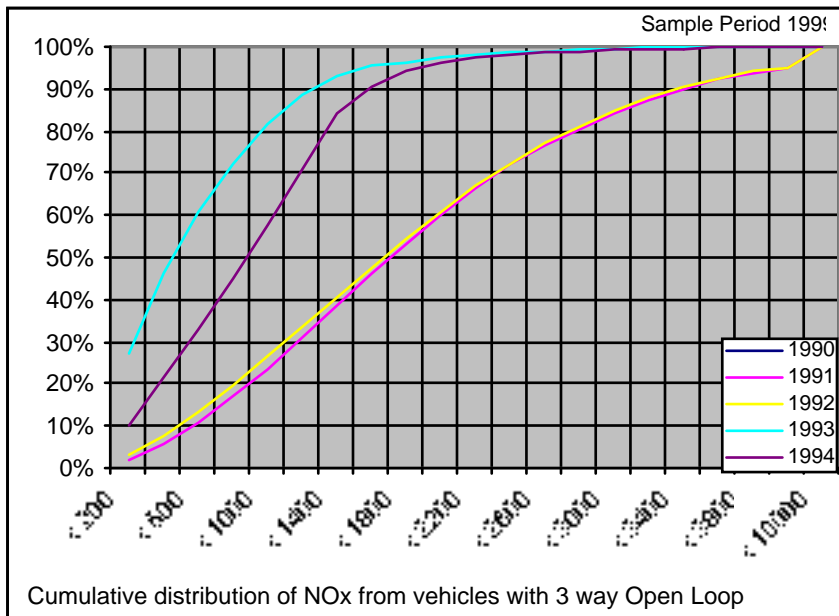


99. NOx distribution of vehicles with two-way catalytic converters



As expected, the vehicles that were sold into the ZMVM population during model years '91 and '92 fitted with two-way catalytic converters are by far the worse when it comes to NOx emissions. Unleaded gasoline was not readily available during those years. In vehicles with two-way catalytic converters from the '91 model year, sampled during 1999, only 10.5 percent had less than 1200 ppm of NOx emissions. The 1992 model year vehicles fared only slightly better, with 15.1 percent of the ZMVM population having less than 1200 ppm NOx emissions.

100. NOx distribution of vehicles with three way open loop catalytic converters.

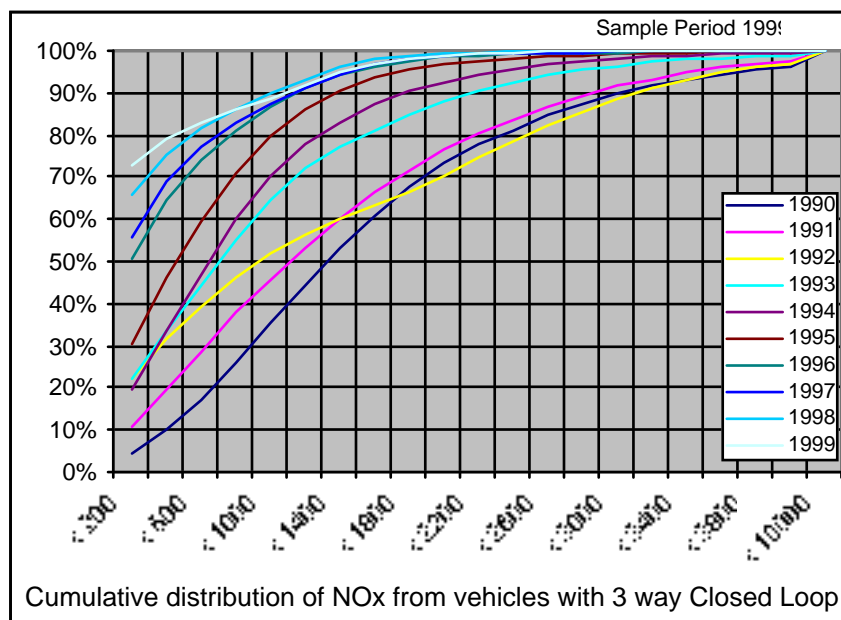


This graph shows the cumulative distribution of nitrous oxide emissions, from those vehicles in the ZMVM population that are fitted with three way open loop catalytic

converters. The results shown are from samples obtained in 1999 at 24 kph and 50 percent applied load (ASM 5015).

It can be seen that the 1991 and 1992 model years have very similar emissions distributions and that of these vehicles, between 30.8 percent and 33.4 percent, respectively, have less than 1200 ppm of nitrous oxide emissions. This undoubtedly is due to a great extent to the lack of availability of unleaded gasoline during this period. Whilst the HC and CO emissions from vehicles with three way open loop converters from the 1993 and 1994 model years was almost identical, in the case of nitrous oxides a big difference exists. The 1993 model year vehicles show up to a 17 percentage point improvement over the 1994 model year vehicles when measured against a limit of 1200 ppm NOx. This undoubtedly is due to the mandated renewal of catalytic converters for the 93 model year vehicles. As can be seen, 71.2 percent of the 1994 vehicles emitted during the test procedure less than 1200 ppm of NOx whilst 88.3 percent of the 93 model year vehicles met this limit.

101.NOx distribution of vehicles with three way closed loop catalytic converters.



Unfortunately, the improvement in NOx emissions from the 1993 model year vehicles that was seen with three way open loop converters is not to also apparent for those vehicles fitted with three way closed loop converters. Here the distribution by model year is as expected and as seen with HC and CO.

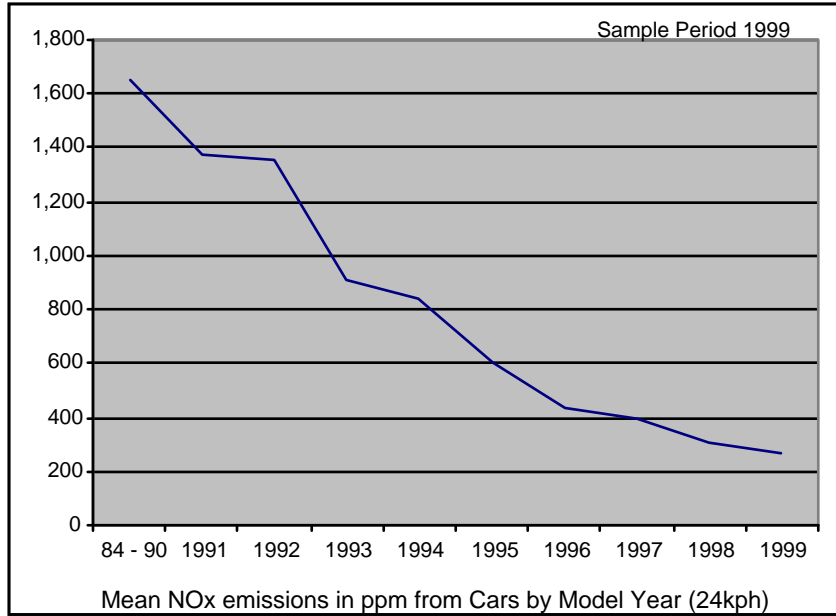
The cumulative emissions distribution of the vehicles in the ZMVM fleet can be divided into four categories. The dirtiest group, of course, consists of those vehicles up to 1990 and for these, 44.3 percent would meet a 1200 ppm limit for NOx.

The second group consists of the 1991 and 1992 model year vehicles of which between 53.3 and 56.4 percent respectively would meet a 1200 ppm limit.

The third group consists of the 1993, 94 and 95 model years where between 71.9 percent and 86.3 percent of the vehicles showed results of less than 1200 ppm NOx. The cleanest group is that of 1996 and later model years where between 90.9 and 93.2 percent of those vehicles tested showed NOx emissions of less than 1200 ppm. As in the other

magnitudes, the emissions levels seem to be directly related to the model year of the vehicle.

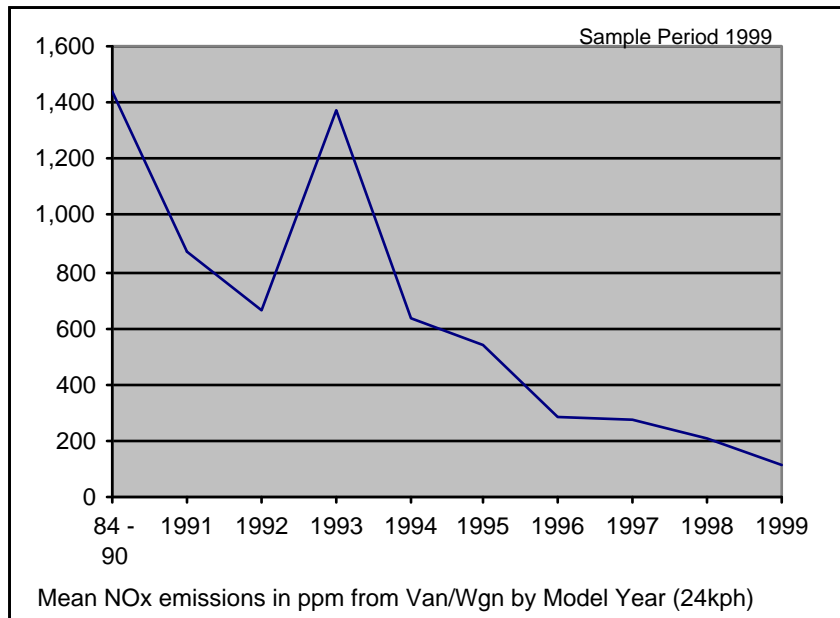
102. Mean NOx emissions from cars by model year



This graph shows the mean nitrous oxide emissions in ppm, for cars in the ZMVM population. The results are shown by model year. The results were taken during the sampling period of 1999 and the nitrous oxide emissions when measured under 24kph and 50 percent load (ASM 5015) conditions.

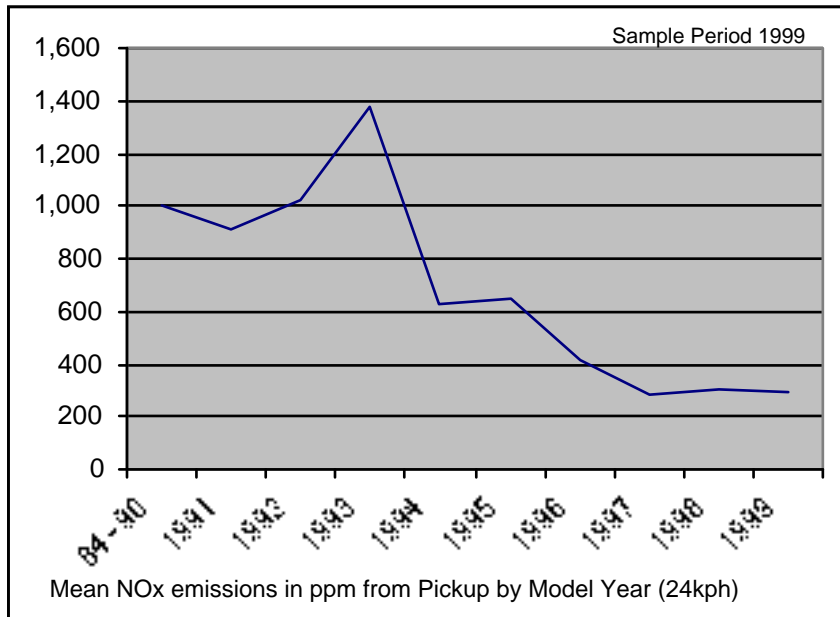
It can be seen that there's almost a linear relationship between the NOx emissions in ppm and the vehicles model year dropping from a mean of 1370 ppm for the 1991 model year to 271 ppm for the 1999 model year.

103. Mean NOx emissions from vans and wagons by model year



For vans and wagons segment of the ZMVM population the same is true, except for the 1993 model year which shows an unusually high mean nitrous oxide emission level at 1370 ppm. Apart from this 1993 peak, the mean vans and wagons segment distribution by model year is considerably flatter than the car distribution going from a high of 867 ppm for the 1991 model year to 112 ppm for the 1999 model year.

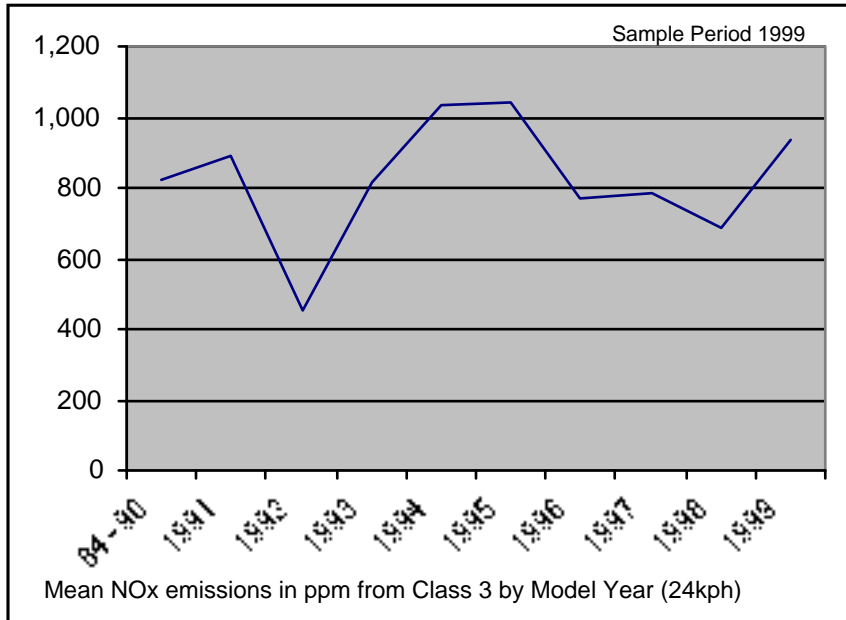
104. Mean NOx emissions from pickups by model year



The pickup segment of the ZMVM population also shows an un-characteristically high NOx level for the 1993 model year vehicles plus a similar but lower level for 1992 of 1378 ppm and 1025 ppm respectively. Since most of the sports utility vehicles (multiple use vehicles) and pickups in this model year have similar ancestry the relationship between these two peaks is logical. Apart from these exceptional years, the mean nitrous

oxide emissions dropped from 910 ppm for the 1991 model year to a mean of 293 ppm for the 1999 model year vehicles.

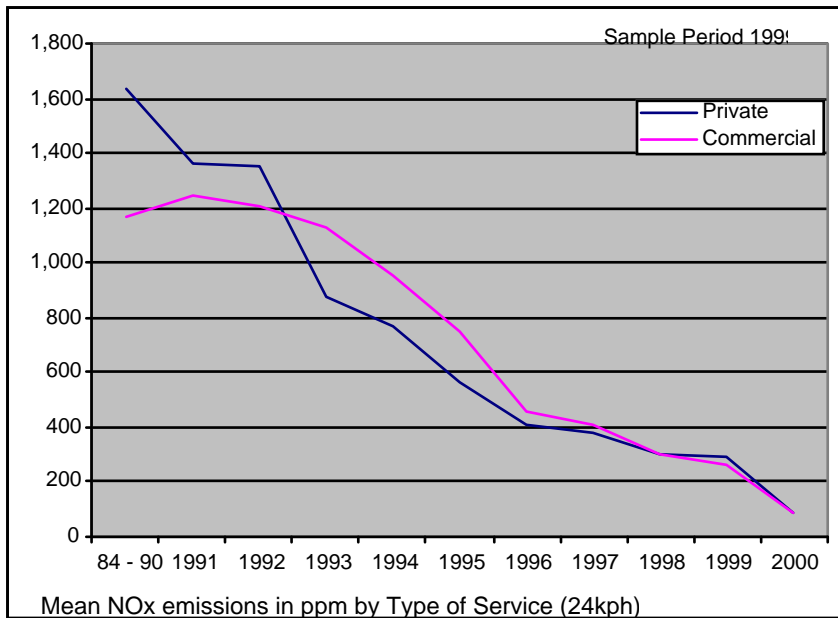
105. Mean NOx emissions from Class 3 vehicles by model year



The population of class three vehicles in the ZMVM does not demonstrate an improvement in nitrous oxide emissions with model year. The overall tendency, in fact, is towards a slight increase in nitrous oxide emissions as the vehicles get newer. Here, the exception to this tendency is the 1992 model year when the vehicles in this period showed a mean nitrous oxide concentration of 455 ppm. All these results were taken during 1999 when the nitrous oxide emissions when measured at 24 kph and 50 percent load conditions. The overall tendency goes from a mean of 889 ppm of nitrous oxide for the 1991 model year to the 935 ppm for the 1999 model year.

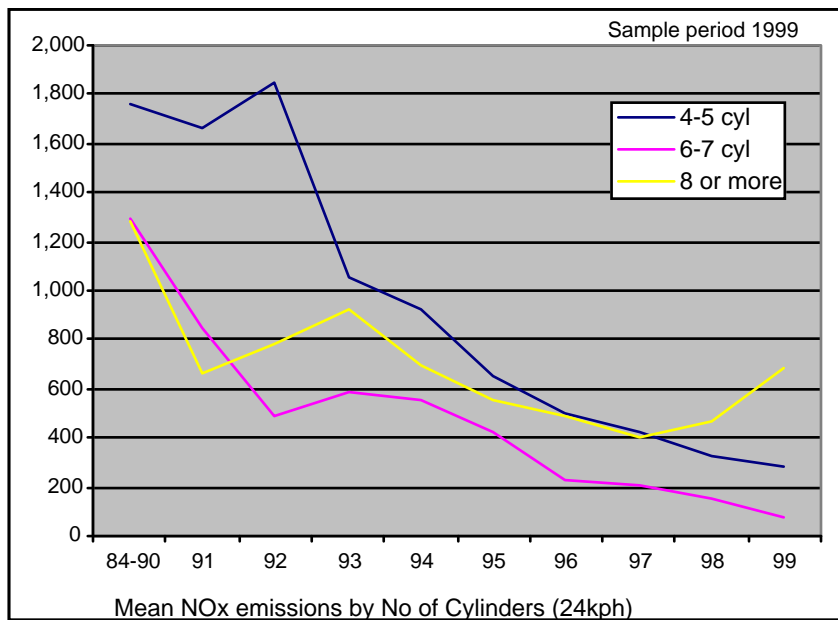
No graph is presented for classified and seven gasoline part of vehicles because the size of the samples in 1999 is not sufficient to guarantee the statistical significance of the results.

106. Mean nitrous oxide emissions by type of service.



This graph shows mean nitrous oxide emissions, for the ZMVM population, sampled in 1999, by a vehicle model year and usage. For model years prior to 1993 it can be seen that those vehicles with commercial usage, (i.e. vehicles that are registered to companies for their own usage), have lower NOx emissions than vehicles that are registered to private individuals. For 94, 95 and 96 model years the difference is reversed and on average those vehicles with commercial usage have approximately 200 ppm higher NOx emissions than those vehicles registered for private usage. From the 1996 model year onwards, no difference in nitrous oxide emissions can be seen against vehicle usage.

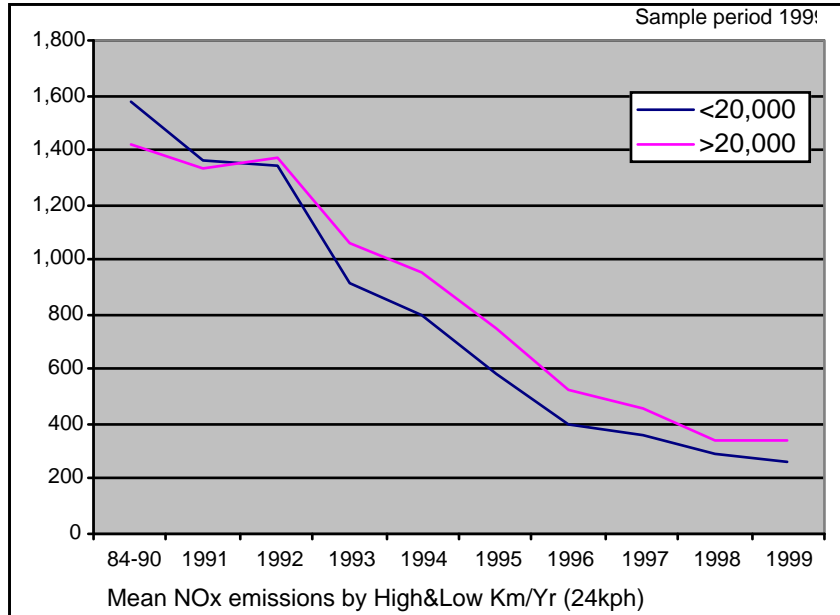
107. Mean NOx emissions by Number of Cylinders.



This graph shows the mean NOx emissions by model year from the ZMVM population in a sample taken in 1999. All the data on this graph comes from the 24 kph section of

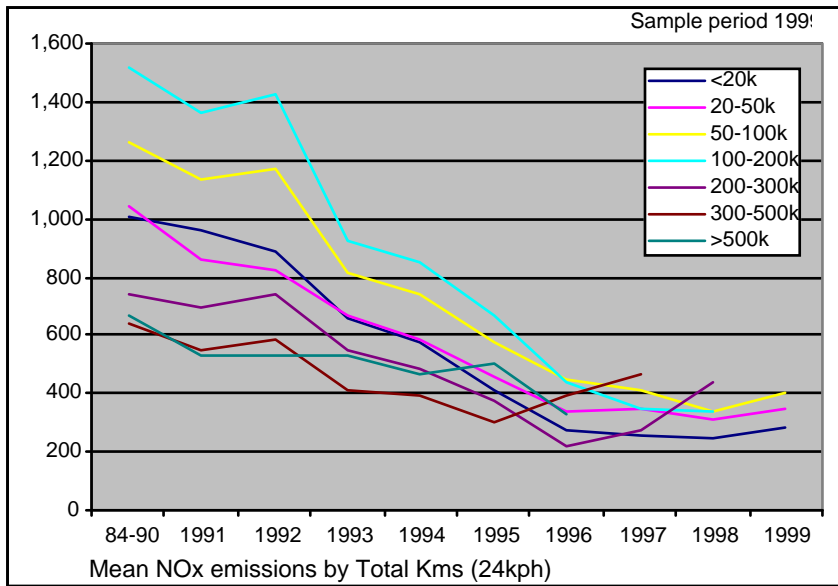
the emission test where the load apply is that which would allow the vehicle to accelerate at half of the maximum FTP 75 acceleration rate. Here it can be seen that since the 1992 model year, the 6 cylinder engines have the lowest average NOx emissions going from 489 ppm for 1991 down to an average of 80 ppm in 1999. The 4 cylinder engines up until the 1998 model year show the highest average NOx emissions going from a peak of 1850 ppm in 1992 down to 283 ppm in the 1999 model year. Only for the 1998 and 1999 model years do the 4 cylinder engines show lower mean NOx emissions than the 8 cylinder engines. Apart from these years, the 8 cylinder engines have mean NOx emissions levels that are between those of the four cylinder and six in the engines.

108. Mean NOx emissions by kilometers per year.



On average, the vehicles in the ZMVM population drive approximately 20,000 kilometers per year. In this graph it can be seen that those vehicles that cover less than this average figure have lower mean nitrous oxide emissions than those vehicles that have a higher mileage. For the model years of 1993 through to 1997, the higher mileage vehicles have, on average, nitrous oxide emissions of approximately 150 ppm more than those vehicles with the lower mileage. For the 1998 and 1999 model years, the difference between the two drops to a approximately 65 ppm.

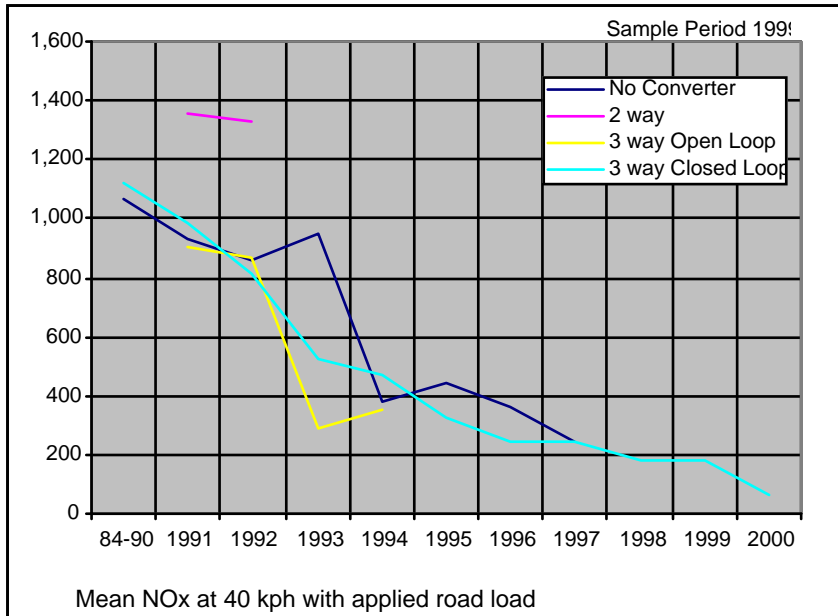
109. Mean NOx emissions by Total Kilometers.



This graph shows the mean nitrous oxide emissions of the vehicles in the ZMVM population, taken in a sample during 1999, by model year and distributed according to the total number of kilometers that the vehicle has operated for. Here it can be seen that those vehicles with 50,000 kilometers or less total overall mileage are the vehicles that have closest to average mean emissions for almost all of the model years going from approximately 1000 ppm of NOx in 1990 down to approximately 330 ppm of NOx in 1999. As the total kilometers run increases going from 50,000 kilometers to 200,000 kilometers overall, the mean nitrous oxide emissions from the vehicle increase reaching a peak in those vehicles that have operated in total between 100 and 200,000 kilometers. For higher mileages, the mean nitrous oxide emissions go down and do in fact go to less than the original low mileage figure. Here they drop to approximately 670 ppm for 1990 model year vehicles with over 500,000 kilometers down to approximately 325 ppm for 1996 model year vehicles with the same overall mileage. There is, however, a strong element of statistical noise associated with these figures because of inaccuracies in data collection and factors such as a speedometer repair.

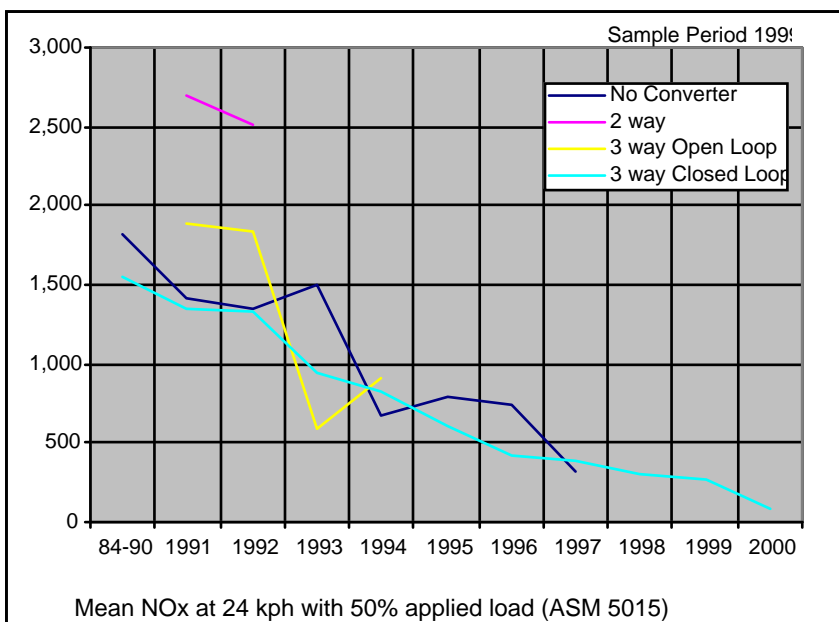


110. Mean NO<sub>x</sub> at 40 K. P. H. with applied road load



This graph shows the mean nitrous oxide emissions from the vehicles in the ZMVM population, sampled during 1999, by model year and by type of converter. Here it is fascinating to note the linear relationship between the vehicle model year and average nitrous oxide emissions and it can be seen that all types of converter, except in the two-way oxidizing converters, follow the same overall tendency. Here it can also be seen that going from cars with no converter to cars with two-way oxidizing converters did, in fact, increase the mean NO<sub>x</sub> emissions of those vehicles by approximately 40 percent. It is conjectured that the low mean NO<sub>x</sub> emission level for the 1993 model year vehicles fitted with open loop catalytic converters is due in part to the retrofit program that was in force during the sample year. If so, this graph would tend to suggest that there are no major gains to be made in mean nitrous oxide emissions levels by retrofitting converters to 1994 or more recent model years.

111. Mean NO<sub>x</sub> at 24 K. P. H. with applied road load



This graph shows comparable data to the previous graph but taken from the first high-load low speed stage of emissions test (24 kph equivalent to ASM 5015). Here, a similar distribution can be seen for each type of converter but, due to the higher load levels, the absolute average nitrous oxide emissions levels per model year are approximately 40 percent higher, going from 1352 ppm for the 1991 model year down to an average of 277 ppm for the 1999 model year, this for vehicles fitted with three way closed loop catalytic converters. There is little doubt that this high load stage of the test is important for measuring NO<sub>x</sub> levels and, of course, for warming and igniting catalytic converter.

112. Converter Efficiency

The evaluation of a vehicle's emissions levels, via constant speed loaded mode testing (ASM protocol), is a simple and effective method of determining if the overall emissions control systems and engine systems in the vehicle are up to standard. Should the vehicle not to meet its emissions target, however, this test only provides limited information as to which component has failed.

Specifically, for those vehicles with catalytic converters, a high NO<sub>x</sub>, hydrocarbon or carbon monoxide reading could be caused by a catalytic converter failure or could either be caused by the failure or lack of calibration of a number of other components or systems.

Unfortunately, the most effective means of determining the efficiency of a catalytic converter is also time-consuming. There is undoubtedly great value in using a GM style propane enrichment test or by directly measuring the exhaust gas concentrations before and after the catalytic converter but none of the current test lanes in the emissions test centers are capable of performing this on a production basis.

One indication of a catalytic converter failure would be a high level of carbon monoxide in the exhaust gas, provided that it is accompanied by sufficient oxygen that, should the converter have been working, would have allowed the catalytic process to take place.

The maximum level of carbon dioxide should also be below a certain figure to ensure that the lack of conversion was not due to a saturation problem.

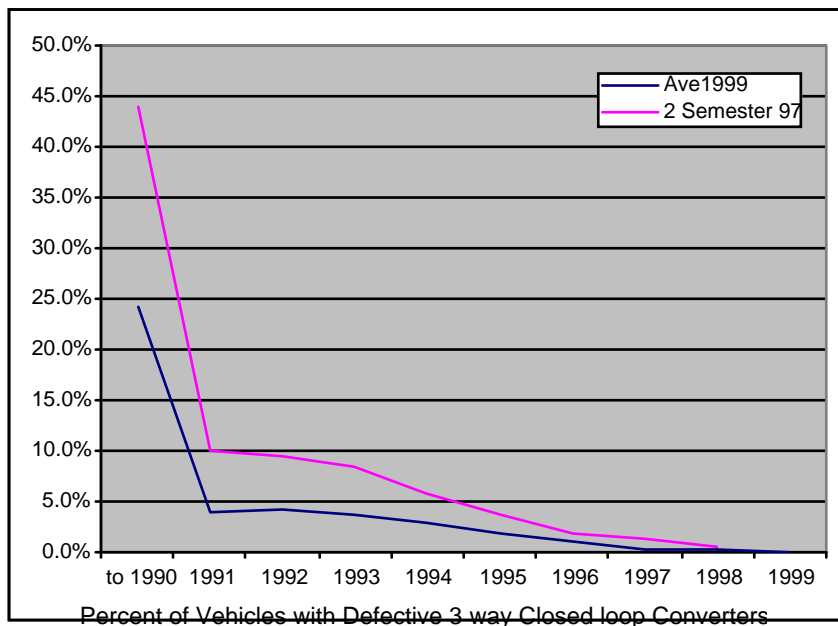
Following this logic, it could be considered that a catalytic converter be defective if the CO level is greater than 0.3 percent whilst the oxygen level in the exhaust stream is greater or equal to 0.4 percent and the carbon dioxide level is less than 14 percent. This set of conditions has been used by the California Air Resources Board since the BAR90 Extended Testing program to evaluate, with available data, the percent of defective catalytic converters found during testing.

This formula is considered to be favorable to the vehicle owner. It is more likely to report a catalytic converter in good condition that should have failed (false Pass) than to report as failed, a catalytic converter that is in good condition (false Fail).

It has been shown in another section of this report that a considerable number of vehicles in the ZMVM population are not turning up for emissions testing and do not appear in the 1999 sample. The distribution of these missing vehicles by model year leads one to conjecture that these vehicles are mainly those that would have probably failed the emissions test.

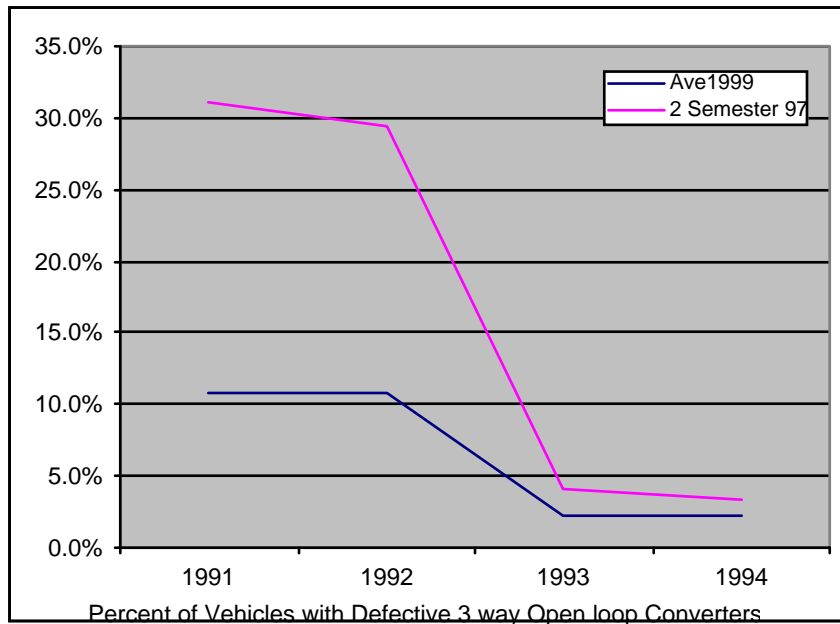
The following series of graphs shows the percent of vehicles with defective catalytic converters, using the above formula, both for the 1999 sample of vehicles and for the sample taken in the second semester of 1997. We believe that the lower percentage of defective catalytic converters that are shown by this formula in the 99 is due mainly to this missing vehicles factor.

113. Vehicles with defective three way closed loop converters



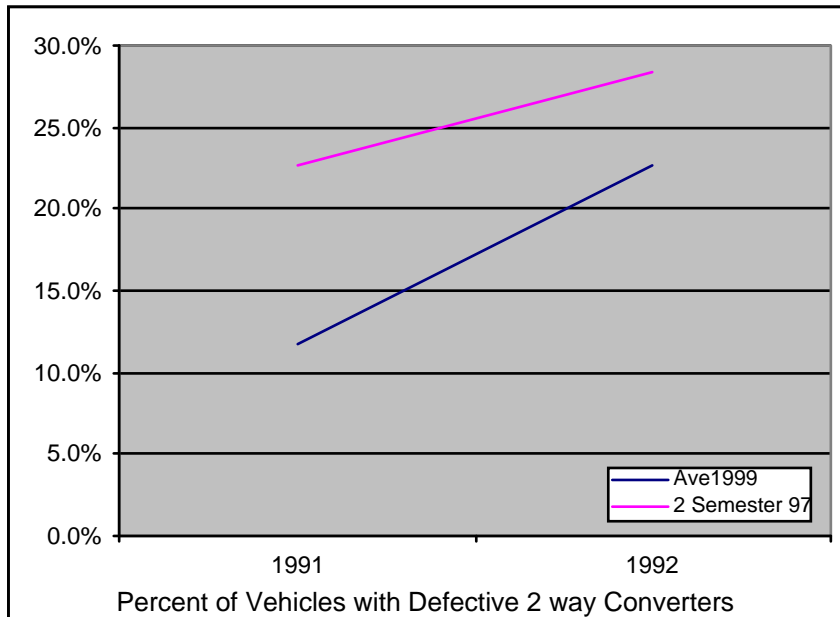
This graph shows the percent of vehicles with defective three way closed loop converters by model year in the ZMVM population, found in the 1999 sample and in the sample made in the second semester of 1997. The 1997 data shows a failure rate of 44 percent for vehicles up to 1990 model year dropping to 10 percent for the 91 and 92 model years and down to 0.4 percent for the 1999 model year vehicles. The 1999 data shows a similar tendency but with lower values.

114. Vehicles with defective three way open loop converters



For the vehicles in the ZMVM population that were fitted with three way open loop catalytic converters, the 1997 data shows a percentage of defective converters of approximately 30 percent for the 1991 and 1992 model years dropping to an average of 4.1% and 3.4% for the 1993 and 1994 model year vehicles respectively. The 1999 data shows a similar tendency but with values that are a lot lower.

115. Vehicles with defective two way converters



For those vehicles in the ZMVM population that were fitted with two-way oxidizing converters, the 1997 data shows that between 22 and 28 percent of these converters be defective for the 1991 and 1992 model years respectively. The 1999 data shows a parallel tendency but with lower values. Obviously, the above-mentioned figures have nothing to do with the two way converters lack of ability for reducing NOx emissions.

## 10. Source information

### 116. Vehicle Sales Data

The vehicle sales data was obtained from the individual manufacturers and from the two vehicle manufacturers associations (AMIA and AMPACT).

Detailed retail sales data was available for the vehicle dealers within the Federal District and surrounding 18 municipalities that form the ZMVM over the period of 1972 to 1998. At the wholesale level, detailed sales data by vehicle manufacturer and model was obtained from 1963 to date. Vehicle production data by manufacturer was available from 1960 to 1962 and overall total national production data was available from 1951 to 1959. From this, vehicle sales projections by model were made to estimate the sale of vehicles from each manufacturer by vehicle type and model from 1951 to 1960.

The retail sales data from the ZMVM over the period of 1972 - 98 then allowed estimates to be made for the missing retail sales figures from 1951 on.

For each of the resulting vehicle makes/models and model years covering the period of 1951-2000, the vehicle body style, the type of fuel system, air induction system, engine number of cylinders and displacement, type of catalytic converter, and vehicle weight were determined from original research conducted by Grupo Trafalgar updated with information from the emissions verification program.

### 117. Vehicle Samples

A total of 14 samples of vehicles from the ZMVM population were structured, one per semester over the period of 1993 to 1999, from registers obtained from Verificenters within the ZMVM both from the Federal District and from the state of Mexico.

A total of 3.6 million registers, after cleaning and auditing, were used for the analysis. From these it was determined in that the sample period in which most vehicles were present in the population (i.e. the least number of missing vehicles) was the first semester of 1997. Since this was the best period to use as a basis for determining the mortality curves, an additional and independent sample was gathered of 1.7 million vehicles within this semester, which was used to elaborate the mortality curves for the different vehicle categories.

Sample	Cases
93.1	48,470
93.2	144,681
94.1	82,323
94.2	93,217
95.1	73,367
95.2	68,739
96.1	422,137
96.2	457,754
97.1	544,217
97.2	332,541
98.1	713,712

98.2	205,612
99.1	226,922
99.2	155,382
	3,569,074
<b>Total</b>	
97.1:Placas	1,736,157
	5,305,231
<b>Total</b>	

Distinct sub-samples were developed for the kilometers per year and total kilometer run data since additional filtering was required.

118. Vehicle Population

The population of vehicles within the ZMVM was determined directly from the mortality curves developed from field samples. The inter-comparison of populations developed from mortality curves based on the data in distinct semesters enabled the projection of missing vehicles to be made.

For the national vehicle population, distinct mortality curves were used to take into account the longer vehicle lives can be expected in a rural environment.

119. Emissions Data

All the emissions information presented in this report comes directly from field data obtained from tests developed in the Verificenters. It only information from reputable centers was used to reduce sampling error. If it must be appreciated, however, that there are two factors that complicate a comparison between the emissions results from different semesters.

The first factor is one of missing vehicles. Between the first semester of '97 and the second semester of 99, 16.8 percent of the ZMVM vehicle population apparently disappeared from the verification database. Since it can be assumed that this percentage contains more dirty vehicles than clean vehicles, this skews the data for these years. Additionally, other major changes have occurred in the verificenter equipment level and protocols used. Here, it is considered that the 1999 data is the most statistically significant and representative of the current vehicle population particularly for vehicles with catalytic converters, but the omnipresent missing vehicle skew must be born in mind.

1. Work to be done

In the author's opinion, distinct benefits would be obtained by carrying out the following programs.

**1) In-use Emissions Data**

Whilst substantial data can be gleaned from the archives of the emissions verification program, little exists on the emissions levels from vehicles in everyday use. It is considered important to carry-out a field survey of in-use vehicles to determine their exhaust gas concentrations and mass emissions and to compare these against the results obtained during the verification tests. This would permit the contribution of mobile sources to the ambient emissions inventory to be determined with a considerably greater precision allowing more enlightened strategic decisions to be made on the future of this program. Whilst it can be shown that the ambient air quality has improved considerably since 1991, as the yearly emissions figures come down, more precise information is required to determine the future routes to follow. Information with this statistical significance is not currently available. All that the emissions verification data can show us are the levels that these vehicles produced during their tests on two days year and little evidence currently exists to relate this to their overall emissions levels during normal working life. The effects of stop-start operation and cold running must also be taken into effect.

**2) Diesel Fleet Emissions Contribution**

A field survey is required to determine the contribution of the heavy-duty diesel fleet to the emissions inventory in the ZMVM. Whilst good figures exist on the total population all these vehicles in the country, no statistically significant information is available on the time and distance covered that these vehicles spend within the urban environment or of the load factors that are encountered.

The true technological level of each of the engines involved should also be determined. Since the importance of diesel engine vehicles on particulates and aerosols is substantial, statistically significant data is required to define the most sensible course action to control these emissions. The deficiencies in the current diesel engine emissions verification program render the information obtained from this source useless in this regard.

**3) Catalytic Converter Efficiency Study**

A test program to directly measure, using accepted techniques, the efficiency of catalytic converters in the field would be highly recommended before further decisions are made to mandate the renewal of catalytic converters. The data in this report suggests that the cost-benefit relationship of changing converters is not optimal but no direct measurement of converter efficiency exists with a strong enough statistical background that could be used as a basis for forming opinions and making decisions.

**4) Revision of the Verification Program**

A detailed analysis and revision of the verification program in the ZMVM (both in the Federal District and in the state of Mexico) would be highly desirable to focus future actions on those areas that can generate the most benefits. It is important to include the administrative aspects of the program in this study since the quality and extent of the administrative controls that are applied have proven crucial to the overall impact on air quality is that this program can generate.

**5) Extend Report Coverage to Other Principal Urban Environments**

We would recommend extending the coverage of the present report to the other principal urban areas within the country, namely Guadalajara and Monterey.

**6) Mass Flow Analysis Study**

A study program should be conducted to evaluate the implications and benefits of changing the emissions protocols, test equipment and limits to generate ASM mass flow emissions data (in grams per km). Changing from concentration based emissions limits to a mass flow basis would enable the program to focus better on the social costs involved in different transport means on a passenger per km basis. The emissions of carbon dioxide as a pollutant should be included. Whilst the concentration based emissions limits have been more than adequate to bring the mobile sources emissions into a controlled environment over relatively short period of time, it is considered that a mass flow form of measurement will be required to develop a sustainable long-term program. Due to the time involved in generating sufficient statistical data to define new test limits and in equipping test centers, this study could allow strategic changes to be carried out within a 4-6 year time frame.

**7) Evaporative Emissions Control Study**

A study should be conducted to evaluate the cost/benefits of incorporating evaporative emissions control in the mobile sources verification program. Measurement techniques should be evaluated and future limits proposed.

**8) Emissions Warranty Study**

A detailed study should be conducted on the benefits and implications of mandating an emissions warranty for all new vehicles sold within Mexico. The track record of all the major vehicle manufacturers on exports from Mexico to the USA and Canada has shown that their manufacturing facilities within this country have the technology in place to produce vehicles that can be subjected to an extended emissions warranty. It is



considered that this is an inescapable requirement towards achieving accountability and obtaining future reductions in vehicle emissions levels.

**9) Limits Study**

Since the emissions verification program has come into effect in 1988, limits have been constantly reduced applying tighter and tighter controls to in-use vehicles. For the older vehicles, current limits are half their original value.

An apparent result is a reduction in mean emissions over the years from each of the model year groups. However, the vehicle's emissions performance is clearly controlled by the technology with which it was manufactured and hence cannot be taken below a certain limit. Any intent to legislate tighter levels for that vehicle dramatically increases the probability that it will obtain the approval certificate by other non-conventional means.

A technical study is required to determine these optimum limits for each contaminant and model year group to ensure that this continual reduction in limits is not in fact generating higher mobile source emissions during the other 363 days per year.

Sample Size   Sample Size   Sample Size   Sample Size   Sample Size   Sample Size   Sample Size   Sample Size   Sample Size   Sample Size   Sample Size

**Distribution of CO Emissions in 1999 from Gasoline Vehicles  
with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)**

Vehicles with No Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
CO %					
< 0.10	1283 + 497	191 + 92	110 + 57	103 + 69	221 + 155
< 0.20	12072 + 6371	590 + 314	427 + 202	296 + 185	46 + 38
< 0.30	10595 + 5846	384 + 205	297 + 178	143 + 80	21 + 11
< 0.40	4792 + 2943	193 + 108	183 + 122	68 + 24	5 + 1
< 0.50	3194 + 2055	130 + 80	120 + 79	48 + 35	2 + 2
< 0.60	2572 + 1588	97 + 60	105 + 79	31 + 30	+
< 0.70	2237 + 1366	65 + 38	110 + 58	32 + 31	1 + 5
< 0.80	1950 + 1179	64 + 30	78 + 39	34 + 22	2 + 6
< 0.90	1634 + 1100	62 + 41	62 + 40	26 + 16	1 + 1
< 1.00	1414 + 932	55 + 45	54 + 33	23 + 18	2 + 1
< 1.20	2613 + 1654	101 + 48	108 + 52	32 + 24	1 +
< 1.40	2123 + 1364	64 + 36	83 + 47	24 + 18	2 +
< 1.60	1739 + 1163	56 + 27	36 + 32	20 + 9	1 +
< 1.80	1374 + 955	46 + 27	41 + 28	15 + 5	+
< 2.00	1168 + 814	37 + 16	36 + 16	12 + 8	+ 1
< 2.20	943 + 705	34 + 19	37 + 15	10 + 6	1 +
< 2.40	837 + 585	20 + 19	23 + 14	7 + 3	+
< 2.60	688 + 551	20 + 11	11 + 11	5 + 2	+
< 2.80	555 + 397	13 + 13	24 + 15	5 + 2	+
< 3.00	484 + 386	10 + 9	13 + 4	4 +	+
< 9.99	3114 + 2660	76 + 52	62 + 46	29 + 14	+ 2

(\*) HP to maintain Vehicle at 40 kph on a level road

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**Distribution of CO Emissions in 1999 from Gasoline Vehicles  
with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)**

Vehicles with a 2 way Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
CO %					
< 0.10		490 + 210	686 + 401		
< 0.20		447 + 284	429 + 318		
< 0.30		275 + 162	237 + 142		
< 0.40		132 + 98	153 + 85		
< 0.50		81 + 62	111 + 76		
< 0.60		51 + 62	92 + 47		
< 0.70		56 + 43	81 + 54		
< 0.80		42 + 32	49 + 58		
< 0.90		29 + 38	62 + 39		
< 1.00		31 + 37	63 + 25		
< 1.20		51 + 54	78 + 49		
< 1.40		42 + 32	73 + 33		
< 1.60		28 + 39	46 + 36		
< 1.80		24 + 28	37 + 32		
< 2.00		16 + 27	34 + 27		
< 2.20		12 + 15	18 + 14		
< 2.40		13 + 10	9 + 14		
< 2.60		11 + 18	12 + 12		
< 2.80		6 + 11	17 + 14		
< 3.00		5 + 4	9 + 13		
< 9.99		42 + 49	85 + 65		

(\*) HP to maintain Vehicle at 40 kph on a level road

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**Distribution of CO Emissions in 1999 from Gasoline Vehicles  
with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)**

Vehicles with a 3 way Open Loop Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
CO %					
< 0.10		1509 + 903	1882 + 1119	424 + 328	751 + 566
< 0.20		473 + 338	686 + 501	297 + 202	170 + 138
< 0.30		273 + 211	441 + 298	160 + 116	63 + 71
< 0.40		168 + 111	206 + 160	83 + 61	54 + 47
< 0.50		114 + 72	146 + 125	34 + 31	33 + 24
< 0.60		94 + 67	103 + 106	25 + 14	14 + 6
< 0.70		61 + 60	79 + 92	13 + 12	17 + 6
< 0.80		55 + 53	67 + 72	5 + 4	7 + 13
< 0.90		64 + 57	79 + 58	2 + 2	7 + 8
< 1.00		40 + 35	53 + 48	+ 1	2 + 7
< 1.20		94 + 76	113 + 82	3 + 2	5 + 4
< 1.40		90 + 47	87 + 69	1 +	2 + 6
< 1.60		53 + 61	58 + 62	3 + 3	4 + 5
< 1.80		38 + 39	48 + 37	5 +	+ 6
< 2.00		42 + 35	46 + 27	1 +	2 + 3
< 2.20		34 + 31	39 + 32	1 +	2 + 3
< 2.40		26 + 20	28 + 31	+	+ 1
< 2.60		29 + 24	14 + 19	1 + 1	1 + 2
< 2.80		19 + 24	27 + 26	1 + 1	3 +
< 3.00		16 + 12	13 + 18	2 +	3 +
< 9.99		83 + 95	76 + 67	4 + 5	8 + 12

(\*) HP to maintain Vehicle at 40 kph on a level road

Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size
<b>Distribution of CO Emissions in 1999 from Gasoline Vehicles</b>										
<b>with applied road load (*) at 40 kph</b>										
<b>By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)</b>										

Vehicles with a 3 way Closed Loop Catalytic converter										
Model Year	to 1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
CO %										
< 0.10	230 + 143	4508 + 2997	3923 + 2709	9828 + 6775	12787 + 9106	9611 + 6908	6577 + 4665	12831 + 9389	24113 + 18556	8759 + 7369
< 0.20	543 + 232	995 + 760	1430 + 1015	2337 + 1419	2547 + 1981	1894 + 1631	1387 + 1169	3077 + 2521	4724 + 4463	1096 + 1427
< 0.30	346 + 191	431 + 306	1185 + 859	1257 + 634	1038 + 810	630 + 616	503 + 392	1055 + 939	1247 + 1149	317 + 463
< 0.40	176 + 107	187 + 162	724 + 585	783 + 403	471 + 381	240 + 187	213 + 185	484 + 421	401 + 356	73 + 133
< 0.50	132 + 64	152 + 94	324 + 309	379 + 203	261 + 209	110 + 100	138 + 96	277 + 225	213 + 188	42 + 48
< 0.60	103 + 54	120 + 99	197 + 169	254 + 167	236 + 170	105 + 66	88 + 49	167 + 151	113 + 140	23 + 22
< 0.70	78 + 60	113 + 82	134 + 116	263 + 173	213 + 179	81 + 47	63 + 52	105 + 87	90 + 59	9 + 10
< 0.80	73 + 44	57 + 51	103 + 83	174 + 146	155 + 141	62 + 67	55 + 46	66 + 60	35 + 33	4 + 5
< 0.90	67 + 37	40 + 41	59 + 47	113 + 72	108 + 77	43 + 36	55 + 34	40 + 44	17 + 25	2 + 3
< 1.00	53 + 34	37 + 28	37 + 38	67 + 63	64 + 45	25 + 16	33 + 30	24 + 31	15 + 16	5 + 3
< 1.20	86 + 37	52 + 43	66 + 71	91 + 75	77 + 53	27 + 22	83 + 72	25 + 32	32 + 15	1 + 4
< 1.40	95 + 29	39 + 32	56 + 46	61 + 51	40 + 30	29 + 17	55 + 45	18 + 17	17 + 19	2 + 5
< 1.60	47 + 26	20 + 37	48 + 42	54 + 37	36 + 23	14 + 13	22 + 24	14 + 13	10 + 14	5 + 1
< 1.80	40 + 18	27 + 17	32 + 34	34 + 25	40 + 19	17 + 7	8 + 13	6 + 12	11 + 7	2 + 3
< 2.00	43 + 19	36 + 21	40 + 24	34 + 25	31 + 23	8 + 7	9 + 7	2 + 8	6 + 11	2 +
< 2.20	32 + 8	21 + 17	30 + 29	25 + 21	22 + 18	9 + 7	3 + 5	7 + 6	4 + 5	3 + 1
< 2.40	27 + 12	21 + 14	23 + 14	23 + 27	16 + 12	8 + 5	2 + 2	4 + 2	4 + 4	1 + 1
< 2.60	19 + 7	15 + 8	17 + 25	29 + 15	14 + 16	4 + 6	2 + 3	3 + 5	3 + 3	1 + 2
< 2.80	11 + 5	14 + 9	13 + 10	16 + 15	10 + 5	10 + 3	5 + 1	6 + 4	3 + 1	+
< 3.00	16 + 10	15 + 9	11 + 13	15 + 18	17 + 8	5 + 2	5 + 1	4 + 1	2 + 1	2 + 2
< 9.99	106 + 60	117 + 89	88 + 95	149 + 106	133 + 104	66 + 50	19 + 21	29 + 26	24 + 23	2 + 32

(\*) HP to maintain Vehicle at 40 kph on a level road

**Distribution of CO Emissions in 1999 from Gasoline Vehicles  
with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year**

<b>Vehicles with No Catalytic converter</b>					
Model Year	to 1990	1991	1992	1993	1994
CO %					
< 0.10	1.9%	7.9%	5.2%	11.0%	71.1%
< 0.20	21.9%	33.0%	25.0%	41.6%	87.0%
< 0.30	39.6%	49.4%	39.9%	55.9%	93.0%
< 0.40	48.0%	57.7%	49.5%	61.7%	94.1%
< 0.50	53.7%	63.6%	55.7%	67.0%	94.9%
< 0.60	58.2%	67.9%	61.5%	70.9%	94.9%
< 0.70	62.1%	70.8%	66.7%	74.9%	96.0%
< 0.80	65.5%	73.4%	70.4%	78.5%	97.5%
< 0.90	68.4%	76.3%	73.6%	81.2%	97.9%
< 1.00	70.9%	79.0%	76.3%	83.8%	98.5%
< 1.20	75.6%	83.2%	81.4%	87.4%	98.7%
< 1.40	79.3%	86.0%	85.4%	90.1%	99.1%
< 1.60	82.5%	88.3%	87.6%	91.9%	99.2%
< 1.80	85.0%	90.3%	89.7%	93.2%	99.2%
< 2.00	87.1%	91.8%	91.4%	94.5%	99.4%
< 2.20	88.9%	93.2%	93.0%	95.5%	99.6%
< 2.40	90.4%	94.3%	94.2%	96.1%	99.6%
< 2.60	91.8%	95.2%	94.9%	96.6%	99.6%
< 2.80	92.8%	95.9%	96.1%	97.0%	99.6%
< 3.00	93.8%	96.4%	96.6%	97.3%	99.6%
< 9.99	100.0%	100.0%	100.0%	100.0%	100.0%

(\*) HP to maintain Vehicle at 40 kph on a level road

**Distribution of CO Emissions in 1999 from Gasoline Vehicles  
with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year**

Vehicles with a 2 way Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
CO %					
< 0.10		21.9%	27.6%		
< 0.20		44.7%	46.6%		
< 0.30		58.4%	56.2%		
< 0.40		65.6%	62.3%		
< 0.50		70.1%	67.0%		
< 0.60		73.6%	70.6%		
< 0.70		76.7%	74.0%		
< 0.80		79.0%	76.7%		
< 0.90		81.1%	79.3%		
< 1.00		83.2%	81.5%		
< 1.20		86.5%	84.8%		
< 1.40		88.8%	87.4%		
< 1.60		90.9%	89.5%		
< 1.80		92.5%	91.3%		
< 2.00		93.9%	92.8%		
< 2.20		94.7%	93.6%		
< 2.40		95.4%	94.2%		
< 2.60		96.3%	94.8%		
< 2.80		96.9%	95.6%		
< 3.00		97.2%	96.2%		
< 9.99		100.0%	100.0%		

(\*) HP to maintain Vehicle at 40 kph on a level road

**Distribution of CO Emissions in 1999 from Gasoline Vehicles  
with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year**

Vehicles with a 3 way Open Loop Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
CO %					
< 0.10		42.0%	40.9%	40.7%	63.4%
< 0.20		56.1%	57.1%	67.7%	78.3%
< 0.30		64.5%	67.1%	82.6%	84.7%
< 0.40		69.4%	72.1%	90.4%	89.6%
< 0.50		72.6%	75.8%	93.9%	92.3%
< 0.60		75.4%	78.7%	96.0%	93.3%
< 0.70		77.5%	81.0%	97.4%	94.4%
< 0.80		79.4%	82.9%	97.9%	95.4%
< 0.90		81.5%	84.7%	98.1%	96.1%
< 1.00		82.8%	86.1%	98.2%	96.5%
< 1.20		85.8%	88.8%	98.4%	97.0%
< 1.40		88.1%	90.9%	98.5%	97.4%
< 1.60		90.1%	92.5%	98.8%	97.8%
< 1.80		91.5%	93.7%	99.1%	98.1%
< 2.00		92.8%	94.7%	99.1%	98.3%
< 2.20		93.9%	95.7%	99.2%	98.6%
< 2.40		94.7%	96.5%	99.2%	98.6%
< 2.60		95.7%	96.9%	99.3%	98.7%
< 2.80		96.4%	97.6%	99.4%	98.9%
< 3.00		96.9%	98.1%	99.5%	99.0%
< 9.99		100.0%	100.0%	100.0%	100.0%

(\*) HP to maintain Vehicle at 40 kph on a level road



**Distribution of CO Emissions in 1999 from Gasoline Vehicles  
with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year**

Vehicles with a 3 way Closed Loop Catalytic converter										
Model Year	to 1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
CO %										
< 0.10	10.6%	62.9%	44.6%	62.8%	69.0%	72.4%	69.2%	68.9%	76.0%	81.1%
< 0.20	32.6%	77.6%	61.0%	77.0%	83.3%	87.9%	85.0%	86.3%	92.3%	93.8%
< 0.30	47.9%	83.8%	74.8%	84.1%	89.1%	93.3%	90.5%	92.5%	96.6%	97.7%
< 0.40	55.9%	86.7%	83.6%	88.6%	91.8%	95.2%	92.9%	95.3%	97.9%	98.8%
< 0.50	61.5%	88.8%	87.8%	90.8%	93.3%	96.1%	94.4%	96.8%	98.6%	99.2%
< 0.60	65.9%	90.6%	90.3%	92.4%	94.6%	96.9%	95.2%	97.8%	99.1%	99.4%
< 0.70	69.9%	92.2%	92.0%	94.0%	95.8%	97.4%	95.9%	98.4%	99.4%	99.5%
< 0.80	73.2%	93.1%	93.2%	95.2%	96.7%	98.0%	96.6%	98.8%	99.5%	99.6%
< 0.90	76.1%	93.8%	93.9%	95.9%	97.3%	98.3%	97.1%	99.1%	99.6%	99.6%
< 1.00	78.6%	94.4%	94.4%	96.4%	97.6%	98.5%	97.5%	99.2%	99.6%	99.6%
< 1.20	82.1%	95.2%	95.4%	97.1%	98.1%	98.7%	98.4%	99.4%	99.7%	99.7%
< 1.40	85.6%	95.8%	96.0%	97.5%	98.3%	98.9%	99.1%	99.5%	99.8%	99.7%
< 1.60	87.7%	96.2%	96.7%	97.8%	98.5%	99.1%	99.3%	99.6%	99.8%	99.7%
< 1.80	89.3%	96.6%	97.1%	98.0%	98.6%	99.2%	99.5%	99.7%	99.8%	99.8%
< 2.00	91.1%	97.1%	97.5%	98.3%	98.8%	99.2%	99.6%	99.7%	99.9%	99.8%
< 2.20	92.2%	97.4%	97.9%	98.4%	98.9%	99.3%	99.6%	99.7%	99.9%	99.8%
< 2.40	93.4%	97.7%	98.2%	98.6%	99.0%	99.4%	99.6%	99.8%	99.9%	99.8%
< 2.60	94.1%	97.9%	98.5%	98.8%	99.1%	99.4%	99.7%	99.8%	99.9%	99.8%
< 2.80	94.5%	98.1%	98.6%	98.9%	99.2%	99.5%	99.7%	99.8%	99.9%	99.8%
< 3.00	95.3%	98.3%	98.8%	99.0%	99.3%	99.5%	99.8%	99.8%	99.9%	99.8%
< 9.99	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

(\*) HP to maintain Vehicle at 40 kph on a level road

**Distribution of CO Emissions in 1st Semester 1997  
from Gasoline Vehicles with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year**

<b>Vehicles with No Catalytic converter</b>					
Model Year	to 1990	1991	1992	1993	1994
CO %					
< 0.10	3.4%	13.6%	9.2%	10.5%	58.5%
< 0.20	20.4%	35.9%	29.1%	34.4%	76.1%
< 0.30	32.5%	47.9%	40.3%	44.8%	83.0%
< 0.40	39.2%	54.3%	48.4%	50.2%	88.6%
< 0.50	44.3%	59.1%	55.1%	54.8%	91.2%
< 0.60	48.6%	63.1%	60.3%	58.8%	92.9%
< 0.70	52.4%	66.7%	64.7%	62.2%	95.0%
< 0.80	55.8%	69.6%	68.5%	65.2%	96.3%
< 0.90	58.8%	72.2%	71.3%	67.6%	97.3%
< 1.00	61.5%	74.4%	74.0%	69.6%	98.1%
< 1.20	66.6%	78.5%	78.4%	74.0%	98.6%
< 1.40	70.9%	82.0%	81.8%	76.9%	98.7%
< 1.60	74.7%	84.8%	84.6%	79.9%	99.0%
< 1.80	78.1%	87.3%	86.8%	82.3%	99.2%
< 2.00	81.0%	89.2%	88.7%	84.1%	99.3%
< 2.20	83.5%	90.6%	90.3%	86.2%	99.4%
< 2.40	85.6%	91.9%	91.6%	88.0%	99.4%
< 2.60	87.5%	93.0%	92.9%	89.5%	99.5%
< 2.80	89.2%	94.1%	93.8%	90.7%	99.7%
< 3.00	90.6%	94.9%	94.6%	91.6%	99.7%
< 9.99	100.0%	100.0%	100.0%	100.0%	100.0%

(\*) HP to maintain Vehicle at 40 kph on a level road

**Distribution of CO Emissions in 1st Semester 1997  
from Gasoline Vehicles with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year**

Vehicles with a 2 way Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
CO %					
< 0.10		23.5%	19.1%		
< 0.20		43.1%	31.1%		
< 0.30		53.8%	39.0%		
< 0.40		60.4%	44.7%		
< 0.50		64.4%	49.5%		
< 0.60		68.9%	54.2%		
< 0.70		72.1%	58.3%		
< 0.80		75.3%	61.7%		
< 0.90		77.4%	64.4%		
< 1.00		79.6%	67.0%		
< 1.20		82.8%	72.2%		
< 1.40		85.4%	76.4%		
< 1.60		88.1%	80.3%		
< 1.80		89.9%	83.4%		
< 2.00		91.5%	85.8%		
< 2.20		92.5%	88.0%		
< 2.40		93.5%	89.6%		
< 2.60		94.4%	91.3%		
< 2.80		95.3%	92.3%		
< 3.00		96.0%	93.5%		
< 9.99		100.0%	100.0%		

(\*) HP to maintain Vehicle at 40 kph on a level road

**Distribution of CO Emissions in 1st Semester 1997  
from Gasoline Vehicles with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year**

Vehicles with a 3 way Open Loop Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
CO %					
< 0.10		42.7%	45.8%	43.8%	63.3%
< 0.20		55.2%	59.8%	68.3%	78.0%
< 0.30		61.2%	66.8%	83.9%	86.3%
< 0.40		65.1%	71.3%	91.2%	90.4%
< 0.50		68.3%	74.4%	93.9%	92.7%
< 0.60		71.3%	76.9%	95.9%	94.1%
< 0.70		73.8%	79.2%	96.9%	94.8%
< 0.80		76.0%	81.2%	97.6%	95.6%
< 0.90		78.3%	83.0%	97.9%	96.1%
< 1.00		80.3%	84.7%	98.0%	96.8%
< 1.20		83.7%	87.7%	98.3%	97.4%
< 1.40		86.4%	89.9%	98.5%	98.2%
< 1.60		88.5%	91.9%	98.6%	98.4%
< 1.80		90.3%	93.3%	98.6%	98.9%
< 2.00		91.7%	94.5%	98.7%	99.0%
< 2.20		93.1%	95.5%	99.0%	99.2%
< 2.40		94.2%	96.3%	99.0%	99.4%
< 2.60		95.0%	97.0%	99.2%	99.5%
< 2.80		95.7%	97.5%	99.2%	99.6%
< 3.00		96.3%	97.9%	99.3%	99.6%
< 9.99		100.0%	100.0%	100.0%	100.0%

(\*) HP to maintain Vehicle at 40 kph on a level road

**Distribution of CO Emissions in 1st Semester 1997  
from Gasoline Vehicles with applied road load (\*) at 40 kph  
By Catalytic Converter and Model Year**

Vehicles with a 3 way Closed Loop Catalytic converter										
Model Year	to 1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
CO %										
< 0.10	7.9%	50.2%	42.0%	50.7%	61.0%	68.4%	77.6%	85.1%		
< 0.20	32.7%	64.2%	59.6%	66.1%	73.9%	80.0%	86.8%	90.8%		
< 0.30	45.3%	71.4%	70.8%	74.4%	80.7%	85.0%	90.9%	93.2%		
< 0.40	51.5%	76.6%	77.3%	79.9%	84.8%	88.2%	93.4%	94.7%		
< 0.50	56.7%	81.0%	81.8%	84.5%	88.3%	90.7%	95.1%	96.0%		
< 0.60	60.6%	84.6%	85.5%	88.2%	91.4%	93.1%	96.6%	97.2%		
< 0.70	63.6%	87.0%	88.1%	90.8%	93.9%	95.2%	97.7%	98.3%		
< 0.80	65.9%	88.6%	89.8%	92.4%	95.3%	96.3%	98.3%	98.8%		
< 0.90	68.4%	89.6%	90.8%	93.4%	96.1%	96.9%	98.6%	99.1%		
< 1.00	70.5%	90.6%	91.7%	94.2%	96.5%	97.2%	98.8%	99.2%		
< 1.20	74.0%	91.9%	92.9%	95.3%	97.1%	97.8%	99.0%	99.3%		
< 1.40	77.0%	92.8%	93.9%	96.0%	97.5%	98.1%	99.1%	99.4%		
< 1.60	79.6%	93.7%	94.7%	96.5%	97.8%	98.3%	99.2%	99.5%		
< 1.80	81.9%	94.5%	95.4%	96.9%	98.0%	98.5%	99.3%	99.6%		
< 2.00	83.9%	95.2%	95.9%	97.3%	98.2%	98.6%	99.4%	99.6%		
< 2.20	85.6%	95.7%	96.4%	97.6%	98.4%	98.7%	99.4%	99.6%		
< 2.40	87.3%	96.2%	96.8%	97.8%	98.6%	98.9%	99.4%	99.6%		
< 2.60	88.5%	96.7%	97.1%	98.1%	98.7%	99.0%	99.5%	99.7%		
< 2.80	89.8%	97.0%	97.4%	98.2%	98.9%	99.1%	99.6%	99.7%		
< 3.00	90.8%	97.4%	97.7%	98.4%	99.0%	99.1%	99.6%	99.7%		
< 9.99	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

(\*) HP to maintain Vehicle at 40 kph on a level road

**Percent of Vehicles in each sample with Defective Catalytic Converters**  
**By Type of converter**  
 (Converter is considered to be defective if CO<sub>2</sub> < 14% and O<sub>2</sub> >= 0.4% and CO > 0.3%)

	Semester													
	93.1	93.2	94.1	94.2	95.1	95.2	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2
<b>2 way Cat</b>														
1991			0.0%		33.3%	27.8%	28.6%	26.2%	29.4%	22.7%	25.2%	19.9%	11.1%	12.4%
1992	0.0%	40.0%	23.0%	20.5%	27.0%	26.0%	30.4%	27.3%	42.7%	28.4%	27.3%	17.3%	23.5%	21.9%
<b>3 way Open loop Cat</b>														
1991	34.5%	47.5%	45.4%	41.4%	45.4%	47.7%	47.9%	39.5%	38.3%	31.1%	30.3%	23.5%	10.6%	10.8%
1992	37.7%	44.0%	44.9%	41.9%	41.8%	45.6%	45.0%	36.0%	37.0%	29.5%	29.9%	24.3%	10.2%	11.4%
1993	0.0%	0.6%	1.1%	0.8%	0.8%	0.4%	1.5%	1.8%	7.4%	4.1%	4.3%	0.9%	2.4%	1.9%
1994		0.0%	0.6%	0.2%	1.2%	0.4%	1.1%	1.4%	5.7%	3.4%	2.5%	1.7%	2.3%	2.3%
<b>3 way Closed loop Cat</b>														
to 1990	50.0%	20.0%		0.0%	51.7%	46.3%	38.8%	42.5%	51.9%	44.0%	43.3%	41.5%	25.2%	23.0%
1991	7.3%	9.7%	9.4%	6.6%	7.6%	5.8%	9.5%	8.5%	17.7%	9.9%	10.3%	8.4%	3.9%	3.8%
1992	5.0%	6.6%	7.3%	4.7%	5.9%	5.7%	8.4%	7.3%	16.9%	9.5%	7.6%	5.2%	4.1%	4.4%
1993	2.8%	3.1%	4.4%	4.4%	6.9%	9.7%	12.2%	7.2%	15.7%	8.3%	8.9%	6.2%	3.9%	3.2%
1994		1.1%	2.0%	2.0%	2.4%	2.4%	5.6%	4.5%	11.4%	5.7%	4.8%	3.6%	3.2%	2.7%
1995				0.3%	1.2%	1.6%	3.2%	2.8%	8.7%	3.8%	2.7%	1.9%	2.0%	1.6%
1996						0.0%	1.1%	1.4%	4.4%	1.7%	1.6%	0.9%	1.1%	1.0%
1997								0.4%	4.0%	1.4%	0.7%	0.3%	0.4%	0.4%
1998										0.4%	0.3%	0.1%	0.2%	0.2%
1999												0.0%	0.1%	0.1%

**Percent of Vehicles in each sample with Defective Catalytic Converters  
By Type of converter**

(Converter is considered to be defective if CO2 < 14% and O2 >= 0.4% and CO > 0.3%)

3 way Open loop Cat															
		Semester													
		93.1	93.2	94.1	94.2	95.1	95.2	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2
<b>with Carb</b>															
1991		34.6%	47.6%	45.5%	41.6%	45.7%	48.0%	47.9%	40.1%	42.1%	33.1%	34.1%	27.7%	11.5%	12.5%
1992		37.7%	44.1%	45.1%	42.0%	41.9%	45.7%	45.0%	36.8%	40.1%	31.1%	33.4%	27.9%	11.1%	12.5%
<b>with TBI</b>															
1991		0.0%	30.0%			0.0%	18.8%			12.2%	17.6%	15.3%	7.7%		
1992			25.0%			22.2%	10.0%			9.5%	12.4%	10.6%	6.4%		
1993		0.0%	0.6%	1.1%	0.8%	0.8%	0.4%	1.5%	1.8%	7.4%	4.1%	4.3%	0.9%	2.4%	1.9%
1994			0.0%	0.6%	0.2%	1.2%	0.4%	1.1%	1.4%	5.7%	3.4%	2.5%	1.7%	2.3%	2.3%
<b>with MPI</b>															
1991				20.0%	17.9%				18.2%	17.2%	11.3%	10.7%	6.0%	4.3%	4.1%
1992				0.0%	9.7%				6.1%	9.5%	9.4%	8.6%	6.3%	2.2%	4.3%

**Percent of Vehicles in each sample with Defective Catalytic Converters**  
**By Type of converter**  
 (Converter is considered to be defective if CO<sub>2</sub> < 14% and O<sub>2</sub> >= 0.4% and CO > 0.3%)

3 way Closed loop Cat															
	Semester														
	93.1	93.2	94.1	94.2	95.1	95.2	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
<b>with Carb</b>															
up to 1990					18.4%	10.1%	14.2%	17.3%	14.7%	9.9%	22.4%	9.5%	17.2%	7.2%	
1991	8.7%	18.3%	16.4%	13.4%	11.3%	9.1%	11.6%	9.5%	16.0%	9.6%	11.5%	9.0%	5.5%	5.5%	
1992	3.9%	13.9%	13.0%	8.7%	7.4%	7.7%	8.5%	6.4%	12.4%	9.3%	9.3%	6.0%	4.4%	6.4%	
1993		100.0%		100.0%	14.3%	15.6%	18.7%	14.4%	22.4%	26.5%	25.0%	14.3%	12.2%	3.0%	
1994				0.0%	25.0%	3.8%	11.6%	13.6%	10.0%	23.1%	22.5%	0.0%	17.6%	3.8%	
1995				0.0%	0.0%	6.7%		3.6%	6.1%	10.0%	6.5%	9.5%	0.0%	3.2%	8.7%
1996							0.0%	3.3%	15.4%	6.8%	6.9%	100.0%	9.8%	10.5%	
1997									10.5%	0.0%	7.7%	0.0%	5.0%	0.0%	
1998										0.0%	5.0%	0.0%	5.7%	3.6%	
<b>with TBI</b>															
up to 1990							0.0%	0.0%	50.0%	40.0%	30.0%	50.0%	66.7%	0.0%	
1991	0.0%	9.1%	10.0%	1.7%	6.1%	2.5%	4.8%	5.1%	13.9%	8.8%	6.7%	2.4%	0.0%	0.0%	
1992	8.3%	17.5%	25.0%	2.1%	35.6%	36.9%	20.5%	11.8%	16.2%	10.5%	19.3%	9.1%	3.2%	0.0%	
1993	20.6%	5.7%	3.1%	7.5%	15.4%	22.5%	27.0%	17.8%	25.1%	18.2%	19.8%	15.7%	6.7%	4.3%	
1994		1.9%	0.8%	2.7%	2.6%	4.4%	4.8%	3.8%	7.7%	5.7%	6.4%	5.0%	3.2%	2.4%	
1995				0.0%	4.1%	6.5%	4.6%	5.0%	9.0%	8.5%	9.3%	6.3%	3.2%	2.0%	
1996						0.0%	1.9%	1.7%	5.5%	2.8%	2.8%	1.2%	1.1%	1.5%	
1997								0.9%	2.9%	1.7%	1.5%	0.8%	0.7%	0.8%	
1998										1.7%	1.4%	0.7%	0.1%	0.0%	
1999												0.0%	1.3%	0.0%	
<b>with MPI</b>															
up to 1990	50.0%	20.0%		0.0%	58.9%	57.7%	48.6%	44.2%	52.9%	44.6%	43.8%	41.8%	26.1%	24.7%	
1991	7.0%	8.8%	8.4%	4.1%	7.2%	5.7%	9.7%	8.6%	18.0%	10.0%	10.2%	8.4%	3.8%	3.7%	
1992	4.8%	4.8%	6.0%	2.8%	5.6%	4.2%	8.4%	7.4%	17.6%	9.5%	7.2%	5.0%	4.1%	4.2%	
1993	1.3%	2.8%	4.7%	3.9%	5.7%	7.5%	10.1%	6.8%	16.1%	8.4%	7.6%	5.0%	3.6%	3.2%	
1994		1.0%	2.2%	1.8%	2.5%	2.1%	5.9%	4.7%	11.9%	5.8%	4.6%	3.4%	3.1%	2.8%	
1995				0.4%	1.0%	1.2%	3.2%	2.9%	8.7%	3.7%	2.4%	1.7%	1.9%	1.5%	
1996						0.0%	1.1%	1.4%	4.4%	1.7%	1.5%	0.8%	1.0%	1.0%	
1997								0.4%	4.0%	1.4%	0.7%	0.3%	0.4%	0.4%	
1998										0.4%	0.3%	0.1%	0.2%	0.2%	
1999												0.0%	0.1%	0.1%	



Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**Distribution of HC Emissions in 1999 from Gasoline Vehicles with 50% applied load (\*) at 24 kph (ASM 5015) By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)**

Vehicles with No Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
HC ppm					
< 50	9937 + 4868	903 + 474	760 + 408	312 + 191	204 + 139
< 100	16177 + 9563	646 + 357	618 + 361	400 + 248	21 + 17
< 150	16022 + 10575	473 + 289	397 + 255	153 + 110	9 + 8
< 200	8904 + 5959	148 + 87	133 + 69	40 + 23	2 + 3
< 250	3440 + 2417	43 + 19	23 + 23	7 + 6	+
< 300	1188 + 811	7 + 14	7 + 10	4 + 1	+
< 350	446 + 307	4 + 4	1 + 2	1 + 2	+
< 400	173 + 112	2 + 2	1 + 1	1 +	+
< 450	110 + 64	1 + 1	1 + 1	+ 1	+
< 500	56 + 28	2 +	+	+	+
< 550	35 + 21	+	+	2 +	+
< 600	30 + 15	+ 1	+ 1	+	+
< 650	17 + 13	+	+ 1	+	+
< 700	19 + 12	+	1 +	+ 1	+
< 750	18 + 9	+	1 +	2 +	+
< 800	11 + 10	+	+	+	1 +
< 850	5 + 2	+	+	1 +	+
< 900	7 + 5	+	+	+	+
< 950	5 + 1	+ 2	+	+	+
< 1000	7 + 5	+	+	+	+
< 5000	193 + 112	6 + 5	8 + 8	7 + 3	+

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**Distribution of HC Emissions in 1999 from Gasoline Vehicles  
with 50% applied load (\*) at 24 kph (ASM 5015)  
By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)**

Vehicles with a 2 way Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
HC ppm					
< 50		342 + 167	491 + 262		
< 100		901 + 572	1186 + 752		
< 150		436 + 397	472 + 385		
< 200		143 + 132	140 + 100		
< 250		35 + 30	38 + 28		
< 300		9 + 10	11 + 9		
< 350		3 + 3	2 +		
< 400		1 + 1	2 + 2		
< 450		1 +	3 +		
< 500		1 +	2 +		
< 550		+	+		
< 600		+	+		
< 650		+	+ 2		
< 700		+	1 + 1		
< 750		+	+		
< 800		+	+		
< 850		+	1 +		
< 900		1 +	+		
< 950		+	1 +		
< 1000		+	+		
< 5000		+ 1	2 +		

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**Distribution of HC Emissions in 1999 from Gasoline Vehicles  
with 50% applied load (\*) at 24 kph (ASM 5015)  
By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)**

Vehicles with a 3 way Open Loop Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
HC ppm					
< 50		1748 + 1099	2391 + 1507	810 + 605	883 + 697
< 100		778 + 585	888 + 671	74 + 65	59 + 58
< 150		397 + 338	481 + 467	10 + 20	29 + 35
< 200		145 + 171	187 + 173	13 + 5	6 + 8
< 250		47 + 46	36 + 54	5 + 6	5 + 3
< 300		13 + 10	15 + 14	+ 1	+ 1
< 350		7 + 5	3 + 8	1 + 1	+
< 400		3 + 3	3 +	+	+
< 450		1 + 1	3 +	1 +	+
< 500		+ 1	+	+	+
< 550		1 +	+	+	+
< 600		+	1 +	+	+
< 650		+	1 + 2	+	+
< 700		1 +	+	+	+
< 750		+	+	+	+
< 800		+ 1	+ 1	+	+
< 850		1 +	+	+	+
< 900		+	+	+	1 +
< 950		+ 1	+	+	+
< 1000		+	+	+	+
< 5000		4 + 2	8 + 7	+	+

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**Distribution of HC Emissions in 1999 from Gasoline Vehicles  
with 50% applied load (\*) at 24 kph (ASM 5015)  
By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)**

Vehicles with a 3 way Closed Loop Catalytic converter										
Model Year	to 1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
HC ppm										
< 50	361 + 179	4778 + 3287	5462 + 3920	10219 + 6689	11956 + 8604	8716 + 6633	6030 + 4575	11835 + 9468	18829 + 16238	6001 + 5978
< 100	601 + 288	782 + 594	1534 + 1228	1818 + 1054	1362 + 1037	712 + 556	525 + 436	716 + 622	1069 + 1063	321 + 386
< 150	632 + 366	383 + 251	478 + 370	700 + 514	596 + 466	254 + 193	227 + 160	149 + 121	124 + 93	32 + 27
< 200	405 + 206	175 + 124	198 + 170	286 + 221	227 + 185	115 + 101	51 + 44	58 + 45	44 + 37	10 + 12
< 250	160 + 89	56 + 38	60 + 65	81 + 70	96 + 70	37 + 31	15 + 12	13 + 7	6 + 11	2 + 3
< 300	55 + 30	20 + 17	21 + 13	34 + 20	27 + 36	17 + 18	8 + 4	3 + 8	5 + 2	+ 3
< 350	22 + 12	13 + 3	2 + 3	6 + 6	18 + 15	5 + 5	2 + 2	5 + 1	1 + 2	+
< 400	8 + 3	5 + 1	4 + 3	6 + 5	12 + 12	5 + 1	2 +	2 +	1 +	+
< 450	9 + 1	+ 1	1 + 1	4 +	3 + 4	3 + 1	+	2 + 4	3 +	+ 18
< 500	4 + 1	1 + 1	+ 2	8 + 1	3 + 7	+ 2	+ 1	4 + 2	+	+ 5
< 550	2 +	1 + 2	+	1 + 2	3 + 1	1 +	+ 1	+	+	+
< 600	+	+	+	3 + 1	2 + 1	1 +	1 +	+	+	+
< 650	1 +	+ 1	+	+	+	+	+	+	+	+
< 700	+	+ 1	+ 1	2 + 1	1 + 2	1 +	+	+	+	+
< 750	+ 1	+	+	+	+	1 +	+	+	+	+
< 800	1 +	+	1 +	+	1 +	+	+	+	+	1 +
< 850	+	+	+	+	+	+ 1	+	4 +	+	+ 1
< 900	+	+	+	+	+	+	+	3 + 3	1 +	+
< 950	2 +	+	+	+	1 +	+	+	1 +	2 +	+
< 1000	1 +	+ 1	+	+	+	+	+	+ 1	+	+
< 5000	5 + 1	3 + 3	3 + 2	4 + 1	6 + 6	+	2 + 1	+ 1	+	1 + 1

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

**Distribution of HC Emissions in 1999 from Gasoline Vehicles with 50% applied load (\*) at 24 kph (ASM 5015) By Catalytic Converter and Model Year**

<b>Vehicles with No Catalytic converter</b>					
<b>Model Year</b>	<b>to 1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>
HC ppm					
< 50	16.1%	39.5%	37.8%	33.2%	84.9%
< 100	44.2%	68.2%	69.5%	75.9%	94.3%
< 150	73.2%	90.0%	90.6%	93.3%	98.5%
< 200	89.4%	96.8%	97.1%	97.4%	99.8%
< 250	95.8%	98.5%	98.6%	98.3%	99.8%
< 300	98.0%	99.1%	99.1%	98.6%	99.8%
< 350	98.8%	99.4%	99.2%	98.8%	99.8%
< 400	99.1%	99.5%	99.3%	98.9%	99.8%
< 450	99.3%	99.5%	99.4%	98.9%	99.8%
< 500	99.4%	99.6%	99.4%	98.9%	99.8%
< 550	99.5%	99.6%	99.4%	99.1%	99.8%
< 600	99.5%	99.6%	99.4%	99.1%	99.8%
< 650	99.5%	99.6%	99.4%	99.1%	99.8%
< 700	99.6%	99.6%	99.5%	99.1%	99.8%
< 750	99.6%	99.6%	99.5%	99.3%	99.8%
< 800	99.6%	99.6%	99.5%	99.3%	100.0%
< 850	99.6%	99.6%	99.5%	99.3%	100.0%
< 900	99.6%	99.6%	99.5%	99.3%	100.0%
< 950	99.7%	99.7%	99.5%	99.3%	100.0%
< 1000	99.7%	99.7%	99.5%	99.3%	100.0%
< 5000	100.0%	100.0%	100.0%	100.0%	100.0%

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

**Distribution of HC Emissions in 1999 from Gasoline Vehicles with 50% applied load (\*) at 24 kph (ASM 5015) By Catalytic Converter and Model Year**

Vehicles with a 2 way Catalytic converter					
Model Year	to 1990	1991	1992	1993	1994
HC ppm					
< 50		16.0%	19.3%		
< 100		62.2%	69.1%		
< 150		88.4%	91.1%		
< 200		97.0%	97.3%		
< 250		99.0%	99.0%		
< 300		99.6%	99.5%		
< 350		99.8%	99.6%		
< 400		99.9%	99.7%		
< 450		99.9%	99.7%		
< 500		99.9%	99.8%		
< 550		99.9%	99.8%		
< 600		99.9%	99.8%		
< 650		99.9%	99.8%		
< 700		99.9%	99.9%		
< 750		99.9%	99.9%		
< 800		99.9%	99.9%		
< 850		99.9%	99.9%		
< 900		100.0%	99.9%		
< 950		100.0%	99.9%		
< 1000		100.0%	99.9%		
< 5000		100.0%	100.0%		

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

**Distribution of HC Emissions in 1999 from Gasoline Vehicles with 50% applied load (\*) at 24 kph (ASM 5015) By Catalytic Converter and Model Year**

<b>Vehicles with a 3 way Open Loop Catalytic converter</b>					
<b>Model Year</b>	<b>to 1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>
HC ppm					
< 50		52.6%	56.3%	87.5%	88.5%
< 100		77.8%	78.8%	96.1%	95.1%
< 150		91.4%	92.5%	98.0%	98.7%
< 200		97.3%	97.7%	99.1%	99.4%
< 250		99.0%	99.0%	99.8%	99.9%
< 300		99.4%	99.5%	99.8%	99.9%
< 350		99.6%	99.6%	99.9%	99.9%
< 400		99.7%	99.7%	99.9%	99.9%
< 450		99.8%	99.7%	100.0%	99.9%
< 500		99.8%	99.7%	100.0%	99.9%
< 550		99.8%	99.7%	100.0%	99.9%
< 600		99.8%	99.7%	100.0%	99.9%
< 650		99.8%	99.8%	100.0%	99.9%
< 700		99.8%	99.8%	100.0%	99.9%
< 750		99.8%	99.8%	100.0%	99.9%
< 800		99.9%	99.8%	100.0%	99.9%
< 850		99.9%	99.8%	100.0%	99.9%
< 900		99.9%	99.8%	100.0%	100.0%
< 950		99.9%	99.8%	100.0%	100.0%
< 1000		99.9%	99.8%	100.0%	100.0%
< 5000		100.0%	100.0%	100.0%	100.0%

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

**Distribution of HC Emissions in 1999 from Gasoline Vehicles  
with 50% applied load (\*) at 24 kph (ASM 5015)  
By Catalytic Converter and Model Year**

<b>Vehicles with a 3 way Closed Loop Catalytic converter</b>										
<b>Model Year</b>	<b>to 1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
HC ppm										
< 50	15.7%	76.5%	69.3%	77.7%	83.0%	88.2%	87.7%	92.3%	93.4%	93.6%
< 100	41.5%	89.6%	89.7%	90.9%	92.7%	95.4%	95.6%	98.1%	99.1%	99.1%
< 150	70.4%	95.6%	95.9%	96.5%	97.0%	98.0%	98.8%	99.3%	99.7%	99.6%
< 200	88.2%	98.4%	98.7%	98.8%	98.7%	99.3%	99.6%	99.7%	99.9%	99.7%
< 250	95.4%	99.3%	99.6%	99.5%	99.3%	99.6%	99.8%	99.8%	100.0%	99.8%
< 300	97.9%	99.6%	99.8%	99.8%	99.6%	99.8%	99.9%	99.9%	100.0%	99.8%
< 350	98.8%	99.8%	99.9%	99.8%	99.7%	99.9%	99.9%	99.9%	100.0%	99.8%
< 400	99.2%	99.9%	99.9%	99.9%	99.8%	99.9%	100.0%	99.9%	100.0%	99.8%
< 450	99.4%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	99.9%	100.0%	99.9%
< 500	99.6%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%
< 550	99.7%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%
< 600	99.7%	99.9%	99.9%	100.0%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%
< 650	99.7%	99.9%	99.9%	100.0%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%
< 700	99.7%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%
< 750	99.7%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%
< 800	99.7%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%
< 850	99.7%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%
< 900	99.7%	99.9%	100.0%	100.0%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%
< 950	99.8%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
< 1000	99.8%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
< 5000	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration



**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
	%	40 kph						
<b>Cars</b>								
1984 to 90	Mean %	1.05	0.91	0.93	0.85	0.73	Mean ppm	1,654
	Std Error %	0.05	0.02	0.01	0.01	0.02	Std Error ppm	21
1991	Mean %	0.49	0.41	0.43	0.35	0.29	Mean ppm	1,370
	Std Error %	0.01	0.01	0.01	0.01	0.01	Std Error ppm	10
1992	Mean %	0.39	0.36	0.40	0.32	0.31	Mean ppm	1,355
	Std Error %	0.01	0.01	0.00	0.00	0.01	Std Error ppm	10
1993	Mean %	0.26	0.29	0.31	0.26	0.21	Mean ppm	909
	Std Error %	0.01	0.00	0.00	0.00	0.00	Std Error ppm	6
1994	Mean %	0.20	0.23	0.26	0.21	0.18	Mean ppm	836
	Std Error %	0.01	0.00	0.00	0.00	0.00	Std Error ppm	4
1995	Mean %	0.13	0.19	0.22	0.15	0.14	Mean ppm	604
	Std Error %	0.01	0.00	0.00	0.00	0.00	Std Error ppm	4
1996	Mean %	0.03	0.12	0.16	0.16	0.16	Mean ppm	435
	Std Error %	0.02	0.00	0.00	0.00	0.00	Std Error ppm	5
1997	Mean %		0.06	0.14	0.11	0.12	Mean ppm	400
	Std Error %		0.01	0.00	0.00	0.00	Std Error ppm	3
1998	Mean %			0.08	0.07	0.09	Mean ppm	308
	Std Error %			0.01	0.00	0.00	Std Error ppm	2
1999	Mean %				0.05	0.07	Mean ppm	271
	Std Error %				0.00	0.00	Std Error ppm	4
2000	Mean %					0.06	Mean ppm	84
	Std Error %					0.00	Std Error ppm	5

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
		40 kph						
<b>Van/Wgn</b>								
1984 to 90	Mean %	0.71	1.11	1.38	1.27	0.97	Mean ppm	1,438
	Std Error %	0.25	0.13	0.04	0.04	0.08	Std Error ppm	56
1991	Mean %	0.29	0.19	0.25	0.28	0.21	Mean ppm	867
	Std Error %	0.08	0.02	0.02	0.03	0.03	Std Error ppm	46
1992	Mean %	0.12	0.15	0.18	0.34	0.26	Mean ppm	667
	Std Error %	0.02	0.01	0.01	0.03	0.03	Std Error ppm	58
1993	Mean %	0.46	0.41	0.37	0.34	0.31	Mean ppm	1,370
	Std Error %	0.02	0.01	0.01	0.01	0.02	Std Error ppm	27
1994	Mean %	0.31	0.25	0.23	0.17	0.14	Mean ppm	636
	Std Error %	0.03	0.01	0.01	0.01	0.01	Std Error ppm	16
1995	Mean %	0.15	0.19	0.22	0.15	0.12	Mean ppm	536
	Std Error %	0.02	0.01	0.01	0.01	0.01	Std Error ppm	16
1996	Mean %	0.09	0.07	0.10	0.11	0.08	Mean ppm	287
	Std Error %	0.06	0.01	0.01	0.01	0.01	Std Error ppm	10
1997	Mean %		0.04	0.08	0.08	0.12	Mean ppm	275
	Std Error %		0.01	0.01	0.00	0.01	Std Error ppm	7
1998	Mean %			0.05	0.05	0.07	Mean ppm	212
	Std Error %			0.01	0.00	0.00	Std Error ppm	4
1999	Mean %				0.03	0.05	Mean ppm	112
	Std Error %				0.00	0.01	Std Error ppm	6
2000	Mean %					0.05	Mean ppm	129
	Std Error %					0.01	Std Error ppm	33

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
		40 kph						
<b>Pickup</b>								
1984 to 90	Mean %	0.51	1.01	1.31	1.35	0.94	Mean ppm	1,006
	Std Error %	0.10	0.13	0.11	0.11	0.15	Std Error ppm	90
1991	Mean %	0.69	0.92	0.71	0.35	0.72	Mean ppm	910
	Std Error %	0.21	0.29	0.28	0.09	0.25	Std Error ppm	129
1992	Mean %	0.42	1.09	0.96	0.56	0.66	Mean ppm	1,025
	Std Error %	0.13	0.35	0.27	0.14	0.19	Std Error ppm	144
1993	Mean %	1.09	0.89	0.79	0.70	0.85	Mean ppm	1,378
	Std Error %	0.04	0.03	0.02	0.03	0.05	Std Error ppm	32
1994	Mean %	0.16	0.26	0.27	0.22	0.17	Mean ppm	627
	Std Error %	0.02	0.01	0.01	0.01	0.01	Std Error ppm	18
1995	Mean %	0.12	0.22	0.19	0.16	0.16	Mean ppm	648
	Std Error %	0.02	0.02	0.01	0.01	0.01	Std Error ppm	19
1996	Mean %	0.02	0.13	0.17	0.19	0.14	Mean ppm	420
	Std Error %	0.01	0.01	0.01	0.02	0.01	Std Error ppm	18
1997	Mean %		0.08	0.10	0.09	0.12	Mean ppm	284
	Std Error %		0.01	0.00	0.01	0.01	Std Error ppm	9
1998	Mean %			0.09	0.06	0.06	Mean ppm	305
	Std Error %			0.03	0.01	0.00	Std Error ppm	7
1999	Mean %				0.05	0.23	Mean ppm	293
	Std Error %				0.02	0.03	Std Error ppm	15
2000	Mean %					0.18	Mean ppm	203
	Std Error %					0.09	Std Error ppm	47

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
		40 kph						
<b>Class 3</b>								
1984 to 90	Mean %	1.01	0.82	0.79	1.01	0.83	Mean ppm	819
	Std Error %	0.20	0.07	0.09	0.17	0.08	Std Error ppm	49
1991	Mean %	0.98	1.07	1.02	0.85	1.14	Mean ppm	889
	Std Error %	0.36	0.18	0.13	0.12	0.17	Std Error ppm	77
1992	Mean %	0.80	0.95	0.94	0.49	0.83	Mean ppm	455
	Std Error %	0.07	0.10	0.11	0.05	0.12	Std Error ppm	46
1993	Mean %	2.75	1.10	1.13	1.29	1.01	Mean ppm	818
	Std Error %	0.11	0.14	0.16	0.22	0.17	Std Error ppm	86
1994	Mean %	0.24	0.36	0.42	0.36	0.41	Mean ppm	1,036
	Std Error %	0.02	0.02	0.02	0.02	0.03	Std Error ppm	28
1995	Mean %	0.21	0.27	0.36	0.30	0.34	Mean ppm	1,040
	Std Error %	0.03	0.02	0.03	0.03	0.04	Std Error ppm	36
1996	Mean %	0.02	0.28	0.34	0.32	0.26	Mean ppm	768
	Std Error %	0.01	0.05	0.04	0.04	0.03	Std Error ppm	40
1997	Mean %		0.09	0.24	0.23	0.26	Mean ppm	786
	Std Error %		0.02	0.03	0.02	0.03	Std Error ppm	31
1998	Mean %			0.19	0.18	0.17	Mean ppm	687
	Std Error %			0.05	0.02	0.02	Std Error ppm	28
1999	Mean %				0.05	0.18	Mean ppm	935
	Std Error %				0.01	0.02	Std Error ppm	42
2000	Mean %					0.07	Mean ppm	96
	Std Error %					0.01	Std Error ppm	30

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

Model Year	%	Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
<b>Class 7</b>								
1984 to 90	Mean % Std Error %						Mean ppm Std Error ppm	
1991	Mean % Std Error %						Mean ppm Std Error ppm	
1992	Mean % Std Error %						Mean ppm Std Error ppm	
1993	Mean % Std Error %						Mean ppm Std Error ppm	
1994	Mean % Std Error %						Mean ppm Std Error ppm	
1995	Mean % Std Error %						Mean ppm Std Error ppm	
1996	Mean % Std Error %		0.46 0.12	0.24 0.06	0.29 0.14	0.53 0.18	Mean ppm Std Error ppm	881 116
1997	Mean % Std Error %			0.24 0.07	0.39 0.15	0.16 0.05	Mean ppm Std Error ppm	990 109
1998	Mean % Std Error %			0.24 0.18	0.22 0.05	0.25 0.09	Mean ppm Std Error ppm	969 94
1999	Mean % Std Error %				0.06 0.03	0.08 0.04	Mean ppm Std Error ppm	279 39
2000	Mean % Std Error %					0.02 0.01	Mean ppm Std Error ppm	99 32

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Use and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
		40 kph						
<b>Private</b>								
1984 to 90	Mean %	1.34	0.87	0.99	0.92	0.77	Mean ppm	1,638
	Std Error %	0.24	0.03	0.01	0.01	0.02	Std Error ppm	20
1991	Mean %	0.54	0.37	0.42	0.34	0.29	Mean ppm	1,366
	Std Error %	0.04	0.01	0.01	0.01	0.01	Std Error ppm	10
1992	Mean %	0.34	0.32	0.39	0.31	0.30	Mean ppm	1,352
	Std Error %	0.02	0.01	0.00	0.00	0.01	Std Error ppm	11
1993	Mean %	0.23	0.24	0.28	0.23	0.18	Mean ppm	879
	Std Error %	0.02	0.01	0.00	0.00	0.00	Std Error ppm	6
1994	Mean %	0.18	0.20	0.23	0.17	0.14	Mean ppm	771
	Std Error %	0.01	0.01	0.00	0.00	0.00	Std Error ppm	5
1995	Mean %	0.13	0.17	0.19	0.14	0.12	Mean ppm	564
	Std Error %	0.01	0.01	0.00	0.00	0.00	Std Error ppm	4
1996	Mean %		0.11	0.14	0.15	0.15	Mean ppm	408
	Std Error %		0.01	0.00	0.00	0.00	Std Error ppm	5
1997	Mean %		0.04	0.11	0.10	0.12	Mean ppm	378
	Std Error %		0.00	0.00	0.00	0.00	Std Error ppm	4
1998	Mean %			0.07	0.07	0.09	Mean ppm	306
	Std Error %			0.00	0.00	0.00	Std Error ppm	2
1999	Mean %				0.05	0.08	Mean ppm	293
	Std Error %				0.00	0.00	Std Error ppm	5
2000	Mean %					0.06	Mean ppm	91
	Std Error %					0.01	Std Error ppm	6

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Use and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
	%	40 kph						
<b>Commercial</b>								
1984 to 90	Mean %	0.98	0.94	0.97	0.87	0.75	Mean ppm	1,170
	Std Error %	0.05	0.02	0.03	0.04	0.05	Std Error ppm	41
1991	Mean %	0.48	0.43	0.45	0.40	0.37	Mean ppm	1,245
	Std Error %	0.02	0.01	0.01	0.02	0.03	Std Error ppm	30
1992	Mean %	0.42	0.39	0.44	0.37	0.43	Mean ppm	1,209
	Std Error %	0.01	0.01	0.01	0.01	0.03	Std Error ppm	31
1993	Mean %	0.39	0.35	0.43	0.44	0.39	Mean ppm	1,133
	Std Error %	0.01	0.00	0.01	0.01	0.01	Std Error ppm	12
1994	Mean %	0.21	0.25	0.32	0.32	0.30	Mean ppm	956
	Std Error %	0.01	0.00	0.00	0.01	0.01	Std Error ppm	9
1995	Mean %	0.14	0.20	0.27	0.21	0.21	Mean ppm	750
	Std Error %	0.01	0.00	0.01	0.01	0.01	Std Error ppm	9
1996	Mean %	0.04	0.13	0.18	0.18	0.17	Mean ppm	456
	Std Error %	0.01	0.00	0.00	0.01	0.01	Std Error ppm	7
1997	Mean %		0.07	0.15	0.12	0.13	Mean ppm	404
	Std Error %		0.01	0.00	0.00	0.00	Std Error ppm	5
1998	Mean %			0.09	0.08	0.10	Mean ppm	300
	Std Error %			0.01	0.00	0.00	Std Error ppm	3
1999	Mean %				0.06	0.09	Mean ppm	265
	Std Error %				0.01	0.00	Std Error ppm	6
2000	Mean %					0.06	Mean ppm	86
	Std Error %					0.01	Std Error ppm	7

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Number of Cylinders and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
		40 kph						
<b>4 &amp; 5 Cylinders</b>								
1984 to 90	Mean %	1.10	0.92	0.91	0.80	0.69	Mean ppm	1,756
	Std Error %	0.07	0.02	0.02	0.01	0.02	Std Error ppm	24
1991	Mean %	0.59	0.45	0.46	0.39	0.36	Mean ppm	1,661
	Std Error %	0.02	0.01	0.01	0.01	0.01	Std Error ppm	13
1992	Mean %	0.51	0.42	0.45	0.38	0.39	Mean ppm	1,850
	Std Error %	0.02	0.01	0.01	0.01	0.01	Std Error ppm	14
1993	Mean %	0.36	0.35	0.36	0.31	0.27	Mean ppm	1,049
	Std Error %	0.01	0.00	0.00	0.00	0.01	Std Error ppm	7
1994	Mean %	0.24	0.26	0.29	0.24	0.21	Mean ppm	926
	Std Error %	0.01	0.00	0.00	0.00	0.00	Std Error ppm	5
1995	Mean %	0.16	0.20	0.23	0.17	0.15	Mean ppm	654
	Std Error %	0.01	0.00	0.00	0.00	0.00	Std Error ppm	5
1996	Mean %	0.04	0.14	0.18	0.19	0.18	Mean ppm	495
	Std Error %		0.00	0.00	0.00	0.00	Std Error ppm	5
1997	Mean %		0.06	0.14	0.11	0.13	Mean ppm	423
	Std Error %		0.01	0.00	0.00	0.00	Std Error ppm	3
1998	Mean %			0.08	0.08	0.09	Mean ppm	326
	Std Error %			0.00	0.00	0.00	Std Error ppm	2
1999	Mean %				0.05	0.08	Mean ppm	283
	Std Error %				0.00	0.00	Std Error ppm	4
2000	Mean %					0.06	Mean ppm	88
	Std Error %					0.00	Std Error ppm	5

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp



**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Number of Cylinders and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
		40 kph						
<b>6 &amp; 7 Cylinders</b>								
1984 to 90	Mean %	0.83	0.87	0.99	1.02	0.82	Mean ppm	1,293
	Std Error %	0.10	0.05	0.03	0.03	0.05	Std Error ppm	42
1991	Mean %	0.36	0.35	0.37	0.25	0.15	Mean ppm	843
	Std Error %	0.02	0.01	0.01	0.01	0.01	Std Error ppm	11
1992	Mean %	0.22	0.26	0.31	0.20	0.17	Mean ppm	489
	Std Error %	0.02	0.01	0.01	0.01	0.01	Std Error ppm	9
1993	Mean %	0.21	0.23	0.24	0.17	0.14	Mean ppm	584
	Std Error %	0.01	0.01	0.01	0.01	0.01	Std Error ppm	8
1994	Mean %	0.09	0.14	0.17	0.11	0.11	Mean ppm	550
	Std Error %	0.00	0.01	0.00	0.00	0.01	Std Error ppm	6
1995	Mean %	0.07	0.15	0.17	0.10	0.09	Mean ppm	426
	Std Error %	0.01	0.01	0.01	0.01	0.01	Std Error ppm	8
1996	Mean %	0.02	0.06	0.08	0.09	0.08	Mean ppm	232
	Std Error %	0.01	0.00	0.00	0.00	0.00	Std Error ppm	5
1997	Mean %		0.06	0.07	0.06	0.09	Mean ppm	208
	Std Error %		0.01	0.00	0.00	0.01	Std Error ppm	5
1998	Mean %			0.05	0.04	0.07	Mean ppm	151
	Std Error %			0.01	0.00	0.00	Std Error ppm	3
1999	Mean %				0.04	0.05	Mean ppm	77
	Std Error %				0.01	0.00	Std Error ppm	3
2000	Mean %					0.04	Mean ppm	80
	Std Error %					0.00	Std Error ppm	14

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Number of Cylinders and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
		40 kph						
<b>8 &amp; more Cylinders</b>								
1984 to 90	Mean %	0.88	0.94	1.15	1.14	0.91	Mean ppm	1,278
	Std Error %	0.09	0.04	0.03	0.03	0.05	Std Error ppm	38
1991	Mean %	0.28	0.30	0.33	0.23	0.29	Mean ppm	668
	Std Error %	0.05	0.03	0.02	0.02	0.03	Std Error ppm	26
1992	Mean %	0.36	0.27	0.30	0.22	0.26	Mean ppm	779
	Std Error %	0.03	0.02	0.01	0.01	0.02	Std Error ppm	17
1993	Mean %	0.77	0.21	0.22	0.19	0.17	Mean ppm	929
	Std Error %	0.04	0.01	0.01	0.01	0.01	Std Error ppm	18
1994	Mean %	0.18	0.25	0.27	0.21	0.20	Mean ppm	694
	Std Error %	0.01	0.01	0.01	0.01	0.01	Std Error ppm	12
1995	Mean %	0.12	0.17	0.19	0.14	0.13	Mean ppm	551
	Std Error %	0.01	0.01	0.01	0.01	0.01	Std Error ppm	11
1996	Mean %	0.05	0.14	0.18	0.15	0.15	Mean ppm	488
	Std Error %	0.03	0.01	0.01	0.01	0.01	Std Error ppm	15
1997	Mean %		0.07	0.14	0.12	0.13	Mean ppm	405
	Std Error %		0.01	0.01	0.01	0.01	Std Error ppm	10
1998	Mean %			0.16	0.11	0.10	Mean ppm	462
	Std Error %			0.05	0.01	0.01	Std Error ppm	12
1999	Mean %				0.06	0.14	Mean ppm	687
	Std Error %				0.01	0.01	Std Error ppm	29
2000	Mean %					0.06	Mean ppm	135
	Std Error %					0.01	Std Error ppm	23

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In 5 Samples taken between 1995 and 1999  
By Average Kms per Year and by Model Year**

Model Year	Sample period					1999		
	1995	1996	1997	1998	1999	NOx		
	CO					ppm	24 kph	
	%	40 kph						

up to 20,000 kms per Year									
<b>1984 to 90</b>	Mean %	0.97	1.03	1.10	0.84	0.74		Mean %	1,572
	Std Error %	0.14	0.09	0.07	0.04	0.02		Std Error %	21
<b>1991</b>	Mean %	0.36	0.35	0.33	0.22	0.26		Mean %	1,363
	Std Error %	0.04	0.03	0.02	0.01	0.01		Std Error %	11
<b>1992</b>	Mean %	0.32	0.34	0.38	0.26	0.30		Mean %	1,344
	Std Error %	0.04	0.02	0.02	0.01	0.01		Std Error %	12
<b>1993</b>	Mean %	0.39	0.29	0.29	0.21	0.21		Mean %	919
	Std Error %	0.03	0.02	0.01	0.01	0.00		Std Error %	6
<b>1994</b>	Mean %	0.14	0.18	0.22	0.14	0.16		Mean %	799
	Std Error %	0.02	0.01	0.01	0.01	0.00		Std Error %	5
<b>1995</b>	Mean %	0.04	0.15	0.14	0.10	0.12		Mean %	580
	Std Error %	0.01	0.02	0.01	0.01	0.00		Std Error %	4
<b>1996</b>	Mean %		0.06	0.11	0.10	0.13		Mean %	398
	Std Error %		0.01	0.02	0.01	0.00		Std Error %	5
<b>1997</b>	Mean %			0.07	0.06	0.10		Mean %	361
	Std Error %			0.01	0.00	0.00		Std Error %	3
<b>1998</b>	Mean %				0.04	0.07		Mean %	289
	Std Error %				0.00	0.00		Std Error %	2
<b>1999</b>	Mean %					0.06		Mean %	267
	Std Error %					0.00		Std Error %	5

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In 5 Samples taken between 1995 and 1999  
By Average Kms per Year and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
		40 kph						
<b>over 20,000 kms per Year</b>								
<b>1984 to 90</b>	Mean %	1.01	0.72	0.92	0.97	0.81	Mean %	1,420
	Std Error %	0.25	0.10	0.08	0.06	0.06	Std Error %	49
<b>1991</b>	Mean %	0.34	0.46	0.31	0.22	0.32	Mean %	1,336
	Std Error %	0.06	0.05	0.02	0.02	0.03	Std Error %	35
<b>1992</b>	Mean %	0.31	0.39	0.40	0.27	0.32	Mean %	1,368
	Std Error %	0.05	0.04	0.03	0.02	0.02	Std Error %	34
<b>1993</b>	Mean %	0.43	0.29	0.29	0.19	0.26	Mean %	1,060
	Std Error %	0.05	0.02	0.02	0.01	0.01	Std Error %	17
<b>1994</b>	Mean %	0.14	0.18	0.20	0.15	0.20	Mean %	950
	Std Error %	0.03	0.02	0.01	0.01	0.01	Std Error %	13
<b>1995</b>	Mean %	0.11	0.15	0.15	0.09	0.16	Mean %	750
	Std Error %	0.04	0.02	0.01	0.01	0.01	Std Error %	12
<b>1996</b>	Mean %		0.06	0.10	0.12	0.15	Mean %	527
	Std Error %		0.01	0.01	0.01	0.01	Std Error %	11
<b>1997</b>	Mean %			0.07	0.06	0.13	Mean %	462
	Std Error %			0.01	0.00	0.00	Std Error %	6
<b>1998</b>	Mean %				0.04	0.10	Mean %	341
	Std Error %				0.00	0.00	Std Error %	4
<b>1999</b>	Mean %					0.08	Mean %	343
	Std Error %					0.00	Std Error %	9

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Total Kms usage and by Model Year**

Model Year	CO %	less than 20,000	20 - 49,999 kms	50 - 99,999 kms	100 - 199,999 kms	200 - 299,999 kms	300 - 499,999 kms	500,000 kms or more
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**CO - 40 Kph**

<b>1984 to 90</b>	Mean %	0.81	0.85	0.81	0.79	1.01	0.93	0.92
	Std Error %	0.04	0.04	0.03	0.03	0.08	0.07	0.05
<b>1991</b>	Mean %	0.29	0.25	0.26	0.29	0.27	0.27	0.30
	Std Error %	0.01	0.01	0.01	0.01	0.03	0.02	0.02
<b>1992</b>	Mean %	0.32	0.29	0.29	0.34	0.31	0.33	0.30
	Std Error %	0.01	0.01	0.01	0.01	0.02	0.02	0.02
<b>1993</b>	Mean %	0.26	0.23	0.22	0.23	0.28	0.24	0.23
	Std Error %	0.01	0.01	0.01	0.01	0.02	0.01	0.01
<b>1994</b>	Mean %	0.18	0.16	0.16	0.18	0.18	0.18	0.17
	Std Error %	0.01	0.01	0.00	0.01	0.01	0.01	0.01
<b>1995</b>	Mean %	0.13	0.10	0.13	0.12	0.15	0.11	0.13
	Std Error %	0.01	0.00	0.00	0.01	0.02	0.01	0.02
<b>1996</b>	Mean %	0.11	0.12	0.14	0.14	0.11	0.11	0.10
	Std Error %	0.01	0.00	0.01	0.01	0.02	0.02	0.02
<b>1997</b>	Mean %	0.08	0.10	0.12	0.10	0.12	0.18	
	Std Error %	0.00	0.00	0.00	0.01	0.02	0.09	
<b>1998</b>	Mean %	0.06	0.08	0.10	0.11	0.08		
	Std Error %	0.00	0.00	0.00	0.01	0.01		
<b>1999</b>	Mean %	0.06	0.10	0.13	0.14			
	Std Error %	0.00	0.01	0.03	0.04			

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean NOx and CO Emissions from gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Total Kms usage and by Model Year**

Model Year	NOx ppm	less than 20,000	20 - 49,999 kms	50 - 99,999 kms	100 - 199,999 kms	200 - 299,999 kms	300 - 499,999 kms	500,000 kms or more
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**NOx - 24 Kph**

<b>1984 to 90</b>	Mean ppm	1,010	1,042	1,266	1,518	743	639	669
	Std Error ppm	45	44	31	37	64	56	39
<b>1991</b>	Mean ppm	964	859	1,137	1,363	699	550	527
	Std Error ppm	27	23	15	20	53	40	25
<b>1992</b>	Mean ppm	889	821	1,168	1,429	743	587	531
	Std Error ppm	28	21	14	24	52	40	27
<b>1993</b>	Mean ppm	659	669	815	927	547	410	531
	Std Error ppm	14	11	8	16	28	19	18
<b>1994</b>	Mean ppm	575	587	739	850	489	389	468
	Std Error ppm	11	8	6	14	26	18	17
<b>1995</b>	Mean ppm	413	457	574	665	371	306	500
	Std Error ppm	10	6	6	17	26	19	32
<b>1996</b>	Mean ppm	270	341	445	436	217	389	325
	Std Error ppm	9	6	8	23	24	37	72
<b>1997</b>	Mean ppm	256	351	412	351	270	468	
	Std Error ppm	5	4	6	17	22	51	
<b>1998</b>	Mean ppm	247	309	342	341	437		
	Std Error ppm	3	3	8	19	61		
<b>1999</b>	Mean ppm	281	346	401				
	Std Error ppm	5	14	43				

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean CO Emissions from Gasoline Vehicles  
with applied road load (\*) at 40 kph  
By Sample Period and Model Year**

Model Year	1995 sample	1996 sample	1997 sample	1998 sample	1999 sample
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<b>No Converter</b>					
1984 to 90	1.46	1.15	1.12	1.01	0.92
1991	1.14	0.91	0.78	0.77	0.70
1992	1.02	0.95	0.84	0.75	0.76
1993	0.85	1.12	0.92	0.70	0.59
1994	0.15	0.17	0.21	0.19	0.15
1995	0.06	0.25	0.30	0.19	0.16
1996		0.22	0.15	0.26	0.32
1997			0.23	0.54	0.04
1998				0.20	0.17
1999					0.04

<b>2 Way Converter</b>					
1991	0.55	0.73	0.61	0.49	0.57
1992	1.67	1.07	0.89	0.68	0.63
1993				0.35	

**Mean CO Emissions from Gasoline Vehicles  
with applied road load (\*) at 40 kph  
By Sample Period and Model Year**

Model Year	1995 sample	1996 sample	1997 sample	1998 sample	1999 sample
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<b>3 Way Open Loop Converter</b>					
1991	0.94	0.70	0.64	0.61	0.56
1992	0.69	0.55	0.50	0.52	0.47
1993	0.13	0.21	0.22	0.21	0.21
1994	0.13	0.16	0.22	0.25	0.24

<b>3 Way Closed Loop Converter</b>					
1984 to 90	1.00	0.92	0.99	0.92	0.76
1991	0.49	0.41	0.43	0.35	0.30
1992	0.41	0.37	0.40	0.32	0.31
1993	0.37	0.32	0.33	0.28	0.23
1994	0.20	0.24	0.26	0.21	0.18
1995	0.14	0.19	0.22	0.16	0.14
1996		0.12	0.16	0.16	0.15
1997			0.13	0.11	0.12
1998				0.07	0.09
1999					0.08



**Mean HC Emissions from Gasoline Vehicles  
with applied 50% load (\*) at 24 kph  
By Sample Period and Model Year**

Model Year	1995 sample	1996 sample	1997 sample	1998 sample	1999 sample
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<b>No Converter</b>					
up to 1990				190	124
1991				122	86
1992				134	88
1993				146	87
1994				55	29
1995				29	28
1996				72	30
1997				108	10
1998				205	84

<b>2 Way Converter</b>					
1991				76	95
1992				67	88
1993				29	

**Mean HC Emissions from Gasoline Vehicles  
with applied 50% load (\*) at 24 kph  
By Sample Period and Model Year**

Model Year	1995 sample	1996 sample	1997 sample	1998 sample	1999 sample
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<b>3 Way Open Loop Converter</b>					
1991				108	66
1992				105	65
1993				28	28
1994				25	26

<b>3 Way Closed Loop Converter</b>					
up to 1990				172	124
1991				56	41
1992				54	46
1993				51	37
1994				38	32
1995				30	25
1996				33	26
1997				22	22
1998				16	20
1999				13	21

**Mean HC & NO Emissions in 1999 from Gasoline Vehicles  
at 24kph and 40 kph  
By Catalytic Converter and Model Year**

Model Year	ppm	No converter	2 way Converter	3 way open loop converter	3 way closed loop converter
		HC			
		40 kph			

Model Year	ppm	No converter	2 way Converter	3 way open loop converter	3 way closed loop converter
		NO			
		40 kph			

HC at 40 kph with applied road load					
1984 to 90	Mean ppm	121			102
	Std Error ppm	1			2
1991	Mean ppm	77	79	68	36
	Std Error ppm	3	2	2	1
1992	Mean ppm	78	77	60	43
	Std Error ppm	3	1	1	0
1993	Mean ppm	80		22	31
	Std Error ppm	5		1	0
1994	Mean ppm	23		20	26
	Std Error ppm	3		1	0
1995	Mean ppm	26			21
	Std Error ppm	5			0
1996	Mean ppm	55			23
	Std Error ppm	31			0
1997	Mean ppm	6			19
	Std Error ppm	2			0
1998	Mean ppm				18
	Std Error ppm				0
1999	Mean ppm				24
	Std Error ppm				0
2000	Mean ppm				26
	Std Error ppm				1

NO at 40 kph with applied road load					
1984 to 90	Mean ppm	1,065			1,122
	Std Error ppm	2			14
1991	Mean ppm	931	1,358	905	983
	Std Error ppm	10	13	9	8
1992	Mean ppm	857	1,325	870	810
	Std Error ppm	9	12	7	7
1993	Mean ppm	946		290	526
	Std Error ppm	16		7	3
1994	Mean ppm	382		355	471
	Std Error ppm	19		6	3
1995	Mean ppm	440			325
	Std Error ppm	36			2
1996	Mean ppm	363			243
	Std Error ppm	50			3
1997	Mean ppm	247			247
	Std Error ppm	34			2
1998	Mean ppm				177
	Std Error ppm				1
1999	Mean ppm				181
	Std Error ppm				2
2000	Mean ppm				59
	Std Error ppm				3

(\* NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**Mean HC & NO Emissions in 1999 from Gasoline Vehicles  
at 24kph and 40 kph  
By Catalytic Converter and Model Year**

Model Year	ppm	No converter	2 way Converter	3 way open loop converter	3 way closed loop converter
		HC			
		24 kph			

Model Year	ppm	No converter	2 way Converter	3 way open loop converter	3 way closed loop converter
		NO			
		24 kph			

HC at 24 kph with 50% applied load (*) (ASM 5015)					
1984 to 90	Mean ppm	124			124
	Std Error ppm	1			2
1991	Mean ppm	86	95	66	41
	Std Error ppm	3	2	1	1
1992	Mean ppm	88	88	65	46
	Std Error ppm	3	1	2	0
1993	Mean ppm	87		28	37
	Std Error ppm	4		1	0
1994	Mean ppm	29		26	32
	Std Error ppm	2		1	0
1995	Mean ppm	28			25
	Std Error ppm	4			0
1996	Mean ppm	30			26
	Std Error ppm	6			1
1997	Mean ppm	10			22
	Std Error ppm	3			0
1998	Mean ppm				20
	Std Error ppm				0
1999	Mean ppm				21
	Std Error ppm				0
2000	Mean ppm				18
	Std Error ppm				1

NO at 24 kph with 50% applied load (*) (ASM 5015)					
	Mean ppm	1,826			1,557
	Std Error ppm	4			19
	Mean ppm	1,421	2,699	1,881	1,352
	Std Error ppm	15	22	15	10
	Mean ppm	1,342	2,508	1,831	1,338
	Std Error ppm	15	20	13	10
	Mean ppm	1,496		590	936
	Std Error ppm	24		13	6
	Mean ppm	673		908	821
	Std Error ppm	27		13	4
	Mean ppm	789			609
	Std Error ppm	57			4
	Mean ppm	746			423
	Std Error ppm	74			4
	Mean ppm	325			386
	Std Error ppm	63			3
	Mean ppm				301
	Std Error ppm				2
	Mean ppm				277
	Std Error ppm				4
	Mean ppm				86
	Std Error ppm				5

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size ple Sample Size Sample Size Sample Size Sample Size Sample Size

**Mean HC & NO Emissions in 1999 from Gasoline Vehicles at 24kph and 40 kph**  
**By Catalytic Converter and Model Year - Sample Size**

Model Year	No converter	2 way Converter	3 way open loop converter	3 way closed loop converter
	HC			
	ppm	40 kph		

	No converter	2 way Converter	3 way open loop converter	3 way closed loop converter
	NO			
	ppm	40 kph		

HC at 40 kph with applied road load				
1984 to 90	Sample size	92,519		3,522
1991	Sample size	3,598	3,199	5,748
1992	Sample size	3,187	3,935	7,341
1993	Sample size	1,569		1,849
1994	Sample size	529		2,077
1995	Sample size	121		22,816
1996	Sample size	60		16,241
1997	Sample size	24		32,246
1998	Sample size			56,182
1999	Sample size			19,891
2000	Sample size			3,067

NO at 40 kph with applied road load				
	Sample size	92,519		3,522
	Sample size	3,598	3,199	5,748
	Sample size	3,187	3,935	7,341
	Sample size	1,569		1,849
	Sample size	529		2,077
	Sample size	121		22,816
	Sample size	60		16,241
	Sample size	24		32,246
	Sample size			56,182
	Sample size			19,891
	Sample size			3,067

Model Year	No converter	2 way Converter	3 way open loop converter	3 way closed loop converter
	HC			
	ppm	24 kph		

	No converter	2 way Converter	3 way open loop converter	3 way closed loop converter
	NO			
	ppm	24 kph		

HC at 24 kph with 50% applied load (*) (ASM 5015)				
1984 to 90	Sample size	92,519		3,522
1991	Sample size	3,598	3,199	5,748
1992	Sample size	3,187	3,935	7,341
1993	Sample size	1,569		1,849
1994	Sample size	529		2,077
1995	Sample size	121		22,816
1996	Sample size	60		16,241
1997	Sample size	24		32,246
1998	Sample size	5		56,182
1999	Sample size	1		19,891
2000	Sample size			3,067

NO at 24 kph with 50% applied load (*) (ASM 5015)				
	Sample size	92,519		3,522
	Sample size	3,598	3,199	5,748
	Sample size	3,187	3,935	7,341
	Sample size	1,569		1,849
	Sample size	529		2,077
	Sample size	121		22,816
	Sample size	60		16,241
	Sample size	24		32,246
	Sample size	5		56,182
	Sample size			19,891
	Sample size			3,067

(\*) NO measured at 24 kph with ASM 5015 HP  
 CO measured at 40 kph with road load Hp

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year - Sample Size**

Model Year	Sample period						1999		
	1995	1996	1997	1998	1999	NOx			
	CO						ppm	24 kph	
	%	40 kph							
<b>Cars</b>									
<b>1984 to 90</b>	0.00 - 0.49	414	3,102	6,436	6,101	1,771	0 - 799	632	
	0.50 - 0.99	117	615	1,457	1,383	504	800 - 1599	997	
	1.00 or over	235	1,292	2,777	2,356	570	1600 or over	1,217	
<b>1991</b>	0.00 - 0.49	4,473	16,655	26,336	26,370	10,254	0 - 799	4,266	
	0.50 - 0.99	373	1,514	2,847	1,556	638	800 - 1599	3,268	
	1.00 or over	588	1,698	2,724	1,606	629	1600 or over	3,979	
<b>1992</b>	0.00 - 0.49	5,300	21,491	32,745	31,823	12,801	0 - 799	6,602	
	0.50 - 0.99	425	1,949	3,574	1,989	958	800 - 1599	2,469	
	1.00 or over	468	1,678	2,968	1,768	779	1600 or over	5,437	
<b>1993</b>	0.00 - 0.49	12,261	41,694	60,203	58,459	22,730	0 - 799	14,117	
	0.50 - 0.99	699	3,686	5,937	3,122	1,320	800 - 1599	6,185	
	1.00 or over	407	1,786	3,087	1,909	694	1600 or over	4,404	
<b>1994</b>	0.00 - 0.49	13,204	44,628	61,159	60,146	26,186	0 - 799	16,548	
	0.50 - 0.99	421	2,752	4,839	2,230	1,172	800 - 1599	7,776	
	1.00 or over	292	1,223	2,108	1,386	646	1600 or over	3,651	
<b>1995</b>	0.00 - 0.49	6,339	29,630	40,204	41,362	19,380	0 - 799	14,302	
	0.50 - 0.99	100	1,355	2,424	931	457	800 - 1599	4,593	
	1.00 or over	71	575	1,051	571	276	1600 or over	1,184	
<b>1996</b>	0.00 - 0.49	19	18,092	26,388	26,638	12,604	0 - 799	10,596	
	0.50 - 0.99		406	1,003	962	456	800 - 1599	2,215	
	1.00 or over		134	297	480	367	1600 or over	496	
<b>1997</b>	0.00 - 0.49		3,851	38,271	51,070	26,123	0 - 799	21,974	
	0.50 - 0.99		36	1,123	740	719	800 - 1599	3,909	
	1.00 or over		8	298	219	181	1600 or over	945	
<b>1998</b>	0.00 - 0.49			7,737	65,507	47,456	0 - 799	40,554	
	0.50 - 0.99			64	313	508	800 - 1599	5,954	
	1.00 or over			27	181	190	1600 or over	1,005	
<b>1999</b>	0.00 - 0.49			12	4,053	16,976	0 - 799	14,269	
	0.50 - 0.99			1	7	70	800 - 1599	1,939	
	1.00 or over				4	30	1600 or over	405	
<b>2000</b>	0.00 - 0.49			2	2	2,821	0 - 799	2,725	
	0.50 - 0.99					2	800 - 1599	52	
	1.00 or over					3	1600 or over	21	

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year - Sample Size**

Model Year	Sample period						1999		
	1995	1996	1997	1998	1999	NOx			
	CO						ppm	24 kph	
	%	40 kph							
<b>Van/Wgn</b>									
1984 to 90	0.00 - 0.49	8	72	622	777	162	0 - 799	86	
	0.50 - 0.99	3	11	235	262	62	800 - 1599	118	
	1.00 or over	2	42	656	688	97	1600 or over	116	
1991	0.00 - 0.49	179	617	756	739	276	0 - 799	173	
	0.50 - 0.99	4	23	46	49	14	800 - 1599	90	
	1.00 or over	5	8	14	41	9	1600 or over	36	
1992	0.00 - 0.49	93	320	467	426	146	0 - 799	120	
	0.50 - 0.99		6	22	28	15	800 - 1599	35	
	1.00 or over	1	2	4	43	8	1600 or over	14	
1993	0.00 - 0.49	809	2,692	3,140	3,235	920	0 - 799	296	
	0.50 - 0.99	131	371	360	354	83	800 - 1599	408	
	1.00 or over	127	319	324	308	73	1600 or over	373	
1994	0.00 - 0.49	1,153	3,344	4,048	4,407	1,558	0 - 799	1,173	
	0.50 - 0.99	74	197	247	167	63	800 - 1599	327	
	1.00 or over	39	113	133	88	19	1600 or over	139	
1995	0.00 - 0.49	795	2,726	3,105	3,513	1,236	0 - 799	995	
	0.50 - 0.99	21	81	130	91	29	800 - 1599	212	
	1.00 or over	9	58	80	52	15	1600 or over	73	
1996	0.00 - 0.49	7	2,846	3,688	3,962	1,668	0 - 799	1,556	
	0.50 - 0.99		26	45	39	12	800 - 1599	102	
	1.00 or over		7	25	38	10	1600 or over	26	
1997	0.00 - 0.49		278	4,377	6,604	2,628	0 - 799	2,465	
	0.50 - 0.99		1	27	31	19	800 - 1599	150	
	1.00 or over			16	20	27	1600 or over	38	
1998	0.00 - 0.49			1,260	7,761	4,651	0 - 799	4,383	
	0.50 - 0.99			4	11	4	800 - 1599	218	
	1.00 or over			2	12	11	1600 or over	22	
1999	0.00 - 0.49				512	1,231	0 - 799	1,152	
	0.50 - 0.99				1		800 - 1599	33	
	1.00 or over					1	1600 or over	2	
2000	0.00 - 0.49					80	0 - 799	74	
	0.50 - 0.99						800 - 1599	5	
	1.00 or over						1600 or over		

Model Year	Sample period						1999		
	1995	1996	1997	1998	1999	NOx			
	CO						ppm	24 kph	
	%	40 kph							

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year - Sample Size**

Pickup									
1984 to 90	0.00 - 0.49	78	130	83	99	54	0 - 799	49	
	0.50 - 0.99	19	21	18	24	14	800 - 1599	25	
	1.00 or over	6	42	75	90	23	1600 or over	15	
1991	0.00 - 0.49	20	47	9	13	11	0 - 799	9	
	0.50 - 0.99	3	3	5	4	5	800 - 1599	8	
	1.00 or over	5	11	1	1	3	1600 or over	2	
1992	0.00 - 0.49	16	36	19	42	25	0 - 799	16	
	0.50 - 0.99	1			3	5	800 - 1599	12	
	1.00 or over	1	9	8	7	7	1600 or over	9	
1993	0.00 - 0.49	185	711	933	765	306	0 - 799	109	
	0.50 - 0.99	121	280	327	235	83	800 - 1599	264	
	1.00 or over	235	446	450	295	152	1600 or over	169	
1994	0.00 - 0.49	677	1,767	2,314	2,439	1,271	0 - 799	1,001	
	0.50 - 0.99	31	171	304	144	77	800 - 1599	254	
	1.00 or over	4	47	69	69	23	1600 or over	112	
1995	0.00 - 0.49	376	1,510	1,995	1,995	977	0 - 799	736	
	0.50 - 0.99	7	82	132	78	36	800 - 1599	224	
	1.00 or over	2	35	39	29	18	1600 or over	68	
1996	0.00 - 0.49	3	1,254	1,700	1,672	799	0 - 799	703	
	0.50 - 0.99		28	66	26	17	800 - 1599	94	
	1.00 or over		10	22	32	13	1600 or over	30	
1997	0.00 - 0.49		164	2,178	3,494	2,066	0 - 799	1,919	
	0.50 - 0.99			49	30	16	800 - 1599	140	
	1.00 or over			9	16	23	1600 or over	28	
1998	0.00 - 0.49			177	3,236	2,756	0 - 799	2,450	
	0.50 - 0.99			1	8	5	800 - 1599	266	
	1.00 or over			2	12	8	1600 or over	26	
1999	0.00 - 0.49			1	165	855	0 - 799	754	
	0.50 - 0.99				1	1	800 - 1599	79	
	1.00 or over					26	1600 or over	23	
2000	0.00 - 0.49					95	0 - 799	92	
	0.50 - 0.99						800 - 1599	3	
	1.00 or over					2	1600 or over	2	

Model Year	Sample period					1999	
	1995	1996	1997	1998	1999	NOx	
	CO					ppm	24 kph
%	40 kph						

Class 3									
1984 to 90	0.00 - 0.49	71	226	150	68	177	0 - 799	153	
	0.50 - 0.99	9	36	23	18	23	800 - 1599	64	
	1.00 or over	15	61	40	21	63	1600 or over	41	

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp



Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year - Sample Size**

<b>1991</b>	0.00 - 0.49	33	69	54	44	51	0 - 799	50
	0.50 - 0.99	4	20	15	6	11	800 - 1599	30
	1.00 or over	6	23	21	23	32	1600 or over	14
<b>1992</b>	0.00 - 0.49	170	167	161	140	91	0 - 799	104
	0.50 - 0.99	46	29	29	31	5	800 - 1599	16
	1.00 or over	60	51	49	22	33	1600 or over	6
<b>1993</b>	0.00 - 0.49	65	117	93	61	62	0 - 799	54
	0.50 - 0.99	19	28	6	7	6	800 - 1599	25
	1.00 or over	215	39	33	29	27	1600 or over	14
<b>1994</b>	0.00 - 0.49	478	1,392	1,580	1,327	575	0 - 799	314
	0.50 - 0.99	39	235	293	188	75	800 - 1599	243
	1.00 or over	11	85	143	92	58	1600 or over	144
<b>1995</b>	0.00 - 0.49	170	675	849	703	329	0 - 799	161
	0.50 - 0.99	13	78	94	60	26	800 - 1599	139
	1.00 or over	4	30	50	32	27	1600 or over	78
<b>1996</b>	0.00 - 0.49	2	325	450	360	222	0 - 799	148
	0.50 - 0.99		13	33	40	16	800 - 1599	74
	1.00 or over		15	31	17	12	1600 or over	26
<b>1997</b>	0.00 - 0.49		39	623	665	367	0 - 799	241
	0.50 - 0.99		2	28	41	18	800 - 1599	109
	1.00 or over			18	15	12	1600 or over	46
<b>1998</b>	0.00 - 0.49			68	690	466	0 - 799	333
	0.50 - 0.99			3	18	20	800 - 1599	120
	1.00 or over			2	14	7	1600 or over	38
<b>1999</b>	0.00 - 0.49			1	112	572	0 - 799	323
	0.50 - 0.99				1	15	800 - 1599	98
	1.00 or over					14	1600 or over	164
<b>2000</b>	0.00 - 0.49					48	0 - 799	47
	0.50 - 0.99						800 - 1599	1
	1.00 or over						1600 or over	

Model Year	Sample period					1999	
	1995	1996	1997	1998	1999	NOx	
	CO					ppm	24 kph
	%					40 kph	

Class 7							
<b>1984 to 90</b>	0.00 - 0.49		3	4	29		0 - 799
	0.50 - 0.99	1		1	5		800 - 1599
	1.00 or over				10		1600 or over
<b>1991</b>	0.00 - 0.49						0 - 799
	0.50 - 0.99						800 - 1599
	1.00 or over						1600 or over
<b>1992</b>	0.00 - 0.49		1	1	63		0 - 799
	0.50 - 0.99				6		800 - 1599

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year - Sample Size**

	1.00 or over	1			5			1600 or over	
<b>1993</b>	0.00 - 0.49				1			0 - 799	
	0.50 - 0.99							800 - 1599	
	1.00 or over							1600 or over	
<b>1994</b>	0.00 - 0.49		1	2	12	1		0 - 799	
	0.50 - 0.99			2	3	1		800 - 1599	
	1.00 or over			1	1	1		1600 or over	
<b>1995</b>	0.00 - 0.49		3	4	9	5		0 - 799	
	0.50 - 0.99				1	1		800 - 1599	
	1.00 or over							1600 or over	
<b>1996</b>	0.00 - 0.49		36	28	64	32		0 - 799	22
	0.50 - 0.99		4	3	1	4		800 - 1599	11
	1.00 or over		5	1	2	5		1600 or over	6
<b>1997</b>	0.00 - 0.49			39	77	35		0 - 799	22
	0.50 - 0.99			2	6	3		800 - 1599	8
	1.00 or over			1	4	1		1600 or over	9
<b>1998</b>	0.00 - 0.49			9	168	81		0 - 799	60
	0.50 - 0.99			1	6	6		800 - 1599	12
	1.00 or over				2	3		1600 or over	18
<b>1999</b>	0.00 - 0.49				16	93		0 - 799	85
	0.50 - 0.99							800 - 1599	5
	1.00 or over					1		1600 or over	2
<b>2000</b>	0.00 - 0.49					15		0 - 799	14
	0.50 - 0.99							800 - 1599	
	1.00 or over							1600 or over	

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size
<b>NOx and CO Emissions (by Range) from Gasoline Vehicles</b>					
<b>In Samples taken between 1995 and 1999</b>					
<b>By Vehicle Use and by Model Year - Sample size</b>					

Model Year		Sample period					1,999	
		1,995	1,996	1,997	1,998	1,999	NOx	
		CO					ppm	24 kph
	%	40 kph						
<b>Private</b>								
1984 to 90	0.00 - 0.49	19	1,130	5,939	6,433	1,750	0 - 799	647
	0.50 - 0.99	8	195	1,420	1,545	533	800 - 1599	1,037
	1.00 or over	18	412	2,938	2,936	623	1600 or over	1,222
1991	0.00 - 0.49	657	5,382	21,328	24,252	9,441	0 - 799	3,940
	0.50 - 0.99	59	461	2,262	1,447	582	800 - 1599	3,006
	1.00 or over	96	488	2,114	1,444	580	1600 or over	3,652
1992	0.00 - 0.49	958	7,079	26,764	29,404	11,851	0 - 799	6,118
	0.50 - 0.99	75	601	2,768	1,793	887	800 - 1599	2,270
	1.00 or over	67	503	2,336	1,611	694	1600 or over	5,016
1993	0.00 - 0.49	1,495	11,719	43,682	50,145	19,257	0 - 799	11,940
	0.50 - 0.99	69	756	2,949	1,748	616	800 - 1599	4,982
	1.00 or over	46	417	1,974	1,422	524	1600 or over	3,443
1994	0.00 - 0.49	1,536	12,350	43,803	51,877	22,236	0 - 799	14,422
	0.50 - 0.99	52	640	2,646	1,121	481	800 - 1599	6,102
	1.00 or over	29	266	1,236	890	384	1600 or over	2,548
1995	0.00 - 0.49	1,349	8,101	28,936	35,920	16,753	0 - 799	12,626
	0.50 - 0.99	25	314	1,368	655	265	800 - 1599	3,701
	1.00 or over	19	133	603	412	179	1600 or over	838
1996	0.00 - 0.49	3	4,526	16,663	20,951	9,895	0 - 799	8,427
	0.50 - 0.99		85	518	643	316	800 - 1599	1,601
	1.00 or over		24	156	327	238	1600 or over	333
1997	0.00 - 0.49		871	24,177	39,134	19,181	0 - 799	16,385
	0.50 - 0.99		6	431	494	488	800 - 1599	2,632
	1.00 or over			142	137	136	1600 or over	636
1998	0.00 - 0.49			5,872	53,122	38,132	0 - 799	32,520
	0.50 - 0.99			40	244	304	800 - 1599	4,782
	1.00 or over			19	129	141	1600 or over	794
1999	0.00 - 0.49			8	3,419	11,899	0 - 799	9,759
	0.50 - 0.99			1	6	31	800 - 1599	1,522
	1.00 or over				2	31	1600 or over	314
2000	0.00 - 0.49			2	2	2,006	0 - 799	1,929
	0.50 - 0.99					1	800 - 1599	38
	1.00 or over					3	1600 or over	21

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size
<b>NOx and CO Emissions (by Range) from Gasoline Vehicles</b>					
<b>In Samples taken between 1995 and 1999</b>					
<b>By Vehicle Use and by Model Year - Sample size</b>					

Model Year		Sample period					1,999	
		1,995	1,996	1,997	1,998	1,999	NOx	
		CO					ppm	24 kph
	%	40 kph						
<b>Commercial</b>								
<b>1984 to 90</b>	0.00 - 0.49	552	2,403	1,356	641	414	0 - 799	273
	0.50 - 0.99	141	488	314	147	70	800 - 1599	167
	1.00 or over	240	1,025	610	229	130	1600 or over	167
<b>1991</b>	0.00 - 0.49	4,048	12,006	5,827	2,914	1,151	0 - 799	558
	0.50 - 0.99	325	1,099	651	168	86	800 - 1599	390
	1.00 or over	508	1,252	646	227	93	1600 or over	379
<b>1992</b>	0.00 - 0.49	4,621	14,936	6,629	3,090	1,212	0 - 799	724
	0.50 - 0.99	397	1,383	857	264	96	800 - 1599	262
	1.00 or over	463	1,237	693	234	133	1600 or over	450
<b>1993</b>	0.00 - 0.49	11,825	33,495	20,688	12,375	4,761	0 - 799	2,636
	0.50 - 0.99	901	3,609	3,681	1,970	876	800 - 1599	1,900
	1.00 or over	938	2,173	1,920	1,119	422	1600 or over	1,517
<b>1994</b>	0.00 - 0.49	13,976	38,782	25,300	16,454	7,355	0 - 799	4,616
	0.50 - 0.99	513	2,715	3,039	1,611	907	800 - 1599	2,498
	1.00 or over	317	1,202	1,218	746	363	1600 or over	1,499
<b>1995</b>	0.00 - 0.49	6,331	26,443	17,221	11,662	5,174	0 - 799	3,571
	0.50 - 0.99	116	1,282	1,413	506	283	800 - 1599	1,468
	1.00 or over	67	565	617	272	157	1600 or over	566
<b>1996</b>	0.00 - 0.49	28	18,027	15,591	11,745	5,430	0 - 799	4,598
	0.50 - 0.99		392	632	425	189	800 - 1599	895
	1.00 or over		147	220	242	169	1600 or over	251
<b>1997</b>	0.00 - 0.49		3,461	21,311	22,776	12,038	0 - 799	10,236
	0.50 - 0.99		33	798	354	287	800 - 1599	1,684
	1.00 or over		8	200	137	108	1600 or over	430
<b>1998</b>	0.00 - 0.49			3,379	24,240	17,278	0 - 799	15,260
	0.50 - 0.99			33	112	239	800 - 1599	1,788
	1.00 or over			14	92	78	1600 or over	315
<b>1999</b>	0.00 - 0.49			6	1,439	7,828	0 - 799	6,824
	0.50 - 0.99				4	55	800 - 1599	632
	1.00 or over				2	41	1600 or over	282
<b>2000</b>	0.00 - 0.49					1,053	0 - 799	1,023
	0.50 - 0.99					1	800 - 1599	23
	1.00 or over					2	1600 or over	2

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

Model Year		Sample period						
		1995	1996	1997	1998	1999	1999	
		CO					NOx	
	%	40 kph					ppm	24 kph
<b>Cars</b>								
1984 to 90	0.00 - 0.49	54.0%	61.9%	60.3%	62.0%	62.2%	0 - 799	22.2%
	0.50 - 0.99	15.3%	12.3%	13.7%	14.1%	17.7%	800 - 1599	35.0%
	1.00 or over	30.7%	25.8%	26.0%	23.9%	20.0%	1600 or over	42.8%
1991	0.00 - 0.49	82.3%	83.8%	82.5%	89.3%	89.0%	0 - 799	37.1%
	0.50 - 0.99	6.9%	7.6%	8.9%	5.3%	5.5%	800 - 1599	28.4%
	1.00 or over	10.8%	8.5%	8.5%	5.4%	5.5%	1600 or over	34.6%
1992	0.00 - 0.49	85.6%	85.6%	83.3%	89.4%	88.1%	0 - 799	45.5%
	0.50 - 0.99	6.9%	7.8%	9.1%	5.6%	6.6%	800 - 1599	17.0%
	1.00 or over	7.6%	6.7%	7.6%	5.0%	5.4%	1600 or over	37.5%
1993	0.00 - 0.49	91.7%	88.4%	87.0%	92.1%	91.9%	0 - 799	57.1%
	0.50 - 0.99	5.2%	7.8%	8.6%	4.9%	5.3%	800 - 1599	25.0%
	1.00 or over	3.0%	3.8%	4.5%	3.0%	2.8%	1600 or over	17.8%
1994	0.00 - 0.49	94.9%	91.8%	89.8%	94.3%	93.5%	0 - 799	59.2%
	0.50 - 0.99	3.0%	5.7%	7.1%	3.5%	4.2%	800 - 1599	27.8%
	1.00 or over	2.1%	2.5%	3.1%	2.2%	2.3%	1600 or over	13.1%
1995	0.00 - 0.49	97.4%	93.9%	92.0%	96.5%	96.4%	0 - 799	71.2%
	0.50 - 0.99	1.5%	4.3%	5.5%	2.2%	2.3%	800 - 1599	22.9%
	1.00 or over	1.1%	1.8%	2.4%	1.3%	1.4%	1600 or over	5.9%
1996	0.00 - 0.49	100.0%	97.1%	95.3%	94.9%	93.9%	0 - 799	79.6%
	0.50 - 0.99	0.0%	2.2%	3.6%	3.4%	3.4%	800 - 1599	16.6%
	1.00 or over	0.0%	0.7%	1.1%	1.7%	2.7%	1600 or over	3.7%
1997	0.00 - 0.49		98.9%	96.4%	98.2%	96.7%	0 - 799	81.9%
	0.50 - 0.99		0.9%	2.8%	1.4%	2.7%	800 - 1599	14.6%
	1.00 or over		0.2%	0.8%	0.4%	0.7%	1600 or over	3.5%
1998	0.00 - 0.49			98.8%	99.3%	98.6%	0 - 799	85.4%
	0.50 - 0.99			0.8%	0.5%	1.1%	800 - 1599	12.5%
	1.00 or over			0.3%	0.3%	0.4%	1600 or over	2.1%
1999	0.00 - 0.49				99.7%	99.4%	0 - 799	85.9%
	0.50 - 0.99				0.2%	0.4%	800 - 1599	11.7%
	1.00 or over				0.1%	0.2%	1600 or over	2.4%
2000	0.00 - 0.49					99.8%	0 - 799	97.4%
	0.50 - 0.99					0.1%	800 - 1599	1.9%
	1.00 or over					0.1%	1600 or over	0.8%

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

Model Year	%	Sample period					1999		
		1995	1996	1997	1998	1999	NOx		
		CO					ppm	24 kph	
								40 kph	
<b>Van/Wgn</b>									
1984 to 90	0.00 - 0.49	61.5%	57.6%	41.1%	45.0%	50.5%	0 - 799	26.9%	
	0.50 - 0.99	23.1%	8.8%	15.5%	15.2%	19.3%	800 - 1599	36.9%	
	1.00 or over	15.4%	33.6%	43.4%	39.8%	30.2%	1600 or over	36.3%	
1991	0.00 - 0.49	95.2%	95.2%	92.6%	89.1%	92.3%	0 - 799	57.9%	
	0.50 - 0.99	2.1%	3.5%	5.6%	5.9%	4.7%	800 - 1599	30.1%	
	1.00 or over	2.7%	1.2%	1.7%	4.9%	3.0%	1600 or over	12.0%	
1992	0.00 - 0.49	98.9%	97.6%	94.7%	85.7%	86.4%	0 - 799	71.0%	
	0.50 - 0.99	0.0%	1.8%	4.5%	5.6%	8.9%	800 - 1599	20.7%	
	1.00 or over	1.1%	0.6%	0.8%	8.7%	4.7%	1600 or over	8.3%	
1993	0.00 - 0.49	75.8%	79.6%	82.1%	83.0%	85.5%	0 - 799	27.5%	
	0.50 - 0.99	12.3%	11.0%	9.4%	9.1%	7.7%	800 - 1599	37.9%	
	1.00 or over	11.9%	9.4%	8.5%	7.9%	6.8%	1600 or over	34.6%	
1994	0.00 - 0.49	91.1%	91.5%	91.4%	94.5%	95.0%	0 - 799	71.6%	
	0.50 - 0.99	5.8%	5.4%	5.6%	3.6%	3.8%	800 - 1599	20.0%	
	1.00 or over	3.1%	3.1%	3.0%	1.9%	1.2%	1600 or over	8.5%	
1995	0.00 - 0.49	96.4%	95.1%	93.7%	96.1%	96.6%	0 - 799	77.7%	
	0.50 - 0.99	2.5%	2.8%	3.9%	2.5%	2.3%	800 - 1599	16.6%	
	1.00 or over	1.1%	2.0%	2.4%	1.4%	1.2%	1600 or over	5.7%	
1996	0.00 - 0.49	100.0%	98.9%	98.1%	98.1%	98.7%	0 - 799	92.4%	
	0.50 - 0.99	0.0%	0.9%	1.2%	1.0%	0.7%	800 - 1599	6.1%	
	1.00 or over	0.0%	0.2%	0.7%	0.9%	0.6%	1600 or over	1.5%	
1997	0.00 - 0.49		99.6%	99.0%	99.2%	98.3%	0 - 799	92.9%	
	0.50 - 0.99		0.4%	0.6%	0.5%	0.7%	800 - 1599	5.7%	
	1.00 or over		0.0%	0.4%	0.3%	1.0%	1600 or over	1.4%	
1998	0.00 - 0.49			99.5%	99.7%	99.7%	0 - 799	94.8%	
	0.50 - 0.99			0.3%	0.1%	0.1%	800 - 1599	4.7%	
	1.00 or over			0.2%	0.2%	0.2%	1600 or over	0.5%	
1999	0.00 - 0.49				99.8%	99.9%	0 - 799	97.1%	
	0.50 - 0.99				0.2%	0.0%	800 - 1599	2.8%	
	1.00 or over				0.0%	0.1%	1600 or over	0.2%	
2000	0.00 - 0.49					100.0%	0 - 799	93.7%	
	0.50 - 0.99					0.0%	800 - 1599	6.3%	
	1.00 or over					0.0%	1600 or over	0.0%	

Model Year	%	Sample period					1999		
		1995	1996	1997	1998	1999	NOx		
		CO					ppm	24 kph	
								40 kph	

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

Pickup								
1984 to 90	0.00 - 0.49	75.7%	67.4%	47.2%	46.5%	59.3%	0 - 799	55.1%
	0.50 - 0.99	18.4%	10.9%	10.2%	11.3%	15.4%	800 - 1599	28.1%
	1.00 or over	5.8%	21.8%	42.6%	42.3%	25.3%	1600 or over	16.9%
1991	0.00 - 0.49	71.4%	77.0%	60.0%	72.2%	57.9%	0 - 799	47.4%
	0.50 - 0.99	10.7%	4.9%	33.3%	22.2%	26.3%	800 - 1599	42.1%
	1.00 or over	17.9%	18.0%	6.7%	5.6%	15.8%	1600 or over	10.5%
1992	0.00 - 0.49	88.9%	80.0%	70.4%	80.8%	67.6%	0 - 799	43.2%
	0.50 - 0.99	5.6%	0.0%	0.0%	5.8%	13.5%	800 - 1599	32.4%
	1.00 or over	5.6%	20.0%	29.6%	13.5%	18.9%	1600 or over	24.3%
1993	0.00 - 0.49	34.2%	49.5%	54.6%	59.1%	56.6%	0 - 799	20.1%
	0.50 - 0.99	22.4%	19.5%	19.1%	18.1%	15.3%	800 - 1599	48.7%
	1.00 or over	43.4%	31.0%	26.3%	22.8%	28.1%	1600 or over	31.2%
1994	0.00 - 0.49	95.1%	89.0%	86.1%	92.0%	92.7%	0 - 799	73.2%
	0.50 - 0.99	4.4%	8.6%	11.3%	5.4%	5.6%	800 - 1599	18.6%
	1.00 or over	0.6%	2.4%	2.6%	2.6%	1.7%	1600 or over	8.2%
1995	0.00 - 0.49	97.7%	92.8%	92.1%	94.9%	94.8%	0 - 799	71.6%
	0.50 - 0.99	1.8%	5.0%	6.1%	3.7%	3.5%	800 - 1599	21.8%
	1.00 or over	0.5%	2.2%	1.8%	1.4%	1.7%	1600 or over	6.6%
1996	0.00 - 0.49	100.0%	97.1%	95.1%	96.6%	96.4%	0 - 799	85.0%
	0.50 - 0.99	0.0%	2.2%	3.7%	1.5%	2.1%	800 - 1599	11.4%
	1.00 or over	0.0%	0.8%	1.2%	1.8%	1.6%	1600 or over	3.6%
1997	0.00 - 0.49		100.0%	97.4%	98.7%	98.1%	0 - 799	92.0%
	0.50 - 0.99		0.0%	2.2%	0.8%	0.8%	800 - 1599	6.7%
	1.00 or over		0.0%	0.4%	0.5%	1.1%	1600 or over	1.3%
1998	0.00 - 0.49			98.3%	99.4%	99.5%	0 - 799	89.4%
	0.50 - 0.99			0.6%	0.2%	0.2%	800 - 1599	9.7%
	1.00 or over			1.1%	0.4%	0.3%	1600 or over	0.9%
1999	0.00 - 0.49				99.4%	96.9%	0 - 799	88.1%
	0.50 - 0.99				0.6%	0.1%	800 - 1599	9.2%
	1.00 or over				0.0%	2.9%	1600 or over	2.7%
2000	0.00 - 0.49					97.9%	0 - 799	94.8%
	0.50 - 0.99					0.0%	800 - 1599	3.1%
	1.00 or over					2.1%	1600 or over	2.1%

