Determining the Current Rates of Motor Fuel Tax Evasion For the State of Montana

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The Battelle Team

**Battelle**
- Motor fuel tax evasion analysis
- Economic analysis
- Benefit-cost analysis
- Fuel tracking systems
- Econometric analysis
- Transportation data analysis
- Policy analysis

**Montana State University**
- Tax analysis
- Accounting
- Tax law

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**Project Objectives**

**Objective 1**
Assess administrative and enforcement characteristics of state practices, including tax codes

**Objective 2**
Identify evasion techniques and note strategies used to curtail motor fuel tax evasion

**Objective 3**
Identify and examine data

**Objective 4**
Develop and demonstrate a methodology for reliably estimating state motor fuel tax evasion

**Objective 5**
Make recommendations for closing gaps in enforcement and reducing evasion.
The Incentive to Evade
Examination of Federal / State Practices

Objective: Scan the literature and conduct interviews in order to identify evasion techniques, methods for measuring evasion, evasion estimates, methods for curtailing evasion and results of efforts to reduce evasion.

- Literature Review
  - Background
  - Evasion Studies
  - Motor Fuel Tax Administration and Enforcement
  - Data Sources
  - Motor Fuel Excise Tax Revenue Forecasting
  - Tax Codes
  - Other Relevant Tax Codes

- Overview of Efforts to Curtail Motor Fuel Tax Evasion
  - Methods Used to Evade Taxes
  - Efforts to Curtail Evasion
  - Perceived Impact of These Compliance / Enforcement Activities
  - Estimated Resources Required to Enhance Compliance and Enforcement Activities
Federal Motor Fuel Tax System

Motor Fuel - Federal Excise Taxation Points

Gasoline
- Taxation point moved to rack, Jan 1, 1988
- Position holder pays tax, Jan 1, 1993

1984
- Wholesaler
- Seller at terminal rack
- Position holder at terminal rack

2004

Diesel fuel
- April 1, 1988: Taxation point moved to licensed wholesaler
- January 1, 1994: Taxation point moved to rack
- Jul 1, 1998: Undyed kerosene taxed as diesel fuel

Position holder pays tax
Evasion Techniques

Daisy Chains
- Classic Daisy Chain Scheme
- Daisy Chain Above the Rack
- Jet Fuel Daisy Chain Scheme

Non-Filing Schemes
- Failure to File
- Forged 637 Registration
- False Identification of Certification
- Falsified Quarterly Returns
- Falsified Books and Records
- Farmer Falsifying Highway Mileage

Imports and Exports
- Foreign Imports of Refined Product by Vessel
- False Export/Reimport
- Import Mislabeled Product of Canada
- Import to Native American Reservation
- Falsely Reporting as Export to Border Country
- Importing through Foreign Trade Zone

Dyed Diesel and Kerosene
- Tampering with Dye Injection Equipment
- False Documents that Fuel is Dyed
- Failure to Splash Dye
- Using Dyed Fuel on Highway
- Removal of Dye from Fuel
- Dyed only to Canadian Specs

Blending Schemes
- Blending Untaxed Products into Diesel Fuel
- Blending Natural Gasoline
- Transmix Removal

Removals from Bulk System
- Secret Barge Offloading Location
- Tapping Pipeline

False Labeling
- False Labeling as Mineral Spirits
- Failure to Label Dyed Diesel
- False Credit Card Sales to Exempt Government Agencies
- False Ultimate Vendor Claims
- False Refund Claim of Tax Paid – Non-Bulk
- False Claims of Tax Paid Fuel in Bulk System
- False Claims for Accidentally Mixing Dyed and Undyed
- False Claims for Income Tax Credit for Kerosene
- False Claims for Gasohol Credits or Refunds

Refunds and Credits
Objective: Examine historical and present administrative, compliance and enforcement activities within Montana and bordering states and provinces to compare the differences between programs and how these differences may impact evasion.

- Conduct Interviews with Representatives of Montana and Border States and Provinces
  - Montana
  - Alberta
  - British Columbia
  - Idaho
  - North Dakota
  - Saskatchewan
  - South Dakota
  - Utah
  - Washington
  - Wyoming

- Compare Program Elements
  - Point of Tax Collection
  - Penalties and Fines
  - Motor Fuel Tracking
  - Enforcement Levels
  - Reporting Procedures
Examine Montana’s Tax Codes and Identify Legal Gaps in Enforcement Program

Objective: Summarize current codes and/or proposed legislation to determine if there are gaps in the Montana tax code that exacerbate evasion.

