

Sales and Costs of Confectionery Industries in North America

Prepared for the American Sugar Alliance

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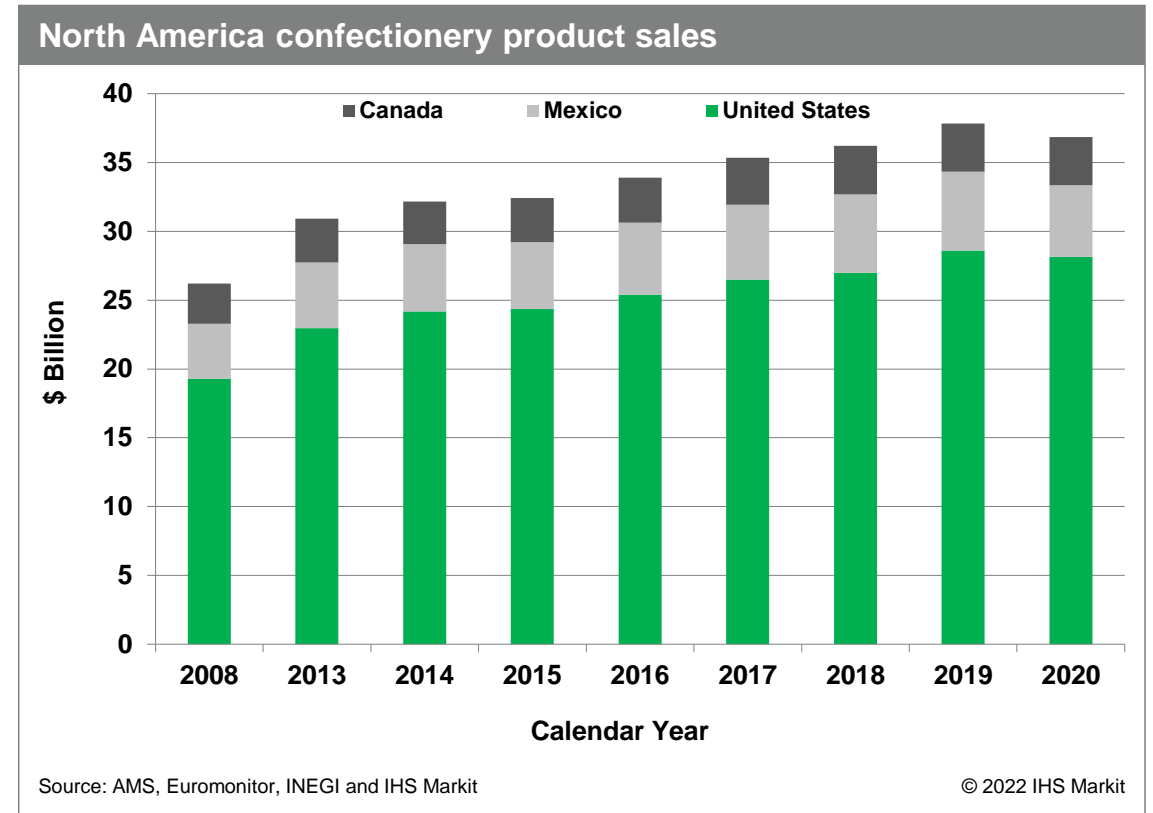
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Executive summary

Overview

- North America confectionery sales increased from just over \$26 billion in 2008 to a record \$37.8 billion in 2019. The compound annual growth rate (CAGR) of total North America confectionery product sales for that period was 3.4%.
 - > The US accounted for more than 75% of North America confectionery sales in 2019, followed by Mexico with about 15% and Canada about 10%.
- However, North America confectionery product sales dropped nearly \$1.0 billion in 2020 due to the impact of COVID lockdowns and supply chain issues. Indications are that sales rebounded in 2021.
- This study followed the same methodology used for calculating operational per unit costs in the previous [2009 study](#).
 - > Although sugar prices increased from the previous study, increases in other operational costs were much higher especially for labor and employer paid health care.
- Although demand for confectionery products have increased steadily (except for the downturn in 2020) the sector still faces challenges as consumers are focusing more on healthy food products and reducing sugar intake. At the same time manufacturers are promoting health benefits of confectionery products.
 - (<https://www.sciencedirect.com/science/article/abs/pii/S0924224422000498>)



Overview continued

US confectionery industry trends

- US confectionery industry sales grew sharply from 2008 to 2019 (up 48%) when sales were a record \$28.6 billion based on the US Annual Manufacturing Survey. The compound annual growth rate (CAGR) for that time period was 3.6%.
 - > Chocolate confectionery revenues grew from \$13.4 billion in 2008 to \$18 billion in 2019 while non-chocolate revenues grew from \$5.9 billion in 2008 to \$10.6 billion in 2019.
- However, total confectionery revenues were down about 2% in 2020 from 2019 due to the impact of COVID on consumer demand. The decline was primarily in chocolate confectionery. According to a report by the National Confectioners Association (NCA), chocolate and candy sales in 2021 rebounded by about 11% over 2020 and 15% over 2019.

