

## Vehicle Longevity

We are told by advertising agencies that we live in a “Me”, “More”, “Now” society. Consumers want to pamper themselves with as many consumer toys as possible and they want their toys today — thus the popularity of credit cards and the high debt levels in society. Every year the motor vehicle industry plays on these factors with a proliferation of new vehicles designed to entice consumers into their showrooms and new product to help consumers pay for them. The development of leasing, for instance, as a way to finance a vehicle helps consumers acquire the vehicle of their dreams sooner and more often than otherwise would be possible.

However, most Canadian consumers are actually very conservative with their vehicle buying and ownership habits. The most

popular vehicles purchased each year in Canada are compact passenger cars like the Honda Civic, Chevrolet Cavalier or the Ford Focus. On a market share basis, Canadians purchase twice as many of the very practical minivans than Americans and half as many sport utility vehicles — which are often viewed by analysts as less practical to own and operate. Yes, leasing is popular, but about half of the vehicles leased are purchased by the consumer at the end of the lease and are driven for another five to six years. Indeed, the average length of vehicle ownership in Canada for product originally bought new is over eight years. And this is the average. About a third of consumers keep their vehicles for 11 to 15 years. In Canada there are over six million vehicles on the road

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### Survival Rates - Passenger Car vs Light Truck

Model Year	Passenger Cars			Light Truck			Passenger Car Versus Light Truck
	Original Registrations	Number On the Road As Of July 2000	Survival Rate	Original Registrations	Number On the Road As Of July 2000	Survival Rate	
1999	673,723	673,201	99.9%	524,308	523,767	99.9%	0.0%
1998	689,159	672,875	97.6%	621,162	543,707	87.5%	11.5%
1997	687,423	662,089	96.3%	514,309	440,780	85.7%	12.4%
1996	521,368	516,049	99.0%	388,588	352,773	90.8%	9.0%
1995	688,761	672,854	97.7%	417,532	394,378	94.5%	3.4%
1994	649,629	620,686	95.5%	398,646	376,624	94.5%	1.1%
1993	704,637	659,856	93.6%	366,818	344,843	94.0%	-0.4%
1992	815,515	752,106	92.2%	367,460	340,263	92.6%	-0.4%
1991	802,920	713,961	88.9%	358,716	322,057	89.8%	-1.0%
1990	855,404	721,409	84.3%	366,945	324,369	88.4%	-4.6%
1989	928,807	688,443	74.1%	416,194	345,140	82.9%	-10.6%
1988	1,018,015	634,337	62.3%	447,992	338,946	75.7%	-17.6%
1987	971,436	476,023	49.0%	346,339	236,249	68.2%	-28.2%
1986	1,101,519	413,203	37.5%	355,783	213,921	60.1%	-37.6%
1985	999,706	280,861	28.1%	292,363	157,729	53.9%	-47.9%
1984	941,081	197,867	21.0%	253,210	115,900	45.8%	-54.1%

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that are over 10 years old, about 30 percent of the total.

So for many consumers, it is important to purchase a vehicle, new or used, that will last a long time. Using data from Polk Canada Inc., we are able to calculate survival rates for vehicles and the results are somewhat surprising. What we do is sum all the vehicles purchased 11 to 15 years ago (1985 to 1989 models) by brand

name and then by using the Polk data, compare this to how many are still on the road today (latest data is as of July 2000).

Mercedes-Benz and BMW and most other luxury marquees are the clear winners when it comes to long lasting passenger cars. Seventy-five percent to as high as ninety percent of luxury marques sold 11 to 15 years ago are still on the road today. Toyota and Honda lead the non-

luxury car makes as the longest lasting vehicles.

But why do some vehicles last longer than others? Is it simply that some are better quality than others? There are a number of variables, besides quality, which play a role in survival rates and although quality is important, it may not even be the top variable.