- Review and Examine Montana Tax Codes
- Assess Administrative Rules
- Examine Effective Federal and State Codes and Administrative Rules
- Use Literature Review (e.g., FTA Model Legislation) and Interviews to Generate Concepts / Recommendations for Closing Gaps
- Compare Montana’s Tax Codes to Federal Codes and States With Well-Designed Tax Codes
Map the Montana Motor Fuel Distribution System and Examine Industry Enforcement

Objective: Identify entities involved in motor fuel distribution in Montana, examine industry enforcement activities, and map motor fuel distribution system in the region.

- **Identify Entities Involved in Motor Fuel Distribution System**
  - Bulk Transfer System (e.g., Producers, Distributors, Terminal Operators, Pipeline Operators)
  - Non-Bulk System (e.g., transporters and retailers)
  - Data Obtained from State of Montana, EIA, IRS

- **Examine Industry Enforcement Activities**
  - Availability and Shortcomings of Data
  - Reporting Requirements
  - Industry Compliance Procedures and Efforts at Reducing Evasion
  - Treatment of Dyed Fuels
  - Perceived Evasion Methods and Recommendations for Curtailing Evasion

- **Map Motor Fuel Distribution System in Montana and Neighboring States**
  - Graphic Presentations
  - Databases in Geographic Information Systems Framework
  - TransCAD Software to Facilitate Display Information
Motor Fuel Distribution System – Refineries and Terminals
Data Overview and Analysis

Objective: Identify and Examine Transportation, Economic and Tax Data to Support Modeling of Motor Fuel Tax Evasion

Data Types
- Tax Enforcement and Compliance Data
- Economic Data (Employment, Gross State Product, Motor Fuel Prices)
- Transportation Data (VMT, MPG)
- Tax Collection Data (Montana Collection Records)
Montana’s Motor Fuel Tax Evasion Profile

- Fourth highest diesel tax rate in the nation
- Second highest motor fuel tax rates in the region – Washington motor fuel tax rates are higher
- Geographic proximity to the Canadian border
- Geographic proximity to one of the lowest tax states in the nation – Wyoming
- Relatively low fines and punishments
- Presence of Native American reservations
- Limited field operations

Conclusion: Montana has reason to be concerned about motor fuel tax evasion.
Evidence of Evasion

• Wyoming’s per capita diesel consumption is more than 700 gallons
  – Roughly four times the national average
  – More than twice that of any other state in the nation
• Joint border project conducted in 1996 netted $1.4 million in assessments ($86,609 per day)
  – 1,188 commercial motor vehicle inspections
  – Broad range of violations
    - Dyed fuel in supply tanks (<1%)
    - Not in compliance with federal highway use tax (43 percent)
    - Dyed fuel violations for tankers (22 of 36 checked or 61 percent)
    - Not in compliance with IFTA (2.2 percent)
• BOLs pulled on-road for Montana-bound Wyoming tankers yield unusually high diversion rates
• Interviews conducted in support of previous field operations demonstrate that drivers are instructed to manipulate BOLs and other tax-related paperwork in order to evade detection
• IFTA audits yielded high initial assessment levels in 2002 and 2003, fewer in 2004

Conclusion: There is evidence to suggest that motor fuel tax evasion is a problem in Montana.
## Basic Model Framework – Step 1
### Assessment of Overall Evasion Levels