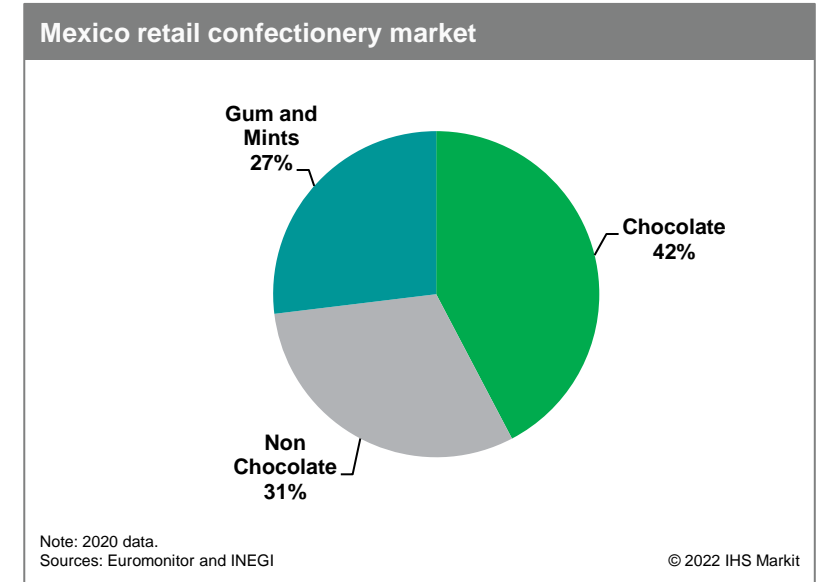
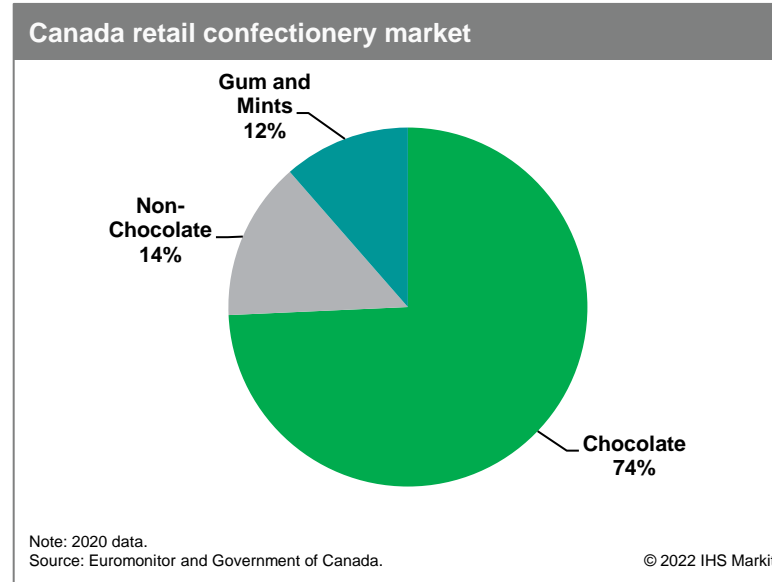
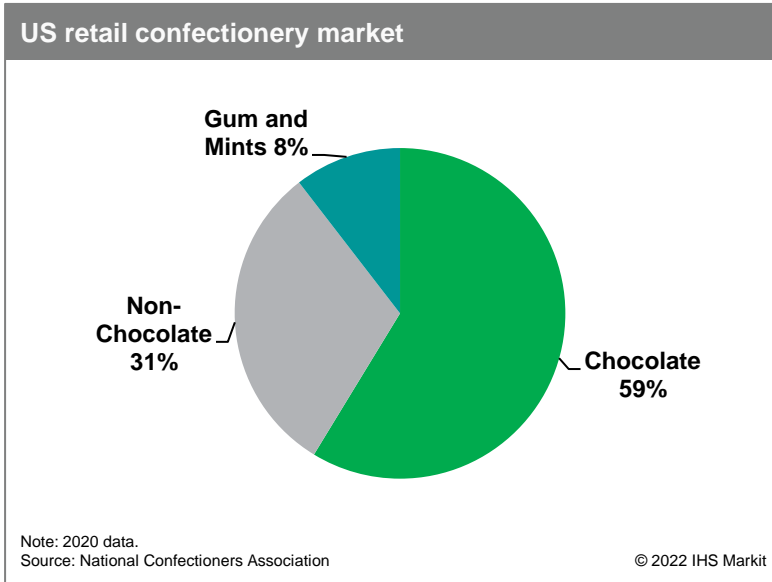
Mexico confectionery industry trends

- Based on data from various sources, total confectionery sales in Mexico grew from about \$4.0 billion in 2008 to an estimated \$5.7 billion in 2019 (up 43%). The CAGR for that time period was 3.3%.
- Sales in 2020 dropped about 9% from 2019 due to the impact of COVID. The decline in sales was primarily in non-chocolate confectionery.

Canada confectionery industry trends

- Data is not readily available for confectionery sales in Canada. Growth in the Canadian confectionery industry is estimated to have been much slower than growth in the US and Mexico confectionery sales.
 - > It is estimated that Canada confectionery sales grew from \$2.9 billion in 2008 to about \$3.5 billion in 2019 (up 21%). The CAGR for that time period was about 1.7%. Most of the growth was in chocolate confectionery sales.
- Total confectionery sales are estimated to have decreased slightly in 2020, down less than 1% from 2019.

