

2008 Vehicle Registration Data

TPB Technical Committee

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2008 Vehicle Registration Data

- **Background**
 - Vehicle data used in air quality planning
 - Emissions vary by vehicle type, fuel used
 - Vehicle data updated every three years; last update in 2005
 - We obtained 2008 vehicle registration data with DC, MD, and VA air agency assistance
 - From data obtain number of vehicles by vehicle type, age distribution and diesel sales fractions

2008 Vehicle Registration Data

- **Methods**

- Electronic file of VIN Numbers as of July 1st 2008
- VIN decoder software used to decode and obtain Mobile 6.2 vehicle types
- 95% to 98% success rate of decoding
- Quality control and quality assurance undertaken
- Tabulate data and analyze results
- Compare 2008 results with 2005 results

- **Results**

- Older fleet compared to 2005
- Fleet growth slower than projected
- More light duty vehicles purchased in first year of 2008 than light duty trucks.

Exhibit 1. VIN Decoder Control Totals

	DC	%	MD	%	VA	%
DMV Vehicle Registration VINs Received	243,249		2,802,158		1,661,930	
List of Vins for Decoding (After Remove Duplicate VINS)	243,164	100.00%	1,734,903	100.00%	1,661,822	100.00%
VINs 25 years or older	3,432	1.41%	43,828	2.53%	30,651	1.84%
Decoded VINs without Vinpower Error Code	238,462	98.07%	1,651,941	95.22%	1,602,793	96.45%
Vins with Values for Vehicle Type and year(Year 1-24)	234,481	96.43%	1,598,954	92.16%	1,560,453	93.90%
Final Aggregated Database(16 Vehicle Types by 25 Years)	237,913	97.84%	1,642,782	94.69%	1,591,104	95.74%

Exhibit 2. 2008 Vehicle Class by State

State	Class	Counts	
		2008	%
DC	LDV(*)	161,749	68.02%
	LDT	67,077	28.21%
	HDV(**)	8,980	3.78%
	TOTAL	237,806	100.00%
MD	LDV(*)	936,215	57.04%
	LDT	616,741	37.57%
	HDV(**)	88,499	5.39%
	TOTAL	1,641,455	100.00%
VA	LDV(*)	913,326	57.41%
	LDT	608,744	38.26%
	HDV(**)	68,817	4.33%
	TOTAL	1,590,887	100.00%
Regional	LDV(*)	2,011,290	57.96%
	LDT	1,292,562	37.25%
	HDV(**)	166,296	4.79%
	TOTAL	3,470,148	100.00%

*Including Motorcycles

**Not including Transit and School Buses

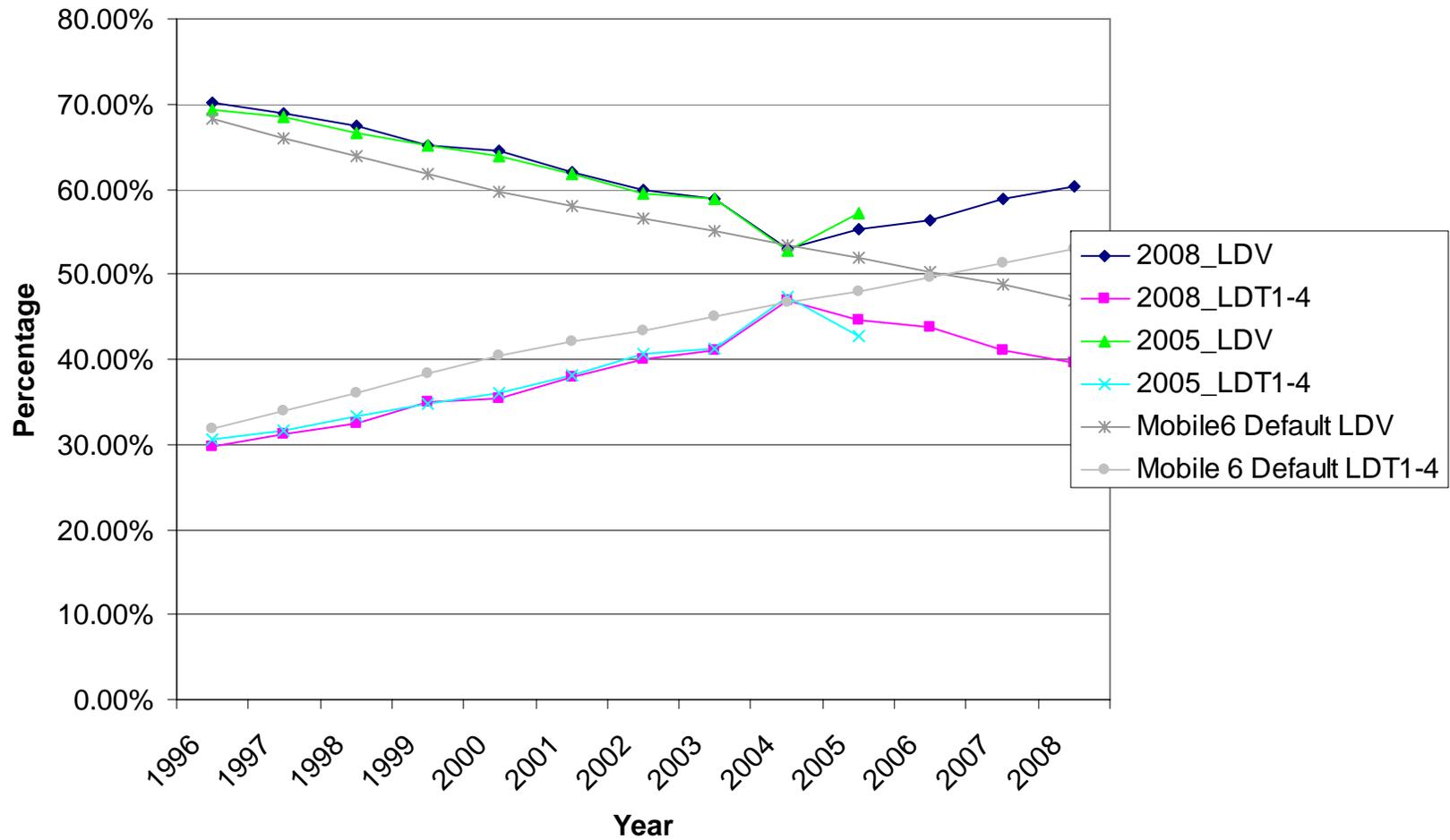
Exhibit 3.2008 Vehicle Type Distributions(1-24 year)

