

THE IMPACT
OF THE
HEATING OIL INDUSTRY
ON THE
ECONOMY
OF
NEW YORK STATE

RONIGER ECONOMICS

for the

EMPIRE STATE PETROLEUM ASSOCIATION

March 2013

RONIGER ECONOMICS

Economics, Public Finance and Economic Development

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Dr. Roniger was Assistant Deputy State Comptroller for New York City where he was responsible for monitoring the finances and auditing the agencies of the City of New York. Before that, he was employed by Citibank, where he directed the Corporate Public Issues and Regional Economics Departments. In these positions, he advised its Board of Directors and senior management on New York economic and fiscal issues, and represented the bank in its relationships with New York City and State officials as well as other business and labor leaders.

Dr. Roniger has been widely quoted in the media on regional economic and fiscal issues and has published numerous articles on municipal economics and finance. He has served as advisor to the Temporary State Commission on New York City Finances, the Panel of Health Economists of the New York State Health Department and the Governor's Task Force on Unemployment. He has served as Director of the Regional Plan Association, the New York City Council on Economic Education, the Executive Committee of the Association for a Better New York and Chairman of the Research and Marketing Committee of the New York State Bankers Association.

Earlier in his career, Dr. Roniger was an economist with the Board of Governors of the Federal Reserve System and the U.S. Tariff Commission. He was Instructor in Economics at Lafayette College and Adjunct Professor at the Graduate School of Business at Pace University.

As a consultant, Dr Roniger has advised municipal unions on labor issues and provided marketing and feasibility studies as well as policy plans for a range of private sector, municipal, and not-for-profit clients in the New York area.

Dr. Roniger is a graduate of Queens College and earned his Ph.D. in Economics at Columbia University.

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I. STRUCTURE AND SIZE

INTRODUCTION:

The heating oil industry in New York State is a major center of small-to-moderate sized, family owned and operated businesses employing a significant number of middle income workers. The industry provides heating oil to both residential and commercial properties, sells and maintains the heating system equipment required to service the customer properties, sells a wide variety of other petroleum distillate products such as kerosene and on/off road diesel, and sells and maintains central air-conditioning equipment used by many of its heating customers. Many of the companies operating in the upstate region of the State are also engaged in the sale of gasoline and propane, and a sizeable number of companies throughout the State are also engaged in the home security industry.

BUSINESS, EMPLOYMENT AND EARNINGS:

Based on U.S. Census data from 2010, the following can be concluded.

- Statewide, the retail oil heating industry included almost 700 individual companies.^{1/}
- These companies are small businesses, employing an average of 12 persons each.
 - 97% of the companies had less than 50 employees.^{1/}
 - Most of the companies are S corporations, which are typically small businesses.^{1/}
- In total, over eight thousand workers found direct employment in these companies in New York State.^{1/}
- These workers earned middle-class incomes averaging \$48,000 annually.^{2/}
 - These workers are estimated to pay about \$14 million annually in personal income taxes to New York State.^{3/}
- The total annual payroll of these retail heating oil companies was about \$390 million.^{1/}

SALES AND SERVICES:

- According to the NY State Energy Research and Development authority, total sales of heating oil in New York State were in excess of 2.2 billion gallons in 2010.^{4/} Today, these sales would have a dollar value in excess of \$8.5 billion (Table 2).
- It is estimated that sales of some 1.14 billion gallons to the 1.35 million single family homes that use oil heat were valued at some \$4.8 billion^{4/} (Table 2).
- While the volume of sales varies widely by region, many commercial properties are also heated with oil. The total volume of sales to commercial entities is approximately \$3.17 billion based on 907 million gallons of total volume^{4/} (Table 2).
- In addition to sales of heating oil, these companies are actively engaged in the sale of new and replacement oil heating systems. We estimate that equipment sales and service maintenance contracts are equal to about ten percent of the value of oil sales, or an additional \$480 million annually.^{5/}

REGIONAL IMPACT:

- Generally speaking, the economic and service impact of the oil heating industry is unevenly distributed throughout the State and its five primary regions: Long Island, New York City and the lower Hudson Valley, the Capital Region and the remainder of the upstate counties.
- The Long Island region is the most significant region in New York State for the heating oil industry among the major regions analyzed, in terms of the number of establishments, employment and payrolls.^{1/}
- Based on data collected in the Census of 2007, the counties with maximum heating oil sales are Nassau, Kings and Westchester.^{6/}
- Nassau, Kings and Westchester, with a population that is 25% of that of the State, accounted for about 37% of the value of its oil heat product and equipment sales.^{6/}
- Based on data from the Census of 2010, Long Island, with 15% of the population of New York State accounts for an estimated 34% of heating oil sales by volume, 36% of employment in the retail industry, and 38% of the payrolls of the industry in the State.^{7/}
- The Hudson Valley, with 14% of the State's population accounts for an estimated 24% of the State's employment in the heating oil industry and 26% of its payrolls.^{7/}