Comparison of confectionery markets in US, Canada and Mexico



- Chocolate confectionery accounts for the largest share of US and Canada total confectionery sales while non-chocolate confectionery (including gum and mints) accounts for the largest share in Mexico. The share of gum and mints in overall confectionery is the largest in Mexico.
- **US** chocolate confectionery sales account for 59% of total confectionery sales, followed by non-chocolate with 31% and gums and mints with about 10%. Non-chocolate confectionery grew at a faster rate than chocolate confectionery from 2008 to 2020 with a compound annual growth rate (CAGR) of 5.1% compared with chocolate confectionery with a CAGR of 2.2%. Chocolate confectionery accounted for the decrease in 2020 sales from 2019.
- **Canada's** chocolate confectionery sales are estimated at 74% of total confectionery sales with non-chocolate at 14% of total sales and gums and mints 12%. Chocolate confectionery sales had a CAGR of 1.8% from 2008 to 2020 while the CAGR for non-chocolate sales was 1%.
- **Mexico's** non-chocolate sales are estimated at 31% of total confectionery sales and gums and mints at 27% in 2020. Mexico's chocolate confectionery sales are estimated at 42% of total sales. Mexico's CAGR of chocolate confectionery sales (5.2% from 2008 to 2020) was larger than non-chocolate (about 1%). However, non-chocolate confectionery accounted for all the decrease in 2020 sales.

North America confectionery product trade

- **Canada and Mexico are net exporters of confectionery products.**
 - > Canada and Mexico's exports have increased from 2008 to 2020 by 72% and 58% respectively.
- **The US is a net importer of confectionery products.**
 - > US imports have increased from 2008 to 2020 by 78%.
- **North America countries conduct significant confectionery product trade between each other.**
 - > Two-thirds of US imports are from Canada (41%) and Mexico (26%). About 48% of US exports were to Canada and 12% to Mexico.
 - > About 97% of Mexico's exports are to the US. More than 77% of Mexico's imports are from the US with 9% from Canada.
 - > About 95% of Canada's Exports were to the US. About 58% of Canada's imports are from the US and 5% from Mexico.
 - > Canada's confectionery product exports were a record in 2021 and Mexico's exports were a near record.

North America confectionery trade (US\$ million)								
Item	Canada		Mexico		United States		North America	
	2008	2020	2008	2020	2008	2020	2008	2020
Imports	960	1,416	435	243	2,681	4,763	4,076	6,422
Canada			72	23	1,131	1,931	1,203	1,954
Mexico	28	69			570	1,240	598	1,309
United States	554	824	239	187			793	1,011
Rest of World	378	523	124	33	980	1,592	1,482	2,148
Exports	1,194	2,048	752	1,191	1,297	1,854	3,243	5,093
Canada			18	20	594	893	612	913
Mexico	18	64			237	220	255	284
United States	1,149	1,943	658	1,160			1,807	3,103
Rest of World	27	41	76	11	466	741	569	793

Source: Global Trade Atlas, IHS Markit

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US confectionery product domestic sales and imports

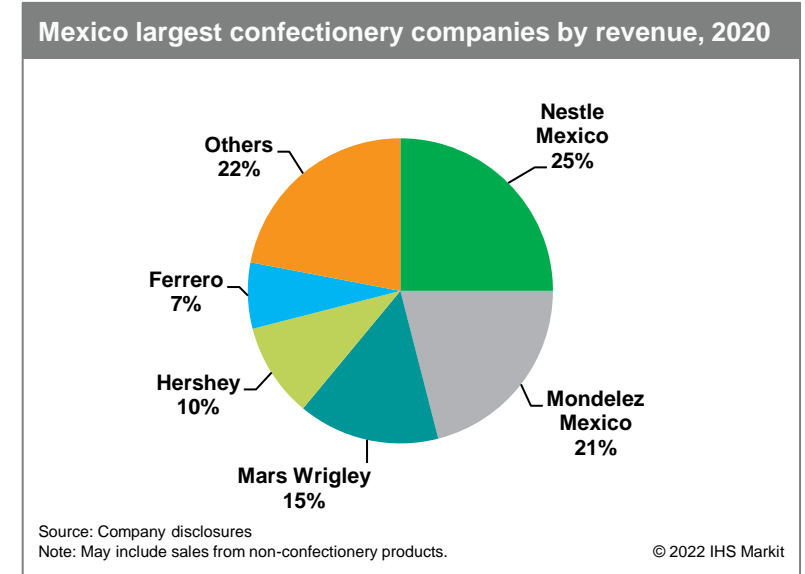
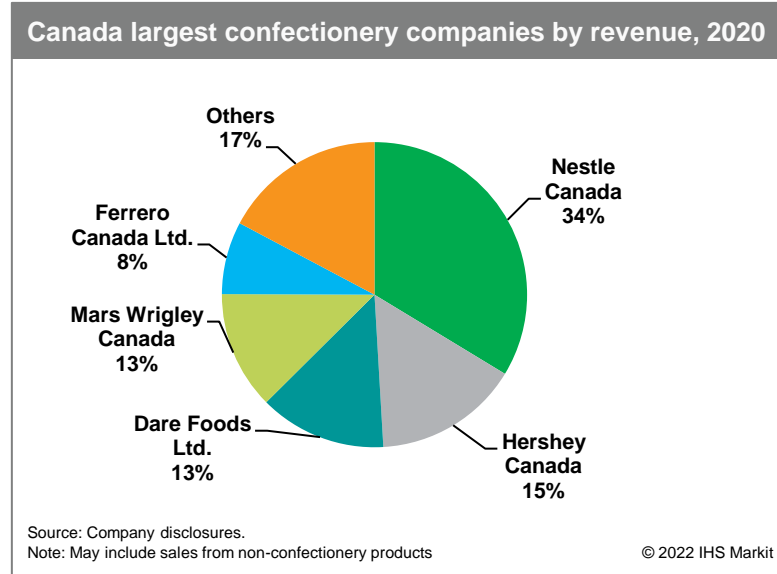
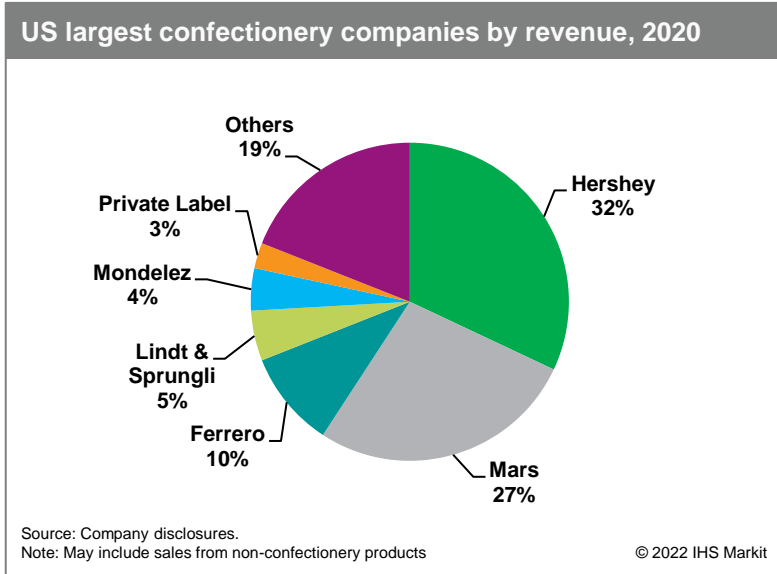
- **US domestic confectionery sales and imports are up substantially from 2008.**

