Released: February 2018
Table 10.16 Percent of Establishments by Levels of Price Difference that Would Cause Fuel
Switching from Coal to a Less Expensive Substitute, 2014;
Level: National Data;
Row: NAICS Codes;
olumn: Levels of Price Difference;
Unit: Establishment Counts.

|  |  |  | Would Not Switch Due |  |  |  |  | Estimate Cannot | Would Switch to More Expensive |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NAICS Code(a) | Subsector and Industry | Establishments Able to Switch(b) | Switch Due to Price | $\begin{aligned} & 1 \text { to } 10 \\ & \text { Percent } \end{aligned}$ | 11 to 25 <br> Percent | 26 to 50 Percent | Over 50 Percent |  | Expensive Substitute |


| 311 | Food | 18 | w | 6 | 4 | w | w | w | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3112 | Grain and Oilseed Milling | 11 | w | w | 4 | w | w | 0 | 0 |
| 311221 | Wet Corn Milling | 7 | w | w | w | 0 | w | 0 | 0 |
| 31131 | Sugar Manufacturing | w | 0 | w | 0 | w | 0 | w | 0 |
| 3114 | Fruit and Vegetable Preserving and Specialty Food | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3115 | Dairy Product | w | 0 | w | 0 | 0 | 0 | 0 | 0 |
| 3116 | Animal Slaughtering and Processing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 312 | Beverage and Tobacco Products | 6 | 0 | w | w | 0 | w | 0 | 0 |
| 3121 | Beverages | 6 | 0 | w | w | 0 | w | 0 | 0 |
| 3122 | Tobacco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 313 | Textile Mills | W | 0 | w | w | 0 | 0 | 0 | 0 |
| 314 | Textile Product Mills | w | 0 | w | w | 0 | 0 | 0 | 0 |
| 315 | Apparel | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 316 | Leather and Allied Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 321 | Wood Products | w | w | 0 | 0 | 0 | 0 | 0 | 0 |
| 321113 | Sawmills | W | w | 0 | 0 | 0 | 0 | 0 | 0 |
| 3212 | Veneer, Plywood, and Engineered Woods | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 321219 | Reconstituted Wood Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3219 | Other Wood Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 322 | Paper | 31 | w | 10 | 13 | w | w | w | w |
| 322110 | Pulp Mills | W | 0 | w | 0 | 0 | 0 | 0 | 0 |
| 322121 | Paper Mills, except Newsprint | w | 0 | w | 6 | w | 0 | w | w |
| 322122 | Newsprint Mills | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 322130 | Paperboard Mills | 14 | w | 6 | w | 0 | w | w | 0 |
| 323 | Printing and Related Support | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 324 | Petroleum and Coal Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 324110 | Petroleum Refineries | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 324121 | Asphalt Paving Mixture and Block | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 324122 | Asphalt Shingle and Coating Materials | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 324199 | Other Petroleum and Coal Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325 | Chemicals | 28 | w | 5 | 6 | w | 0 | 12 | 0 |
| 325110 | Petrochemicals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325120 | Industrial Gases | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325180 | Other Basic Inorganic Chemicals | w | 0 | 0 | w | w | 0 | 0 | 0 |
| 325193 | Ethyl Alcohol | w | 0 | 0 | w | 0 | 0 | w | 0 |
| 325194 | Cyclic Crudes, Intermediate and Gum and Wood Chemicals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325199 | Other Basic Organic Chemicals | w | w | 0 | 0 | 0 | 0 | 0 | 0 |
| 325211 | Plastics Materials and Resins | w | 0 | w | w | 0 | 0 | 0 | 0 |
| 325212 | Synthetic Rubber | W | 0 | 0 | 0 | 0 | 0 | w | 0 |
