



OBSERVATIONS

Dennis DesRosiers

Trends in Vehicle Longevity

Vehicle longevity is an area we cover every year, but it still tends to fly under the radar for many industry watchers. I find this difficult to understand since so many lessons - so much fundamental knowledge and insight about the new and used vehicle markets - can be gleaned from this file. We can learn things that inform our opinions about topics as disparate as the reputations held by certain vehicle manufacturers, the future fortunes of the automotive aftermarket, or the environmental policy initiatives pursued (or not pursued) by various levels of government. The core finding of this study - that vehicles are lasting longer - has implications for every facet of this industry, from design to marketing to sales to service to scrappage.

Furthermore, radical segmentation shifts undertaken by Canadian buyers over the past decade has had and will continue to have serious implications for consumers, industry and government. For instance, the widespread movement to small cars heralds potentially negative changes in vehicle longevity over the coming decade.

Using "vehicles on the road" data from Polk Canada, we compare the number of vehicles annually registered in any particular year with the number of same-year vehicles registered today. For instance, if we wanted to find out the survival rate of 1995 Honda passenger

cars, we would look up how many of those cars were registered in 1995 or 1996 and contrast it with the number of 1995 Honda passenger cars on the road today. In this way, we arrive at survival rates for every model year of every model vehicle sold by every manufacturer in Canada since 1984.

This method is comprehensive and objective, and it allows for the evaluation of vehicle lifecycles in the most unbiased possible manner. It presents a living amalgam of two competing forces: how well vehicles age and how strongly the market values particular vehicles or vehicle types. We have long observed, for example, that vehicles produced by European luxury brands have survival rates far outpacing those of virtually any other group of manufacturers. The used vehicle market appreciates older Mercedes-Benz models to such a degree that a full 72.0 percent of 16 - 20 year old MB cars are still registered for use in Canada. Contrast this figure with that of a traditionally "reliable" brand (e.g. Toyota - 27.6 percent) and one begins to understand that forces beyond simple durability are at work.

Another contrast occurs when comparing the lifecycles of GM, Ford and Chrysler products with those of their import-nameplate competitors. Vehicles made by the Detroit Three are less likely to remain in service after

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Survival Rates - Passenger Cars and Light Trucks (1984-2007)

Survival Rates - Passenger Cars

Model Year	Subcompact Cars Survival Rate	Compact Cars Survival Rate	Intermediate Cars Survival Rate	Sports Cars Survival Rate	Luxury Cars Survival Rate	High Luxury Car Survival Rate	Luxury Sports Car Survival Rate
2007	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2006	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2005	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2004	98.9%	98.8%	100.0%	100.0%	94.0%	97.8%	100.0%
2003	95.5%	96.5%	97.9%	100.0%	99.7%	100.0%	100.0%
2002	93.8%	97.6%	99.3%	100.0%	100.0%	100.0%	100.0%
2001	95.6%	97.3%	98.1%	100.0%	93.5%	100.0%	100.0%
2000	98.5%	93.1%	96.4%	99.6%	95.8%	96.1%	100.0%
1999	95.1%	92.8%	91.3%	97.7%	92.4%	90.6%	100.0%
1998	88.7%	94.7%	88.1%	96.4%	90.3%	88.2%	100.0%
1997	86.1%	87.0%	85.3%	92.2%	70.3%	71.7%	83.8%
1996	78.2%	80.7%	83.3%	97.5%	70.4%	66.9%	96.2%
1995	65.1%	68.4%	74.4%	87.0%	65.9%	70.3%	82.3%
1994	53.4%	57.8%	66.3%	79.2%	66.4%	65.8%	82.3%
1993	43.1%	47.7%	57.7%	62.4%	74.8%	75.8%	88.8%
1992	35.3%	38.1%	51.1%	57.4%	67.9%	74.5%	75.4%
1991	29.8%	28.6%	39.3%	51.5%	61.9%	70.7%	71.6%
1990	16.6%	22.2%	29.9%	48.6%	50.2%	50.5%	64.6%
1989	8.2%	13.8%	17.7%	23.7%	36.4%	27.6%	44.0%
1988	4.6%	9.6%	13.1%	21.8%	27.7%	24.1%	36.2%
1987	4.2%	6.1%	8.9%	13.5%	19.9%	32.5%	37.8%
1986	3.4%	5.1%	7.7%	13.5%	17.0%	22.5%	34.2%
1985	2.6%	3.1%	5.9%	10.4%	11.4%	20.4%	30.9%
1984	2.4%	2.0%	5.0%	7.4%	8.9%	18.1%	28.2%
Total	58.3%	60.0%	63.2%	69.0%	67.3%	69.3%	77.3%

Source: DesRosiers Automotive Consultants Inc. and Registration Data © R.L. Polk & Company, 2006 data released 2007.