- > US imports of confectionery products have increased by 78% from 2008 to 2020.
- > US imports of confectionery products from Mexico and Canada combined increased from 63% of total imports in 2008 to 67% in 2020.
- > US domestic sales of confectionery products plus imports increased from \$22.0 billion in 2008 to \$32.9 billion in 2020.

US domestic confectionery product sales and Imports (US\$ Million)				
Item	2008		2020	
	US\$ Million	% of Total	US\$ Million	% of Total
Imports from Canada	1,131	5.15	1,931	5.86
Imports from Mexico	570	2.59	1,240	3.77
Imports from Rest of World	980	4.46	1,592	4.83
US Domestic Sales	19,297	87.80	28,165	85.54
Total	21,978	100.00	32,928	100.00

Source: Global Trade Atlas, Annual Manufacturers Survey and IHS Markit © 2022 IHS Markit

Largest confectionery companies in US, Canada and Mexico



- The US confectionery industry saw consolidation between 2009-2016 but consolidation has slowed from 2016-2020.
 - > In 2020, the top five firms had an estimated market share of 78% compared with 73% in 2016 and 64% in 2009. Hershey and Mars Wrigley had an estimated market share of nearly 60% across all confectionery categories in 2020.
 - > The US confectionery sector had 68,000 employees in 2020, a 17% increase from the level of employment in 2007. The chocolate confectionery sector comprised 67% of industry employment in 2020, with non-chocolate confectionery comprising 33%.
- Nestle and Hershey combined account for nearly 50% of confectionery sales in Canada. Most of Canada’s sugar and confectionery manufacturing takes place in Quebec and Ontario, and generally occurs close to the US border.
- The top four firms combined account for over 70% of confectionery sales in Mexico. Mexico’s confectionery industry also has many small-scale companies (employing 10 people or less) representing about 84% of businesses.

North America confectionery industry operational costs in current and constant dollars

North America ^{1/} confectionery market per unit operational costs in current US dollars for the 2009 and 2022 Studies										
Item	Unit	United States			Canada			Mexico		
		2009 Study ⁴	2022 Study	Change	2009 Study ⁴	2022 Study	Change	2009 Study ⁴	2022 Study	Change
Hourly Wages (wages only)	\$/hr	18.78	26.76	42.5%	10.20	14.95	46.6%	0.51	0.55	7.8%
Lease for commercial facility only	\$/sqft/yr	5.00	5.26	5.2%	6.38	7.77	21.8%	4.65	6.12	31.6%
Health Care, Employer Cost	\$/yr/worker	7,680	10,720	39.6%	1,551	2,276	46.7%	258	460	78.3%
Taxes, Total	Percent	19.10	30.99	11.89	36.3	26.5	-9.8	26.6	30.0	3.4
Electricity ^{2/}	cents/kWh	6.6	8.8	33.3%	3.0	4.0	33.3%	8.0	13.1	63.8%
Water Sewage	\$/1,000 gal	7.04	12.83	82.2%	3.27	5.99	83.2%	1.00	2.03	103.0%
Sugar ^{3/}	cents/lb	28	37	32.1%	21	22	4.8%	23	30	30.4%

1/ US focus on Middle Atlantic states. Canada focus on Ontario and Quebec. Mexico focus on border states to the US.

2/ Canada rate is low because of government subsidization and investment in hydroelectric power.

3/ Prices are average of most recent three years. Mexico price adjusted for maquiladora (free trade zone). Canadian Institute of Sugar for price.