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real diesel price</td>
<td></td>
</tr>
<tr>
<td>Ratio of Interstate to total lane miles</td>
<td></td>
</tr>
<tr>
<td>Real personal income</td>
<td></td>
</tr>
<tr>
<td>Population</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. <strong>On-highway consumption of diesel in low evasion states</strong></td>
</tr>
<tr>
<td></td>
<td>2. <strong>Apply estimated coefficients to Montana data</strong></td>
</tr>
<tr>
<td></td>
<td>3. <strong>Estimate fuel consumption and compare to taxed gallons</strong></td>
</tr>
<tr>
<td></td>
<td>4. <strong>Multiply EOE gallons by tax rates</strong></td>
</tr>
<tr>
<td>Real gasoline price including tax</td>
<td></td>
</tr>
<tr>
<td>Ratio of Interstate to total lane miles</td>
<td></td>
</tr>
<tr>
<td>Real personal income</td>
<td></td>
</tr>
<tr>
<td>Registered automobiles</td>
<td></td>
</tr>
<tr>
<td>Population</td>
<td></td>
</tr>
</tbody>
</table>
### Basic Model Framework – Step 2
**Attribute Evasion to Specific Techniques**

#### Estimation Methods
- Econometric analysis used to estimated fuel consumption and compare with taxed gallons
- Audit and inspections analysis
- Statistical sampling
- Tobit analysis
- Fuel tracking approach
- Supply and use approach

#### Evasion Techniques
- Border schemes
- Dyed fuel schemes
- Blending and alternative fuel schemes
- International Fuel Tax Agreement (IFTA) Fraud
- Refund and credit fraud
- Failure to file schemes
# Findings of Evasion Analysis

<table>
<thead>
<tr>
<th>Evasion Method</th>
<th>Gasoline (thousand gallons)</th>
<th>Diesel (thousand gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>False Refunds or Credit Schemes</td>
<td>2,700</td>
<td>--</td>
</tr>
<tr>
<td>Loads Not Reported to MDT and Import Export Schemes</td>
<td>1,274</td>
<td>6,995</td>
</tr>
<tr>
<td>Evasion using Dyed Fuel (thousand gallons)</td>
<td>--</td>
<td>2,279</td>
</tr>
<tr>
<td>Motor Carrier Errors, Omissions and Evasion (thousand gallons)</td>
<td>--</td>
<td>10,511</td>
</tr>
<tr>
<td>Other Schemes (thousand gallons)</td>
<td>6,367</td>
<td>23,650</td>
</tr>
<tr>
<td>Total EOE (thousand gallons)</td>
<td>10,341</td>
<td>43,435</td>
</tr>
<tr>
<td>Total Gallons Taxed (thousand gallons)</td>
<td>493,719</td>
<td>223,636</td>
</tr>
<tr>
<td>Annual Lost Revenue ($ millions)</td>
<td>$2,792</td>
<td>$12,053</td>
</tr>
<tr>
<td>EOE Rate</td>
<td>2.1%</td>
<td>16.3%</td>
</tr>
</tbody>
</table>
Cross Border Evasion

**Claim**
100 gallons sold in Jurisdiction B

**Actual**
100 gallons sold in Montana without filing Montana taxes
Recommendations to Modify Montana’s Motor Fuel Tax Program

• Audit and inspection programs
  – Perform more distributor audits and modify auditing procedures
  – Expand field operations
    - Distributor audits
    - Border interdictions,
    - Vehicle and tanker inspections
    - Retailer audits
    - Covert operations as necessary
  – Perform random and targeted audits of retail stations
  – Require attendants at weigh stations and Ports of Entry to pull bills of lading from tanker trucks in order to compare with tax records

• Reviews and studies
  – Perform an analysis to determine the correct power take-off rate schedule
  – Further examine the economic and policy implications of moving the point of taxation to the terminal rack
Recommendations to Modify Montana’s Motor Fuel Tax Program (ii)

• Administrative practices
  – Attempt to achieve total fuel accountability
  – Obtain and share data (e.g., import/export schedules, lists of convicted tax evaders) on a more consistent basis with neighboring state and provinces
  – Establish an internet website for individuals to report incidents of evasion
  – Maintain a distributor/importer education program
  – Centralize fuel tax administration
  – Perform extensive background checks/investigation of licensee applicants
Recommendations to Modify Montana’s Motor Fuel Tax Program (iii)

• Tax codes
  – Extend the statute of limitation for motor fuel tax fraud from three to five years
  – Hold corporate officers jointly and severally liable for the filing of reports or returns and the payment of tax, penalty, and interest due (i.e., pierce the corporate veil)
  – Expand penalties and fines for non-compliance
  – Mandate electronic reporting by taxpayers
  – Authorize expanded authority to inspect and examine motor fuel and paper work in support of motor fuel tax enforcement