	DC		MTG		FFX	
	Count	Percentage	Count	Percentage	Count	Percentage
LDV	156,513	66.34%	393,106	58.69%	445,293	56.49%
LDT1	1,510	0.64%	4,693	0.70%	6,138	0.78%
LDT2	47,962	20.33%	177,184	26.46%	222,492	28.23%
LDT3	13,122	5.56%	43,018	6.42%	53,046	6.73%
LDT4	3,761	1.59%	14,293	2.13%	16,920	2.15%
HDV2B	4,752	2.01%	15,881	2.37%	16,436	2.09%
HDV3	837	0.35%	3,021	0.45%	3,701	0.47%
HDV4	1,736	0.74%	2,172	0.32%	2,607	0.33%
HDV5	338	0.14%	841	0.13%	939	0.12%
HDV6	387	0.16%	1,521	0.23%	1,975	0.25%
HDV7	302	0.13%	526	0.08%	759	0.10%
HDV8A	503	0.21%	1,284	0.19%	1,711	0.22%
HDV8B	68	0.03%	336	0.05%	297	0.04%
HDBS	292	0.12%	938	0.14%	1,679	0.21%
HDBT	969	0.41%	1,323	0.20%	684	0.09%
MC	2,884	1.22%	9,607	1.43%	13,553	1.72%
Total	235,936	100.00%	669,744	100.00%	788,231	100.00%