4/ Buzzanell 2009 study uses 2008 data: <https://sugaralliance.org/wp-content/uploads/2021/01/Buzzanell-Executive-Summary-July-2009.pdf>

Source: IHS Markit

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North America ^{1/} confectionery market per unit operational costs in constant ^{2/} US dollars for the 2009 and 2022 Studies										
Item	Unit	United States			Canada			Mexico		
		2009 Study ⁵	2022 Study	Change	2009 Study ⁵	2022 Study	Change	2009 Study ⁵	2022 Study	Change
Hourly Wages (wages only)	\$/hr	18.78	21.25	13.2%	10.20	12.05	18.1%	0.51	0.32	-36.4%
Lease for commercial facility only	\$/sqft/yr	5.00	4.18	-16.4%	6.38	6.26	-1.9%	4.65	3.61	-22.4%
Health Care, Employer Cost	\$/yr/worker	7,680	8,515	10.9%	1,551	1,834	18.2%	258	271	5.1%
Taxes, Total	Percent	19.10	30.99	11.89	36.3	26.5	-9.8	26.6	30.0	3.4
Electricity ^{3/}	cents/kWh	6.6	7.0	5.9%	3.0	3.2	7.4%	8.0	7.7	-3.4%
Water Sewage	\$/1,000 gal	7.04	10.19	44.8%	3.27	4.83	47.6%	1.00	1.20	19.7%
Sugar ^{4/}	cents/lb	28	29	5.0%	21	18	-15.6%	23	18	-23.1%

1/ US focus on Middle Atlantic states. Canada focus on Ontario and Quebec. Mexico focus on border states to the US.

2/ In constant (2008) US dollars adjusted for the CPI index in the three countries.

3/ Canada rate is low because of government subsidization and investment in hydroelectric power.

4/ Prices are average of most recent three years. Mexico price adjusted for maquiladora (free trade zone). Canadian Institute of Sugar for price.

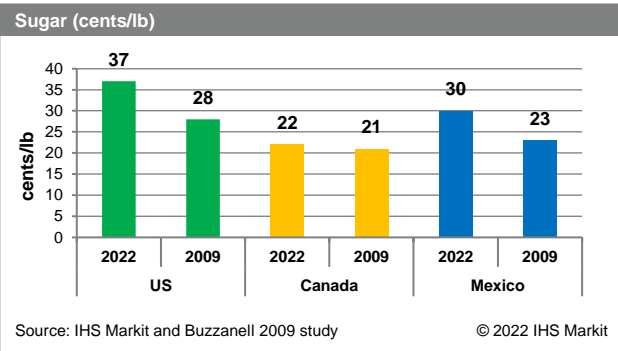
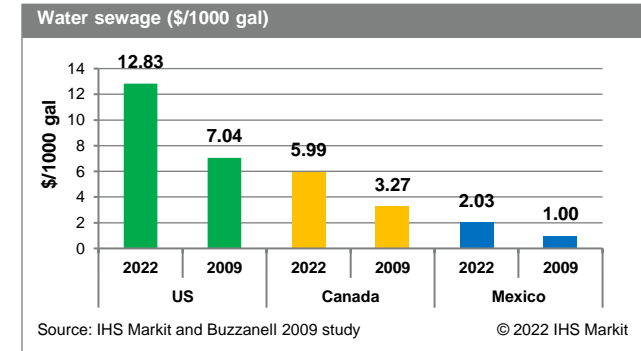
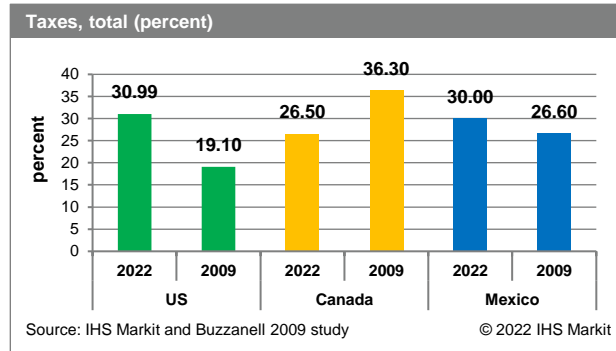
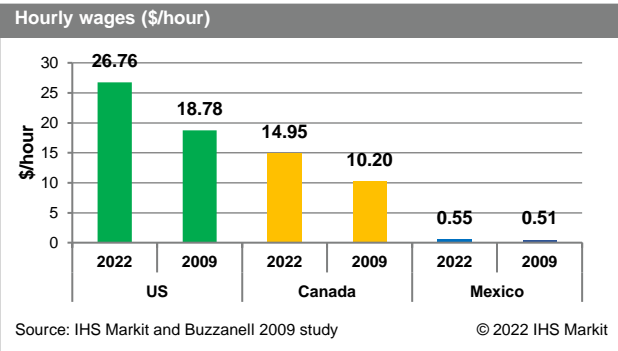
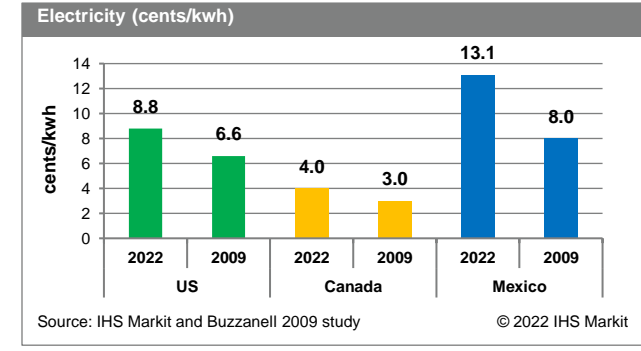
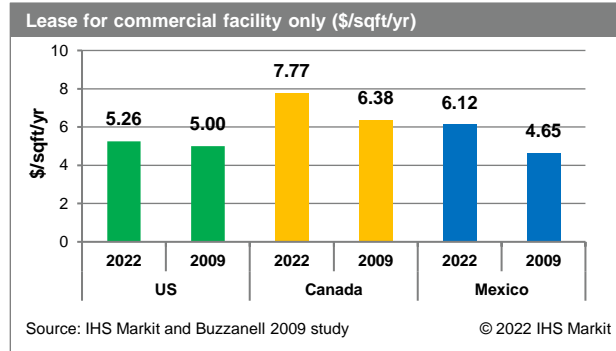
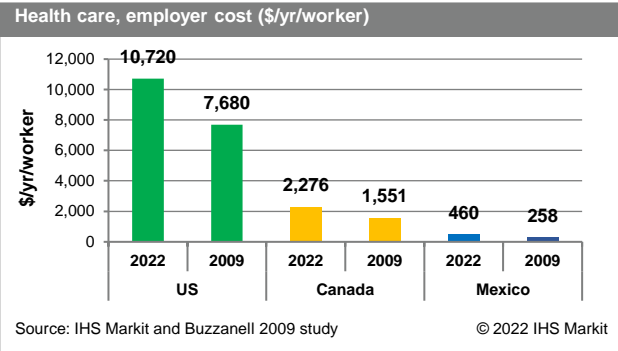
5/ Buzzanell 2009 study uses 2008 data: <https://sugaralliance.org/wp-content/uploads/2021/01/Buzzanell-Executive-Summary-July-2009.pdf>