STATE AND LOCAL TAX REVENUE:

The heating oil industry provides tax revenues to New York State that include:

- The taxes paid directly by the industry,
- The taxes paid by its owners and employees;
- The taxes generated by the industries providing the supplies and servicing the oil heating industry; and
- The employees and companies benefitting from expenditures of those working in the heating oil industry.

These taxes include the following:

- Personal income taxes.

We have estimated State personal income taxes on the basis of average employee earnings and a family with 2 children taking the standard deduction. We estimate that about \$14 million is paid by employees in the industry.

- The petroleum business tax paid on sales to commercial and industrial customers.

Article 13-A of the NY State tax code places a petroleum business tax on sales of commercial heating oil. The rate, once as high as 14 cents per gallon in the mid 1990's, has changed from year to year; the current rate is 4.4 cents per gallon for 2013. It is estimated that this tax generates some \$4.765 million on sales in excess of one billion gallons^{4/} (Table 2).

- Sales taxes paid on sales to commercial and industrial customers.

We estimate that state-wide heating oil sales to commercial and industrial properties were on the order of \$3.79 billion.^{4/} At a 4 percent sales tax for both the State and its localities, that would provide about \$151.62 million in revenue to the State and an equivalent amount to localities throughout the state.

II. THE OVERALL IMPACT

THE RIPPLE EFFECT ON JOBS, INCOME AND OUTPUT:

The significance of the oil heating industry to the economy of New York State is greater than its initial impact would suggest because the economy of the state is made up of a set of interconnecting relationships.

- Producers of products and services, such as heating oil distributors, in turn are customers of the businesses that provide the inputs to the heating oil distributors, such as businesses that produce, and refine oil; barge and trucking companies that distribute the oil to local dealers at various terminal locations; heating and air conditioning equipment manufacturers and distributors; and other companies providing everything from trucks and vans, to office supplies and equipment.
- Income earners, such as employees who provide the products to the oil heating industry and those who directly earn incomes in the industry in turn spend their income on food, clothing, shelter, etc. creating a further stream of business and incomes.

In this way, an initial economic act, such as the sale of heating oil to a homeowner, provides a ripple effect, or multiple, of incomes and outputs that total more than the direct impact of the original sale.

The U.S. Department of Commerce has collected census data that allows it to estimate both the inputs required by businesses in respective economic sectors, and also that allows it to estimate the multiple effect, or impact, of respective related economic activities. The Census Bureau has not provided impact data for individual retail activities, but does provide “input-output” data for retail activity as a whole in the respective states. The Bureau also estimates economic impact “multipliers” for the retail industry as a whole within individual states. We have used this data to estimate the overall impact of the heating oil industry in New York State on the economy of the New York State.

Based on Department of Commerce data, supplemented by data from the company “MIG Implan,” we estimate the following:

- Every job existing in the oil heating industry in New York State results in a total of 1.47 jobs statewide, including jobs required to create needed inputs to the industry and jobs created as a result of spending by employees in the industry.^{8/}
- Every dollar earned by employees in the industry results in a total of 1.68 dollars earned throughout New York State.^{8/}
- Every dollar of output of the industry results in a total additional 1.83 dollars in the value of output in the State.^{8/}

ANNUAL SALES, INCOME AND TAX IMPACTS:

The oil heating industry substantially and materially contributes to the economic well-being of the State in a multitude of ways and provides a powerful economic engine to key regions of the State and their residents.

Throughout New York State, therefore, we estimate that the heating oil industry has the following annual impact.

The industry provides at least:

- 12 thousand direct and indirect jobs in New York State generating some \$24 million in state personal income taxes paid.
- The industry has some \$656 million in total annual income on annual sales of about \$11 billion.
- Collects and remits to NY State some \$151 million in sales taxes and an additional \$5 million in Petroleum Business Taxes.
- Collects and pays some \$151 million in local sales taxes and an undetermined amount in local property taxes.