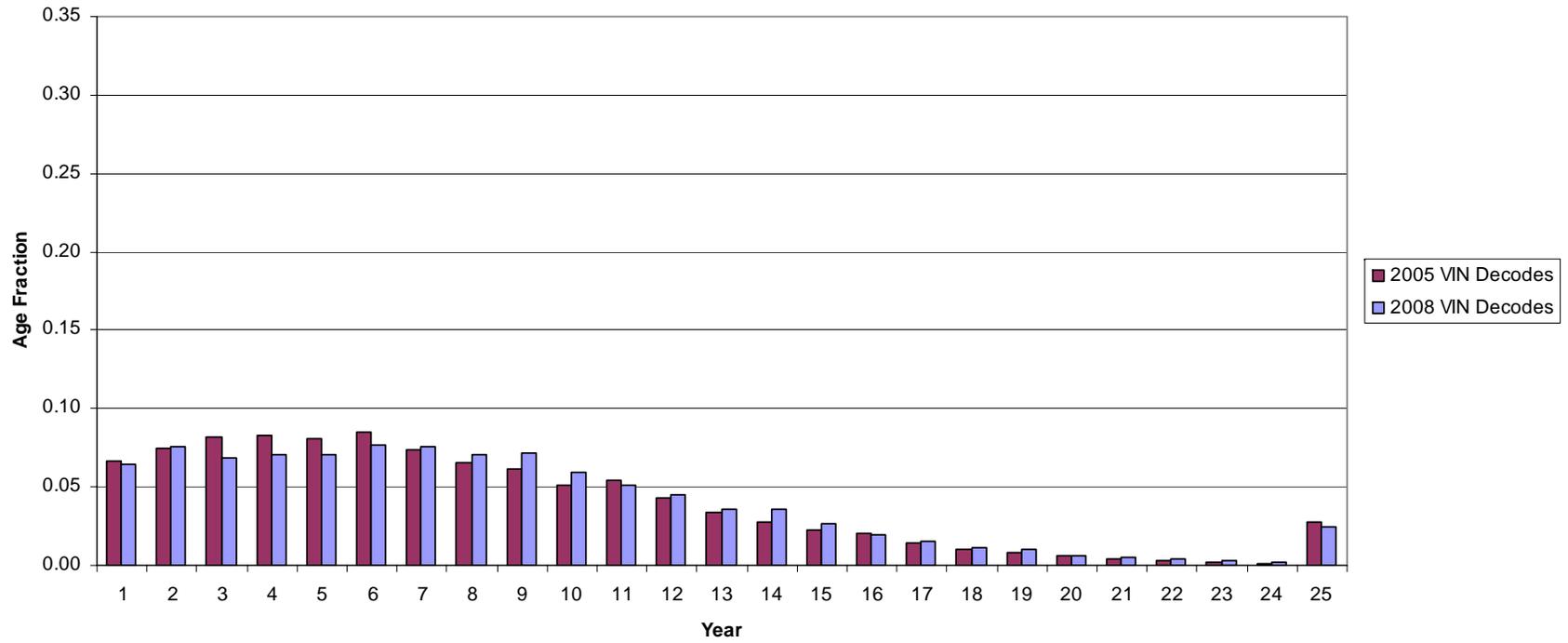
Trend in Year 1 Light Duty Vehicles

	2005		2008		Trend '05-'08	
	Number # Vehicles	Percentage	Number # Vehicles	Percentage	increase in # of vehicles	Percentage
LDV	26,626	57%	26,042	60%	(584)	-2%
LDT1-4	19,915	43%	17,059	40%	(2,856)	-14%
Total	46,541		43,101		(3,440)	

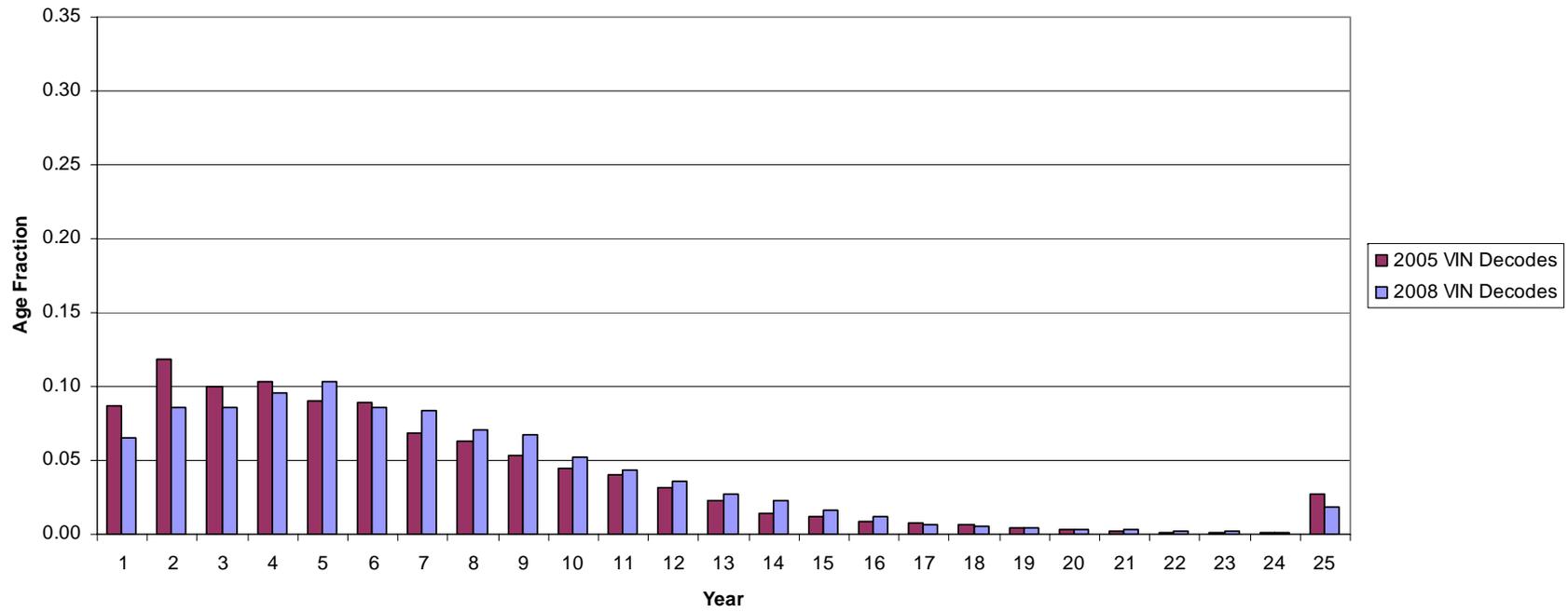
MTG LDV and LDT Percentage in Recent 13 Years