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
	%	40 kph						
Class 3								
1984 to 90	0.00 - 0.49	74.7%	70.0%	70.4%	63.6%	67.3%	0 - 799	59.3%
	0.50 - 0.99	9.5%	11.1%	10.8%	16.8%	8.7%	800 - 1599	24.8%
	1.00 or over	15.8%	18.9%	18.8%	19.6%	24.0%	1600 or over	15.9%

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

<b>1991</b>	0.00 - 0.49	76.7%	61.6%	60.0%	60.3%	54.3%	0 - 799	53.2%
	0.50 - 0.99	9.3%	17.9%	16.7%	8.2%	11.7%	800 - 1599	31.9%
	1.00 or over	14.0%	20.5%	23.3%	31.5%	34.0%	1600 or over	14.9%
<b>1992</b>	0.00 - 0.49	61.6%	67.6%	67.4%	72.5%	70.5%	0 - 799	82.5%
	0.50 - 0.99	16.7%	11.7%	12.1%	16.1%	3.9%	800 - 1599	12.7%
	1.00 or over	21.7%	20.6%	20.5%	11.4%	25.6%	1600 or over	4.8%
<b>1993</b>	0.00 - 0.49	21.7%	63.6%	70.5%	62.9%	65.3%	0 - 799	58.1%
	0.50 - 0.99	6.4%	15.2%	4.5%	7.2%	6.3%	800 - 1599	26.9%
	1.00 or over	71.9%	21.2%	25.0%	29.9%	28.4%	1600 or over	15.1%
<b>1994</b>	0.00 - 0.49	90.5%	81.3%	78.4%	82.6%	81.2%	0 - 799	44.8%
	0.50 - 0.99	7.4%	13.7%	14.5%	11.7%	10.6%	800 - 1599	34.7%
	1.00 or over	2.1%	5.0%	7.1%	5.7%	8.2%	1600 or over	20.5%
<b>1995</b>	0.00 - 0.49	90.9%	86.2%	85.5%	88.4%	86.1%	0 - 799	42.6%
	0.50 - 0.99	7.0%	10.0%	9.5%	7.5%	6.8%	800 - 1599	36.8%
	1.00 or over	2.1%	3.8%	5.0%	4.0%	7.1%	1600 or over	20.6%
<b>1996</b>	0.00 - 0.49	100.0%	92.1%	87.5%	86.3%	88.8%	0 - 799	59.7%
	0.50 - 0.99	0.0%	3.7%	6.4%	9.6%	6.4%	800 - 1599	29.8%
	1.00 or over	0.0%	4.2%	6.0%	4.1%	4.8%	1600 or over	10.5%
<b>1997</b>	0.00 - 0.49		95.1%	93.1%	92.2%	92.4%	0 - 799	60.9%
	0.50 - 0.99		4.9%	4.2%	5.7%	4.5%	800 - 1599	27.5%
	1.00 or over		0.0%	2.7%	2.1%	3.0%	1600 or over	11.6%
<b>1998</b>	0.00 - 0.49			93.2%	95.6%	94.5%	0 - 799	67.8%
	0.50 - 0.99			4.1%	2.5%	4.1%	800 - 1599	24.4%
	1.00 or over			2.7%	1.9%	1.4%	1600 or over	7.7%
<b>1999</b>	0.00 - 0.49				99.1%	95.2%	0 - 799	55.2%
	0.50 - 0.99				0.9%	2.5%	800 - 1599	16.8%
	1.00 or over				0.0%	2.3%	1600 or over	28.0%
<b>2000</b>	0.00 - 0.49					100.0%	0 - 799	97.9%
	0.50 - 0.99					0.0%	800 - 1599	2.1%
	1.00 or over					0.0%	1600 or over	0.0%

Model Year	Sample period					1999	
	1995	1996	1997	1998	1999	NOx	
	CO					ppm	24 kph
%	40 kph						

Class 7								
<b>1984 to 90</b>	0.00 - 0.49						0 - 799	
	0.50 - 0.99						800 - 1599	
	1.00 or over						1600 or over	
<b>1991</b>	0.00 - 0.49						0 - 799	
	0.50 - 0.99						800 - 1599	
	1.00 or over						1600 or over	
<b>1992</b>	0.00 - 0.49						0 - 799	
	0.50 - 0.99						800 - 1599	

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp



**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Type and by Model Year**

	1.00 or over						1600 or over	
<b>1993</b>	0.00 - 0.49						0 - 799	
	0.50 - 0.99						800 - 1599	
	1.00 or over						1600 or over	
<b>1994</b>	0.00 - 0.49						0 - 799	
	0.50 - 0.99						800 - 1599	
	1.00 or over						1600 or over	
<b>1995</b>	0.00 - 0.49						0 - 799	
	0.50 - 0.99						800 - 1599	
	1.00 or over						1600 or over	
<b>1996</b>	0.00 - 0.49		80.0%	87.5%	95.5%	78.0%	0 - 799	56.4%
	0.50 - 0.99		8.9%	9.4%	1.5%	9.8%	800 - 1599	28.2%
	1.00 or over		11.1%	3.1%	3.0%	12.2%	1600 or over	15.4%
<b>1997</b>	0.00 - 0.49			92.9%	88.5%	89.7%	0 - 799	56.4%
	0.50 - 0.99			4.8%	6.9%	7.7%	800 - 1599	20.5%
	1.00 or over			2.4%	4.6%	2.6%	1600 or over	23.1%
<b>1998</b>	0.00 - 0.49			90.0%	95.5%	90.0%	0 - 799	66.7%
	0.50 - 0.99			10.0%	3.4%	6.7%	800 - 1599	13.3%
	1.00 or over			0.0%	1.1%	3.3%	1600 or over	20.0%
<b>1999</b>	0.00 - 0.49				100.0%	98.9%	0 - 799	92.4%
	0.50 - 0.99				0.0%	0.0%	800 - 1599	5.4%
	1.00 or over				0.0%	1.1%	1600 or over	2.2%
<b>2000</b>	0.00 - 0.49					100.0%	0 - 799	100.0%
	0.50 - 0.99					0.0%	800 - 1599	0.0%
	1.00 or over					0.0%	1600 or over	0.0%

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Use and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
	%	40 kph						
<b>Private</b>								
1984 to 90	0.00 - 0.49	42.2%	65.1%	57.7%	58.9%	60.2%	0 - 799	22.3%
	0.50 - 0.99	17.8%	11.2%	13.8%	14.2%	18.3%	800 - 1599	35.7%
	1.00 or over	40.0%	23.7%	28.5%	26.9%	21.4%	1600 or over	42.1%
1991	0.00 - 0.49	80.9%	85.0%	83.0%	89.3%	89.0%	0 - 799	37.2%
	0.50 - 0.99	7.3%	7.3%	8.8%	5.3%	8.8%	800 - 1599	28.4%
	1.00 or over	11.8%	7.7%	8.2%	5.3%	5.5%	1600 or over	34.5%
1992	0.00 - 0.49	87.1%	86.5%	84.0%	89.6%	88.2%	0 - 799	45.6%
	0.50 - 0.99	6.8%	7.3%	8.7%	5.5%	6.6%	800 - 1599	16.9%
	1.00 or over	6.1%	6.1%	7.3%	4.9%	5.2%	1600 or over	37.4%
1993	0.00 - 0.49	92.9%	90.9%	89.9%	94.1%	94.4%	0 - 799	58.6%
	0.50 - 0.99	4.3%	5.9%	6.1%	3.3%	3.0%	800 - 1599	24.5%
	1.00 or over	2.9%	3.2%	4.1%	2.7%	2.6%	1600 or over	16.9%
1994	0.00 - 0.49	95.0%	93.2%	91.9%	96.3%	96.3%	0 - 799	62.5%
	0.50 - 0.99	3.2%	4.8%	5.5%	2.1%	2.1%	800 - 1599	26.4%
	1.00 or over	1.8%	2.0%	2.6%	1.7%	1.7%	1600 or over	11.0%
1995	0.00 - 0.49	96.8%	94.8%	93.6%	97.1%	97.4%	0 - 799	73.6%
	0.50 - 0.99	1.8%	3.7%	4.4%	1.8%	1.5%	800 - 1599	21.6%
	1.00 or over	1.4%	1.6%	2.0%	1.1%	1.0%	1600 or over	4.9%
1996	0.00 - 0.49	100.0%	97.6%	96.1%	95.6%	94.7%	0 - 799	81.3%
	0.50 - 0.99	0.0%	1.8%	3.0%	2.9%	3.0%	800 - 1599	15.5%
	1.00 or over	0.0%	0.5%	0.9%	1.5%	2.3%	1600 or over	3.2%
1997	0.00 - 0.49		99.3%	97.7%	98.4%	96.8%	0 - 799	83.4%
	0.50 - 0.99		0.7%	1.7%	1.2%	2.5%	800 - 1599	13.4%
	1.00 or over		0.0%	0.6%	0.3%	0.7%	1600 or over	3.2%
1998	0.00 - 0.49			99.0%	99.3%	98.8%	0 - 799	85.4%
	0.50 - 0.99			0.7%	0.5%	0.8%	800 - 1599	12.6%
	1.00 or over			0.3%	0.2%	0.4%	1600 or over	2.1%
1999	0.00 - 0.49				99.8%	99.5%	0 - 799	84.2%
	0.50 - 0.99				0.2%	0.3%	800 - 1599	13.1%
	1.00 or over				0.1%	0.3%	1600 or over	2.7%
2000	0.00 - 0.49					99.8%	0 - 799	97.0%
	0.50 - 0.99					0.0%	800 - 1599	1.9%
	1.00 or over					0.1%	1600 or over	1.1%

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Vehicle Use and by Model Year**

Model Year	%	Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
Commercial								
1984 to 90	0.00 - 0.49	59.2%	61.4%	59.5%	63.0%	67.4%	0 - 799	45.0%
	0.50 - 0.99	15.1%	12.5%	13.8%	14.5%	11.4%	800 - 1599	27.5%
	1.00 or over	25.7%	26.2%	26.8%	22.5%	21.2%	1600 or over	27.5%
1991	0.00 - 0.49	82.9%	83.6%	81.8%	88.1%	86.5%	0 - 799	42.0%
	0.50 - 0.99	6.7%	7.7%	9.1%	5.1%	6.5%	800 - 1599	29.4%
	1.00 or over	10.4%	8.7%	9.1%	6.9%	7.0%	1600 or over	28.6%
1992	0.00 - 0.49	84.3%	85.1%	81.0%	86.1%	84.1%	0 - 799	50.4%
	0.50 - 0.99	7.2%	7.9%	10.5%	7.4%	6.7%	800 - 1599	18.2%
	1.00 or over	8.4%	7.0%	8.5%	6.5%	9.2%	1600 or over	31.3%
1993	0.00 - 0.49	86.5%	85.3%	78.7%	80.0%	78.6%	0 - 799	43.5%
	0.50 - 0.99	6.6%	9.2%	14.0%	12.7%	14.5%	800 - 1599	31.4%
	1.00 or over	6.9%	5.5%	7.3%	7.2%	7.0%	1600 or over	25.1%
1994	0.00 - 0.49	94.4%	90.8%	85.6%	87.5%	85.3%	0 - 799	53.6%
	0.50 - 0.99	3.5%	6.4%	10.3%	8.6%	10.5%	800 - 1599	29.0%
	1.00 or over	2.1%	2.8%	4.1%	4.0%	4.2%	1600 or over	17.4%
1995	0.00 - 0.49	97.2%	93.5%	89.5%	93.7%	92.2%	0 - 799	63.7%
	0.50 - 0.99	1.8%	4.5%	7.3%	4.1%	5.0%	800 - 1599	26.2%
	1.00 or over	1.0%	2.0%	3.2%	2.2%	2.8%	1600 or over	10.1%
1996	0.00 - 0.49	100.0%	97.1%	94.8%	94.6%	93.8%	0 - 799	80.0%
	0.50 - 0.99	0.0%	2.1%	3.8%	3.4%	3.3%	800 - 1599	15.6%
	1.00 or over	0.0%	0.8%	1.3%	1.9%	2.9%	1600 or over	4.4%
1997	0.00 - 0.49		98.8%	95.5%	97.9%	96.8%	0 - 799	82.9%
	0.50 - 0.99		0.9%	3.6%	1.5%	2.3%	800 - 1599	13.6%
	1.00 or over		0.2%	0.9%	0.6%	0.9%	1600 or over	3.5%
1998	0.00 - 0.49			98.6%	99.2%	98.2%	0 - 799	87.9%
	0.50 - 0.99			1.0%	0.5%	1.4%	800 - 1599	10.3%
	1.00 or over			0.4%	0.4%	0.4%	1600 or over	1.8%
1999	0.00 - 0.49				99.6%	98.8%	0 - 799	88.2%
	0.50 - 0.99				0.3%	0.7%	800 - 1599	8.2%
	1.00 or over				0.1%	0.5%	1600 or over	3.6%
2000	0.00 - 0.49					99.7%	0 - 799	97.6%
	0.50 - 0.99					0.1%	800 - 1599	2.2%
	1.00 or over					0.2%	1600 or over	0.2%

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Number of Cylinders and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
		40 kph						
<b>4 &amp; 5 Cylinders</b>								
<b>1984 to 90</b>	0.00 - 0.49	53.4%	61.4%	60.7%	63.7%	63.0%	0 - 799	15.7%
	0.50 - 0.99	14.6%	12.4%	13.5%	13.4%	18.1%	800 - 1599	37.8%
	1.00 or over	32.0%	26.2%	25.8%	22.9%	18.8%	1600 or over	46.6%
<b>1991</b>	0.00 - 0.49	77.9%	82.1%	81.2%	86.7%	85.8%	0 - 799	27.5%
	0.50 - 0.99	7.3%	8.2%	9.1%	6.1%	6.6%	800 - 1599	25.9%
	1.00 or over	14.8%	9.8%	9.7%	7.1%	7.6%	1600 or over	46.6%
<b>1992</b>	0.00 - 0.49	78.5%	82.3%	80.9%	86.4%	84.4%	0 - 799	27.6%
	0.50 - 0.99	9.6%	8.7%	9.7%	6.8%	8.1%	800 - 1599	15.3%
	1.00 or over	12.0%	9.0%	9.4%	6.8%	7.5%	1600 or over	57.1%
<b>1993</b>	0.00 - 0.49	86.9%	84.9%	84.2%	89.3%	88.9%	0 - 799	50.2%
	0.50 - 0.99	7.1%	9.5%	10.0%	6.5%	7.0%	800 - 1599	27.1%
	1.00 or over	6.0%	5.7%	5.8%	4.2%	4.1%	1600 or over	22.8%
<b>1994</b>	0.00 - 0.49	93.6%	90.3%	88.0%	92.9%	92.0%	0 - 799	54.1%
	0.50 - 0.99	3.7%	6.7%	8.5%	4.4%	5.3%	800 - 1599	29.9%
	1.00 or over	2.7%	3.0%	3.5%	2.7%	2.7%	1600 or over	16.0%
<b>1995</b>	0.00 - 0.49	96.8%	93.2%	91.3%	95.8%	95.8%	0 - 799	67.7%
	0.50 - 0.99	1.9%	4.8%	6.2%	2.6%	2.6%	800 - 1599	25.3%
	1.00 or over	1.4%	2.0%	2.5%	1.5%	1.6%	1600 or over	7.0%
<b>1996</b>	0.00 - 0.49	100.0%	96.4%	94.2%	93.5%	92.4%	0 - 799	75.8%
	0.50 - 0.99	0.0%	2.7%	4.4%	4.3%	4.2%	800 - 1599	19.5%
	1.00 or over	0.0%	0.9%	1.3%	2.2%	3.4%	1600 or over	4.7%
<b>1997</b>	0.00 - 0.49		98.9%	96.0%	97.9%	96.3%	0 - 799	80.6%
	0.50 - 0.99		0.9%	3.1%	1.6%	2.9%	800 - 1599	15.5%
	1.00 or over		0.2%	0.8%	0.5%	0.8%	1600 or over	3.9%
<b>1998</b>	0.00 - 0.49			98.7%	99.2%	98.5%	0 - 799	84.3%
	0.50 - 0.99			0.9%	0.5%	1.1%	800 - 1599	13.4%
	1.00 or over			0.4%	0.3%	0.4%	1600 or over	2.3%
<b>1999</b>	0.00 - 0.49				99.8%	99.3%	0 - 799	85.2%
	0.50 - 0.99				0.2%	0.4%	800 - 1599	12.2%
	1.00 or over				0.1%	0.3%	1600 or over	2.6%
<b>2000</b>	0.00 - 0.49					99.7%	0 - 799	97.1%
	0.50 - 0.99					0.1%	800 - 1599	2.0%
	1.00 or over					0.2%	1600 or over	0.8%

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Number of Cylinders and by Model Year**

Model Year	Sample period					1999		
	1995	1996	1997	1998	1999	NOx		
	CO					ppm	24 kph	
	%	40 kph						

6 & 7 Cylinders								
1984 to 90	0.00 - 0.49	61.3%	63.3%	59.9%	56.6%	59.3%	0 - 799	40.2%
	0.50 - 0.99	18.1%	13.0%	12.9%	15.2%	18.3%	800 - 1599	29.9%
	1.00 or over	20.6%	23.7%	27.2%	28.1%	22.4%	1600 or over	29.9%
1991	0.00 - 0.49	87.1%	86.6%	85.3%	93.5%	94.7%	0 - 799	53.0%
	0.50 - 0.99	6.4%	6.7%	8.5%	3.9%	3.6%	800 - 1599	34.8%
	1.00 or over	6.5%	6.7%	6.1%	2.6%	1.7%	1600 or over	12.2%
1992	0.00 - 0.49	94.3%	90.1%	87.3%	94.0%	93.6%	0 - 799	79.2%
	0.50 - 0.99	3.5%	6.7%	8.3%	3.7%	4.5%	800 - 1599	15.7%
	1.00 or over	2.2%	3.2%	4.3%	2.3%	1.9%	1600 or over	5.1%
1993	0.00 - 0.49	91.5%	91.2%	90.4%	94.8%	95.4%	0 - 799	72.0%
	0.50 - 0.99	5.2%	5.9%	6.1%	2.9%	2.4%	800 - 1599	21.6%
	1.00 or over	3.3%	2.9%	3.5%	2.3%	2.2%	1600 or over	6.4%
1994	0.00 - 0.49	98.1%	96.4%	95.2%	97.7%	97.4%	0 - 799	75.2%
	0.50 - 0.99	1.3%	2.3%	3.0%	1.3%	1.4%	800 - 1599	20.5%
	1.00 or over	0.6%	1.3%	1.8%	1.0%	1.2%	1600 or over	4.3%
1995	0.00 - 0.49	99.2%	96.6%	95.2%	98.3%	97.7%	0 - 799	84.0%
	0.50 - 0.99	0.6%	2.0%	2.7%	0.9%	1.3%	800 - 1599	13.8%
	1.00 or over	0.2%	1.4%	2.1%	0.8%	1.0%	1600 or over	2.2%
1996	0.00 - 0.49	100.0%	99.2%	98.9%	98.9%	98.9%	0 - 799	93.7%
	0.50 - 0.99	0.0%	0.6%	0.8%	0.6%	0.6%	800 - 1599	5.6%
	1.00 or over	0.0%	0.2%	0.3%	0.5%	0.6%	1600 or over	0.7%
1997	0.00 - 0.49		99.1%	99.5%	99.6%	99.0%	0 - 799	94.8%
	0.50 - 0.99		0.5%	0.3%	0.3%	0.4%	800 - 1599	4.4%
	1.00 or over		0.4%	0.1%	0.1%	0.6%	1600 or over	0.8%
1998	0.00 - 0.49			99.7%	99.8%	99.6%	0 - 799	96.7%
	0.50 - 0.99			0.2%	0.1%	0.1%	800 - 1599	3.1%
	1.00 or over			0.1%	0.1%	0.3%	1600 or over	0.2%
1999	0.00 - 0.49				99.5%	99.3%	0 - 799	99.2%
	0.50 - 0.99				0.3%	0.4%	800 - 1599	0.7%
	1.00 or over				0.3%	0.2%	1600 or over	0.1%
2000	0.00 - 0.49					100.0%	0 - 799	99.4%
	0.50 - 0.99					0.0%	800 - 1599	0.6%
	1.00 or over					0.0%	1600 or over	0.0%

Model Year	Sample period					1999		
	1995	1996	1997	1998	1999	NOx		
	CO					ppm	24 kph	
	%	40 kph						

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Number of Cylinders and by Model Year**

<b>8 &amp; more Cylinders</b>									
<b>1984 to 90</b>	0.00 - 0.49	66.1%	65.2%	51.5%	50.7%	59.4%	0 - 799	41.0%	
	0.50 - 0.99	14.9%	10.5%	14.8%	15.2%	13.9%	800 - 1599	29.2%	
	1.00 or over	19.0%	24.3%	33.7%	34.1%	26.8%	1600 or over	29.9%	
<b>1991</b>	0.00 - 0.49	91.8%	89.5%	86.8%	92.7%	88.4%	0 - 799	70.0%	
	0.50 - 0.99	4.4%	5.8%	7.9%	4.0%	5.6%	800 - 1599	21.5%	
	1.00 or over	3.8%	4.6%	5.3%	3.3%	6.0%	1600 or over	8.5%	
<b>1992</b>	0.00 - 0.49	85.5%	91.4%	89.2%	92.9%	91.1%	0 - 799	55.9%	
	0.50 - 0.99	7.1%	4.3%	6.0%	4.2%	3.6%	800 - 1599	37.1%	
	1.00 or over	7.4%	4.3%	4.8%	3.0%	5.3%	1600 or over	7.0%	
<b>1993</b>	0.00 - 0.49	79.9%	93.7%	93.5%	95.6%	95.0%	0 - 799	52.5%	
	0.50 - 0.99	3.3%	3.3%	3.6%	1.8%	2.0%	800 - 1599	30.0%	
	1.00 or over	16.8%	3.0%	2.9%	2.6%	3.0%	1600 or over	17.5%	
<b>1994</b>	0.00 - 0.49	93.5%	89.4%	88.5%	93.0%	92.5%	0 - 799	68.7%	
	0.50 - 0.99	5.6%	8.1%	8.2%	4.7%	4.8%	800 - 1599	22.2%	
	1.00 or over	0.9%	2.5%	3.3%	2.3%	2.7%	1600 or over	9.1%	
<b>1995</b>	0.00 - 0.49	96.7%	94.1%	93.5%	96.4%	96.4%	0 - 799	77.8%	
	0.50 - 0.99	2.9%	4.3%	4.5%	2.5%	2.2%	800 - 1599	16.2%	
	1.00 or over	0.4%	1.6%	2.0%	1.1%	1.4%	1600 or over	6.0%	
<b>1996</b>	0.00 - 0.49	100.0%	96.8%	95.1%	96.4%	95.7%	0 - 799	79.6%	
	0.50 - 0.99	0.0%	1.9%	3.1%	2.3%	2.7%	800 - 1599	15.7%	
	1.00 or over	0.0%	1.3%	1.8%	1.3%	1.6%	1600 or over	4.6%	
<b>1997</b>	0.00 - 0.49		99.1%	97.1%	97.8%	97.4%	0 - 799	84.8%	
	0.50 - 0.99		0.9%	2.0%	1.6%	1.7%	800 - 1599	11.8%	
	1.00 or over		0.0%	0.9%	0.6%	0.9%	1600 or over	3.4%	
<b>1998</b>	0.00 - 0.49			96.3%	98.1%	98.1%	0 - 799	80.6%	
	0.50 - 0.99			2.3%	1.1%	1.4%	800 - 1599	15.8%	
	1.00 or over			1.4%	0.7%	0.5%	1600 or over	3.6%	
<b>1999</b>	0.00 - 0.49				98.8%	96.8%	0 - 799	68.0%	
	0.50 - 0.99				1.2%	1.5%	800 - 1599	14.6%	
	1.00 or over				0.0%	1.6%	1600 or over	17.4%	
<b>2000</b>	0.00 - 0.49					100.0%	0 - 799	95.9%	
	0.50 - 0.99					0.0%	800 - 1599	4.1%	
	1.00 or over					0.0%	1600 or over	0.0%	

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In 5 Samples taken between 1995 and 1999  
By Average Kms per Year and by Model Year**

Model Year	%	Sample period					1999		
		1995	1996	1997	1998	1999	NOx		
		CO					ppm	24 kph	
								40 kph	
<b>up to 20,000 kms per Year</b>									
<b>1984 to 90</b>	0.00 - 0.49	54.9%	58.8%	56.2%	60.6%	61.4%	0 - 799	26.3%	
	0.50 - 0.99	16.8%	10.2%	13.7%	15.5%	17.3%	800 - 1599	33.5%	
	1.00 or over	28.3%	31.0%	30.1%	23.9%	21.3%	1600 or over	40.1%	
<b>1991</b>	0.00 - 0.49	80.6%	81.7%	83.4%	89.9%	89.1%	0 - 799	37.3%	
	0.50 - 0.99	9.3%	8.1%	8.4%	5.0%	5.5%	800 - 1599	28.4%	
	1.00 or over	10.0%	10.2%	8.2%	5.1%	5.4%	1600 or over	34.3%	
<b>1992</b>	0.00 - 0.49	86.2%	84.1%	84.1%	89.5%	87.9%	0 - 799	45.6%	
	0.50 - 0.99	6.6%	8.4%	8.0%	5.8%	6.6%	800 - 1599	17.4%	
	1.00 or over	7.2%	7.6%	7.9%	4.7%	5.5%	1600 or over	37.1%	
<b>1993</b>	0.00 - 0.49	84.1%	86.5%	85.5%	91.6%	91.3%	0 - 799	56.2%	
	0.50 - 0.99	6.1%	7.7%	9.2%	4.5%	5.3%	800 - 1599	25.5%	
	1.00 or over	9.8%	5.8%	5.3%	3.9%	3.4%	1600 or over	18.3%	
<b>1994</b>	0.00 - 0.49	95.1%	90.6%	88.9%	94.4%	93.8%	0 - 799	61.0%	
	0.50 - 0.99	2.3%	7.6%	8.1%	3.5%	4.0%	800 - 1599	26.9%	
	1.00 or over	2.6%	1.9%	3.0%	2.1%	2.2%	1600 or over	12.0%	
<b>1995</b>	0.00 - 0.49	98.8%	93.3%	92.9%	96.3%	96.5%	0 - 799	72.6%	
	0.50 - 0.99	1.2%	4.7%	5.2%	2.1%	2.2%	800 - 1599	21.9%	
	1.00 or over	0.0%	2.0%	1.9%	1.6%	1.3%	1600 or over	5.5%	
<b>1996</b>	0.00 - 0.49		97.3%	95.3%	95.0%	94.6%	0 - 799	82.3%	
	0.50 - 0.99		2.7%	3.6%	3.2%	3.0%	800 - 1599	14.4%	
	1.00 or over		0.0%	1.1%	1.8%	2.4%	1600 or over	3.4%	
<b>1997</b>	0.00 - 0.49			96.4%	98.5%	97.0%	0 - 799	84.3%	
	0.50 - 0.99			3.2%	1.1%	2.4%	800 - 1599	12.6%	
	1.00 or over			0.5%	0.3%	0.6%	1600 or over	3.1%	
<b>1998</b>	0.00 - 0.49				99.3%	99.0%	0 - 799	86.4%	
	0.50 - 0.99				0.4%	0.7%	800 - 1599	11.7%	
	1.00 or over				0.3%	0.3%	1600 or over	1.9%	
<b>1999</b>	0.00 - 0.49					99.4%	0 - 799	86.3%	
	0.50 - 0.99					0.3%	800 - 1599	10.8%	
	1.00 or over					0.3%	1600 or over	2.9%	

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In 5 Samples taken between 1995 and 1999  
By Average Kms per Year and by Model Year**

Model Year		Sample period					1999	
		1995	1996	1997	1998	1999	NOx	
		CO					ppm	24 kph
	%	40 kph						
<b>over 20,000 kms per Year</b>								
<b>1984 to 90</b>	0.00 - 0.49	57.9%	63.7%	59.3%	59.2%	59.8%	0 - 799	26.3%
	0.50 - 0.99	15.8%	14.5%	13.2%	12.6%	16.0%	800 - 1599	38.9%
	1.00 or over	26.3%	21.8%	27.5%	28.2%	24.2%	1600 or over	34.8%
<b>1991</b>	0.00 - 0.49	86.5%	81.4%	83.9%	89.4%	84.3%	0 - 799	40.3%
	0.50 - 0.99	4.5%	6.6%	8.7%	5.9%	7.7%	800 - 1599	27.1%
	1.00 or over	9.0%	12.0%	7.4%	4.7%	8.1%	1600 or over	32.6%
<b>1992</b>	0.00 - 0.49	83.2%	82.8%	83.1%	89.3%	86.5%	0 - 799	48.0%
	0.50 - 0.99	10.1%	7.9%	9.1%	5.7%	6.9%	800 - 1599	15.0%
	1.00 or over	6.7%	9.3%	7.8%	5.0%	6.5%	1600 or over	36.9%
<b>1993</b>	0.00 - 0.49	82.6%	85.2%	86.2%	90.9%	86.3%	0 - 799	49.3%
	0.50 - 0.99	7.2%	9.6%	8.1%	5.7%	9.0%	800 - 1599	28.3%
	1.00 or over	10.1%	5.1%	5.7%	3.4%	4.8%	1600 or over	22.4%
<b>1994</b>	0.00 - 0.49	95.4%	92.2%	90.0%	93.7%	90.6%	0 - 799	54.2%
	0.50 - 0.99	3.5%	4.9%	7.0%	3.9%	6.2%	800 - 1599	28.8%
	1.00 or over	1.0%	2.9%	2.9%	2.4%	3.1%	1600 or over	17.0%
<b>1995</b>	0.00 - 0.49	95.9%	94.3%	91.7%	96.5%	94.4%	0 - 799	63.6%
	0.50 - 0.99	1.8%	3.3%	6.1%	2.2%	3.3%	800 - 1599	26.7%
	1.00 or over	2.3%	2.4%	2.2%	1.3%	2.3%	1600 or over	9.7%
<b>1996</b>	0.00 - 0.49		97.2%	95.8%	94.7%	93.7%	0 - 799	74.5%
	0.50 - 0.99		2.3%	2.8%	3.2%	3.5%	800 - 1599	20.5%
	1.00 or over		0.5%	1.3%	2.2%	2.8%	1600 or over	5.0%
<b>1997</b>	0.00 - 0.49			96.9%	98.8%	96.4%	0 - 799	79.4%
	0.50 - 0.99			2.0%	1.0%	2.4%	800 - 1599	16.5%
	1.00 or over			1.1%	0.2%	1.2%	1600 or over	4.1%
<b>1998</b>	0.00 - 0.49				99.3%	97.7%	0 - 799	85.4%
	0.50 - 0.99				0.4%	1.6%	800 - 1599	12.2%
	1.00 or over				0.3%	0.7%	1600 or over	2.4%
<b>1999</b>	0.00 - 0.49					99.0%	0 - 799	82.7%
	0.50 - 0.99					0.6%	800 - 1599	12.5%
	1.00 or over					0.4%	1600 or over	4.8%

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp



**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Total Kms usage and by Model Year**

Model Year	CO %	less than 20,000	20 - 49,999 kms	50 - 99,999 kms	100 - 199,999 kms	200 - 299,999 kms	300 - 499,999 kms	500,000 kms or more
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**CO - 40 Kph**

1984 to 90	0.00 - 0.49	62.0%	59.3%	61.1%	60.6%	58.1%	58.1%	58.2%
	0.50 - 0.99	15.6%	15.1%	15.4%	18.2%	12.0%	14.3%	14.7%
	1.00 or over	22.4%	25.6%	23.5%	21.1%	29.9%	27.6%	27.1%
1991	0.00 - 0.49	86.4%	88.9%	88.7%	87.0%	86.8%	85.7%	87.0%
	0.50 - 0.99	6.9%	5.6%	5.8%	6.1%	6.8%	7.5%	6.2%
	1.00 or over	6.7%	5.6%	5.6%	6.9%	6.4%	6.7%	6.8%
1992	0.00 - 0.49	87.7%	88.1%	87.5%	86.5%	85.7%	85.8%	87.5%
	0.50 - 0.99	6.1%	6.5%	7.1%	6.7%	7.2%	7.5%	6.5%
	1.00 or over	6.1%	5.3%	5.4%	6.8%	7.1%	6.7%	6.0%
1993	0.00 - 0.49	88.6%	89.8%	90.9%	89.6%	87.0%	88.2%	88.1%
	0.50 - 0.99	6.5%	6.1%	5.2%	6.1%	8.1%	7.6%	7.7%
	1.00 or over	4.9%	4.1%	3.8%	4.3%	4.9%	4.2%	4.2%
1994	0.00 - 0.49	92.0%	93.7%	93.6%	92.5%	92.4%	91.8%	91.8%
	0.50 - 0.99	5.5%	4.2%	4.2%	5.0%	4.9%	5.2%	5.3%
	1.00 or over	2.6%	2.1%	2.2%	2.5%	2.6%	3.0%	2.9%
1995	0.00 - 0.49	95.4%	96.5%	95.6%	95.5%	94.7%	95.3%	95.3%
	0.50 - 0.99	3.0%	2.4%	2.6%	2.9%	3.0%	3.1%	2.8%
	1.00 or over	1.6%	1.2%	1.7%	1.6%	2.3%	1.6%	1.9%
1996	0.00 - 0.49	95.6%	94.8%	93.9%	93.8%	95.1%	94.8%	
	0.50 - 0.99	2.8%	3.0%	3.2%	3.9%	3.2%	3.7%	
	1.00 or over	1.6%	2.2%	2.9%	2.3%	1.6%	1.5%	
1997	0.00 - 0.49	97.7%	97.0%	96.6%	97.8%	96.8%		
	0.50 - 0.99	1.9%	2.4%	2.4%	1.7%	2.1%		
	1.00 or over	0.5%	0.6%	1.0%	0.5%	1.1%		
1998	0.00 - 0.49	99.1%	98.5%	97.4%	97.5%			
	0.50 - 0.99	0.6%	1.0%	2.0%	1.8%			
	1.00 or over	0.2%	0.5%	0.7%	0.7%			
1999	0.00 - 0.49	99.4%	98.6%	98.0%				
	0.50 - 0.99	0.4%	0.8%	0.0%				
	1.00 or over	0.2%	0.6%	2.0%				

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

**NOx and CO Emissions (by Range) from Gasoline Vehicles  
In Samples taken between 1995 and 1999  
By Total Kms usage and by Model Year**

Model Year	NOx ppm	less than 20,000	20 - 49,999 kms	50 - 99,999 kms	100 - 199,999 kms	200 - 299,999 kms	300 - 499,999 kms	500,000 kms or more
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**NOx - 24 Kph**

1984 to 90	0 - 799	28.4%	30.0%	28.4%	21.6%	29.0%	32.1%	20.9%
	800 - 1599	33.4%	30.0%	33.5%	35.5%	34.4%	34.5%	41.2%
	1600 or over	38.2%	40.1%	38.1%	42.9%	36.6%	33.3%	38.0%
1991	0 - 799	37.1%	43.0%	37.9%	33.8%	34.5%	41.5%	45.1%
	800 - 1599	25.3%	29.4%	30.2%	26.2%	28.2%	25.5%	28.0%
	1600 or over	37.6%	27.6%	31.9%	40.1%	37.4%	33.0%	26.9%
1992	0 - 799	46.1%	53.1%	45.9%	39.3%	37.0%	44.5%	59.1%
	800 - 1599	16.7%	18.4%	17.6%	15.9%	15.4%	13.5%	16.6%
	1600 or over	37.2%	28.5%	36.5%	44.7%	47.6%	41.9%	24.3%
1993	0 - 799	55.4%	59.2%	55.9%	50.8%	47.0%	51.2%	51.7%
	800 - 1599	24.5%	25.9%	25.8%	25.6%	29.8%	28.8%	27.7%
	1600 or over	20.1%	15.0%	18.3%	23.5%	23.2%	20.1%	20.6%
1994	0 - 799	59.7%	64.8%	60.2%	52.2%	48.4%	60.3%	60.2%
	800 - 1599	27.1%	25.9%	27.2%	29.5%	32.6%	24.8%	26.6%
	1600 or over	13.2%	9.3%	12.6%	18.4%	18.9%	14.8%	13.2%
1995	0 - 799	72.1%	75.9%	69.7%	59.7%	64.1%	69.0%	72.2%
	800 - 1599	22.2%	19.8%	23.8%	28.8%	25.6%	21.0%	19.4%
	1600 or over	5.7%	4.3%	6.5%	11.6%	10.3%	10.0%	8.4%
1996	0 - 799	85.0%	83.8%	76.4%	71.4%	78.0%	78.2%	
	800 - 1599	11.8%	13.5%	19.0%	22.2%	18.7%	15.0%	
	1600 or over	3.2%	2.8%	4.6%	6.4%	3.3%	6.8%	
1997	0 - 799	86.9%	83.5%	78.8%	76.3%	85.2%		
	800 - 1599	10.2%	13.4%	17.0%	18.1%	11.5%		
	1600 or over	2.8%	3.1%	4.2%	5.7%	3.3%		
1998	0 - 799	87.0%	85.6%	83.6%	84.7%			
	800 - 1599	11.2%	12.3%	13.0%	12.7%			
	1600 or over	1.8%	2.1%	3.4%	2.6%			
1999	0 - 799	85.5%	83.1%	81.8%				
	800 - 1599	11.3%	11.8%	11.3%				
	1600 or over	3.2%	5.1%	6.9%				

(\*) NO measured at 24 kph with ASM 5015 HP  
CO measured at 40 kph with road load Hp

Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size
<b>Distribution of NOx Emissions in 1999 from Gasoline Vehicles  with 50% applied load (*) at 24 kph (ASM 5015)  By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)</b>										

Vehicles with No Catalytic converter					
Model Year	1990	1991	1992	1993	1994
Nox ppm					
< 200	797 + 101	74 + 21	56 + 26	21 +	46 + 42
< 400	2188 + 507	121 + 46	103 + 23	36 + 4	59 + 39
< 600	3854 + 1182	241 + 92	241 + 84	117 + 42	76 + 39
< 800	4849 + 1832	304 + 109	291 + 141	137 + 74	51 + 35
< 1000	5337 + 2172	270 + 136	236 + 147	103 + 63	23 + 29
< 1200	5270 + 2493	251 + 131	207 + 121	88 + 57	19 + 9
< 1400	5323 + 2572	177 + 123	199 + 113	90 + 41	9 + 8
< 1600	4876 + 2636	160 + 85	132 + 77	59 + 44	4 + 4
< 1800	4179 + 2597	154 + 92	121 + 83	64 + 33	2 + 2
< 2000	3718 + 2475	116 + 88	100 + 77	49 + 42	5 + 3
< 2200	3216 + 2229	94 + 65	88 + 53	42 + 29	4 +
< 2400	2661 + 2048	79 + 50	56 + 44	41 + 34	2 + 3
< 2600	2147 + 1889	59 + 45	46 + 43	29 + 25	2 + 2
< 2800	1829 + 1609	53 + 48	34 + 33	20 + 29	+
< 3000	1432 + 1392	40 + 35	26 + 24	18 + 19	3 + 1
< 3200	1242 + 1263	27 + 33	21 + 20	13 + 11	+ 1
< 3400	934 + 1013	24 + 22	17 + 16	13 + 14	+
< 3600	815 + 906	15 + 16	8 + 13	7 + 11	+ 2
< 3800	565 + 828	11 + 13	13 + 12	6 + 7	+ 1
< 4000	477 + 646	10 + 9	6 + 6	7 + 10	+ 1
< 10000	1617 + 2736	25 + 31	15 + 11	7 + 13	+ 2

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size Sample Size

**Distribution of NOx Emissions in 1999 from Gasoline Vehicles  
with 50% applied load (\*) at 24 kph (ASM 5015)  
By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)**

Vehicles with a 2 way Catalytic converter					
Model Year	1990	1991	1992	1993	1994
Nox ppm					
< 200		5 + 2	35 + 16		
< 400		27 + 2	61 + 24		
< 600		35 + 9	91 + 29		
< 800		43 + 15	67 + 22		
< 1000		61 + 23	81 + 41		
< 1200		89 + 26	91 + 35		
< 1400		108 + 40	133 + 48		
< 1600		95 + 42	154 + 62		
< 1800		127 + 56	159 + 64		
< 2000		128 + 60	138 + 87		
< 2200		114 + 72	170 + 108		
< 2400		137 + 68	172 + 75		
< 2600		116 + 77	139 + 88		
< 2800		143 + 89	125 + 92		
< 3000		92 + 88	142 + 87		
< 3200		91 + 95	116 + 90		
< 3400		95 + 83	120 + 91		
< 3600		74 + 60	77 + 83		
< 3800		75 + 73	66 + 54		
< 4000		49 + 52	52 + 68		
< 10000		180 + 283	190 + 290		

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size
<b>Distribution of NOx Emissions in 1999 from Gasoline Vehicles  with 50% applied load (*) at 24 kph (ASM 5015)  By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)</b>										

Vehicles with a 3 way Open Loop Catalytic converter					
Model Year	1990	1991	1992	1993	1994
Nox ppm					
< 200		69 + 28	171 + 66	271 + 231	137 + 79
< 400		166 + 60	257 + 86	215 + 132	131 + 102
< 600		208 + 95	292 + 104	174 + 98	151 + 86
< 800		242 + 102	318 + 158	137 + 77	156 + 96
< 1000		285 + 98	350 + 154	98 + 76	153 + 106
< 1200		294 + 125	342 + 154	71 + 50	162 + 118
< 1400		298 + 143	352 + 170	44 + 43	135 + 129
< 1600		302 + 151	340 + 181	18 + 24	59 + 83
< 1800		233 + 168	297 + 214	10 + 11	17 + 51
< 2000		227 + 170	272 + 194	4 + 12	14 + 31
< 2200		196 + 154	218 + 214	5 + 7	5 + 20
< 2400		158 + 162	208 + 196	3 + 5	4 + 11
< 2600		132 + 131	200 + 165	4 + 5	5 + 4
< 2800		117 + 116	132 + 145	2 + 4	5 + 5
< 3000		89 + 123	141 + 135	3 + 3	1 + 4
< 3200		83 + 102	82 + 131	2 + 1	1 +
< 3400		62 + 90	79 + 110	+	6 + 1
< 3600		55 + 78	62 + 98	+ 2	2 +
< 3800		35 + 49	42 + 79	1 +	2 + 1
< 4000		25 + 44	31 + 48	+	+
< 10000		98 + 182	105 + 247	+ 2	1 + 1

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size
<b>Distribution of NOx Emissions in 1999 from Gasoline Vehicles with 50% applied load (*) at 24 kph (ASM 5015) By Catalytic Converter and Model Year - Sample Size (sum of 99.1 + 99.2 samples)</b>										

Vehicles with a 3 way Closed Loop Catalytic converter										
Model Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Nox ppm										
< 200	102 + 46	802 + 485	1931 + 1342	3277 + 2554	3769 + 2440	4004 + 2950	4706 + 3442	10121 + 7730	20218 + 1623	7200 + 6924
< 400	156 + 47	653 + 382	847 + 607	1907 + 1134	2658 + 1663	2190 + 1415	1340 + 926	2399 + 1749	3062 + 2397	608 + 582
< 600	185 + 74	672 + 419	655 + 461	1859 + 977	2769 + 1639	1860 + 1178	900 + 561	1616 + 1071	1884 + 1508	375 + 337
< 800	230 + 80	691 + 394	619 + 380	1847 + 1021	2447 + 1653	1520 + 1080	661 + 489	1143 + 792	1376 + 1101	306 + 251
< 1000	247 + 74	600 + 367	511 + 337	1553 + 971	1793 + 1416	1130 + 878	524 + 395	764 + 641	1115 + 917	293 + 206
< 1200	229 + 87	531 + 362	397 + 288	1144 + 755	1277 + 1086	767 + 671	350 + 339	653 + 532	1083 + 806	357 + 271
< 1400	207 + 102	514 + 318	313 + 218	834 + 562	941 + 801	516 + 498	268 + 245	514 + 440	835 + 778	304 + 286
< 1600	165 + 93	421 + 283	270 + 198	681 + 382	707 + 579	341 + 368	196 + 179	364 + 408	433 + 603	183 + 254
< 1800	160 + 103	365 + 295	336 + 191	583 + 391	490 + 454	215 + 227	99 + 121	190 + 247	188 + 347	92 + 178
< 2000	130 + 67	319 + 225	359 + 198	485 + 303	383 + 351	114 + 144	54 + 72	90 + 157	79 + 168	44 + 94
< 2200	90 + 68	268 + 206	348 + 232	383 + 234	264 + 264	77 + 106	34 + 40	55 + 86	39 + 65	18 + 63
< 2400	63 + 50	216 + 183	369 + 218	330 + 224	198 + 240	49 + 71	19 + 27	29 + 33	17 + 33	19 + 23
< 2600	62 + 54	208 + 176	320 + 234	282 + 161	178 + 188	41 + 53	12 + 9	16 + 24	14 + 20	4 + 19
< 2800	57 + 46	169 + 132	299 + 235	198 + 165	119 + 129	42 + 37	10 + 12	15 + 19	21 + 14	2 + 5
< 3000	49 + 37	140 + 117	244 + 219	168 + 114	82 + 122	28 + 23	5 + 12	9 + 12	9 + 11	4 + 2
< 3200	33 + 30	107 + 103	199 + 189	106 + 98	51 + 80	23 + 37	7 + 6	15 + 8	5 + 11	6 + 1
< 3400	28 + 14	77 + 94	132 + 141	78 + 86	44 + 70	11 + 20	5 + 6	9 + 9	12 + 5	3 + 3
< 3600	28 + 25	63 + 86	76 + 139	67 + 77	28 + 61	11 + 11	3 + 9	6 + 6	7 + 7	2 +
< 3800	21 + 13	42 + 64	70 + 109	41 + 61	23 + 43	8 + 15	1 + 1	2 + 8	7 + 6	2 + 1
< 4000	18 + 20	35 + 59	40 + 99	26 + 41	16 + 31	4 + 10	2 + 5	5 + 3	2 + 6	1 + 1
< 10000	55 + 68	116 + 166	171 + 299	108 + 150	40 + 98	6 + 21	6 + 7	4 + 9	9 + 7	6 + 3

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

**Distribution of NOx Emissions in 1999 from gasoline Vehicles  
with 50% applied load (\*) at 24 kph (ASM 5015)  
By Catalytic Converter and Model Year**

<b>Vehicles with No Catalytic converter</b>					
Model Year	1990	1991	1992	1993	1994
Nox ppm					
< 200	1.0%	2.6%	2.6%	1.3%	16.7%
< 400	3.9%	7.3%	6.5%	3.9%	35.2%
< 600	9.3%	16.6%	16.7%	14.0%	57.0%
< 800	16.6%	28.0%	30.3%	27.5%	73.3%
< 1000	24.7%	39.3%	42.3%	38.0%	83.1%
< 1200	33.1%	50.0%	52.7%	47.3%	88.4%
< 1400	41.6%	58.3%	62.5%	55.6%	91.7%
< 1600	49.7%	65.1%	69.0%	62.2%	93.2%
< 1800	57.1%	72.0%	75.4%	68.4%	93.9%
< 2000	63.8%	77.6%	81.0%	74.2%	95.5%
< 2200	69.7%	82.1%	85.4%	78.7%	96.2%
< 2400	74.8%	85.6%	88.6%	83.5%	97.2%
< 2600	79.1%	88.5%	91.4%	86.9%	97.9%
< 2800	82.8%	91.3%	93.5%	90.1%	97.9%
< 3000	85.9%	93.4%	95.0%	92.4%	98.7%
< 3200	88.6%	95.1%	96.3%	93.9%	98.9%
< 3400	90.7%	96.4%	97.4%	95.7%	98.9%
< 3600	92.6%	97.2%	98.0%	96.8%	99.2%
< 3800	94.1%	97.9%	98.8%	97.6%	99.4%
< 4000	95.3%	98.4%	99.2%	98.7%	99.6%
< 10000	100.0%	100.0%	100.0%	100.0%	100.0%

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

**Distribution of NOx Emissions in 1999 from gasoline Vehicles with 50% applied load (\*) at 24 kph (ASM 5015) By Catalytic Converter and Model Year**

Vehicles with a 2 way Catalytic converter					
Model Year	1990	1991	1992	1993	1994
Nox ppm					
< 200		0.2%	1.3%		
< 400		1.1%	3.5%		
< 600		2.5%	6.5%		
< 800		4.3%	8.8%		
< 1000		6.9%	11.9%		
< 1200		10.5%	15.1%		
< 1400		15.2%	19.7%		
< 1600		19.4%	25.2%		
< 1800		25.2%	30.8%		
< 2000		31.0%	36.6%		
< 2200		36.9%	43.6%		
< 2400		43.3%	49.9%		
< 2600		49.3%	55.7%		
< 2800		56.5%	61.2%		
< 3000		62.2%	67.0%		
< 3200		68.0%	72.3%		
< 3400		73.6%	77.6%		
< 3600		77.7%	81.7%		
< 3800		82.4%	84.7%		
< 4000		85.5%	87.8%		
< 10000		100.0%	100.0%		

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration



**Distribution of NOx Emissions in 1999 from gasoline Vehicles  
with 50% applied load (\*) at 24 kph (ASM 5015)  
By Catalytic Converter and Model Year**

<b>Vehicles with a 3 way Open Loop Catalytic converter</b>					
<b>Model Year</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>
Nox ppm					
< 200		1.7%	3.2%	27.2%	10.4%
< 400		5.6%	7.9%	46.0%	21.6%
< 600		10.9%	13.3%	60.8%	33.1%
< 800		16.9%	19.8%	72.4%	45.2%
< 1000		23.6%	26.6%	81.8%	57.7%
< 1200		30.8%	33.4%	88.3%	71.2%
< 1400		38.5%	40.5%	93.1%	83.9%
< 1600		46.4%	47.6%	95.3%	90.7%
< 1800		53.4%	54.6%	96.5%	94.0%
< 2000		60.3%	60.9%	97.3%	96.2%
< 2200		66.4%	66.8%	98.0%	97.4%
< 2400		72.0%	72.3%	98.4%	98.1%
< 2600		76.5%	77.3%	98.9%	98.6%
< 2800		80.6%	81.1%	99.2%	99.0%
< 3000		84.3%	84.8%	99.6%	99.3%
< 3200		87.5%	87.7%	99.7%	99.3%
< 3400		90.1%	90.3%	99.7%	99.7%
< 3600		92.5%	92.5%	99.8%	99.8%
< 3800		93.9%	94.1%	99.9%	99.9%
< 4000		95.1%	95.2%	99.9%	99.9%
< 10000		100.0%	100.0%	100.0%	100.0%

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

**Distribution of NOx Emissions in 1999 from gasoline Vehicles  
with 50% applied load (\*) at 24 kph (ASM 5015)  
By Catalytic Converter and Model Year**

Vehicles with a 3 way Closed Loop Catalytic converter										
Model Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Nox ppm										
< 200	4.2%	10.8%	22.1%	22.1%	19.6%	30.5%	50.6%	55.8%	65.7%	73.1%
< 400	10.0%	19.5%	31.9%	33.6%	33.2%	46.4%	64.7%	68.7%	75.6%	79.2%
< 600	17.4%	28.6%	39.4%	44.3%	47.1%	59.7%	73.7%	77.1%	81.7%	82.9%
< 800	26.2%	37.7%	46.1%	55.2%	60.1%	71.1%	80.9%	83.2%	86.2%	85.8%
< 1000	35.3%	45.8%	51.8%	64.7%	70.2%	80.0%	86.6%	87.6%	89.8%	88.4%
< 1200	44.3%	53.3%	56.4%	71.9%	77.7%	86.3%	90.9%	91.3%	93.2%	91.6%
< 1400	53.1%	60.3%	60.0%	77.2%	83.2%	90.7%	94.0%	94.3%	96.1%	94.7%
< 1600	60.5%	66.2%	63.2%	81.2%	87.2%	93.8%	96.4%	96.7%	98.0%	96.9%
< 1800	67.9%	71.7%	66.7%	84.9%	90.2%	95.8%	97.7%	98.0%	99.0%	98.3%
< 2000	73.6%	76.3%	70.5%	87.9%	92.5%	96.9%	98.5%	98.8%	99.4%	99.0%
< 2200	78.1%	80.3%	74.4%	90.2%	94.2%	97.7%	99.0%	99.2%	99.6%	99.4%
< 2400	81.3%	83.6%	78.3%	92.3%	95.6%	98.2%	99.3%	99.4%	99.7%	99.7%
< 2600	84.6%	86.8%	82.1%	94.0%	96.7%	98.7%	99.4%	99.6%	99.7%	99.8%
< 2800	87.5%	89.4%	85.7%	95.4%	97.5%	99.0%	99.5%	99.7%	99.8%	99.8%
< 3000	90.0%	91.5%	88.8%	96.4%	98.2%	99.2%	99.6%	99.7%	99.8%	99.8%
< 3200	91.7%	93.3%	91.4%	97.2%	98.6%	99.5%	99.7%	99.8%	99.9%	99.9%
< 3400	92.9%	94.7%	93.2%	97.8%	98.9%	99.6%	99.8%	99.9%	99.9%	99.9%
< 3600	94.4%	96.0%	94.7%	98.4%	99.2%	99.7%	99.9%	99.9%	99.9%	99.9%
< 3800	95.4%	96.8%	95.9%	98.8%	99.4%	99.8%	99.9%	99.9%	100.0%	99.9%
< 4000	96.5%	97.6%	96.8%	99.0%	99.6%	99.9%	99.9%	100.0%	100.0%	100.0%
< 10000	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

(\*) HP to Accelerate Vehicle at 50% FTP75 max acceleration

## Changing Habits in Vehicle smog check testing in Mexico City's Metropolitan area

Vehicles that ARE in the vehicle population profile that smog check tested in the first semester of 1997  
but are NOT in the vehicle population profile that smog check tested in the second semester of 1999

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
<b>Cars</b>	1,002	1,494	13,307	37,527	69,848	158,324	79,952	0	0	361,455
<b>Van/Wgn</b>		367	464	1,784	12,492	20,057	9,126	0	0	44,291
<b>Pickup</b>	654	131	1,126	2,638	4,575	30,720	15,915	16,900	0	72,659
<b>Class 3</b>	1,547	778	1,247	910	2,866	4,937	2,784	10,586	0	25,657
<b>Class 7</b>										
<b>Total</b>	3,203	2,771	16,144	42,860	89,782	214,038	107,777	27,486	0	504,061

Percent missing in second semester of 1999

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
<b>Cars</b>	21.9%	18.2%	52.5%	50.4%	53.0%	73.4%	24.5%	0.0%	0.0%	16.6%
<b>Van/Wgn</b>		100.0%	100.0%	33.0%	94.5%	84.4%	28.3%	0.0%	0.0%	18.0%
<b>Pickup</b>	42.1%	6.3%	21.8%	20.5%	15.6%	59.5%	22.9%	15.1%	0.0%	19.7%
<b>Class 3</b>	100.0%	100.0%	84.1%	21.9%	30.7%	33.5%	8.7%	16.8%	0.0%	16.7%
<b>Class 7</b>										
<b>Total</b>	43.6%	23.6%	48.0%	42.1%	46.4%	67.5%	23.5%	2.8%	0.0%	16.8%

Memo: Population 1999

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
<b>Cars</b>	4,578	8,226	25,333	74,385	131,841	215,577	325,978	734,466	662,871	2,183,256
<b>Van/Wgn</b>	0	15	98	5,412	13,214	23,775	32,209	81,519	89,159	245,400
<b>Pickup</b>	1,554	2,095	5,174	12,885	29,345	51,624	69,379	112,235	84,831	369,122
<b>Class 3</b>	497	447	1,484	4,151	9,342	14,734	31,959	62,966	27,924	153,503
<b>Class 7</b>	720	963	1,538	4,912	9,783	11,203	7	6,587	5,277	40,990
<b>Total</b>	7,349	11,746	33,628	101,745	193,524	316,913	459,532	997,773	870,062	2,992,272

Note: The differences between the 2 samples does not show any significant differences for Class 7

## Heavy Duty Vehicle Population 1999 - Trucks & Buses

National Population	Total	Memo:	
		Diesel	Gasoline
Truck Class 6&7	140,321	93,105	47,217
Truck Class 8	33,190	33,190	
Tractor Class 8	75,373	75,373	
Bus Class 6&7	43,670	28,976	14,695
Coach	22,270	22,270	
<b>Total</b>	<b>314,825</b>	<b>252,914</b>	<b>61,911</b>

ZMVM	Total	Memo:	
		Diesel	Gasoline
Truck Class 6&7	51,913	14,968	36,945
Truck Class 8	9,558	9,558	
Tractor Class 8	19,199	19,199	
Bus Class 6&7	13,701	3,951	9,751
Coach		0	
<b>Total</b>	<b>94,372</b>	<b>47,676</b>	<b>46,696</b>

Mexico City Population is based on new vehicle sales through Dealers the Area  
 Some of these registered sales are physically operating outside of this geographical are

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### By Vehicle Service

kms per year	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
Private	27,290	21,873	24,138	24,129	30,886	20,633	14,130	12,857	18,705
Taxi	36,005	28,943	29,172	30,355	37,228	33,828	22,866	19,900	27,127
Commercial	26,770	27,806	27,268	29,846	35,457	25,083	18,733	16,928	21,539
Bus	18,634	31,745	27,729	21,220	37,888	32,547	18,312	14,408	25,869
Truck	22,693	20,055	19,981	18,313	27,346	24,768	16,911	14,702	19,185
Govt Vehicle	28,064	28,520	20,966	31,756	33,615	23,310	20,253	17,492	22,356
Other	21,448	35,585	27,484	35,002	39,558	22,419	17,685	18,965	32,129
<b>Total</b>	<b>27,388</b>	<b>25,398</b>	<b>25,023</b>	<b>25,142</b>	<b>31,826</b>	<b>21,953</b>	<b>15,430</b>	<b>13,982</b>	<b>19,818</b>

Std Error (kms)	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
Private	213	234	238	232	154	156	49	44	40
Taxi	1,098	1,061	882	963	590	879	330	314	207
Commercial	602	616	639	669	456	428	121	105	92
Bus	4,137	5,027	4,203	4,671	3,396	5,074	1,843	2,043	1,306
Truck	1,289	1,217	1,074	1,151	1,006	1,053	421	421	271
Govt Vehicle	2,271	2,541	2,203	2,474	1,578	1,210	536	354	360
Other	1,111	602	658	4,289	1,505	7,656	4,277	4,515	407
<b>kms</b>	<b>192</b>	<b>207</b>	<b>202</b>	<b>211</b>	<b>139</b>	<b>144</b>	<b>46</b>	<b>42</b>	<b>36</b>

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### By Model year

kms per year	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
<b>96-00</b>	38,128	45,722	37,294	35,485	38,782	23,125	17,222	16,112	18,829
<b>91-95</b>	35,192	32,656	31,879	32,219	38,737	26,684	17,287	14,587	23,448
<b>86-90</b>	30,265	26,478	26,167	22,880	29,892	20,817	13,709	12,225	20,541
<b>81-85</b>	18,574	16,379	15,773	15,252	24,389	14,887	10,136	8,896	14,926
<b>76-80</b>	14,411	12,884	12,903	12,965	22,641	11,990	8,716	7,637	13,045
<b>71-75</b>	11,935	10,699	11,557	10,863	21,908	9,769	7,006	6,094	11,719
<b>66-70</b>	9,495	9,622	12,163	12,160	21,273	9,513	6,595	6,006	11,365
<b>61-65</b>	12,659	11,069	12,386	12,547	20,441	6,803	6,015	4,646	11,123
<b>to 60</b>	18,030	17,478	16,969	22,470	27,648	6,943	6,801	3,751	15,815
<b>Total</b>	27,410	25,405	25,026	25,145	31,826	21,953	15,430	13,982	19,820

Std Error (kms)	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
<b>96-00</b>	2,719	1,651	1,057	859	494	331	80	64	60
<b>91-95</b>	353	378	363	371	251	263	85	75	67
<b>86-90</b>	399	423	436	415	284	308	113	116	93
<b>81-85</b>	298	313	328	361	295	246	107	112	86
<b>76-80</b>	302	318	347	406	365	248	126	140	104
<b>71-75</b>	386	443	459	533	487	291	142	161	143
<b>66-70</b>	597	797	1,115	1,199	860	441	237	271	264
<b>61-65</b>	1,996	2,308	2,186	2,488	1,688	668	373	394	550
<b>to 60</b>	4,213	5,834	6,991	6,806	2,940	915	604	633	1,225
<b>kms</b>	192	207	202	211	139	144	46	42	36

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### By Air Induction System

kms per year	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
Naturally Asp	27,374	25,337	24,987	25,050	31,835	21,932	15,450	14,001	19,815
Supercharged		46,280	23,100	38,970	30,061	19,029	13,163	11,701	20,479
Turbocharged	29,548	31,757	28,469	30,764	31,038	24,330	13,538	11,564	20,097
<b>Total</b>	27,388	25,398	25,023	25,142	31,826	21,953	15,430	13,982	19,818

Std Error (kms)	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
Naturally Asp	193	208	202	212	140	145	47	42	36
Supercharged		16,969	8,117	9,253	4,562	6,302	2,193	1,867	1,773
Turbocharged	2,486	2,535	2,226	1,955	1,312	1,607	384	378	388
<b>kms</b>	192	207	202	211	139	144	46	42	36

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### By Fuel System

kms per year	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
Carburator	24,248	21,262	20,558	19,359	27,175	18,320	12,391	10,904	17,991
T.B.I.	33,046	32,412	31,004	33,286	38,749	28,237	17,940	14,926	23,604
M.P.I.	33,815	32,721	32,388	32,502	38,431	24,457	16,989	15,276	20,982
<b>Total</b>	27,388	25,398	25,023	25,142	31,826	21,953	15,430	13,982	19,818

Std Error (kms)	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
Carburator	215	226	223	231	163	174	69	72	53
T.B.I.	1,087	1,182	1,073	1,220	724	806	249	203	197
M.P.I.	404	427	401	387	255	224	62	52	51
<b>kms</b>	192	207	202	211	139	144	46	42	36



## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### By Catalytic Converter

kms per year	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
None	22,435	19,913	19,499	18,232	26,377	17,227	11,936	10,482	17,267
2 way	38,854	37,494	31,217	30,802	36,136	26,232	16,294	14,283	23,155
3 way Open Loop	37,750	32,714	31,633	31,891	36,318	27,684	16,933	13,999	24,066
3 way Closed Loop	34,368	33,017	32,515	32,707	38,996	24,806	17,042	15,311	21,123
<b>Total</b>	<b>27,388</b>	<b>25,398</b>	<b>25,023</b>	<b>25,142</b>	<b>31,826</b>	<b>21,953</b>	<b>15,430</b>	<b>13,982</b>	<b>19,818</b>

Std Error (kms)	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
None	208	219	220	227	165	169	69	72	53
2 way	1,833	1,897	1,701	1,539	947	979	328	298	283
3 way Open Loop	934	998	938	989	602	735	253	222	191
3 way Closed Loop	398	422	396	386	256	225	62	51	50
<b>kms</b>	<b>192</b>	<b>207</b>	<b>202</b>	<b>211</b>	<b>139</b>	<b>144</b>	<b>46</b>	<b>42</b>	<b>36</b>

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### By Number of Cylinders

kms per year	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
4 & 5 cyl	28,661	26,392	26,196	26,046	32,333	22,660	15,660	14,406	20,234
6 & 7 cyl	25,302	24,751	24,435	24,961	31,034	19,780	14,773	12,563	18,654
8 or over	23,466	21,537	20,398	21,231	30,433	21,388	15,117	13,394	19,154
<b>Total</b>	27,388	25,398	25,023	25,142	31,826	21,953	15,430	13,982	19,818

Std Error (kms)	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
4 & 5 cyl	236	255	250	262	170	177	55	49	43
6 & 7 cyl	465	512	497	494	328	314	108	92	84
8 or over	457	477	449	507	360	397	147	148	104
<b>kms</b>	192	207	202	211	139	144	46	42	36

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### By Engine Displacement

kms per year	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
up to 1.5 lt.	20,748	23,861	21,757	27,449	30,516	19,584	15,041	15,127	16,855
1.5 - 2 lt.	27,751	25,653	25,252	25,034	31,905	22,513	15,921	14,622	20,387
2 - 2.5 lt.	32,371	29,386	30,056	29,016	34,106	23,391	15,102	13,627	20,370
2.5 - 3 lt.	28,223	27,192	29,820	25,558	32,404	20,415	13,440	11,564	18,687
3 - 3.5 lt.	35,532	34,512	33,202	34,334	37,634	23,902	17,699	14,055	22,371
3.5 - 4 lt.	20,026	18,918	19,683	20,697	28,141	17,841	13,633	11,552	16,857
over 4 lt.	15,549	16,765	15,005	16,359	25,498	14,937	11,016	9,934	14,753
4.5 - 5 lt.	22,867	20,703	21,034	19,841	30,113	19,620	13,553	11,949	17,779
5 - 5.5 lt.	17,930	16,141	16,161	16,454	32,326	22,909	15,951	14,585	18,114
over 5.5 lt.	24,336	22,469	20,204	22,464	30,506	22,600	16,614	14,735	20,364
<b>Group Total</b>	<b>27,388</b>	<b>25,398</b>	<b>25,023</b>	<b>25,142</b>	<b>31,826</b>	<b>21,953</b>	<b>15,430</b>	<b>13,982</b>	<b>19,818</b>

Std Error (kms)	Sample period (Semester)								Average
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2	
up to 1.5 lt.	1,270	1,539	1,425	1,648	1,154	953	187	157	143
1.5 - 2 lt.	266	288	280	301	195	209	68	61	52
2 - 2.5 lt.	527	573	573	545	356	346	100	85	87
2.5 - 3 lt.	1,158	1,275	1,433	1,342	841	875	256	223	217
3 - 3.5 lt.	1,084	1,181	1,118	1,072	703	670	229	172	174
3.5 - 4 lt.	673	726	708	744	520	483	174	162	135
over 4 lt.	623	826	782	785	661	555	221	251	178
4.5 - 5 lt.	665	727	728	756	594	577	206	199	154
5 - 5.5 lt.	2,146	2,508	2,179	2,846	2,269	2,455	674	668	508
over 5.5 lt.	647	650	588	696	462	548	216	221	145
<b>Total</b>	<b>192</b>	<b>207</b>	<b>202</b>	<b>211</b>	<b>139</b>	<b>144</b>	<b>46</b>	<b>42</b>	<b>36</b>

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### Km / Yr Distribution by Vehicle Service

	Private	Taxi	Com- ercial	Bus	Truck	Govt Vehicle	Other	Total
<b>kms</b>								
<b>0 - 4999</b>	29.5%	24.5%	21.0%	30.8%	36.7%	24.5%	28.7%	28.1%
<b>5000 - 9999</b>	19.9%	20.7%	17.7%	16.3%	16.8%	14.7%	13.1%	19.4%
<b>10000 - 14999</b>	17.5%	14.0%	17.5%	9.0%	10.7%	12.1%	9.6%	17.0%
<b>15000 - 19999</b>	9.2%	6.3%	12.5%	6.8%	7.3%	12.2%	6.4%	9.5%
<b>20000 - 24999</b>	4.7%	3.9%	7.8%	5.2%	5.0%	9.8%	5.1%	5.2%
<b>25000 - 29999</b>	3.0%	2.8%	4.9%	4.7%	3.9%	5.9%	3.9%	3.3%
<b>30000 - 34999</b>	2.2%	2.2%	3.1%	2.9%	3.3%	4.3%	2.9%	2.4%
<b>35000 - 39999</b>	1.7%	2.0%	2.2%	2.4%	2.5%	2.5%	2.5%	1.8%
<b>40000 - 44999</b>	1.4%	2.1%	1.7%	1.1%	1.8%	1.7%	2.5%	1.5%
<b>45000 - 49999</b>	1.2%	1.6%	1.2%	2.3%	1.6%	1.3%	1.7%	1.2%
<b>50000 - 54999</b>	1.0%	1.7%	1.0%	1.5%	1.1%	1.0%	1.5%	1.0%
<b>55000 - 59999</b>	0.9%	1.5%	0.8%	1.1%	1.1%	1.1%	1.9%	1.0%
<b>60000 - 64999</b>	0.8%	1.6%	0.8%	0.7%	0.9%	0.9%	1.3%	0.8%
<b>65000 - 69999</b>	0.7%	1.3%	0.7%	2.1%	0.9%	0.8%	1.6%	0.8%
<b>70000 - 74999</b>	0.7%	1.4%	0.7%	2.1%	0.8%	0.7%	1.3%	0.7%
<b>75000 - 79999</b>	0.6%	1.4%	0.6%	1.8%	0.6%	0.6%	1.3%	0.7%
<b>80000 - 84999</b>	0.5%	1.3%	0.5%	1.0%	0.7%	0.6%	1.0%	0.5%
<b>85000 - 89999</b>	0.6%	1.2%	0.6%	1.1%	0.5%	0.6%	1.4%	0.6%
<b>90000 - 94999</b>	0.4%	1.1%	0.5%	1.0%	0.5%	0.5%	1.2%	0.5%
<b>95000 - 99999</b>	0.5%	0.9%	0.6%	1.3%	0.5%	0.3%	1.4%	0.5%
<b>100000 or more</b>	3.1%	6.3%	3.5%	4.7%	3.0%	3.8%	9.9%	3.4%
<b>Group Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### Km / Yr Distribution by Vehicle Model Year

kms	96-99	91-95	86-90	81-85	76-80	71-75	66-70	61-65	to 60
<b>0 - 4999</b>	16.9%	20.8%	29.2%	46.5%	56.2%	59.4%	59.5%	60.2%	50.3%
<b>5000 - 9999</b>	19.7%	20.9%	24.4%	16.7%	9.5%	8.9%	8.1%	9.7%	12.4%
<b>10000 - 14999</b>	20.2%	22.0%	14.1%	7.5%	5.7%	5.2%	6.0%	8.2%	13.1%
<b>15000 - 19999</b>	14.8%	10.4%	5.7%	4.5%	4.0%	5.7%	9.0%	8.8%	7.9%
<b>20000 - 24999</b>	9.0%	4.5%	2.7%	2.9%	4.7%	6.8%	5.5%	3.8%	5.1%
<b>25000 - 29999</b>	5.3%	2.3%	2.2%	3.2%	5.6%	3.9%	4.2%	3.3%	0.5%
<b>30000 - 34999</b>	3.2%	1.5%	1.6%	4.0%	4.0%	3.0%	2.5%	0.5%	0.5%
<b>35000 - 39999</b>	2.0%	1.2%	1.6%	3.5%	2.8%	2.4%	0.2%	0.5%	0.2%
<b>40000 - 44999</b>	1.5%	1.2%	1.8%	2.6%	2.2%	0.8%	0.5%	0.4%	0.2%
<b>45000 - 49999</b>	1.0%	0.9%	1.8%	2.1%	1.7%	0.3%	0.4%	0.2%	0.5%
<b>50000 - 54999</b>	0.8%	0.8%	1.9%	1.6%	0.7%	0.5%	0.5%	0.1%	0.7%
<b>55000 - 59999</b>	0.6%	0.9%	2.0%	1.4%	0.3%	0.2%	0.1%	0.2%	0.5%
<b>60000 - 64999</b>	0.6%	0.8%	1.7%	0.8%	0.3%	0.2%	0.1%	0.3%	0.3%
<b>65000 - 69999</b>	0.4%	0.9%	1.5%	0.5%	0.3%	0.2%	0.2%	0.3%	0.7%
<b>70000 - 74999</b>	0.5%	0.8%	1.4%	0.3%	0.2%	0.1%	0.3%	0.4%	0.2%
<b>75000 - 79999</b>	0.3%	0.9%	1.2%	0.3%	0.2%	0.1%	0.3%	0.1%	0.5%
<b>80000 - 84999</b>	0.2%	0.8%	0.9%	0.2%	0.2%	0.1%	0.3%	0.0%	0.0%
<b>85000 - 89999</b>	0.4%	0.9%	0.7%	0.2%	0.1%	0.3%	0.2%	0.1%	0.3%
<b>90000 - 94999</b>	0.3%	0.7%	0.7%	0.2%	0.1%	0.2%	0.2%	0.1%	0.8%
<b>95000 - 99999</b>	0.3%	0.9%	0.5%	0.1%	0.1%	0.2%	0.1%	0.5%	0.3%
<b>100000 or more</b>	1.9%	5.9%	2.3%	0.9%	1.3%	1.4%	1.7%	2.3%	5.0%
<b>Group Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### Km / Yr Distribution by Air Aspiration System

	Naturally Asp	Super- charged	Turbo- charged
<b>kms</b>			
<b>0 - 4999</b>	28.1%	23.6%	25.8%
<b>5000 - 9999</b>	19.4%	25.7%	22.5%
<b>10000 - 14999</b>	17.0%	23.2%	20.1%
<b>15000 - 19999</b>	9.5%	7.2%	8.3%
<b>20000 - 24999</b>	5.2%	2.5%	3.6%
<b>25000 - 29999</b>	3.4%	0.7%	2.1%
<b>30000 - 34999</b>	2.4%	1.4%	1.6%
<b>35000 - 39999</b>	1.8%	0.4%	1.3%
<b>40000 - 44999</b>	1.5%	0.7%	1.5%
<b>45000 - 49999</b>	1.2%	0.4%	1.0%
<b>50000 - 54999</b>	1.0%	1.8%	1.0%
<b>55000 - 59999</b>	1.0%	1.1%	1.2%
<b>60000 - 64999</b>	0.8%	1.4%	0.9%
<b>65000 - 69999</b>	0.8%	1.4%	0.9%
<b>70000 - 74999</b>	0.7%	0.7%	1.0%
<b>75000 - 79999</b>	0.7%	0.4%	1.0%
<b>80000 - 84999</b>	0.5%	0.4%	0.7%
<b>85000 - 89999</b>	0.6%	1.4%	0.6%
<b>90000 - 94999</b>	0.5%	0.4%	0.5%
<b>95000 - 99999</b>	0.5%	0.7%	0.6%
<b>100000 or more</b>	3.4%	4.3%	3.7%
<b>Group Total</b>	100.0%	100.0%	100.0%

# Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

## Km / Yr Distribution by Engine Fuel System

	Carb-urator	T.B.I.	M.P.I.
kms			
0 - 4999	39.9%	20.1%	19.1%
5000 - 9999	18.1%	19.4%	20.5%
10000 - 14999	10.8%	21.0%	21.7%
15000 - 19999	5.5%	11.8%	12.5%
20000 - 24999	3.6%	5.7%	6.4%
25000 - 29999	3.1%	3.0%	3.6%
30000 - 34999	2.7%	1.8%	2.2%
35000 - 39999	2.2%	1.4%	1.5%
40000 - 44999	1.8%	1.5%	1.3%
45000 - 49999	1.6%	0.9%	0.9%
50000 - 54999	1.3%	0.9%	0.8%
55000 - 59999	1.2%	0.9%	0.7%
60000 - 64999	1.0%	0.7%	0.7%
65000 - 69999	0.9%	0.8%	0.7%
70000 - 74999	0.8%	0.7%	0.6%
75000 - 79999	0.8%	0.8%	0.6%
80000 - 84999	0.6%	0.6%	0.5%
85000 - 89999	0.5%	0.8%	0.6%
90000 - 94999	0.5%	0.6%	0.5%
95000 - 99999	0.4%	0.7%	0.6%
100000 or more	2.5%	5.9%	3.9%
<b>Group Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