Survival Rates - Light Trucks

Model Year	Compact SUV Survival Rate	Intermediate SUV Survival Rate	Large SUV Survival Rate	Luxury SUV Survival Rate	Small Pickup Truck Survival Rate	Large Pickup Truck Survival Rate	Small Van Survival Rate	Large Van Survival Rate
2007	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2006	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2005	100.0%	100.0%	100.0%	100.0%	100.0%	95.2%	100.0%	100.0%
2004	99.4%	99.9%	100.0%	99.3%	99.9%	96.1%	99.1%	100.0%
2003	98.0%	97.1%	100.0%	100.0%	99.0%	98.6%	95.6%	100.0%
2002	97.4%	97.4%	85.5%	97.5%	100.0%	96.2%	96.3%	95.1%
2001	95.1%	92.4%	87.0%	92.2%	100.0%	90.6%	94.9%	95.3%
2000	93.0%	86.1%	78.4%	83.5%	100.0%	87.5%	86.4%	87.1%
1999	91.6%	77.6%	53.7%	78.7%	100.0%	86.7%	81.1%	90.2%
1998	87.4%	73.3%	60.1%	68.3%	94.5%	76.3%	72.7%	83.9%
1997	88.8%	69.7%	47.0%	86.7%	74.1%	81.5%	76.1%	83.5%
1996	90.1%	72.8%	56.1%	86.5%	80.7%	87.1%	74.5%	81.0%
1995	81.8%	73.1%	52.4%	75.2%	87.6%	88.0%	68.8%	78.7%
1994	77.4%	66.4%	43.2%	80.4%	72.0%	87.9%	64.2%	69.6%
1993	74.1%	60.2%	42.2%	58.2%	59.7%	84.4%	52.5%	61.7%
1992	66.6%	47.6%	57.4%	51.4%	49.2%	80.1%	44.3%	53.8%
1991	67.2%	50.8%	85.1%	-	44.3%	72.5%	37.3%	41.3%
1990	63.6%	31.6%	68.0%	-	40.5%	61.7%	24.4%	39.8%
1989	51.0%	27.2%	49.0%	-	31.3%	53.8%	15.7%	29.2%
1988	59.2%	19.6%	32.6%	-	19.7%	46.5%	12.6%	25.2%
1987	47.5%	17.4%	54.9%	-	18.8%	39.0%	10.2%	17.3%
1986	36.5%	12.7%	39.1%	-	17.0%	31.7%	8.6%	14.6%
1985	24.7%	18.3%	34.9%	-	9.6%	26.6%	8.8%	15.8%
1984	18.1%	12.5%	23.0%	-	9.1%	24.9%	10.8%	15.7%
Total	75.3%	62.6%	64.6%	84.9%	67.0%	74.7%	59.8%	65.8%

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Observations - "Trends in Vehicle Longevity"

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fifteen years, but the gap is not purely an issue of quality, reliability or durability. It is important to remember that a significant portion of Detroit Three vehicles are sold to fleets, potentially attaining high mileage levels earlier in their lives and thereby disappearing from registration records earlier. The vehicles may themselves be performing on-par with their competitors, but they are handicapped in this study due to the different dynamics governing the market for GM/Ford/Chrysler vehicles.

In our latest update of longevity dynamics, we have introduced a new level of analysis that may shed further light onto the fortunes (negative or positive) of specific OEMs. This year we examined survival rates by vehicle segment, slotting all vehicles into their respective AIAMC groupings and tabulating results that - when viewed in the context of previous longevity studies - ultimately lend credence to the speculations and suspicions previously voiced in this space.

As expected, luxury-oriented and niche segments outperform the industry by a significant margin. A full 56.2 percent of 15 year old Small Luxury cars are still on the road, while 62.7 percent of same-age Luxury Sports Cars are still rolling. These sorts of cars are often purchased by older, wealthier consumers who maintain them more diligently and drive them less frequently. High

original asking prices and relative rarity in the marketplace ensure that - as luxury vehicles transition through the ownership cycle - the second and third owners are similarly aware of their vehicle's value above and beyond that of simple transportation.