| 325220 | Artificial and Synthetic Fibers and Filaments | w | 0 | w | 0 | 0 | 0 | w | 0 |
| 325311 | Nitrogenous Fertilizers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325312 | Phosphatic Fertilizers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3254 | Pharmaceuticals and Medicines | W | 0 | w | 0 | 0 | 0 | w | 0 |
| 325412 | Pharmaceutical Preparation | W | 0 | w | 0 | 0 | 0 | w | 0 |
| 325992 | Photographic Film, Paper, Plate, and Chemicals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 326 | Plastics and Rubber Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 327 | Nonmetallic Mineral Products | 49 | w | 12 | 11 | 7 | 0 | 13 | w |
| 327120 | Clay Building Material and Refractories | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 327211 | Flat Glass | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 327212 | Other Pressed and Blown Glass and Glassware | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 327213 | Glass Containers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 327215 | Glass Products from Purchased Glass | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 327310 | Cements | 42 | w | 12 | w | w | 0 | w | w |
| 327410 | Lime | 7 | 0 | 0 | w | w | 0 | w | w |
| 327420 | Gypsum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 327993 | Mineral Wool | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 331 | Primary Metals | w | 0 | 0 | w | w | 0 | 0 | 0 |
| 331110 | Iron and Steel Mills and Ferroalloys | W | 0 | 0 | w | W | 0 | 0 | 0 |
| -3312 | Steel Products from Purchased Steel | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3313 | Alumina and Aluminum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 331314 | Secondary Smelting and Alloying of Aluminum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 331315 | Aluminum Sheet, Plate and Foils | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 331318 | Other Aluminum Roiling, Drawing and Extruding | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -3314 | Nonferrous Metals, except Aluminum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 331410 | Nonferrous Metal (except Aluminum) Smelting and Refining | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -3315 | Foundries | w | 0 | 0 | 0 | w | 0 | 0 | 0 |
| 331511 | Iron Foundries | w | 0 | 0 | 0 | w | 0 | 0 | 0 |
| 331523 | Nonferrous Metal Die-Casting Foundaries | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 331524 | Aluminum Foundries, except Die-Casting | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 332 | Fabricated Metal Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 333 | Machinery | w | 0 | 0 | 0 | 0 | 0 | w | 0 |
| 334 | Computer and Electronic Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 334413 | Semiconductors and Related Devices | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 335 | Electrical Equip., Appliances, and Components | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 336 | Transportation Equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 336111 | Automobiles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 336112 | Light Trucks and Utility Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3364 | Aerospace Product and Parts | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 336411 | Aircraft | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 337 | Furniture and Related Products | W | 0 | w | 0 | 0 | 0 | 0 | 0 |
| 339 | Miscellaneous | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Total | 158 | 8 | 41 | 47 | 17 | 4 | 38 | 4 |