(T.B.I. = Throttle Body Fuel Injection, M.P.I. = Multiple Point Fuel Injection)

## Gasoline Vehicle Population in the Mexico City Metropolitan Area Average kms. per Year

### Km / Yr Distribution by Catalytic Converter

	None	2 way	3 way Open Loop	3 way Closed Loop
<b>kms</b>				
<b>0 - 4999</b>	41.5%	21.4%	24.8%	18.9%
<b>5000 - 9999</b>	17.5%	21.5%	22.4%	20.4%
<b>10000 - 14999</b>	10.1%	20.7%	18.9%	21.7%
<b>15000 - 19999</b>	5.4%	10.1%	7.1%	12.7%
<b>20000 - 24999</b>	3.7%	4.2%	3.5%	6.4%
<b>25000 - 29999</b>	3.3%	2.1%	1.8%	3.6%
<b>30000 - 34999</b>	2.8%	1.6%	1.4%	2.2%
<b>35000 - 39999</b>	2.3%	1.1%	1.3%	1.5%
<b>40000 - 44999</b>	1.9%	1.0%	1.4%	1.2%
<b>45000 - 49999</b>	1.7%	1.0%	1.0%	0.9%
<b>50000 - 54999</b>	1.4%	1.1%	1.0%	0.8%
<b>55000 - 59999</b>	1.3%	1.2%	1.1%	0.7%
<b>60000 - 64999</b>	1.0%	1.0%	1.1%	0.7%
<b>65000 - 69999</b>	0.8%	1.1%	1.0%	0.7%
<b>70000 - 74999</b>	0.8%	1.4%	1.2%	0.6%
<b>75000 - 79999</b>	0.7%	1.1%	1.2%	0.6%
<b>80000 - 84999</b>	0.5%	1.0%	1.1%	0.5%
<b>85000 - 89999</b>	0.5%	1.0%	1.1%	0.6%
<b>90000 - 94999</b>	0.5%	0.7%	1.0%	0.5%
<b>95000 - 99999</b>	0.3%	0.8%	0.9%	0.6%
<b>100000 or more</b>	2.1%	4.9%	5.9%	4.1%
<b>Group Total</b>	100.0%	100.0%	100.0%	100.0%



# Gasoline Vehicle Population in the Mexico City Metropolitan Area

## Average kms. per Year

### Km / Yr Distribution by Number of Cylinders

	4 & 5 cyl	6 & 7 cyl	8 cyl or more
<b>kms</b>			
<b>0 - 4999</b>	26.1%	30.2%	35.8%
<b>5000 - 9999</b>	19.6%	19.5%	18.5%
<b>10000 - 14999</b>	17.8%	17.4%	12.2%
<b>15000 - 19999</b>	10.0%	9.0%	7.1%
<b>20000 - 24999</b>	5.4%	4.8%	4.5%
<b>25000 - 29999</b>	3.3%	3.3%	3.4%
<b>30000 - 34999</b>	2.3%	2.3%	2.8%
<b>35000 - 39999</b>	1.8%	1.6%	2.1%
<b>40000 - 44999</b>	1.5%	1.4%	1.7%
<b>45000 - 49999</b>	1.2%	1.1%	1.3%
<b>50000 - 54999</b>	1.1%	0.9%	1.1%
<b>55000 - 59999</b>	1.0%	0.7%	1.0%
<b>60000 - 64999</b>	0.9%	0.6%	0.8%
<b>65000 - 69999</b>	0.8%	0.7%	0.7%
<b>70000 - 74999</b>	0.8%	0.6%	0.7%
<b>75000 - 79999</b>	0.7%	0.6%	0.7%
<b>80000 - 84999</b>	0.6%	0.4%	0.6%
<b>85000 - 89999</b>	0.6%	0.5%	0.6%
<b>90000 - 94999</b>	0.5%	0.4%	0.5%
<b>95000 - 99999</b>	0.5%	0.5%	0.5%
<b>100000 or more</b>	3.4%	3.4%	3.5%
<b>Group Total</b>	100.0%	100.0%	100.0%

# Gasoline Vehicle Population in the Mexico City Metropolitan Area

## Average kms. per Year

### Km / Yr Distribution by Engine Displacement

	up to 1.5	1.5 - 2 lt.	2.0 - 2.5 lt.	2.5 - 3 lt.	3.0 - 3.5 lt.	3.5 - 4 lt.	4.0 - 4.5 lt.	4.5 - 5 lt.	5.0 - 5.5 lt.	over 5.5 lt.
<b>kms</b>										
<b>0 - 4999</b>	23.0%	27.1%	23.3%	28.0%	17.8%	37.9%	47.9%	36.4%	34.9%	35.0%
<b>5000 - 9999</b>	18.7%	19.0%	21.3%	24.6%	22.1%	17.1%	13.8%	19.6%	16.0%	17.7%
<b>10000 - 14999</b>	19.7%	16.9%	20.1%	18.2%	25.3%	12.6%	8.4%	13.2%	13.7%	11.5%
<b>15000 - 19999</b>	14.0%	9.7%	10.4%	7.4%	11.2%	7.7%	5.8%	7.1%	8.3%	7.3%
<b>20000 - 24999</b>	7.9%	5.4%	4.9%	3.2%	4.4%	5.0%	4.9%	4.1%	5.5%	4.9%
<b>25000 - 29999</b>	4.6%	3.4%	2.9%	2.4%	2.1%	4.1%	4.3%	3.1%	4.2%	3.6%
<b>30000 - 34999</b>	2.8%	2.4%	1.9%	1.7%	1.4%	3.0%	3.5%	2.6%	3.4%	2.9%
<b>35000 - 39999</b>	1.8%	1.9%	1.5%	1.4%	1.1%	1.9%	2.5%	2.0%	2.2%	2.2%
<b>40000 - 44999</b>	1.3%	1.6%	1.3%	1.3%	1.1%	1.6%	1.8%	1.5%	2.0%	1.8%
<b>45000 - 49999</b>	0.9%	1.3%	1.1%	1.1%	0.8%	1.3%	1.4%	1.2%	1.5%	1.4%
<b>50000 - 54999</b>	0.6%	1.1%	1.0%	1.1%	0.7%	1.0%	0.9%	0.9%	1.0%	1.2%
<b>55000 - 59999</b>	0.5%	1.0%	1.0%	1.1%	0.7%	0.7%	0.6%	0.8%	1.0%	1.0%
<b>60000 - 64999</b>	0.4%	0.9%	0.9%	1.0%	0.6%	0.7%	0.5%	0.7%	0.8%	0.9%
<b>65000 - 69999</b>	0.3%	0.8%	0.9%	0.8%	0.9%	0.6%	0.4%	0.6%	0.6%	0.8%
<b>70000 - 74999</b>	0.4%	0.8%	0.8%	0.8%	0.7%	0.4%	0.4%	0.7%	0.4%	0.8%
<b>75000 - 79999</b>	0.2%	0.7%	0.7%	0.7%	0.8%	0.5%	0.4%	0.6%	0.4%	0.8%
<b>80000 - 84999</b>	0.2%	0.6%	0.6%	0.5%	0.7%	0.3%	0.2%	0.5%	0.2%	0.6%
<b>85000 - 89999</b>	0.3%	0.6%	0.7%	0.6%	0.8%	0.3%	0.2%	0.6%	0.5%	0.6%
<b>90000 - 94999</b>	0.2%	0.5%	0.6%	0.5%	0.6%	0.3%	0.2%	0.4%	0.3%	0.6%
<b>95000 - 99999</b>	0.3%	0.5%	0.6%	0.5%	0.8%	0.4%	0.2%	0.4%	0.5%	0.6%
<b>100000 or more</b>	1.5%	3.5%	3.5%	3.2%	5.4%	2.4%	1.8%	3.0%	2.7%	3.9%
<b>Group Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**Average Age of Vehicle Population in Years  
In the Republic of Mexico**

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	8.92	7.02	10.11	9.69	15.21	9.13
1998	9.03	7.10	10.02	9.40	15.17	9.19
1997	9.12	7.28	9.95	9.07	15.07	9.24
1996	8.95	7.35	9.80	8.69	14.90	9.09
1995	8.56	7.24	9.46	8.15	14.60	8.73
1994	8.00	6.71	8.90	7.50	14.10	8.17
1993	8.02	6.64	8.71	7.20	14.23	8.14
1992	8.06	6.69	8.48	6.89	13.92	8.11
1991	8.26	6.80	8.41	7.11	13.58	8.26
1990	8.42	6.84	8.35	7.62	12.69	8.39
1989	8.52	6.86	8.23	7.83	11.82	8.44
1988	8.43	6.85	8.09	7.89	10.96	8.34
1987	8.16	6.62	7.87	7.62	10.16	8.08
1986	7.72	6.24	7.47	7.15	9.43	7.65
1985	7.28	5.77	7.08	6.72	8.73	7.21

**Average Age of Vehicle Population in Years  
In the Mexico City Metropolitan Area**

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	8.62	7.58	10.05	9.61	15.84	8.86
1998	8.74	7.66	9.95	9.30	15.82	8.94
1997	8.83	7.81	9.77	8.84	15.59	8.99
1996	8.68	7.78	9.56	8.27	15.42	8.82
1995	8.32	7.61	9.26	7.59	15.20	8.48
1994	7.84	7.25	8.75	6.88	14.95	8.00
1993	7.90	7.39	8.58	6.51	14.79	8.02
1992	7.97	7.40	8.48	6.12	14.27	8.04
1991	8.16	7.47	8.38	6.35	13.69	8.19
1990	8.33	7.54	8.42	7.05	12.84	8.38
1989	8.41	7.45	8.32	7.54	12.04	8.44
1988	8.31	7.18	8.15	7.62	11.27	8.31
1987	8.06	6.78	7.98	7.46	10.52	8.06
1986	7.68	6.27	7.60	7.12	9.81	7.66
1985	7.31	5.80	7.21	6.68	9.10	7.27

**Average Age of Vehicle Population in Years  
In the Rest of Mexico (excluding ZMVM)**

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	9.18	6.67	10.13	9.73	14.66	9.31
1998	9.29	6.75	10.04	9.45	14.60	9.36
1997	9.38	6.93	10.00	9.18	14.60	9.41
1996	9.19	7.05	9.88	8.89	14.44	9.27
1995	8.78	6.98	9.53	8.45	14.06	8.91
1994	8.13	6.32	8.95	7.83	13.37	8.30
1993	8.12	6.10	8.76	7.57	13.73	8.22
1992	8.13	6.15	8.48	7.29	13.62	8.15
1991	8.36	6.27	8.42	7.50	13.49	8.31
1990	8.49	6.27	8.32	7.90	12.56	8.40
1989	8.61	6.34	8.20	7.97	11.63	8.44
1988	8.53	6.53	8.07	8.01	10.73	8.37
1987	8.25	6.45	7.84	7.70	9.89	8.10
1986	7.75	6.21	7.42	7.16	9.16	7.63
1985	7.25	5.75	7.03	6.73	8.47	7.16

# Average Engine Number of Cylinders In the Republic of Mexico

	Cars	VanWgn	Pickup	Class 3	Class 7	Overall
1999	4.54	6.19	6.15	7.99	8.00	5.28
1998	4.58	6.09	6.20	7.99	8.00	5.32
1997	4.62	5.97	6.26	7.99	8.00	5.36
1996	4.64	5.84	6.28	7.99	8.00	5.37
1995	4.65	5.70	6.28	7.98	8.00	5.36
1994	4.66	5.61	6.29	7.98	8.00	5.36
1993	4.69	5.50	6.30	7.98	8.00	5.39
1992	4.72	5.37	6.30	7.98	8.00	5.42
1991	4.76	5.22	6.28	7.97	8.00	5.43
1990	4.82	5.06	6.27	7.97	8.00	5.45
1989	4.89	4.91	6.24	7.96	8.00	5.49
1988	4.96	4.73	6.21	7.96	8.00	5.52
1987	5.02	4.60	6.19	7.95	8.00	5.56
1986	5.07	4.49	6.20	7.95	8.00	5.59
1985	5.13	4.46	6.20	7.94	8.00	5.63

## Average Engine Number of Cylinders In the Mexico City Metropolitan Area

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	4.51	6.12	6.16	7.99	8.00	5.07
1998	4.55	6.02	6.21	7.99	8.00	5.11
1997	4.60	5.89	6.26	7.99	8.00	5.16
1996	4.62	5.77	6.27	7.99	8.00	5.17
1995	4.63	5.64	6.28	7.99	8.00	5.18
1994	4.64	5.51	6.29	7.99	8.00	5.18
1993	4.67	5.37	6.30	7.99	8.00	5.21
1992	4.70	5.24	6.29	7.98	8.00	5.24
1991	4.75	5.10	6.27	7.98	8.00	5.26
1990	4.80	4.94	6.25	7.97	8.00	5.28
1989	4.88	4.80	6.23	7.97	8.00	5.32
1988	4.95	4.67	6.20	7.96	8.00	5.36
1987	5.01	4.57	6.18	7.96	8.00	5.40
1986	5.07	4.49	6.18	7.95	8.00	5.44
1985	5.13	4.46	6.18	7.95	8.00	5.49

## Average Engine Number of Cylinders In the Rest of Mexico (excluding ZMVM)

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	4.56	6.23	6.15	7.99	8.00	5.43
1998	4.60	6.14	6.20	7.99	8.00	5.47
1997	4.64	6.03	6.26	7.99	8.00	5.50
1996	4.66	5.89	6.28	7.98	8.00	5.50
1995	4.67	5.74	6.28	7.98	8.00	5.49
1994	4.68	5.68	6.29	7.98	8.00	5.49
1993	4.70	5.59	6.30	7.98	8.00	5.51
1992	4.74	5.47	6.30	7.98	8.00	5.54
1991	4.78	5.32	6.28	7.97	8.00	5.55
1990	4.83	5.17	6.27	7.96	8.00	5.57
1989	4.90	5.01	6.25	7.96	8.00	5.61
1988	4.98	4.79	6.21	7.95	8.00	5.64
1987	5.03	4.62	6.20	7.95	8.00	5.67
1986	5.08	4.48	6.20	7.94	8.00	5.70
1985	5.13	4.45	6.20	7.94	8.00	5.72



## Average Engine Displacement of Vehicle Population in ccs In the Republic of Mexico

	Cars	VanWgn	Pickup	Class 3	Class 7	Overall
1999	2,236	3,834	3,955	5,516	5,787	2,992
1998	2,278	3,769	3,993	5,502	5,777	3,029
1997	2,322	3,685	4,025	5,496	5,767	3,064
1996	2,352	3,578	4,034	5,501	5,761	3,076
1995	2,370	3,455	4,031	5,503	5,756	3,076
1994	2,382	3,372	4,033	5,503	5,751	3,077
1993	2,416	3,283	4,027	5,508	5,735	3,104
1992	2,454	3,167	4,000	5,514	5,724	3,129
1991	2,498	3,001	3,963	5,520	5,714	3,145
1990	2,553	2,823	3,943	5,520	5,715	3,164
1989	2,623	2,659	3,920	5,510	5,715	3,201
1988	2,689	2,476	3,889	5,509	5,716	3,231
1987	2,746	2,340	3,879	5,505	5,716	3,263
1986	2,798	2,230	3,883	5,504	5,716	3,295
1985	2,856	2,202	3,885	5,501	5,715	3,333

## Average Engine Displacement of Vehicle Population in ccs In the Mexico City Metropolitan Area

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	2,212	3,771	3,967	5,518	5,777	2,774
1998	2,254	3,698	4,003	5,502	5,766	2,815
1997	2,298	3,607	4,029	5,496	5,758	2,857
1996	2,328	3,504	4,036	5,500	5,751	2,880
1995	2,348	3,387	4,033	5,502	5,745	2,889
1994	2,363	3,272	4,033	5,503	5,738	2,897
1993	2,399	3,155	4,027	5,509	5,727	2,929
1992	2,436	3,035	3,990	5,512	5,710	2,956
1991	2,482	2,875	3,957	5,523	5,713	2,979
1990	2,538	2,693	3,934	5,524	5,713	3,000
1989	2,608	2,548	3,911	5,512	5,713	3,039
1988	2,674	2,419	3,883	5,510	5,713	3,077
1987	2,733	2,319	3,872	5,506	5,710	3,114
1986	2,792	2,238	3,875	5,504	5,705	3,155
1985	2,855	2,210	3,875	5,501	5,700	3,204

## Average Engine Displacement of Vehicle Population in ccs In the Rest of Mexico (excluding ZMVM)

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	2,257	3,874	3,951	5,515	5,795	3,140
1998	2,300	3,814	3,990	5,501	5,787	3,176
1997	2,343	3,737	4,024	5,495	5,776	3,207
1996	2,373	3,630	4,033	5,501	5,770	3,213
1995	2,389	3,504	4,031	5,503	5,765	3,207
1994	2,398	3,444	4,033	5,503	5,762	3,204
1993	2,431	3,374	4,028	5,507	5,742	3,226
1992	2,469	3,266	4,004	5,515	5,736	3,249
1991	2,513	3,101	3,965	5,518	5,715	3,262
1990	2,566	2,930	3,946	5,518	5,717	3,280
1989	2,637	2,756	3,923	5,510	5,717	3,315
1988	2,702	2,531	3,892	5,508	5,719	3,341
1987	2,758	2,363	3,881	5,505	5,721	3,370
1986	2,804	2,222	3,887	5,504	5,723	3,397
1985	2,857	2,192	3,889	5,501	5,725	3,426

# Average Weight of Vehicle Population in kgs In the Republic of Mexico

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

	Cars	VanWgn	Pickup	Class 3	Class 7	Overall
1999	1,192.50	1,791.01	1,689.83	1,910.56	3,225.81	1,419.98
1998	1,198.66	1,774.23	1,698.07	1,906.85	3,205.43	1,426.05
1997	1,204.00	1,750.54	1,704.82	1,902.46	3,191.12	1,430.48
1996	1,207.35	1,722.20	1,708.37	1,902.00	3,181.01	1,430.75
1995	1,208.43	1,693.13	1,710.37	1,902.53	3,175.32	1,429.10
1994	1,208.99	1,675.33	1,712.82	1,902.96	3,174.46	1,429.08
1993	1,217.14	1,655.31	1,715.45	1,903.16	3,168.31	1,437.55
1992	1,226.42	1,624.21	1,718.35	1,903.58	3,176.16	1,447.93
1991	1,234.52	1,586.32	1,723.21	1,907.63	3,230.26	1,458.39
1990	1,245.25	1,548.60	1,727.82	1,912.63	3,229.08	1,469.49
1989	1,258.14	1,506.68	1,730.16	1,918.76	3,227.63	1,483.24
1988	1,266.33	1,458.91	1,731.00	1,921.93	3,226.40	1,492.05
1987	1,273.90	1,421.12	1,733.75	1,923.63	3,225.89	1,500.16
1986	1,281.29	1,388.84	1,737.09	1,926.10	3,226.26	1,507.19
1985	1,289.60	1,381.33	1,740.07	1,928.79	3,227.08	1,515.56

## Average Weight of Vehicle Population in kgs In the Mexico City Metropolitan Area

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

	Cars	VanWgn	Pickup	Class 3	Class 7	Overall
1999	1,189.39	1,772.98	1,689.05	1,909.62	3,283.91	1,364.53
1998	1,195.66	1,754.11	1,697.07	1,905.68	3,264.10	1,371.68
1997	1,201.14	1,728.99	1,702.93	1,901.76	3,249.64	1,378.43
1996	1,204.62	1,701.71	1,706.28	1,901.16	3,235.27	1,381.49
1995	1,205.98	1,674.00	1,708.46	1,901.25	3,222.41	1,381.84
1994	1,206.68	1,648.84	1,711.22	1,901.30	3,209.07	1,382.11
1993	1,215.09	1,621.96	1,713.95	1,901.23	3,203.80	1,392.13
1992	1,223.88	1,590.19	1,715.23	1,900.45	3,204.45	1,402.72
1991	1,232.39	1,552.81	1,720.47	1,905.64	3,229.20	1,413.83
1990	1,243.38	1,513.25	1,725.33	1,911.25	3,227.71	1,424.75
1989	1,256.14	1,476.04	1,727.60	1,919.08	3,227.39	1,438.12
1988	1,264.36	1,442.02	1,728.37	1,922.42	3,227.72	1,446.81
1987	1,272.14	1,413.93	1,730.86	1,924.44	3,227.72	1,454.10
1986	1,280.24	1,390.28	1,733.39	1,928.07	3,226.33	1,461.71
1985	1,288.89	1,383.00	1,735.39	1,931.12	3,225.06	1,471.63

## Average Weight of Vehicle Population in kgs In the Rest of Mexico (excluding ZMVM)

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

	Cars	VanWgn	Pickup	Class 3	Class 7	Overall
1999	1,195.29	1,802.23	1,690.08	1,911.01	3,175.03	1,457.80
1998	1,201.34	1,787.14	1,698.39	1,907.41	3,154.06	1,463.25
1997	1,206.57	1,764.92	1,705.44	1,902.81	3,138.89	1,466.42
1996	1,209.79	1,736.56	1,709.07	1,902.43	3,132.50	1,465.14
1995	1,210.63	1,707.13	1,711.02	1,903.20	3,133.76	1,462.35
1994	1,211.03	1,694.37	1,713.35	1,903.84	3,144.97	1,461.92
1993	1,218.95	1,679.08	1,715.96	1,904.20	3,137.26	1,469.24
1992	1,228.65	1,649.80	1,719.40	1,905.26	3,151.57	1,479.35
1991	1,236.40	1,612.92	1,724.16	1,908.66	3,231.19	1,489.70
1990	1,246.90	1,577.64	1,728.68	1,913.29	3,230.26	1,500.94
1989	1,259.93	1,533.59	1,731.06	1,918.62	3,227.83	1,515.24
1988	1,268.11	1,475.24	1,731.95	1,921.72	3,225.38	1,524.61
1987	1,275.50	1,428.54	1,734.79	1,923.27	3,224.53	1,533.54
1986	1,282.24	1,387.28	1,738.44	1,925.26	3,226.21	1,540.14
1985	1,290.24	1,379.50	1,741.82	1,927.79	3,228.51	1,547.34

# Vehicle Population in the Republic of Mexico By Vehicle Type and Age

**Population**

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	4,617,757	639,950	1,555,640	477,929	87,887	7,379,164
1998	4,410,645	575,859	1,503,757	478,526	91,769	7,060,557
1997	4,224,048	512,688	1,447,969	478,879	96,182	6,759,766
1996	4,150,882	463,827	1,401,672	478,217	101,495	6,596,094
1995	4,163,459	429,757	1,378,678	482,615	108,224	6,562,732
1994	4,244,017	421,247	1,385,228	491,917	116,970	6,659,379
1993	4,015,462	384,585	1,331,258	476,126	121,134	6,328,565
1992	3,795,853	344,860	1,282,741	460,597	129,198	6,013,249
1991	3,527,820	307,595	1,212,056	412,383	137,818	5,597,673
1990	3,316,003	277,563	1,142,155	357,251	152,466	5,245,438
1989	3,145,390	251,994	1,082,406	325,253	168,094	4,973,137
1988	3,048,418	229,152	1,026,702	303,325	184,480	4,792,078
1987	3,013,186	214,109	978,972	294,499	200,081	4,700,846
1986	3,032,122	202,645	951,344	292,691	213,853	4,692,656
1985	3,034,578	193,138	917,743	286,212	226,280	4,657,949

**Population**

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	62.6%	8.7%	21.1%	6.5%	1.2%	100.0%
1998	62.5%	8.2%	21.3%	6.8%	1.3%	100.0%
1997	62.5%	7.6%	21.4%	7.1%	1.4%	100.0%
1996	62.9%	7.0%	21.3%	7.3%	1.5%	100.0%
1995	63.4%	6.5%	21.0%	7.4%	1.6%	100.0%
1994	63.7%	6.3%	20.8%	7.4%	1.8%	100.0%
1993	63.4%	6.1%	21.0%	7.5%	1.9%	100.0%
1992	63.1%	5.7%	21.3%	7.7%	2.1%	100.0%
1991	63.0%	5.5%	21.7%	7.4%	2.5%	100.0%
1990	63.2%	5.3%	21.8%	6.8%	2.9%	100.0%
1989	63.2%	5.1%	21.8%	6.5%	3.4%	100.0%
1988	63.6%	4.8%	21.4%	6.3%	3.8%	100.0%
1987	64.1%	4.6%	20.8%	6.3%	4.3%	100.0%
1986	64.6%	4.3%	20.3%	6.2%	4.6%	100.0%
1985	65.1%	4.1%	19.7%	6.1%	4.9%	100.0%

## Vehicle Population in the Republic of Mexico By Vehicle Type and Age

### Cars

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	25,033	26,397	68,250	172,562	309,086	472,996	674,182	1,471,834	1,397,417	4,617,757
1998	25,687	27,668	72,426	184,905	333,463	512,419	732,641	1,587,577	933,859	4,410,645
1997	26,429	29,078	77,025	198,446	360,145	555,510	796,473	1,677,284	503,660	4,224,048
1996	27,266	30,638	82,085	213,293	389,338	602,600	866,160	1,739,400	200,102	4,150,882
1995	28,208	32,362	87,648	229,565	421,271	654,049	942,233	1,768,124	0	4,163,459
1994	29,264	34,265	93,758	247,389	456,188	710,250	1,022,172	1,650,731	0	4,244,017
1993	30,444	36,362	100,467	266,905	494,360	771,632	1,078,823	1,236,471	0	4,015,462
1992	31,759	38,672	107,826	288,265	536,080	838,660	1,116,862	837,729	0	3,795,853
1991	33,221	41,214	115,895	311,637	581,667	911,845	1,140,231	392,110	0	3,527,820
1990	34,845	44,008	124,738	337,201	631,469	991,741	1,152,001	0	0	3,316,003
1989	36,643	47,077	134,425	365,155	685,868	1,076,828	799,393	0	0	3,145,390
1988	38,633	50,447	145,031	395,714	745,277	1,148,429	524,888	0	0	3,048,418
1987	40,831	54,143	156,640	429,113	810,147	1,207,490	314,822	0	0	3,013,186
1986	43,256	58,196	169,341	465,608	880,971	1,254,079	160,670	0	0	3,032,122
1985	45,929	62,638	183,234	505,478	958,286	1,279,013	0	0	0	3,034,578

### Van / Wagon

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0	35	221	12,772	27,446	49,661	90,211	195,694	263,911	639,950
1998	0	37	234	13,582	29,270	53,079	96,587	199,025	184,046	575,859
1997	0	39	248	14,454	31,232	56,753	103,437	199,702	106,822	512,688
1996	0	41	264	15,393	33,343	60,702	109,014	199,702	45,368	463,827
1995	0	43	280	16,404	35,613	64,947	112,767	199,702	0	429,757
1994	0	46	298	17,492	38,054	69,508	115,101	180,748	0	421,247
1993	0	48	317	18,663	40,678	74,409	116,321	134,148	0	384,585
1992	0	51	338	19,922	43,499	79,675	116,570	84,805	0	344,860
1991	0	54	360	21,276	46,531	84,269	116,570	38,536	0	307,595
1990	0	57	384	22,732	49,789	88,031	116,570	0	0	277,563
1989	0	61	410	24,297	53,291	91,242	82,693	0	0	251,994
1988	0	65	437	25,980	57,053	93,293	52,325	0	0	229,152
1987	0	69	467	27,789	61,095	93,736	30,953	0	0	214,109
1986	0	73	499	29,733	64,449	93,736	14,156	0	0	202,645
1985	0	78	533	31,822	66,969	93,736	0	0	0	193,138



## Vehicle Population in the Republic of Mexico By Vehicle Type and Age

### Pickup

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	9,463	10,270	23,425	53,763	133,783	221,473	290,986	428,248	384,229	1,555,640
1998	9,815	10,755	24,651	56,783	141,688	234,952	309,146	440,209	275,758	1,503,757
1997	10,195	11,274	25,963	60,009	150,125	249,328	328,505	445,912	166,658	1,447,969
1996	10,604	11,831	27,365	63,454	159,128	264,660	348,429	445,912	70,289	1,401,672
1995	11,043	12,426	28,865	67,134	168,733	281,011	363,553	445,912	0	1,378,678
1994	11,516	13,064	30,468	71,062	178,981	298,445	373,924	407,768	0	1,385,228
1993	12,023	13,747	32,181	75,255	189,911	317,033	380,076	311,031	0	1,331,258
1992	12,567	14,477	34,010	79,731	201,570	336,850	383,114	220,422	0	1,282,741
1991	13,151	15,258	35,964	84,507	214,002	357,380	383,114	108,680	0	1,212,056
1990	13,777	16,093	38,051	89,603	227,259	374,258	383,114	0	0	1,142,155
1989	14,448	16,985	40,279	95,039	241,394	388,352	285,908	0	0	1,082,406
1988	15,167	17,939	42,657	100,838	256,464	400,009	193,628	0	0	1,026,702
1987	15,936	18,957	45,196	107,023	272,529	406,087	113,243	0	0	978,972
1986	16,760	20,045	47,904	113,619	289,037	406,087	57,890	0	0	951,344
1985	17,641	21,207	50,794	120,653	301,360	406,087	0	0	0	917,743

### Class 3

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	2,235	1,767	5,419	9,853	34,520	49,804	94,406	185,193	94,731	477,929
1998	2,337	1,883	5,821	10,636	37,389	54,042	102,585	196,821	67,011	478,526
1997	2,449	2,011	6,260	11,490	40,517	58,659	111,491	205,773	40,230	478,879
1996	2,570	2,150	6,739	12,422	43,926	63,688	121,188	209,679	15,855	478,217
1995	2,702	2,303	7,263	13,438	47,640	69,165	130,426	209,679	0	482,615
1994	2,845	2,469	7,834	14,546	51,687	75,131	136,603	200,803	0	491,917
1993	3,000	2,651	8,457	15,754	56,096	81,628	140,420	168,119	0	476,126
1992	3,168	2,851	9,138	17,070	60,899	88,703	142,700	136,069	0	460,597
1991	3,350	3,068	9,880	18,505	66,130	96,407	143,726	71,317	0	412,383
1990	3,548	3,306	10,689	20,068	71,828	104,085	143,726	0	0	357,251
1989	3,763	3,565	11,571	21,772	78,034	110,433	96,116	0	0	325,253
1988	3,996	3,848	12,533	23,628	84,791	115,930	58,600	0	0	303,325
1987	4,248	4,157	13,581	25,650	92,150	120,281	34,433	0	0	294,499
1986	4,522	4,493	14,723	27,852	100,162	122,208	18,731	0	0	292,691
1985	4,818	4,861	15,968	30,251	108,106	122,208	0	0	0	286,212

## Vehicle Population in the Republic of Mexico By Vehicle Type and Age

### Class 7

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	3,548	2,681	3,406	9,254	17,948	21,928	10	18,723	10,389	87,887
1998	3,649	2,866	3,716	10,242	20,025	24,551	11	19,021	7,687	91,769
1997	3,770	3,078	4,068	11,358	22,367	27,504	13	19,021	5,003	96,182
1996	3,912	3,320	4,467	12,618	25,006	30,830	14	19,021	2,306	101,495
1995	4,079	3,596	4,918	14,039	27,980	34,575	16	19,021	0	108,224
1994	4,273	3,909	5,429	15,643	31,329	38,790	18	17,578	0	116,970
1993	4,499	4,264	6,006	17,451	35,101	43,535	20	10,257	0	121,134
1992	4,760	4,668	6,657	19,490	39,349	48,876	21	5,377	0	129,198
1991	5,060	5,124	7,393	21,787	44,132	54,301	21	0	0	137,818
1990	5,405	5,641	8,223	24,375	49,516	59,285	21	0	0	152,466
1989	5,800	6,226	9,160	27,291	55,576	64,020	21	0	0	168,094
1988	6,252	6,886	10,216	30,574	62,397	68,133	21	0	0	184,480
1987	6,767	7,633	11,407	34,272	70,073	69,908	21	0	0	200,081
1986	7,354	8,476	12,749	38,435	76,914	69,908	17	0	0	213,853
1985	8,022	9,427	14,261	43,122	81,539	69,908	0	0	0	226,280

### Total

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	40,278	41,150	100,721	258,204	522,782	815,862	1,149,796	2,299,693	2,150,677	7,379,164
1998	41,489	43,210	106,848	276,148	561,836	879,041	1,240,971	2,442,653	1,468,361	7,060,557
1997	42,842	45,480	113,564	295,757	604,386	947,753	1,339,919	2,547,692	822,373	6,759,766
1996	44,352	47,980	120,920	317,181	650,741	1,022,480	1,444,806	2,613,714	333,920	6,596,094
1995	46,032	50,730	128,974	340,580	701,237	1,103,747	1,548,994	2,642,438	0	6,562,732
1994	47,897	53,753	137,787	366,132	756,239	1,192,125	1,647,818	2,457,628	0	6,659,379
1993	49,965	57,073	147,427	394,027	816,147	1,288,238	1,715,661	1,860,026	0	6,328,565
1992	52,254	60,719	157,969	424,478	881,396	1,392,765	1,759,267	1,284,402	0	6,013,249
1991	54,783	64,718	169,492	457,711	952,462	1,504,201	1,783,662	610,643	0	5,597,673
1990	57,576	69,105	182,085	493,979	1,029,862	1,617,399	1,795,432	0	0	5,245,438
1989	60,655	73,914	195,844	533,554	1,114,163	1,730,876	1,264,131	0	0	4,973,137
1988	64,048	79,185	210,874	576,735	1,205,982	1,825,793	829,462	0	0	4,792,078
1987	67,783	84,959	227,290	623,847	1,305,994	1,897,502	493,472	0	0	4,700,846
1986	71,892	91,284	245,217	675,248	1,411,533	1,946,018	251,464	0	0	4,692,656
1985	76,410	98,211	264,791	731,326	1,516,259	1,970,952	0	0	0	4,657,949

## Vehicle Population in the Republic of Mexico By Vehicle Type and Age

### Cars

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.5%	0.6%	1.5%	3.7%	6.7%	10.2%	14.6%	31.9%	30.3%	100.0%
1998	0.6%	0.6%	1.6%	4.2%	7.6%	11.6%	16.6%	36.0%	21.2%	100.0%
1997	0.6%	0.7%	1.8%	4.7%	8.5%	13.2%	18.9%	39.7%	11.9%	100.0%
1996	0.7%	0.7%	2.0%	5.1%	9.4%	14.5%	20.9%	41.9%	4.8%	100.0%
1995	0.7%	0.8%	2.1%	5.5%	10.1%	15.7%	22.6%	42.5%	0.0%	100.0%
1994	0.7%	0.8%	2.2%	5.8%	10.7%	16.7%	24.1%	38.9%	0.0%	100.0%
1993	0.8%	0.9%	2.5%	6.6%	12.3%	19.2%	26.9%	30.8%	0.0%	100.0%
1992	0.8%	1.0%	2.8%	7.6%	14.1%	22.1%	29.4%	22.1%	0.0%	100.0%
1991	0.9%	1.2%	3.3%	8.8%	16.5%	25.8%	32.3%	11.1%	0.0%	100.0%
1990	1.1%	1.3%	3.8%	10.2%	19.0%	29.9%	34.7%	0.0%	0.0%	100.0%
1989	1.2%	1.5%	4.3%	11.6%	21.8%	34.2%	25.4%	0.0%	0.0%	100.0%
1988	1.3%	1.7%	4.8%	13.0%	24.4%	37.7%	17.2%	0.0%	0.0%	100.0%
1987	1.4%	1.8%	5.2%	14.2%	26.9%	40.1%	10.4%	0.0%	0.0%	100.0%
1986	1.4%	1.9%	5.6%	15.4%	29.1%	41.4%	5.3%	0.0%	0.0%	100.0%
1985	1.5%	2.1%	6.0%	16.7%	31.6%	42.1%	0.0%	0.0%	0.0%	100.0%

### Van / Wagon

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.0%	0.0%	0.0%	2.0%	4.3%	7.8%	14.1%	30.6%	41.2%	100.0%
1998	0.0%	0.0%	0.0%	2.4%	5.1%	9.2%	16.8%	34.6%	32.0%	100.0%
1997	0.0%	0.0%	0.0%	2.8%	6.1%	11.1%	20.2%	39.0%	20.8%	100.0%
1996	0.0%	0.0%	0.1%	3.3%	7.2%	13.1%	23.5%	43.1%	9.8%	100.0%
1995	0.0%	0.0%	0.1%	3.8%	8.3%	15.1%	26.2%	46.5%	0.0%	100.0%
1994	0.0%	0.0%	0.1%	4.2%	9.0%	16.5%	27.3%	42.9%	0.0%	100.0%
1993	0.0%	0.0%	0.1%	4.9%	10.6%	19.3%	30.2%	34.9%	0.0%	100.0%
1992	0.0%	0.0%	0.1%	5.8%	12.6%	23.1%	33.8%	24.6%	0.0%	100.0%
1991	0.0%	0.0%	0.1%	6.9%	15.1%	27.4%	37.9%	12.5%	0.0%	100.0%
1990	0.0%	0.0%	0.1%	8.2%	17.9%	31.7%	42.0%	0.0%	0.0%	100.0%
1989	0.0%	0.0%	0.2%	9.6%	21.1%	36.2%	32.8%	0.0%	0.0%	100.0%
1988	0.0%	0.0%	0.2%	11.3%	24.9%	40.7%	22.8%	0.0%	0.0%	100.0%
1987	0.0%	0.0%	0.2%	13.0%	28.5%	43.8%	14.5%	0.0%	0.0%	100.0%
1986	0.0%	0.0%	0.2%	14.7%	31.8%	46.3%	7.0%	0.0%	0.0%	100.0%
1985	0.0%	0.0%	0.3%	16.5%	34.7%	48.5%	0.0%	0.0%	0.0%	100.0%

## Vehicle Population in the Republic of Mexico By Vehicle Type and Age

### Pickup

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.6%	0.7%	1.5%	3.5%	8.6%	14.2%	18.7%	27.5%	24.7%	100.0%
1998	0.7%	0.7%	1.6%	3.8%	9.4%	15.6%	20.6%	29.3%	18.3%	100.0%
1997	0.7%	0.8%	1.8%	4.1%	10.4%	17.2%	22.7%	30.8%	11.5%	100.0%
1996	0.8%	0.8%	2.0%	4.5%	11.4%	18.9%	24.9%	31.8%	5.0%	100.0%
1995	0.8%	0.9%	2.1%	4.9%	12.2%	20.4%	26.4%	32.3%	0.0%	100.0%
1994	0.8%	0.9%	2.2%	5.1%	12.9%	21.5%	27.0%	29.4%	0.0%	100.0%
1993	0.9%	1.0%	2.4%	5.7%	14.3%	23.8%	28.6%	23.4%	0.0%	100.0%
1992	1.0%	1.1%	2.7%	6.2%	15.7%	26.3%	29.9%	17.2%	0.0%	100.0%
1991	1.1%	1.3%	3.0%	7.0%	17.7%	29.5%	31.6%	9.0%	0.0%	100.0%
1990	1.2%	1.4%	3.3%	7.8%	19.9%	32.8%	33.5%	0.0%	0.0%	100.0%
1989	1.3%	1.6%	3.7%	8.8%	22.3%	35.9%	26.4%	0.0%	0.0%	100.0%
1988	1.5%	1.7%	4.2%	9.8%	25.0%	39.0%	18.9%	0.0%	0.0%	100.0%
1987	1.6%	1.9%	4.6%	10.9%	27.8%	41.5%	11.6%	0.0%	0.0%	100.0%
1986	1.8%	2.1%	5.0%	11.9%	30.4%	42.7%	6.1%	0.0%	0.0%	100.0%
1985	1.9%	2.3%	5.5%	13.1%	32.8%	44.2%	0.0%	0.0%	0.0%	100.0%

### Class 3

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.5%	0.4%	1.1%	2.1%	7.2%	10.4%	19.8%	38.7%	19.8%	100.0%
1998	0.5%	0.4%	1.2%	2.2%	7.8%	11.3%	21.4%	41.1%	14.0%	100.0%
1997	0.5%	0.4%	1.3%	2.4%	8.5%	12.2%	23.3%	43.0%	8.4%	100.0%
1996	0.5%	0.4%	1.4%	2.6%	9.2%	13.3%	25.3%	43.8%	3.3%	100.0%
1995	0.6%	0.5%	1.5%	2.8%	9.9%	14.3%	27.0%	43.4%	0.0%	100.0%
1994	0.6%	0.5%	1.6%	3.0%	10.5%	15.3%	27.8%	40.8%	0.0%	100.0%
1993	0.6%	0.6%	1.8%	3.3%	11.8%	17.1%	29.5%	35.3%	0.0%	100.0%
1992	0.7%	0.6%	2.0%	3.7%	13.2%	19.3%	31.0%	29.5%	0.0%	100.0%
1991	0.8%	0.7%	2.4%	4.5%	16.0%	23.4%	34.9%	17.3%	0.0%	100.0%
1990	1.0%	0.9%	3.0%	5.6%	20.1%	29.1%	40.2%	0.0%	0.0%	100.0%
1989	1.2%	1.1%	3.6%	6.7%	24.0%	34.0%	29.6%	0.0%	0.0%	100.0%
1988	1.3%	1.3%	4.1%	7.8%	28.0%	38.2%	19.3%	0.0%	0.0%	100.0%
1987	1.4%	1.4%	4.6%	8.7%	31.3%	40.8%	11.7%	0.0%	0.0%	100.0%
1986	1.5%	1.5%	5.0%	9.5%	34.2%	41.8%	6.4%	0.0%	0.0%	100.0%
1985	1.7%	1.7%	5.6%	10.6%	37.8%	42.7%	0.0%	0.0%	0.0%	100.0%

## Vehicle Population in the Republic of Mexico By Vehicle Type and Age

### Class 7

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	4.0%	3.0%	3.9%	10.5%	20.4%	25.0%	0.0%	21.3%	11.8%	100.0%
1998	4.0%	3.1%	4.0%	11.2%	21.8%	26.8%	0.0%	20.7%	8.4%	100.0%
1997	3.9%	3.2%	4.2%	11.8%	23.3%	28.6%	0.0%	19.8%	5.2%	100.0%
1996	3.9%	3.3%	4.4%	12.4%	24.6%	30.4%	0.0%	18.7%	2.3%	100.0%
1995	3.8%	3.3%	4.5%	13.0%	25.9%	31.9%	0.0%	17.6%	0.0%	100.0%
1994	3.7%	3.3%	4.6%	13.4%	26.8%	33.2%	0.0%	15.0%	0.0%	100.0%
1993	3.7%	3.5%	5.0%	14.4%	29.0%	35.9%	0.0%	8.5%	0.0%	100.0%
1992	3.7%	3.6%	5.2%	15.1%	30.5%	37.8%	0.0%	4.2%	0.0%	100.0%
1991	3.7%	3.7%	5.4%	15.8%	32.0%	39.4%	0.0%	0.0%	0.0%	100.0%
1990	3.5%	3.7%	5.4%	16.0%	32.5%	38.9%	0.0%	0.0%	0.0%	100.0%
1989	3.5%	3.7%	5.4%	16.2%	33.1%	38.1%	0.0%	0.0%	0.0%	100.0%
1988	3.4%	3.7%	5.5%	16.6%	33.8%	36.9%	0.0%	0.0%	0.0%	100.0%
1987	3.4%	3.8%	5.7%	17.1%	35.0%	34.9%	0.0%	0.0%	0.0%	100.0%
1986	3.4%	4.0%	6.0%	18.0%	36.0%	32.7%	0.0%	0.0%	0.0%	100.0%
1985	3.5%	4.2%	6.3%	19.1%	36.0%	30.9%	0.0%	0.0%	0.0%	100.0%

### Total

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.5%	0.6%	1.4%	3.5%	7.1%	11.1%	15.6%	31.2%	29.1%	100.0%
1998	0.6%	0.6%	1.5%	3.9%	8.0%	12.5%	17.6%	34.6%	20.8%	100.0%
1997	0.6%	0.7%	1.7%	4.4%	8.9%	14.0%	19.8%	37.7%	12.2%	100.0%
1996	0.7%	0.7%	1.8%	4.8%	9.9%	15.5%	21.9%	39.6%	5.1%	100.0%
1995	0.7%	0.8%	2.0%	5.2%	10.7%	16.8%	23.6%	40.3%	0.0%	100.0%
1994	0.7%	0.8%	2.1%	5.5%	11.4%	17.9%	24.7%	36.9%	0.0%	100.0%
1993	0.8%	0.9%	2.3%	6.2%	12.9%	20.4%	27.1%	29.4%	0.0%	100.0%
1992	0.9%	1.0%	2.6%	7.1%	14.7%	23.2%	29.3%	21.4%	0.0%	100.0%
1991	1.0%	1.2%	3.0%	8.2%	17.0%	26.9%	31.9%	10.9%	0.0%	100.0%
1990	1.1%	1.3%	3.5%	9.4%	19.6%	30.8%	34.2%	0.0%	0.0%	100.0%
1989	1.2%	1.5%	3.9%	10.7%	22.4%	34.8%	25.4%	0.0%	0.0%	100.0%
1988	1.3%	1.7%	4.4%	12.0%	25.2%	38.1%	17.3%	0.0%	0.0%	100.0%
1987	1.4%	1.8%	4.8%	13.3%	27.8%	40.4%	10.5%	0.0%	0.0%	100.0%
1986	1.5%	1.9%	5.2%	14.4%	30.1%	41.5%	5.4%	0.0%	0.0%	100.0%
1985	1.6%	2.1%	5.7%	15.7%	32.6%	42.3%	0.0%	0.0%	0.0%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Type and Age

**Population**

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	2,183,256	245,400	369,122	153,503	40,990	2,992,272
1998	2,085,219	225,127	361,523	153,986	42,847	2,868,700
1997	1,997,875	205,120	355,676	156,695	45,363	2,760,728
1996	1,962,436	191,176	349,807	160,569	47,907	2,711,895
1995	1,965,849	181,577	346,212	165,947	50,737	2,710,323
1994	1,989,947	176,214	349,669	170,832	53,817	2,740,479
1993	1,879,238	160,012	338,749	166,005	56,520	2,600,523
1992	1,772,942	148,058	323,893	160,441	60,078	2,465,411
1991	1,657,704	136,129	311,033	140,503	64,656	2,310,025
1990	1,559,896	125,188	293,491	115,999	70,541	2,165,115
1989	1,486,937	117,856	281,544	100,927	76,053	2,063,317
1988	1,447,526	112,686	271,164	93,479	80,766	2,005,620
1987	1,432,156	108,666	260,257	89,373	85,080	1,975,531
1986	1,433,789	105,431	255,413	87,420	89,296	1,971,349
1985	1,425,178	100,827	249,480	86,258	93,500	1,955,243

**Population**

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	73.0%	8.2%	12.3%	5.1%	1.4%	100.0%
1998	72.7%	7.8%	12.6%	5.4%	1.5%	100.0%
1997	72.4%	7.4%	12.9%	5.7%	1.6%	100.0%
1996	72.4%	7.0%	12.9%	5.9%	1.8%	100.0%
1995	72.5%	6.7%	12.8%	6.1%	1.9%	100.0%
1994	72.6%	6.4%	12.8%	6.2%	2.0%	100.0%
1993	72.3%	6.2%	13.0%	6.4%	2.2%	100.0%
1992	71.9%	6.0%	13.1%	6.5%	2.4%	100.0%
1991	71.8%	5.9%	13.5%	6.1%	2.8%	100.0%
1990	72.0%	5.8%	13.6%	5.4%	3.3%	100.0%
1989	72.1%	5.7%	13.6%	4.9%	3.7%	100.0%
1988	72.2%	5.6%	13.5%	4.7%	4.0%	100.0%
1987	72.5%	5.5%	13.2%	4.5%	4.3%	100.0%
1986	72.7%	5.3%	13.0%	4.4%	4.5%	100.0%
1985	72.9%	5.2%	12.8%	4.4%	4.8%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Type and Age

### Cars

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	4,578	8,226	25,333	74,385	131,841	215,577	325,978	734,466	662,871	2,183,256
1998	4,997	8,979	27,651	81,190	143,902	235,298	355,798	784,666	442,738	2,085,219
1997	5,452	9,800	30,180	88,617	157,066	256,823	388,347	821,654	239,936	1,997,875
1996	5,947	10,697	32,941	96,724	171,434	280,317	423,872	843,890	96,614	1,962,436
1995	6,486	11,675	35,955	105,572	187,117	305,960	462,648	850,437	0	1,965,849
1994	7,072	12,743	39,244	115,230	204,234	333,949	496,443	781,032	0	1,989,947
1993	7,711	13,909	42,834	125,771	222,917	364,499	520,586	581,012	0	1,879,238
1992	5,445	15,181	46,752	137,277	243,309	397,843	536,877	390,257	0	1,772,942
1991	7,287	16,570	51,029	149,835	265,567	434,237	546,552	186,627	0	1,657,704
1990	9,228	18,086	55,697	163,541	289,861	473,961	549,522	0	0	1,559,896
1989	11,103	19,740	60,792	178,502	316,377	511,225	389,197	0	0	1,486,937
1988	12,296	21,546	66,353	194,831	345,319	542,151	265,028	0	0	1,447,526
1987	13,664	23,517	72,423	212,654	376,909	567,730	165,258	0	0	1,432,156
1986	15,749	25,669	79,048	232,108	411,389	585,154	84,673	0	0	1,433,789
1985	17,919	28,017	86,280	253,341	449,022	590,599	0	0	0	1,425,178

### Van / Wagon

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0	15	98	5,412	13,214	23,775	32,209	81,519	89,159	245,400
1998	0	16	106	5,844	14,267	25,669	34,775	82,727	61,725	225,127
1997	0	17	114	6,309	15,403	27,713	37,545	82,767	35,251	205,120
1996	0	18	123	6,812	16,630	29,921	39,594	82,767	15,310	191,176
1995	0	20	133	7,354	17,955	32,305	41,043	82,767	0	181,577
1994	0	21	144	7,940	19,386	34,879	42,002	71,843	0	176,214
1993	0	23	155	8,573	20,930	37,657	42,543	50,131	0	160,012
1992	0	25	168	9,256	22,598	40,657	42,561	32,794	0	148,058
1991	0	27	181	9,993	24,398	43,134	42,561	15,835	0	136,129
1990	0	29	195	10,789	26,341	45,272	42,561	0	0	125,188
1989	0	31	211	11,649	28,440	47,209	30,315	0	0	117,856
1988	0	34	228	12,577	30,706	48,315	20,826	0	0	112,686
1987	0	36	246	13,579	33,152	48,352	13,300	0	0	108,666
1986	0	39	266	14,661	34,973	48,352	7,140	0	0	105,431
1985	0	42	287	15,829	36,318	48,352	0	0	0	100,827

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Type and Age

### Pickup

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	1,554	2,095	5,174	12,885	29,345	51,624	69,379	112,235	84,831	369,122
1998	1,710	2,256	5,570	13,872	31,592	55,576	74,690	115,762	60,495	361,523
1997	1,873	2,429	5,996	14,934	34,011	59,831	80,408	117,505	38,689	355,676
1996	2,045	2,615	6,455	16,077	36,614	64,412	86,217	117,505	17,867	349,807
1995	2,227	2,815	6,950	17,308	39,418	69,343	90,648	117,505	0	346,212
1994	2,418	3,030	7,482	18,633	42,435	74,652	93,732	107,286	0	349,669
1993	2,620	3,262	8,054	20,059	45,684	80,367	95,513	83,188	0	338,749
1992	1,840	3,512	8,671	21,595	49,182	86,520	96,339	56,234	0	323,893
1991	2,367	3,781	9,335	23,248	52,947	92,843	96,339	30,173	0	311,033
1990	2,919	4,070	10,050	25,028	57,001	98,085	96,339	0	0	293,491
1989	3,443	4,382	10,819	26,944	61,365	102,439	72,152	0	0	281,544
1988	3,649	4,717	11,647	29,007	66,063	106,062	50,019	0	0	271,164
1987	3,970	5,078	12,539	31,228	71,120	107,782	28,540	0	0	260,257
1986	4,504	5,467	13,499	33,619	76,243	107,782	14,300	0	0	255,413
1985	5,045	5,886	14,532	36,193	80,042	107,782	0	0	0	249,480

### Class 3

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	497	447	1,484	4,151	9,342	14,734	31,959	62,966	27,924	153,503
1998	538	483	1,604	4,486	10,096	15,924	34,541	67,954	18,359	153,986
1997	583	522	1,734	4,849	10,912	17,211	37,332	72,826	10,726	156,695
1996	627	564	1,874	5,240	11,794	18,601	40,348	77,159	4,361	160,569
1995	674	610	2,025	5,664	12,746	20,104	43,608	80,515	0	165,947
1994	724	659	2,189	6,121	13,776	21,729	47,131	78,502	0	170,832
1993	777	712	2,366	6,616	14,889	23,484	50,348	66,812	0	166,005
1992	588	770	2,557	7,150	16,092	25,382	52,406	55,496	0	160,441
1991	712	832	2,763	7,728	17,393	27,432	53,718	29,924	0	140,503
1990	843	900	2,987	8,353	18,798	29,649	54,470	0	0	115,999
1989	968	972	3,228	9,027	20,317	32,044	34,371	0	0	100,927
1988	1,012	1,051	3,489	9,757	21,958	34,382	21,830	0	0	93,479
1987	1,085	1,136	3,770	10,545	23,732	36,291	12,813	0	0	89,373
1986	1,208	1,227	4,075	11,397	25,650	37,924	5,938	0	0	87,420
1985	1,333	1,327	4,404	12,318	27,722	39,154	0	0	0	86,258



## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Type and Age

**Class 7**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	720	963	1,538	4,912	9,783	11,203	7	6,587	5,277	40,990
1998	812	1,068	1,706	5,449	10,852	12,428	8	6,587	3,937	42,847
1997	911	1,185	1,893	6,044	12,038	13,787	9	6,587	2,909	45,363
1996	1,018	1,314	2,100	6,705	13,354	15,294	10	6,587	1,525	47,907
1995	1,135	1,458	2,329	7,438	14,814	16,966	11	6,587	0	50,737
1994	1,261	1,617	2,584	8,251	16,433	18,820	11	4,839	0	53,817
1993	1,399	1,794	2,867	9,153	18,230	20,604	11	2,462	0	56,520
1992	1,104	1,990	3,180	10,154	20,223	22,228	11	1,189	0	60,078
1991	1,424	2,208	3,528	11,264	22,433	23,789	11	0	0	64,656
1990	1,773	2,449	3,913	12,495	24,886	25,014	11	0	0	70,541
1989	2,124	2,717	4,341	13,861	27,606	25,394	11	0	0	76,053
1988	2,316	3,014	4,816	15,376	29,840	25,394	11	0	0	80,766
1987	2,584	3,343	5,342	17,057	31,349	25,394	11	0	0	85,080
1986	2,993	3,708	5,926	18,921	32,347	25,394	7	0	0	89,296
1985	3,429	4,114	6,574	20,990	33,000	25,394	0	0	0	93,500

**Total**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	7,349	11,746	33,628	101,745	193,524	316,913	459,532	997,773	870,062	2,992,272
1998	8,056	12,801	36,637	110,840	210,708	344,895	499,812	1,057,696	587,254	2,868,700
1997	8,819	13,952	39,917	120,753	229,430	375,365	543,641	1,101,339	327,511	2,760,728
1996	9,638	15,208	43,493	131,558	249,826	408,545	590,041	1,127,909	135,677	2,711,895
1995	10,521	16,577	47,392	143,336	272,050	444,678	637,957	1,137,811	0	2,710,323
1994	11,475	18,071	51,642	156,176	296,265	484,029	679,320	1,043,502	0	2,740,479
1993	12,506	19,700	56,275	170,172	322,651	526,612	709,002	783,605	0	2,600,523
1992	8,977	21,478	61,327	185,432	351,404	572,630	728,194	535,970	0	2,465,411
1991	11,790	23,417	66,836	202,068	382,738	621,436	739,181	262,559	0	2,310,025
1990	14,763	25,533	72,842	220,206	416,887	671,981	742,903	0	0	2,165,115
1989	17,638	27,842	79,391	239,984	454,104	718,312	526,046	0	0	2,063,317
1988	19,273	30,361	86,532	261,548	493,886	756,304	357,714	0	0	2,005,620
1987	21,303	33,111	94,321	285,063	536,262	785,549	219,922	0	0	1,975,531
1986	24,453	36,111	102,814	310,706	580,601	804,606	112,058	0	0	1,971,349
1985	27,727	39,385	112,077	338,670	626,103	811,281	0	0	0	1,955,243

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Type and Age

### Cars

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.2%	0.4%	1.2%	3.4%	6.0%	9.9%	14.9%	33.6%	30.4%	100.0%
1998	0.2%	0.4%	1.3%	3.9%	6.9%	11.3%	17.1%	37.6%	21.2%	100.0%
1997	0.3%	0.5%	1.5%	4.4%	7.9%	12.9%	19.4%	41.1%	12.0%	100.0%
1996	0.3%	0.5%	1.7%	4.9%	8.7%	14.3%	21.6%	43.0%	4.9%	100.0%
1995	0.3%	0.6%	1.8%	5.4%	9.5%	15.6%	23.5%	43.3%	0.0%	100.0%
1994	0.4%	0.6%	2.0%	5.8%	10.3%	16.8%	24.9%	39.2%	0.0%	100.0%
1993	0.4%	0.7%	2.3%	6.7%	11.9%	19.4%	27.7%	30.9%	0.0%	100.0%
1992	0.3%	0.9%	2.6%	7.7%	13.7%	22.4%	30.3%	22.0%	0.0%	100.0%
1991	0.4%	1.0%	3.1%	9.0%	16.0%	26.2%	33.0%	11.3%	0.0%	100.0%
1990	0.6%	1.2%	3.6%	10.5%	18.6%	30.4%	35.2%	0.0%	0.0%	100.0%
1989	0.7%	1.3%	4.1%	12.0%	21.3%	34.4%	26.2%	0.0%	0.0%	100.0%
1988	0.8%	1.5%	4.6%	13.5%	23.9%	37.5%	18.3%	0.0%	0.0%	100.0%
1987	1.0%	1.6%	5.1%	14.8%	26.3%	39.6%	11.5%	0.0%	0.0%	100.0%
1986	1.1%	1.8%	5.5%	16.2%	28.7%	40.8%	5.9%	0.0%	0.0%	100.0%
1985	1.3%	2.0%	6.1%	17.8%	31.5%	41.4%	0.0%	0.0%	0.0%	100.0%

### Van / Wagon

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.0%	0.0%	0.0%	2.2%	5.4%	9.7%	13.1%	33.2%	36.3%	100.0%
1998	0.0%	0.0%	0.0%	2.6%	6.3%	11.4%	15.4%	36.7%	27.4%	100.0%
1997	0.0%	0.0%	0.1%	3.1%	7.5%	13.5%	18.3%	40.4%	17.2%	100.0%
1996	0.0%	0.0%	0.1%	3.6%	8.7%	15.7%	20.7%	43.3%	8.0%	100.0%
1995	0.0%	0.0%	0.1%	4.1%	9.9%	17.8%	22.6%	45.6%	0.0%	100.0%
1994	0.0%	0.0%	0.1%	4.5%	11.0%	19.8%	23.8%	40.8%	0.0%	100.0%
1993	0.0%	0.0%	0.1%	5.4%	13.1%	23.5%	26.6%	31.3%	0.0%	100.0%
1992	0.0%	0.0%	0.1%	6.3%	15.3%	27.5%	28.7%	22.1%	0.0%	100.0%
1991	0.0%	0.0%	0.1%	7.3%	17.9%	31.7%	31.3%	11.6%	0.0%	100.0%
1990	0.0%	0.0%	0.2%	8.6%	21.0%	36.2%	34.0%	0.0%	0.0%	100.0%
1989	0.0%	0.0%	0.2%	9.9%	24.1%	40.1%	25.7%	0.0%	0.0%	100.0%
1988	0.0%	0.0%	0.2%	11.2%	27.2%	42.9%	18.5%	0.0%	0.0%	100.0%
1987	0.0%	0.0%	0.2%	12.5%	30.5%	44.5%	12.2%	0.0%	0.0%	100.0%
1986	0.0%	0.0%	0.3%	13.9%	33.2%	45.9%	6.8%	0.0%	0.0%	100.0%
1985	0.0%	0.0%	0.3%	15.7%	36.0%	48.0%	0.0%	0.0%	0.0%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Type and Age

### Pickup

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.4%	0.6%	1.4%	3.5%	8.0%	14.0%	18.8%	30.4%	23.0%	100.0%
1998	0.5%	0.6%	1.5%	3.8%	8.7%	15.4%	20.7%	32.0%	16.7%	100.0%
1997	0.5%	0.7%	1.7%	4.2%	9.6%	16.8%	22.6%	33.0%	10.9%	100.0%
1996	0.6%	0.7%	1.8%	4.6%	10.5%	18.4%	24.6%	33.6%	5.1%	100.0%
1995	0.6%	0.8%	2.0%	5.0%	11.4%	20.0%	26.2%	33.9%	0.0%	100.0%
1994	0.7%	0.9%	2.1%	5.3%	12.1%	21.3%	26.8%	30.7%	0.0%	100.0%
1993	0.8%	1.0%	2.4%	5.9%	13.5%	23.7%	28.2%	24.6%	0.0%	100.0%
1992	0.6%	1.1%	2.7%	6.7%	15.2%	26.7%	29.7%	17.4%	0.0%	100.0%
1991	0.8%	1.2%	3.0%	7.5%	17.0%	29.8%	31.0%	9.7%	0.0%	100.0%
1990	1.0%	1.4%	3.4%	8.5%	19.4%	33.4%	32.8%	0.0%	0.0%	100.0%
1989	1.2%	1.6%	3.8%	9.6%	21.8%	36.4%	25.6%	0.0%	0.0%	100.0%
1988	1.3%	1.7%	4.3%	10.7%	24.4%	39.1%	18.4%	0.0%	0.0%	100.0%
1987	1.5%	2.0%	4.8%	12.0%	27.3%	41.4%	11.0%	0.0%	0.0%	100.0%
1986	1.8%	2.1%	5.3%	13.2%	29.9%	42.2%	5.6%	0.0%	0.0%	100.0%
1985	2.0%	2.4%	5.8%	14.5%	32.1%	43.2%	0.0%	0.0%	0.0%	100.0%

### Class 3

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.3%	0.3%	1.0%	2.7%	6.1%	9.6%	20.8%	41.0%	18.2%	100.0%
1998	0.3%	0.3%	1.0%	2.9%	6.6%	10.3%	22.4%	44.1%	11.9%	100.0%
1997	0.4%	0.3%	1.1%	3.1%	7.0%	11.0%	23.8%	46.5%	6.8%	100.0%
1996	0.4%	0.4%	1.2%	3.3%	7.3%	11.6%	25.1%	48.1%	2.7%	100.0%
1995	0.4%	0.4%	1.2%	3.4%	7.7%	12.1%	26.3%	48.5%	0.0%	100.0%
1994	0.4%	0.4%	1.3%	3.6%	8.1%	12.7%	27.6%	46.0%	0.0%	100.0%
1993	0.5%	0.4%	1.4%	4.0%	9.0%	14.1%	30.3%	40.2%	0.0%	100.0%
1992	0.4%	0.5%	1.6%	4.5%	10.0%	15.8%	32.7%	34.6%	0.0%	100.0%
1991	0.5%	0.6%	2.0%	5.5%	12.4%	19.5%	38.2%	21.3%	0.0%	100.0%
1990	0.7%	0.8%	2.6%	7.2%	16.2%	25.6%	47.0%	0.0%	0.0%	100.0%
1989	1.0%	1.0%	3.2%	8.9%	20.1%	31.7%	34.1%	0.0%	0.0%	100.0%
1988	1.1%	1.1%	3.7%	10.4%	23.5%	36.8%	23.4%	0.0%	0.0%	100.0%
1987	1.2%	1.3%	4.2%	11.8%	26.6%	40.6%	14.3%	0.0%	0.0%	100.0%
1986	1.4%	1.4%	4.7%	13.0%	29.3%	43.4%	6.8%	0.0%	0.0%	100.0%
1985	1.5%	1.5%	5.1%	14.3%	32.1%	45.4%	0.0%	0.0%	0.0%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Type and Age

**Class 7**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	1.8%	2.3%	3.8%	12.0%	23.9%	27.3%	0.0%	16.1%	12.9%	100.0%
1998	1.9%	2.5%	4.0%	12.7%	25.3%	29.0%	0.0%	15.4%	9.2%	100.0%
1997	2.0%	2.6%	4.2%	13.3%	26.5%	30.4%	0.0%	14.5%	6.4%	100.0%
1996	2.1%	2.7%	4.4%	14.0%	27.9%	31.9%	0.0%	13.7%	3.2%	100.0%
1995	2.2%	2.9%	4.6%	14.7%	29.2%	33.4%	0.0%	13.0%	0.0%	100.0%
1994	2.3%	3.0%	4.8%	15.3%	30.5%	35.0%	0.0%	9.0%	0.0%	100.0%
1993	2.5%	3.2%	5.1%	16.2%	32.3%	36.5%	0.0%	4.4%	0.0%	100.0%
1992	1.8%	3.3%	5.3%	16.9%	33.7%	37.0%	0.0%	2.0%	0.0%	100.0%
1991	2.2%	3.4%	5.5%	17.4%	34.7%	36.8%	0.0%	0.0%	0.0%	100.0%
1990	2.5%	3.5%	5.5%	17.7%	35.3%	35.5%	0.0%	0.0%	0.0%	100.0%
1989	2.8%	3.6%	5.7%	18.2%	36.3%	33.4%	0.0%	0.0%	0.0%	100.0%
1988	2.9%	3.7%	6.0%	19.0%	36.9%	31.4%	0.0%	0.0%	0.0%	100.0%
1987	3.0%	3.9%	6.3%	20.0%	36.8%	29.8%	0.0%	0.0%	0.0%	100.0%
1986	3.4%	4.2%	6.6%	21.2%	36.2%	28.4%	0.0%	0.0%	0.0%	100.0%
1985	3.7%	4.4%	7.0%	22.4%	35.3%	27.2%	0.0%	0.0%	0.0%	100.0%

**Total**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.2%	0.4%	1.1%	3.4%	6.5%	10.6%	15.4%	33.3%	29.1%	100.0%
1998	0.3%	0.4%	1.3%	3.9%	7.3%	12.0%	17.4%	36.9%	20.5%	100.0%
1997	0.3%	0.5%	1.4%	4.4%	8.3%	13.6%	19.7%	39.9%	11.9%	100.0%
1996	0.4%	0.6%	1.6%	4.9%	9.2%	15.1%	21.8%	41.6%	5.0%	100.0%
1995	0.4%	0.6%	1.7%	5.3%	10.0%	16.4%	23.5%	42.0%	0.0%	100.0%
1994	0.4%	0.7%	1.9%	5.7%	10.8%	17.7%	24.8%	38.1%	0.0%	100.0%
1993	0.5%	0.8%	2.2%	6.5%	12.4%	20.3%	27.3%	30.1%	0.0%	100.0%
1992	0.4%	0.9%	2.5%	7.5%	14.3%	23.2%	29.5%	21.7%	0.0%	100.0%
1991	0.5%	1.0%	2.9%	8.7%	16.6%	26.9%	32.0%	11.4%	0.0%	100.0%
1990	0.7%	1.2%	3.4%	10.2%	19.3%	31.0%	34.3%	0.0%	0.0%	100.0%
1989	0.9%	1.3%	3.8%	11.6%	22.0%	34.8%	25.5%	0.0%	0.0%	100.0%
1988	1.0%	1.5%	4.3%	13.0%	24.6%	37.7%	17.8%	0.0%	0.0%	100.0%
1987	1.1%	1.7%	4.8%	14.4%	27.1%	39.8%	11.1%	0.0%	0.0%	100.0%
1986	1.2%	1.8%	5.2%	15.8%	29.5%	40.8%	5.7%	0.0%	0.0%	100.0%
1985	1.4%	2.0%	5.7%	17.3%	32.0%	41.5%	0.0%	0.0%	0.0%	100.0%

## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Type and Age

**Population**

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	2,434,501	394,551	1,186,518	324,425	46,897	4,386,892
1998	2,325,427	350,733	1,142,234	324,541	48,922	4,191,856
1997	2,226,174	307,568	1,092,292	322,185	50,820	3,999,039
1996	2,188,446	272,651	1,051,865	317,648	53,588	3,884,198
1995	2,197,609	248,180	1,032,466	316,668	57,487	3,852,409
1994	2,254,070	245,033	1,035,559	321,085	63,153	3,918,900
1993	2,136,224	224,572	992,509	310,121	64,615	3,728,041
1992	2,022,912	196,802	958,848	300,157	69,120	3,547,838
1991	1,870,116	171,466	901,023	271,880	73,162	3,287,647
1990	1,756,107	152,375	848,664	241,252	81,925	3,080,323
1989	1,658,453	134,138	800,863	224,326	92,040	2,909,820
1988	1,600,893	116,467	755,538	209,847	103,714	2,786,457
1987	1,581,031	105,443	718,714	205,126	115,001	2,725,315
1986	1,598,333	97,214	695,930	205,272	124,557	2,721,306
1985	1,609,400	92,310	668,263	199,953	132,780	2,702,706

**Population**

	Cars	VanWgn	Pickup	Class 3	Class 7	Total
1999	55.5%	9.0%	27.0%	7.4%	1.1%	100.0%
1998	55.5%	8.4%	27.2%	7.7%	1.2%	100.0%
1997	55.7%	7.7%	27.3%	8.1%	1.3%	100.0%
1996	56.3%	7.0%	27.1%	8.2%	1.4%	100.0%
1995	57.0%	6.4%	26.8%	8.2%	1.5%	100.0%
1994	57.5%	6.3%	26.4%	8.2%	1.6%	100.0%
1993	57.3%	6.0%	26.6%	8.3%	1.7%	100.0%
1992	57.0%	5.5%	27.0%	8.5%	1.9%	100.0%
1991	56.9%	5.2%	27.4%	8.3%	2.2%	100.0%
1990	57.0%	4.9%	27.6%	7.8%	2.7%	100.0%
1989	57.0%	4.6%	27.5%	7.7%	3.2%	100.0%
1988	57.5%	4.2%	27.1%	7.5%	3.7%	100.0%
1987	58.0%	3.9%	26.4%	7.5%	4.2%	100.0%
1986	58.7%	3.6%	25.6%	7.5%	4.6%	100.0%
1985	59.5%	3.4%	24.7%	7.4%	4.9%	100.0%

**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Type and Age**

**Cars**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	20,455	18,171	42,917	98,177	177,245	257,418	348,204	737,368	734,546	2,434,501
1998	20,690	18,690	44,775	103,715	189,561	277,120	376,843	802,911	491,121	2,325,427
1997	20,977	19,278	46,845	109,829	203,079	298,687	408,126	855,630	263,724	2,226,174
1996	21,319	19,941	49,144	116,569	217,905	322,283	442,288	895,509	103,488	2,188,446
1995	21,722	20,687	51,693	123,992	234,154	348,089	479,585	917,687	0	2,197,609
1994	22,192	21,522	54,515	132,159	251,954	376,301	525,729	869,699	0	2,254,070
1993	22,733	22,453	57,633	141,133	271,443	407,133	558,236	655,459	0	2,136,224
1992	26,313	23,491	61,074	150,989	292,770	440,817	579,985	447,472	0	2,022,912
1991	25,934	24,644	64,866	161,803	316,099	477,608	593,679	205,483	0	1,870,116
1990	25,617	25,922	69,041	173,660	341,608	517,780	602,479	0	0	1,756,107
1989	25,540	27,337	73,633	186,653	369,491	565,604	410,196	0	0	1,658,453
1988	26,337	28,901	78,678	200,883	399,957	606,277	259,860	0	0	1,600,893
1987	27,167	30,626	84,216	216,459	433,238	639,760	149,564	0	0	1,581,031
1986	27,508	32,527	90,293	233,500	469,583	668,926	75,997	0	0	1,598,333
1985	28,009	34,621	96,954	252,137	509,263	688,414	0	0	0	1,609,400

**Van / Wagon**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0	21	123	7,359	14,232	25,886	58,003	114,175	174,752	394,551
1998	0	21	128	7,738	15,004	27,410	61,813	116,298	122,321	350,733
1997	0	22	134	8,145	15,829	29,039	65,892	116,935	71,571	307,568
1996	0	23	140	8,582	16,713	30,781	69,420	116,935	30,058	272,651
1995	0	23	147	9,050	17,658	32,642	71,724	116,935	0	248,180
1994	0	24	154	9,552	18,668	34,630	73,099	108,905	0	245,033
1993	0	25	162	10,090	19,748	36,752	73,778	84,017	0	224,572
1992	0	26	170	10,666	20,901	39,018	74,009	52,011	0	196,802
1991	0	27	179	11,282	22,133	41,135	74,009	22,701	0	171,466
1990	0	28	188	11,942	23,448	42,759	74,009	0	0	152,375
1989	0	30	199	12,648	24,851	44,033	52,378	0	0	134,138
1988	0	31	209	13,403	26,347	44,978	31,499	0	0	116,467
1987	0	32	221	14,210	27,943	45,384	17,653	0	0	105,443
1986	0	34	233	15,072	29,475	45,384	7,016	0	0	97,214
1985	0	36	247	15,993	30,651	45,384	0	0	0	92,310

**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Type and Age**

**Pickup**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	7,909	8,175	18,251	40,878	104,437	169,849	221,607	316,013	299,398	1,186,518
1998	8,106	8,499	19,081	42,911	110,096	179,375	234,456	324,447	215,263	1,142,234
1997	8,322	8,846	19,966	45,075	116,114	189,497	248,097	328,407	127,969	1,092,292
1996	8,558	9,216	20,910	47,377	122,513	200,249	262,212	328,407	52,422	1,051,865
1995	8,817	9,612	21,915	49,826	129,316	211,668	272,906	328,407	0	1,032,466
1994	9,098	10,034	22,986	52,429	136,545	223,793	280,192	300,482	0	1,035,559
1993	9,403	10,485	24,126	55,196	144,227	236,666	284,563	227,843	0	992,509
1992	10,727	10,965	25,339	58,136	152,388	250,330	286,775	164,188	0	958,848
1991	10,784	11,477	26,630	61,259	161,055	264,536	286,775	78,507	0	901,023
1990	10,859	12,023	28,002	64,575	170,259	276,173	286,775	0	0	848,664
1989	11,005	12,603	29,460	68,095	180,030	285,913	213,756	0	0	800,863
1988	11,518	13,221	31,010	71,831	190,401	293,946	143,609	0	0	755,538
1987	11,966	13,879	32,657	75,795	201,409	298,305	84,703	0	0	718,714
1986	12,256	14,578	34,405	80,000	212,795	298,305	43,590	0	0	695,930
1985	12,596	15,322	36,262	84,460	221,319	298,305	0	0	0	668,263