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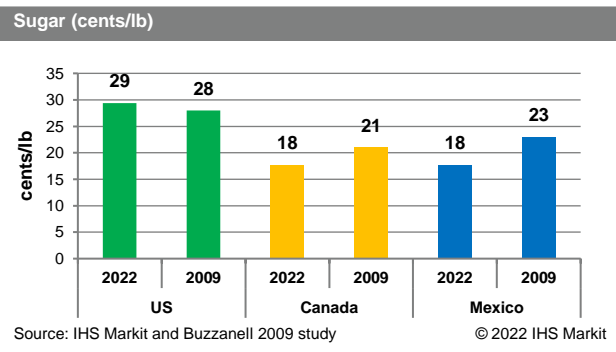
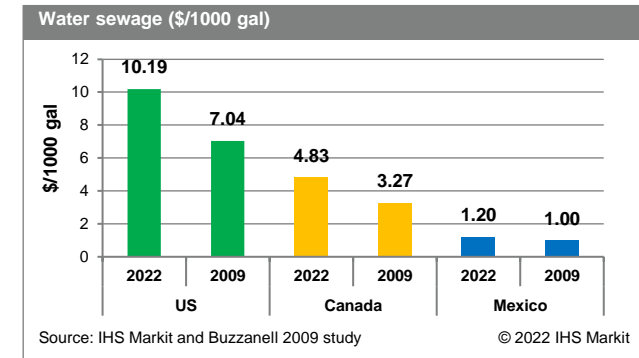
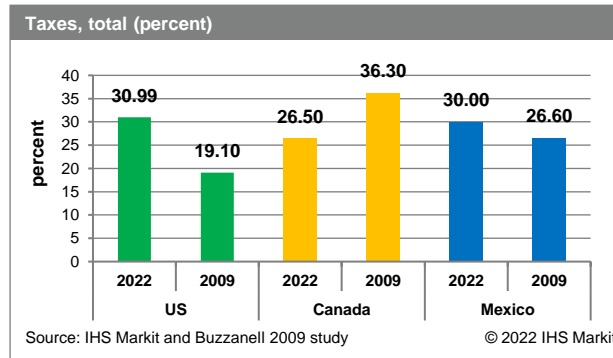
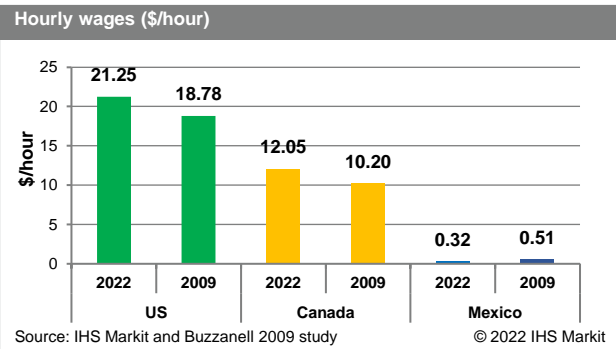
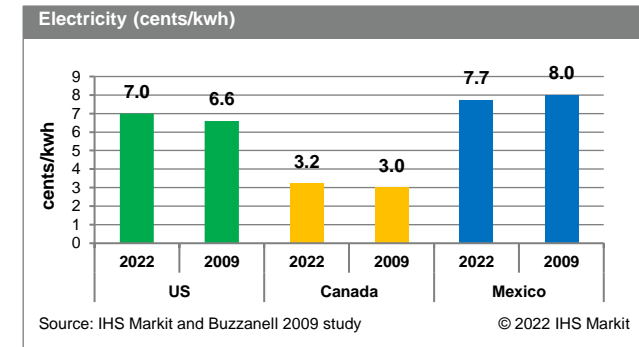
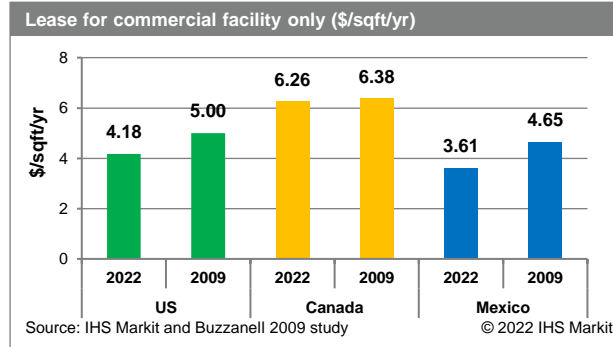
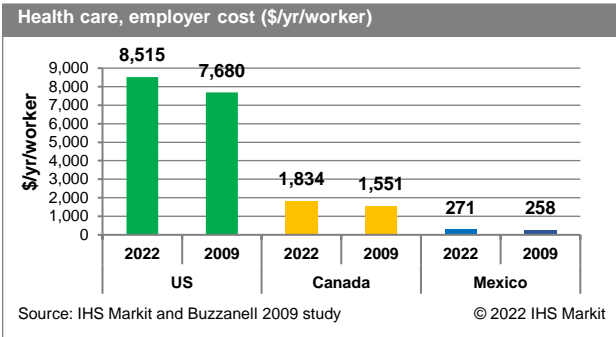
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- This page compares costs in current (nominal) dollars and costs in constant dollars to account for inflation in all three countries (using the cpi index for each country).
- Since the last study, sugar prices in current dollars increased less in all three countries compared with unit prices of nearly all other major operational costs. However, in constant dollars sugar prices were down in Mexico and Canada and up only slightly in the US.
- US and Canada food manufacturing wages have grown at similar rates since 2008. Mexican manufacturing wages grew at a similar rate in pesos, but growth in dollars has been much slower given the depreciation of the Mexican peso against the US dollar (see page 11).
- Healthcare costs increased sharply in North America, with the employer cost of healthcare more expensive in the US than in Mexico and Canada.
- Water sewage rates increased at similar growth rates across North America as water scarcity affected the entire region.
- Electricity prices rose in all three countries. Canada government subsidization and the US Shale Revolution resulted in slower growth in energy prices than in Mexico.
- Mexico has moved to a flat corporate tax rate of 30%, while Canada's combined corporate tax rates decreased since 2008. At 9.99%, Pennsylvania has one of the highest state corporate tax rates in the US.