(a) The Bureau of the Census classifies establishments using the 2012 North American Industry Classification System (NAICS).
(b) This count includes only those establishments that reported this activity in 2014.
(c) These levels of price difference were guesstimates at which establishments perceived that they would switch. These levels were not actual values at which switching occurred. The percentage of price difference is computed as the
arity of (current fuel price minus alternative fuel price) divided by the current fuel price expressed as a perce.

* Estimate less than 0.5
$W=$ Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.
$\mathrm{NA}=$ Not available.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, '2014 Manufacturing Energy Consumption Survey.

| NAICS | Subsector and Industry | Would Not |  |  |  |  |  |  Would Switch <br> Estimate to More |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  |  | Establishments Able to Switch(b) | Switch Due | 1 to 10 Percent | 11 to 25 Percent | 26 to 50 | Over 50 | Cannot Be Provided | Expensive Substitute |
| Code(a) |  | Able to Switch(b) | to Price | Percent | Percent | Percent | Percent | Be Provided | Substitute |

Total United States

| 311 | Food | 2.3 | 0.0 | 2.3 | 4.6 | 4.7 | 0.0 | 0.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3112 | Grain and Oilseed Milling | 3.5 | 0.0 | 3.0 | 4.6 | 9.1 | 0.0 | x |
| 311221 | Wet Corn Milling | 0.0 | 0.0 | 0.0 | 0.0 | X | 0.0 | x |
| 31131 | Sugar Manufacturing | 0.1 | X | 0.1 | x | 0.1 | X | 0.1 |
| 3114 | Fruit and Vegetable Preserving and Specialty Food | X | X | X | x | X | x | x |
| 3115 | Dairy Product | 7.1 | x | 7.1 | x | X | X | x |
| 3116 | Animal Slaughtering and Processing | x | x | x | x | x | x | x |
| 312 | Beverage and Tobacco Products | 7.0 | x | 7.0 | 7.0 | x | 7.0 | x |
| 3121 | Beverages | 7.0 | x | 7.0 | 7.0 | X | 7.0 | x |
| 3122 | Tobacco | x | X | X | x | x | x | x |
| 313 | Textile Mills | 48.0 | X | 69.2 | 61.6 | X | X | x |
| 314 | Textile Product Mills | 40.5 | X | 67.7 | 16.9 | X | X | x |
| 315 | Apparel | x | x | x | x | X | X | x |
| 316 | Leather and Allied Products | x | x | x | x | x | x | x |
| 321 | Wood Products | 5.5 | 5.5 | x | x | X | X | x |
| 321113 | Sawmills | 5.5 | 5.5 | X | x | x | x | x |
| 3212 | Veneer, Plywood, and Engineered Woods | X | X | X | x | X | X | x |
| 321219 | Reconstituted Wood Products | x | X | X | x | x | X | x |
| 3219 | Other Wood Products | X | X | X | x | X | X | x |
| 322 | Paper | 0.9 | 0.0 | 0.1 | 2.2 | 0.1 | 0.0 | 0.1 |
| 322110 | Puip Mills | 0.0 | x | 0.0 | x | x | x | x |
| 322121 | Paper Mills, except Newsprint | 0.1 | X | 0.1 | 0.1 | 0.1 | X | 0.1 |
| 322122 | Newsprint Mills | x | X | x | X | X | X | X |
| 322130 | Paperboard Mills | 0.0 | 0.0 | 0.0 | 0.0 | x | 0.0 | 0.0 |
| 323 | Printing and Related Support | $\bar{\chi}$ | x | x | $\bar{\chi}$ | x | x | x |
| 324 | Petroleum and Coal Products | X | x | x | x | x | X | x |
| 324110 | Petroleum Refineries | X | X | X | X | X | X | x |
| 324121 | Asphalt Paving Mixture and Block | x | x | x | x | x | x | x |
| 324122 | Asphalt Shingle and Coating Materials | X | X | X | X | X | X | X |
| 324199 | Other Petroleum and Coal Products | x | x | x | x | x | x | x |
| 325 | Chemicals | 15.2 | 19.9 | 4.7 | 12.9 | 51.8 | x | 29.7 |
| 325110 | Petrochemicals | x | X | X | X | x | x | x |
| 325120 | Industrial Gases | x | x | X | X | X | X | x |
| 325180 | Other Basic Inorganic Chemicals | 12.7 | X | X | 12.7 | 12.7 | X | x |
| 325193 | Ethyl Alcohol | 7.3 | X | x | 7.3 | X | x | 7.3 |
| 325194 | Cyclic Crudes, Intermediate and Gum and Wood Chemicals | X | X | X | X | X | x | x |
| 325199 | Other Basic Organic Chemicals | 19.9 | 19.9 | X | X | X | X | $\overline{\mathrm{x}}$ |
| 325211 | Plastics Materials and Resins | 8.1 | X | 8.1 | 8.1 | X | X | $\overline{\text { x }}$ |
| 325212 | Synthetic Rubber | 0.0 | X | X | X | X | X | 0.0 |