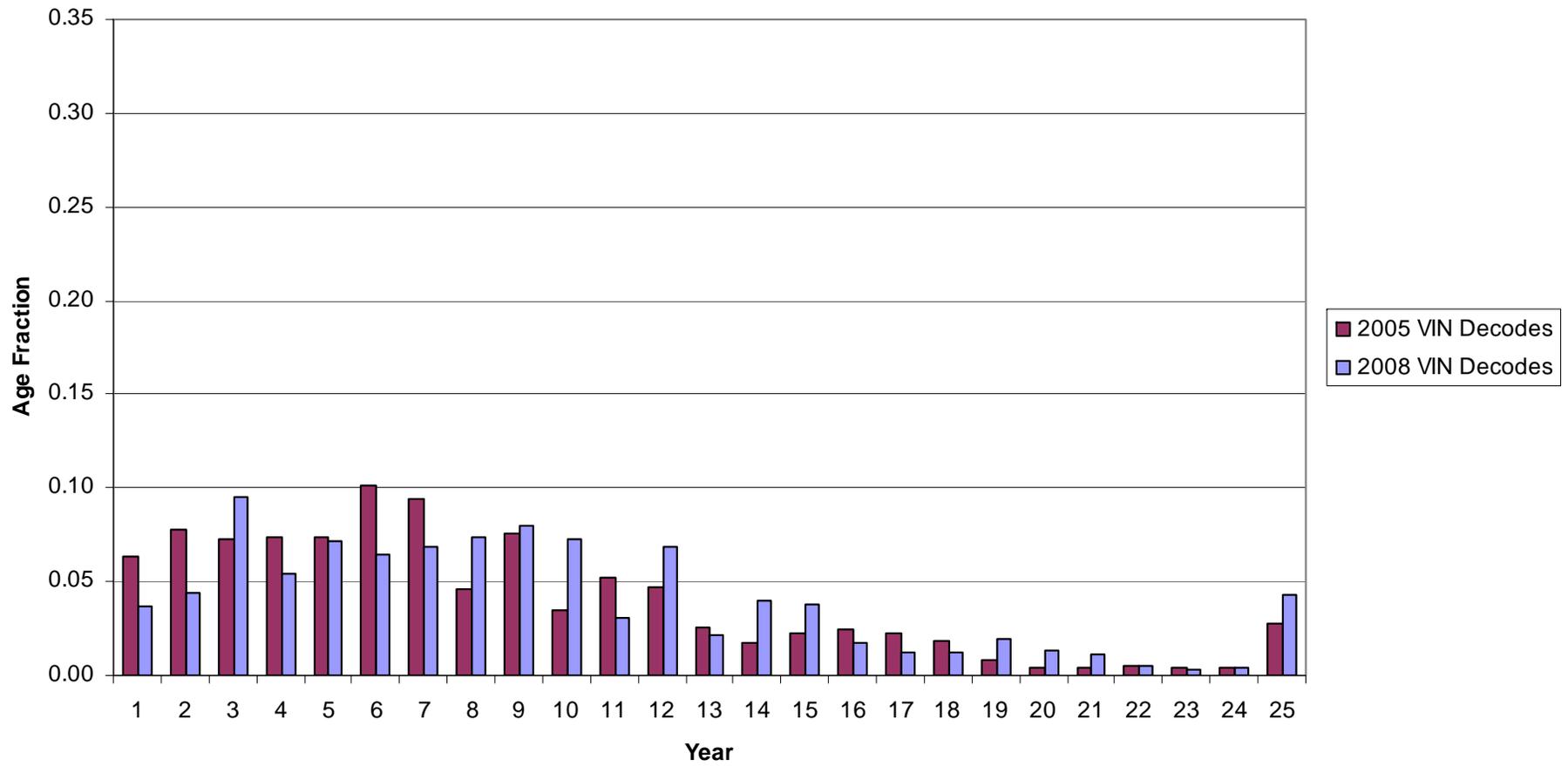
2008 Age Fractions Jurisdiction=MTG
Vehicle Type=LDV
Number of Decoded Vins=402813