North America confectionery industry operational costs in current dollars

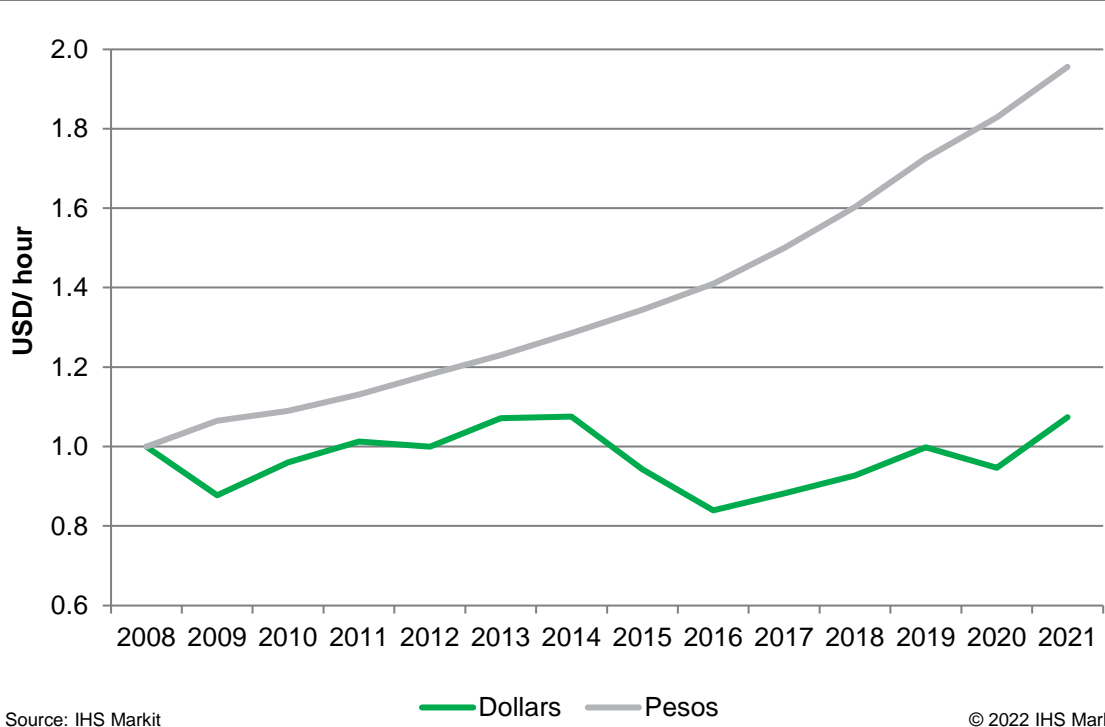


North America confectionery industry operational costs in constant dollars

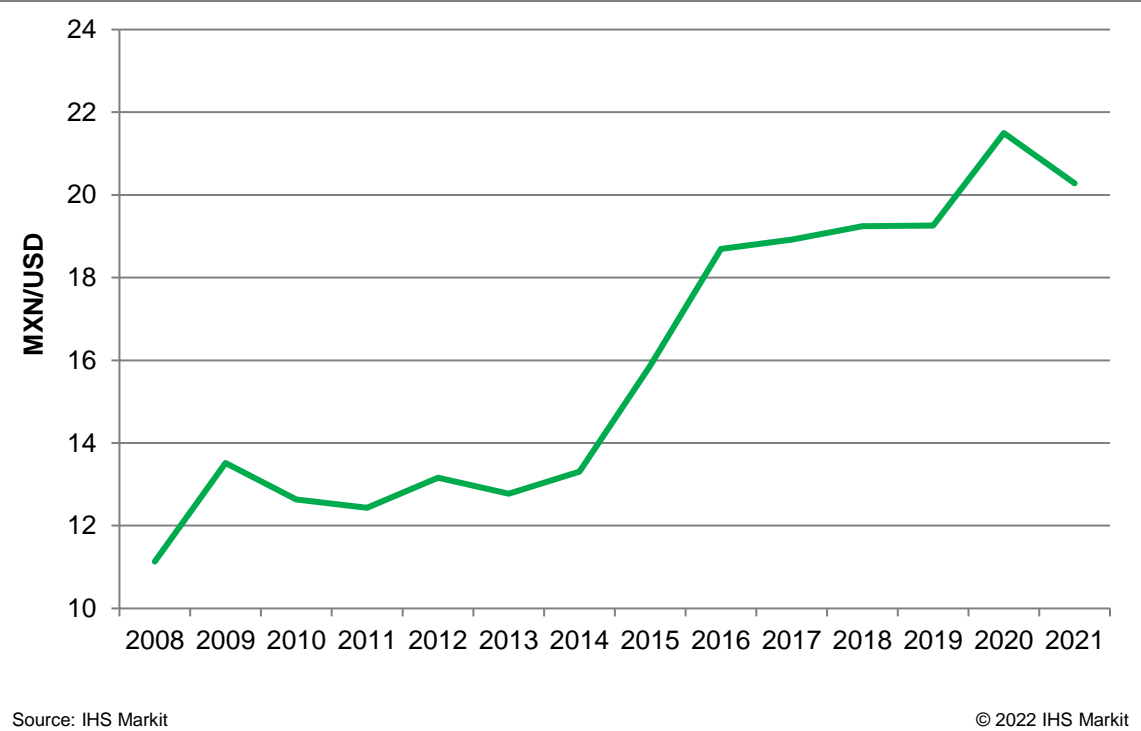