| 325220 | Artificial and Synthetic Fibers and Filaments | 0.0 | X | 0.0 | X | X | - | 0.0 |
| 325311 | Nitrogenous Fertilizers | $\bar{\chi}$ | X | X | X | X | X | x |
| 325312 | Phosphatic Fertilizers | x | x | X | x | X | X | x |
| 3254 | Pharmaceuticals and Medicines | 13.9 | x | 13.9 | x | x | X | 13.9 |
| 325412 | Pharmaceutical Preparation | 13.9 | X | 13.9 | X | X | X | 13.9 |
| 325992 | Photographic Film, Paper, Plate, and Chemicals | X | X | X | X | X | X | X |
| 326 | Plastics and Rubber Products | x | X | X | x | X | X | x |
| 327 | Nonmetallic Mineral Products | 27.4 | 31.9 | 31.9 | 29.1 | 26.5 | X | 24.9 |
| 327120 | Clay Building Material and Refractories | X | X | X | X | X | X | X |
| 327211 | Flat Glass | X | X | X | X | X | X | - |
| 327212 | Other Pressed and Blown Glass and Glassware | x | X | X | X | X | X | x |
| 327213 | Glass Containers | x | X | X | X | X | X | x |
| 327215 | Glass Products from Purchased Glass | X | X | X | - | X | X | X |
| 327310 | Cements | 31.9 | 31.9 | 31.9 | 31.9 | 31.9 | X | 32.1 |
| 327410 | Lime | 0.0 | X | X | 0.0 | 0.0 | X | 0.0 |
| 327420 | Gypsum | X | X | X | X | X | X | X |
| 327993 | Mineral Wool | X | X | X | X | X | X | x |
| 331 | Primary Metals | 6.8 | X | X | 3.3 | 9.3 | X | x |
| 331110 | Iron and Steel Mills and Ferroalloys | 3.3 | - | X | 3.3 | 3.3 | - | x |
| 3312 | Steel Products from Purchased Steel | X | X | X | X | X | X | x |
| 3313 | Alumina and Aluminum | X | X | X | X | X | X | x |
| 331314 | Secondary Smelting and Alloying of Aluminum | x | X | X | x | X | X | x |
| 331315 |  | $\overline{\mathrm{x}}$ | x | x | x | x | x | x |
| 331318 | Other Aluminum Rolling, Drawing and Extruding | X | X | X | X | X | X | x |
| 3314 | Nonferrous Metals, except Aluminum | x | X | X | X | X | X | x |
| 331410 | Noonferrous Metal (except Aluminum) Smelting and Refining | $\bar{\chi}$ | x | x | x | x | x | x |
| 3315 | Foundries | 18.5 | X | X | X | 18.5 | X | x |
| 331511 | Iron Foundries | 18.5 | X | x | x | 18.5 | x | x |
| 331523 | Nonferrous Metal Die-Casting Foundaries | X | X | X | X | X | X | x |
| 331524 | Aluminum Foundries, except Die-Casting | $\bar{\chi}$ | X | X | X | X | X | - |
| 332 | Fabricated Metal Products | - | X | X | X | X | X | x |
| 333 | Machinery | 87.7 | X | x | x | X | X | 87.7 |
| 334 | Computer and Electronic Products | X | - | X | X | X | X | X |
| 334413 | Semiconductors and Related Devices | $\overline{\mathrm{x}}$ | X | X | X | X | X | x |
| 335 | Electrical Equip., Appliances, and Components | x | X | X | X | X | X | x |
| 336 | Transportation Equipment | x | X | x | x | X | X | X |
| 336111 | Automobiles | x | x | x | x | x | x | x |
| 336112 | Light Trucks and Utility Vehicles | X | X | X | X | X | X | X |
| 3364 | Aerospace Product and Parts | X | X | X | X | X | X | x |
| 336411 | Aircraft | x | X | x | x | X | X | x |
| 337 | Furniture and Related Products | 7.0 | X | 7.0 | X | X | X | x |
| 339 | Miscellaneous | $\overline{\text { x }}$ | x | $\bar{\chi}$ | x | x | x | x |
|  | 'rotal ${ }^{-1}$ | 10.0 | 10.6 | 11.6 | 10.8 | 16.1 | 2.8 | 19.1 |

(a) The Bureau of the Census classifies establishments using the 2012 North American Industry Classification System (NAICS).
(b) This count includes only those establishments that reported this activity in 2014
(c) These levels of price difference were guesstimates at which establishments perceived that they would switch. These levels were not actual values at which switching occurred. The percentage of price difference is computed as the quantity
of (current fuel price minus alternative fuel price) divided by the current fuel price, expressed as a percent.

* Estimate less than 0.5
$W=$ Withheld to avoid disclosing data for individual establishments.
$\mathrm{Q}=$ Withheld beca
$x=$ Not defined because RSE corresponds to a value of zero.
- Estimation is not applicable.