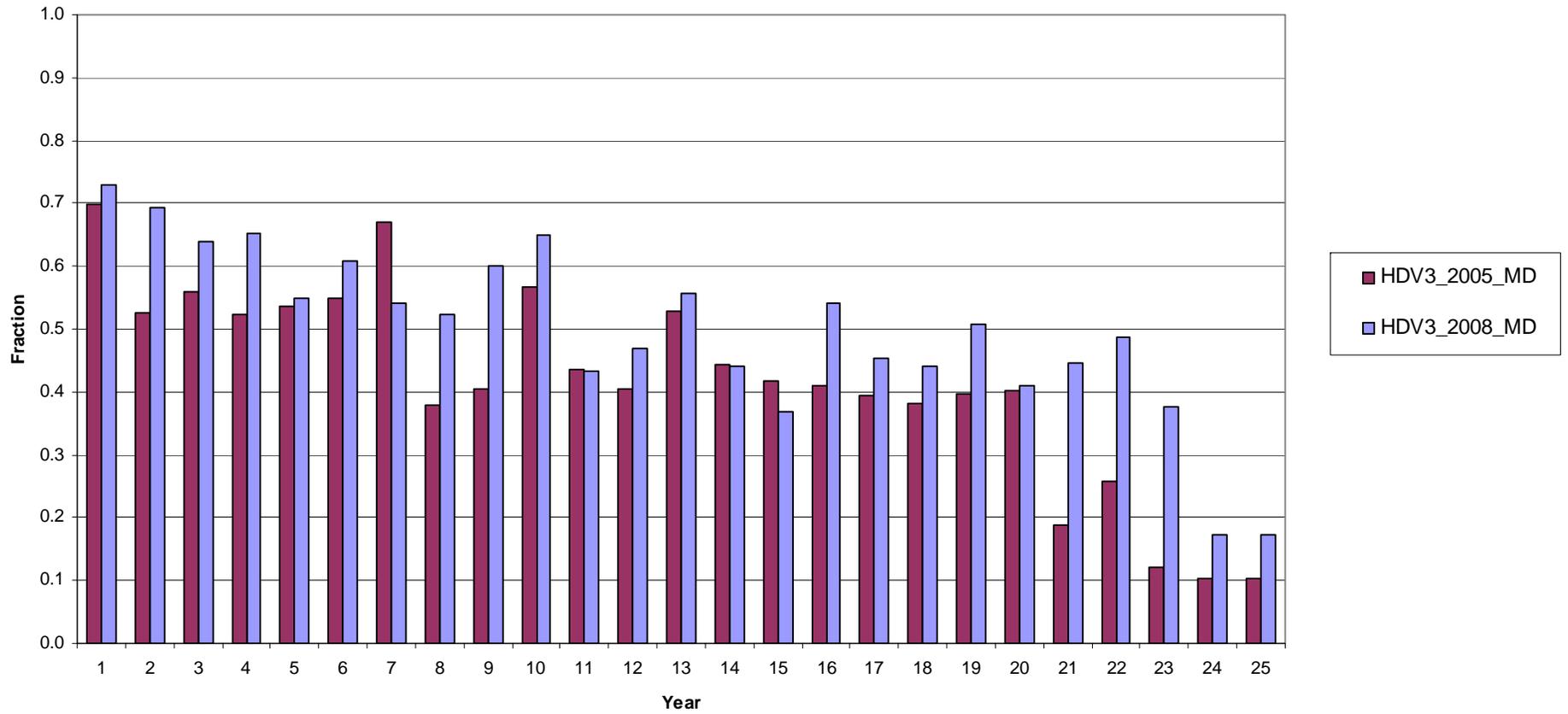
2008 Age Fractions Jurisdiction=MTG
Vehicle Type=LDT2
Number of Decoded Vins=180607



