

GASOLINE TAXES FROM ATVS, SNOWMOBILES & RECREATIONAL WATERCRAFT IN MAINE

17 September 2024

Jonathan Rubin, Connor Evans-Ralston, Kathryn Grond



Background

- Update to 2001 reports on gasoline use and gasoline taxes paid by users of ATVs, snowmobiles and watercraft in Maine
- Given time and financial limitations, this report maintains the earlier findings:
 - Fuel use per vehicle/watercraft will be unchanged in terms of intensity per day and number of days per year
 - Net efficiency per vehicle/watercraft will remain unchanged
- While there has been increases in engine efficiency generally, engines and vehicles have gotten bigger and heavier



Fuel Consumption Estimates per Vehicle/Watercraft: Comparison

	Rubin et al. (2001) (gallons/year)	EPA Hwang & Davis 2009 (gallons/year)	FHA 2015 (gallons per year)
ATV Fuel Use	43.6	46	55.5
Snowmobile	87.4	255	114.3
Watercraft	69.3	129	117

EPA & FHA Fuel Consumption = Pop * Power * LF * A * BSFC

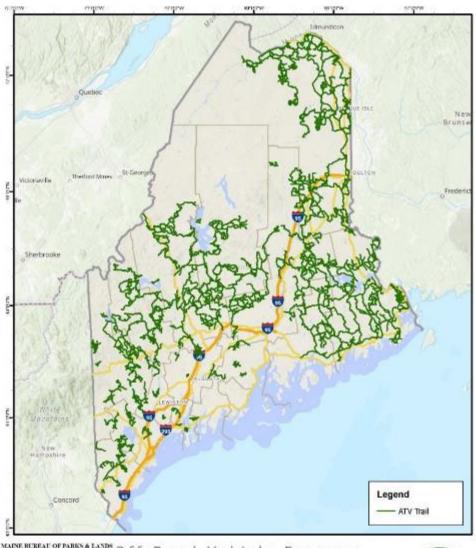
Pop = Engine population, Power = Average Power, LF = Load Factor (Fraction of available power), A = Activity (hours per year), BSFC = Fuel Factor (gallons per horsepower-hour)

=> Not directly comparable

Sources: (Hwang and Davis 2009; Federal Highway Administration 2015). Note: Hwang and Davis refer to EPA model NONROADS 2005 and FHA 2015 refers to EPA model NONROAD2008



ATV Trail Network has Grown



Maine Bureau of Parks & Lands

Off-Road Vehicle Program

Oscillate No. 100 State Section 100 State Sec

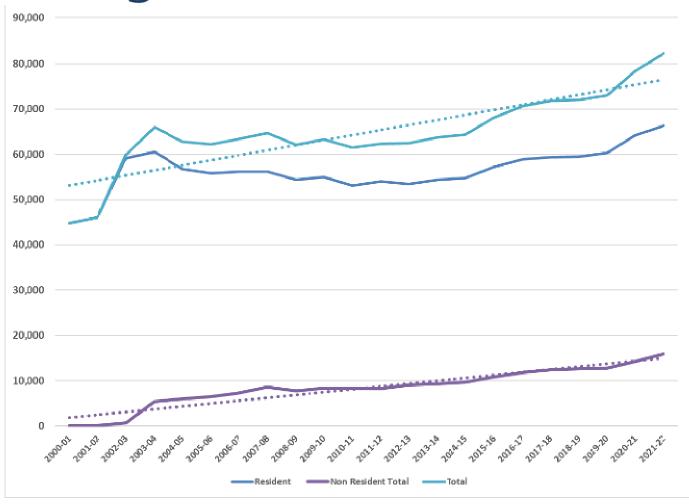
OPT-MODAL VARIABLE, PRODUCAS ID DISSIPATION OF REPORT OF THE PROPERTY OF THE P

Maine ATV Trails Map Created 2023-12-12





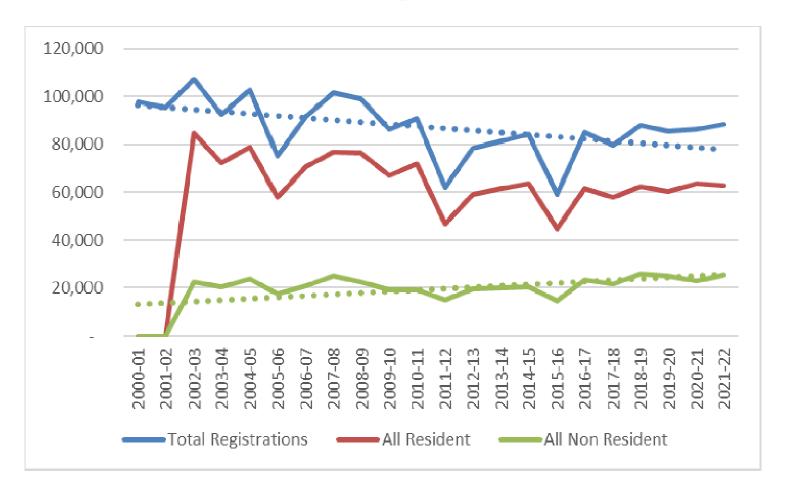
ATV Registrations



Resident: ~ 66K (+48%), Total ~ 82K (+84%)