III. SUMMARY OF FINDINGS

The heating oil industry in New York State:

- **Is a very sizeable industry comprised of many hundreds of small, family owned and operated small businesses.**
- **Provides a significant level of direct and indirect employment to more than ten thousand generally middle-class, blue-collar workers.**
- **Provides reliable middle income employment to all of its permanent and seasonal workers.**
- **Provides fuel supplies and services to more than 1.5 million residential and commercial customers in all regions of the State.**
- **Has total sales of heating oil, heating equipment, and service maintenance contracts to residential, commercial and industrial customers well in excess of \$8 billion annually.**
- **Has a substantial direct and indirect impact on the economy of the State of New York.**
- **Has a disproportionately large economic and service impact on the downstate Region of New York, i.e., N.Y. City and Long Island.**
- **Provides a very sizeable tax-revenue stream in excess of \$300 million annually to the State and all local municipalities.**

The heating oil industry in New York State continues to evolve and adapt to a changing energy use and market supply environment. Many of today's heating oil retailers are full-service energy companies that employ experts in energy efficiency, energy auditing, and renewable technologies. At the same time, the industry has a sustained commitment to efficiency improvements and to exciting innovations such as ultra-low sulfur heating oil, biodiesel blending with heating oil and solar-fueled oil heat systems. Aggressive industry programs over the past 15 years to encourage increased energy efficiency and lower consumer costs have reduced overall fuel use by more than 30% statewide during that period^{4/}. Homeowners who have upgraded their oil heating systems to newer, high-efficiency units have lowered their fuel costs by as much as \$1,000 - \$1,200 a year.^{5/} The addition of natural, renewable biofuels ... blended with ultra-low sulfur heating oil ... increases system efficiencies, improves our environment, and continues the evolution of the industry into the 21st century.

Table 1.

**THE SIZE OF THE HEATING OIL INDUSTRY IN
NEW YORK STATE AND MAJOR REGIONS: 2010**

Location	Number Establishments	Paid Empl.^{1/}	Annual Payroll	Sales
			\$ thous.	\$mill.
New York State	679	8,200	390,706	6,000^{7/}
New York City	110	1,281 ^{5/}	80,334 ^{5/}	
Long Island ^{2/}	195	2,918	149,181	
Hudson Valley ^{3/}	168	2,180 ^{6/}	103,126 ^{6/}	
Upstate ^{4/}	206	1,821	58,065	

^{1/} March, 2010

^{2/} Nassau, Suffolk

^{3/} Westchester, Rockland, Putnam, Dutchess, Orange, Ulster, Columbia, Greene, Rensselaer, Albany

^{4/} Remainder of counties in New York State

^{5/} Includes estimate for New York County

^{6/} Includes estimates for several smaller counties.

^{7/} Estimate by author based on Census Bureau data for 2007 and a survey by the Heating Oil Industry of Long Island.

Source: U.S. Census Bureau, County Business Patterns, 2010 for NAIC 454311.

Table 2.
PETROLEUM CONSUMPTION BY SECTOR

<u>Residential</u>	27.2 mm/bbls.	=	1.142 bb/gals
<u>Commercial</u>	21.6 mm/bbls.	=	.907 bb/gals
<u>Industrial</u>	4.2 mm/bbls.	=	.176 bb/gals

Note: All except residential is subject to NY State Petroleum Business Tax and Sales Tax.

Source: NYS Energy Research & Development authority (NYSERDA), Patterns and Trends, NY State Energy Profiles, April 2012, Tables 2-9a, 2-10a, and 2-11a.

Total \$ Sales

<u>Residential</u>	1.142 mm/gals	x	\$4.20	=	\$4.796 billion
<u>Commercial</u>	.907 mm/gals	x	\$3.50	=	\$3.175 billion
<u>Industrial</u>	.176 mm/gals	x	\$3.50	=	<u>\$0.616 billion</u>
				=	\$8.578 billion

Source: NYSERDA Petroleum Price survey

SOURCES

- ^{1/} U.S. Census Bureau, County Business Patterns, 2010 (NAIC 454311, Retail Heating Oil Industry).
- ^{2/} Annual payroll divided by number of employees.
- ^{3/} Based on calculations assuming that average employee is married with two dependents and takes the standard deduction.
- ^{4/} NYS Energy Research and Development Authority (NYSERDA), Patterns and Trends, NY State Energy Profiles: 1996-2010, April 2012, Tables 2-9a, 2-10a and 2-11 a.
- ^{5/} Based on an internal survey by the Heating Oil Industry of Long Island.
- ^{6/} U.S. Census Bureau, 2007 Economic Census, Retail Trade, for New York, NAICS 454311.
- ^{7/} U.S. Census, 2010 and County Business Patterns, 2010.
- ^{8/} U.S. Census Bureau, RIMS II multipliers, Table 3.5; – Retail Trade (Type II) and MIG Implan.