Other variables would include:

- The original price of vehicles
- The size of vehicle
- Type of construction
- Used vehicle exports and imports
- Accident rates
- Kilometres driven

## Passenger Cars Bought 11 to 15 Years Ago that Remain on the Road Today

	Model Year Registrations 1985-89 Model Years	Number Still on the Road as of 2000	Percent Still on the Road as of 2000	Percent Above/ Below Average
Mercedes	19,484	17,553	90.1%	40.4%
BMW	21,534	18,039	83.8%	34.1%
Volvo	32,443	26,845	82.7%	33.1%
Cadillac	42,280	34,361	81.3%	31.6%
Lincoln	28,776	21,519	74.8%	25.1%
Acura	17,696	13,136	74.2%	24.6%
Jaguar	9,338	6,611	70.8%	21.1%
Saab	7,277	5,132	70.5%	20.9%
Toyota	320,191	211,472	66.0%	16.4%
Honda	328,238	197,912	60.3%	10.6%
Oldsmobile	344,680	199,245	57.8%	8.1%
Chrysler	205,841	115,966	56.3%	6.7%
Volkswagen	161,648	90,872	56.2%	6.6%
Audi	19,813	11,013	55.6%	5.9%
Buick	215,307	117,793	54.7%	5.0%
Mazda	119,496	64,598	54.1%	4.4%
Nissan	152,795	79,513	52.0%	2.4%
Chevrolet	618,344	306,984	49.6%	0.0%
<b>Industry Average</b>	<b>5,019,483</b>	<b>2,492,867</b>	<b>49.7%</b>	
Pontiac	566,535	280,556	49.5%	-0.1%
Isuzu	3,355	1,608	47.9%	-1.7%
Ford	606,487	264,258	43.6%	-6.1%
Mercury	298,503	129,374	43.3%	-6.3%
Dodge	272,979	108,900	39.9%	-9.8%
Plymouth	270,109	106,154	39.3%	-10.4%
Suzuki	18,184	6,553	36.0%	-13.6%
Subaru	37,778	13,000	34.4%	-15.3%
Eagle	46,689	14,163	30.3%	-19.3%
Hyundai	246,151	42,609	17.3%	-32.4%
Lada	5,228	264	5.0%	-44.6%

Source: DesRosiers Automotive Consultants Inc. and Registration Data © Polk Canada Inc. 2000

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First, it is very clear that luxury and high-priced vehicles are kept around a lot longer than lower priced vehicles. This is partially because they are built better but I suspect a lot of it is because they are driven less, looked after more diligently and are owned by older consumers who can afford the maintenance and who have no reason to get rid of them. Perhaps the message here is that "if you take care of your vehicle it will last longer!" Many older luxury vehicles are also collectable whereas I'm not sure many smaller vehicles are collectable.

Second, larger, more substantive vehicles generally

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last longer than smaller vehicles. The small car divisions of DaimlerChrysler, Ford and GM all rank much lower than their luxury car divisions. Light trucks, which are usually bigger, have larger engines, are built tougher to withstand rugged use and therefore last a lot longer than passenger cars. Light trucks also have a higher utility as they age versus a passenger car. There are many old pickup trucks on use on farms as second, third or fourth vehicles. This would not be the case for cars.

Vehicles with body-on-frame construction last longer than those with uni-body construction because they are easier to repair if in an accident or if there is a rust problem. A case can also be made that a smaller vehicle in a collision is more likely to be written off than a larger vehicle because they sustain more damage. Finally, smaller cars have to be priced lower which means they also have to be built at lower cost and are therefore more likely to fail.

Third, some of the under-performance by certain makes is due to poor quality. I can't think of any other reason that would explain the huge gap between older Lada, Hyundai and Eagle models and the industry average. Likewise, Toyota and Honda's excellent showing must be related to their quality record. Toyota has the number one ranking passenger

## Light Trucks bought 11 to 15 Years Ago Still Remaining on the Road Today

	Model Year Registrations 1985 - 89 Model Years	Number Still on the Road as of 2000	Percent Still on the Road as of 2000	Percent Above/Below Average
Volkswagen	4,538	3,916	86.3%	16.8%
Land Rover	110	94	85.5%	15.9%
Jeep	91,480	68,490	74.9%	5.4%
Chevrolet	351,917	260,134	73.9%	4.4%
GMC	321,885	232,807	72.3%	2.8%
Dodge	258,760	181,220	70.0%	0.5%
<b>Industry Average</b>	<b>1,858,671</b>	<b>1,291,985</b>	<b>69.5%</b>	
Plymouth	87,706	60,161	68.6%	-0.9%
Isuzu	7,851	5,386	68.6%	-0.9%
Ford	517,403	343,865	66.5%	-3.1%
Toyota	76,426	50,490	66.1%	-3.4%
Mazda	50,135	31,930	63.7%	-5.8%
Nissan	68,496	41,593	60.7%	-8.8%
Suzuki	21,055	11,741	55.8%	-13.7%
Subaru	22	9	40.9%	-28.6%
Lada	887	149	16.8%	-52.7%

Source: DesRosiers Automotive Consultants Inc. and Registration Data © Polk Canada Inc. 2000  
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vehicles amongst those brands selling a complete range of product followed by Honda. It is clear that the full line Japanese companies have passenger cars that last a long time.