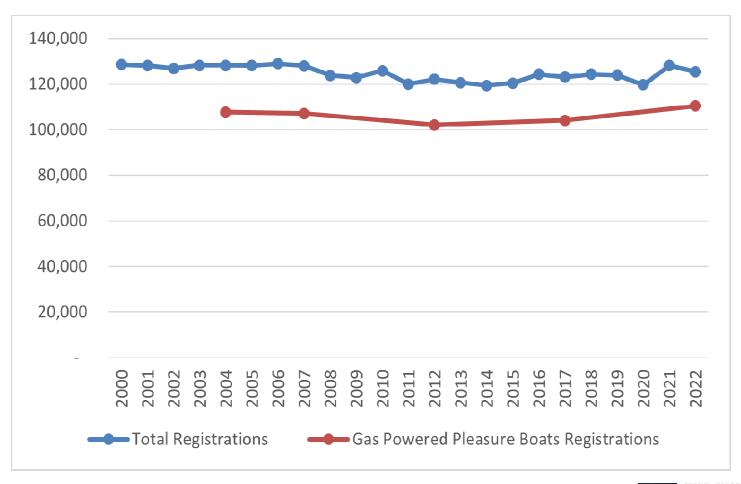
Snowmobile Registrations



Resident: ~63K (-26%) Total: ~ 88K (-10%), nonresident (+ 13%)



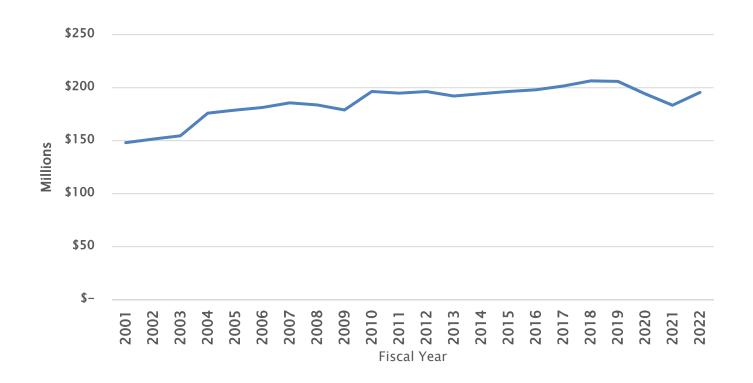
Watercraft Registrations





Maine Gasoline Tax Revenue

Maine gas tax: \$0.30/gallon ~ \$195M in 2022



Additional HTF revenue: LD259 adds 40% of the 5.5% sales tax on vehicle purchases and 40% of sales and use taxes collected by the BMV. This is estimated to raise approximately **\$100 million** per year.



Estimated Gas Tax Paid by ATVs, Snowmobiles & Watercraft: 2022

	Fuel Use per Vehicle (gal/year)	Number Registrations	Gas Tax	Estimated Excise Tax per Vehicle	Estimated Total Gas Tax
ATVs	43.6	82,322	0.30	\$13.08	\$1,076,772
Snowmobile	87.4	88,422	0.30	\$26.22	\$2,318,425
Watercraft	69.3	110,447	0.30	\$20.79	\$2,296,193
Total					\$5,691,390



Est. Revenue to Nonroad Uses (based on \$195M HTF Revenue)

	Nonroad Vehicle	Percentage of Tax	Estimated Revenue from the Gas Tax
Organization	Association	Received	in 2022
Commissioner of Marine Resources	Watercraft	0.36%	\$694,445
Boating Facilities Fund	Watercraft	1.09%	\$2,128,502
Commissioner of Inland Fisheries and Wildlife	Snowmobiles	0.14%	\$264,055
Snowmobile Trail Fund	Snowmobiles	0.77%	\$1,504,564
ATV Enforcement Grant	ATVs	0.08%	\$149,096
ATV Recreational Fund	ATVs	0.08%	\$149,096
Total		2.50%	\$4,889,758 1865 THE UNIVERSITY OF

Margaret Chase Smith

Policy Center

Gas Taxes Paid vs. Allocated

	Estimated Gas Taxes Paid	Estimated Gas Taxes Allocated	Taxes Paid Less Allocated
ATVs	\$1,076,772	\$298,192	\$778,580
Snowmobile	\$2,318,425	\$1,768,619	\$549,806
Watercraft	\$2,296,193	\$2,822,947	\$(526,754)
Total	\$5,691,390	\$4,889,758	\$801,631

Note: Sums do not always add due to rounding.

Caution is necessary for direct comparisons. This study has assumed that fuel use per vehicle and watercraft has not changed in 20 years. This is not likely to be correct.