**Class 3**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	1,738	1,320	3,935	5,702	25,178	35,070	62,447	122,227	66,807	324,425
1998	1,799	1,400	4,217	6,150	27,293	38,118	68,044	128,868	48,652	324,541
1997	1,866	1,489	4,526	6,642	29,605	41,448	74,159	132,947	29,504	322,185
1996	1,943	1,586	4,866	7,182	32,132	45,086	80,840	132,520	11,494	317,648
1995	2,027	1,693	5,238	7,774	34,893	49,061	86,818	129,164	0	316,668
1994	2,120	1,810	5,645	8,424	37,911	53,403	89,471	122,301	0	321,085
1993	2,223	1,939	6,092	9,138	41,207	58,144	90,072	101,307	0	310,121
1992	2,580	2,081	6,581	9,920	44,806	63,321	90,294	80,573	0	300,157
1991	2,638	2,236	7,116	10,777	48,738	68,975	90,008	41,393	0	271,880
1990	2,705	2,406	7,702	11,716	53,030	74,437	89,256	0	0	241,252
1989	2,795	2,593	8,343	12,745	57,717	78,389	61,745	0	0	224,326
1988	2,983	2,797	9,044	13,871	62,833	81,548	36,770	0	0	209,847
1987	3,163	3,021	9,810	15,105	68,417	83,989	21,620	0	0	205,126
1986	3,314	3,266	10,648	16,455	74,512	84,284	12,793	0	0	205,272
1985	3,485	3,534	11,564	17,933	80,384	83,054	0	0	0	199,953

**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Type and Age**

**Class 7**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	2,828	1,718	1,868	4,342	8,165	10,725	3	12,136	5,112	46,897
1998	2,837	1,798	2,010	4,793	9,173	12,122	3	12,434	3,750	48,922
1997	2,859	1,894	2,175	5,314	10,329	13,717	4	12,434	2,094	50,820
1996	2,894	2,006	2,367	5,913	11,652	15,536	4	12,434	781	53,588
1995	2,944	2,138	2,589	6,601	13,166	17,609	5	12,434	0	57,487
1994	3,012	2,292	2,845	7,392	14,896	19,970	7	12,739	0	63,153
1993	3,100	2,470	3,139	8,298	16,872	22,931	9	7,795	0	64,615
1992	3,656	2,677	3,477	9,336	19,127	26,649	10	4,188	0	69,120
1991	3,637	2,917	3,865	10,523	21,699	30,512	10	0	0	73,162
1990	3,632	3,192	4,310	11,880	24,630	34,270	10	0	0	81,925
1989	3,676	3,509	4,819	13,430	27,970	38,626	10	0	0	92,040
1988	3,936	3,873	5,401	15,198	32,556	42,739	10	0	0	103,714
1987	4,183	4,290	6,065	17,215	38,724	44,514	10	0	0	115,001
1986	4,361	4,767	6,823	19,514	44,567	44,514	10	0	0	124,557
1985	4,593	5,313	7,688	22,133	48,539	44,514	0	0	0	132,780

**Total**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	32,929	29,404	67,093	156,459	329,258	498,949	690,264	1,301,921	1,280,615	4,386,892
1998	33,433	30,409	70,211	165,307	351,127	534,146	741,158	1,384,957	881,107	4,191,856
1997	34,023	31,528	73,647	175,004	374,956	572,388	796,278	1,446,352	494,862	3,999,039
1996	34,714	32,772	77,427	185,623	400,915	613,935	854,765	1,485,805	198,243	3,884,198
1995	35,510	34,153	81,582	197,244	429,187	659,068	911,038	1,504,627	0	3,852,409
1994	36,422	35,682	86,145	209,956	459,974	708,096	968,499	1,414,126	0	3,918,900
1993	37,459	37,373	91,152	223,855	493,496	761,626	1,006,659	1,076,421	0	3,728,041
1992	43,277	39,241	96,641	239,046	529,993	820,135	1,031,073	748,432	0	3,547,838
1991	42,993	41,301	102,656	255,643	569,724	882,765	1,044,481	348,084	0	3,287,647
1990	42,813	43,572	109,243	273,773	612,975	945,419	1,052,529	0	0	3,080,323
1989	43,017	46,072	116,453	293,570	660,058	1,012,564	738,085	0	0	2,909,820
1988	44,775	48,823	124,342	315,186	712,096	1,069,488	471,748	0	0	2,786,457
1987	46,479	51,848	132,970	338,784	769,731	1,111,953	273,550	0	0	2,725,315
1986	47,439	55,173	142,403	364,542	830,932	1,141,412	139,406	0	0	2,721,306
1985	48,684	58,825	152,714	392,656	890,156	1,159,671	0	0	0	2,702,706



**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Type and Age**

**Cars**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.8%	0.7%	1.8%	4.0%	7.3%	10.6%	14.3%	30.3%	30.2%	100.0%
1998	0.9%	0.8%	1.9%	4.5%	8.2%	11.9%	16.2%	34.5%	21.1%	100.0%
1997	0.9%	0.9%	2.1%	4.9%	9.1%	13.4%	18.3%	38.4%	11.8%	100.0%
1996	1.0%	0.9%	2.2%	5.3%	10.0%	14.7%	20.2%	40.9%	4.7%	100.0%
1995	1.0%	0.9%	2.4%	5.6%	10.7%	15.8%	21.8%	41.8%	0.0%	100.0%
1994	1.0%	1.0%	2.4%	5.9%	11.2%	16.7%	23.3%	38.6%	0.0%	100.0%
1993	1.1%	1.1%	2.7%	6.6%	12.7%	19.1%	26.1%	30.7%	0.0%	100.0%
1992	1.3%	1.2%	3.0%	7.5%	14.5%	21.8%	28.7%	22.1%	0.0%	100.0%
1991	1.4%	1.3%	3.5%	8.7%	16.9%	25.5%	31.7%	11.0%	0.0%	100.0%
1990	1.5%	1.5%	3.9%	9.9%	19.5%	29.5%	34.3%	0.0%	0.0%	100.0%
1989	1.5%	1.6%	4.4%	11.3%	22.3%	34.1%	24.7%	0.0%	0.0%	100.0%
1988	1.6%	1.8%	4.9%	12.5%	25.0%	37.9%	16.2%	0.0%	0.0%	100.0%
1987	1.7%	1.9%	5.3%	13.7%	27.4%	40.5%	9.5%	0.0%	0.0%	100.0%
1986	1.7%	2.0%	5.6%	14.6%	29.4%	41.9%	4.8%	0.0%	0.0%	100.0%
1985	1.7%	2.2%	6.0%	15.7%	31.6%	42.8%	0.0%	0.0%	0.0%	100.0%

**Van / Wagon**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.0%	0.0%	0.0%	1.9%	3.6%	6.6%	14.7%	28.9%	44.3%	100.0%
1998	0.0%	0.0%	0.0%	2.2%	4.3%	7.8%	17.6%	33.2%	34.9%	100.0%
1997	0.0%	0.0%	0.0%	2.6%	5.1%	9.4%	21.4%	38.0%	23.3%	100.0%
1996	0.0%	0.0%	0.1%	3.1%	6.1%	11.3%	25.5%	42.9%	11.0%	100.0%
1995	0.0%	0.0%	0.1%	3.6%	7.1%	13.2%	28.9%	47.1%	0.0%	100.0%
1994	0.0%	0.0%	0.1%	3.9%	7.6%	14.1%	29.8%	44.4%	0.0%	100.0%
1993	0.0%	0.0%	0.1%	4.5%	8.8%	16.4%	32.9%	37.4%	0.0%	100.0%
1992	0.0%	0.0%	0.1%	5.4%	10.6%	19.8%	37.6%	26.4%	0.0%	100.0%
1991	0.0%	0.0%	0.1%	6.6%	12.9%	24.0%	43.2%	13.2%	0.0%	100.0%
1990	0.0%	0.0%	0.1%	7.8%	15.4%	28.1%	48.6%	0.0%	0.0%	100.0%
1989	0.0%	0.0%	0.1%	9.4%	18.5%	32.8%	39.0%	0.0%	0.0%	100.0%
1988	0.0%	0.0%	0.2%	11.5%	22.6%	38.6%	27.0%	0.0%	0.0%	100.0%
1987	0.0%	0.0%	0.2%	13.5%	26.5%	43.0%	16.7%	0.0%	0.0%	100.0%
1986	0.0%	0.0%	0.2%	15.5%	30.3%	46.7%	7.2%	0.0%	0.0%	100.0%
1985	0.0%	0.0%	0.3%	17.3%	33.2%	49.2%	0.0%	0.0%	0.0%	100.0%

**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Type and Age**

**Pickup**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.7%	0.7%	1.5%	3.4%	8.8%	14.3%	18.7%	26.6%	25.2%	100.0%
1998	0.7%	0.7%	1.7%	3.8%	9.6%	15.7%	20.5%	28.4%	18.8%	100.0%
1997	0.8%	0.8%	1.8%	4.1%	10.6%	17.3%	22.7%	30.1%	11.7%	100.0%
1996	0.8%	0.9%	2.0%	4.5%	11.6%	19.0%	24.9%	31.2%	5.0%	100.0%
1995	0.9%	0.9%	2.1%	4.8%	12.5%	20.5%	26.4%	31.8%	0.0%	100.0%
1994	0.9%	1.0%	2.2%	5.1%	13.2%	21.6%	27.1%	29.0%	0.0%	100.0%
1993	0.9%	1.1%	2.4%	5.6%	14.5%	23.8%	28.7%	23.0%	0.0%	100.0%
1992	1.1%	1.1%	2.6%	6.1%	15.9%	26.1%	29.9%	17.1%	0.0%	100.0%
1991	1.2%	1.3%	3.0%	6.8%	17.9%	29.4%	31.8%	8.7%	0.0%	100.0%
1990	1.3%	1.4%	3.3%	7.6%	20.1%	32.5%	33.8%	0.0%	0.0%	100.0%
1989	1.4%	1.6%	3.7%	8.5%	22.5%	35.7%	26.7%	0.0%	0.0%	100.0%
1988	1.5%	1.7%	4.1%	9.5%	25.2%	38.9%	19.0%	0.0%	0.0%	100.0%
1987	1.7%	1.9%	4.5%	10.5%	28.0%	41.5%	11.8%	0.0%	0.0%	100.0%
1986	1.8%	2.1%	4.9%	11.5%	30.6%	42.9%	6.3%	0.0%	0.0%	100.0%
1985	1.9%	2.3%	5.4%	12.6%	33.1%	44.6%	0.0%	0.0%	0.0%	100.0%

**Class 3**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.5%	0.4%	1.2%	1.8%	7.8%	10.8%	19.2%	37.7%	20.6%	100.0%
1998	0.6%	0.4%	1.3%	1.9%	8.4%	11.7%	21.0%	39.7%	15.0%	100.0%
1997	0.6%	0.5%	1.4%	2.1%	9.2%	12.9%	23.0%	41.3%	9.2%	100.0%
1996	0.6%	0.5%	1.5%	2.3%	10.1%	14.2%	25.4%	41.7%	3.6%	100.0%
1995	0.6%	0.5%	1.7%	2.5%	11.0%	15.5%	27.4%	40.8%	0.0%	100.0%
1994	0.7%	0.6%	1.8%	2.6%	11.8%	16.6%	27.9%	38.1%	0.0%	100.0%
1993	0.7%	0.6%	2.0%	2.9%	13.3%	18.7%	29.0%	32.7%	0.0%	100.0%
1992	0.9%	0.7%	2.2%	3.3%	14.9%	21.1%	30.1%	26.8%	0.0%	100.0%
1991	1.0%	0.8%	2.6%	4.0%	17.9%	25.4%	33.1%	15.2%	0.0%	100.0%
1990	1.1%	1.0%	3.2%	4.9%	22.0%	30.9%	37.0%	0.0%	0.0%	100.0%
1989	1.2%	1.2%	3.7%	5.7%	25.7%	34.9%	27.5%	0.0%	0.0%	100.0%
1988	1.4%	1.3%	4.3%	6.6%	29.9%	38.9%	17.5%	0.0%	0.0%	100.0%
1987	1.5%	1.5%	4.8%	7.4%	33.4%	40.9%	10.5%	0.0%	0.0%	100.0%
1986	1.6%	1.6%	5.2%	8.0%	36.3%	41.1%	6.2%	0.0%	0.0%	100.0%
1985	1.7%	1.8%	5.8%	9.0%	40.2%	41.5%	0.0%	0.0%	0.0%	100.0%

**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Type and Age**

**Class 7**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	6.0%	3.7%	4.0%	9.3%	17.4%	22.9%	0.0%	25.9%	10.9%	100.0%
1998	5.8%	3.7%	4.1%	9.8%	18.8%	24.8%	0.0%	25.4%	7.7%	100.0%
1997	5.6%	3.7%	4.3%	10.5%	20.3%	27.0%	0.0%	24.5%	4.1%	100.0%
1996	5.4%	3.7%	4.4%	11.0%	21.7%	29.0%	0.0%	23.2%	1.5%	100.0%
1995	5.1%	3.7%	4.5%	11.5%	22.9%	30.6%	0.0%	21.6%	0.0%	100.0%
1994	4.8%	3.6%	4.5%	11.7%	23.6%	31.6%	0.0%	20.2%	0.0%	100.0%
1993	4.8%	3.8%	4.9%	12.8%	26.1%	35.5%	0.0%	12.1%	0.0%	100.0%
1992	5.3%	3.9%	5.0%	13.5%	27.7%	38.6%	0.0%	6.1%	0.0%	100.0%
1991	5.0%	4.0%	5.3%	14.4%	29.7%	41.7%	0.0%	0.0%	0.0%	100.0%
1990	4.4%	3.9%	5.3%	14.5%	30.1%	41.8%	0.0%	0.0%	0.0%	100.0%
1989	4.0%	3.8%	5.2%	14.6%	30.4%	42.0%	0.0%	0.0%	0.0%	100.0%
1988	3.8%	3.7%	5.2%	14.7%	31.4%	41.2%	0.0%	0.0%	0.0%	100.0%
1987	3.6%	3.7%	5.3%	15.0%	33.7%	38.7%	0.0%	0.0%	0.0%	100.0%
1986	3.5%	3.8%	5.5%	15.7%	35.8%	35.7%	0.0%	0.0%	0.0%	100.0%
1985	3.5%	4.0%	5.8%	16.7%	36.6%	33.5%	0.0%	0.0%	0.0%	100.0%

**Total**

	to 60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-99	Total
1999	0.8%	0.7%	1.5%	3.6%	7.5%	11.4%	15.7%	29.7%	29.2%	100.0%
1998	0.8%	0.7%	1.7%	3.9%	8.4%	12.7%	17.7%	33.0%	21.0%	100.0%
1997	0.9%	0.8%	1.8%	4.4%	9.4%	14.3%	19.9%	36.2%	12.4%	100.0%
1996	0.9%	0.8%	2.0%	4.8%	10.3%	15.8%	22.0%	38.3%	5.1%	100.0%
1995	0.9%	0.9%	2.1%	5.1%	11.1%	17.1%	23.6%	39.1%	0.0%	100.0%
1994	0.9%	0.9%	2.2%	5.4%	11.7%	18.1%	24.7%	36.1%	0.0%	100.0%
1993	1.0%	1.0%	2.4%	6.0%	13.2%	20.4%	27.0%	28.9%	0.0%	100.0%
1992	1.2%	1.1%	2.7%	6.7%	14.9%	23.1%	29.1%	21.1%	0.0%	100.0%
1991	1.3%	1.3%	3.1%	7.8%	17.3%	26.9%	31.8%	10.6%	0.0%	100.0%
1990	1.4%	1.4%	3.5%	8.9%	19.9%	30.7%	34.2%	0.0%	0.0%	100.0%
1989	1.5%	1.6%	4.0%	10.1%	22.7%	34.8%	25.4%	0.0%	0.0%	100.0%
1988	1.6%	1.8%	4.5%	11.3%	25.6%	38.4%	16.9%	0.0%	0.0%	100.0%
1987	1.7%	1.9%	4.9%	12.4%	28.2%	40.8%	10.0%	0.0%	0.0%	100.0%
1986	1.7%	2.0%	5.2%	13.4%	30.5%	41.9%	5.1%	0.0%	0.0%	100.0%
1985	1.8%	2.2%	5.7%	14.5%	32.9%	42.9%	0.0%	0.0%	0.0%	100.0%

## Vehicle Population in the Republic of Mexico By Engine Number of Cylinders and Displacement

Cars													
Population	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	144	2,633,709	1,011,642	3,645,494	154,616	467,389	84,741	706,745	67,355	198,121	42	265,517	4,617,757
1998	151	2,490,203	922,261	3,412,615	145,014	487,183	91,083	723,280	62,610	212,097	44	274,751	4,410,645
1997	158	2,368,128	831,208	3,199,494	135,532	507,857	98,032	741,421	56,770	226,318	45	283,133	4,224,048
1996	166	2,313,546	797,342	3,111,055	122,656	518,844	105,644	747,144	51,051	241,587	45	292,684	4,150,882
1995	176	2,306,451	800,072	3,106,699	114,734	526,821	113,977	755,532	43,475	257,708	45	301,228	4,163,459
1994	186	2,350,694	806,533	3,157,413	113,823	535,966	123,098	772,886	38,729	274,944	45	313,718	4,244,017
1993	197	2,202,763	751,768	2,954,728	117,612	494,113	133,076	744,800	27,302	288,606	26	315,934	4,015,462
1992	209	2,088,465	668,983	2,757,658	124,203	439,335	143,989	707,527	19,130	311,535	3	330,668	3,795,853
1991	223	1,946,064	573,985	2,520,273	130,050	381,978	155,922	667,950	3,352	336,245	0	339,597	3,527,820
1990	238	1,817,036	501,753	2,319,026	135,176	331,988	168,966	636,130	1,729	359,118	0	360,847	3,316,003
1989	254	1,700,300	431,644	2,132,198	121,662	320,989	183,222	625,872	0	387,319	0	387,319	3,145,390
1988	272	1,646,842	351,909	1,999,024	102,072	331,370	198,796	632,238	0	417,157	0	417,157	3,048,418
1987	292	1,623,107	291,354	1,914,753	88,891	351,179	215,778	655,849	0	442,584	0	442,584	3,013,186
1986	314	1,611,278	262,073	1,873,666	75,722	379,374	234,142	689,239	0	469,218	0	469,218	3,032,122
1985	338	1,591,347	221,181	1,812,866	64,384	408,388	253,132	725,904	0	495,807	0	495,807	3,034,578

Van / Wagon														
	4-5 cyl				6-7 cyl				8 cyl & over				Total	
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total		
1999		178,760	24,425	203,184	7,238	131,996	34,015	173,249	9,974	253,543		263,517	639,950	
1998		184,782	21,085	205,867	4,440	102,112	30,574	137,126	4,032	228,835		232,867	575,859	
1997		189,282	20,302	209,584	2,138	67,495	30,489	100,122	2,404	200,578		202,982	512,688	
1996		194,445	19,457	213,902		377	41,976	30,700	73,053	436	176,435		176,871	463,827
1995		200,383	18,898	219,281		0	24,108	32,266	56,374	0	154,102		154,102	429,757
1994		206,156	18,735	224,891		0	20,228	34,174	54,402	0	141,954		141,954	421,247
1993		200,481	18,462	218,943		0	9,377	34,322	43,699	0	121,942		121,942	384,585
1992		195,136	13,409	208,545		0	0	36,319	36,319	0	99,995		99,995	344,860
1991		188,883	5,349	194,232		0	0	38,430	38,430	0	74,934		74,934	307,595
1990		183,504	0	183,504		0	0	40,347	40,347	0	53,712		53,712	277,563
1989		173,694	0	173,694		0	0	42,221	42,221	0	36,079		36,079	251,994
1988		165,294	0	165,294		0	0	43,905	43,905	0	19,954		19,954	229,152
1987		159,633	0	159,633		0	0	45,174	45,174	0	9,302		9,302	214,109
1986		155,152	0	155,152		0	0	45,835	45,835	0	1,658		1,658	202,645
1985		148,966	0	148,966		0	0	44,171	44,171	0	0		0	193,138

## Vehicle Population in the Republic of Mexico By Engine Number of Cylinders and Displacement

Pickup	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
	1999		164,149	292,607	456,756	16,160	254,757	255,952	526,868	16,796	555,220		
1998		164,495	248,611	413,105	17,115	260,885	246,258	524,258	8,195	558,199		566,394	1,503,757
1997		170,958	200,125	371,083	17,600	267,151	234,931	519,681	0	557,204		557,204	1,447,969
1996		181,282	163,918	345,200	17,716	261,369	237,970	517,055	0	539,417		539,417	1,401,672
1995		190,670	141,211	331,881	17,716	259,383	243,262	520,360	0	526,437		526,437	1,378,678
1994		199,373	124,205	323,578	17,716	265,282	252,739	535,737	0	525,913		525,913	1,385,228
1993		207,305	92,078	299,383	17,716	259,073	256,006	532,795	0	499,079		499,079	1,331,258
1992		214,616	60,042	274,658	17,716	262,779	260,793	541,288	0	466,795		466,795	1,282,741
1991		221,331	29,773	251,104	9,092	258,205	274,040	541,337	0	419,615		419,615	1,212,056
1990		227,513	0	227,513	2,213	254,947	278,426	535,586	0	379,057		379,057	1,142,155
1989		207,076	0	207,076	0	256,465	281,141	537,607	0	337,724		337,724	1,082,406
1988		192,114	0	192,114	0	249,972	285,685	535,657	0	298,931		298,931	1,026,702
1987		175,103	0	175,103	0	242,178	291,840	534,017	0	269,852		269,852	978,972
1986		160,723	0	160,723	0	239,679	296,669	536,347	0	254,273		254,273	951,344
1985		146,932	0	146,932	0	234,376	299,871	534,247	0	236,564		236,564	917,743

Class 3	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
	1999		0	0	0	0	0	2,758	2,758		453,758	21,412	
1998		0	0	0	0	0	2,988	2,988		465,190	10,348	475,538	478,526
1997		0	0	0	0	0	3,238	3,238		475,641	0	475,641	478,879
1996		0	0	0	0	0	3,511	3,511		474,706	0	474,706	478,217
1995		0	0	0	0	0	3,808	3,808		478,807	0	478,807	482,615
1994		0	0	0	0	0	4,131	4,131		487,786	0	487,786	491,917
1993		0	0	0	0	0	4,484	4,484		471,642	0	471,642	476,126
1992		0	0	0	0	0	4,868	4,868		455,729	0	455,729	460,597
1991		0	0	0	0	0	5,286	5,286		407,097	0	407,097	412,383
1990		0	0	0	0	0	5,742	5,742		351,509	0	351,509	357,251
1989		0	0	0	0	0	6,233	6,233		319,020	0	319,020	325,253
1988		0	0	0	0	0	6,754	6,754		296,571	0	296,571	303,325
1987		0	0	0	0	0	7,279	7,279		287,220	0	287,220	294,499
1986		0	0	0	0	0	7,724	7,724		284,968	0	284,968	292,691
1985		0	0	0	0	0	8,044	8,044		278,167	0	278,167	286,212

# Vehicle Population in the Republic of Mexico By Engine Number of Cylinders and Displacement

### Class 5 & 7 (Gasoline)

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0	0	0	0	0	0	0	0	0	77,734	10,153	87,887	87,887
1998	0	0	0	0	0	0	0	0	0	84,318	7,451	91,769	91,769
1997	0	0	0	0	0	0	0	0	0	91,193	4,989	96,182	96,182
1996	0	0	0	0	0	0	0	0	0	97,715	3,780	101,495	101,495
1995	0	0	0	0	0	0	0	0	0	105,184	3,040	108,224	108,224
1994	0	0	0	0	0	0	0	0	0	114,699	2,271	116,970	116,970
1993	0	0	0	0	0	0	0	0	0	121,134	0	121,134	121,134
1992	0	0	0	0	0	0	0	0	0	129,198	0	129,198	129,198
1991	0	0	0	0	0	0	0	0	0	137,818	0	137,818	137,818
1990	0	0	0	0	0	0	0	0	0	152,466	0	152,466	152,466
1989	0	0	0	0	0	0	0	0	0	168,094	0	168,094	168,094
1988	0	0	0	0	0	0	0	0	0	184,480	0	184,480	184,480
1987	0	0	0	0	0	0	0	0	0	200,081	0	200,081	200,081
1986	0	0	0	0	0	0	0	0	0	213,853	0	213,853	213,853
1985	0	0	0	0	0	0	0	0	0	226,280	0	226,280	226,280

### Total

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	144	2,976,617	1,328,674	4,305,435	178,014	854,142	377,465	1,409,621	94,125	1,538,376	31,607	1,664,108	7,379,164
1998	151	2,839,480	1,191,957	4,031,587	166,569	850,180	370,902	1,387,651	74,837	1,548,638	17,843	1,641,318	7,060,557
1997	158	2,728,368	1,051,635	3,780,161	155,270	842,503	366,690	1,364,463	59,174	1,550,935	5,034	1,615,143	6,759,766
1996	166	2,689,274	980,717	3,670,157	140,749	822,190	377,824	1,340,763	51,487	1,529,861	3,825	1,585,173	6,596,094
1995	176	2,697,504	960,181	3,657,861	132,450	810,311	393,313	1,336,074	43,475	1,522,237	3,085	1,568,797	6,562,732
1994	186	2,756,223	949,473	3,705,882	131,539	821,476	414,141	1,367,156	38,729	1,545,295	2,316	1,586,340	6,659,379
1993	197	2,610,550	862,308	3,473,055	135,328	762,563	427,888	1,325,779	27,302	1,502,403	26	1,529,731	6,328,565
1992	209	2,498,218	742,434	3,240,861	141,919	702,114	445,969	1,290,002	19,130	1,463,253	3	1,482,386	6,013,249
1991	223	2,356,278	609,107	2,965,608	139,142	640,184	473,677	1,253,003	3,352	1,375,710	0	1,379,062	5,597,673
1990	238	2,228,052	501,753	2,730,043	137,389	586,935	493,480	1,217,804	1,729	1,295,862	0	1,297,591	5,245,438
1989	254	2,081,070	431,644	2,512,968	121,662	577,454	512,817	1,211,933	0	1,248,236	0	1,248,236	4,973,137
1988	272	2,004,250	351,909	2,356,431	102,072	581,343	535,139	1,218,554	0	1,217,093	0	1,217,093	4,792,078
1987	292	1,957,842	291,354	2,249,489	88,891	593,357	560,071	1,242,319	0	1,209,038	0	1,209,038	4,700,846
1986	314	1,927,153	262,073	2,189,541	75,722	619,053	584,370	1,279,145	0	1,223,970	0	1,223,970	4,692,656
1985	338	1,887,246	221,181	2,108,765	64,384	642,764	605,219	1,312,366	0	1,236,818	0	1,236,818	4,657,949

# Vehicle Population in the Republic of Mexico By Engine Number of Cylinders and Displacement

Cars	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0.00%	72.25%	27.75%	78.95%	21.88%	66.13%	11.99%	15.30%	25.37%	74.62%	0.02%	5.75%	62.58%
1998	0.00%	72.97%	27.03%	77.37%	20.05%	67.36%	12.59%	16.40%	22.79%	77.20%	0.02%	6.23%	62.47%
1997	0.00%	74.02%	25.98%	75.74%	18.28%	68.50%	13.22%	17.55%	20.05%	79.93%	0.02%	6.70%	62.49%
1996	0.01%	74.37%	25.63%	74.95%	16.42%	69.44%	14.14%	18.00%	17.44%	82.54%	0.02%	7.05%	62.93%
1995	0.01%	74.24%	25.75%	74.62%	15.19%	69.73%	15.09%	18.15%	14.43%	85.55%	0.01%	7.24%	63.44%
1994	0.01%	74.45%	25.54%	74.40%	14.73%	69.35%	15.93%	18.21%	12.35%	87.64%	0.01%	7.39%	63.73%
1993	0.01%	74.55%	25.44%	73.58%	15.79%	66.34%	17.87%	18.55%	8.64%	91.35%	0.01%	7.87%	63.45%
1992	0.01%	75.73%	24.26%	72.65%	17.55%	62.09%	20.35%	18.64%	5.79%	94.21%	0.00%	8.71%	63.12%
1991	0.01%	77.22%	22.77%	71.44%	19.47%	57.19%	23.34%	18.93%	0.99%	99.01%	0.00%	9.63%	63.02%
1990	0.01%	78.35%	21.64%	69.93%	21.25%	52.19%	26.56%	19.18%	0.48%	99.52%	0.00%	10.88%	63.22%
1989	0.01%	79.74%	20.24%	67.79%	19.44%	51.29%	29.27%	19.90%	0.00%	100.00%	0.00%	12.31%	63.25%
1988	0.01%	82.38%	17.60%	65.58%	16.14%	52.41%	31.44%	20.74%	0.00%	100.00%	0.00%	13.68%	63.61%
1987	0.02%	84.77%	15.22%	63.55%	13.55%	53.55%	32.90%	21.77%	0.00%	100.00%	0.00%	14.69%	64.10%
1986	0.02%	86.00%	13.99%	61.79%	10.99%	55.04%	33.97%	22.73%	0.00%	100.00%	0.00%	15.47%	64.61%
1985	0.02%	87.78%	12.20%	59.74%	8.87%	56.26%	34.87%	23.92%	0.00%	100.00%	0.00%	16.34%	65.15%

Van/Wgn	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999		87.98%	12.02%	31.75%	4.18%	76.19%	19.63%	27.07%	3.78%	96.22%	0.00%	41.18%	8.67%
1998		89.76%	10.24%	35.75%	3.24%	74.47%	22.30%	23.81%	1.73%	98.27%	0.00%	40.44%	8.16%
1997		90.31%	9.69%	40.88%	2.14%	67.41%	30.45%	19.53%	1.18%	98.82%	0.00%	39.59%	7.58%
1996		90.90%	9.10%	46.12%	0.52%	57.46%	42.02%	15.75%	0.25%	99.75%	0.00%	38.13%	7.03%
1995		91.38%	8.62%	51.02%	0.00%	42.76%	57.24%	13.12%	0.00%	100.00%	0.00%	35.86%	6.55%
1994		91.67%	8.33%	53.39%	0.00%	37.18%	62.82%	12.91%	0.00%	100.00%	0.00%	33.70%	6.33%
1993		91.57%	8.43%	56.93%	0.00%	21.46%	78.54%	11.36%	0.00%	100.00%	0.00%	31.71%	6.08%
1992		93.57%	6.43%	60.47%	0.00%	0.00%	100.00%	10.53%	0.00%	100.00%	0.00%	29.00%	5.73%
1991		97.25%	2.75%	63.15%	0.00%	0.00%	100.00%	12.49%	0.00%	100.00%	0.00%	24.36%	5.50%
1990		100.00%	0.00%	66.11%	0.00%	0.00%	100.00%	14.54%	0.00%	100.00%	0.00%	19.35%	5.29%
1989		100.00%	0.00%	68.93%	0.00%	0.00%	100.00%	16.75%	0.00%	0.00%	0.00%	14.32%	5.07%
1988		100.00%	0.00%	72.13%	0.00%	0.00%	100.00%	19.16%	0.00%	0.00%	0.00%	8.71%	4.78%
1987		100.00%	0.00%	74.56%	0.00%	0.00%	100.00%	21.10%	0.00%	0.00%	0.00%	4.34%	4.55%
1986		100.00%	0.00%	76.56%	0.00%	0.00%	100.00%	22.62%	0.00%	0.00%	0.00%	0.82%	4.32%
1985		100.00%	0.00%	77.13%	0.00%	0.00%	100.00%	22.87%	0.00%	0.00%	0.00%	0.00%	4.15%

## Vehicle Population in the Republic of Mexico By Engine Number of Cylinders and Displacement

### Pickup

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999		35.94%	64.06%	29.36%	3.07%	48.35%	48.58%	33.87%	2.94%	97.06%	0.00%	36.77%	21.08%
1998		39.82%	60.18%	27.47%	3.26%	49.76%	46.97%	34.86%	1.45%	98.55%	0.00%	37.67%	21.30%
1997		46.07%	53.93%	25.63%	3.39%	51.41%	45.21%	35.89%	0.00%	100.00%	0.00%	38.48%	21.42%
1996		52.52%	47.48%	24.63%	3.43%	50.55%	46.02%	36.89%	0.00%	100.00%	0.00%	38.48%	21.25%
1995		57.45%	42.55%	24.07%	3.40%	49.85%	46.75%	37.74%	0.00%	100.00%	0.00%	38.18%	21.01%
1994		61.62%	38.38%	23.36%	3.31%	49.52%	47.18%	38.68%	0.00%	100.00%	0.00%	37.97%	20.80%
1993		69.24%	30.76%	22.49%	3.33%	48.63%	48.05%	40.02%	0.00%	100.00%	0.00%	37.49%	21.04%
1992		78.14%	21.86%	21.41%	3.27%	48.55%	48.18%	42.20%	0.00%	100.00%	0.00%	36.39%	21.33%
1991		88.14%	11.86%	20.72%	1.68%	47.70%	50.62%	44.66%	0.00%	100.00%	0.00%	34.62%	21.65%
1990		100.00%	0.00%	19.92%	0.41%	47.60%	51.99%	46.89%	0.00%	100.00%	0.00%	33.19%	21.77%
1989		100.00%	0.00%	19.13%	0.00%	47.70%	52.30%	49.67%	0.00%	100.00%	0.00%	31.20%	21.77%
1988		100.00%	0.00%	18.71%	0.00%	46.67%	53.33%	52.17%	0.00%	100.00%	0.00%	29.12%	21.42%
1987		100.00%	0.00%	17.89%	0.00%	45.35%	54.65%	54.55%	0.00%	100.00%	0.00%	27.56%	20.83%
1986		100.00%	0.00%	16.89%	0.00%	44.69%	55.31%	56.38%	0.00%	100.00%	0.00%	26.73%	20.27%
1985		100.00%	0.00%	16.01%	0.00%	43.87%	56.13%	58.21%	0.00%	100.00%	0.00%	25.78%	19.70%

### Class 3

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999							100.00%	0.58%		95.49%	4.51%	99.42%	6.48%
1998							100.00%	0.62%		97.82%	2.18%	99.38%	6.78%
1997							100.00%	0.68%		100.00%	0.00%	99.32%	7.08%
1996							100.00%	0.73%		100.00%	0.00%	99.27%	7.25%
1995							100.00%	0.79%		100.00%	0.00%	99.21%	7.35%
1994							100.00%	0.84%		100.00%	0.00%	99.16%	7.39%
1993							100.00%	0.94%		100.00%	0.00%	99.06%	7.52%
1992							100.00%	1.06%		100.00%	0.00%	98.94%	7.66%
1991							100.00%	1.28%		100.00%	0.00%	98.72%	7.37%
1990							100.00%	1.61%		100.00%	0.00%	98.39%	6.81%
1989							100.00%	1.92%		100.00%	0.00%	98.08%	6.54%
1988							100.00%	2.23%		100.00%	0.00%	97.77%	6.33%
1987							100.00%	2.47%		100.00%	0.00%	97.53%	6.26%
1986							100.00%	2.64%		100.00%	0.00%	97.36%	6.24%
1985							100.00%	2.81%		100.00%	0.00%	97.19%	6.14%



# Vehicle Population in the Republic of Mexico By Engine Number of Cylinders and Displacement

**Class 5 & 7 (Gasoline)**

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999										88.45%	11.55%	100.00%	1.19%
1998										91.88%	8.12%	100.00%	1.30%
1997										94.81%	5.19%	100.00%	1.42%
1996										96.28%	3.72%	100.00%	1.54%
1995										97.19%	2.81%	100.00%	1.65%
1994										98.06%	1.94%	100.00%	1.76%
1993										100.00%	0.00%	100.00%	1.91%
1992										100.00%	0.00%	100.00%	2.15%
1991										100.00%	0.00%	100.00%	2.46%
1990										100.00%	0.00%	100.00%	2.91%
1989										100.00%	0.00%	100.00%	3.38%
1988										100.00%	0.00%	100.00%	3.85%
1987										100.00%	0.00%	100.00%	4.26%
1986										100.00%	0.00%	100.00%	4.56%
1985										100.00%	0.00%	100.00%	4.86%

**Total**

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0.00%	69.14%	30.86%	58.35%	12.63%	60.59%	26.78%	19.10%	5.66%	92.44%	1.90%	22.55%	100.00%
1998	0.00%	70.43%	29.57%	57.10%	12.00%	61.27%	26.73%	19.65%	4.56%	94.35%	1.09%	23.25%	100.00%
1997	0.00%	72.18%	27.82%	55.92%	11.38%	61.75%	26.87%	20.19%	3.66%	96.02%	0.31%	23.89%	100.00%
1996	0.00%	73.27%	26.72%	55.64%	10.50%	61.32%	28.18%	20.33%	3.25%	96.51%	0.24%	24.03%	100.00%
1995	0.00%	73.75%	26.25%	55.74%	9.91%	60.65%	29.44%	20.36%	2.77%	97.03%	0.20%	23.90%	100.00%
1994	0.01%	74.37%	25.62%	55.65%	9.62%	60.09%	30.29%	20.53%	2.44%	97.41%	0.15%	23.82%	100.00%
1993	0.01%	75.17%	24.83%	54.88%	10.21%	57.52%	32.27%	20.95%	1.78%	98.21%	0.00%	24.17%	100.00%
1992	0.01%	77.08%	22.91%	53.90%	11.00%	54.43%	34.57%	21.45%	1.29%	98.71%	0.00%	24.65%	100.00%
1991	0.01%	79.45%	20.54%	52.98%	11.10%	51.09%	37.80%	22.38%	0.24%	99.76%	0.00%	24.64%	100.00%
1990	0.01%	81.61%	18.38%	52.05%	11.28%	48.20%	40.52%	23.22%	0.13%	99.87%	0.00%	24.74%	100.00%
1989	0.01%	82.81%	17.18%	50.53%	10.04%	47.65%	42.31%	24.37%	0.00%	100.00%	0.00%	25.10%	100.00%
1988	0.01%	85.05%	14.93%	49.17%	8.38%	47.71%	43.92%	25.43%	0.00%	100.00%	0.00%	25.40%	100.00%
1987	0.01%	87.03%	12.95%	47.85%	7.16%	47.76%	45.08%	26.43%	0.00%	100.00%	0.00%	25.72%	100.00%
1986	0.01%	88.02%	11.97%	46.66%	5.92%	48.40%	45.68%	27.26%	0.00%	100.00%	0.00%	26.08%	100.00%
1985	0.02%	89.50%	10.49%	45.27%	4.91%	48.98%	46.12%	28.17%	0.00%	100.00%	0.00%	26.55%	100.00%

## Vehicle Population in the Mexico City Metropolitan Area By Engine Number of Cylinders and Displacement

Cars													
Population	4-5 cyl				6-7 cyl				8 cyl & over			Total	
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.		Total
1999	44	1,253,193	487,945	1,741,181	74,834	212,866	35,796	323,496	32,999	85,559	21	118,578	2,183,256
1998	48	1,184,804	445,422	1,630,274	70,418	222,187	39,071	331,676	30,590	92,657	21	123,268	2,085,219
1997	53	1,127,729	401,939	1,529,721	66,205	231,529	42,645	340,378	27,722	100,032	21	127,776	1,997,875
1996	57	1,101,600	385,046	1,486,703	60,398	236,092	46,546	343,036	24,736	107,939	22	132,697	1,962,436
1995	63	1,096,516	385,381	1,481,960	56,782	239,044	50,804	346,631	21,049	116,188	22	137,258	1,965,849
1994	68	1,109,270	384,713	1,494,052	55,171	242,236	55,452	352,859	18,195	124,820	22	143,036	1,989,947
1993	75	1,037,751	357,247	1,395,073	56,784	222,162	60,525	339,470	12,678	132,005	12	144,695	1,879,238
1992	82	984,087	317,128	1,301,296	59,895	195,384	66,061	321,479	8,769	143,572	1	152,342	1,775,118
1991	89	922,096	274,120	1,196,305	62,612	170,792	72,105	305,508	1,559	155,984	0	157,543	1,659,357
1990	97	861,384	239,396	1,100,877	64,969	147,820	78,701	291,490	786	167,544	0	168,330	1,560,697
1989	106	809,951	206,801	1,016,857	58,640	143,907	85,900	288,447	0	181,478	0	181,478	1,486,783
1988	116	787,561	170,090	957,767	49,569	149,991	93,752	293,313	0	196,276	0	196,276	1,447,356
1987	126	776,494	140,830	917,450	43,152	160,128	102,289	305,568	0	208,910	0	208,910	1,431,929
1986	138	765,217	124,398	889,753	35,902	174,576	111,356	321,834	0	221,742	0	221,742	1,433,329
1985	150	749,316	102,630	852,097	29,920	188,544	120,101	338,565	0	233,819	0	233,819	1,424,481

Van / Wagon													
Population	4-5 cyl				6-7 cyl				8 cyl & over			Total	
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.		Total
1999		74,181	9,053	83,235	2,449	47,030	15,060	64,539	3,385	94,241		97,626	245,400
1998		77,477	7,907	85,384	1,488	36,764	14,220	52,472	1,344	85,927		87,271	225,127
1997		80,275	7,612	87,887	699	24,897	14,562	40,158	786	76,289		77,075	205,120
1996		83,378	7,337	90,715	127	16,616	15,068	31,811	147	68,502		68,649	191,176
1995		86,817	7,149	93,966	0	10,587	16,046	26,632	0	60,979		60,979	181,577
1994		89,874	7,055	96,929	0	8,350	17,138	25,489	0	53,797		53,797	176,214
1993		87,910	6,928	94,838	0	3,295	17,451	20,746	0	44,428		44,428	160,012
1992		87,550	5,152	92,703	0	0	18,646	18,646	0	36,709		36,709	148,058
1991		86,564	2,198	88,762	0	0	19,843	19,843	0	27,524		27,524	136,129
1990		85,422	0	85,422	0	0	20,962	20,962	0	18,803		18,803	125,188
1989		83,322	0	83,322	0	0	22,105	22,105	0	12,429		12,429	117,856
1988		82,198	0	82,198	0	0	23,097	23,097	0	7,391		7,391	112,686
1987		81,234	0	81,234	0	0	23,792	23,792	0	3,640		3,640	108,666
1986		80,393	0	80,393	0	0	24,202	24,202	0	836		836	105,431
1985		77,431	0	77,431	0	0	23,396	23,396	0	0		0	100,827

Pickup													
Population	4-5 cyl				6-7 cyl				8 cyl & over			Total	
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.		Total
1999		38,296	70,175	108,472	4,014	60,300	58,739	123,054	3,568	134,029		137,597	369,122

## Vehicle Population in the Mexico City Metropolitan Area By Engine Number of Cylinders and Displacement

1998		39,027	60,535	99,562	4,293	62,457	57,376	124,126	1,638	136,197	137,835	361,523
1997		41,283	51,010	92,293	4,440	64,786	56,258	125,484	0	137,899	137,899	355,676
1996		44,349	43,186	87,536	4,472	64,447	57,914	126,833	0	135,438	135,438	349,807
1995		47,173	37,414	84,587	4,472	64,467	59,871	128,809	0	132,816	132,816	346,212
1994		49,822	32,858	82,681	4,472	66,449	62,916	133,837	0	133,151	133,151	349,669
1993		52,247	24,855	77,102	4,472	65,523	64,520	134,515	0	127,132	127,132	338,749
1992		54,503	15,325	69,829	4,472	66,761	66,128	137,360	0	117,545	117,545	324,734
1991		56,609	8,266	64,875	2,460	66,517	70,300	139,277	0	107,379	107,379	311,531
1990		58,572	0	58,572	551	65,974	72,029	138,553	0	96,518	96,518	293,643
1989		53,900	0	53,900	0	66,982	73,543	140,525	0	86,931	86,931	281,355
1988		50,777	0	50,777	0	66,156	75,616	141,772	0	78,430	78,430	270,979
1987		46,494	0	46,494	0	64,510	77,906	142,416	0	71,120	71,120	260,030
1986		43,089	0	43,089	0	64,355	79,965	144,319	0	67,645	67,645	255,054
1985		39,996	0	39,996	0	63,549	81,632	145,181	0	63,815	63,815	248,993

### Class 3

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0	0	0	0	0	0	738	738	0	145,998	6,767	152,765	153,503
1998	0	0	0	0	0	0	798	798	0	150,238	2,949	153,188	153,986
1997	0	0	0	0	0	0	862	862	0	155,832	0	155,832	156,695
1996	0	0	0	0	0	0	932	932	0	159,637	0	159,637	160,569
1995	0	0	0	0	0	0	1,007	1,007	0	164,939	0	164,939	165,947
1994	0	0	0	0	0	0	1,089	1,089	0	169,743	0	169,743	170,832
1993	0	0	0	0	0	0	1,177	1,177	0	164,828	0	164,828	166,005
1992	0	0	0	0	0	0	1,272	1,272	0	159,414	0	159,414	160,686
1991	0	0	0	0	0	0	1,375	1,375	0	139,303	0	139,303	140,677
1990	0	0	0	0	0	0	1,486	1,486	0	114,601	0	114,601	116,087
1989	0	0	0	0	0	0	1,606	1,606	0	99,321	0	99,321	100,927
1988	0	0	0	0	0	0	1,736	1,736	0	91,743	0	91,743	93,479
1987	0	0	0	0	0	0	1,874	1,874	0	87,499	0	87,499	89,373
1986	0	0	0	0	0	0	2,019	2,019	0	85,400	0	85,400	87,420
1985	0	0	0	0	0	0	2,162	2,162	0	84,096	0	84,096	86,258

## Vehicle Population in the Mexico City Metropolitan Area By Engine Number of Cylinders and Displacement

### Class 5 & 7 (Gasoline)

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0	0	0	0	0	0	0	0	0	35,928	5,062	40,990	40,990
1998	0	0	0	0	0	0	0	0	0	39,125	3,722	42,847	42,847
1997	0	0	0	0	0	0	0	0	0	42,584	2,779	45,363	45,363
1996	0	0	0	0	0	0	0	0	0	45,749	2,158	47,907	47,907
1995	0	0	0	0	0	0	0	0	0	49,068	1,669	50,737	50,737
1994	0	0	0	0	0	0	0	0	0	53,080	737	53,817	53,817
1993	0	0	0	0	0	0	0	0	0	56,520	0	56,520	56,520
1992	0	0	0	0	0	0	0	0	0	60,583	0	60,583	60,583
1991	0	0	0	0	0	0	0	0	0	65,017	0	65,017	65,017
1990	0	0	0	0	0	0	0	0	0	70,729	0	70,729	70,729
1989	0	0	0	0	0	0	0	0	0	76,053	0	76,053	76,053
1988	0	0	0	0	0	0	0	0	0	80,766	0	80,766	80,766
1987	0	0	0	0	0	0	0	0	0	85,080	0	85,080	85,080
1986	0	0	0	0	0	0	0	0	0	89,296	0	89,296	89,296
1985	0	0	0	0	0	0	0	0	0	93,500	0	93,500	93,500

### Total

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	44	1,365,670	567,173	1,932,888	81,298	320,196	110,334	511,827	39,951	495,755	11,850	547,556	2,992,272
1998	48	1,301,308	513,864	1,815,220	76,199	321,409	111,464	509,072	33,571	504,144	6,692	544,408	2,868,700
1997	53	1,249,287	460,560	1,709,900	71,343	321,212	114,328	506,883	28,508	512,637	2,800	543,944	2,760,728
1996	57	1,229,327	435,570	1,664,954	64,997	317,156	120,460	502,613	24,883	517,265	2,180	544,328	2,711,895
1995	63	1,230,506	429,944	1,660,513	61,254	314,098	127,728	503,080	21,049	523,991	1,690	546,730	2,710,323
1994	68	1,248,966	424,627	1,673,661	59,643	317,036	136,595	513,273	18,195	534,590	759	553,544	2,740,479
1993	75	1,177,908	389,030	1,567,013	61,256	290,980	143,673	495,908	12,678	524,913	12	537,603	2,600,523
1992	82	1,126,141	337,605	1,463,828	64,367	262,144	152,107	478,757	8,769	517,824	1	526,594	2,469,179
1991	89	1,065,270	284,584	1,349,942	65,072	237,309	163,622	466,003	1,559	495,207	0	496,766	2,312,711
1990	97	1,005,377	239,396	1,244,870	65,520	213,794	173,178	452,492	786	468,194	0	468,980	2,166,342
1989	106	947,173	206,801	1,154,079	58,640	210,889	183,154	452,683	0	456,213	0	456,213	2,062,975
1988	116	920,536	170,090	1,090,742	49,569	216,147	194,201	459,917	0	454,606	0	454,606	2,005,265
1987	126	904,222	140,830	1,045,178	43,152	224,638	205,861	473,651	0	456,248	0	456,248	1,975,077
1986	138	888,699	124,398	1,013,235	35,902	238,930	217,542	492,374	0	464,920	0	464,920	1,970,530
1985	150	866,744	102,630	969,525	29,920	252,093	227,292	509,305	0	475,229	0	475,229	1,954,059

## Vehicle Population in the Mexico City Metropolitan Area By Engine Number of Cylinders and Displacement

Cars	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0.00%	71.97%	28.02%	79.75%	23.13%	65.80%	11.07%	14.82%	27.83%	72.15%	0.02%	5.43%	72.96%
1998	0.00%	72.68%	27.32%	78.18%	21.23%	66.99%	11.78%	15.91%	24.82%	75.17%	0.02%	5.91%	72.69%
1997	0.00%	73.72%	26.28%	76.57%	19.45%	68.02%	12.53%	17.04%	21.70%	78.29%	0.02%	6.40%	72.37%
1996	0.00%	74.10%	25.90%	75.76%	17.61%	68.82%	13.57%	17.48%	18.64%	81.34%	0.02%	6.76%	72.36%
1995	0.00%	73.99%	26.00%	75.39%	16.38%	68.96%	14.66%	17.63%	15.34%	84.65%	0.02%	6.98%	72.53%
1994	0.00%	74.25%	25.75%	75.08%	15.64%	68.65%	15.72%	17.73%	12.72%	87.26%	0.02%	7.19%	72.61%
1993	0.01%	74.39%	25.61%	74.24%	16.73%	65.44%	17.83%	18.06%	8.76%	91.23%	0.01%	7.70%	72.26%
1992	0.01%	75.62%	24.37%	73.31%	18.63%	60.78%	20.55%	18.11%	5.76%	94.24%	0.00%	8.58%	71.89%
1991	0.01%	77.08%	22.91%	72.09%	20.49%	55.90%	23.60%	18.41%	0.99%	99.01%	0.00%	9.49%	71.75%
1990	0.01%	78.25%	21.75%	70.54%	22.29%	50.71%	27.00%	18.68%	0.47%	99.53%	0.00%	10.79%	72.04%
1989	0.01%	79.65%	20.34%	68.39%	20.33%	49.89%	29.78%	19.40%	0.00%	100.00%	0.00%	12.21%	72.07%
1988	0.01%	82.23%	17.76%	66.17%	16.90%	51.14%	31.96%	20.27%	0.00%	100.00%	0.00%	13.56%	72.18%
1987	0.01%	84.64%	15.35%	64.07%	14.12%	52.40%	33.47%	21.34%	0.00%	100.00%	0.00%	14.59%	72.50%
1986	0.02%	86.00%	13.98%	62.08%	11.16%	54.24%	34.60%	22.45%	0.00%	100.00%	0.00%	15.47%	72.74%
1985	0.02%	87.94%	12.04%	59.82%	8.84%	55.69%	35.47%	23.77%	0.00%	100.00%	0.00%	16.41%	72.90%

Van/Wgn	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999		89.12%	10.88%	33.92%	3.79%	72.87%	23.34%	26.30%	3.47%	96.53%	0.00%	39.78%	8.20%
1998		90.74%	9.26%	37.93%	2.84%	70.06%	27.10%	23.31%	1.54%	98.46%	0.00%	38.77%	7.85%
1997		91.34%	8.66%	42.85%	1.74%	62.00%	36.26%	19.58%	1.02%	98.98%	0.00%	37.58%	7.43%
1996		91.91%	8.09%	47.45%	0.40%	52.23%	47.37%	16.64%	0.21%	99.79%	0.00%	35.91%	7.05%
1995		92.39%	7.61%	51.75%	0.00%	39.75%	60.25%	14.67%	0.00%	100.00%	0.00%	33.58%	6.70%
1994		92.72%	7.28%	55.01%	0.00%	32.76%	67.24%	14.46%	0.00%	100.00%	0.00%	30.53%	6.43%
1993		92.70%	7.30%	59.27%	0.00%	15.88%	84.12%	12.97%	0.00%	100.00%	0.00%	27.77%	6.15%
1992		94.44%	5.56%	62.61%	0.00%	0.00%	100.00%	12.59%	0.00%	100.00%	0.00%	24.79%	6.00%
1991		97.52%	2.48%	65.20%	0.00%	0.00%	100.00%	14.58%	0.00%	100.00%	0.00%	20.22%	5.89%
1990		100.00%	0.00%	68.24%	0.00%	0.00%	100.00%	16.74%	0.00%	100.00%	0.00%	15.02%	5.78%
1989		100.00%	0.00%	70.70%	0.00%	0.00%	100.00%	18.76%	0.00%	0.00%	0.00%	10.55%	5.71%
1988		100.00%	0.00%	72.94%	0.00%	0.00%	100.00%	20.50%	0.00%	0.00%	0.00%	6.56%	5.62%
1987		100.00%	0.00%	74.76%	0.00%	0.00%	100.00%	21.89%	0.00%	0.00%	0.00%	3.35%	5.50%
1986		100.00%	0.00%	76.25%	0.00%	0.00%	100.00%	22.96%	0.00%	0.00%	0.00%	0.79%	5.35%
1985		100.00%	0.00%	76.80%	0.00%	0.00%	100.00%	23.20%	0.00%	0.00%	0.00%	0.00%	5.16%

## Vehicle Population in the Mexico City Metropolitan Area By Engine Number of Cylinders and Displacement

### Pickup

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999		35.31%	64.69%	29.39%	3.26%	49.00%	47.73%	33.34%	2.59%	97.41%	0.00%	37.28%	12.34%
1998		39.20%	60.80%	27.54%	3.46%	50.32%	46.22%	34.33%	1.19%	98.81%	0.00%	38.13%	12.60%
1997		44.73%	55.27%	25.95%	3.54%	51.63%	44.83%	35.28%	0.00%	100.00%	0.00%	38.77%	12.88%
1996		50.66%	49.34%	25.02%	3.53%	50.81%	45.66%	36.26%	0.00%	100.00%	0.00%	38.72%	12.90%
1995		55.77%	44.23%	24.43%	3.47%	50.05%	46.48%	37.21%	0.00%	100.00%	0.00%	38.36%	12.77%
1994		60.26%	39.74%	23.65%	3.34%	49.65%	47.01%	38.28%	0.00%	100.00%	0.00%	38.08%	12.76%
1993		67.76%	32.24%	22.76%	3.32%	48.71%	47.96%	39.71%	0.00%	100.00%	0.00%	37.53%	13.03%
1992		78.05%	21.95%	21.50%	3.26%	48.60%	48.14%	42.30%	0.00%	100.00%	0.00%	36.20%	13.15%
1991		87.26%	12.74%	20.82%	1.77%	47.76%	50.47%	44.71%	0.00%	100.00%	0.00%	34.47%	13.47%
1990		100.00%	0.00%	19.95%	0.40%	47.62%	51.99%	47.18%	0.00%	100.00%	0.00%	32.87%	13.55%
1989		100.00%	0.00%	19.16%	0.00%	47.67%	52.33%	49.95%	0.00%	100.00%	0.00%	30.90%	13.64%
1988		100.00%	0.00%	18.74%	0.00%	46.66%	53.34%	52.32%	0.00%	100.00%	0.00%	28.94%	13.51%
1987		100.00%	0.00%	17.88%	0.00%	45.30%	54.70%	54.77%	0.00%	100.00%	0.00%	27.35%	13.17%
1986		100.00%	0.00%	16.89%	0.00%	44.59%	55.41%	56.58%	0.00%	100.00%	0.00%	26.52%	12.94%
1985		100.00%	0.00%	16.06%	0.00%	43.77%	56.23%	58.31%	0.00%	100.00%	0.00%	25.63%	12.74%

### Class 3

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 ft.	3.0 - 3.9 ft.	4.0 - 4.9 ft.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999							100.00%	0.48%		95.57%	4.43%	99.52%	5.13%
1998							100.00%	0.52%		98.07%	1.93%	99.48%	5.37%
1997							100.00%	0.55%		100.00%	0.00%	99.45%	5.68%
1996							100.00%	0.58%		100.00%	0.00%	99.42%	5.92%
1995							100.00%	0.61%		100.00%	0.00%	99.39%	6.12%
1994							100.00%	0.64%		100.00%	0.00%	99.36%	6.23%
1993							100.00%	0.71%		100.00%	0.00%	99.29%	6.38%
1992							100.00%	0.79%		100.00%	0.00%	99.21%	6.51%
1991							100.00%	0.98%		100.00%	0.00%	99.02%	6.08%
1990							100.00%	1.28%		100.00%	0.00%	98.72%	5.36%
1989							100.00%	1.59%		100.00%	0.00%	98.41%	4.89%
1988							100.00%	1.86%		100.00%	0.00%	98.14%	4.66%
1987							100.00%	2.10%		100.00%	0.00%	97.90%	4.53%
1986							100.00%	2.31%		100.00%	0.00%	97.69%	4.44%
1985							100.00%	2.51%		100.00%	0.00%	97.49%	4.41%

## Vehicle Population in the Mexico City Metropolitan Area By Engine Number of Cylinders and Displacement

### Class 5 & 7 (Gasoline)

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999										87.65%	12.35%	100.00%	1.37%
1998										91.31%	8.69%	100.00%	1.49%
1997										93.87%	6.13%	100.00%	1.64%
1996										95.49%	4.51%	100.00%	1.77%
1995										96.71%	3.29%	100.00%	1.87%
1994										98.63%	1.37%	100.00%	1.96%
1993										100.00%	0.00%	100.00%	2.17%
1992										100.00%	0.00%	100.00%	2.45%
1991										100.00%	0.00%	100.00%	2.81%
1990										100.00%	0.00%	100.00%	3.26%
1989										100.00%	0.00%	100.00%	3.69%
1988										100.00%	0.00%	100.00%	4.03%
1987										100.00%	0.00%	100.00%	4.31%
1986										100.00%	0.00%	100.00%	4.53%
1985										100.00%	0.00%	100.00%	4.78%

### Total

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0.00%	70.65%	29.34%	64.60%	15.88%	62.56%	21.56%	17.10%	7.30%	90.54%	2.16%	18.30%	100.00%
1998	0.00%	71.69%	28.31%	63.28%	14.97%	63.14%	21.90%	17.75%	6.17%	92.60%	1.23%	18.98%	100.00%
1997	0.00%	73.06%	26.93%	61.94%	14.07%	63.37%	22.56%	18.36%	5.24%	94.24%	0.51%	19.70%	100.00%
1996	0.00%	73.84%	26.16%	61.39%	12.93%	63.10%	23.97%	18.53%	4.57%	95.03%	0.40%	20.07%	100.00%
1995	0.00%	74.10%	25.89%	61.27%	12.18%	62.43%	25.39%	18.56%	3.85%	95.84%	0.31%	20.17%	100.00%
1994	0.00%	74.62%	25.37%	61.07%	11.62%	61.77%	26.61%	18.73%	3.29%	96.58%	0.14%	20.20%	100.00%
1993	0.00%	75.17%	24.83%	60.26%	12.35%	58.68%	28.97%	19.07%	2.36%	97.64%	0.00%	20.67%	100.00%
1992	0.01%	76.93%	23.06%	59.28%	13.44%	54.76%	31.77%	19.39%	1.67%	98.33%	0.00%	21.33%	100.00%
1991	0.01%	78.91%	21.08%	58.37%	13.96%	50.92%	35.11%	20.15%	0.31%	99.69%	0.00%	21.48%	100.00%
1990	0.01%	80.76%	19.23%	57.46%	14.48%	47.25%	38.27%	20.89%	0.17%	99.83%	0.00%	21.65%	100.00%
1989	0.01%	82.07%	17.92%	55.94%	12.95%	46.59%	40.46%	21.94%	0.00%	100.00%	0.00%	22.11%	100.00%
1988	0.01%	84.40%	15.59%	54.39%	10.78%	47.00%	42.23%	22.94%	0.00%	100.00%	0.00%	22.67%	100.00%
1987	0.01%	86.51%	13.47%	52.92%	9.11%	47.43%	43.46%	23.98%	0.00%	100.00%	0.00%	23.10%	100.00%
1986	0.01%	87.71%	12.28%	51.42%	7.29%	48.53%	44.18%	24.99%	0.00%	100.00%	0.00%	23.59%	100.00%
1985	0.02%	89.40%	10.59%	49.62%	5.87%	49.50%	44.63%	26.06%	0.00%	100.00%	0.00%	24.32%	100.00%

**Vehicle Population in the Rest of Mexico (excluding the ZMVM)  
By Engine Number of Cylinders and Displacement**

<b>Cars</b>													
Population	4-5 cyl				6-7 cyl				8 cyl & over			Total	
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.		Total
1999	100	1,380,516	523,697	1,904,313	79,781	254,523	48,944	383,249	34,356	112,562	21	146,939	2,434,501
1998	102	1,305,399	476,839	1,782,341	74,596	264,996	52,012	391,604	32,020	119,440	22	151,483	2,325,427
1997	105	1,240,400	429,269	1,669,774	69,328	276,329	55,387	401,043	29,048	126,286	23	155,357	2,226,174
1996	109	1,211,947	412,296	1,624,352	62,258	282,752	59,097	404,108	26,315	133,648	23	159,987	2,188,446
1995	113	1,209,935	414,691	1,624,739	57,951	287,776	63,173	408,900	22,427	141,520	23	163,970	2,197,609
1994	117	1,241,424	421,820	1,663,361	58,652	293,729	67,646	420,028	20,534	150,124	23	170,681	2,254,070
1993	122	1,165,012	394,521	1,559,656	60,828	271,951	72,551	405,330	14,624	156,601	14	171,238	2,136,224
1992	128	1,104,378	351,855	1,456,361	64,308	243,951	77,928	386,048	10,361	167,963	2	178,326	2,020,736
1991	134	1,023,968	299,866	1,323,968	67,438	211,187	83,817	362,442	1,793	180,261	0	182,054	1,868,463
1990	141	955,652	262,357	1,218,150	70,206	184,168	90,265	344,640	943	191,575	0	192,517	1,755,307
1989	148	890,349	224,844	1,115,341	63,022	177,082	97,321	337,425	0	205,841	0	205,841	1,658,607
1988	157	859,281	181,819	1,041,257	52,502	181,380	105,043	338,925	0	220,881	0	220,881	1,601,062
1987	166	846,613	150,524	997,303	45,740	191,051	113,490	350,280	0	233,674	0	233,674	1,581,257
1986	176	846,061	137,675	983,913	39,820	204,798	122,786	367,405	0	247,475	0	247,475	1,598,793
1985	187	842,031	118,551	960,769	34,464	219,844	133,031	387,339	0	261,988	0	261,988	1,610,096

<b>Van / Wagon</b>													
Population	4-5 cyl				6-7 cyl				8 cyl & over			Total	
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.		Total
1999		104,578	15,371	119,950	4,789	84,966	18,954	108,710	6,589	159,302		165,891	394,551
1998		107,305	13,178	120,483	2,952	65,348	16,354	84,654	2,688	142,908		145,596	350,733
1997		109,006	12,690	121,697	1,439	42,598	15,927	59,964	1,618	124,289		125,907	307,568
1996		111,068	12,120	123,187	250	25,360	15,633	41,242	289	107,933		108,222	272,651
1995		113,566	11,749	125,315	0	13,521	16,221	29,742	0	93,123		93,123	248,180
1994		116,282	11,680	127,963	0	11,878	17,035	28,913	0	88,157		88,157	245,033
1993		112,571	11,534	124,105	0	6,082	16,871	22,953	0	77,514		77,514	224,572
1992		107,586	8,257	115,843	0	0	17,673	17,673	0	63,286		63,286	196,802
1991		102,318	3,151	105,469	0	0	18,587	18,587	0	47,410		47,410	171,466
1990		98,082	0	98,082	0	0	19,384	19,384	0	34,909		34,909	152,375
1989		90,372	0	90,372	0	0	20,116	20,116	0	23,650		23,650	134,138
1988		83,096	0	83,096	0	0	20,808	20,808	0	12,563		12,563	116,467
1987		78,399	0	78,399	0	0	21,382	21,382	0	5,662		5,662	105,443
1986		74,759	0	74,759	0	0	21,633	21,633	0	822		822	97,214
1985		71,535	0	71,535	0	0	20,776	20,776	0	0		0	92,310



**Vehicle Population in the Rest of Mexico (excluding the ZMVM)  
By Engine Number of Cylinders and Displacement**

Pickup													
	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999		125,852	222,432	348,284	12,145	194,456	197,213	403,815	13,228	421,191		434,419	1,186,518
1998		125,468	188,076	313,544	12,822	198,428	188,882	400,132	6,557	422,002		428,559	1,142,234
1997		129,675	149,115	278,790	13,160	202,365	178,672	394,197	0	419,305		419,305	1,092,292
1996		136,933	120,732	257,665	13,244	196,922	180,055	390,221	0	403,979		403,979	1,051,865
1995		143,497	103,797	247,294	13,244	194,916	183,391	391,551	0	393,621		393,621	1,032,466
1994		149,551	91,347	240,897	13,244	198,833	189,823	401,900	0	392,762		392,762	1,035,559
1993		155,059	67,223	222,281	13,244	193,550	191,486	398,281	0	371,947		371,947	992,509
1992		160,113	44,717	204,829	13,244	196,019	194,665	403,928	0	349,250		349,250	958,007
1991		164,722	21,507	186,229	6,632	191,688	203,740	402,060	0	312,236		312,236	900,525
1990		168,941	0	168,941	1,662	188,973	206,397	397,032	0	282,539		282,539	848,513
1989		153,176	0	153,176	0	189,484	207,598	397,082	0	250,793		250,793	801,051
1988		141,337	0	141,337	0	183,816	210,069	393,885	0	220,501		220,501	755,723
1987		128,608	0	128,608	0	177,668	213,934	391,602	0	198,732		198,732	718,942
1986		117,634	0	117,634	0	175,324	216,704	392,028	0	186,628		186,628	696,290
1985		106,936	0	106,936	0	170,827	218,238	389,065	0	172,749		172,749	668,750

Class 3													
	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999		0	0	0	0	0	2,020	2,020		307,760	14,645	322,405	324,425
1998		0	0	0	0	0	2,190	2,190		314,952	7,399	322,351	324,541
1997		0	0	0	0	0	2,376	2,376		319,809	0	319,809	322,185
1996		0	0	0	0	0	2,579	2,579		315,069	0	315,069	317,648
1995		0	0	0	0	0	2,800	2,800		313,868	0	313,868	316,668
1994		0	0	0	0	0	3,042	3,042		318,043	0	318,043	321,085
1993		0	0	0	0	0	3,307	3,307		306,814	0	306,814	310,121
1992		0	0	0	0	0	3,596	3,596		296,315	0	296,315	299,911
1991		0	0	0	0	0	3,911	3,911		267,794	0	267,794	271,706
1990		0	0	0	0	0	4,256	4,256		236,908	0	236,908	241,164
1989		0	0	0	0	0	4,627	4,627		219,698	0	219,698	224,326
1988		0	0	0	0	0	5,018	5,018		204,828	0	204,828	209,847
1987		0	0	0	0	0	5,405	5,405		199,721	0	199,721	205,126
1986		0	0	0	0	0	5,704	5,704		199,567	0	199,567	205,272
1985		0	0	0	0	0	5,882	5,882		194,072	0	194,072	199,953

**Vehicle Population in the Rest of Mexico (excluding the ZMVM)  
By Engine Number of Cylinders and Displacement**

**Class 5 & 7 (Gasoline)**

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0	0	0	0	0	0	0	0	0	41,806	5,091	46,897	46,897
1998	0	0	0	0	0	0	0	0	0	45,193	3,729	48,922	48,922
1997	0	0	0	0	0	0	0	0	0	48,609	2,210	50,820	50,820
1996	0	0	0	0	0	0	0	0	0	51,966	1,622	53,588	53,588
1995	0	0	0	0	0	0	0	0	0	56,116	1,371	57,487	57,487
1994	0	0	0	0	0	0	0	0	0	61,619	1,534	63,153	63,153
1993	0	0	0	0	0	0	0	0	0	64,615	0	64,615	64,615
1992	0	0	0	0	0	0	0	0	0	68,615	0	68,615	68,615
1991	0	0	0	0	0	0	0	0	0	72,801	0	72,801	72,801
1990	0	0	0	0	0	0	0	0	0	81,737	0	81,737	81,737
1989	0	0	0	0	0	0	0	0	0	92,040	0	92,040	92,040
1988	0	0	0	0	0	0	0	0	0	103,714	0	103,714	103,714
1987	0	0	0	0	0	0	0	0	0	115,001	0	115,001	115,001
1986	0	0	0	0	0	0	0	0	0	124,557	0	124,557	124,557
1985	0	0	0	0	0	0	0	0	0	132,780	0	132,780	132,780

Total	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	100	1,610,947	761,500	2,372,547	96,716	533,946	267,132	897,793	54,174	1,042,621	19,757	1,116,552	4,386,892
1998	102	1,538,172	678,093	2,216,367	90,370	528,771	259,438	878,579	41,266	1,044,494	11,150	1,096,910	4,191,856
1997	105	1,479,081	591,074	2,070,261	83,927	521,292	252,361	857,580	30,666	1,038,298	2,234	1,071,198	3,999,039
1996	109	1,459,947	545,147	2,005,203	75,752	505,034	257,364	838,150	26,604	1,012,596	1,645	1,040,845	3,884,198
1995	113	1,466,998	530,237	1,997,348	71,195	496,213	265,585	832,994	22,427	998,247	1,395	1,022,068	3,852,409
1994	117	1,507,257	524,846	2,032,221	71,896	504,440	277,546	853,883	20,534	1,010,705	1,557	1,032,796	3,918,900
1993	122	1,432,642	473,278	1,906,042	74,072	471,583	284,216	829,871	14,624	977,490	14	992,128	3,728,041
1992	128	1,372,077	404,829	1,777,033	77,552	439,970	293,862	811,245	10,361	945,429	2	955,792	3,544,070
1991	134	1,291,009	324,524	1,615,666	74,069	402,875	310,055	786,999	1,793	880,502	0	882,296	3,284,961
1990	141	1,222,675	262,357	1,485,172	71,869	373,141	320,302	765,312	943	827,668	0	828,611	3,079,096
1989	148	1,133,897	224,844	1,358,889	63,022	366,565	329,663	759,250	0	792,023	0	792,023	2,910,162
1988	157	1,083,714	181,819	1,265,690	52,502	365,196	340,938	758,636	0	762,487	0	762,487	2,786,813
1987	166	1,053,620	150,524	1,204,310	45,740	368,719	354,210	768,669	0	752,790	0	752,790	2,725,769
1986	176	1,038,454	137,675	1,176,306	39,820	380,123	366,828	786,771	0	759,049	0	759,049	2,722,126
1985	187	1,020,502	118,551	1,139,240	34,464	390,671	377,927	803,061	0	761,589	0	761,589	2,703,890

**Vehicle Population in the Rest of Mexico (excluding the ZMVM)  
By Engine Number of Cylinders and Displacement**

Cars	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0.01%	72.49%	27.50%	78.22%	20.82%	66.41%	12.77%	15.74%	23.38%	76.60%	0.01%	6.04%	55.49%
1998	0.01%	73.24%	26.75%	76.65%	19.05%	67.67%	13.28%	16.84%	21.14%	78.85%	0.01%	6.51%	55.47%
1997	0.01%	74.29%	25.71%	75.01%	17.29%	68.90%	13.81%	18.01%	18.70%	81.29%	0.01%	6.98%	55.67%
1996	0.01%	74.61%	25.38%	74.22%	15.41%	69.97%	14.62%	18.47%	16.45%	83.54%	0.01%	7.31%	56.34%
1995	0.01%	74.47%	25.52%	73.93%	14.17%	70.38%	15.45%	18.61%	13.68%	86.31%	0.01%	7.46%	57.05%
1994	0.01%	74.63%	25.36%	73.79%	13.96%	69.93%	16.11%	18.63%	12.03%	87.96%	0.01%	7.57%	57.52%
1993	0.01%	74.70%	25.30%	73.01%	15.01%	67.09%	17.90%	18.97%	8.54%	91.45%	0.01%	8.02%	57.30%
1992	0.01%	75.83%	24.16%	72.07%	16.66%	63.19%	20.19%	19.10%	5.81%	94.19%	0.00%	8.82%	57.02%
1991	0.01%	77.34%	22.65%	70.86%	18.61%	58.27%	23.13%	19.40%	0.99%	99.01%	0.00%	9.74%	56.88%
1990	0.01%	78.45%	21.54%	69.40%	20.37%	53.44%	26.19%	19.63%	0.49%	99.51%	0.00%	10.97%	57.01%
1989	0.01%	79.83%	20.16%	67.25%	18.68%	52.48%	28.84%	20.34%	0.00%	100.00%	0.00%	12.41%	56.99%
1988	0.02%	82.52%	17.46%	65.04%	15.49%	53.52%	30.99%	21.17%	0.00%	100.00%	0.00%	13.80%	57.45%
1987	0.02%	84.89%	15.09%	63.07%	13.06%	54.54%	32.40%	22.15%	0.00%	100.00%	0.00%	14.78%	58.01%
1986	0.02%	85.99%	13.99%	61.54%	10.84%	55.74%	33.42%	22.98%	0.00%	100.00%	0.00%	15.48%	58.73%
1985	0.02%	87.64%	12.34%	59.67%	8.90%	56.76%	34.34%	24.06%	0.00%	100.00%	0.00%	16.27%	59.55%

Van/Wgn	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999		87.19%	12.81%	30.40%	4.41%	78.16%	17.44%	27.55%	3.97%	96.03%	0.00%	42.05%	8.99%
1998		89.06%	10.94%	34.35%	3.49%	77.19%	19.32%	24.14%	1.85%	98.15%	0.00%	41.51%	8.37%
1997		89.57%	10.43%	39.57%	2.40%	71.04%	26.56%	19.50%	1.29%	98.71%	0.00%	40.94%	7.69%
1996		90.16%	9.84%	45.18%	0.61%	61.49%	37.90%	15.13%	0.27%	99.73%	0.00%	39.69%	7.02%
1995		90.62%	9.38%	50.49%	0.00%	45.46%	54.54%	11.98%	0.00%	100.00%	0.00%	37.52%	6.44%
1994		90.87%	9.13%	52.22%	0.00%	41.08%	58.92%	11.80%	0.00%	100.00%	0.00%	35.98%	6.25%
1993		90.71%	9.29%	55.26%	0.00%	26.50%	73.50%	10.22%	0.00%	100.00%	0.00%	34.52%	6.02%
1992		92.87%	7.13%	58.86%	0.00%	0.00%	100.00%	8.98%	0.00%	100.00%	0.00%	32.16%	5.55%
1991		97.01%	2.99%	61.51%	0.00%	0.00%	100.00%	10.84%	0.00%	100.00%	0.00%	27.65%	5.22%
1990		100.00%	0.00%	64.37%	0.00%	0.00%	100.00%	12.72%	0.00%	100.00%	0.00%	22.91%	4.95%
1989		100.00%	0.00%	67.37%	0.00%	0.00%	100.00%	15.00%	0.00%	0.00%	0.00%	17.63%	4.61%
1988		100.00%	0.00%	71.35%	0.00%	0.00%	100.00%	17.87%	0.00%	0.00%	0.00%	10.79%	4.18%
1987		100.00%	0.00%	74.35%	0.00%	0.00%	100.00%	20.28%	0.00%	0.00%	0.00%	5.37%	3.87%
1986		100.00%	0.00%	76.90%	0.00%	0.00%	100.00%	22.25%	0.00%	0.00%	0.00%	0.85%	3.57%
1985		100.00%	0.00%	77.49%	0.00%	0.00%	100.00%	22.51%	0.00%	0.00%	0.00%	0.00%	3.41%