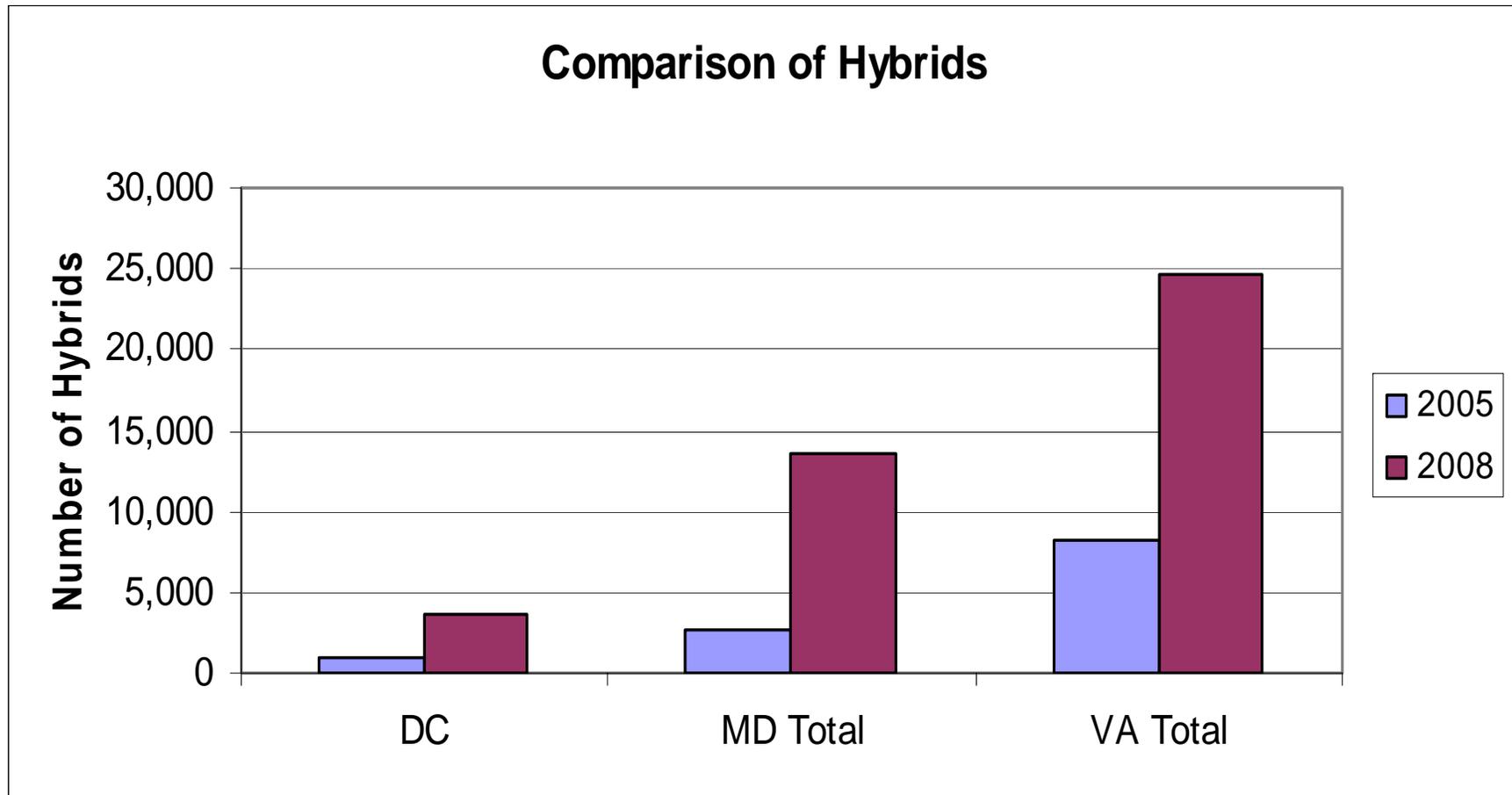
2008 Age Fractions Jurisdiction=MTG
Vehicle Type=HDV4
Number of Decoded Vins=2268



**Diesel Sales Fractions
Montgomery County of Maryland
Vehicle Type = HDV3**



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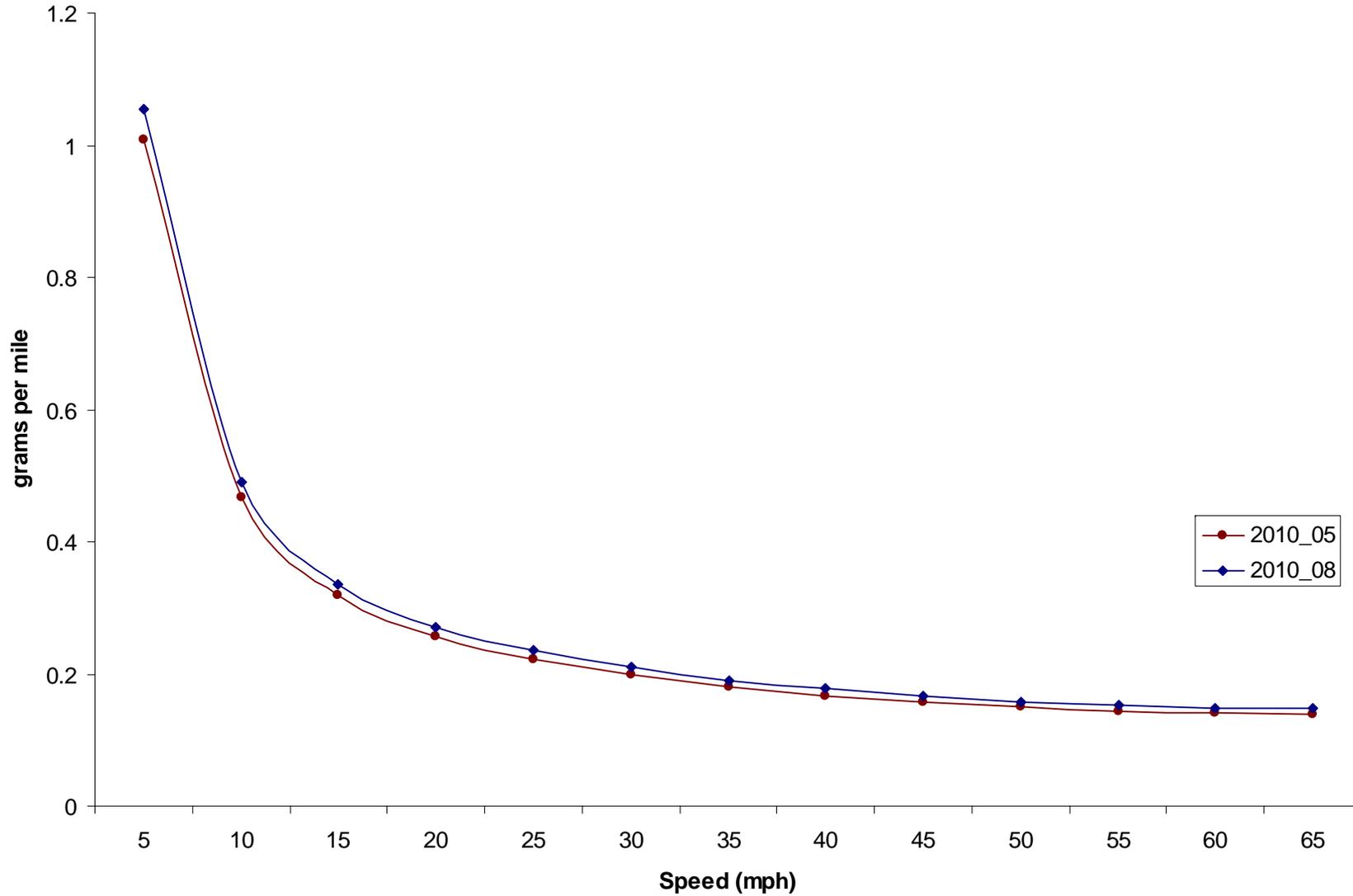