In similar fashion, the Compact SUV segment shows an incredible 71.4 percent of 15 year old vehicles still registered for use. In this case, one needs to examine the segment's unique dynamics in order to understand why a non-luxury type of vehicle has performed considerably better than virtually every other

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group. Fifteen years ago (or rather, fifteen years prior to 2005, the last year for which we have segment-separated registration data), what few Compact SUVs existed were primarily niche offroading products like the Jeep Wrangler and Suzuki Samurai. Other older Compact SUVs (such as the Jeep Cherokee and Suzuki Sidekick) developed niche appeal over the years, with modern fan followings far removed from their original market demographics. A strong enthusiast aftermarket can play a major role in the continued

survival of a specific model or brand.

At the other end of the spectrum, it was found that Subcompact Cars consistently generate the worst longevity ratings. With fifteen year survival rates hovering around 20 percent, it is clear that Subcompacts fail to retain value, utility, or desirability past a certain point in the ownership cycle. Just as the unusually high longevity of Luxury products is not the result of a single overriding factor, the premature disappearance of Subcompact vehicles from the road can be viewed through a variety of windows. At the forefront of many issues is cost: a new vehicle costing less than \$20,000 will reach the low end of the used vehicle market more quickly than an expensive product. Insurance companies will be more likely to assess these vehicles as total losses when involved in serious collisions. They are likely candidates for poor maintenance habits and they attract a younger buying demographic than any other vehicle segment. For these reasons - and, no doubt, a variety of others - it is entirely probable that Subcompact Cars will continue to track at or near the bottom of our longevity study for years to come.

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Increasing numbers of Canadians are swapping their mid-sized cars and trucks for compact models. This is viewed as generally positive - the lower fuel costs and reduced environmental footprints associated with these vehicles have obvious benefits for consumers and politicians. When examined through the lens of longevity, however, it could indicate a shift towards shorter ownership periods and more frequent vehicle purchases. The accumulated data suggest that Compact and Subcompact cars are simply not built to last for the same periods of time as larger vehicles. Indeed a strong case can be made that what the consumer saves in fuel efficiency will be lost in higher capital costs because these vehicles simply do not survive.

In addition to demographic and ownership-related factors, the fundamentals of a vehicle's design play roles in the longevity equation. Our data indicates that old-style body-on-frame vehicles (i.e., full size pickups, large vans) enjoy greater longevity than similarly utilitarian unit-body counterparts. Older minivans (mostly unit-body) fare far worse in the survival ratings than most other light trucks. In the same way, rear-wheel-drive vehicles appear to last (or retain perceived value) longer than front-driven equivalents. Those long-lasting European luxury vehicles are principally rear drivers, as are the Luxury

Sports Cars, Luxury SUVs, Large SUVs, Large Pickups and other vehicle types that consistently ring the bells atop our longevity scales.

The implications of increased vehicle longevity are wide-ranging. Older vehicles that remain in operation are reliable generators of maintenance dollars for the traditional aftermarket. Businesses in this field stand to benefit from any extension of the average vehicle's service life. Longer lasting cars and trucks

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spend an increasing proportion of their repair time outside the dealer system, their owners often frequenting independent installers or non-dealer chains. Independent service providers can capitalize on this opportunity by building long-term, long-lasting relationships with their customers.

Stemming from increased aftermarket business will be the need for more aftermarket parts. Wholesalers and warehouse distributors will need to extend the period of time older SKUs are kept in their systems, potentially increasing inventory sizes. Despite the carrying costs associated with larger inventories, this can still be regarded as a positive

development for all in the aftermarket value chain.

As we have noted many times in the past, the functional extension of vehicle lifespans is detrimental to any progress being made on the environmental front. Despite the fact that the current crop of 15-year-old vehicles has benefited from many of the same emissions control technologies employed on modern vehicles (e.g. electronic fuel injection and engine management), it remains true that today's vehicles are several times more environmentally-friendly than their older counterparts. This issue will continue to challenge green-concerned legislators, though Canada's mass adoption of small cars may temporarily halt or reverse the longevity trend, potentially easing the environmental burden associated with our country's large fleet of aging vehicles. **DAR**