**Vehicle Population in the Rest of Mexico (excluding the ZMVM)  
By Engine Number of Cylinders and Displacement**

**Pickup**

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999		36.13%	63.87%	29.35%	3.01%	48.15%	48.84%	34.03%	3.05%	96.95%	0.00%	36.61%	27.05%
1998		40.02%	59.98%	27.45%	3.20%	49.59%	47.20%	35.03%	1.53%	98.47%	0.00%	37.52%	27.25%
1997		46.51%	53.49%	25.52%	3.34%	51.34%	45.33%	36.09%	0.00%	100.00%	0.00%	38.39%	27.31%
1996		53.14%	46.86%	24.50%	3.39%	50.46%	46.14%	37.10%	0.00%	100.00%	0.00%	38.41%	27.08%
1995		58.03%	41.97%	23.95%	3.38%	49.78%	46.84%	37.92%	0.00%	100.00%	0.00%	38.12%	26.80%
1994		62.08%	37.92%	23.26%	3.30%	49.47%	47.23%	38.81%	0.00%	100.00%	0.00%	37.93%	26.42%
1993		69.76%	30.24%	22.40%	3.33%	48.60%	48.08%	40.13%	0.00%	100.00%	0.00%	37.48%	26.62%
1992		78.17%	21.83%	21.38%	3.28%	48.53%	48.19%	42.16%	0.00%	100.00%	0.00%	36.46%	27.03%
1991		88.45%	11.55%	20.68%	1.65%	47.68%	50.67%	44.65%	0.00%	100.00%	0.00%	34.67%	27.41%
1990		100.00%	0.00%	19.91%	0.42%	47.60%	51.98%	46.79%	0.00%	100.00%	0.00%	33.30%	27.56%
1989		100.00%	0.00%	19.12%	0.00%	47.72%	52.28%	49.57%	0.00%	100.00%	0.00%	31.31%	27.53%
1988		100.00%	0.00%	18.70%	0.00%	46.67%	53.33%	52.12%	0.00%	100.00%	0.00%	29.18%	27.12%
1987		100.00%	0.00%	17.89%	0.00%	45.37%	54.63%	54.47%	0.00%	100.00%	0.00%	27.64%	26.38%
1986		100.00%	0.00%	16.89%	0.00%	44.72%	55.28%	56.30%	0.00%	100.00%	0.00%	26.80%	25.58%
1985		100.00%	0.00%	15.99%	0.00%	43.91%	56.09%	58.18%	0.00%	100.00%	0.00%	25.83%	24.73%

**Class 3**

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999							100.00%	0.62%		95.46%	4.54%	99.38%	7.40%
1998							100.00%	0.67%		97.70%	2.30%	99.33%	7.74%
1997							100.00%	0.74%		100.00%	0.00%	99.26%	8.06%
1996							100.00%	0.81%		100.00%	0.00%	99.19%	8.18%
1995							100.00%	0.88%		100.00%	0.00%	99.12%	8.22%
1994							100.00%	0.95%		100.00%	0.00%	99.05%	8.19%
1993							100.00%	1.07%		100.00%	0.00%	98.93%	8.32%
1992							100.00%	1.20%		100.00%	0.00%	98.80%	8.46%
1991							100.00%	1.44%		100.00%	0.00%	98.56%	8.27%
1990							100.00%	1.76%		100.00%	0.00%	98.24%	7.83%
1989							100.00%	2.06%		100.00%	0.00%	97.94%	7.71%
1988							100.00%	2.39%		100.00%	0.00%	97.61%	7.53%
1987							100.00%	2.63%		100.00%	0.00%	97.37%	7.53%
1986							100.00%	2.78%		100.00%	0.00%	97.22%	7.54%
1985							100.00%	2.94%		100.00%	0.00%	97.06%	7.40%

**Vehicle Population in the Rest of Mexico (excluding the ZMVM)  
By Engine Number of Cylinders and Displacement**

**Class 5 & 7 (Gasoline)**

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999													1.07%
1998										89.14%	10.86%	100.00%	1.17%
1997										92.38%	7.62%	100.00%	1.27%
1996										95.65%	4.35%	100.00%	1.38%
1995										96.97%	3.03%	100.00%	1.49%
1994										97.61%	2.39%	100.00%	1.61%
1993										97.57%	2.43%	100.00%	1.73%
1992										100.00%	0.00%	100.00%	1.94%
1991										100.00%	0.00%	100.00%	2.22%
1990										100.00%	0.00%	100.00%	2.65%
1989										100.00%	0.00%	100.00%	3.16%
1988										100.00%	0.00%	100.00%	3.72%
1987										100.00%	0.00%	100.00%	4.22%
1986										100.00%	0.00%	100.00%	4.58%
1985										100.00%	0.00%	100.00%	4.91%

**Total**

	4-5 cyl				6-7 cyl				8 cyl & over				Total
	< 1.0 lt.	1.0 - 1.9 lt.	2.0 - 2.9 lt.	Total	2.0 - 2.9 lt.	3.0 - 3.9 lt.	4.0 - 4.9 lt.	Total	4.0 - 4.9 lt.	5.0 - 5.9 lt.	>=6.0 lt.	Total	
1999	0.00%	67.90%	32.10%	54.08%	10.77%	59.47%	29.75%	20.47%	4.85%	93.38%	1.77%	25.45%	100.00%
1998	0.00%	69.40%	30.59%	52.87%	10.29%	60.18%	29.53%	20.96%	3.76%	95.22%	1.02%	26.17%	100.00%
1997	0.01%	71.44%	28.55%	51.77%	9.79%	60.79%	29.43%	21.44%	2.86%	96.93%	0.21%	26.79%	100.00%
1996	0.01%	72.81%	27.19%	51.62%	9.04%	60.26%	30.71%	21.58%	2.56%	97.29%	0.16%	26.80%	100.00%
1995	0.01%	73.45%	26.55%	51.85%	8.55%	59.57%	31.88%	21.62%	2.19%	97.67%	0.14%	26.53%	100.00%
1994	0.01%	74.17%	25.83%	51.86%	8.42%	59.08%	32.50%	21.79%	1.99%	97.86%	0.15%	26.35%	100.00%
1993	0.01%	75.16%	24.83%	51.13%	8.93%	56.83%	34.25%	22.26%	1.47%	98.52%	0.00%	26.61%	100.00%
1992	0.01%	77.21%	22.78%	50.14%	9.56%	54.23%	36.22%	22.89%	1.08%	98.92%	0.00%	26.97%	100.00%
1991	0.01%	79.91%	20.09%	49.18%	9.41%	51.19%	39.40%	23.96%	0.20%	99.80%	0.00%	26.86%	100.00%
1990	0.01%	82.33%	17.67%	48.23%	9.39%	48.76%	41.85%	24.86%	0.11%	99.89%	0.00%	26.91%	100.00%
1989	0.01%	83.44%	16.55%	46.69%	8.30%	48.28%	43.42%	26.09%	0.00%	100.00%	0.00%	27.22%	100.00%
1988	0.01%	85.62%	14.37%	45.42%	6.92%	48.14%	44.94%	27.22%	0.00%	100.00%	0.00%	27.36%	100.00%
1987	0.01%	87.49%	12.50%	44.18%	5.95%	47.97%	46.08%	28.20%	0.00%	100.00%	0.00%	27.62%	100.00%
1986	0.01%	88.28%	11.70%	43.21%	5.06%	48.31%	46.62%	28.90%	0.00%	100.00%	0.00%	27.88%	100.00%
1985	0.02%	89.58%	10.41%	42.13%	4.29%	48.65%	47.06%	29.70%	0.00%	100.00%	0.00%	28.17%	100.00%

## Vehicle Population in the Republic of Mexico By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Cars

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb		MPI		Total	Carb	Total	Carb	Total	Carb		MPI		Total		
	Nat Asp	TBI	Nat Asp	Turbo						Nat Asp	Nat Asp	Nat Asp	Super			Turbo
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp	Total	Nat Asp	Total	Nat Asp	Nat Asp	Super	Turbo	Total		
1999	1,540,419		89,971	60,946	1,691,337	131,813	131,813	178,524	178,524	39,727	2,588	2,462,904	14,855	96,010	2,616,083	4,617,757
1998	1,663,089		97,785	66,211	1,827,085	143,393	143,393	194,203	194,203	43,217	2,793	2,080,645	15,941	103,369	2,245,965	4,410,645
1997	1,797,293		106,316	71,960	1,975,569	156,032	156,032	211,316	211,316	47,026	2,793	1,703,357	16,871	111,084	1,881,131	4,224,048
1996	1,944,071		115,630	78,237	2,137,938	168,975	168,975	229,000	229,000	50,929	2,793	1,426,541	17,603	117,104	1,614,970	4,150,882
1995	2,104,557		125,769	85,089	2,315,416	174,666	174,666	238,145	238,145	52,668	2,793	1,241,751	17,908	120,112	1,435,232	4,163,459
1994	2,277,901		136,287	92,362	2,506,549	174,666	174,666	238,145	238,145	52,668	2,793	1,130,221	17,804	121,171	1,324,657	4,244,017
1993	2,446,903		144,321	98,089	2,689,313	174,666	174,666	238,145	238,145	52,668		734,225	15,601	110,843	913,338	4,015,462
1992	2,616,953		147,245	101,328	2,865,526	174,666	174,666	238,145	238,145	52,668		368,640	11,818	84,390	517,516	3,795,853
1991	2,788,623		148,543	103,586	3,040,752	77,686	77,686	124,838	124,838	23,736		207,493	7,030	46,285	284,544	3,527,820
1990	2,964,654		145,795	105,888	3,216,338		0		0			84,453		15,212	99,665	3,316,003
1989	2,905,881		110,484	84,168	3,100,533		0		0			34,504		10,353	44,857	3,145,390
1988	2,916,667		39,819	49,604	3,006,090		0		0			34,589		7,739	42,328	3,048,418
1987	2,927,909		17,695	34,476	2,980,079		0		0			28,559		4,548	33,107	3,013,186
1986	2,972,540		3,582	33,249	3,009,371		0		0			22,624		127	22,751	3,032,122
1985	2,990,495		220	27,577	3,018,293		0		0			16,285			16,285	3,034,578

### Van / Wagon

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb		MPI		Total	Carb	Total	Carb	Total	Carb		MPI		Total			
	Nat Asp	TBI	Nat Asp	Turbo						Nat Asp	Nat Asp	Nat Asp	Super			Turbo	
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp	Total	Nat Asp	Total	Nat Asp	Nat Asp	Super	Turbo	Total			
1999	228,214	50,063			278,277		0		0			82,584	279,089			361,673	639,950
1998	242,613	51,439			294,051		0		0			80,545	201,263			281,808	575,859
1997	256,414	51,039			307,453		0		0			68,773	136,462			205,235	512,688
1996	269,007	51,039			320,046		0		0			51,269	92,512			143,781	463,827
1995	280,305	51,039			331,344		0		0			33,369	65,044			98,413	429,757
1994	290,749	51,039			341,788		0		0			23,590	55,869			79,459	421,247
1993	300,677	47,717			348,394		0		0			11,918	24,273			36,191	384,585
1992	305,490	39,370			344,860		0		0							0	344,860
1991	293,286	14,309			307,595		0		0							0	307,595
1990	277,563				277,563		0		0							0	277,563
1989	251,994				251,994		0		0							0	251,994
1988	229,152				229,152		0		0							0	229,152
1987	214,109				214,109		0		0							0	214,109
1986	202,645				202,645		0		0							0	202,645
1985	193,138				193,138		0		0							0	193,138

# Vehicle Population in the Republic of Mexico By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

**Pickup**

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb		TBI		MPI		Total	Total	Total	Carb		TBI		MPI		Total	
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp				Total	Nat Asp	Total	Nat Asp	Nat Asp			Nat Asp
1999	877,549	83,323	58,951		1,019,823		0		0		71,020	464,797			535,817	1,555,640	
1998	930,290	85,460	60,661		1,076,411		0		0		70,794	356,552			427,346	1,503,757	
1997	983,117	85,945	60,661		1,129,723		0		0		45,689	272,557			318,246	1,447,969	
1996	1,033,073	86,061	60,661		1,179,795		0		0		24,596	197,281			221,877	1,401,672	
1995	1,080,368	86,061	60,661		1,227,090		0		0		7,907	143,681			151,588	1,378,678	
1994	1,125,062	86,061	60,661		1,271,784		0		0			113,444			113,444	1,385,228	
1993	1,167,829	62,639	60,661		1,291,129		0		0			40,129			40,129	1,331,258	
1992	1,209,921	40,236	32,584		1,282,741		0		0						0	1,282,741	
1991	1,202,964	9,092			1,212,056		0		0						0	1,212,056	
1990	1,139,942	2,213			1,142,155		0		0						0	1,142,155	
1989	1,082,406				1,082,406		0		0						0	1,082,406	
1988	1,026,702				1,026,702		0		0						0	1,026,702	
1987	978,972				978,972		0		0						0	978,972	
1986	951,344				951,344		0		0						0	951,344	
1985	917,743				917,743		0		0						0	917,743	

**Class 3**

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb		TBI		MPI		Total	Total	Total	Carb		TBI		MPI		Total	
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp				Total	Nat Asp	Total	Nat Asp	Nat Asp			Nat Asp
1999	255,045	35,538	36,930		327,513		0		0			57,489	92,927			150,415	477,929
1998	276,700	38,326	39,727		354,752		0		0			47,201	76,573			123,774	478,526
1997	300,287	39,896	41,142		381,325		0		0			37,414	60,140			97,554	478,879
1996	324,000	39,896	41,142		405,038		0		0			29,809	43,370			73,179	478,217
1995	344,253	39,896	41,142		425,291		0		0			23,862	33,462			57,324	482,615
1994	362,431	39,896	41,142		443,469		0		0			21,085	27,363			48,448	491,917
1993	379,324	39,896	41,142		460,362		0		0			10,241	5,523			15,764	476,126
1992	395,845	28,674	25,837		450,356		0		0			10,241				10,241	460,597
1991	412,383				412,383		0		0							0	412,383
1990	357,251				357,251		0		0							0	357,251
1989	325,253				325,253		0		0							0	325,253
1988	303,325				303,325		0		0							0	303,325
1987	294,499				294,499		0		0							0	294,499
1986	292,691				292,691		0		0							0	292,691
1985	286,212				286,212		0		0							0	286,212

# Vehicle Population in the Republic of Mexico

## By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Class 5 & 7 (Gasoline)

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb		TBI		MPI	Total	Total	Carb	Total	Carb		TBI		MPI		Total
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp					Nat Asp	Nat Asp	Super	Turbo			
1999	64,182	9,890	4,989		79,061		0		0		6,533	2,293		8,826	87,887	
1998	70,766	9,890	4,989		85,645		0		0		4,099	2,025		6,124	91,769	
1997	77,863	9,890	4,989		92,742		0		0		2,573	867		3,440	96,182	
1996	85,873	9,890	3,780		99,543		0		0		1,472	480		1,952	101,495	
1995	94,908	9,890	3,040		107,838		0		0		386			386	108,224	
1994	105,097	9,602	2,271		116,970		0		0					0	116,970	
1993	116,254	4,880			121,134		0		0					0	121,134	
1992	129,198				129,198		0		0					0	129,198	
1991	137,818				137,818		0		0					0	137,818	
1990	152,466				152,466		0		0					0	152,466	
1989	168,094				168,094		0		0					0	168,094	
1988	184,480				184,480		0		0					0	184,480	
1987	200,081				200,081		0		0					0	200,081	
1986	213,853				213,853		0		0					0	213,853	
1985	226,280				226,280		0		0					0	226,280	

### Total

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb		TBI		MPI	Total	Total	Carb	Total	Carb		TBI		MPI		Total
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp					Nat Asp	Nat Asp	Super	Turbo			
1999	2,965,410	178,814	190,842	60,946	3,396,012	131,813	131,813	178,524	178,524	39,727	220,214	3,302,009	14,855	96,010	3,672,815	7,379,164
1998	3,183,457	185,114	203,162	66,211	3,637,944	143,393	143,393	194,203	194,203	43,217	205,432	2,717,058	15,941	103,369	3,085,017	7,060,557
1997	3,414,974	186,770	213,108	71,960	3,886,812	156,032	156,032	211,316	211,316	47,026	157,242	2,173,383	16,871	111,084	2,505,606	6,759,766
1996	3,656,024	186,886	221,213	78,237	4,142,360	168,975	168,975	229,000	229,000	50,929	109,939	1,760,184	17,603	117,104	2,055,759	6,596,094
1995	3,904,390	186,886	230,612	85,089	4,406,978	174,666	174,666	238,145	238,145	52,668	68,317	1,483,938	17,908	120,112	1,742,943	6,562,732
1994	4,161,240	186,598	240,361	92,362	4,680,560	174,666	174,666	238,145	238,145	52,668	47,468	1,326,897	17,804	121,171	1,566,008	6,659,379
1993	4,410,987	155,132	246,124	98,089	4,910,332	174,666	174,666	238,145	238,145	52,668	22,159	804,150	15,601	110,843	1,005,422	6,328,565
1992	4,657,406	108,280	205,666	101,328	5,072,681	174,666	174,666	238,145	238,145	52,668	10,241	368,640	11,818	84,390	527,757	6,013,249
1991	4,835,075	23,401	148,543	103,586	5,110,605	77,686	77,686	124,838	124,838	23,736	0	207,493	7,030	46,285	284,544	5,597,673
1990	4,891,876	2,213	145,795	105,888	5,145,773	0	0	0	0	0	0	84,453	0	15,212	99,665	5,245,438
1989	4,733,627	0	110,484	84,168	4,928,279	0	0	0	0	0	0	34,504	0	10,353	44,857	4,973,137
1988	4,660,327	0	39,819	49,604	4,749,750	0	0	0	0	0	0	34,589	0	7,739	42,328	4,792,078
1987	4,615,569	0	17,695	34,476	4,667,739	0	0	0	0	0	0	28,559	0	4,548	33,107	4,700,846
1986	4,633,074	0	3,582	33,249	4,669,905	0	0	0	0	0	0	22,624	0	127	22,751	4,692,656
1985	4,613,867	0	220	27,577	4,641,664	0	0	0	0	0	0	16,285	0	0	16,285	4,657,949



## Vehicle Population in the Republic of Mexico By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Cars

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb		MPI		Total	Carb	Total	Carb	Total	Carb		MPI				Total
	Nat Asp	TBI	Nat Asp	Turbo						Nat Asp	TBI	Nat Asp	Super	Turbo		
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp	Total	Nat Asp	Total	Nat Asp	Nat Asp	Nat Asp	Super	Turbo			
1999	91.1%		5.3%	3.6%	36.6%	100.0%	2.9%	100.0%	3.9%	1.5%	0.1%	94.1%	0.6%	3.7%	56.7%	100.0%
1998	91.0%		5.4%	3.6%	41.4%	100.0%	3.3%	100.0%	4.4%	1.9%	0.1%	92.6%	0.7%	4.6%	50.9%	100.0%
1997	91.0%		5.4%	3.6%	46.8%	100.0%	3.7%	100.0%	5.0%	2.5%	0.1%	90.5%	0.9%	5.9%	44.5%	100.0%
1996	90.9%		5.4%	3.7%	51.5%	100.0%	4.1%	100.0%	5.5%	3.2%	0.2%	88.3%	1.1%	7.3%	38.9%	100.0%
1995	90.9%		5.4%	3.7%	55.6%	100.0%	4.2%	100.0%	5.7%	3.7%	0.2%	86.5%	1.2%	8.4%	34.5%	100.0%
1994	90.9%		5.4%	3.7%	59.1%	100.0%	4.1%	100.0%	5.6%	4.0%	0.2%	85.3%	1.3%	9.1%	31.2%	100.0%
1993	91.0%		5.4%	3.6%	67.0%	100.0%	4.3%	100.0%	5.9%	5.8%	0.0%	80.4%	1.7%	12.1%	22.7%	100.0%
1992	91.3%		5.1%	3.5%	75.5%	100.0%	4.6%	100.0%	6.3%	10.2%	0.0%	71.2%	2.3%	16.3%	13.6%	100.0%
1991	91.7%		4.9%	3.4%	86.2%	100.0%	2.2%	100.0%	3.5%	8.3%	0.0%	72.9%	2.5%	16.3%	8.1%	100.0%
1990	92.2%		4.5%	3.3%	97.0%		0.0%		0.0%	0.0%	0.0%	84.7%	0.0%	15.3%	3.0%	100.0%
1989	93.7%		3.6%	2.7%	98.6%		0.0%		0.0%	0.0%	0.0%	76.9%	0.0%	23.1%	1.4%	100.0%
1988	97.0%		1.3%	1.7%	98.6%		0.0%		0.0%	0.0%	0.0%	81.7%	0.0%	18.3%	1.4%	100.0%
1987	98.2%		0.6%	1.2%	98.9%		0.0%		0.0%	0.0%	0.0%	86.3%	0.0%	13.7%	1.1%	100.0%
1986	98.8%		0.1%	1.1%	99.2%		0.0%		0.0%	0.0%	0.0%	99.4%	0.0%	0.6%	0.8%	100.0%
1985	99.1%		0.0%	0.9%	99.5%		0.0%		0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.5%	100.0%

### Van/Wgn

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb		MPI		Total	Carb	Total	Carb	Total	Carb		MPI				Total
	Nat Asp	TBI	Nat Asp	Turbo						Nat Asp	TBI	Nat Asp	Super	Turbo		
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp	Total	Nat Asp	Total	Nat Asp	Nat Asp	Nat Asp	Super	Turbo			
1999	82.0%	18.0%			43.5%		0.0%		0.0%		22.8%	77.2%			56.5%	100.0%
1998	82.5%	17.5%			51.1%		0.0%		0.0%		28.6%	71.4%			48.9%	100.0%
1997	83.4%	16.6%			60.0%		0.0%		0.0%		33.5%	66.5%			40.0%	100.0%
1996	84.1%	15.9%			69.0%		0.0%		0.0%		35.7%	64.3%			31.0%	100.0%
1995	84.6%	15.4%			77.1%		0.0%		0.0%		33.9%	66.1%			22.9%	100.0%
1994	85.1%	14.9%			81.1%		0.0%		0.0%		29.7%	70.3%			18.9%	100.0%
1993	86.3%	13.7%			90.6%		0.0%		0.0%		32.9%	67.1%			9.4%	100.0%
1992	88.6%	11.4%			100.0%		0.0%		0.0%						0.0%	100.0%
1991	95.3%	4.7%			100.0%		0.0%		0.0%						0.0%	100.0%
1990	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%

## Vehicle Population in the Republic of Mexico By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Pickup

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb	TBI	MPI		Total	Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo		Nat Asp		Nat Asp		Nat Asp	Super	Turbo				
1999	86.0%	8.2%	5.8%		65.6%		0.0%		0.0%		13.3%	86.7%			34.4%	100.0%
1998	86.4%	7.9%	5.6%		71.6%		0.0%		0.0%		16.6%	83.4%			28.4%	100.0%
1997	87.0%	7.6%	5.4%		78.0%		0.0%		0.0%		14.4%	85.6%			22.0%	100.0%
1996	87.6%	7.3%	5.1%		84.2%		0.0%		0.0%		11.1%	88.9%			15.8%	100.0%
1995	88.0%	7.0%	4.9%		89.0%		0.0%		0.0%		5.2%	94.8%			11.0%	100.0%
1994	88.5%	6.8%	4.8%		91.8%		0.0%		0.0%		0.0%	100.0%			8.2%	100.0%
1993	90.5%	4.9%	4.7%		97.0%		0.0%		0.0%		0.0%	100.0%			3.0%	100.0%
1992	94.3%	3.1%	2.5%		100.0%		0.0%		0.0%						0.0%	100.0%
1991	99.2%	0.8%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1990	99.8%	0.2%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%

### Class 3

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb	TBI	MPI		Total	Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo		Nat Asp		Nat Asp		Nat Asp	Super	Turbo				
1999	77.9%	10.9%	11.3%		68.5%		0.0%		0.0%		38.2%	61.8%	0.0%	0.0%	31.5%	100.0%
1998	78.0%	10.8%	11.2%		74.1%		0.0%		0.0%		38.1%	61.9%	0.0%	0.0%	25.9%	100.0%
1997	78.7%	10.5%	10.8%		79.6%		0.0%		0.0%		38.4%	61.6%	0.0%	0.0%	20.4%	100.0%
1996	80.0%	9.8%	10.2%		84.7%		0.0%		0.0%		40.7%	59.3%	0.0%	0.0%	15.3%	100.0%
1995	80.9%	9.4%	9.7%		88.1%		0.0%		0.0%		41.6%	58.4%	0.0%	0.0%	11.9%	100.0%
1994	81.7%	9.0%	9.3%		90.2%		0.0%		0.0%		43.5%	56.5%	0.0%	0.0%	9.8%	100.0%
1993	82.4%	8.7%	8.9%		96.7%		0.0%		0.0%		65.0%	35.0%	0.0%	0.0%	3.3%	100.0%
1992	87.9%	6.4%	5.7%		97.8%		0.0%		0.0%		100.0%	0.0%	0.0%	0.0%	2.2%	100.0%
1991	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1990	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%

## Vehicle Population in the Republic of Mexico By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Class 5 & 7 (Gasoline)

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb	TBI	MPI		Total	Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo		Nat Asp		Nat Asp		Nat Asp	Super	Turbo				
1999	81.2%	12.5%	6.3%		90.0%		0.0%		0.0%		74.0%	26.0%	0.0%	0.0%	10.0%	100.0%
1998	82.6%	11.5%	5.8%		93.3%		0.0%		0.0%		66.9%	33.1%	0.0%	0.0%	6.7%	100.0%
1997	84.0%	10.7%	5.4%		96.4%		0.0%		0.0%		74.8%	25.2%	0.0%	0.0%	3.6%	100.0%
1996	86.3%	9.9%	3.8%		98.1%		0.0%		0.0%		75.4%	24.6%	0.0%	0.0%	1.9%	100.0%
1995	88.0%	9.2%	2.8%		99.6%		0.0%		0.0%		100.0%	0.0%	0.0%	0.0%	0.4%	100.0%
1994	89.8%	8.2%	1.9%		100.0%		0.0%		0.0%						0.0%	100.0%
1993	96.0%	4.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1992	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1991	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1990	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%

### Total

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb	TBI	MPI		Total	Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo		Nat Asp		Nat Asp		Nat Asp	Super	Turbo				
1999	87.3%	5.3%	5.6%	1.8%	46.0%	100.0%	1.8%	100.0%	2.4%	1.1%	6.0%	89.9%	0.4%	2.6%	49.8%	100.0%
1998	87.5%	5.1%	5.6%	1.8%	51.5%	100.0%	2.0%	100.0%	2.8%	1.4%	6.7%	88.1%	0.5%	3.4%	43.7%	100.0%
1997	87.9%	4.8%	5.5%	1.9%	57.5%	100.0%	2.3%	100.0%	3.1%	1.9%	6.3%	86.7%	0.7%	4.4%	37.1%	100.0%
1996	88.3%	4.5%	5.3%	1.9%	62.8%	100.0%	2.6%	100.0%	3.5%	2.5%	5.3%	85.6%	0.9%	5.7%	31.2%	100.0%
1995	88.6%	4.2%	5.2%	1.9%	67.2%	100.0%	2.7%	100.0%	3.6%	3.0%	3.9%	85.1%	1.0%	6.9%	26.6%	100.0%
1994	88.9%	4.0%	5.1%	2.0%	70.3%	100.0%	2.6%	100.0%	3.6%	3.4%	3.0%	84.7%	1.1%	7.7%	23.5%	100.0%
1993	89.8%	3.2%	5.0%	2.0%	77.6%	100.0%	2.8%	100.0%	3.8%	5.2%	2.2%	80.0%	1.6%	11.0%	15.9%	100.0%
1992	91.8%	2.1%	4.1%	2.0%	84.4%	100.0%	2.9%	100.0%	4.0%	10.0%	1.9%	69.9%	2.2%	16.0%	8.8%	100.0%
1991	94.6%	0.5%	2.9%	2.0%	91.3%	100.0%	1.4%	100.0%	2.2%	8.3%	0.0%	72.9%	2.5%	16.3%	5.1%	100.0%
1990	95.1%	0.0%	2.8%	2.1%	98.1%		0.0%		0.0%	0.0%	0.0%	84.7%	0.0%	15.3%	1.9%	100.0%
1989	96.1%	0.0%	2.2%	1.7%	99.1%		0.0%		0.0%	0.0%	0.0%	76.9%	0.0%	23.1%	0.9%	100.0%
1988	98.1%	0.0%	0.8%	1.0%	99.1%		0.0%		0.0%	0.0%	0.0%	81.7%	0.0%	18.3%	0.9%	100.0%
1987	98.9%	0.0%	0.4%	0.7%	99.3%		0.0%		0.0%	0.0%	0.0%	86.3%	0.0%	13.7%	0.7%	100.0%
1986	99.2%	0.0%	0.1%	0.7%	99.5%		0.0%		0.0%	0.0%	0.0%	99.4%	0.0%	0.6%	0.5%	100.0%
1985	99.4%	0.0%	0.0%	0.6%	99.7%		0.0%		0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.3%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Cars

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb		TBI		MPI	Total	Carb	Total	Carb	Total	Carb	TBI	MPI			Total
	Nat Asp	Nat Asp	Nat Asp	Turbo		Nat Asp		Nat Asp		Nat Asp	Nat Asp	Nat Asp	Super	Turbo		
1999	687,368		42,637	28,613	758,618	63,332	63,332	86,029	86,029	19,092	1,301	1,200,843	7,267	46,776	1,275,278	2,183,256
1998	750,247		46,537	31,230	828,015	69,126	69,126	93,898	93,898	20,838	1,349	1,013,915	7,777	50,301	1,094,179	2,085,219
1997	818,878		50,795	34,087	903,760	75,449	75,449	102,488	102,488	22,744	1,349	830,272	8,175	53,638	916,178	1,997,875
1996	893,784		55,441	37,206	986,431	79,994	79,994	109,110	109,110	24,122	1,349	697,080	8,453	55,897	786,901	1,962,436
1995	975,542		60,437	40,609	1,076,588	81,291	81,291	111,194	111,194	24,518	1,349	605,641	8,469	56,799	696,776	1,965,849
1994	1,059,031		64,981	43,751	1,167,762	81,291	81,291	111,194	111,194	24,518	1,349	538,180	8,407	57,246	629,700	1,989,947
1993	1,142,043		67,624	45,902	1,255,570	81,291	81,291	111,194	111,194	24,518		347,082	7,344	52,240	431,184	1,879,238
1992	1,225,644		68,727	47,228	1,341,622	81,291	81,291	111,194	111,194	24,518		172,184	5,534	39,555	241,792	1,775,899
1991	1,310,474		69,135	48,349	1,427,958	36,975	36,975	59,417	59,417	11,297		98,567	3,346	22,077	135,286	1,659,637
1990	1,396,560		67,772	49,385	1,513,717		0		0			39,941		7,285	47,226	1,560,943
1989	1,373,759		51,718	39,403	1,464,880		0		0			16,981		5,076	22,057	1,486,937
1988	1,383,255		19,754	23,623	1,426,633		0		0			16,999		3,894	20,893	1,447,526
1987	1,390,089		9,247	16,306	1,415,642		0		0			14,135		2,378	16,514	1,432,156
1986	1,405,206		1,870	15,614	1,422,689		0		0			11,033		67	11,100	1,433,789
1985	1,404,763		98	12,624	1,417,486		0		0			7,692			7,692	1,425,178

### Van / Wagon

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb		TBI		MPI	Total	Carb	Total	Carb	Total	Carb	TBI	MPI			Total
	Nat Asp	Nat Asp	Nat Asp	Turbo		Nat Asp		Nat Asp		Nat Asp	Nat Asp	Nat Asp	Super	Turbo		
1999	93,366	19,298			112,664		0		0			31,718	101,017		132,735	245,400
1998	100,071	19,754			119,825		0		0			31,018	74,283		105,301	225,127
1997	106,523	19,546			126,069		0		0			26,982	52,068		79,050	205,120
1996	112,520	19,546			132,066		0		0			21,302	37,807		59,109	191,176
1995	118,232	19,546			137,778		0		0			15,262	28,538		43,799	181,577
1994	123,793	19,546			143,339		0		0			9,626	23,250		32,875	176,214
1993	129,298	17,998			147,296		0		0			4,187	8,528		12,716	160,012
1992	132,993	15,065			148,058		0		0						0	148,058
1991	130,249	5,880			136,129		0		0						0	136,129
1990	125,188				125,188		0		0						0	125,188
1989	117,856				117,856		0		0						0	117,856
1988	112,686				112,686		0		0						0	112,686
1987	108,666				108,666		0		0						0	108,666
1986	105,431				105,431		0		0						0	105,431
1985	100,827				100,827		0		0						0	100,827

## Vehicle Population in the Mexico City Metropolitan Area By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Pickup

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total
	Carb		TBI		MPI		Total	Total	Carb		MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp			Total	Nat Asp	Nat Asp	Super		Turbo	
1999	206,897	21,462	15,513		243,872		0		0		15,987	109,264		125,250	369,122
1998	222,612	22,044	15,952		260,608		0		0		15,936	84,979		100,915	361,523
1997	238,424	22,191	15,952		276,567		0		0		10,918	68,191		79,109	355,676
1996	253,346	22,223	15,952		291,521		0		0		6,361	51,926		58,287	349,807
1995	267,618	22,223	15,952		305,792		0		0		2,118	38,301		40,420	346,212
1994	281,293	22,223	15,952		319,468		0		0			30,201		30,201	349,669
1993	294,471	16,388	15,952		326,811		0		0			11,937		11,937	338,749
1992	307,624	9,724	7,599		324,948		0		0					0	324,948
1991	309,263	2,460			311,724		0		0					0	311,724
1990	293,291	551			293,842		0		0					0	293,842
1989	281,544				281,544		0		0					0	281,544
1988	271,164				271,164		0		0					0	271,164
1987	260,257				260,257		0		0					0	260,257
1986	255,413				255,413		0		0					0	255,413
1985	249,480				249,480		0		0					0	249,480

### Class 3

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total
	Carb		TBI		MPI		Total	Total	Carb		MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp			Total	Nat Asp	Nat Asp	Super		Turbo	
1999	83,493	11,769	12,099		107,361		0		0		17,882	28,261		46,143	153,503
1998	90,239	12,720	13,077		116,036		0		0		14,638	23,311		37,950	153,986
1997	97,532	13,748	14,133		125,412		0		0		12,141	19,141		31,282	156,695
1996	105,409	14,743	15,118		135,271		0		0		10,443	14,855		25,299	160,569
1995	113,922	15,286	15,607		144,815		0		0		9,001	12,130		21,131	165,947
1994	122,254	15,286	15,607		153,147		0		0		7,923	9,761		17,684	170,832
1993	129,117	15,286	15,607		160,010		0		0		4,044	1,950		5,994	166,005
1992	135,122	11,324	10,204		156,650		0		0		4,044			4,044	160,694
1991	140,677				140,677		0		0					0	140,677
1990	116,087				116,087		0		0					0	116,087
1989	100,927				100,927		0		0					0	100,927
1988	93,479				93,479		0		0					0	93,479
1987	89,373				89,373		0		0					0	89,373
1986	87,420				87,420		0		0					0	87,420
1985	86,258				86,258		0		0					0	86,258

## Vehicle Population in the Mexico City Metropolitan Area By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Class 5 & 7 (Gasoline)

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter						Total
	Carb		TBI		MPI		Total	Total	Carb		TBI		MPI		Total	
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp			Total	Nat Asp	Total	Nat Asp	Super	Turbo		
1999	30,421	3,155	2,779		36,355		0		0		3,543	1,093			4,635	40,990
1998	33,618	3,155	2,779		39,552		0		0		2,335	960			3,295	42,847
1997	37,162	3,155	2,779		43,096		0		0		1,751	516			2,267	45,363
1996	41,091	3,155	2,158		46,404		0		0		1,186	317			1,503	47,907
1995	45,446	3,155	1,669		50,270		0		0		468				468	50,737
1994	50,274	2,806	737		53,817		0		0						0	53,817
1993	55,247	1,273			56,520		0		0						0	56,520
1992	60,583				60,583		0		0						0	60,583
1991	65,017				65,017		0		0						0	65,017
1990	70,729				70,729		0		0						0	70,729
1989	76,053				76,053		0		0						0	76,053
1988	80,766				80,766		0		0						0	80,766
1987	85,080				85,080		0		0						0	85,080
1986	89,296				89,296		0		0						0	89,296
1985	93,500				93,500		0		0						0	93,500

### Total

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter						Total
	Carb		TBI		MPI		Total	Total	Carb		TBI		MPI		Total	
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp			Total	Nat Asp	Total	Nat Asp	Super	Turbo		
1999	1,101,544	55,685	73,028	28,613	1,258,869	63,332	63,332	86,029	86,029	19,092	70,431	1,440,477	7,267	46,776	1,584,042	2,992,272
1998	1,196,788	57,673	78,344	31,230	1,364,036	69,126	69,126	93,898	93,898	20,838	65,276	1,197,449	7,777	50,301	1,341,640	2,868,700
1997	1,298,519	58,640	83,658	34,087	1,474,904	75,449	75,449	102,488	102,488	22,744	53,141	970,188	8,175	53,638	1,107,886	2,760,728
1996	1,406,150	59,667	88,670	37,206	1,591,693	79,994	79,994	109,110	109,110	24,122	40,641	801,986	8,453	55,897	931,099	2,711,895
1995	1,520,759	60,210	93,665	40,609	1,715,243	81,291	81,291	111,194	111,194	24,518	28,198	684,611	8,469	56,799	802,595	2,710,323
1994	1,636,644	59,861	97,277	43,751	1,837,533	81,291	81,291	111,194	111,194	24,518	18,897	601,392	8,407	57,246	710,461	2,740,479
1993	1,750,175	50,946	99,184	45,902	1,946,207	81,291	81,291	111,194	111,194	24,518	8,232	369,498	7,344	52,240	461,831	2,600,523
1992	1,861,966	36,113	86,530	47,228	2,031,860	81,291	81,291	111,194	111,194	24,518	4,044	172,184	5,534	39,555	245,836	2,470,181
1991	1,955,681	8,340	69,135	48,349	2,081,505	36,975	36,975	59,417	59,417	11,297	0	98,567	3,346	22,077	135,286	2,313,184
1990	2,001,854	551	67,772	49,385	2,119,562	0	0	0	0	0	0	39,941	0	7,285	47,226	2,166,788
1989	1,950,139	0	51,718	39,403	2,041,260	0	0	0	0	0	0	16,981	0	5,076	22,057	2,063,317
1988	1,941,350	0	19,754	23,623	1,984,727	0	0	0	0	0	0	16,999	0	3,894	20,893	2,005,620
1987	1,933,464	0	9,247	16,306	1,959,018	0	0	0	0	0	0	14,135	0	2,378	16,514	1,975,531
1986	1,942,766	0	1,870	15,614	1,960,249	0	0	0	0	0	0	11,033	0	67	11,100	1,971,349
1985	1,934,828	0	98	12,624	1,947,551	0	0	0	0	0	0	7,692	0	0	7,692	1,955,243

## Vehicle Population in the Mexico City Metropolitan Area By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Cars

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb		MPI		Total	Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo								Nat Asp	Nat Asp			Nat Asp
1999	90.6%		5.6%	3.8%	34.7%	100.0%	2.9%	100.0%	3.9%	1.5%	0.1%	94.2%	0.6%	3.7%	58.4%	100.0%
1998	90.6%		5.6%	3.8%	39.7%	100.0%	3.3%	100.0%	4.5%	1.9%	0.1%	92.7%	0.7%	4.6%	52.5%	100.0%
1997	90.6%		5.6%	3.8%	45.2%	100.0%	3.8%	100.0%	5.1%	2.5%	0.1%	90.6%	0.9%	5.9%	45.9%	100.0%
1996	90.6%		5.6%	3.8%	50.3%	100.0%	4.1%	100.0%	5.6%	3.1%	0.2%	88.6%	1.1%	7.1%	40.1%	100.0%
1995	90.6%		5.6%	3.8%	54.8%	100.0%	4.1%	100.0%	5.7%	3.5%	0.2%	86.9%	1.2%	8.2%	35.4%	100.0%
1994	90.7%		5.6%	3.7%	58.7%	100.0%	4.1%	100.0%	5.6%	3.9%	0.2%	85.5%	1.3%	9.1%	31.6%	100.0%
1993	91.0%		5.4%	3.7%	66.8%	100.0%	4.3%	100.0%	5.9%	5.7%	0.0%	80.5%	1.7%	12.1%	22.9%	100.0%
1992	91.4%		5.1%	3.5%	75.5%	100.0%	4.6%	100.0%	6.3%	10.1%	0.0%	71.2%	2.3%	16.4%	13.6%	100.0%
1991	91.8%		4.8%	3.4%	86.0%	100.0%	2.2%	100.0%	3.6%	8.4%	0.0%	72.9%	2.5%	16.3%	8.2%	100.0%
1990	92.3%		4.5%	3.3%	97.0%		0.0%		0.0%	0.0%	0.0%	84.6%	0.0%	15.4%	3.0%	100.0%
1989	93.8%		3.5%	2.7%	98.5%		0.0%		0.0%	0.0%	0.0%	77.0%	0.0%	23.0%	1.5%	100.0%
1988	97.0%		1.4%	1.7%	98.6%		0.0%		0.0%	0.0%	0.0%	81.4%	0.0%	18.6%	1.4%	100.0%
1987	98.2%		0.7%	1.2%	98.8%		0.0%		0.0%	0.0%	0.0%	85.6%	0.0%	14.4%	1.2%	100.0%
1986	98.8%		0.1%	1.1%	99.2%		0.0%		0.0%	0.0%	0.0%	99.4%	0.0%	0.6%	0.8%	100.0%
1985	99.1%		0.0%	0.9%	99.5%		0.0%		0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.5%	100.0%

### Van/Wgn

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb		MPI		Total	Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo								Nat Asp	Nat Asp			Nat Asp
1999	82.9%	17.1%			45.9%		0.0%		0.0%		23.9%	76.1%			54.1%	100.0%
1998	83.5%	16.5%			53.2%		0.0%		0.0%		29.5%	70.5%			46.8%	100.0%
1997	84.5%	15.5%			61.5%		0.0%		0.0%		34.1%	65.9%			38.5%	100.0%
1996	85.2%	14.8%			69.1%		0.0%		0.0%		36.0%	64.0%			30.9%	100.0%
1995	85.8%	14.2%			75.9%		0.0%		0.0%		34.8%	65.2%			24.1%	100.0%
1994	86.4%	13.6%			81.3%		0.0%		0.0%		29.3%	70.7%			18.7%	100.0%
1993	87.8%	12.2%			92.1%		0.0%		0.0%		32.9%	67.1%			7.9%	100.0%
1992	89.8%	10.2%			100.0%		0.0%		0.0%						0.0%	100.0%
1991	95.7%	4.3%			100.0%		0.0%		0.0%						0.0%	100.0%
1990	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Pickup

Population	No Converter				2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb	TBI	MPI		Carb	Total	Carb	Total	Carb	TBI	MPI		Total			
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp		Nat Asp		Nat Asp	Nat Asp	Nat Asp	Super	Turbo			
1999	84.8%	8.8%	6.4%		66.1%		0.0%		0.0%		12.8%	87.2%			33.9%	100.0%
1998	85.4%	8.5%	6.1%		72.1%		0.0%		0.0%		15.8%	84.2%			27.9%	100.0%
1997	86.2%	8.0%	5.8%		77.8%		0.0%		0.0%		13.8%	86.2%			22.2%	100.0%
1996	86.9%	7.6%	5.5%		83.3%		0.0%		0.0%		10.9%	89.1%			16.7%	100.0%
1995	87.5%	7.3%	5.2%		88.3%		0.0%		0.0%		5.2%	94.8%			11.7%	100.0%
1994	88.1%	7.0%	5.0%		91.4%		0.0%		0.0%		0.0%	100.0%			8.6%	100.0%
1993	90.1%	5.0%	4.9%		96.5%		0.0%		0.0%		0.0%	100.0%			3.5%	100.0%
1992	94.7%	3.0%	2.3%		100.0%		0.0%		0.0%						0.0%	100.0%
1991	99.2%	0.8%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1990	99.8%	0.2%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%

### Class 3

Population	No Converter				2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb	TBI	MPI		Carb	Total	Carb	Total	Carb	TBI	MPI		Total			
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp		Nat Asp		Nat Asp	Nat Asp	Nat Asp	Super	Turbo			
1999	77.8%	11.0%	11.3%		69.9%		0.0%		0.0%		38.8%	61.2%	0.0%	0.0%	30.1%	100.0%
1998	77.8%	11.0%	11.3%		75.4%		0.0%		0.0%		38.6%	61.4%	0.0%	0.0%	24.6%	100.0%
1997	77.8%	11.0%	11.3%		80.0%		0.0%		0.0%		38.8%	61.2%	0.0%	0.0%	20.0%	100.0%
1996	77.9%	10.9%	11.2%		84.2%		0.0%		0.0%		41.3%	58.7%	0.0%	0.0%	15.8%	100.0%
1995	78.7%	10.6%	10.8%		87.3%		0.0%		0.0%		42.6%	57.4%	0.0%	0.0%	12.7%	100.0%
1994	79.8%	10.0%	10.2%		89.6%		0.0%		0.0%		44.8%	55.2%	0.0%	0.0%	10.4%	100.0%
1993	80.7%	9.6%	9.8%		96.4%		0.0%		0.0%		67.5%	32.5%	0.0%	0.0%	3.6%	100.0%
1992	86.3%	7.2%	6.5%		97.5%		0.0%		0.0%		100.0%	0.0%	0.0%	0.0%	2.5%	100.0%
1991	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1990	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%



## Vehicle Population in the Mexico City Metropolitan Area By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Class 5 & 7 (Gasoline)

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb		TBI		MPI	Total	Carb	Total	Carb	Total	Carb		TBI			MPI	Total
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp						Nat Asp	Nat Asp	Super	Turbo			
1999	83.7%	8.7%	7.6%		88.7%		0.0%		0.0%		76.4%	23.6%	0.0%	0.0%	11.3%	100.0%	
1998	85.0%	8.0%	7.0%		92.3%		0.0%		0.0%		70.9%	29.1%	0.0%	0.0%	7.7%	100.0%	
1997	86.2%	7.3%	6.4%		95.0%		0.0%		0.0%		77.2%	22.8%	0.0%	0.0%	5.0%	100.0%	
1996	88.5%	6.8%	4.7%		96.9%		0.0%		0.0%		78.9%	21.1%	0.0%	0.0%	3.1%	100.0%	
1995	90.4%	6.3%	3.3%		99.1%		0.0%		0.0%		100.0%	0.0%	0.0%	0.0%	0.9%	100.0%	
1994	93.4%	5.2%	1.4%		100.0%		0.0%		0.0%						0.0%	100.0%	
1993	97.7%	2.3%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%	
1992	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%	
1991	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%	
1990	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%	
1989	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%	
1988	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%	
1987	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%	
1986	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%	
1985	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%	

### Total

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb		TBI		MPI	Total	Carb	Total	Carb	Total	Carb		TBI			MPI	Total
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp						Nat Asp	Nat Asp	Super	Turbo			
1999	87.5%	4.4%	5.8%	2.3%	42.1%	100.0%	2.1%	100.0%	2.9%		1.2%	4.4%	90.9%	0.5%	3.0%	52.9%	100.0%
1998	87.7%	4.2%	5.7%	2.3%	47.5%	100.0%	2.4%	100.0%	3.3%		1.6%	4.9%	89.3%	0.6%	3.7%	46.8%	100.0%
1997	88.0%	4.0%	5.7%	2.3%	53.4%	100.0%	2.7%	100.0%	3.7%		2.1%	4.8%	87.6%	0.7%	4.8%	40.1%	100.0%
1996	88.3%	3.7%	5.6%	2.3%	58.7%	100.0%	2.9%	100.0%	4.0%		2.6%	4.4%	86.1%	0.9%	6.0%	34.3%	100.0%
1995	88.7%	3.5%	5.5%	2.4%	63.3%	100.0%	3.0%	100.0%	4.1%		3.1%	3.5%	85.3%	1.1%	7.1%	29.6%	100.0%
1994	89.1%	3.3%	5.3%	2.4%	67.1%	100.0%	3.0%	100.0%	4.1%		3.5%	2.7%	84.6%	1.2%	8.1%	25.9%	100.0%
1993	89.9%	2.6%	5.1%	2.4%	74.8%	100.0%	3.1%	100.0%	4.3%		5.3%	1.8%	80.0%	1.6%	11.3%	17.8%	100.0%
1992	91.6%	1.8%	4.3%	2.3%	82.3%	100.0%	3.3%	100.0%	4.5%		10.0%	1.6%	70.0%	2.3%	16.1%	10.0%	100.0%
1991	94.0%	0.4%	3.3%	2.3%	90.0%	100.0%	1.6%	100.0%	2.6%		8.4%	0.0%	72.9%	2.5%	16.3%	5.8%	100.0%
1990	94.4%	0.0%	3.2%	2.3%	97.8%		0.0%		0.0%		0.0%	0.0%	84.6%	0.0%	15.4%	2.2%	100.0%
1989	95.5%	0.0%	2.5%	1.9%	98.9%		0.0%		0.0%		0.0%	0.0%	77.0%	0.0%	23.0%	1.1%	100.0%
1988	97.8%	0.0%	1.0%	1.2%	99.0%		0.0%		0.0%		0.0%	0.0%	81.4%	0.0%	18.6%	1.0%	100.0%
1987	98.7%	0.0%	0.5%	0.8%	99.2%		0.0%		0.0%		0.0%	0.0%	85.6%	0.0%	14.4%	0.8%	100.0%
1986	99.1%	0.0%	0.1%	0.8%	99.4%		0.0%		0.0%		0.0%	0.0%	99.4%	0.0%	0.6%	0.6%	100.0%
1985	99.3%	0.0%	0.0%	0.6%	99.6%		0.0%		0.0%		0.0%	0.0%	100.0%	0.0%	0.0%	0.4%	100.0%

**Vehicle Population in the Rest of Mexico (outside the ZMVM)  
By Catalytic Converter type, Fuel System type and Air System type**

(Nat Asp = Naturally Aspirated, Carb = Carburetor, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

**Cars**

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb		TBI		MPI		Total	Total	Carb		TBI		MPI			Total	
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp			Total	Nat Asp	Nat Asp	Nat Asp	Super	Turbo			Total
1999	853,051		47,334	32,333		932,719	68,481	68,481	92,496	92,496	20,635	1,287	1,262,061	7,588	49,234	1,340,805	2,434,501
1998	912,841		51,248	34,980		999,069	74,267	74,267	100,305	100,305	22,378	1,444	1,066,730	8,164	53,069	1,151,786	2,325,427
1997	978,415		55,521	37,872		1,071,809	80,583	80,583	108,828	108,828	24,281	1,444	873,086	8,696	57,446	964,954	2,226,174
1996	1,050,287		60,188	41,031		1,151,506	88,981	88,981	119,890	119,890	26,807	1,444	729,461	9,150	61,206	828,069	2,188,446
1995	1,129,015		65,333	44,480		1,238,828	93,375	93,375	126,951	126,951	28,150	1,444	636,109	9,439	63,313	738,455	2,197,609
1994	1,218,870		71,306	48,611		1,338,787	93,375	93,375	126,951	126,951	28,150	1,444	592,041	9,397	63,925	694,957	2,254,070
1993	1,304,860		76,697	52,187		1,433,744	93,375	93,375	126,951	126,951	28,150		387,144	8,257	58,603	482,154	2,136,224
1992	1,391,309		78,519	54,099		1,523,904	93,375	93,375	126,951	126,951	28,150		196,455	6,284	44,835	275,725	2,019,955
1991	1,478,149		79,408	55,237		1,612,794	40,711	40,711	65,421	65,421	12,439		108,926	3,684	24,208	149,257	1,868,183
1990	1,568,095		78,023	56,503		1,702,621		0		0			44,513		7,927	52,439	1,755,060
1989	1,532,122		58,766	44,765		1,635,653		0		0			17,524		5,277	22,801	1,658,453
1988	1,533,412		20,065	25,981		1,579,458		0		0			17,590		3,845	21,435	1,600,893
1987	1,537,820		8,448	18,170		1,564,437		0		0			14,424		2,170	16,593	1,581,031
1986	1,567,335		1,712	17,635		1,586,682		0		0			11,591		60	11,651	1,598,333
1985	1,585,732		122	14,953		1,600,807		0		0			8,593			8,593	1,609,400

**Van / Wagon**

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total			
	Carb		TBI		MPI		Total	Total	Carb		TBI		MPI			Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp			Total	Nat Asp	Nat Asp	Nat Asp	Super	Turbo			Total	
1999	134,848		30,765			165,613		0					50,866		178,072		228,938	394,551
1998	142,542		31,684			174,226		0					49,527		126,980		176,507	350,733
1997	149,890		31,493			181,384		0					41,791		84,394		126,185	307,568
1996	156,487		31,493			187,980		0					29,967		54,705		84,672	272,651
1995	162,073		31,493			193,566		0					18,107		36,506		54,614	248,180
1994	166,956		31,493			198,449		0					13,964		32,619		46,584	245,033
1993	171,378		29,719			201,097		0					7,731		15,745		23,475	224,572
1992	172,497		24,305			196,802		0									0	196,802
1991	163,037		8,429			171,466		0									0	171,466
1990	152,375					152,375		0									0	152,375
1989	134,138					134,138		0									0	134,138
1988	116,467					116,467		0									0	116,467
1987	105,443					105,443		0									0	105,443
1986	97,214					97,214		0									0	97,214
1985	92,310					92,310		0									0	92,310

**Vehicle Population in the Rest of Mexico (outside the ZMVM)  
By Catalytic Converter type, Fuel System type and Air System type**

(Nat Asp = Naturally Aspirated, Carb = Carburetor, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

**Pickup**

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb	TBI	MPI		Total	Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo						Nat Asp	Nat Asp	Nat Asp	Super			Turbo
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp	Total	Nat Asp	Total	Nat Asp	Nat Asp	Nat Asp	Super	Turbo		Total
1999	670,652	61,861	43,438		775,952		0		0		55,033	355,533			410,567	1,186,518
1998	707,678	63,416	44,709		815,803		0		0		54,858	271,573			326,431	1,142,234
1997	744,692	63,754	44,709		853,155		0		0		34,771	204,366			239,137	1,092,292
1996	779,727	63,838	44,709		888,275		0		0		18,235	145,355			163,590	1,051,865
1995	812,750	63,838	44,709		921,298		0		0		5,789	105,380			111,168	1,032,466
1994	843,769	63,838	44,709		952,316		0		0			83,243			83,243	1,035,559
1993	873,358	46,251	44,709		964,318		0		0			28,192			28,192	992,509
1992	902,297	30,512	24,985		957,793		0		0						0	957,793
1991	893,701	6,632			900,333		0		0						0	900,333
1990	846,651	1,662			848,313		0		0						0	848,313
1989	800,863				800,863		0		0						0	800,863
1988	755,538				755,538		0		0						0	755,538
1987	718,714				718,714		0		0						0	718,714
1986	695,930				695,930		0		0						0	695,930
1985	668,263				668,263		0		0						0	668,263

**Class 3**

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb	TBI	MPI		Total	Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo						Nat Asp	Nat Asp	Nat Asp	Super			Turbo
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp	Total	Nat Asp	Total	Nat Asp	Nat Asp	Nat Asp	Super	Turbo		Total
1999	171,553	23,769	24,831		220,153		0		0		39,607	64,666			104,273	324,425
1998	186,460	25,606	26,650		238,716		0		0		32,563	53,262			85,824	324,541
1997	202,756	26,148	27,009		255,913		0		0		25,273	40,999			66,272	322,185
1996	218,591	25,153	26,024		269,767		0		0		19,366	28,515			47,880	317,648
1995	230,331	24,610	25,535		280,475		0		0		14,861	21,332			36,193	316,668
1994	240,177	24,610	25,535		290,322		0		0		13,162	17,602			30,764	321,085
1993	250,207	24,610	25,535		300,351		0		0		6,197	3,573			9,770	310,121
1992	260,723	17,350	15,633		293,707		0		0		6,197				6,197	299,903
1991	271,706				271,706		0		0						0	271,706
1990	241,164				241,164		0		0						0	241,164
1989	224,326				224,326		0		0						0	224,326
1988	209,847				209,847		0		0						0	209,847
1987	205,126				205,126		0		0						0	205,126
1986	205,272				205,272		0		0						0	205,272
1985	199,953				199,953		0		0						0	199,953

**Vehicle Population in the Rest of Mexico (outside the ZMVM)  
By Catalytic Converter type, Fuel System type and Air System type**

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

**Class 5 & 7 (Gasoline)**

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter						Total		
	Carb		TBI		MPI		Total	Total	Carb	Total	Carb		TBI		MPI		Total	
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp					Nat Asp	Nat Asp	Super	Turbo	Total			
1999	33,761	6,735	2,210		42,706		0		0			2,990	1,200			4,191	46,897	
1998	37,148	6,735	2,210		46,093		0		0			1,764	1,065			2,829	48,922	
1997	40,701	6,735	2,210		49,647		0		0			822	351			1,173	50,820	
1996	44,782	6,735	1,622		53,139		0		0			286	163			449	53,588	
1995	49,462	6,735	1,371		57,568		0		0			-82				-82	57,487	
1994	54,823	6,796	1,534		63,153		0		0							0	63,153	
1993	61,008	3,607			64,615		0		0							0	64,615	
1992	68,615				68,615		0		0							0	68,615	
1991	72,801				72,801		0		0							0	72,801	
1990	81,737				81,737		0		0							0	81,737	
1989	92,040				92,040		0		0							0	92,040	
1988	103,714				103,714		0		0							0	103,714	
1987	115,001				115,001		0		0							0	115,001	
1986	124,557				124,557		0		0							0	124,557	
1985	132,780				132,780		0		0							0	132,780	

**Total**

Population	No Converter					2way Converter		1way Open Loop Converter		3way Closed Loop Converter						Total		
	Carb		TBI		MPI		Total	Total	Carb	Total	Carb		TBI		MPI		Total	
	Nat Asp	Nat Asp	Nat Asp	Turbo	Total	Nat Asp					Nat Asp	Nat Asp	Super	Turbo	Total			
1999	1,863,865	123,129	117,815	32,333	2,137,143	68,481	68,481	92,496	92,496	20,635	149,784	1,861,532	7,588	49,234	2,088,773	4,386,892		
1998	1,986,669	127,441	124,817	34,980	2,273,907	74,267	74,267	100,305	100,305	22,378	140,156	1,519,610	8,164	53,069	1,743,377	4,191,856		
1997	2,116,455	128,130	129,450	37,872	2,411,908	80,583	80,583	108,828	108,828	24,281	104,101	1,203,196	8,696	57,446	1,397,720	3,999,039		
1996	2,249,874	127,219	132,543	41,031	2,550,667	88,981	88,981	119,890	119,890	26,807	69,298	958,198	9,150	61,206	1,124,660	3,884,198		
1995	2,383,632	126,676	136,948	44,480	2,691,735	93,375	93,375	126,951	126,951	28,150	40,119	799,327	9,439	63,313	940,348	3,852,409		
1994	2,524,596	126,737	143,084	48,611	2,843,027	93,375	93,375	126,951	126,951	28,150	28,571	725,505	9,397	63,925	855,547	3,918,900		
1993	2,660,811	104,186	146,941	52,187	2,964,125	93,375	93,375	126,951	126,951	28,150	13,927	434,653	8,257	58,603	543,590	3,728,041		
1992	2,795,440	72,167	119,137	54,099	3,040,821	93,375	93,375	126,951	126,951	28,150	6,197	196,455	6,284	44,835	281,921	3,543,068		
1991	2,879,394	15,061	79,408	55,237	3,029,100	40,711	40,711	65,421	65,421	12,439	0	108,926	3,684	24,208	149,257	3,284,488		
1990	2,890,022	1,662	78,023	56,503	3,026,211	0	0	0	0	0	0	44,513	0	7,927	52,439	3,078,650		
1989	2,783,488	0	58,766	44,765	2,887,019	0	0	0	0	0	0	17,524	0	5,277	22,801	2,909,820		
1988	2,718,977	0	20,065	25,981	2,765,022	0	0	0	0	0	0	17,590	0	3,845	21,435	2,786,457		
1987	2,682,105	0	8,448	18,170	2,708,722	0	0	0	0	0	0	14,424	0	2,170	16,593	2,725,315		
1986	2,690,308	0	1,712	17,635	2,709,655	0	0	0	0	0	0	11,591	0	60	11,651	2,721,306		
1985	2,679,039	0	122	14,953	2,694,114	0	0	0	0	0	0	8,593	0	0	8,593	2,702,706		

**Vehicle Population in the Rest of Mexico (outside the ZMVM)  
By Catalytic Converter type, Fuel System type and Air System type**

(Nat Asp = Naturally Aspirated, Carb = Carburetor, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

**Cars**

Population	No Converter				2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb	TBI	MPI		Total	Total	Total	Total	Carb	TBI	MPI		Total			
	Nat Asp	Nat Asp	Nat Asp	Turbo					Nat Asp	Nat Asp	Nat Asp	Super			Turbo	
1999	91.5%		5.1%	3.5%	38.3%	100.0%	2.8%	100.0%	3.8%	1.5%	0.1%	94.1%	0.6%	3.7%	55.1%	100.0%
1998	91.4%		5.1%	3.5%	43.0%	100.0%	3.2%	100.0%	4.3%	1.9%	0.1%	92.6%	0.7%	4.6%	49.5%	100.0%
1997	91.3%		5.2%	3.5%	48.1%	100.0%	3.6%	100.0%	4.9%	2.5%	0.1%	90.5%	0.9%	6.0%	43.3%	100.0%
1996	91.2%		5.2%	3.6%	52.6%	100.0%	4.1%	100.0%	5.5%	3.2%	0.2%	88.1%	1.1%	7.4%	37.8%	100.0%
1995	91.1%		5.3%	3.6%	56.4%	100.0%	4.2%	100.0%	5.8%	3.8%	0.2%	86.1%	1.3%	8.6%	33.6%	100.0%
1994	91.0%		5.3%	3.6%	59.4%	100.0%	4.1%	100.0%	5.6%	4.1%	0.2%	85.2%	1.4%	9.2%	30.8%	100.0%
1993	91.0%		5.3%	3.6%	67.1%	100.0%	4.4%	100.0%	5.9%	5.8%	0.0%	80.3%	1.7%	12.2%	22.6%	100.0%
1992	91.3%		5.2%	3.6%	75.4%	100.0%	4.6%	100.0%	6.3%	10.2%	0.0%	71.3%	2.3%	16.3%	13.7%	100.0%
1991	91.7%		4.9%	3.4%	86.3%	100.0%	2.2%	100.0%	3.5%	8.3%	0.0%	73.0%	2.5%	16.2%	8.0%	100.0%
1990	92.1%		4.6%	3.3%	97.0%		0.0%		0.0%	0.0%	0.0%	84.9%	0.0%	15.1%	3.0%	100.0%
1989	93.7%		3.6%	2.7%	98.6%		0.0%		0.0%	0.0%	0.0%	76.9%	0.0%	23.1%	1.4%	100.0%
1988	97.1%		1.3%	1.6%	98.7%		0.0%		0.0%	0.0%	0.0%	82.1%	0.0%	17.9%	1.3%	100.0%
1987	98.3%		0.5%	1.2%	99.0%		0.0%		0.0%	0.0%	0.0%	86.9%	0.0%	13.1%	1.0%	100.0%
1986	98.8%		0.1%	1.1%	99.3%		0.0%		0.0%	0.0%	0.0%	99.5%	0.0%	0.5%	0.7%	100.0%
1985	99.1%		0.0%	0.9%	99.5%		0.0%		0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.5%	100.0%

**Van/Wgn**

Population	No Converter				2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total		
	Carb	TBI	MPI		Total	Total	Total	Total	Carb	TBI	MPI		Total			
	Nat Asp	Nat Asp	Nat Asp	Turbo					Nat Asp	Nat Asp	Nat Asp	Super			Turbo	
1999	81.4%	18.6%			42.0%		0.0%		0.0%		22.2%	77.8%			58.0%	100.0%
1998	81.8%	18.2%			49.7%		0.0%		0.0%		28.1%	71.9%			50.3%	100.0%
1997	82.6%	17.4%			59.0%		0.0%		0.0%		33.1%	66.9%			41.0%	100.0%
1996	83.2%	16.8%			68.9%		0.0%		0.0%		35.4%	64.6%			31.1%	100.0%
1995	83.7%	16.3%			78.0%		0.0%		0.0%		33.2%	66.8%			22.0%	100.0%
1994	84.1%	15.9%			81.0%		0.0%		0.0%		30.0%	70.0%			19.0%	100.0%
1993	85.2%	14.8%			89.5%		0.0%		0.0%		32.9%	67.1%			10.5%	100.0%
1992	87.7%	12.3%			100.0%		0.0%		0.0%						0.0%	100.0%
1991	95.1%	4.9%			100.0%		0.0%		0.0%						0.0%	100.0%
1990	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%			100.0%		0.0%		0.0%						0.0%	100.0%

## Vehicle Population in the Rest of Mexico (outside the ZMVM) By Catalytic Converter type, Fuel System type and Air System type

(Nat Asp = Naturally Aspirated, Carb = Carburetor, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

### Pickup

Population	No Converter				Total	2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb	TBI	MPI			Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo		Nat Asp		Nat Asp		Nat Asp	Nat Asp	Nat Asp	Super	Turbo		
1999	86.4%	8.0%	5.6%		65.4%		0.0%		0.0%		13.4%	86.6%			34.6%	100.0%
1998	86.7%	7.8%	5.5%		71.4%		0.0%		0.0%		16.8%	83.2%			28.6%	100.0%
1997	87.3%	7.5%	5.2%		78.1%		0.0%		0.0%		14.5%	85.5%			21.9%	100.0%
1996	87.8%	7.2%	5.0%		84.4%		0.0%		0.0%		11.1%	88.9%			15.6%	100.0%
1995	88.2%	6.9%	4.9%		89.2%		0.0%		0.0%		5.2%	94.8%			10.8%	100.0%
1994	88.6%	6.7%	4.7%		92.0%		0.0%		0.0%		0.0%	100.0%			8.0%	100.0%
1993	90.6%	4.8%	4.6%		97.2%		0.0%		0.0%		0.0%	100.0%			2.8%	100.0%
1992	94.2%	3.2%	2.6%		100.0%		0.0%		0.0%						0.0%	100.0%
1991	99.3%	0.7%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1990	99.8%	0.2%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%

### Class 3

Population	No Converter				Total	2way Converter		1way Open Loop Converter		3way Closed Loop Converter					Total	
	Carb	TBI	MPI			Carb	Total	Carb	Total	Carb	TBI	MPI		Total		
	Nat Asp	Nat Asp	Nat Asp	Turbo		Nat Asp		Nat Asp		Nat Asp	Nat Asp	Nat Asp	Super	Turbo		
1999	77.9%	10.8%	11.3%		67.9%		0.0%		0.0%		38.0%	62.0%	0.0%	0.0%	32.1%	100.0%
1998	78.1%	10.7%	11.2%		73.6%		0.0%		0.0%		37.9%	62.1%	0.0%	0.0%	26.4%	100.0%
1997	79.2%	10.2%	10.6%		79.4%		0.0%		0.0%		38.1%	61.9%	0.0%	0.0%	20.6%	100.0%
1996	81.0%	9.3%	9.6%		84.9%		0.0%		0.0%		40.4%	59.6%	0.0%	0.0%	15.1%	100.0%
1995	82.1%	8.8%	9.1%		88.6%		0.0%		0.0%		41.1%	58.9%	0.0%	0.0%	11.4%	100.0%
1994	82.7%	8.5%	8.8%		90.4%		0.0%		0.0%		42.8%	57.2%	0.0%	0.0%	9.6%	100.0%
1993	83.3%	8.2%	8.5%		96.8%		0.0%		0.0%		63.4%	36.6%	0.0%	0.0%	3.2%	100.0%
1992	88.8%	5.9%	5.3%		97.9%		0.0%		0.0%		100.0%	0.0%	0.0%	0.0%	2.1%	100.0%
1991	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1990	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1989	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1988	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1987	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1986	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%
1985	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%						0.0%	100.0%

**Vehicle Population in the Rest of Mexico (outside the ZMVM)  
By Catalytic Converter type, Fuel System type and Air System type**

(Nat Asp = Naturally Aspirated, Carb = Carburator, TBI = Throttle Body Fuel injection, MPI = Multiple Point Fuel injection)

**Class 5 & 7 (Gasoline)**

Population	No Converter					2way Converter		1way Open Loop Cot		3way Closed Loop Converter					Total			
	Carb		TBI		MPI	Total	Carb	Total	Carb	Total	Carb		TBI			MPI		Total
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp						Nat Asp	Nat Asp	Super	Turbo				
1999	79.1%	15.8%	5.2%		91.1%		0.0%		0.0%		71.4%	28.6%	0.0%	0.0%			8.9%	100.0%
1998	80.6%	14.6%	4.8%		94.2%		0.0%		0.0%		62.3%	37.7%	0.0%	0.0%			5.8%	100.0%
1997	82.0%	13.6%	4.5%		97.7%		0.0%		0.0%		70.1%	29.9%	0.0%	0.0%			2.3%	100.0%
1996	84.3%	12.7%	3.1%		99.2%		0.0%		0.0%		63.8%	36.2%	0.0%	0.0%			0.8%	100.0%
1995	85.9%	11.7%	2.4%		100.1%		0.0%		0.0%		100.0%	0.0%	0.0%	0.0%			-0.1%	100.0%
1994	86.8%	10.8%	2.4%		100.0%		0.0%		0.0%								0.0%	100.0%
1993	94.4%	5.6%	0.0%		100.0%		0.0%		0.0%								0.0%	100.0%
1992	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%								0.0%	100.0%
1991	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%								0.0%	100.0%
1990	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%								0.0%	100.0%
1989	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%								0.0%	100.0%
1988	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%								0.0%	100.0%
1987	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%								0.0%	100.0%
1986	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%								0.0%	100.0%
1985	100.0%	0.0%	0.0%		100.0%		0.0%		0.0%								0.0%	100.0%

**Total**

Population	No Converter					2way Converter		1way Open Loop Cot		3way Closed Loop Converter					Total			
	Carb		TBI		MPI	Total	Carb	Total	Carb	Total	Carb		TBI			MPI		Total
	Nat Asp	Nat Asp	Nat Asp	Turbo	Nat Asp						Nat Asp	Nat Asp	Super	Turbo				
1999	87.2%	5.8%	5.5%	1.5%	48.7%	100.0%	1.6%	100.0%	2.1%	1.0%	7.2%	89.1%	0.4%	2.4%			47.6%	100.0%
1998	87.4%	5.6%	5.5%	1.5%	54.2%	100.0%	1.8%	100.0%	2.4%	1.3%	8.0%	87.2%	0.5%	3.0%			41.6%	100.0%
1997	87.8%	5.3%	5.4%	1.6%	60.3%	100.0%	2.0%	100.0%	2.7%	1.7%	7.4%	86.1%	0.6%	4.1%			35.0%	100.0%
1996	88.2%	5.0%	5.2%	1.6%	65.7%	100.0%	2.3%	100.0%	3.1%	2.4%	6.2%	85.2%	0.8%	5.4%			29.0%	100.0%
1995	88.6%	4.7%	5.1%	1.7%	69.9%	100.0%	2.4%	100.0%	3.3%	3.0%	4.3%	85.0%	1.0%	6.7%			24.4%	100.0%
1994	88.8%	4.5%	5.0%	1.7%	72.5%	100.0%	2.4%	100.0%	3.2%	3.3%	3.3%	84.8%	1.1%	7.5%			21.8%	100.0%
1993	89.8%	3.5%	5.0%	1.8%	79.5%	100.0%	2.5%	100.0%	3.4%	5.2%	2.6%	80.0%	1.5%	10.8%			14.6%	100.0%
1992	91.9%	2.4%	3.9%	1.8%	85.8%	100.0%	2.6%	100.0%	3.6%	10.0%	2.2%	69.7%	2.2%	15.9%			8.0%	100.0%
1991	95.1%	0.5%	2.6%	1.8%	92.2%	100.0%	1.2%	100.0%	2.0%	8.3%	0.0%	73.0%	2.5%	16.2%			4.5%	100.0%
1990	95.5%	0.1%	2.6%	1.9%	98.3%		0.0%		0.0%	0.0%	0.0%	84.9%	0.0%	15.1%			1.7%	100.0%
1989	96.4%	0.0%	2.0%	1.6%	99.2%		0.0%		0.0%	0.0%	0.0%	76.9%	0.0%	23.1%			0.8%	100.0%
1988	98.3%	0.0%	0.7%	0.9%	99.2%		0.0%		0.0%	0.0%	0.0%	82.1%	0.0%	17.9%			0.8%	100.0%
1987	99.0%	0.0%	0.3%	0.7%	99.4%		0.0%		0.0%	0.0%	0.0%	86.9%	0.0%	13.1%			0.6%	100.0%
1986	99.3%	0.0%	0.1%	0.7%	99.6%		0.0%		0.0%	0.0%	0.0%	99.5%	0.0%	0.5%			0.4%	100.0%
1985	99.4%	0.0%	0.0%	0.6%	99.7%		0.0%		0.0%	0.0%	0.0%	100.0%	0.0%	0.0%			0.3%	100.0%

## Vehicle Population in the Republic of Mexico By Vehicle Make

**Cars**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	682,464	677,202	670,476	671,210	684,683	700,586	679,751	650,375	595,634	560,445	537,529	509,604	489,877	495,811	496,576
<b>Ford</b>	620,116	608,761	600,438	594,243	591,237	599,490	575,652	547,711	503,854	472,630	445,953	422,911	415,564	423,442	427,174
<b>GM</b>	684,332	593,236	508,947	448,626	418,680	416,101	367,052	329,794	292,914	263,934	245,791	236,768	235,011	233,993	235,264
<b>Honda</b>	40,857	22,036	8,391	2,418	420	0	0	0	0	0	0	0	0	0	0
<b>Nissan</b>	969,307	915,441	856,147	836,204	836,876	847,759	783,400	731,414	660,060	608,087	553,570	507,584	469,492	440,861	415,639
<b>Rambler</b>	57,211	61,519	66,239	71,408	77,067	83,260	90,034	97,443	105,543	114,397	124,073	134,643	146,161	158,571	171,272
<b>Renault</b>	90,359	97,405	105,119	113,560	122,794	132,892	143,933	156,001	169,189	183,561	198,780	213,746	228,381	242,563	252,176
<b>VW</b>	1,414,949	1,382,772	1,358,576	1,364,406	1,383,187	1,414,479	1,324,136	1,228,917	1,143,451	1,052,485	975,605	955,079	956,220	959,568	953,852
<b>Other Makes</b>	58,162	52,273	49,715	48,806	48,515	49,450	51,504	54,197	57,175	60,463	64,089	68,083	72,480	77,314	82,625

<b>Total</b>	<b>4,617,757</b>	<b>4,410,645</b>	<b>4,224,048</b>	<b>4,150,882</b>	<b>4,163,459</b>	<b>4,244,017</b>	<b>4,015,462</b>	<b>3,795,853</b>	<b>3,527,820</b>	<b>3,316,003</b>	<b>3,145,390</b>	<b>3,048,418</b>	<b>3,013,186</b>	<b>3,032,122</b>	<b>3,034,578</b>
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**Other Makes**

<b>Audi / DKW</b>	3,051	1,328	281	129	137	145	154	164	175	187	200	215	231	248	268
<b>BMW</b>	7,372	4,848	2,771	1,418	398	0	0	0	0	0	0	0	0	0	0
<b>Fiat</b>	144	151	158	166	176	186	197	209	223	238	254	272	292	314	338
<b>FNA (Borgward)</b>	350	372	396	422	451	482	517	555	597	643	693	748	808	874	946
<b>Jaguar</b>	334	100	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mercedes</b>	7,363	4,876	3,995	2,866	1,677	843	493	525	560	599	641	688	739	794	856
<b>Opel</b>	6,365	6,744	7,162	7,622	8,128	8,684	9,295	9,965	10,700	11,506	12,389	13,356	14,415	15,574	16,841
<b>Porsche</b>	74	65	52	32	0	0	0	0	0	0	0	0	0	0	0
<b>Volvo</b>	308	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Industry</b>	<b>32,802</b>	<b>33,789</b>	<b>34,901</b>	<b>36,150</b>	<b>37,549</b>	<b>39,109</b>	<b>40,847</b>	<b>42,778</b>	<b>44,919</b>	<b>47,290</b>	<b>49,911</b>	<b>52,804</b>	<b>55,994</b>	<b>59,509</b>	<b>63,377</b>