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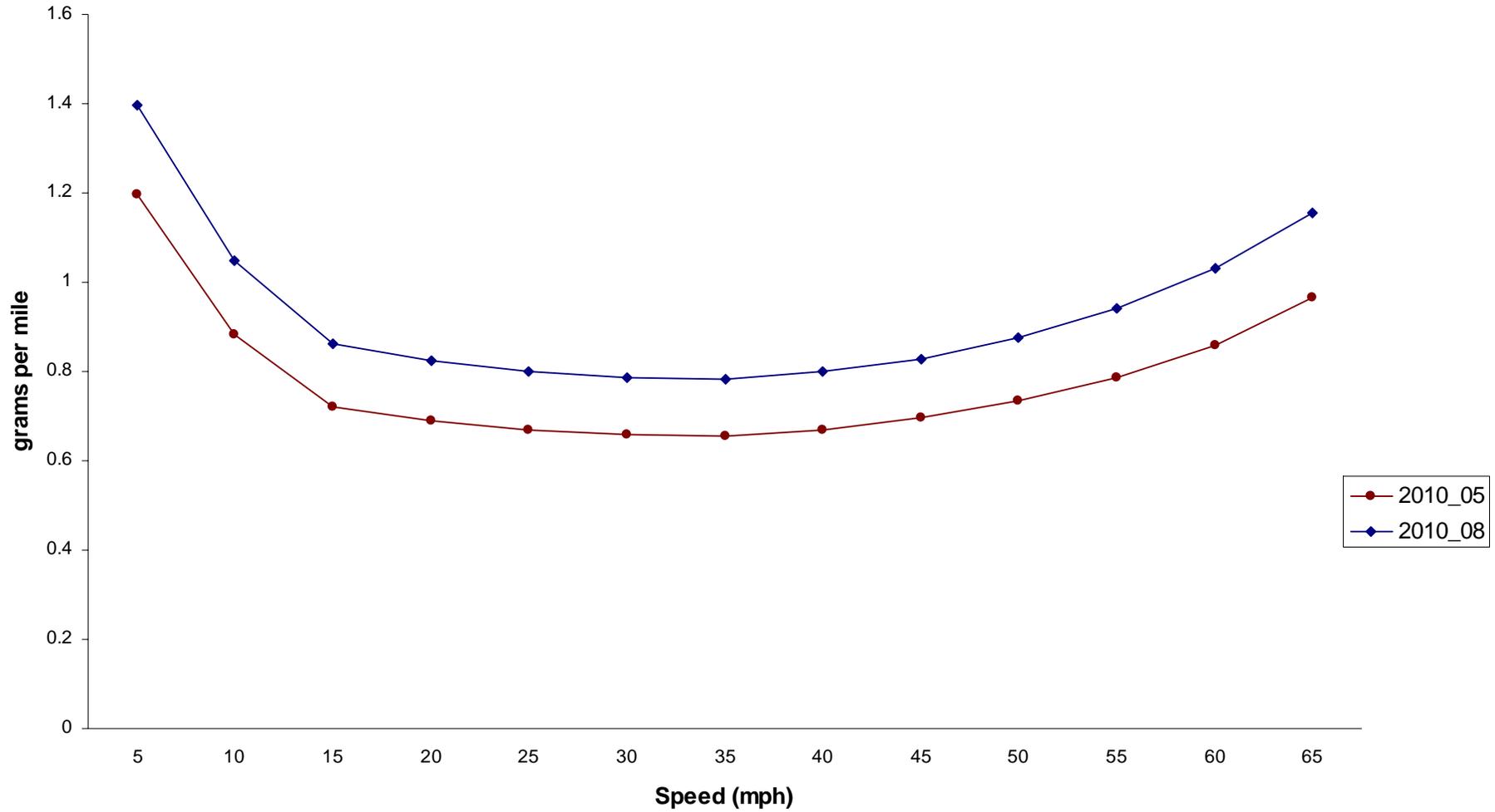
Recommendations For Developing Age Distribution (RDT) and Diesel Sales Percentages (DSF) Files:

- Jurisdictional RDT files for all vehicle types except school bus and transit bus
- Regional RDT and DSF files for school bus and transit bus
- State level DSF files for Maryland and Virginia, and urban area (DC, Montgomery, Prince Georges', Alexandria, Arlington and Fairfax) DSF files for the District of Columbia

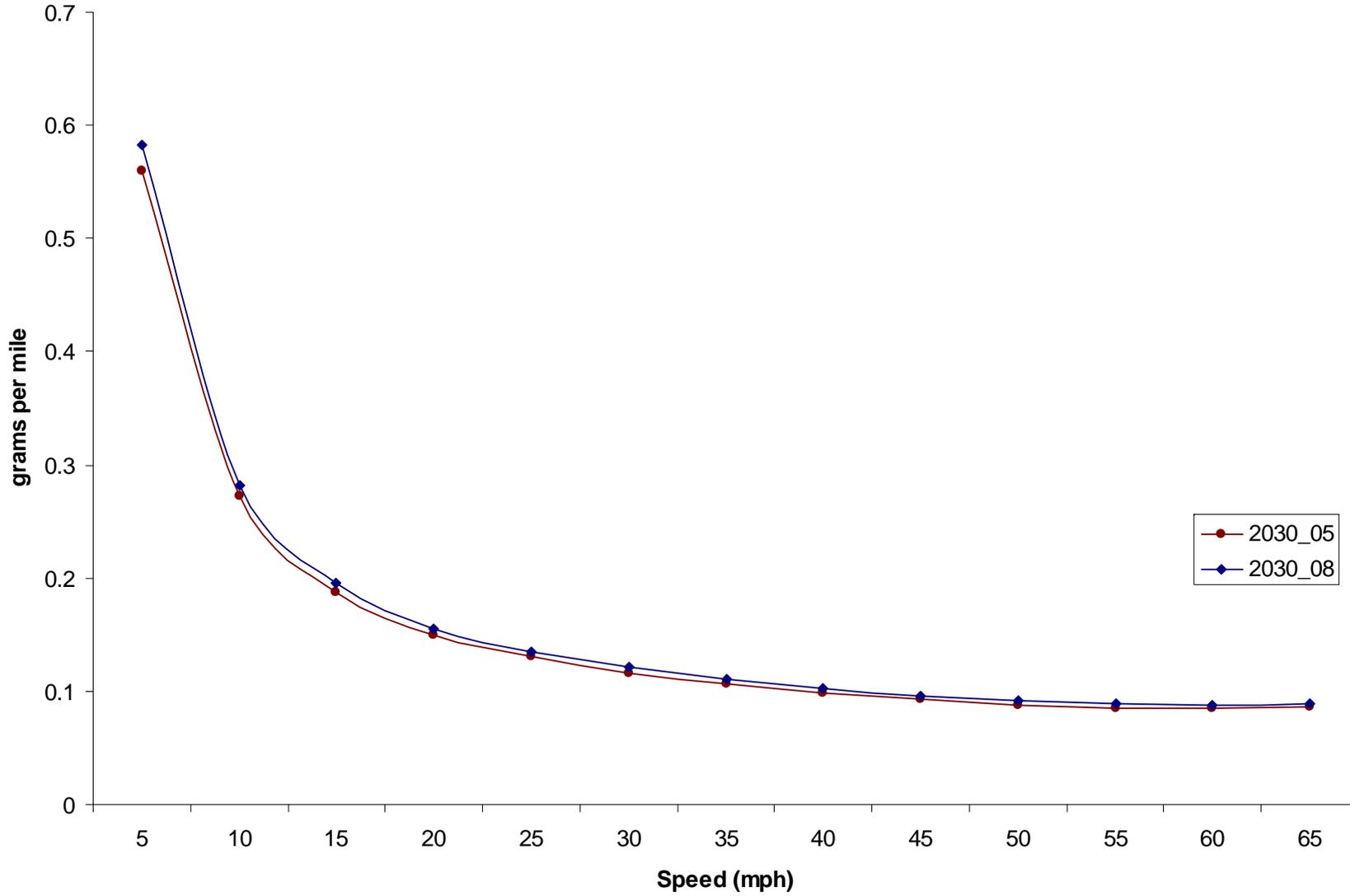
2010 VOC COMPOSITE MOBILE6.2 FREEWAY RUNNING EMISSION RATES FOR PRINCE WILLIAM COUNTY



2010 NOx COMPOSITE MOBILE6.2 FREEWAY RUNNING EMISSION RATES FOR PRINCE WILLIAM COUNTY



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