It is also important to understand that companies such as Hyundai have significantly improved their quality, so comparing an 11-15 year old 'Excel' model to a new 'Accent' model is not fair. I expect a much better performance for Hyundai as their new models age.

Fourth, used vehicle imports and exports clearly play a role in survival ratings. There is an important anomaly in the data that needs to be noted. Polk cannot track individual vehicles. They know how

many vehicles were originally registered and they know how many vehicles are still on the road, but the ones on the road today may not be the ones originally registered. The ones that have disappeared may have been exported rather than scrapped. An imported used vehicle would show up in the Polk data today even though it was purchased in the United States. Brands with high used exports appear to have a lower survival rate and brands with high imports appear to have a better survival rate. There was, for example, a substantial wholesale market for Ladas exported to Eastern Europe in the early 1990s. Lada did not rank low just because of quality issues — many were also exported which made them appear to have been scrapped. Some of these Ladas may still

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be on the road but in Russia instead of Canada.

Similarly, luxury vehicles are a prime snowbird purchase and I suspect some of the luxury vehicles currently in Canada were imported as used vehicles from the United States over the last ten years. Moreover, luxury vehicles were historically much more expensive in Canada than in the United States. Because there was an embargo on used vehicle imports, consumers could not import vehicles and this factor allowed higher prices in Canada to be maintained. The embargo was lifted with the signing of the Free Trade Agreement (FTA) in 1989 and some consumers started importing these lower priced used luxury vehicles from the U.S. This creates the perception that luxury vehicles last longer. Yes, they do, but not to the level indicated by this analysis. We have no way of knowing how many luxury vehicles currently on the road in Canada were actually purchased in Canada and/or in the U.S.

We also know that used vehicle exports have become very significant over the last three to five years. A vehicle class with high exports shows up in this analysis as having a lower survival rate. As with Ladas in the 1980s, these vehicles may still be on the road, but they may be registered in the U.S. instead of Canada. Light trucks are the most popular used vehicle exports from Canada

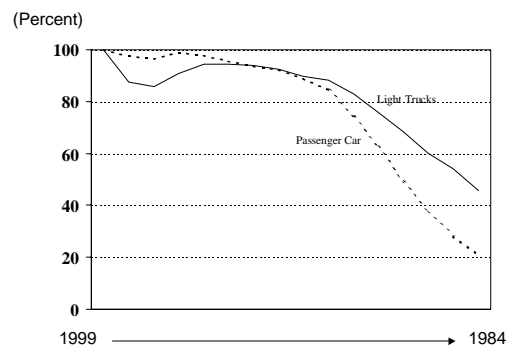
and this is why their survival rates during the first three to five years of ownership are so low (see Table on page one). Older light trucks actually have higher survival rates than passenger cars because of some of the issues discussed earlier.

The lesson here is that survival rates depend on a long list of factors, not just vehicle quality. Quality is certainly one of the most important variables but it is not the only variable. Indeed, small car owners may be more prone to accidents than luxury car owners and thus, these vehicles disappear at a faster rate. Consumers may be more willing to drive a banged up pick-up truck than a banged up sub-compact

car. We do not know how to weight the various factors.

Finally, all the vehicle companies have made major improvements in quality over the last decade, so it is not fair to rate the vehicles they sold 11 to 15 years ago against the vehicles they sell today. **DAR**

## Survival Rates Passenger Car vs. Light Truck



Source: DesRosiers Automotive Consultants Inc.

## Average Kilometres Driven During Past 12 Months By Vehicle Segment (Personal Use Only)

Segment	Kilometres Driven
Luxury Sport	22,002
Luxury	20,644
Intermediate	20,408
Compact	20,291
Subcompact	19,855
Sport	19,614
Luxury High	19,185
<b>Total Passenger Cars</b>	<b>20,300</b>
Large Pickup	23,495
Compact Pickup	23,198
Large Sport Utility	22,735
Intermediate Sport Utility	22,145
Compact Van	21,958
Full Size Van	19,799
Compact Sport Utility	19,763
Luxury Sport Utility	18,986
<b>Total Light Trucks</b>	<b>22,147</b>
<b>Total Light Vehicle</b>	<b>20,830</b>

Source: DesRosiers Automotive Consultants Inc. & 2001 CAA Vehicle Ownership Study