## Vehicle Population in the Republic of Mexico By Vehicle Make

### Van/Wgn

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	144,340	125,272	101,756	89,767	79,658	76,782	68,346	58,077	42,659	28,350	18,357	10,336	4,954	1,658	0
<b>Ford</b>	79,081	53,675	32,516	15,401	7,601	5,415	1,291	0	0	0	0	0	0	0	0
<b>GM</b>	164,677	148,749	130,745	108,738	88,075	78,411	61,823	41,918	32,275	25,362	17,722	9,618	4,348	0	0
<b>Jeep</b>	46,973	42,324	38,687	37,999	36,940	37,352	35,100	36,319	38,430	40,347	42,221	43,905	45,174	45,835	44,171
<b>Nissan</b>	42,399	39,017	37,304	35,726	35,867	36,124	36,165	31,360	23,300	17,951	11,955	6,720	2,903	0	0
<b>VW</b>	160,986	166,181	171,402	176,196	181,615	187,164	181,859	177,185	170,931	165,552	161,739	158,573	156,729	155,151	148,965
<b>Other Makes</b>	1,494	641	277	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>639,950</b>	<b>575,859</b>	<b>512,688</b>	<b>463,827</b>	<b>429,756</b>	<b>421,247</b>	<b>384,584</b>	<b>344,859</b>	<b>307,595</b>	<b>277,562</b>	<b>251,993</b>	<b>229,152</b>	<b>214,108</b>	<b>202,645</b>	<b>193,137</b>

### Other Makes

<b>Honda</b>	370	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mercedes</b>	504	293	24	0	0	0	0	0	0	0	0	0	0	0	0
<b>Range Rover</b>	620	348	253	0	0	0	0	0	0	0	0	0	0	0	0

### Pickup

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	278,757	280,578	282,079	282,209	279,903	282,754	272,276	268,789	260,832	252,935	246,269	236,998	227,264	224,738	218,505
<b>Ford</b>	403,423	388,126	374,320	359,021	352,181	357,574	347,982	336,437	314,822	295,525	283,681	268,510	256,539	251,750	243,001
<b>GM</b>	437,754	420,871	399,480	385,244	378,163	380,804	367,550	356,348	336,197	314,341	290,653	271,349	259,438	250,941	244,033
<b>Nissan</b>	396,302	375,767	352,547	333,575	324,583	317,867	294,679	269,680	245,835	221,932	201,163	185,847	168,457	153,674	139,453
<b>Other Makes</b>	39,404	38,415	39,542	41,623	43,849	46,228	48,772	51,487	54,370	57,423	60,640	63,997	67,273	70,241	72,750
<b>Total</b>	<b>1,555,640</b>	<b>1,503,757</b>	<b>1,447,969</b>	<b>1,401,672</b>	<b>1,378,678</b>	<b>1,385,228</b>	<b>1,331,258</b>	<b>1,282,741</b>	<b>1,212,056</b>	<b>1,142,155</b>	<b>1,082,406</b>	<b>1,026,702</b>	<b>978,972</b>	<b>951,344</b>	<b>917,743</b>

### Other Makes

<b>Dina</b>	11,469	12,141	12,859	13,624	14,441	15,312	16,242	17,233	18,291	19,419	20,617	21,841	22,944	23,726	24,240
<b>IH</b>	607	637	668	702	738	776	817	861	908	959	1,013	1,070	1,131	1,197	1,267
<b>Jeep</b>	7,254	7,669	8,112	8,585	9,090	9,628	10,204	10,815	11,450	12,100	12,756	13,431	14,045	14,564	14,778
<b>Opel</b>	569	597	627	659	693	730	769	811	856	904	955	1,010	1,068	1,130	1,197
<b>Ramirez</b>	481	506	534	563	595	629	664	703	744	787	834	884	937	994	1,054
<b>Renault</b>	2,756	2,909	3,072	3,246	3,432	3,630	3,842	4,069	4,310	4,568	4,843	5,136	5,449	5,783	6,139
<b>VW</b>	3,627	819	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Industry</b>	12,641	13,137	13,671	14,245	14,861	15,523	16,233	16,995	17,811	18,686	19,623	20,625	21,699	22,847	24,075

## Vehicle Population in the Republic of Mexico By Vehicle Make

**Class 3**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	114,713	116,884	118,201	120,174	123,163	126,545	125,168	124,853	119,905	109,077	101,141	96,093	93,109	94,012	92,832
<b>Ford</b>	188,161	187,168	186,600	183,243	183,817	186,702	177,764	168,512	148,754	128,351	119,841	111,149	107,543	106,880	104,947
<b>GM</b>	162,054	160,482	159,007	158,552	158,105	159,745	152,748	145,130	119,819	93,955	76,271	65,791	61,182	56,923	51,741
<b>Other Makes</b>	13,001	13,992	15,072	16,248	17,530	18,926	20,446	22,102	23,905	25,868	28,000	30,292	32,665	34,877	36,691
<b>Total</b>	<b>477,929</b>	<b>478,526</b>	<b>478,879</b>	<b>478,217</b>	<b>482,615</b>	<b>491,917</b>	<b>476,126</b>	<b>460,597</b>	<b>412,383</b>	<b>357,251</b>	<b>325,253</b>	<b>303,325</b>	<b>294,499</b>	<b>292,691</b>	<b>286,212</b>

**Other Makes**

<b>Dina</b>	7,776	8,428	9,139	9,913	10,756	11,675	12,676	13,766	14,954	16,247	17,655	19,173	20,744	22,198	23,326
<b>IH</b>	13	13	14	15	16	18	19	21	22	24	26	28	30	33	35
<b>Jeep</b>	2,388	2,587	2,804	3,040	3,297	3,577	3,882	4,214	4,576	4,971	5,396	5,844	6,293	6,667	6,936
<b>Industry</b>	2,824	2,963	3,115	3,280	3,460	3,656	3,869	4,101	4,353	4,627	4,924	5,247	5,598	5,979	6,393

**Class 5 & 7 (Gasoline)**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	38,679	41,529	44,185	47,043	50,220	54,053	53,974	54,323	54,738	60,932	67,544	74,496	80,967	86,249	90,573
<b>Ford</b>	29,162	31,501	33,504	35,609	38,603	42,042	44,511	49,850	55,593	61,645	68,161	74,907	81,193	86,704	91,708
<b>GM</b>	15,547	14,082	13,649	13,780	14,083	15,263	16,699	18,685	20,701	22,593	24,511	26,536	28,626	30,747	32,873
<b>Industry</b>	4,498	4,657	4,845	5,063	5,318	5,611	5,950	6,340	6,786	7,296	7,878	8,541	9,296	10,153	11,127
<b>Total</b>	<b>87,887</b>	<b>91,769</b>	<b>96,182</b>	<b>101,495</b>	<b>108,224</b>	<b>116,970</b>	<b>121,134</b>	<b>129,198</b>	<b>137,818</b>	<b>152,466</b>	<b>168,094</b>	<b>184,480</b>	<b>200,081</b>	<b>213,853</b>	<b>226,280</b>

## Vehicle Population in the Republic of Mexico By Vehicle Make

Total

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	1,258,953	1,241,464	1,216,697	1,210,402	1,217,627	1,240,720	1,199,515	1,156,418	1,073,769	1,011,739	970,841	927,528	896,171	902,467	898,486
<b>Ford</b>	1,319,944	1,269,231	1,227,379	1,187,517	1,173,439	1,191,223	1,147,200	1,102,510	1,023,023	958,152	917,636	877,477	860,839	868,775	866,830
<b>GM</b>	1,464,364	1,337,421	1,211,827	1,114,940	1,057,106	1,050,322	965,871	891,875	801,907	720,185	654,948	610,062	588,604	572,604	563,911
<b>Honda</b>	41,227	22,036	8,391	2,418	420	0	0	0	0	0	0	0	0	0	0
<b>Jeep</b>	56,615	52,580	49,602	49,624	49,327	50,557	49,186	51,349	54,456	57,418	60,372	63,180	65,511	67,066	65,886
<b>Nissan</b>	1,408,009	1,330,225	1,245,998	1,205,506	1,197,326	1,201,750	1,114,243	1,032,454	929,194	847,970	766,688	700,150	640,852	594,535	555,093
<b>Rambler</b>	57,211	61,519	66,239	71,408	77,067	83,260	90,034	97,443	105,543	114,397	124,073	134,643	146,161	158,571	171,272
<b>Renault</b>	93,115	100,314	108,191	116,806	126,226	136,523	147,776	160,070	173,499	188,129	203,623	218,882	233,831	248,346	258,315
<b>VW</b>	1,579,562	1,549,772	1,529,979	1,540,601	1,564,802	1,601,643	1,505,995	1,406,102	1,314,382	1,218,038	1,137,344	1,113,652	1,112,949	1,114,720	1,102,818
<b>Other Makes</b>	100,164	95,994	95,463	96,871	99,393	103,380	108,744	115,028	121,899	129,410	137,612	146,503	155,927	165,571	175,339
<b>Total</b>	<b>7,379,163</b>	<b>7,060,556</b>	<b>6,759,766</b>	<b>6,596,093</b>	<b>6,562,732</b>	<b>6,659,378</b>	<b>6,328,564</b>	<b>6,013,249</b>	<b>5,597,672</b>	<b>5,245,437</b>	<b>4,973,136</b>	<b>4,792,077</b>	<b>4,700,846</b>	<b>4,692,655</b>	<b>4,657,949</b>

Other Makes

<b>Audi</b>	3,051	1,328	281	129	137	145	154	164	175	187	200	215	231	248	268
<b>BMW</b>	7,372	4,848	2,771	1,418	398	0	0	0	0	0	0	0	0	0	0
<b>Dina</b>	19,245	20,569	21,997	23,537	25,197	26,987	28,918	30,999	33,244	35,665	38,271	41,014	43,688	45,924	47,566
<b>Fiat</b>	144	151	158	166	176	186	197	209	223	238	254	272	292	314	338
<b>FNA</b>	350	372	396	422	451	482	517	555	597	643	693	748	808	874	946
<b>IH</b>	620	650	682	717	754	794	836	882	931	983	1,038	1,098	1,162	1,230	1,302
<b>Jaguar</b>	334	100	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mercedes</b>	7,867	5,169	4,019	2,866	1,677	843	493	525	560	599	641	688	739	794	856
<b>Opel</b>	6,934	7,341	7,789	8,281	8,821	9,414	10,064	10,776	11,556	12,410	13,344	14,366	15,483	16,704	18,038
<b>Porsche</b>	74	65	52	32	0	0	0	0	0	0	0	0	0	0	0
<b>Ramirez</b>	481	506	534	563	595	629	664	703	744	787	834	884	937	994	1,054
<b>Range Rover</b>	620	348	253	0	0	0	0	0	0	0	0	0	0	0	0
<b>Volvo</b>	308	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Industry</b>	<b>52,764</b>	<b>54,546</b>	<b>56,532</b>	<b>58,739</b>	<b>61,188</b>	<b>63,900</b>	<b>66,900</b>	<b>70,213</b>	<b>73,869</b>	<b>77,898</b>	<b>82,335</b>	<b>87,218</b>	<b>92,587</b>	<b>98,488</b>	<b>104,971</b>

## Vehicle Population in the Republic of Mexico By Vehicle Make

### Cars

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	14.8%	15.4%	15.9%	16.2%	16.4%	16.5%	16.9%	17.1%	16.9%	16.9%	17.1%	16.7%	16.3%	16.4%	16.4%
<b>Ford</b>	13.4%	13.8%	14.2%	14.3%	14.2%	14.1%	14.3%	14.4%	14.3%	14.3%	14.2%	13.9%	13.8%	14.0%	14.1%
<b>GM</b>	14.8%	13.5%	12.0%	10.8%	10.1%	9.8%	9.1%	8.7%	8.3%	8.0%	7.8%	7.8%	7.8%	7.7%	7.8%
<b>Honda</b>	0.9%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Nissan</b>	21.0%	20.8%	20.3%	20.1%	20.1%	20.0%	19.5%	19.3%	18.7%	18.3%	17.6%	16.7%	15.6%	14.5%	13.7%
<b>Rambler</b>	1.2%	1.4%	1.6%	1.7%	1.9%	2.0%	2.2%	2.6%	3.0%	3.4%	3.9%	4.4%	4.9%	5.2%	5.6%
<b>Renault</b>	2.0%	2.2%	2.5%	2.7%	2.9%	3.1%	3.6%	4.1%	4.8%	5.5%	6.3%	7.0%	7.6%	8.0%	8.3%
<b>VW</b>	30.6%	31.4%	32.2%	32.9%	33.2%	33.3%	33.0%	32.4%	32.4%	31.7%	31.0%	31.3%	31.7%	31.6%	31.4%
<b>Other Makes</b>	1.3%	1.2%	1.2%	1.2%	1.2%	1.2%	1.3%	1.4%	1.6%	1.8%	2.0%	2.2%	2.4%	2.5%	2.7%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Van/Wgn

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	22.6%	21.8%	19.8%	19.4%	18.5%	18.2%	17.8%	16.8%	13.9%	10.2%	7.3%	4.5%	2.3%	0.8%	0.0%
<b>Ford</b>	12.4%	9.3%	6.3%	3.3%	1.8%	1.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>GM</b>	25.7%	25.8%	25.5%	23.4%	20.5%	18.6%	16.1%	12.2%	10.5%	9.1%	7.0%	4.2%	2.0%	0.0%	0.0%
<b>Jeep</b>	7.3%	7.3%	7.5%	8.2%	8.6%	8.9%	9.1%	10.5%	12.5%	14.5%	16.8%	19.2%	21.1%	22.6%	22.9%
<b>Nissan</b>	6.6%	6.8%	7.3%	7.7%	8.3%	8.6%	9.4%	9.1%	7.6%	6.5%	4.7%	2.9%	1.4%	0.0%	0.0%
<b>VW</b>	25.2%	28.9%	33.4%	38.0%	42.3%	44.4%	47.3%	51.4%	55.6%	59.6%	64.2%	69.2%	73.2%	76.6%	77.1%
<b>Other Makes</b>	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Pickup

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	17.9%	18.7%	19.5%	20.1%	20.3%	20.4%	20.5%	21.0%	21.5%	22.1%	22.8%	23.1%	23.2%	23.6%	23.8%
<b>Ford</b>	25.9%	25.8%	25.9%	25.6%	25.5%	25.8%	26.1%	26.2%	26.0%	25.9%	26.2%	26.2%	26.2%	26.5%	26.5%
<b>GM</b>	28.1%	28.0%	27.6%	27.5%	27.4%	27.5%	27.6%	27.8%	27.7%	27.5%	26.9%	26.4%	26.5%	26.4%	26.6%
<b>Nissan</b>	25.5%	25.0%	24.3%	23.8%	23.5%	22.9%	22.1%	21.0%	20.3%	19.4%	18.6%	18.1%	17.2%	16.2%	15.2%
<b>Other Makes</b>	2.5%	2.6%	2.7%	3.0%	3.2%	3.3%	3.7%	4.0%	4.5%	5.0%	5.6%	6.2%	6.9%	7.4%	7.9%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Vehicle Population in the Republic of Mexico By Vehicle Make

### Class 3

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	24.0%	24.4%	24.7%	25.1%	25.5%	25.7%	26.3%	27.1%	29.1%	30.5%	31.1%	31.7%	31.6%	32.1%	32.4%
<b>Ford</b>	39.4%	39.1%	39.0%	38.3%	38.1%	38.0%	37.3%	36.6%	36.1%	35.9%	36.8%	36.6%	36.5%	36.5%	36.7%
<b>GM</b>	33.9%	33.5%	33.2%	33.2%	32.8%	32.5%	32.1%	31.5%	29.1%	26.3%	23.4%	21.7%	20.8%	19.4%	18.1%
<b>Other Makes</b>	2.7%	2.9%	3.1%	3.4%	3.6%	3.8%	4.3%	4.8%	5.8%	7.2%	8.6%	10.0%	11.1%	11.9%	12.8%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Class 5 & 7 (Gasoline)

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	44.0%	45.3%	45.9%	46.3%	46.4%	46.2%	44.6%	42.0%	39.7%	40.0%	40.2%	40.4%	40.5%	40.3%	40.0%
<b>Ford</b>	33.2%	34.3%	34.8%	35.1%	35.7%	35.9%	36.7%	38.6%	40.3%	40.4%	40.5%	40.6%	40.6%	40.5%	40.5%
<b>GM</b>	17.7%	15.3%	14.2%	13.6%	13.0%	13.0%	13.8%	14.5%	15.0%	14.8%	14.6%	14.4%	14.3%	14.4%	14.5%
<b>Industry</b>	5.1%	5.1%	5.0%	5.0%	4.9%	4.8%	4.9%	4.9%	4.9%	4.8%	4.7%	4.6%	4.6%	4.7%	4.9%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Vehicle Population in the Republic of Mexico By Vehicle Make

Total

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	17.1%	17.6%	18.0%	18.4%	18.6%	18.6%	19.0%	19.2%	19.2%	19.3%	19.5%	19.4%	19.1%	19.2%	19.3%
<b>Ford</b>	17.9%	18.0%	18.2%	18.0%	17.9%	17.9%	18.1%	18.3%	18.3%	18.3%	18.5%	18.3%	18.3%	18.5%	18.6%
<b>GM</b>	19.8%	18.9%	17.9%	16.9%	16.1%	15.8%	15.3%	14.8%	14.3%	13.7%	13.2%	12.7%	12.5%	12.2%	12.1%
<b>Honda</b>	0.6%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Jeep</b>	0.8%	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	0.9%	1.0%	1.1%	1.2%	1.3%	1.4%	1.4%	1.4%
<b>Nissan</b>	19.1%	18.8%	18.4%	18.3%	18.2%	18.0%	17.6%	17.2%	16.6%	16.2%	15.4%	14.6%	13.6%	12.7%	11.9%
<b>Rambler</b>	0.8%	0.9%	1.0%	1.1%	1.2%	1.3%	1.4%	1.6%	1.9%	2.2%	2.5%	2.8%	3.1%	3.4%	3.7%
<b>Renault</b>	1.3%	1.4%	1.6%	1.8%	1.9%	2.1%	2.3%	2.7%	3.1%	3.6%	4.1%	4.6%	5.0%	5.3%	5.5%
<b>VW</b>	21.4%	21.9%	22.6%	23.4%	23.8%	24.1%	23.8%	23.4%	23.5%	23.2%	22.9%	23.2%	23.7%	23.8%	23.7%
<b>Other Makes</b>	1.4%	1.4%	1.4%	1.5%	1.5%	1.6%	1.7%	1.9%	2.2%	2.5%	2.8%	3.1%	3.3%	3.5%	3.8%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Total

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Cars</b>	62.6%	62.5%	62.5%	62.9%	63.4%	63.7%	63.4%	63.1%	63.0%	63.2%	63.2%	63.6%	64.1%	64.6%	65.1%
<b>Van/Wgn</b>	8.7%	8.2%	7.6%	7.0%	6.5%	6.3%	6.1%	5.7%	5.5%	5.3%	5.1%	4.8%	4.6%	4.3%	4.1%
<b>Pickup</b>	21.1%	21.3%	21.4%	21.3%	21.0%	20.8%	21.0%	21.3%	21.7%	21.8%	21.8%	21.4%	20.8%	20.3%	19.7%
<b>Class 3</b>	6.5%	6.8%	7.1%	7.3%	7.4%	7.4%	7.5%	7.7%	7.4%	6.8%	6.5%	6.3%	6.3%	6.2%	6.1%
<b>Class 5 &amp; 7 (Gas)</b>	1.2%	1.3%	1.4%	1.5%	1.6%	1.8%	1.9%	2.1%	2.5%	2.9%	3.4%	3.8%	4.3%	4.6%	4.9%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Make

**Cars**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	322,654	320,478	317,545	317,568	323,638	329,152	318,814	304,762	280,778	264,303	254,481	242,625	233,562	235,256	233,779
<b>Ford</b>	293,790	288,567	284,787	281,621	279,750	281,173	269,407	256,201	237,097	222,573	210,893	201,153	197,827	200,757	201,124
<b>GM</b>	327,139	283,457	243,478	214,676	199,784	196,281	172,548	154,889	138,475	124,854	116,899	113,127	112,396	111,159	111,006
<b>Honda</b>	19,403	10,466	4,033	1,213	248	0	0	0	0	0	0	0	0	0	0
<b>Nissan</b>	465,145	439,290	411,338	401,464	401,188	402,859	371,377	346,413	314,367	289,486	264,779	244,142	225,769	209,390	194,658
<b>Rambler</b>	24,324	26,549	28,978	31,629	34,522	37,680	41,127	44,890	48,996	53,478	58,370	63,705	69,496	75,587	81,526
<b>Renault</b>	39,298	42,893	46,817	51,099	55,774	60,876	66,445	72,523	79,157	86,286	93,518	100,603	107,549	114,229	118,563
<b>VW</b>	673,324	657,950	646,342	648,847	656,600	667,104	623,551	578,804	541,707	498,949	465,170	457,080	457,928	456,420	449,966
<b>Other Makes</b>	18,180	15,568	14,557	14,319	14,345	14,822	15,970	16,427	19,060	21,014	22,825	25,091	27,629	30,991	34,556
<b>Total</b>	<b>2,183,256</b>	<b>2,085,219</b>	<b>1,997,875</b>	<b>1,962,436</b>	<b>1,965,849</b>	<b>1,989,947</b>	<b>1,879,238</b>	<b>1,774,909</b>	<b>1,659,637</b>	<b>1,560,943</b>	<b>1,486,937</b>	<b>1,447,526</b>	<b>1,432,156</b>	<b>1,433,789</b>	<b>1,425,178</b>

**Other Makes**

<b>Audi / DKW</b>	1,427	610	117	46	50	55	60	65	71	78	85	93	101	111	121
<b>BMW</b>	3,544	2,346	1,367	728	235	0	0	0	0	0	0	0	0	0	0
<b>Fiat</b>	44	48	53	57	63	68	75	82	89	97	106	116	126	138	150
<b>FNA (Borgward)</b>	131	143	156	170	186	203	222	242	264	288	315	343	375	409	446
<b>Jaguar</b>	158	47	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mercedes</b>	3,554	2,368	1,955	1,424	852	358	191	209	228	249	271	296	323	353	385
<b>Opel</b>	2,329	2,542	2,775	3,028	3,305	3,608	3,938	4,298	4,691	5,120	5,589	6,100	6,658	7,267	7,932
<b>Porsche</b>	35	31	25	15	0	0	0	0	0	0	0	0	0	0	0
<b>Volvo</b>	146	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Industry</b>	<b>6,810</b>	<b>7,433</b>	<b>8,111</b>	<b>8,849</b>	<b>9,654</b>	<b>10,530</b>	<b>11,485</b>	<b>11,336</b>	<b>13,716</b>	<b>15,182</b>	<b>16,459</b>	<b>18,142</b>	<b>20,045</b>	<b>22,714</b>	<b>25,521</b>

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Make

### Van/Wgn

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	52,635	46,197	38,153	34,289	30,893	29,149	25,206	21,590	15,939	10,059	6,447	3,940	2,045	836	0
<b>Ford</b>	27,802	19,074	11,821	6,267	3,635	2,375	454	0	0	0	0	0	0	0	0
<b>GM</b>	61,184	55,774	49,633	42,513	35,538	29,873	22,113	15,119	11,585	8,744	5,983	3,450	1,595	0	0
<b>Jeep</b>	20,124	18,869	17,994	18,207	18,299	18,530	17,725	18,646	19,843	20,962	22,105	23,097	23,792	24,202	23,396
<b>Nissan</b>	15,110	13,991	13,425	12,924	12,973	13,054	13,052	11,364	8,410	6,212	4,045	2,409	1,065	0	0
<b>VW</b>	68,037	71,007	74,004	76,975	80,239	83,233	81,462	81,338	80,352	79,210	79,277	79,789	80,169	80,392	77,431
<b>Other Makes</b>	508	215	90	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	245,400	225,127	205,120	191,176	181,577	176,214	160,012	148,058	136,129	125,187	117,856	112,685	108,665	105,431	100,827

### Other Makes

<b>Honda</b>	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mercedes</b>	172	100	8	0	0	0	0	0	0	0	0	0	0	0	0
<b>Range Rover</b>	208	115	82	0	0	0	0	0	0	0	0	0	0	0	0

### Pickup

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	66,555	67,786	69,199	70,131	70,047	71,189	69,155	68,242	67,167	65,336	64,308	62,815	60,651	60,489	59,454
<b>Ford</b>	95,507	93,105	91,694	89,430	88,247	90,104	88,346	85,029	80,838	75,860	73,590	70,727	67,957	67,193	65,507
<b>GM</b>	103,711	101,054	98,262	96,322	95,122	96,285	93,660	90,487	86,678	81,016	75,795	71,942	69,238	67,609	66,512
<b>Nissan</b>	95,171	91,428	87,892	84,605	82,739	81,242	75,892	68,525	63,472	57,061	52,274	49,026	44,610	41,060	37,812
<b>Other Makes</b>	8,177	8,149	8,630	9,319	10,057	10,848	11,695	12,376	13,568	14,569	15,578	16,654	17,802	19,062	20,195
<b>Total</b>	369,122	361,523	355,676	349,807	346,212	349,669	338,749	324,660	311,724	293,842	281,544	271,164	260,257	255,413	249,480

### Other Makes

<b>Dina</b>	2,563	2,759	2,971	3,198	3,443	3,706	3,990	4,296	4,625	4,979	5,358	5,747	6,092	6,342	6,509
<b>IH</b>	126	136	146	157	169	182	196	211	227	245	264	284	305	329	354
<b>Jeep</b>	1,640	1,765	1,900	2,046	2,203	2,371	2,553	2,747	2,951	3,162	3,376	3,597	3,797	3,973	4,072
<b>Opel</b>	120	129	139	149	161	173	186	201	216	232	250	269	290	312	336
<b>Ramirez</b>	110	118	127	137	147	159	171	184	198	213	230	247	266	286	308
<b>Renault</b>	644	693	746	803	865	931	1,003	1,079	1,162	1,251	1,347	1,450	1,561	1,680	1,809
<b>VW</b>	794	164	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Industry</b>	2,181	2,385	2,600	2,828	3,069	3,325	3,596	3,532	4,189	4,488	4,755	5,061	5,490	6,140	6,807



## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Make

### Class 3

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	37,078	37,844	38,751	40,108	41,864	43,420	43,146	43,103	40,856	35,851	32,006	30,321	28,961	28,944	28,903
<b>Ford</b>	60,485	60,369	61,343	62,085	63,810	65,340	62,436	59,290	51,179	42,132	38,030	35,165	33,628	33,039	32,764
<b>GM</b>	52,621	52,185	52,721	54,187	55,748	57,187	55,148	52,598	42,502	31,495	23,787	20,347	18,532	16,494	14,950
<b>Other Makes</b>	3,319	3,588	3,879	4,190	4,525	4,886	5,274	5,618	6,140	6,610	7,105	7,645	8,252	8,943	9,641
<b>Total</b>	153,503	153,986	156,695	160,569	165,947	170,832	166,005	160,609	140,677	116,087	100,927	93,479	89,373	87,420	86,258

### Other Makes

<b>Dina</b>	2,033	2,197	2,375	2,567	2,774	2,998	3,240	3,502	3,785	4,091	4,421	4,779	5,165	5,577	5,994
<b>IH</b>	3	4	4	4	4	5	5	6	6	7	7	8	8	9	10
<b>Jeep</b>	642	693	749	810	875	946	1,023	1,105	1,195	1,291	1,395	1,508	1,628	1,754	1,876
<b>Industry</b>	641	694	751	809	871	937	1,006	997	1,155	1,221	1,281	1,351	1,451	1,603	1,761

### Class 5 & 7 (Gasoline)

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	16,556	17,825	19,148	20,511	21,927	23,500	24,053	24,983	26,140	28,534	30,720	32,498	33,968	35,282	36,529
<b>Ford</b>	15,262	16,440	17,535	18,528	19,828	20,882	22,221	24,399	26,727	29,062	31,205	33,100	34,820	36,462	38,108
<b>GM</b>	8,144	7,428	7,389	7,428	7,381	7,656	8,272	8,954	9,658	10,387	11,132	11,886	12,635	13,370	14,114
<b>Industry</b>	1,028	1,154	1,291	1,439	1,602	1,780	1,974	2,068	2,493	2,746	2,995	3,282	3,656	4,182	4,748
<b>Total</b>	40,990	42,847	45,363	47,907	50,737	53,817	56,520	60,404	65,017	70,729	76,053	80,766	85,080	89,296	93,500

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Make

**Total**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	495,478	490,130	482,796	482,606	488,368	496,409	480,374	462,679	430,879	404,083	387,961	372,200	359,188	360,807	358,664
<b>Ford</b>	492,846	477,555	467,181	457,932	455,270	459,874	442,864	424,919	395,841	369,626	353,718	340,145	334,231	337,451	337,503
<b>GM</b>	552,799	499,898	451,482	415,126	393,573	387,282	351,741	322,049	288,898	256,497	233,595	220,752	214,396	208,632	206,583
<b>Honda</b>	19,530	10,466	4,033	1,213	248	0	0	0	0	0	0	0	0	0	0
<b>Jeep</b>	22,406	21,327	20,644	21,063	21,377	21,847	21,300	22,499	23,989	25,415	26,876	28,201	29,218	29,929	29,344
<b>Nissan</b>	575,426	544,710	512,655	498,993	496,900	497,155	460,321	426,303	386,249	352,759	321,097	295,577	271,443	250,450	232,470
<b>Rambler</b>	24,324	26,549	28,978	31,629	34,522	37,680	41,127	44,890	48,996	53,478	58,370	63,705	69,496	75,587	81,526
<b>Renault</b>	39,942	43,586	47,563	51,903	56,639	61,807	67,447	73,603	80,319	87,537	94,865	102,052	109,110	115,909	120,372
<b>VW</b>	742,155	729,121	720,346	725,822	736,839	750,337	705,013	660,142	622,059	578,159	544,447	536,869	538,097	536,812	527,397
<b>Other Makes</b>	27,366	25,359	25,050	25,608	26,586	28,087	30,336	31,228	35,954	39,236	42,386	46,118	50,353	55,772	61,384
<b>Total</b>	<b>2,992,272</b>	<b>2,868,700</b>	<b>2,760,728</b>	<b>2,711,895</b>	<b>2,710,323</b>	<b>2,740,479</b>	<b>2,600,523</b>	<b>2,468,310</b>	<b>2,313,184</b>	<b>2,166,788</b>	<b>2,063,317</b>	<b>2,005,620</b>	<b>1,975,531</b>	<b>1,971,349</b>	<b>1,955,242</b>

**Other Makes**

<b>Audi</b>	1,427	610	117	46	50	55	60	65	71	78	85	93	101	111	121
<b>BMW</b>	3,544	2,346	1,367	728	235	0	0	0	0	0	0	0	0	0	0
<b>Dina</b>	4,596	4,957	5,345	5,765	6,217	6,705	7,231	7,798	8,410	9,070	9,779	10,525	11,257	11,919	12,504
<b>Fiat</b>	44	48	53	57	63	68	75	82	89	97	106	116	126	138	150
<b>FNA</b>	131	143	156	170	186	203	222	242	264	288	315	343	375	409	446
<b>IH</b>	129	139	150	161	174	187	201	217	233	251	271	291	314	338	364
<b>Jaguar</b>	158	47	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mercedes</b>	3,726	2,468	1,963	1,424	852	358	191	209	228	249	271	296	323	353	385
<b>Opel</b>	2,449	2,671	2,913	3,178	3,466	3,781	4,124	4,499	4,907	5,353	5,839	6,370	6,948	7,579	8,268
<b>Porsche</b>	35	31	25	15	0	0	0	0	0	0	0	0	0	0	0
<b>Ramirez</b>	110	118	127	137	147	159	171	184	198	213	230	247	266	286	308
<b>Range Rover</b>	208	115	82	0	0	0	0	0	0	0	0	0	0	0	0
<b>Volvo</b>	146	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Industry</b>	<b>10,661</b>	<b>11,666</b>	<b>12,753</b>	<b>13,926</b>	<b>15,196</b>	<b>16,571</b>	<b>18,061</b>	<b>17,933</b>	<b>21,553</b>	<b>23,637</b>	<b>25,491</b>	<b>27,836</b>	<b>30,643</b>	<b>34,639</b>	<b>38,837</b>

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Make

### Cars

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	14.8%	15.4%	15.9%	16.2%	16.5%	16.5%	17.0%	17.2%	16.9%	16.9%	17.1%	16.8%	16.3%	16.4%	16.4%
<b>Ford</b>	13.5%	13.8%	14.3%	14.4%	14.2%	14.1%	14.3%	14.4%	14.3%	14.3%	14.2%	13.9%	13.8%	14.0%	14.1%
<b>GM</b>	15.0%	13.6%	12.2%	10.9%	10.2%	9.9%	9.2%	8.7%	8.3%	8.0%	7.9%	7.8%	7.8%	7.8%	7.8%
<b>Honda</b>	0.9%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Nissan</b>	21.3%	21.1%	20.6%	20.5%	20.4%	20.2%	19.8%	19.5%	18.9%	18.5%	17.8%	16.9%	15.8%	14.6%	13.7%
<b>Rambler</b>	1.1%	1.3%	1.5%	1.6%	1.8%	1.9%	2.2%	2.5%	3.0%	3.4%	3.9%	4.4%	4.9%	5.3%	5.7%
<b>Renault</b>	1.8%	2.1%	2.3%	2.6%	2.8%	3.1%	3.5%	4.1%	4.8%	5.5%	6.3%	6.9%	7.5%	8.0%	8.3%
<b>VW</b>	30.8%	31.6%	32.4%	33.1%	33.4%	33.5%	33.2%	32.6%	32.6%	32.0%	31.3%	31.6%	32.0%	31.8%	31.6%
<b>Other Makes</b>	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.9%	1.1%	1.3%	1.5%	1.7%	1.9%	2.2%	2.4%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Van/Wgn

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	21.4%	20.5%	18.6%	17.9%	17.0%	16.5%	15.8%	14.6%	11.7%	8.0%	5.5%	3.5%	1.9%	0.8%	0.0%
<b>Ford</b>	11.3%	8.5%	5.8%	3.3%	2.0%	1.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>GM</b>	24.9%	24.8%	24.2%	22.2%	19.6%	17.0%	13.8%	10.2%	8.5%	7.0%	5.1%	3.1%	1.5%	0.0%	0.0%
<b>Jeep</b>	8.2%	8.4%	8.8%	9.5%	10.1%	10.5%	11.1%	12.6%	14.6%	16.7%	18.8%	20.5%	21.9%	23.0%	23.2%
<b>Nissan</b>	6.2%	6.2%	6.5%	6.8%	7.1%	7.4%	8.2%	7.7%	6.2%	5.0%	3.4%	2.1%	1.0%	0.0%	0.0%
<b>VW</b>	27.7%	31.5%	36.1%	40.3%	44.2%	47.2%	50.9%	54.9%	59.0%	63.3%	67.3%	70.8%	73.8%	76.3%	76.8%
<b>Other Makes</b>	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Pickup

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	18.0%	18.8%	19.5%	20.0%	20.2%	20.4%	20.4%	21.0%	21.5%	22.2%	22.8%	23.2%	23.3%	23.7%	23.8%
<b>Ford</b>	25.9%	25.8%	25.8%	25.6%	25.5%	25.8%	26.1%	26.2%	25.9%	25.8%	26.1%	26.1%	26.1%	26.3%	26.3%
<b>GM</b>	28.1%	28.0%	27.6%	27.5%	27.5%	27.5%	27.6%	27.9%	27.8%	27.6%	26.9%	26.5%	26.6%	26.5%	26.7%
<b>Nissan</b>	25.8%	25.3%	24.7%	24.2%	23.9%	23.2%	22.4%	21.1%	20.4%	19.4%	18.6%	18.1%	17.1%	16.1%	15.2%
<b>Other Makes</b>	2.2%	2.3%	2.4%	2.7%	2.9%	3.1%	3.5%	3.8%	4.4%	5.0%	5.5%	6.1%	6.8%	7.5%	8.1%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Make

### Class 3

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	24.2%	24.6%	24.7%	25.0%	25.2%	25.4%	26.0%	26.8%	29.0%	30.9%	31.7%	32.4%	32.4%	33.1%	33.5%
<b>Ford</b>	39.4%	39.2%	39.1%	38.7%	38.5%	38.2%	37.6%	36.9%	36.4%	36.3%	37.7%	37.6%	37.6%	37.8%	38.0%
<b>GM</b>	34.3%	33.9%	33.6%	33.7%	33.6%	33.5%	33.2%	32.7%	30.2%	27.1%	23.6%	21.8%	20.7%	18.9%	17.3%
<b>Other Makes</b>	2.2%	2.3%	2.5%	2.6%	2.7%	2.9%	3.2%	3.5%	4.4%	5.7%	7.0%	8.2%	9.2%	10.2%	11.2%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Class 5 & 7 (Gasoline)

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	40.4%	41.6%	42.2%	42.8%	43.2%	43.7%	42.6%	41.4%	40.2%	40.3%	40.4%	40.2%	39.9%	39.5%	39.1%
<b>Ford</b>	37.2%	38.4%	38.7%	38.7%	39.1%	38.8%	39.3%	40.4%	41.1%	41.1%	41.0%	41.0%	40.9%	40.8%	40.8%
<b>GM</b>	19.9%	17.3%	16.3%	15.5%	14.5%	14.2%	14.6%	14.8%	14.9%	14.7%	14.6%	14.7%	14.9%	15.0%	15.1%
<b>Industry</b>	2.5%	2.7%	2.8%	3.0%	3.2%	3.3%	3.5%	3.4%	3.8%	3.9%	3.9%	4.1%	4.3%	4.7%	5.1%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Make

**Total**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	16.6%	17.1%	17.5%	17.8%	18.0%	18.1%	18.5%	18.7%	18.6%	18.6%	18.8%	18.6%	18.2%	18.3%	18.3%
<b>Ford</b>	16.5%	16.6%	16.9%	16.9%	16.8%	16.8%	17.0%	17.2%	17.1%	17.1%	17.1%	17.0%	16.9%	17.1%	17.3%
<b>GM</b>	18.5%	17.4%	16.4%	15.3%	14.5%	14.1%	13.5%	13.0%	12.5%	11.8%	11.3%	11.0%	10.9%	10.6%	10.6%
<b>Honda</b>	0.7%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Jeep</b>	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	0.9%	1.0%	1.2%	1.3%	1.4%	1.5%	1.5%	1.5%
<b>Nissan</b>	19.2%	19.0%	18.6%	18.4%	18.3%	18.1%	17.7%	17.3%	16.7%	16.3%	15.6%	14.7%	13.7%	12.7%	11.9%
<b>Rambler</b>	0.8%	0.9%	1.0%	1.2%	1.3%	1.4%	1.6%	1.8%	2.1%	2.5%	2.8%	3.2%	3.5%	3.8%	4.2%
<b>Renault</b>	1.3%	1.5%	1.7%	1.9%	2.1%	2.3%	2.6%	3.0%	3.5%	4.0%	4.6%	5.1%	5.5%	5.9%	6.2%
<b>VW</b>	24.8%	25.4%	26.1%	26.8%	27.2%	27.4%	27.1%	26.7%	26.9%	26.7%	26.4%	26.8%	27.2%	27.2%	27.0%
<b>Other Makes</b>	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	1.2%	1.3%	1.6%	1.8%	2.1%	2.3%	2.5%	2.8%	3.1%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**Total**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Cars</b>	73.0%	72.7%	72.4%	72.4%	72.5%	72.6%	72.3%	71.9%	71.7%	72.0%	72.1%	72.2%	72.5%	72.7%	72.9%
<b>Van/Wgn</b>	8.2%	7.8%	7.4%	7.0%	6.7%	6.4%	6.2%	6.0%	5.9%	5.8%	5.7%	5.6%	5.5%	5.3%	5.2%
<b>Pickup</b>	12.3%	12.6%	12.9%	12.9%	12.8%	12.8%	13.0%	13.2%	13.5%	13.6%	13.6%	13.5%	13.2%	13.0%	12.8%
<b>Class 3</b>	5.1%	5.4%	5.7%	5.9%	6.1%	6.2%	6.4%	6.5%	6.1%	5.4%	4.9%	4.7%	4.5%	4.4%	4.4%
<b>Class 5 &amp; 7 (Gas)</b>	1.4%	1.5%	1.6%	1.8%	1.9%	2.0%	2.2%	2.4%	2.8%	3.3%	3.7%	4.0%	4.3%	4.5%	4.8%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Make**

**Cars**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	359,811	356,724	352,931	353,642	361,045	371,435	360,938	345,613	314,857	296,142	283,048	266,979	256,315	260,555	262,797
<b>Ford</b>	326,326	320,194	315,651	312,622	311,487	318,316	306,245	291,511	266,757	250,058	235,059	221,758	217,738	222,685	226,050
<b>GM</b>	357,193	309,780	265,469	233,950	218,896	219,820	194,504	174,905	154,439	139,080	128,892	123,640	122,615	122,834	124,257
<b>Honda</b>	21,454	11,570	4,358	1,205	172	0	0	0	0	0	0	0	0	0	0
<b>Nissan</b>	504,162	476,151	444,809	434,740	435,688	444,900	412,023	385,001	345,692	318,601	288,791	263,441	243,723	231,471	220,981
<b>Rambler</b>	32,887	34,970	37,261	39,779	42,545	45,579	48,907	52,553	56,547	60,919	65,703	70,938	76,665	82,984	89,746
<b>Renault</b>	51,061	54,512	58,302	62,461	67,020	72,016	77,488	83,478	90,032	97,275	105,261	113,143	120,833	128,334	133,613
<b>VW</b>	741,625	724,821	712,235	715,559	726,587	747,375	700,585	650,114	601,744	553,536	510,435	497,999	498,292	503,149	503,887
<b>Other Makes</b>	39,982	36,704	35,158	34,487	34,170	34,628	35,534	37,770	38,115	39,449	41,264	42,993	44,851	46,323	48,069
<b>Total</b>	<b>2,434,501</b>	<b>2,325,427</b>	<b>2,226,174</b>	<b>2,188,446</b>	<b>2,197,609</b>	<b>2,254,070</b>	<b>2,136,224</b>	<b>2,020,944</b>	<b>1,868,183</b>	<b>1,755,060</b>	<b>1,658,453</b>	<b>1,600,893</b>	<b>1,581,031</b>	<b>1,598,333</b>	<b>1,609,400</b>

**Other Makes**

<b>Audi / DKW</b>	1,623	718	164	83	87	90	94	99	104	109	115	122	130	138	147
<b>BMW</b>	3,828	2,502	1,404	690	163	0	0	0	0	0	0	0	0	0	0
<b>Fiat</b>	100	102	105	109	113	117	122	128	134	141	148	157	166	176	187
<b>FNA (Borgward)</b>	219	229	240	251	265	279	296	313	333	355	379	405	433	465	499
<b>Jaguar</b>	176	53	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mercedes</b>	3,809	2,508	2,040	1,442	825	485	302	317	333	350	370	391	415	442	470
<b>Opel</b>	4,036	4,202	4,387	4,594	4,823	5,076	5,357	5,667	6,009	6,386	6,800	7,256	7,757	8,307	8,909
<b>Porsche</b>	39	34	27	17	0	0	0	0	0	0	0	0	0	0	0
<b>Volvo</b>	162	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Industry</b>	<b>25,991</b>	<b>26,356</b>	<b>26,790</b>	<b>27,301</b>	<b>27,895</b>	<b>28,580</b>	<b>29,363</b>	<b>31,442</b>	<b>31,203</b>	<b>32,108</b>	<b>33,451</b>	<b>34,661</b>	<b>35,949</b>	<b>36,795</b>	<b>37,855</b>

## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Make

### Van/Wgn

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	91,705	79,075	63,603	55,478	48,765	47,633	43,140	36,487	26,720	18,291	11,910	6,396	2,909	822	0
<b>Ford</b>	51,279	34,601	20,695	9,134	3,966	3,040	837	0	0	0	0	0	0	0	0
<b>GM</b>	103,494	92,975	81,112	66,225	52,537	48,537	39,710	26,799	20,690	16,618	11,739	6,168	2,753	0	0
<b>Jeep</b>	26,848	23,455	20,693	19,792	18,641	18,822	17,376	17,673	18,587	19,384	20,116	20,808	21,382	21,633	20,776
<b>Nissan</b>	27,289	25,026	23,879	22,802	22,895	23,070	23,113	19,996	14,890	11,739	7,910	4,311	1,838	0	0
<b>VW</b>	92,949	95,175	97,398	99,220	101,376	103,931	100,396	95,847	90,579	86,342	82,461	78,784	76,560	74,759	71,534
<b>Other Makes</b>	986	426	187	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>394,551</b>	<b>350,733</b>	<b>307,568</b>	<b>272,651</b>	<b>248,179</b>	<b>245,032</b>	<b>224,572</b>	<b>196,802</b>	<b>171,466</b>	<b>152,375</b>	<b>134,138</b>	<b>116,467</b>	<b>105,443</b>	<b>97,214</b>	<b>92,310</b>

### Other Makes

<b>Honda</b>	243	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mercedes</b>	332	193	16	0	0	0	0	0	0	0	0	0	0	0	0
<b>Range Rover</b>	412	233	171	0	0	0	0	0	0	0	0	0	0	0	0

### Pickup

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	212,202	212,792	212,881	212,078	209,857	211,565	203,121	200,547	193,665	187,599	181,962	174,183	166,613	164,249	159,051
<b>Ford</b>	307,915	295,020	282,626	269,591	263,933	267,470	259,635	251,408	233,984	219,665	210,092	197,783	188,583	184,557	177,495
<b>GM</b>	334,043	319,817	301,218	288,922	283,041	284,518	273,889	265,861	249,519	233,325	214,859	199,407	190,199	183,332	177,521
<b>Nissan</b>	301,132	284,339	264,655	248,970	241,844	236,625	218,787	201,155	182,363	164,871	148,889	136,821	123,848	112,614	101,641
<b>Other Makes</b>	31,227	30,265	30,912	32,304	33,792	35,380	37,076	39,111	40,802	42,853	45,061	47,343	49,472	51,178	52,555
<b>Total</b>	<b>1,186,518</b>	<b>1,142,234</b>	<b>1,092,292</b>	<b>1,051,865</b>	<b>1,032,466</b>	<b>1,035,559</b>	<b>992,509</b>	<b>958,081</b>	<b>900,333</b>	<b>848,313</b>	<b>800,863</b>	<b>755,538</b>	<b>718,714</b>	<b>695,930</b>	<b>668,263</b>

### Other Makes

<b>Dina</b>	8,906	9,382	9,888	10,426	10,998	11,606	12,251	12,938	13,666	14,440	15,259	16,095	16,852	17,384	17,730
<b>IH</b>	481	501	522	544	568	594	621	650	681	714	749	786	826	868	913
<b>Jeep</b>	5,614	5,903	6,211	6,539	6,887	7,257	7,651	8,068	8,499	8,939	9,380	9,834	10,247	10,591	10,706
<b>Opel</b>	449	468	488	510	533	557	583	611	640	671	705	740	778	818	861
<b>Ramirez</b>	371	388	407	426	447	470	494	519	546	574	605	637	671	707	746
<b>Renault</b>	2,112	2,216	2,325	2,442	2,567	2,699	2,840	2,989	3,148	3,317	3,496	3,687	3,889	4,103	4,330
<b>VW</b>	2,833	655	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Industry</b>	10,459	10,752	11,070	11,416	11,792	12,198	12,637	13,462	13,622	14,198	14,868	15,564	16,209	16,707	17,268

**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Make**

Class 3

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	77,635	79,039	79,450	80,066	81,298	83,125	82,022	81,750	79,049	73,226	69,136	65,772	64,148	65,068	63,930
<b>Ford</b>	127,676	126,800	125,257	121,158	120,008	121,362	115,328	109,221	97,575	86,219	81,811	75,984	73,915	73,841	72,183
<b>GM</b>	109,432	108,298	106,286	104,365	102,357	102,558	97,599	92,531	77,317	62,460	52,484	45,443	42,650	40,429	36,790
<b>Other Makes</b>	9,682	10,404	11,192	12,058	13,005	14,040	15,172	16,485	17,765	19,258	20,895	22,647	24,413	25,934	27,050
<b>Total</b>	<b>324,425</b>	<b>324,541</b>	<b>322,185</b>	<b>317,648</b>	<b>316,668</b>	<b>321,085</b>	<b>310,121</b>	<b>299,988</b>	<b>271,706</b>	<b>241,164</b>	<b>224,326</b>	<b>209,847</b>	<b>205,126</b>	<b>205,272</b>	<b>199,953</b>

Other Makes

<b>Dina</b>	5,743	6,231	6,764	7,346	7,982	8,677	9,436	10,264	11,168	12,156	13,233	14,395	15,579	16,622	17,332
<b>IH</b>	9	10	11	11	12	13	14	15	16	17	19	20	22	24	26
<b>Jeep</b>	1,747	1,894	2,054	2,230	2,421	2,631	2,859	3,109	3,382	3,680	4,000	4,336	4,664	4,913	5,060
<b>Industry</b>	2,183	2,269	2,364	2,472	2,590	2,720	2,863	3,104	3,198	3,406	3,643	3,896	4,147	4,376	4,633

Class 5 & 7 (Gasoline)

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	22,123	23,704	25,037	26,531	28,293	30,553	29,921	29,341	28,598	32,398	36,824	41,998	46,999	50,967	54,044
<b>Ford</b>	13,901	15,061	15,969	17,081	18,775	21,161	22,291	25,451	28,866	32,584	36,956	41,806	46,373	50,242	53,599
<b>GM</b>	7,403	6,654	6,260	6,352	6,703	7,607	8,427	9,731	11,044	12,206	13,378	14,651	15,991	17,377	18,758
<b>Industry</b>	3,469	3,503	3,554	3,624	3,715	3,832	3,976	4,272	4,293	4,550	4,882	5,259	5,639	5,971	6,378
<b>Total</b>	<b>46,897</b>	<b>48,922</b>	<b>50,820</b>	<b>53,588</b>	<b>57,487</b>	<b>63,153</b>	<b>64,615</b>	<b>68,794</b>	<b>72,801</b>	<b>81,737</b>	<b>92,040</b>	<b>103,714</b>	<b>115,001</b>	<b>124,557</b>	<b>132,780</b>



## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Make

Total

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	763,476	751,334	733,901	727,796	729,258	744,311	719,142	693,738	642,890	607,656	582,880	555,328	536,984	541,661	539,822
<b>Ford</b>	827,098	791,676	760,199	729,585	718,169	731,349	704,337	677,591	627,181	588,526	563,918	537,332	526,608	531,324	529,327
<b>GM</b>	911,564	837,523	760,345	699,814	663,533	663,041	614,130	569,826	513,009	463,688	421,352	389,310	374,208	363,972	357,327
<b>Honda</b>	21,697	11,570	4,358	1,205	172	0	0	0	0	0	0	0	0	0	0
<b>Jeep</b>	34,209	31,252	28,959	28,560	27,949	28,709	27,886	28,850	30,467	32,003	33,496	34,978	36,293	37,137	36,542
<b>Nissan</b>	832,583	785,516	733,343	706,512	700,426	704,595	653,922	606,152	542,945	495,211	445,591	404,573	369,409	344,085	322,622
<b>Rambler</b>	32,887	34,970	37,261	39,779	42,545	45,579	48,907	52,553	56,547	60,919	65,703	70,938	76,665	82,984	89,746
<b>Renault</b>	53,174	56,728	60,628	64,903	69,587	74,715	80,328	86,467	93,180	100,592	108,758	116,830	124,721	132,437	137,943
<b>VW</b>	837,407	820,651	809,633	814,780	827,963	851,306	800,982	745,960	692,323	639,879	592,896	576,783	574,852	577,908	575,421
<b>Other Makes</b>	72,798	70,636	70,413	71,263	72,807	75,293	78,408	83,800	85,946	90,175	95,226	100,385	105,574	109,799	113,956

<b>Total</b>	4,386,892	4,191,856	3,999,038	3,884,198	3,852,409	3,918,900	3,728,041	3,544,938	3,284,488	3,078,649	2,909,819	2,786,457	2,725,315	2,721,306	2,702,706
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Other Makes

<b>Audi</b>	1,623	718	164	83	87	90	94	99	104	109	115	122	130	138	147
<b>BMW</b>	3,828	2,502	1,404	690	163	0	0	0	0	0	0	0	0	0	0
<b>Dina</b>	14,649	15,613	16,652	17,772	18,980	20,283	21,687	23,202	24,835	26,596	28,492	30,489	32,432	34,006	35,062
<b>Fiat</b>	100	102	105	109	113	117	122	128	134	141	148	157	166	176	187
<b>FNA</b>	219	229	240	251	265	279	296	313	333	355	379	405	433	465	499
<b>IH</b>	491	511	533	556	580	607	635	665	697	731	768	807	848	892	939
<b>Jaguar</b>	176	53	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mercedes</b>	4,140	2,701	2,056	1,442	825	485	302	317	333	350	370	391	415	442	470
<b>Opel</b>	4,485	4,670	4,876	5,103	5,355	5,633	5,940	6,277	6,649	7,057	7,505	7,996	8,535	9,125	9,770
<b>Porsche</b>	39	34	27	17	0	0	0	0	0	0	0	0	0	0	0
<b>Ramirez</b>	371	388	407	426	447	470	494	519	546	574	605	637	671	707	746
<b>Range Rover</b>	412	233	171	0	0	0	0	0	0	0	0	0	0	0	0
<b>Volvo</b>	162	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Industry</b>	42,103	42,881	43,779	44,813	45,992	47,329	48,839	52,280	52,316	54,261	56,845	59,381	61,945	63,849	66,134

## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Make

### Cars

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	14.8%	15.3%	15.9%	16.2%	16.4%	16.5%	16.9%	17.1%	16.9%	16.9%	17.1%	16.7%	16.2%	16.3%	16.3%
<b>Ford</b>	13.4%	13.8%	14.2%	14.3%	14.2%	14.1%	14.3%	14.4%	14.3%	14.2%	14.2%	13.9%	13.8%	13.9%	14.0%
<b>GM</b>	14.7%	13.3%	11.9%	10.7%	10.0%	9.8%	9.1%	8.7%	8.3%	7.9%	7.8%	7.7%	7.8%	7.7%	7.7%
<b>Honda</b>	0.9%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Nissan</b>	20.7%	20.5%	20.0%	19.9%	19.8%	19.7%	19.3%	19.1%	18.5%	18.2%	17.4%	16.5%	15.4%	14.5%	13.7%
<b>Rambler</b>	1.4%	1.5%	1.7%	1.8%	1.9%	2.0%	2.3%	2.6%	3.0%	3.5%	4.0%	4.4%	4.8%	5.2%	5.6%
<b>Renault</b>	2.1%	2.3%	2.6%	2.9%	3.0%	3.2%	3.6%	4.1%	4.8%	5.5%	6.3%	7.1%	7.6%	8.0%	8.3%
<b>VW</b>	30.5%	31.2%	32.0%	32.7%	33.1%	33.2%	32.8%	32.2%	32.2%	31.5%	30.8%	31.1%	31.5%	31.5%	31.3%
<b>Other Makes</b>	1.6%	1.6%	1.6%	1.6%	1.6%	1.5%	1.7%	1.9%	2.0%	2.2%	2.5%	2.7%	2.8%	2.9%	3.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Van/Wgn

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	23.2%	22.5%	20.7%	20.3%	19.6%	19.4%	19.2%	18.5%	15.6%	12.0%	8.9%	5.5%	2.8%	0.8%	0.0%
<b>Ford</b>	13.0%	9.9%	6.7%	3.4%	1.6%	1.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>GM</b>	26.2%	26.5%	26.4%	24.3%	21.2%	19.8%	17.7%	13.6%	12.1%	10.9%	8.8%	5.3%	2.6%	0.0%	0.0%
<b>Jeep</b>	6.8%	6.7%	6.7%	7.3%	7.5%	7.7%	7.7%	9.0%	10.8%	12.7%	15.0%	17.9%	20.3%	22.3%	22.5%
<b>Nissan</b>	6.9%	7.1%	7.8%	8.4%	9.2%	9.4%	10.3%	10.2%	8.7%	7.7%	5.9%	3.7%	1.7%	0.0%	0.0%
<b>VW</b>	23.6%	27.1%	31.7%	36.4%	40.8%	42.4%	44.7%	48.7%	52.8%	56.7%	61.5%	67.6%	72.6%	76.9%	77.5%
<b>Other Makes</b>	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Pickup

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	17.9%	18.6%	19.5%	20.2%	20.3%	20.4%	20.5%	20.9%	21.5%	22.1%	22.7%	23.1%	23.2%	23.6%	23.8%
<b>Ford</b>	26.0%	25.8%	25.9%	25.6%	25.6%	25.8%	26.2%	26.2%	26.0%	25.9%	26.2%	26.2%	26.2%	26.5%	26.6%
<b>GM</b>	28.2%	28.0%	27.6%	27.5%	27.4%	27.5%	27.6%	27.7%	27.7%	27.5%	26.8%	26.4%	26.5%	26.3%	26.6%
<b>Nissan</b>	25.4%	24.9%	24.2%	23.7%	23.4%	22.8%	22.0%	21.0%	20.3%	19.4%	18.6%	18.1%	17.2%	16.2%	15.2%
<b>Other Makes</b>	2.6%	2.6%	2.8%	3.1%	3.3%	3.4%	3.7%	4.1%	4.5%	5.1%	5.6%	6.3%	6.9%	7.4%	7.9%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Make**

**Class 3**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	23.9%	24.4%	24.7%	25.2%	25.7%	25.9%	26.4%	27.3%	29.1%	30.4%	30.8%	31.3%	31.3%	31.7%	32.0%
<b>Ford</b>	39.4%	39.1%	38.9%	38.1%	37.9%	37.8%	37.2%	36.4%	35.9%	35.8%	36.5%	36.2%	36.0%	36.0%	36.1%
<b>GM</b>	33.7%	33.4%	33.0%	32.9%	32.3%	31.9%	31.5%	30.8%	28.5%	25.9%	23.4%	21.7%	20.8%	19.7%	18.4%
<b>Other Makes</b>	3.0%	3.2%	3.5%	3.8%	4.1%	4.4%	4.9%	5.5%	6.5%	8.0%	9.3%	10.8%	11.9%	12.6%	13.5%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**Class 5 & 7 (Gasoline)**

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	47.2%	48.5%	49.3%	49.5%	49.2%	48.4%	46.3%	42.6%	39.3%	39.6%	40.0%	40.5%	40.9%	40.9%	40.7%
<b>Ford</b>	29.6%	30.8%	31.4%	31.9%	32.7%	33.5%	34.5%	37.0%	39.7%	39.9%	40.2%	40.3%	40.3%	40.3%	40.4%
<b>GM</b>	15.8%	13.6%	12.3%	11.9%	11.7%	12.0%	13.0%	14.1%	15.2%	14.9%	14.5%	14.1%	13.9%	14.0%	14.1%
<b>Industry</b>	7.4%	7.2%	7.0%	6.8%	6.5%	6.1%	6.2%	6.2%	5.9%	5.6%	5.3%	5.1%	4.9%	4.8%	4.8%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**Vehicle Population in the Rest of Mexico (excluding ZMVM)  
By Vehicle Make**

Total

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Chrysler</b>	17.4%	17.9%	18.4%	18.7%	18.9%	19.0%	19.3%	19.6%	19.6%	19.7%	20.0%	19.9%	19.7%	19.9%	20.0%
<b>Ford</b>	18.9%	18.9%	19.0%	18.8%	18.6%	18.7%	18.9%	19.1%	19.1%	19.1%	19.4%	19.3%	19.3%	19.5%	19.6%
<b>GM</b>	20.8%	20.0%	19.0%	18.0%	17.2%	16.9%	16.5%	16.1%	15.6%	15.1%	14.5%	14.0%	13.7%	13.4%	13.2%
<b>Honda</b>	0.5%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Jeep</b>	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.9%	1.0%	1.2%	1.3%	1.3%	1.4%	1.4%
<b>Nissan</b>	19.0%	18.7%	18.3%	18.2%	18.2%	18.0%	17.5%	17.1%	16.5%	16.1%	15.3%	14.5%	13.6%	12.6%	11.9%
<b>Rambler</b>	0.7%	0.8%	0.9%	1.0%	1.1%	1.2%	1.3%	1.5%	1.7%	2.0%	2.3%	2.5%	2.8%	3.0%	3.3%
<b>Renault</b>	1.2%	1.4%	1.5%	1.7%	1.8%	1.9%	2.2%	2.4%	2.8%	3.3%	3.7%	4.2%	4.6%	4.9%	5.1%
<b>VW</b>	19.1%	19.6%	20.2%	21.0%	21.5%	21.7%	21.5%	21.0%	21.1%	20.8%	20.4%	20.7%	21.1%	21.2%	21.3%
<b>Other Makes</b>	1.7%	1.7%	1.8%	1.8%	1.9%	1.9%	2.1%	2.4%	2.6%	2.9%	3.3%	3.6%	3.9%	4.0%	4.2%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Total

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
<b>Cars</b>	55.5%	55.5%	55.7%	56.3%	57.0%	57.5%	57.3%	57.0%	56.9%	57.0%	57.0%	57.5%	58.0%	58.7%	59.5%
<b>Van/Wgn</b>	9.0%	8.4%	7.7%	7.0%	6.4%	6.3%	6.0%	5.6%	5.2%	4.9%	4.6%	4.2%	3.9%	3.6%	3.4%
<b>Pickup</b>	27.0%	27.2%	27.3%	27.1%	26.8%	26.4%	26.6%	27.0%	27.4%	27.6%	27.5%	27.1%	26.4%	25.6%	24.7%
<b>Class 3</b>	7.4%	7.7%	8.1%	8.2%	8.2%	8.2%	8.3%	8.5%	8.3%	7.8%	7.7%	7.5%	7.5%	7.5%	7.4%
<b>Class 5 &amp; 7 (Gas)</b>	1.1%	1.2%	1.3%	1.4%	1.5%	1.6%	1.7%	1.9%	2.2%	2.7%	3.2%	3.7%	4.2%	4.6%	4.9%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Vehicle Population in the Republic of Mexico By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Cars

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999	1,043,069	2,936,568	597,786	40,334					4,617,757
1998	943,499	2,826,450	597,615	43,081					4,410,645
1997	864,288	2,709,710	603,892	46,159					4,224,048
1996	821,852	2,662,053	617,455	49,523					4,150,882
1995	809,141	2,668,527	632,604	53,186					4,163,459
1994	827,713	2,701,321	657,799	57,183					4,244,017
1993	763,527	2,519,925	670,546	61,464					4,015,462
1992	697,129	2,334,148	698,208	66,367					3,795,853
1991	643,478	2,090,908	721,702	71,732					3,527,820
1990	590,908	1,893,033	754,461	77,600					3,316,003
1989	541,917	1,726,322	793,135	84,017					3,145,390
1988	545,382	1,577,711	834,293	91,032					3,048,418
1987	561,983	1,470,671	881,834	98,699					3,013,186
1986	580,807	1,404,943	939,295	107,077					3,032,122
1985	598,619	1,325,305	994,424	116,230					3,034,578

### Van/Wgn

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999		180,395	200,648	258,196	712				639,950
1998		182,478	157,639	235,489	254				575,859
1997		185,696	117,467	209,524	0				512,688
1996		189,896	88,970	184,960	0				463,827
1995		195,537	68,721	165,498	0				429,757
1994		201,730	63,484	156,033	0				421,247
1993		196,642	46,570	141,372	0				384,585
1992		191,992	31,360	121,507	0				344,860
1991		186,667	23,300	97,629	0				307,595
1990		182,154	17,951	77,458	0				277,563
1989		179,182	11,955	60,857	0				251,994
1988		176,810	6,720	45,622	0				229,152
1987		175,614	2,903	35,592	0				214,109
1986		174,523	0	28,123	0				202,645
1985		168,246	0	24,891	0				193,138

## Vehicle Population in the Republic of Mexico By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Pickup

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999	15,056	446,688	1,082,169	7,254		4,473			1,555,640
1998	6,308	419,014	1,066,119	7,669		4,647			1,503,757
1997	3,072	387,339	1,044,611	8,112		4,835			1,447,969
1996	3,246	361,395	1,023,410	8,585		5,037			1,401,672
1995	3,432	347,886	1,013,018	9,090		5,253			1,378,678
1994	3,630	339,380	1,027,103	9,628		5,486			1,385,228
1993	3,842	314,969	996,507	10,204		5,736			1,331,258
1992	4,069	288,207	973,646	10,815		6,004			1,282,741
1991	4,310	255,783	934,222	11,450		6,291			1,212,056
1990	4,568	225,049	893,839	12,100		6,599			1,142,155
1989	4,843	202,118	855,761	12,756		6,929			1,082,406
1988	5,136	186,856	813,997	13,431		7,282			1,026,702
1987	5,449	169,525	782,293	14,045		7,659			978,972
1986	5,783	154,804	768,128	14,564		8,064			951,344
1985	6,139	140,650	747,680	14,778		8,496			917,743

### Class 3

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999			273,146	204,782					477,929
1998			279,344	199,182					478,526
1997			285,718	193,162					478,879
1996			287,858	190,359					478,217
1995			291,077	191,537					482,615
1994			296,837	195,080					491,917
1993			289,267	186,859					476,126
1992			282,210	178,388					460,597
1991			252,903	159,480					412,383
1990			217,248	140,003					357,251
1989			192,756	132,497					325,253
1988			178,447	124,878					303,325
1987			172,138	122,361					294,499
1986			170,033	122,658					292,691
1985			164,759	121,452					286,212

## Vehicle Population in the Republic of Mexico By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Class 5 & 7 (Gasoline)

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999			5,079		768	60,077	21,740	222	87,887
1998			5,377		793	65,370	20,007	222	91,769
1997			5,377		822	71,346	18,638	0	96,182
1996			5,377		856	77,702	17,560	0	101,495
1995			5,377		896	84,828	17,123	0	108,224
1994			5,377		942	93,116	17,534	0	116,970
1993			5,377		996	98,063	16,699	0	121,134
1992			5,377		1,057	104,079	18,685	0	129,198
1991			0		1,128	115,988	20,701	0	137,818
1990			0		1,209	128,663	22,593	0	152,466
1989			0		1,302	142,281	24,511	0	168,094
1988			0		1,408	156,535	26,536	0	184,480
1987			0		1,529	169,927	28,626	0	200,081
1986			0		1,666	181,440	30,747	0	213,853
1985			0		1,822	191,585	32,873	0	226,280

### Total

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999	1,058,126	3,563,651	2,158,829	510,565	1,480	64,550	21,740	222	7,379,164
1998	949,807	3,427,941	2,106,095	485,421	1,047	70,018	20,007	222	7,060,557
1997	867,360	3,282,745	2,057,065	456,956	822	76,181	18,638	0	6,759,766
1996	825,098	3,213,344	2,023,071	433,427	856	82,738	17,560	0	6,596,094
1995	812,573	3,211,950	2,010,797	419,312	896	90,081	17,123	0	6,562,732
1994	831,343	3,242,431	2,050,600	417,925	942	98,603	17,534	0	6,659,379
1993	767,369	3,031,536	2,008,267	399,899	996	103,799	16,699	0	6,328,565
1992	701,198	2,814,348	1,990,801	377,077	1,057	110,083	18,685	0	6,013,249
1991	647,788	2,533,357	1,932,127	340,291	1,128	122,279	20,701	0	5,597,673
1990	595,476	2,300,236	1,883,499	307,161	1,209	135,262	22,593	0	5,245,438
1989	546,760	2,107,621	1,853,606	290,127	1,302	149,210	24,511	0	4,973,137
1988	550,518	1,941,378	1,833,457	274,964	1,408	163,817	26,536	0	4,792,078
1987	567,432	1,815,810	1,839,167	270,697	1,529	177,586	28,626	0	4,700,846
1986	586,590	1,734,270	1,877,457	272,422	1,666	189,504	30,747	0	4,692,656
1985	604,759	1,634,201	1,906,863	277,351	1,822	200,081	32,873	0	4,657,949

# Vehicle Population in the Republic of Mexico By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

**Cars**

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	22.6%	63.6%	12.9%	0.9%					62.6%
1998	21.4%	64.1%	13.5%	1.0%					62.5%
1997	20.5%	64.1%	14.3%	1.1%					62.5%
1996	19.8%	64.1%	14.9%	1.2%					62.9%
1995	19.4%	64.1%	15.2%	1.3%					63.4%
1994	19.5%	63.7%	15.5%	1.3%					63.7%
1993	19.0%	62.8%	16.7%	1.5%					63.4%
1992	18.4%	61.5%	18.4%	1.7%					63.1%
1991	18.2%	59.3%	20.5%	2.0%					63.0%
1990	17.8%	57.1%	22.8%	2.3%					63.2%
1989	17.2%	54.9%	25.2%	2.7%					63.2%
1988	17.9%	51.8%	27.4%	3.0%					63.6%
1987	18.7%	48.8%	29.3%	3.3%					64.1%
1986	19.2%	46.3%	31.0%	3.5%					64.6%
1985	19.7%	43.7%	32.8%	3.8%					65.1%

**Van/Wgn**

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	0.0%	28.2%	31.4%	40.3%	0.1%				8.7%
1998	0.0%	31.7%	27.4%	40.9%	0.0%				8.2%
1997	0.0%	36.2%	22.9%	40.9%	0.0%				7.6%
1996	0.0%	40.9%	19.2%	39.9%	0.0%				7.0%
1995	0.0%	45.5%	16.0%	38.5%	0.0%				6.5%
1994	0.0%	47.9%	15.1%	37.0%	0.0%				6.3%
1993	0.0%	51.1%	12.1%	36.8%	0.0%				6.1%
1992	0.0%	55.7%	9.1%	35.2%	0.0%				5.7%
1991	0.0%	60.7%	7.6%	31.7%	0.0%				5.5%
1990	0.0%	65.6%	6.5%	27.9%	0.0%				5.3%
1989	0.0%	71.1%	4.7%	24.2%	0.0%				5.1%
1988	0.0%	77.2%	2.9%	19.9%	0.0%				4.8%
1987	0.0%	82.0%	1.4%	16.6%	0.0%				4.6%
1986	0.0%	86.1%	0.0%	13.9%	0.0%				4.3%
1985	0.0%	87.1%	0.0%	12.9%	0.0%				4.1%



# Vehicle Population in the Republic of Mexico By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

## Pickup

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	1.0%	28.7%	69.6%	0.5%					21.1%
1998	0.4%	27.9%	70.9%	0.5%					21.3%
1997	0.2%	26.8%	72.1%	0.6%					21.4%
1996	0.2%	25.8%	73.0%	0.6%					21.3%
1995	0.2%	25.2%	73.5%	0.7%					21.0%
1994	0.3%	24.5%	74.1%	0.7%					20.8%
1993	0.3%	23.7%	74.9%	0.8%					21.0%
1992	0.3%	22.5%	75.9%	0.8%					21.3%
1991	0.4%	21.1%	77.1%	0.9%					21.7%
1990	0.4%	19.7%	78.3%	1.1%					21.8%
1989	0.4%	18.7%	79.1%	1.2%					21.8%
1988	0.5%	18.2%	79.3%	1.3%					21.4%
1987	0.6%	17.3%	79.9%	1.4%					20.8%
1986	0.6%	16.3%	80.7%	1.5%					20.3%
1985	0.7%	15.3%	81.5%	1.6%					19.7%

## Class 3

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999			57.2%	42.8%					6.5%
1998			58.4%	41.6%					6.8%
1997			59.7%	40.3%					7.1%
1996			60.2%	39.8%					7.3%
1995			60.3%	39.7%					7.4%
1994			60.3%	39.7%					7.4%
1993			60.8%	39.2%					7.5%
1992			61.3%	38.7%					7.7%
1991			61.3%	38.7%					7.4%
1990			60.8%	39.2%					6.8%
1989			59.3%	40.7%					6.5%
1988			58.8%	41.2%					6.3%
1987			58.5%	41.5%					6.3%
1986			58.1%	41.9%					6.2%
1985			57.6%	42.4%					6.1%

## Class 5 & 7 (Gasoline)

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	

## Vehicle Population in the Republic of Mexico By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

1999			5.8%		0.9%	68.4%	24.7%	0.3%	1.2%
1998			5.9%		0.9%	71.2%	21.8%	0.2%	1.3%
1997			5.6%		0.9%	74.2%	19.4%	0.0%	1.4%
1996			5.3%		0.8%	76.6%	17.3%	0.0%	1.5%
1995			5.0%		0.8%	78.4%	15.8%	0.0%	1.6%
1994			4.6%		0.8%	79.6%	15.0%	0.0%	1.8%
1993			4.4%		0.8%	81.0%	13.8%	0.0%	1.9%
1992			4.2%		0.8%	80.6%	14.5%	0.0%	2.1%
1991			0.0%		0.8%	84.2%	15.0%	0.0%	2.5%
1990			0.0%		0.8%	84.4%	14.8%	0.0%	2.9%
1989			0.0%		0.8%	84.6%	14.6%	0.0%	3.4%
1988			0.0%		0.8%	84.9%	14.4%	0.0%	3.8%
1987			0.0%		0.8%	84.9%	14.3%	0.0%	4.3%
1986			0.0%		0.8%	84.8%	14.4%	0.0%	4.6%
1985			0.0%		0.8%	84.7%	14.5%	0.0%	4.9%

Total

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	14.3%	48.3%	29.3%	6.9%	0.0%	0.9%	0.3%	0.0%	100.0%
1998	13.5%	48.6%	29.8%	6.9%	0.0%	1.0%	0.3%	0.0%	100.0%
1997	12.8%	48.6%	30.4%	6.8%	0.0%	1.1%	0.3%	0.0%	100.0%
1996	12.5%	48.7%	30.7%	6.6%	0.0%	1.3%	0.3%	0.0%	100.0%
1995	12.4%	48.9%	30.6%	6.4%	0.0%	1.4%	0.3%	0.0%	100.0%
1994	12.5%	48.7%	30.8%	6.3%	0.0%	1.5%	0.3%	0.0%	100.0%
1993	12.1%	47.9%	31.7%	6.3%	0.0%	1.6%	0.3%	0.0%	100.0%
1992	11.7%	46.8%	33.1%	6.3%	0.0%	1.8%	0.3%	0.0%	100.0%
1991	11.6%	45.3%	34.5%	6.1%	0.0%	2.2%	0.4%	0.0%	100.0%
1990	11.4%	43.9%	35.9%	5.9%	0.0%	2.6%	0.4%	0.0%	100.0%
1989	11.0%	42.4%	37.3%	5.8%	0.0%	3.0%	0.5%	0.0%	100.0%
1988	11.5%	40.5%	38.3%	5.7%	0.0%	3.4%	0.6%	0.0%	100.0%
1987	12.1%	38.6%	39.1%	5.8%	0.0%	3.8%	0.6%	0.0%	100.0%
1986	12.5%	37.0%	40.0%	5.8%	0.0%	4.0%	0.7%	0.0%	100.0%
1985	13.0%	35.1%	40.9%	6.0%	0.0%	4.3%	0.7%	0.0%	100.0%

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Cars

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999	492,750	1,403,377	270,379	16,750					2,183,256
1998	445,333	1,350,705	270,967	18,214					2,085,219
1997	407,755	1,295,330	274,943	19,846					1,997,875
1996	387,556	1,271,033	282,225	21,622					1,962,436
1995	380,710	1,271,474	290,117	23,548					1,965,849
1994	387,196	1,276,029	301,090	25,633					1,989,947
1993	356,530	1,186,930	307,905	27,873					1,879,238
1992	325,521	1,096,936	322,124	30,423					1,775,004
1991	302,472	988,707	334,971	33,206					1,659,357
1990	278,253	894,437	351,762	36,244					1,560,697
1989	257,333	818,297	371,594	39,559					1,486,783
1988	260,136	751,225	392,816	43,178					1,447,356
1987	268,680	699,675	416,447	47,128					1,431,929
1986	277,169	660,860	443,861	51,439					1,433,329
1985	285,145	615,198	467,994	56,145					1,424,481

### Van/Wgn

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999		76,050	72,245	96,861	244				245,400
1998		78,089	57,513	89,437	87				225,127
1997		80,550	43,763	80,806	0				205,120
1996		83,506	34,527	73,143	0				191,176
1995		87,026	27,695	66,856	0				181,577
1994		90,388	24,610	61,216	0				176,214
1993		88,818	16,708	54,486	0				160,012
1992		88,912	11,364	47,781	0				148,058
1991		88,455	8,410	39,264	0				136,129
1990		87,815	6,212	31,160	0				125,188
1989		88,389	4,045	25,422	0				117,856
1988		89,373	2,409	20,904	0				112,686
1987		90,113	1,065	17,488	0				108,666
1986		90,599	0	14,832	0				105,431
1985		87,611	0	13,216	0				100,827

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Pickup

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999	3,320	106,956	256,440	1,640		767			369,122
1998	1,373	101,679	255,867	1,765		839			361,523
1997	746	96,507	255,607	1,900		916			355,676
1996	803	91,724	254,238	2,046		997			349,807
1995	865	88,712	253,350	2,203		1,082			346,212
1994	931	86,738	258,455	2,371		1,173			349,669
1993	1,003	81,087	252,838	2,553		1,269			338,749
1992	1,079	73,198	246,501	2,747		1,220			324,746
1991	1,162	66,148	239,916	2,951		1,364			311,541
1990	1,251	57,844	229,917	3,162		1,469			293,643
1989	1,347	52,524	222,537	3,376		1,572			281,355
1988	1,450	49,295	214,952	3,597		1,685			270,979
1987	1,561	44,900	207,955	3,797		1,817			260,030
1986	1,680	41,372	206,043	3,973		1,985			255,054
1985	1,809	38,148	202,802	4,072		2,162			248,993

### Class 3

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999			88,086	65,418					153,503
1998			90,316	63,670					153,986
1997			93,620	63,075					156,695
1996			96,612	63,957					160,569
1995			100,114	65,832					165,947
1994			103,306	67,526					170,832
1993			101,206	64,799					166,005
1992			98,779	61,844					160,623
1991			86,738	53,939					140,677
1990			70,972	45,115					116,087
1989			59,674	41,254					100,927
1988			54,829	38,649					93,479
1987			51,980	37,392					89,373
1986			50,320	37,099					87,420
1985			49,141	37,117					86,258

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Class 5 & 7 (Gasoline)

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999			1,189		167	28,135	11,414	85	40,990
1998			1,189		188	30,820	10,565	85	42,847
1997			1,189		211	33,796	10,167	0	45,363
1996			1,189		235	36,896	9,586	0	47,907
1995			1,189		262	40,237	9,049	0	50,737
1994			1,189		291	43,944	8,394	0	53,817
1993			1,189		323	46,736	8,272	0	56,520
1992			1,189		336	50,063	8,954	0	60,542
1991			0		376	54,953	9,658	0	64,986
1990			0		414	59,886	10,387	0	70,688
1989			0		456	64,423	11,132	0	76,012
1988			0		502	68,332	11,886	0	80,720
1987			0		556	71,822	12,635	0	85,013
1986			0		619	75,182	13,370	0	89,171
1985			0		689	78,511	14,114	0	93,315

### Total

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999	496,071	1,586,382	688,338	180,668	411	28,902	11,414	85	2,992,272
1998	446,706	1,530,472	675,852	173,087	275	31,659	10,565	85	2,868,700
1997	408,501	1,472,388	669,122	165,628	211	34,711	10,167	0	2,760,728
1996	388,359	1,446,263	668,791	160,767	235	37,893	9,586	0	2,711,895
1995	381,575	1,447,213	672,465	158,440	262	41,319	9,049	0	2,710,323
1994	388,127	1,453,155	688,650	156,747	291	45,116	8,394	0	2,740,479
1993	357,533	1,356,835	679,845	149,711	323	48,005	8,272	0	2,600,523
1992	326,600	1,259,047	679,957	142,796	336	51,283	8,954	0	2,468,973
1991	303,634	1,143,311	670,034	129,360	376	56,317	9,658	0	2,312,690
1990	279,504	1,040,097	658,864	115,680	414	61,355	10,387	0	2,166,302
1989	258,679	959,210	657,849	109,611	456	65,995	11,132	0	2,062,933
1988	261,586	889,893	665,007	106,328	502	70,017	11,886	0	2,005,219
1987	270,240	834,687	677,447	105,806	556	73,639	12,635	0	1,975,010
1986	278,849	792,832	700,224	107,343	619	77,167	13,370	0	1,970,405
1985	286,954	740,957	719,936	110,550	689	80,673	14,114	0	1,953,874

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Cars

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	22.6%	64.3%	12.4%	0.8%					73.0%
1998	21.4%	64.8%	13.0%	0.9%					72.7%
1997	20.4%	64.8%	13.8%	1.0%					72.4%
1996	19.7%	64.8%	14.4%	1.1%					72.4%
1995	19.4%	64.7%	14.8%	1.2%					72.5%
1994	19.5%	64.1%	15.1%	1.3%					72.6%
1993	19.0%	63.2%	16.4%	1.5%					72.3%
1992	18.3%	61.8%	18.1%	1.7%					71.9%
1991	18.2%	59.6%	20.2%	2.0%					71.8%
1990	17.8%	57.3%	22.5%	2.3%					72.0%
1989	17.3%	55.0%	25.0%	2.7%					72.1%
1988	18.0%	51.9%	27.1%	3.0%					72.2%
1987	18.8%	48.9%	29.1%	3.3%					72.5%
1986	19.3%	46.1%	31.0%	3.6%					72.7%
1985	20.0%	43.2%	32.9%	3.9%					72.9%

### Van/Wgn

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	0.0%	31.0%	29.4%	39.5%	0.1%				8.2%
1998	0.0%	34.7%	25.5%	39.7%	0.0%				7.8%
1997	0.0%	39.3%	21.3%	39.4%	0.0%				7.4%
1996	0.0%	43.7%	18.1%	38.3%	0.0%				7.0%
1995	0.0%	47.9%	15.3%	36.8%	0.0%				6.7%
1994	0.0%	51.3%	14.0%	34.7%	0.0%				6.4%
1993	0.0%	55.5%	10.4%	34.1%	0.0%				6.2%
1992	0.0%	60.1%	7.7%	32.3%	0.0%				6.0%
1991	0.0%	65.0%	6.2%	28.8%	0.0%				5.9%
1990	0.0%	70.1%	5.0%	24.9%	0.0%				5.8%
1989	0.0%	75.0%	3.4%	21.6%	0.0%				5.7%
1988	0.0%	79.3%	2.1%	18.6%	0.0%				5.6%
1987	0.0%	82.9%	1.0%	16.1%	0.0%				5.5%
1986	0.0%	85.9%	0.0%	14.1%	0.0%				5.4%
1985	0.0%	86.9%	0.0%	13.1%	0.0%				5.2%

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Pickup

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	0.9%	29.0%	69.5%	0.4%					12.3%
1998	0.4%	28.1%	70.8%	0.5%					12.6%
1997	0.2%	27.1%	71.9%	0.5%					12.9%
1996	0.2%	26.2%	72.7%	0.6%					12.9%
1995	0.2%	25.6%	73.2%	0.6%					12.8%
1994	0.3%	24.8%	73.9%	0.7%					12.8%
1993	0.3%	23.9%	74.6%	0.8%					13.0%
1992	0.3%	22.5%	75.9%	0.8%					13.2%
1991	0.4%	21.2%	77.0%	0.9%					13.5%
1990	0.4%	19.7%	78.3%	1.1%					13.6%
1989	0.5%	18.7%	79.1%	1.2%					13.6%
1988	0.5%	18.2%	79.3%	1.3%					13.5%
1987	0.6%	17.3%	80.0%	1.5%					13.2%
1986	0.7%	16.2%	80.8%	1.6%					12.9%
1985	0.7%	15.3%	81.4%	1.6%					12.7%

### Class 3

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999			57.4%	42.6%					5.1%
1998			58.7%	41.3%					5.4%
1997			59.7%	40.3%					5.7%
1996			60.2%	39.8%					5.9%
1995			60.3%	39.7%					6.1%
1994			60.5%	39.5%					6.2%
1993			61.0%	39.0%					6.4%
1992			61.5%	38.5%					6.5%
1991			61.7%	38.3%					6.1%
1990			61.1%	38.9%					5.4%
1989			59.1%	40.9%					4.9%
1988			58.7%	41.3%					4.7%
1987			58.2%	41.8%					4.5%
1986			57.6%	42.4%					4.4%
1985			57.0%	43.0%					4.4%

### Class 5 & 7 (Gasoline)

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	

## Vehicle Population in the Mexico City Metropolitan Area By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

1999			2.9%		0.4%	68.6%	27.8%	0.2%	1.4%
1998			2.8%		0.4%	71.9%	24.7%	0.2%	1.5%
1997			2.6%		0.5%	74.5%	22.4%	0.0%	1.6%
1996			2.5%		0.5%	77.0%	20.0%	0.0%	1.8%
1995			2.3%		0.5%	79.3%	17.8%	0.0%	1.9%
1994			2.2%		0.5%	81.7%	15.6%	0.0%	2.0%
1993			2.1%		0.6%	82.7%	14.6%	0.0%	2.2%
1992			2.0%		0.6%	82.7%	14.8%	0.0%	2.5%
1991			0.0%		0.6%	84.6%	14.9%	0.0%	2.8%
1990			0.0%		0.6%	84.7%	14.7%	0.0%	3.3%
1989			0.0%		0.6%	84.8%	14.6%	0.0%	3.7%
1988			0.0%		0.6%	84.7%	14.7%	0.0%	4.0%
1987			0.0%		0.7%	84.5%	14.9%	0.0%	4.3%
1986			0.0%		0.7%	84.3%	15.0%	0.0%	4.5%
1985			0.0%		0.7%	84.1%	15.1%	0.0%	4.8%

Total

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	16.6%	53.0%	23.0%	6.0%	0.0%	1.0%	0.4%	0.0%	100.0%
1998	15.6%	53.4%	23.6%	6.0%	0.0%	1.1%	0.4%	0.0%	100.0%
1997	14.8%	53.3%	24.2%	6.0%	0.0%	1.3%	0.4%	0.0%	100.0%
1996	14.3%	53.3%	24.7%	5.9%	0.0%	1.4%	0.4%	0.0%	100.0%
1995	14.1%	53.4%	24.8%	5.8%	0.0%	1.5%	0.3%	0.0%	100.0%
1994	14.2%	53.0%	25.1%	5.7%	0.0%	1.6%	0.3%	0.0%	100.0%
1993	13.7%	52.2%	26.1%	5.8%	0.0%	1.8%	0.3%	0.0%	100.0%
1992	13.2%	51.0%	27.5%	5.8%	0.0%	2.1%	0.4%	0.0%	100.0%
1991	13.1%	49.4%	29.0%	5.6%	0.0%	2.4%	0.4%	0.0%	100.0%
1990	12.9%	48.0%	30.4%	5.3%	0.0%	2.8%	0.5%	0.0%	100.0%
1989	12.5%	46.5%	31.9%	5.3%	0.0%	3.2%	0.5%	0.0%	100.0%
1988	13.0%	44.4%	33.2%	5.3%	0.0%	3.5%	0.6%	0.0%	100.0%
1987	13.7%	42.3%	34.3%	5.4%	0.0%	3.7%	0.6%	0.0%	100.0%
1986	14.2%	40.2%	35.5%	5.4%	0.0%	3.9%	0.7%	0.0%	100.0%
1985	14.7%	37.9%	36.8%	5.7%	0.0%	4.1%	0.7%	0.0%	100.0%



## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Cars

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999	550,319	1,533,192	327,407	23,583					2,434,501
1998	498,166	1,475,745	326,649	24,867					2,325,427
1997	456,533	1,414,379	328,948	26,313					2,226,174
1996	434,296	1,391,019	335,230	27,901					2,188,446
1995	428,431	1,397,053	342,487	29,638					2,197,609
1994	440,517	1,425,293	356,710	31,550					2,254,070
1993	406,997	1,332,995	362,641	33,591					2,136,224
1992	371,608	1,237,212	376,084	35,944					2,020,849
1991	341,006	1,102,201	386,731	38,526					1,868,463
1990	312,655	998,596	402,699	41,356					1,755,307
1989	284,584	908,025	421,541	44,458					1,658,607
1988	285,245	826,486	441,477	47,854					1,601,062
1987	293,303	770,996	465,387	51,571					1,581,257
1986	303,638	744,083	495,434	55,637					1,598,793
1985	313,474	710,107	526,430	60,084					1,610,096

### Van/Wgn

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999		104,345	128,404	161,335	468				394,551
1998		104,389	100,126	146,051	167				350,733
1997		105,146	73,704	128,718	0				307,568
1996		106,391	54,443	111,818	0				272,651
1995		108,511	41,027	98,642	0				248,180
1994		111,342	38,874	94,817	0				245,033
1993		107,824	29,862	86,886	0				224,572
1992		103,080	19,996	73,726	0				196,802
1991		98,212	14,890	58,365	0				171,466
1990		94,339	11,739	46,298	0				152,375
1989		90,793	7,910	35,435	0				134,138
1988		87,438	4,311	24,718	0				116,467
1987		85,501	1,838	18,104	0				105,443
1986		83,923	0	13,291	0				97,214
1985		80,635	0	11,675	0				92,310

## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Pickup

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999	11,736	339,732	825,730	5,614			3,706		1,186,518
1998	4,935	317,335	810,252	5,903			3,808		1,142,234
1997	2,325	290,832	789,005	6,211			3,919		1,092,292
1996	2,442	269,671	769,172	6,539			4,040		1,051,865
1995	2,567	259,174	759,667	6,887			4,171		1,032,466
1994	2,699	252,642	768,648	7,257			4,313		1,035,559
1993	2,840	233,882	743,669	7,651			4,467		992,509
1992	2,989	215,009	727,145	8,068			4,784		957,995
1991	3,148	189,635	694,307	8,499			4,927		900,516
1990	3,317	167,205	663,922	8,939			5,130		848,512
1989	3,496	149,594	633,224	9,380			5,356		801,051
1988	3,687	137,561	599,044	9,834			5,597		755,723
1987	3,889	124,626	574,338	10,247			5,842		718,942
1986	4,103	113,432	562,086	10,591			6,078		696,290
1985	4,330	102,502	544,878	10,706			6,334		668,750

### Class 3

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999			185,060	139,365					324,425
1998			189,028	135,512					324,541
1997			192,098	130,087					322,185
1996			191,246	126,402					317,648
1995			190,963	125,705					316,668
1994			193,531	127,554					321,085
1993			188,061	122,060					310,121
1992			183,431	116,543					299,974
1991			166,165	105,541					271,706
1990			146,275	94,888					241,164
1989			133,082	91,244					224,326
1988			123,618	86,229					209,847
1987			120,157	84,969					205,126
1986			119,713	85,559					205,272
1985			115,619	84,335					199,953

## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Class 5 & 7 (Gasoline)

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999			3,890		601	31,942	10,326	137	46,897
1998			4,188		605	34,551	9,442	137	48,922
1997			4,188		611	37,550	8,470	0	50,820
1996			4,188		621	40,805	7,973	0	53,588
1995			4,188		634	44,591	8,074	0	57,487
1994			4,188		651	49,173	9,140	0	63,153
1993			4,188		673	51,327	8,427	0	64,615
1992			4,188		722	54,016	9,731	0	68,656
1991			0		753	61,035	11,044	0	72,832
1990			0		795	68,777	12,206	0	81,778
1989			0		846	77,858	13,378	0	92,082
1988			0		906	88,203	14,651	0	103,760
1987			0		973	98,105	15,991	0	115,068
1986			0		1,047	106,258	17,377	0	124,682
1985			0		1,133	113,074	18,758	0	132,965

### Total

	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	Total
1999	562,055	1,977,269	1,470,491	329,897	1,069	35,648	10,326	137	4,386,892
1998	503,101	1,897,469	1,430,243	312,334	772	38,359	9,442	137	4,191,856
1997	458,858	1,810,357	1,387,943	291,329	611	41,469	8,470	0	3,999,039
1996	436,738	1,767,081	1,354,279	272,659	621	44,845	7,973	0	3,884,198
1995	430,998	1,764,737	1,338,332	260,872	634	48,762	8,074	0	3,852,409
1994	443,216	1,789,276	1,361,951	261,178	651	53,486	9,140	0	3,918,900
1993	409,837	1,674,701	1,328,421	250,188	673	55,794	8,427	0	3,728,041
1992	374,598	1,555,302	1,310,844	234,281	722	58,799	9,731	0	3,544,276
1991	344,154	1,390,047	1,262,093	210,931	753	65,962	11,044	0	3,284,983
1990	315,972	1,260,139	1,224,635	191,481	795	73,907	12,206	0	3,079,136
1989	288,080	1,148,411	1,195,757	180,516	846	83,214	13,378	0	2,910,204
1988	288,932	1,051,485	1,168,450	168,635	906	93,800	14,651	0	2,786,859
1987	297,192	981,122	1,161,721	164,891	973	103,947	15,991	0	2,725,836
1986	307,741	941,439	1,177,232	165,078	1,047	112,337	17,377	0	2,722,251
1985	317,805	893,244	1,186,927	166,801	1,133	119,408	18,758	0	2,704,075

## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Cars

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	22.6%	63.0%	13.4%	1.0%					55.5%
1998	21.4%	63.5%	14.0%	1.1%					55.5%
1997	20.5%	63.5%	14.8%	1.2%					55.7%
1996	19.8%	63.6%	15.3%	1.3%					56.3%
1995	19.5%	63.6%	15.6%	1.3%					57.0%
1994	19.5%	63.2%	15.8%	1.4%					57.5%
1993	19.1%	62.4%	17.0%	1.6%					57.3%
1992	18.4%	61.2%	18.6%	1.8%					57.0%
1991	18.3%	59.0%	20.7%	2.1%					56.9%
1990	17.8%	56.9%	22.9%	2.4%					57.0%
1989	17.2%	54.7%	25.4%	2.7%					57.0%
1988	17.8%	51.6%	27.6%	3.0%					57.5%
1987	18.5%	48.8%	29.4%	3.3%					58.0%
1986	19.0%	46.5%	31.0%	3.5%					58.7%
1985	19.5%	44.1%	32.7%	3.7%					59.5%

### Van/Wgn

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	0.0%	26.4%	32.5%	40.9%	0.1%				9.0%
1998	0.0%	29.8%	28.5%	41.6%	0.0%				8.4%
1997	0.0%	34.2%	24.0%	41.9%	0.0%				7.7%
1996	0.0%	39.0%	20.0%	41.0%	0.0%				7.0%
1995	0.0%	43.7%	16.5%	39.7%	0.0%				6.4%
1994	0.0%	45.4%	15.9%	38.7%	0.0%				6.3%
1993	0.0%	48.0%	13.3%	38.7%	0.0%				6.0%
1992	0.0%	52.4%	10.2%	37.5%	0.0%				5.6%
1991	0.0%	57.3%	8.7%	34.0%	0.0%				5.2%
1990	0.0%	61.9%	7.7%	30.4%	0.0%				4.9%
1989	0.0%	67.7%	5.9%	26.4%	0.0%				4.6%
1988	0.0%	75.1%	3.7%	21.2%	0.0%				4.2%
1987	0.0%	81.1%	1.7%	17.2%	0.0%				3.9%
1986	0.0%	86.3%	0.0%	13.7%	0.0%				3.6%
1985	0.0%	87.4%	0.0%	12.6%	0.0%				3.4%

## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

### Pickup

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	1.0%	28.6%	69.6%	0.5%					27.0%
1998	0.4%	27.8%	70.9%	0.5%					27.2%
1997	0.2%	26.6%	72.2%	0.6%					27.3%
1996	0.2%	25.6%	73.1%	0.6%					27.1%
1995	0.2%	25.1%	73.6%	0.7%					26.8%
1994	0.3%	24.4%	74.2%	0.7%					26.4%
1993	0.3%	23.6%	74.9%	0.8%					26.6%
1992	0.3%	22.4%	75.9%	0.8%					27.0%
1991	0.3%	21.1%	77.1%	0.9%					27.4%
1990	0.4%	19.7%	78.2%	1.1%					27.6%
1989	0.4%	18.7%	79.0%	1.2%					27.5%
1988	0.5%	18.2%	79.3%	1.3%					27.1%
1987	0.5%	17.3%	79.9%	1.4%					26.4%
1986	0.6%	16.3%	80.7%	1.5%					25.6%
1985	0.6%	15.3%	81.5%	1.6%					24.7%

### Class 3

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999			57.0%	43.0%					7.4%
1998			58.2%	41.8%					7.7%
1997			59.6%	40.4%					8.1%
1996			60.2%	39.8%					8.2%
1995			60.3%	39.7%					8.2%
1994			60.3%	39.7%					8.2%
1993			60.6%	39.4%					8.3%
1992			61.1%	38.9%					8.5%
1991			61.2%	38.8%					8.3%
1990			60.7%	39.3%					7.8%
1989			59.3%	40.7%					7.7%
1988			58.9%	41.1%					7.5%
1987			58.6%	41.4%					7.5%
1986			58.3%	41.7%					7.5%
1985			57.8%	42.2%					7.4%

### Class 5 & 7 (Gasoline)

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	

## Vehicle Population in the Rest of Mexico (excluding ZMVM) By Vehicle Weight

(Weight in kgs of Unladen Vehicle with Driver, Fuel and 50kg)

1999			8.3%		1.3%	68.1%	22.0%	0.3%	1.1%
1998			8.6%		1.2%	70.6%	19.3%	0.3%	1.2%
1997			8.2%		1.2%	73.9%	16.7%	0.0%	1.3%
1996			7.8%		1.2%	76.1%	14.9%	0.0%	1.4%
1995			7.3%		1.1%	77.6%	14.0%	0.0%	1.5%
1994			6.6%		1.0%	77.9%	14.5%	0.0%	1.6%
1993			6.5%		1.0%	79.4%	13.0%	0.0%	1.7%
1992			6.1%		1.1%	78.7%	14.2%	0.0%	1.9%
1991			0.0%		1.0%	83.8%	15.2%	0.0%	2.2%
1990			0.0%		1.0%	84.1%	14.9%	0.0%	2.7%
1989			0.0%		0.9%	84.6%	14.5%	0.0%	3.2%
1988			0.0%		0.9%	85.0%	14.1%	0.0%	3.7%
1987			0.0%		0.8%	85.3%	13.9%	0.0%	4.2%
1986			0.0%		0.8%	85.2%	13.9%	0.0%	4.6%
1985			0.0%		0.9%	85.0%	14.1%	0.0%	4.9%

Total

	Percent of Vehicle type								% of Total
	up to 1000 kg	1,000 - 1,499 kg	1,500 - 1,999 kg	2,000 - 2,499 kg	2,500 - 2,999 kg	3,000 - 3,499 kg	3,500 - 3,999 kg	4,000 kg & over	
1999	12.8%	45.1%	33.5%	7.5%	0.0%	0.8%	0.2%	0.0%	100.0%
1998	12.0%	45.3%	34.1%	7.5%	0.0%	0.9%	0.2%	0.0%	100.0%
1997	11.5%	45.3%	34.7%	7.3%	0.0%	1.0%	0.2%	0.0%	100.0%
1996	11.2%	45.5%	34.9%	7.0%	0.0%	1.2%	0.2%	0.0%	100.0%
1995	11.2%	45.8%	34.7%	6.8%	0.0%	1.3%	0.2%	0.0%	100.0%
1994	11.3%	45.7%	34.8%	6.7%	0.0%	1.4%	0.2%	0.0%	100.0%
1993	11.0%	44.9%	35.6%	6.7%	0.0%	1.5%	0.2%	0.0%	100.0%
1992	10.6%	43.9%	37.0%	6.6%	0.0%	1.7%	0.3%	0.0%	100.0%
1991	10.5%	42.3%	38.4%	6.4%	0.0%	2.0%	0.3%	0.0%	100.0%
1990	10.3%	40.9%	39.8%	6.2%	0.0%	2.4%	0.4%	0.0%	100.0%
1989	9.9%	39.5%	41.1%	6.2%	0.0%	2.9%	0.5%	0.0%	100.0%
1988	10.4%	37.7%	41.9%	6.1%	0.0%	3.4%	0.5%	0.0%	100.0%
1987	10.9%	36.0%	42.6%	6.0%	0.0%	3.8%	0.6%	0.0%	100.0%
1986	11.3%	34.6%	43.2%	6.1%	0.0%	4.1%	0.6%	0.0%	100.0%
1985	11.8%	33.0%	43.9%	6.2%	0.0%	4.4%	0.7%	0.0%	100.0%

## Gasoline Vehicle Population in the Mexico City Metropolitan Area By Vehicle Service

Cars								
	Sample period (Semester)							
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2
<b>Private</b>	82.4%	77.5%	81.2%	83.6%	83.3%	81.4%	79.7%	78.7%
<b>Taxi</b>	5.0%	6.0%	6.4%	5.1%	5.5%	4.0%	4.2%	4.6%
<b>Commercial</b>	12.1%	15.7%	11.9%	10.8%	10.6%	13.9%	15.5%	15.9%
<b>Govt Vehicle</b>	0.5%	0.8%	0.5%	0.5%	0.6%	0.7%	0.7%	0.8%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Pickup								
	Sample period (Semester)							
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2
<b>Private</b>	55.3%	48.1%	54.4%	60.8%	61.9%	59.7%	52.2%	49.8%
<b>Taxi</b>	0.8%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Commercial</b>	27.3%	32.6%	26.4%	21.5%	24.4%	24.2%	34.4%	35.6%
<b>Bus</b>	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.0%
<b>Truck</b>	13.0%	16.0%	15.8%	14.5%	9.9%	12.9%	9.9%	10.2%
<b>Govt Vehicle</b>	3.6%	3.1%	3.2%	3.1%	3.5%	3.1%	3.4%	4.4%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Gasoline Vehicle Population in the Mexico City Metropolitan Area By Vehicle Service

Van/Wgn								
	Sample period (Semester)							
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2
<b>Private</b>	64.9%	53.9%	59.4%	63.7%	67.6%	65.7%	63.2%	65.7%
<b>Taxi</b>	5.1%	6.8%	8.6%	6.2%	3.2%	2.2%	2.0%	2.2%
<b>Commercial</b>	26.0%	34.1%	27.8%	27.0%	25.2%	28.5%	31.5%	28.5%
<b>Bus</b>	0.7%	1.1%	0.9%	0.6%	0.7%	0.5%	0.4%	0.2%
<b>Truck</b>	1.2%	1.7%	1.4%	1.1%	1.0%	0.7%	0.6%	0.3%
<b>Govt Vehicle</b>	2.3%	2.4%	1.9%	1.4%	2.3%	2.4%	2.3%	3.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Class 3								
	Sample period (Semester)							
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2
<b>Private</b>	3.1%	1.3%	4.3%	5.1%	3.6%	2.4%	1.5%	2.0%
<b>Taxi</b>	12.1%	17.0%	25.2%	23.4%	31.0%	17.7%	16.9%	18.5%
<b>Commercial</b>	37.9%	40.2%	30.6%	27.4%	31.3%	29.5%	44.3%	36.1%
<b>Bus</b>	2.0%	2.6%	2.3%	2.3%	2.7%	2.8%	1.0%	1.4%
<b>Truck</b>	42.9%	37.4%	35.7%	39.8%	29.6%	46.2%	34.4%	38.7%
<b>Govt Vehicle</b>	2.0%	1.5%	1.9%	2.0%	1.9%	1.3%	1.9%	3.3%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



# Gasoline Vehicle Population in the Mexico City Metropolitan Area By Vehicle Service

Class 7								
	Sample period (Semester)							
	96.1	96.2	97.1	97.2	98.1	98.2	99.1	99.2
<b>Private</b>	2.7%	1.5%	3.4%	2.4%	2.3%	1.1%	1.0%	1.5%
<b>Taxi</b>	0.9%	1.1%	0.8%	0.8%	0.3%	0.0%	0.0%	0.0%
<b>Commercial</b>	36.4%	46.8%	37.9%	35.9%	44.6%	35.8%	53.1%	44.2%
<b>Bus</b>	2.2%	7.0%	5.8%	4.7%	3.3%	2.3%	5.6%	1.7%
<b>Truck</b>	38.8%	33.3%	37.4%	40.1%	35.4%	48.1%	29.9%	34.1%
<b>Govt Vehicle</b>	19.0%	10.3%	14.7%	16.2%	14.1%	12.8%	10.3%	18.5%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## New Gasoline Vehicle Sales in the Mexico City Metropolitan Area

Year	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales
1999	220,133	27,434	24,336	9,565	1,340	282,808	77.8%	9.7%	8.6%	3.4%	0.5%	100.0%
1998	202,802	26,474	21,806	7,633	1,028	259,743	78.1%	10.2%	8.4%	2.9%	0.4%	100.0%
1997	143,322	19,941	20,822	6,365	1,384	191,834	74.7%	10.4%	10.9%	3.3%	0.7%	100.0%
1996	96,614	15,310	17,867	4,361	1,525	135,677	71.2%	11.3%	13.2%	3.2%	1.1%	100.0%
1995	69,405	10,924	10,219	3,447	1,748	95,743	72.5%	11.4%	10.7%	3.6%	1.8%	100.0%
1994	200,020	21,712	24,098	11,690	2,377	259,897	77.0%	8.4%	9.3%	4.5%	0.9%	100.0%
1993	190,755	17,337	26,954	11,316	1,273	247,635	77.0%	7.0%	10.9%	4.6%	0.5%	100.0%
1992	203,630	16,959	26,061	25,572	1,189	273,411	74.5%	6.2%	9.5%	9.4%	0.4%	100.0%
1991	186,627	15,835	30,173	29,924		262,559	71.1%	6.0%	11.5%	11.4%	0.0%	100.0%
1990	160,325	12,245	24,188	20,384		217,142	73.8%	5.6%	11.1%	9.4%	0.0%	100.0%
1989	124,169	9,489	22,133	12,541		168,332	73.8%	5.6%	13.1%	7.5%	0.0%	100.0%
1988	99,770	7,526	21,479	9,017		137,792	72.4%	5.5%	15.6%	6.5%	0.0%	100.0%
1987	80,585	6,160	14,240	6,875	4	107,864	74.7%	5.7%	13.2%	6.4%	0.0%	100.0%
1986	84,673	7,140	14,300	5,938	7	112,058	75.6%	6.4%	12.8%	5.3%	0.0%	100.0%
1985	114,572	9,906	20,948	8,662	3,943	158,031	72.5%	6.3%	13.3%	5.5%	2.5%	100.0%
1984	100,750	6,625	18,265	5,824	2,857	134,321	75.0%	4.9%	13.6%	4.3%	2.1%	100.0%
1983	81,214	4,575	10,618	4,433	1,804	102,644	79.1%	4.5%	10.3%	4.3%	1.8%	100.0%
1982	138,835	12,656	28,176	10,557	6,271	196,495	70.7%	6.4%	14.3%	5.4%	3.2%	100.0%
1981	155,228	14,590	29,775	10,165	10,519	220,277	70.5%	6.6%	13.5%	4.6%	4.8%	100.0%
1980	126,858	10,653	22,439	7,977	11,306	179,233	70.8%	5.9%	12.5%	4.5%	6.3%	100.0%
1979	125,297	7,711	22,277	9,054	7,468	171,807	72.9%	4.5%	13.0%	5.3%	4.3%	100.0%
1978	106,700	6,595	16,822	7,076	5,438	142,630	74.8%	4.6%	11.8%	5.0%	3.8%	100.0%
1977	88,102	5,479	11,367	5,097	3,408	113,453	77.7%	4.8%	10.0%	4.5%	3.0%	100.0%
1976	94,203	7,378	11,718	6,852	5,581	125,732	74.9%	5.9%	9.3%	5.4%	4.4%	100.0%
1975	111,076	8,796	12,204	6,068	7,644	145,788	76.2%	6.0%	8.4%	4.2%	5.2%	100.0%

## New Gasoline Vehicle Sales in the Mexico City Metropolitan Area

Year	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales
1974	116,283	5,368	12,173	5,462	5,879	145,165	80.1%	3.7%	8.4%	3.8%	4.0%	100.0%
1973	89,591	4,910	12,171	4,852	6,415	117,939	76.0%	4.2%	10.3%	4.1%	5.4%	100.0%
1972	82,919	1,997	9,759	4,293	4,905	103,873	79.8%	1.9%	9.4%	4.1%	4.7%	100.0%
1971	71,151	550	8,183	2,656	3,643	86,182	82.6%	0.6%	9.5%	3.1%	4.2%	100.0%
1970	63,675	531	7,538	3,355	3,357	78,457	81.2%	0.7%	9.6%	4.3%	4.3%	100.0%
1969	54,984	0	7,656	2,959	3,338	68,938	79.8%	0.0%	11.1%	4.3%	4.8%	100.0%
1968	48,916	0	6,357	2,359	3,302	60,935	80.3%	0.0%	10.4%	3.9%	5.4%	100.0%
1967	41,793	0	5,770	1,877	2,610	52,051	80.3%	0.0%	11.1%	3.6%	5.0%	100.0%
1966	38,774	0	4,121	1,738	2,645	47,279	82.0%	0.0%	8.7%	3.7%	5.6%	100.0%
1965	32,106	0	3,840	1,154	3,567	40,667	78.9%	0.0%	9.4%	2.8%	8.8%	100.0%
1964	29,402	0	4,774	1,330	3,486	38,992	75.4%	0.0%	12.2%	3.4%	8.9%	100.0%
1963	23,354	134	3,646	1,040	2,911	31,085	75.1%	0.4%	11.7%	3.3%	9.4%	100.0%
1962	19,195	0	3,215	1,042	3,109	26,561	72.3%	0.0%	12.1%	3.9%	11.7%	100.0%
1961	20,615	0	3,092	996	3,040	27,743	74.3%	0.0%	11.1%	3.6%	11.0%	100.0%
1960	15,864	0	3,026	969	3,023	22,881	69.3%	0.0%	13.2%	4.2%	13.2%	100.0%
1959	15,829	0	2,398	764	2,433	21,424	73.9%	0.0%	11.2%	3.6%	11.4%	100.0%
1958	11,952	0	1,834	581	1,890	16,257	73.5%	0.0%	11.3%	3.6%	11.6%	100.0%
1957	12,495	0	1,941	612	2,031	17,078	73.2%	0.0%	11.4%	3.6%	11.9%	100.0%
1956	11,860	0	1,863	585	1,979	16,287	72.8%	0.0%	11.4%	3.6%	12.2%	100.0%
1955	9,627	0	1,528	478	1,647	13,280	72.5%	0.0%	11.5%	3.6%	12.4%	100.0%
1954	9,861	0	1,580	493	1,729	13,663	72.2%	0.0%	11.6%	3.6%	12.7%	100.0%
1953	10,447	0	1,689	525	1,875	14,536	71.9%	0.0%	11.6%	3.6%	12.9%	100.0%
1952	13,902	0	2,265	703	2,551	19,421	71.6%	0.0%	11.7%	3.6%	13.1%	100.0%
1951	13,219	0	2,169	671	2,478	18,536	71.3%	0.0%	11.7%	3.6%	13.4%	100.0%
Total 1951-1999	4,163,479	322,941	615,872	287,887	151,958	5,542,137	75.1%	5.8%	11.1%	5.2%	2.7%	100.0%

## New Gasoline Vehicle Sales in the Rest of Mexico (excluding ZMVM)

Year	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales
1999	243,425	52,431	84,135	18,155	1,362	399,508	60.9%	13.1%	21.1%	4.5%	0.3%	100.0%
1998	227,397	50,750	87,294	19,148	1,656	386,245	58.9%	13.1%	22.6%	5.0%	0.4%	100.0%
1997	160,236	41,513	75,547	18,010	1,313	296,619	54.0%	14.0%	25.5%	6.1%	0.4%	100.0%
1996	103,488	30,058	52,422	11,494	781	198,243	52.2%	15.2%	26.4%	5.8%	0.4%	100.0%
1995	47,988	8,030	27,925	5,429	-305	89,067	53.9%	9.0%	31.4%	6.1%	-0.3%	100.0%
1994	214,240	24,888	72,639	20,994	4,944	337,705	63.4%	7.4%	21.5%	6.2%	1.5%	100.0%
1993	207,987	32,006	63,655	20,734	3,607	327,989	63.4%	9.8%	19.4%	6.3%	1.1%	100.0%
1992	241,989	29,310	85,681	39,180	4,188	400,348	60.4%	7.3%	21.4%	9.8%	1.0%	100.0%
1991	205,483	22,701	78,507	41,393		348,084	59.0%	6.5%	22.6%	11.9%	0.0%	100.0%
1990	192,283	21,632	73,018	27,226		314,159	61.2%	6.9%	23.2%	8.7%	0.0%	100.0%
1989	150,336	20,879	70,147	24,975		266,337	56.4%	7.8%	26.3%	9.4%	0.0%	100.0%
1988	110,296	13,846	58,906	15,150		198,198	55.6%	7.0%	29.7%	7.6%	0.0%	100.0%
1987	73,567	10,637	41,113	8,827	0	134,144	54.8%	7.9%	30.6%	6.6%	0.0%	100.0%
1986	75,997	7,016	43,590	12,793	10	139,406	54.5%	5.0%	31.3%	9.2%	0.0%	100.0%
1985	127,615	10,312	60,230	16,907	5,608	220,672	57.8%	4.7%	27.3%	7.7%	2.5%	100.0%
1984	116,900	8,420	45,208	11,785	5,703	188,016	62.2%	4.5%	24.0%	6.3%	3.0%	100.0%
1983	110,838	5,786	36,697	8,667	3,731	165,719	66.9%	3.5%	22.1%	5.2%	2.3%	100.0%
1982	147,926	10,233	70,102	20,181	7,917	256,359	57.7%	4.0%	27.3%	7.9%	3.1%	100.0%
1981	185,135	10,633	86,068	25,027	21,555	328,418	56.4%	3.2%	26.2%	7.6%	6.6%	100.0%
1980	169,395	8,146	61,599	20,134	17,965	277,239	61.1%	2.9%	22.2%	7.3%	6.5%	100.0%
1979	145,157	6,116	56,019	23,437	12,881	243,610	59.6%	2.5%	23.0%	9.6%	5.3%	100.0%
1978	125,413	3,884	53,806	21,349	7,766	212,217	59.1%	1.8%	25.4%	10.1%	3.7%	100.0%
1977	106,369	7,173	32,863	13,880	5,829	166,114	64.0%	4.3%	19.8%	8.4%	3.5%	100.0%
1976	104,934	7,156	27,239	5,911	10,017	155,257	67.6%	4.6%	17.5%	3.8%	6.5%	100.0%
1975	120,032	8,370	27,378	6,684	13,438	175,902	68.2%	4.8%	15.6%	3.8%	7.6%	100.0%

## New Gasoline Vehicle Sales in the Rest of Mexico (excluding ZMVM)

Year	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales
1974	115,402	6,044	27,545	5,358	11,164	165,513	69.7%	3.7%	16.6%	3.2%	6.7%	100.0%
1973	88,600	4,336	22,703	5,218	9,394	130,251	68.0%	3.3%	17.4%	4.0%	7.2%	100.0%
1972	80,862	1,865	19,971	4,954	8,065	115,717	69.9%	1.6%	17.3%	4.3%	7.0%	100.0%
1971	77,375	432	17,440	5,996	6,942	108,186	71.5%	0.4%	16.1%	5.5%	6.4%	100.0%
1970	69,205	404	15,818	7,626	6,552	99,604	69.5%	0.4%	15.9%	7.7%	6.6%	100.0%
1969	59,722	0	15,819	6,769	6,677	88,986	67.1%	0.0%	17.8%	7.6%	7.5%	100.0%
1968	53,101	0	12,934	5,431	6,768	78,233	67.9%	0.0%	16.5%	6.9%	8.7%	100.0%
1967	45,342	0	11,561	4,349	5,483	66,734	67.9%	0.0%	17.3%	6.5%	8.2%	100.0%
1966	42,041	0	8,132	4,054	5,698	59,924	70.2%	0.0%	13.6%	6.8%	9.5%	100.0%
1965	34,790	0	7,463	2,710	7,878	52,841	65.8%	0.0%	14.1%	5.1%	14.9%	100.0%
1964	31,841	0	9,139	3,141	7,899	52,020	61.2%	0.0%	17.6%	6.0%	15.2%	100.0%
1963	25,277	82	6,875	2,472	6,767	41,473	60.9%	0.2%	16.6%	6.0%	16.3%	100.0%
1962	20,762	0	5,973	2,494	7,417	36,646	56.7%	0.0%	16.3%	6.8%	20.2%	100.0%
1961	22,285	0	5,660	2,400	7,444	37,788	59.0%	0.0%	15.0%	6.3%	19.7%	100.0%
1960	17,139	0	5,457	2,350	7,601	32,547	52.7%	0.0%	16.8%	7.2%	23.4%	100.0%
1959	17,091	0	4,261	1,864	6,285	29,502	57.9%	0.0%	14.4%	6.3%	21.3%	100.0%
1958	12,897	0	3,212	1,428	5,016	22,553	57.2%	0.0%	14.2%	6.3%	22.2%	100.0%
1957	13,475	0	3,349	1,514	5,540	23,878	56.4%	0.0%	14.0%	6.3%	23.2%	100.0%
1956	12,783	0	3,169	1,457	5,551	22,959	55.7%	0.0%	13.8%	6.3%	24.2%	100.0%
1955	10,369	0	2,561	1,198	4,753	18,882	54.9%	0.0%	13.6%	6.3%	25.2%	100.0%
1954	10,616	0	2,611	1,243	5,133	19,603	54.2%	0.0%	13.3%	6.3%	26.2%	100.0%
1953	11,240	0	2,750	1,334	5,729	21,054	53.4%	0.0%	13.1%	6.3%	27.2%	100.0%
1952	14,948	0	3,636	1,797	8,029	28,410	52.6%	0.0%	12.8%	6.3%	28.3%	100.0%
1951	14,205	0	3,432	1,729	8,034	27,399	51.8%	0.0%	12.5%	6.3%	29.3%	100.0%
Total 1951-1999	4,615,793	465,088	1,693,260	536,355	295,782	7,606,278	60.7%	6.1%	22.3%	7.1%	3.9%	100.0%

**New Gasoline Vehicle Sales in the Mexico City Metropolitan Area  
as a Percentage of National Sales**

Year	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales
1999	47.5%	34.4%	22.4%	34.5%	49.6%	41.4%
1998	47.1%	34.3%	20.0%	28.5%	38.3%	40.2%
1997	47.2%	32.4%	21.6%	26.1%	51.3%	39.3%
1996	48.3%	33.7%	25.4%	27.5%	66.1%	40.6%
1995	59.1%	57.6%	26.8%	38.8%	121.1%	51.8%
1994	48.3%	46.6%	24.9%	35.8%	32.5%	43.5%
1993	47.8%	35.1%	29.7%	35.3%	26.1%	43.0%
1992	45.7%	36.7%	23.3%	39.5%	22.1%	40.6%
1991	47.6%	41.1%	27.8%	42.0%		43.0%
1990	45.5%	36.1%	24.9%	42.8%		40.9%
1989	45.2%	31.2%	24.0%	33.4%		38.7%
1988	47.5%	35.2%	26.7%	37.3%		41.0%
1987	52.3%	36.7%	25.7%	43.8%	100.0%	44.6%
1986	52.7%	50.4%	24.7%	31.7%	41.6%	44.6%
1985	47.3%	49.0%	25.8%	33.9%	41.3%	41.7%
1984	46.3%	44.0%	28.8%	33.1%	33.4%	41.7%
1983	42.3%	44.2%	22.4%	33.8%	32.6%	38.2%
1982	48.4%	55.3%	28.7%	34.3%	44.2%	43.4%
1981	45.6%	57.8%	25.7%	28.9%	32.8%	40.1%
1980	42.8%	56.7%	26.7%	28.4%	38.6%	39.3%
1979	46.3%	55.8%	28.5%	27.9%	36.7%	41.4%
1978	46.0%	62.9%	23.8%	24.9%	41.2%	40.2%
1977	45.3%	43.3%	25.7%	26.9%	36.9%	40.6%
1976	47.3%	50.8%	30.1%	53.7%	35.8%	44.7%
1975	48.1%	51.2%	30.8%	47.6%	36.3%	45.3%

**New Gasoline Vehicle Sales in the Mexico City Metropolitan Area  
as a Percentage of National Sales**

Year	Cars	Multiple Use	Pickups	Class 3	Class 7	Total Sales
1974	50.2%	47.0%	30.6%	50.5%	34.5%	46.7%
1973	50.3%	53.1%	34.9%	48.2%	40.6%	47.5%
1972	50.6%	51.7%	32.8%	46.4%	37.8%	47.3%
1971	47.9%	56.0%	31.9%	30.7%	34.4%	44.3%
1970	47.9%	56.8%	32.3%	30.6%	33.9%	44.1%
1969	47.9%		32.6%	30.4%	33.3%	43.7%
1968	47.9%		33.0%	30.3%	32.8%	43.8%
1967	48.0%		33.3%	30.1%	32.2%	43.8%
1966	48.0%		33.6%	30.0%	31.7%	44.1%
1965	48.0%		34.0%	29.9%	31.2%	43.5%
1964	48.0%		34.3%	29.7%	30.6%	42.8%
1963	48.0%	62.2%	34.7%	29.6%	30.1%	42.8%
1962	48.0%		35.0%	29.5%	29.5%	42.0%
1961	48.1%		35.3%	29.3%	29.0%	42.3%
1960	48.1%		35.7%	29.2%	28.5%	41.3%
1959	48.1%		36.0%	29.1%	27.9%	42.1%
1958	48.1%		36.3%	28.9%	27.4%	41.9%
1957	48.1%		36.7%	28.8%	26.8%	41.7%
1956	48.1%		37.0%	28.7%	26.3%	41.5%
1955	48.1%		37.4%	28.5%	25.7%	41.3%
1954	48.2%		37.7%	28.4%	25.2%	41.1%
1953	48.2%		38.0%	28.2%	24.7%	40.8%
1952	48.2%		38.4%	28.1%	24.1%	40.6%
1951	48.2%		38.7%	28.0%	23.6%	40.4%
Total 1951-1999	47.4%	41.0%	26.7%	34.9%	33.9%	42.2%

**New Gasoline Vehicle Sales in the Republic of Mexico  
By Model Year and  
By Number of Cylinders and Engine Displacement**

Cyls	Displ	96-99	91-95	86-90	81-85	76-80	71-75	66-70	61-65	51-60	Total
4-5 cyl	less than 1.0 lt.								1,437		1,437
	1.0 - 1.9 lt.	876,006	1,045,723	839,505	873,318	708,182	580,074	241,131	75,165	4,156	5,243,259
	2.0 - 2.9 lt.	553,370	578,609	320,069	215,339	5,381			3,422		1,676,190
	Total	1,429,376	1,624,332	1,159,574	1,088,657	713,563	580,074	241,131	80,024	4,156	6,920,886
6-7 cyl	2.0 - 2.9 lt.	75,942	29,146	84,213	64,384						253,685
	3.0 - 3.9 lt.	198,605	367,728	113,633	193,751	288,643	171,078	113,022	94,436	219,922	1,760,818
	4.0 - 4.9 lt.	65,873	30,254	34,329	202,684	249,465	175,355	115,057	60,426	34,937	968,380
	Total	340,420	427,128	232,175	460,819	538,108	346,433	228,079	154,862	254,859	2,982,883
8 cyl & over	4.0 - 4.9 lt.	57,041	41,873	1,729							100,643
	5.0 - 5.9 lt.	295,313	546,020	401,954	413,856	518,890	368,009	231,931	150,930	161,137	3,088,040
	6.0 lt. & over	28,527	3,085								31,612
	Total	380,881	590,978	403,683	413,856	518,890	368,009	231,931	150,930	161,137	3,220,295
Grand Total		2,150,677	2,642,438	1,795,432	1,963,332	1,770,561	1,294,516	701,141	385,815	420,152	13,124,064



**New Gasoline Vehicle Sales in the Republic of Mexico  
By Model Year and  
By Number of Cylinders and Engine Displacement**

Cyls	Displ	96-99	91-95	86-90	81-85	76-80	71-75	66-70	61-65	51-60	Total
4-5 cyl	less than 1.0 lt.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%
	1.0 - 1.9 lt.	40.7%	39.6%	46.8%	44.5%	40.0%	44.8%	34.4%	19.5%	1.0%	40.0%
	2.0 - 2.9 lt.	25.7%	21.9%	17.8%	11.0%	0.3%	0.0%	0.0%	0.9%	0.0%	12.8%
	Total	66.5%	61.5%	64.6%	55.4%	40.3%	44.8%	34.4%	20.7%	1.0%	52.7%
6-7 cyl	2.0 - 2.9 lt.	3.5%	1.1%	4.7%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%
	3.0 - 3.9 lt.	9.2%	13.9%	6.3%	9.9%	16.3%	13.2%	16.1%	24.5%	52.3%	13.4%
	4.0 - 4.9 lt.	3.1%	1.1%	1.9%	10.3%	14.1%	13.5%	16.4%	15.7%	8.3%	7.4%
	Total	15.8%	16.2%	12.9%	23.5%	30.4%	26.8%	32.5%	40.1%	60.7%	22.7%
8 cyl & over	4.0 - 4.9 lt.	2.7%	1.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	5.0 - 5.9 lt.	13.7%	20.7%	22.4%	21.1%	29.3%	28.4%	33.1%	39.1%	38.4%	23.5%
	6.0 lt. & over	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
	Total	17.7%	22.4%	22.5%	21.1%	29.3%	28.4%	33.1%	39.1%	38.4%	24.5%
Grand Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**New Gasoline Vehicle Sales in the Republic of Mexico  
By Model Year and by Type of Catalytic Converter  
And by Fuel system used**

Catalytic Converter	Fuel system	Air System	96-99	91-95	86-90	81-85	76-80	71-75	66-70	61-65	51-60	Total	
None	Carb	Nat Asp	0	277,099	1,480,373	1,919,470	1,770,561	1,294,516	701,141	384,878	420,152	8,248,190	
	TBI	Nat Asp	651	184,673	2,213							187,537	
	MPI	Nat Asp	1,949	107,848	145,640					937			256,374
		Turbo			82,546	27,577							110,123
		Total		1,949	107,848	228,186	27,577				937		366,497
Total		2,600	569,620	1,710,772	1,947,047	1,770,561	1,294,516	701,141	385,815	420,152	8,802,224		
2 Way	Carb	Nat Asp		174,666								174,666	
3 Way Open Loop	Carb	Nat Asp		238,145								238,145	
3 Way Closed Loop	Carb	Nat Asp		52,668								52,668	
	TBI	Nat Asp	153,439	68,317								221,756	
	MPI	Nat Asp	1,992,616	1,413,494	69,448	16,285							3,491,843
		Supercha		681	17,908								18,589
		Turbo		1,341	107,620	15,212							124,173
Total		1,994,638	1,539,022	84,660	16,285						3,634,605		
Total		2,148,077	1,660,007	84,660	16,285							3,909,029	
Grand Total			2,150,677	2,642,438	1,795,432	1,963,332	1,770,561	1,294,516	701,141	385,815	420,152	13,124,064	

**New Gasoline Vehicle Sales in the Republic of Mexico  
By Model Year and by Type of Catalytic Converter  
And by Fuel system used**

Catalytic Converter	Fuel system	Air System	96-99	91-95	86-90	81-85	76-80	71-75	66-70	61-65	51-60	Total	
None	Carb	Nat Asp	0.0%	10.5%	82.5%	97.8%	100.0%	100.0%	100.0%	99.8%	100.0%	62.8%	
	TBI	Nat Asp	0.0%	7.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	
	MPI	Nat Asp	0.1%	4.1%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	2.0%
		Turbo	0.0%	0.0%	4.6%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
		Total	0.1%	4.1%	12.7%	1.4%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	2.8%
Total			0.1%	21.6%	95.3%	99.2%	100.0%	100.0%	100.0%	100.0%	100.0%	67.1%	
2 Way	Carb	Nat Asp	0.0%	6.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	
3 Way Open Loop	Carb	Nat Asp	0.0%	9.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	
3 Way Closed Loop	Carb	Nat Asp	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	
	TBI	Nat Asp	7.1%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	
	MPI	Nat Asp	92.7%	53.5%	3.9%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	26.6%
		Supercha	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
		Turbo	0.1%	4.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%
Total			92.7%	58.2%	4.7%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	27.7%	
Total			99.9%	62.8%	4.7%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	29.8%	
Grand Total			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

**New Gasoline Vehicle Sales in the Republic of Mexico**  
**By Model Year and by Vehicle Weight**  
(Unladen Weight with fuel and driver)

Vehicle Weight	96-00	91-95	86-90	81-85	76-80	71-75	66-70	61-65	51-60	Total
up to 1000 kg	424,843	381,324	171,487	186,801	212,168	338,212	165,001	54,374	4,156	1,938,366
1 - 1,499 kg	1,028,469	1,484,002	1,052,820	950,937	517,686	255,925	94,233	89,901	219,922	5,693,895
1.5 - 1,999 kg	525,012	581,527	465,119	686,606	840,187	501,160	317,180	152,198	92,974	4,161,963
2 - 2,499 kg	161,252	181,941	105,985	69,080	112,861	121,730	78,297	29,972		861,118
2.5 - 2,999 kg	712			0	0			2,777	14,839	18,327
3 - 3,499 kg	867	9,890	4	59,794	77,169	60,493	36,844	49,609	88,262	382,932
3.5 - 3,999 kg	9,300	3,754	17	10,114	10,490	16,996	9,586	6,984		67,241
4,000 kg & over	222									222
Grand Total	2,150,677	2,642,438	1,795,432	1,963,332	1,770,561	1,294,516	701,141	385,815	420,152	13,124,064

Vehicle Weight	96-00	91-95	86-90	81-85	76-80	71-75	66-70	61-65	51-60	Total
up to 1000 kg	19.8%	14.4%	9.6%	9.5%	12.0%	26.1%	23.5%	14.1%	1.0%	14.8%
1 - 1,499 kg	47.8%	56.2%	58.6%	48.4%	29.2%	19.8%	13.4%	23.3%	52.3%	43.4%
1.5 - 1,999 kg	24.4%	22.0%	25.9%	35.0%	47.5%	38.7%	45.2%	39.4%	22.1%	31.7%
2 - 2,499 kg	7.5%	6.9%	5.9%	3.5%	6.4%	9.4%	11.2%	7.8%	0.0%	6.6%
2.5 - 2,999 kg	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	3.5%	0.1%
3 - 3,499 kg	0.0%	0.4%	0.0%	3.0%	4.4%	4.7%	5.3%	12.9%	21.0%	2.9%
3.5 - 3,999 kg	0.4%	0.1%	0.0%	0.5%	0.6%	1.3%	1.4%	1.8%	0.0%	0.5%
4,000 kg & over	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Gasoline Vehicle Sales in Mexico by Vehicle type Clasification

Make and Model of vehicle showing total national sales in the period of 1951-1999

Vehicle type	<b>Car</b>
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Make	Model	Total
Audi	A3	527
	A4	1,680
	A6	483
	A8	67
	Cabriolet	16
	DKW	1,062
	TT	167
BMW	Mini Cooper	42
	Rover 75	80
	Series 3	5,617
	Series 5	1,226
	Series 7	323
	Series 8	84
Chrysler	300	2,266
	330 / Coronet	26,874
	Breeze	26,630
	Charger	3,555
	Cirrus	14,795
	Concord	5,286
	Cordoba	8,751
	Dart K	113,048
	Dodge Dart	256,009
	Duster/Volare	176,670
	Imperial	111
	Intrepid	9,386
	Lebaron	74,985
	Mónaco	24,192
	Neón	83,885
	New Yorker	22,712
	New Yorker LH	2,530
	Phantom	20,712
	Plymouth	14,095
	RT	388
	Shadow	166,823
	Spirit	151,282
	Stratus	54,092
	Super Bee/Magnum	39,768
	Viper	47
	Volare K	56,351
Fiat	1100 / 1500 / 2100	1,437
FNA	Borgward	2,613

Vehicle type	<b>Car (cont)</b>
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Make	Model	Total
Ford	Continental	1,701
	Contour	32,466
	Cougar	48,396
	Crown Victoria	567
	Escort	83,708
	Falcon/Maverick/Fairmont	256,338
	Fiesta	15,051
	Focus	9,139
	Galaxie/Ford LTD	160,768
	Ghia	49,009
	Grand Marquis	94,942
	Lincoln Town Car	4,147
	Mark VIII	496
	Mustang	110,884
	Mystique	26,649
	Sable	6,876
	Taurus	23,881
Thunderbird	36,286	
Topaz	236,576	
GM	Bonneville SSE	3,496
	Cadillac Sedan de Ville	8,093
	Camaro	3,896
	Cavalier / Z-24	173,843
	Celebrity	43,875
	Century	45,402
	Chevelle/Malibu	148,292
	Chevy	253,164
	Chevy Nova	62,684
	Citation	30,181
	Corvette	2,285
	Cutlass/Eurosport	116,842
	Firebird Transam	3,548
	Grand Am	3,708
	Grand Prix	6,646
	Impala/Caprice	61,848
	Montecarlo	10,449
Oldsmobile 88	2,020	
Regal	2,203	
Sunfire	19,881	
Tigra	363	
Honda	Accord	21,647
	Civic	19,210

Vehicle type	<b>Car (cont)</b>
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Make	Model	Total
Industry	Projection	342,677
Jaguar	S-Type V8	187
	XJ Series	99
	XK Series	48
Mercedes	190 / 220	3,422
	A Series	1,403
	AMG	8
	C-220	727
	C-230 / C-230K	1,202
	C-280	862
	C-36	6
	C-Class	62
	CL500	22
	CL600	10
	CLK-320	119
	E-280	102
	E-320	968
	E-420	627
	E-430	262
	E-50	7
	E-Class	48
	G-320	2
	S-Class	18
S420L	6	
S430	22	
S500L	15	
S600L	4	
SL 500 / 600	116	
SL320	14	
SLK	83	
SLK-Class	320	
Nissan	240 SX	720
	300 ZX	2,050
	Altima	12,328
	Datsun	402,629
	GSR2000	1,168
	Hatch Back Samura	13,645
	Infiniti	2,543
	Lucino	6,621
	Maxima	9,781
	Sakura Hard Top	21,571
	Sentra	92,212

## Gasoline Vehicle Sales in Mexico by Vehicle type Clasification

Make and Model of vehicle showing total national sales in the period of 1951-1999

### Vehicle type **Car (cont)**

Make	Model	Total
Nissan cont	Tsubame	28,193
	Tsuru	933,474
Opel	Rekord	49,934
Porsche	911	74
Rambler	American	178,403
	Classic	28,531
	Dinalpin	691
	Gremlin	43,096
	Lerma	3,048
	Pacer	6,635
	Rally	3,455
Renault	Alliance	16,880
	Encore	5,084
	Javelin	6,662
	Renault-10	25,771
	Renault-12	137,702
	Renault-18	49,260
	Renault-4	19,480
	Renault-5	46,838
Renault-8	50,246	
Volvo	C70	13
	S40 / V40	201
	S70 / V70	44
	S80	50
VW	Atlantic	102,292
	Beetle	4,657
	Brasilia	72,320
	Caribe	301,351
	Corsar	38,802
	Derby	21,475
	Golf	238,681
	Golf GTI	6,876
	Jetta	295,430
	Passat	3,625
	Pointer	45,010
	Safari	24,500
	Sedan	1,459,629

### Vehicle type **Van/Wgn**

Make	Model	Total
Chrysler	Durango	6,310
	Ram Charger	73,314
	Ram Van	11,041
	Ram Wagon	11,230
	Voyager	49,880
Ford	Aerostar	1,963
	Club Wagon	4,974
	Econline	5,373
	Expedition	6,492
	Explorer	21,052
	Lincon Navigator	712
GM	Windstar	38,515
	Blazer	22,670
GM	Chevy Van	4,168
	Lumina	966
	Silhouette	807
	Silverado	32,978
	Suburban	92,010
	Tracker	6,578
	Venture	10,612
	Honda	Odissey
Jeep	Cherokee	20,604
	CJ-5 / CJ-7	21,322
	Wagoneer	27,980
	Wrangler	3,515
	Mercedes	GE320
Mercedes	ML-Class	496
	Nissan	Ichi Van
Nissan	Pathfinder	7,238
	Quest	1,988
	Urvan	651
	Xterra	686
	Opel	All models
Range Rover	Discovery	312
	Freelander	178
	Range Rover	130
VW	All models	264,730

### Vehicle type **Pickup**

Make	Model	Total
Chrysler	1500	325,669
	2500	110,605
	Club Cab (4cyl)	499
	Dakota	836
Dina	D-1000	28,235
Ford	250	195,181
	150 / Lobo	376,395
	Ranger (4cyl)	12,906
GM	1500 / C15	365,412
	2500 / C20	210,379
	Chevy Pickup	8,673
	Luv	12,734
S10	37,304	
IH	All models	3,043
Industry	Projection	72,671
Jeep	J10	20,357
Nissan	All models	510,764
Opel	All models	2,743
Ramirez	Rural	1,818
Renault	R-4F	9,281
VW	Pointer Pickup	3,627

### Vehicle type **Class3**

Make	Model	Total
Chrysler	All models	216,026
Dina	All models	24,351
Ford	All models	315,056
GM	All models	231,346
IH	All models	120
Industry	Projection	29,226
Jeep	All models	8,116

### Vehicle type **Class 7**

Make	Model	Total
Chrysler	All models	147,426
Ford	All models	134,951
GM	All models	61,048
Industry	Projection	104,315

## Vehicle Exports from Mexico

Year	Make		U.S.A	Canada	Central America	South America	Africa	Asia	Europe	Total Export	Prodn for Export	Prodn National Market	Export as % of Prodn	% Exports to USA & Canada	
<b>1990</b>	<b>CHRYSLER</b>	Cars										52,472			
		Trucks										38,764			
		Total	73,080	2,524	78	1	0	0	41	75,724		91,236	45.4%	99.8%	
	<b>FORD</b>	Cars											45,987		
		Trucks											35,903		
		Total	88,604	0	0	0	0	0	0	88,604		81,890	52.0%	100.0%	
	<b>GM</b>	Cars											32,782		
		Trucks											62,311		
		Total	40,993	0	0	0	0	0	0	40,993		95,093	30.1%	100.0%	
	<b>NISSAN</b>	Cars											79,953		
		Trucks											32,314		
		Total	0	156	10,563	12,734	289	1,201	358	25,301		112,267	18.4%	0.6%	
	<b>VW</b>	Cars											134,357		
		Trucks											10,290		
		Total	35,594	10,399	0	0	0	0	0	45,993		144,647	24.1%	100.0%	
<b>1991</b>	<b>CHRYSLER</b>	Cars										64,567			
		Trucks										47,635			
		Total	76,701	4,051	29	99	0	0	0	80,880		112,202	41.9%	99.8%	
	<b>FORD</b>	Cars											55,021		
		Trucks											55,519		
		Total	111,983	0	0	0	0	0	0	111,983		110,540	50.3%	100.0%	
	<b>GM</b>	Cars											38,862		
		Trucks											66,851		
		Total	38,209	43,022	0	0	0	0	0	81,231		105,713	43.5%	100.0%	
	<b>NISSAN</b>	Cars											77,697		
		Trucks											35,143		
		Total	0	5,785	7,739	19,601	120	793	16	34,054		112,840	23.2%	17.0%	
	<b>VW</b>	Cars											142,411		
		Trucks											11,823		
		Total	34,382	14,183	544	1,287	1	10	39	50,446		154,234	24.6%	96.3%	

## Vehicle Exports from Mexico

Year	Make		U.S.A	Canada	Central America	South America	Africa	Asia	Europe	Total Export	Prodn for Export	Prodn National Market	Export as % of Prodn	% Exports to USA & Canada	
1992	CHRYSLER	Cars										83,724			
		Trucks										48,915			
		Total	93,894	6,672	122	1,574	0	0	0	0	102,262	132,639	43.5%	98.3%	
	FORD	Cars											69,467		
		Trucks											59,642		
		Total	132,139	0	0	0	0	0	0	0	132,139	129,109	50.6%	100.0%	
	GM	Cars											49,590		
		Trucks											71,623		
		Total	31,742	43,676	0	0	0	0	0	0	75,418	121,213	38.4%	100.0%	
	NISSAN	Cars											95,776		
		Trucks											38,122		
		Total	0	6,005	11,015	22,325	21	652	61		40,079	133,898	23.0%	15.0%	
	VW	Cars											131,812		
		Trucks											13,458		
		Total	25,078	2,907	625	4,409	29	233	95		33,476	145,270	18.7%	83.6%	
1993	CHRYSLER	Cars										57,636			
		Trucks										32,610			
		Total	128,579	8,359	31	1,403	0	0	0	0	138,372	90,246	60.5%	99.0%	
	FORD	Cars											52,533		
		Trucks											39,428		
		Total	117,216	0	0	0	0	0	0	0	117,216	91,961	56.0%	100.0%	
	GM	Cars											50,534		
		Trucks											50,985		
		Total	56,525	34,138	0	0	0	0	0	0	90,663	101,519	47.2%	100.0%	
	NISSAN	Cars											98,946		
		Trucks											37,383		
		Total	0	6,269	10,197	25,784	0	5,432	20		47,702	136,329	25.9%	13.1%	
	VW	Cars											129,854		
		Trucks											11,888		
		Total	50,452	21,168	5,642	0	0	0	0	0	77,262	141,742	35.3%	92.7%	



## Vehicle Exports from Mexico

Year	Make		U.S.A	Canada	Central America	South America	Africa	Asia	Europe	Total Export	Prodn for Export	Prodn National Market	Export as % of Prodn	% Exports to USA & Canada
<b>1994</b>	<b>CHRYSLER</b>	Cars	102,433	15,013	46	6	0	0	0	117,498	117,852	46,816		
		Trucks	39,045	4,554	49	228	0	0	0	43,876	43,886	35,147		
		Total	141,478	19,567	95	234	0	0	0	161,374	161,738	81,963	66.4%	99.8%
	<b>FORD</b>	Cars	162,777	0	0	0	0	0	0	162,777	176,386	26,804		
		Trucks	14,511	0	0	0	0	0	0	14,511	28,001	35,534		
		Total	177,288	0	0	0	0	0	0	177,288	204,387	62,338	76.6%	100.0%
	<b>GM</b>	Cars	53,339	17,143	0	0	0	0	0	70,482	67,410	41,962		
		Trucks									0	48,754		
		Total	53,339	17,143	0	0	0	0	0	70,482	67,410	90,716	42.6%	100.0%
	<b>NISSAN</b>	Cars	2	3,744	8,806	21,783	12	14,270	0	48,617	51,247	92,286		
		Trucks	0	0	2,894	8,634	20	0	0	11,548	13,046	37,313		
		Total	2	3,744	11,700	30,417	32	14,270	0	60,165	64,293	129,599	33.2%	6.2%
	<b>VW</b>	Cars	65,063	19,830	0	7,801	0	0	0	92,694	98,872	144,517		
		Trucks	0	0	0	78	0	0	0	78	0	12,928		
		Total	65,063	19,830	0	7,879	0	0	0	92,772	98,872	157,445	38.6%	91.5%
<b>1995</b>	<b>CHRYSLER</b>	Cars	60,175	4,403	11	6	0	0		64,595	64,507	15,624		
		Trucks	108,334	7,770	122	211	0	0		116,437	115,290	10,154		
		Total	168,509	12,173	133	217	0	0	0	181,032	179,797	25,778	87.5%	99.8%
	<b>FORD</b>	Cars	200,595	0	0	0	0	0		200,595	197,698	9,317		
		Trucks	13,168	0	0	0	0	0		13,168	13,120	7,219		
		Total	213,763	0	0	0	0	0	0	213,763	210,818	16,536	92.7%	100.0%
	<b>GM</b>	Cars	124,524	0	0	0	0	0		124,524	124,703	14,985		
		Trucks	39,482							39,482	39,566	19,569		
		Total	164,006	0	0	0	0	0	0	164,006	164,269	34,554	82.6%	100.0%
	<b>NISSAN</b>	Cars	15,631	3,080	8,236	24,517	20	1,393		52,877	54,700	28,039		
		Trucks	0	0	3,342	9,657	128	18		13,145	13,963	10,092		
		Total	15,631	3,080	11,578	34,174	148	1,411	0	66,022	68,663	38,131	64.3%	28.3%
	<b>VW</b>	Cars	108,087	19,283	0	20,758	0	0		148,128	155,131	33,414		
		Trucks	0	0	0	12	0	0		12	0	2,893		
		Total	108,087	19,283	0	20,770	0	0	0	148,140	155,131	36,307	81.0%	86.0%

## Vehicle Exports from Mexico

Year	Make		U.S.A	Canada	Central America	South America	Africa	Asia	Europe	Total Export	Prodn for Export	Prodn National Market	Export as % of Prodn	% Exports to USA & Canada
<b>1996</b>	<b>CHRYSLER</b>	Cars	118,383	6,420	89	0	0	0	1	124,893	124,796	19,566		
		Trucks	190,390	9,886	153	86	0	0	0	200,515	200,504	16,346		
		Total	308,773	16,306	242	86	0	0	1	325,408	325,300	35,912	90.1%	99.9%
	<b>FORD</b>	Cars	154,538	0	0	0	0	0	0	154,538	154,656	13,889		
		Trucks	25,250	0	0	0	0	0	0	25,250	26,932	20,240		
		Total	179,788	0	0	0	0	0	0	179,788	181,588	34,129	84.2%	100.0%
	<b>GM</b>	Cars	98,271	0	2,804	0	0	0	0	101,075	101,194	37,742		
		Trucks	100,886	0	632	0	0	0	0	101,518	101,664	22,277		
		Total	199,157	0	3,436	0	0	0	0	202,593	202,858	60,019	77.2%	98.3%
	<b>NISSAN</b>	Cars	33,213	2,066	6,273	24,728	40	12,423	0	78,743	75,412	32,104		
		Trucks	0	0	1,676	10,297	236	2	3	12,214	9,947	18,174		
		Total	33,213	2,066	7,949	35,025	276	12,425	3	90,957	85,359	50,278	62.9%	38.8%
	<b>VW</b>	Cars	103,799	22,004	0	39,865	0	0	0	165,668	177,973	53,105		
		Trucks	0	0	0	0	0	0	0	0	0	0		
		Total	103,799	22,004	0	39,865	0	0	0	165,668	177,973	53,105	77.0%	75.9%
<b>1997</b>	<b>CHRYSLER</b>	Cars	91,758	3,232	10	0	0	0		95,000	94,938	38,354		
		Trucks	187,622	10,888	53	5,044	0	0		203,607	203,232	19,390		
		Total	279,380	14,120	63	5,044	0	0	0	298,607	298,170	57,744	83.8%	98.3%
	<b>FORD</b>	Cars	152,733	0	0	0	0	0		152,733	152,057	19,328		
		Trucks	54,375	0	0	0	0	0		54,375	54,381	20,323		
		Total	207,108	0	0	0	0	0	0	207,108	206,438	39,651	83.9%	100.0%
	<b>GM</b>	Cars	30,318	49,087	4,800	3,137	0	0		87,342	88,862	69,248		
		Trucks	116,471	3,013	922	21	0	0		120,427	120,600	22,190		
		Total	146,789	52,100	5,722	3,158	0	0	0	207,769	209,462	91,438	69.6%	95.7%
	<b>NISSAN</b>	Cars	37,958	1,876	6,258	23,508	5	844		70,449	69,104	60,582		
		Trucks	1	0	2,522	10,486	41	2		13,052	13,120	29,957		
		Total	37,959	1,876	8,780	33,994	46	846	0	83,501	82,224	90,539	47.6%	47.7%
	<b>VW</b>	Cars	129,062	21,977	121	29,841	0	0		181,001	188,136	69,230		
		Trucks												
		Total	129,062	21,977	121	29,841	0	0	0	181,001	188,136	69,230	73.1%	83.4%

## Vehicle Exports from Mexico

Year	Make		U.S.A	Canada	Central America	South America	Africa	Asia	Europe	Total Export	Prodn for Export	Prodn National Market	Export as % of Prodn	% Exports to USA & Canada
<b>1998</b>	<b>CHRYSLER</b>	Cars	85,673	3,362	0	0	0	0	0	89,035	88,908	43,966		
		Trucks	202,770	8,477	3	786	0	0	0	212,036	211,040	15,508		
		Total	288,443	11,839	3	786	0	0	0	301,071	299,948	59,474	83.5%	99.7%
	<b>FORD</b>	Cars	144,363	0	0	0	0	0	0	144,363	144,273	15,912		
		Trucks	30,408	0	0	0	0	0	0	30,408	30,386	22,975		
		Total	174,771	0	0	0	0	0	0	174,771	174,659	38,887	81.8%	100.0%
	<b>GM</b>	Cars	47,651	16,013	5,493	1,496	0	0	0	70,653	72,352	94,862		
		Trucks	122,782	2,932	1,554	189	0	0	0	127,457	128,241	20,573		
		Total	170,433	18,945	7,047	1,685	0	0	0	198,110	200,593	115,435	63.5%	95.6%
	<b>HONDA</b>	Cars								0	0	7,194		
		Trucks								0	0	7,194		
		Total	0	0	0	0	0	0	0	0	0	7,194	0.0%	
	<b>NISSAN</b>	Cars	15,080	4,201	6,660	14,485	0	483	0	40,909	44,445	99,384		
		Trucks	0	0	2,768	7,998	0	0	0	10,766	11,514	34,444		
		Total	15,080	4,201	9,428	22,483	0	483	0	51,675	55,959	133,828	29.5%	37.3%
	<b>VW</b>	Cars	170,915	35,043	816	12,952	0	0	23,272	242,998	247,599	91,360		
		Trucks								0				
		Total	170,915	35,043	816	12,952	0	0	23,272	242,998	247,599	91,360	73.0%	84.8%
<b>1999</b>	<b>CHRYSLER</b>	Cars	71,085	1,207	0	0	0	0	0	72,292	72,038	20,070		
		Trucks	214,875	7,118	33	1,202	0	0	0	223,228	221,708	16,474		
		Total	285,960	8,325	33	1,202	0	0	0	295,520	293,746	36,544	88.9%	99.6%
	<b>FORD</b>	Cars	129,381	0	0	0	0	0	0	129,381	132,121	15,083		
		Trucks	47,225	0	0	0	0	0	0	47,225	47,157	30,075		
		Total	176,606	0	0	0	0	0	0	176,606	179,278	45,158	79.9%	100.0%
	<b>GM</b>	Cars	37,094	37,634	3,626	406	0	0	0	78,760	81,206	103,476		
		Trucks	118,813	2,356	893	34	0	0	0	122,096	124,850	21,489		
		Total	155,907	39,990	4,519	440	0	0	0	200,856	206,056	124,965	62.2%	97.5%
	<b>HONDA</b>	Cars	0	0	0	0	0	0	0	0	1,795	8,446		
		Trucks								0				
		Total	0	0	0	0	0	0	0	0	1,795	8,446	17.5%	0.0%
	<b>NISSAN</b>	Cars	38,352	2,918	7,450	5,699	0	30	0	54,449	49,202	98,241		
		Trucks	0	0	2,522	4,761	0	0	0	7,283	5,834	32,297		
		Total	38,352	2,918	9,972	10,460	0	30	0	61,732	55,036	130,538	29.7%	66.9%
	<b>VW</b>	Cars	247,222	31,935	2,221	1,432	0	0	55,631	338,441	341,306	69,002		
		Trucks								0				
		Total	247,222	31,935	2,221	1,432	0	0	55,631	338,441	341,306	69,002	83.2%	82.5%