Depreciation of the Peso means Mexican wages haven't grown much in USD

Mexican manufacturing wages in dollars and pesos
2008 = 1.0

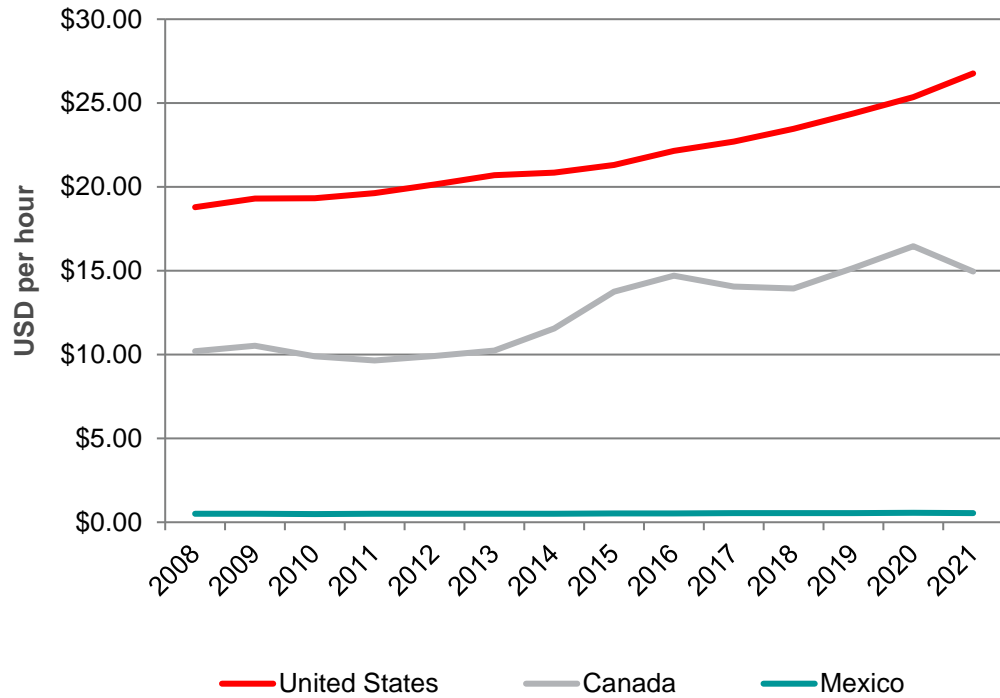


Mexican Peso exchange rate: Mexican Pesos/US dollar



Trends in wages and employer healthcare costs

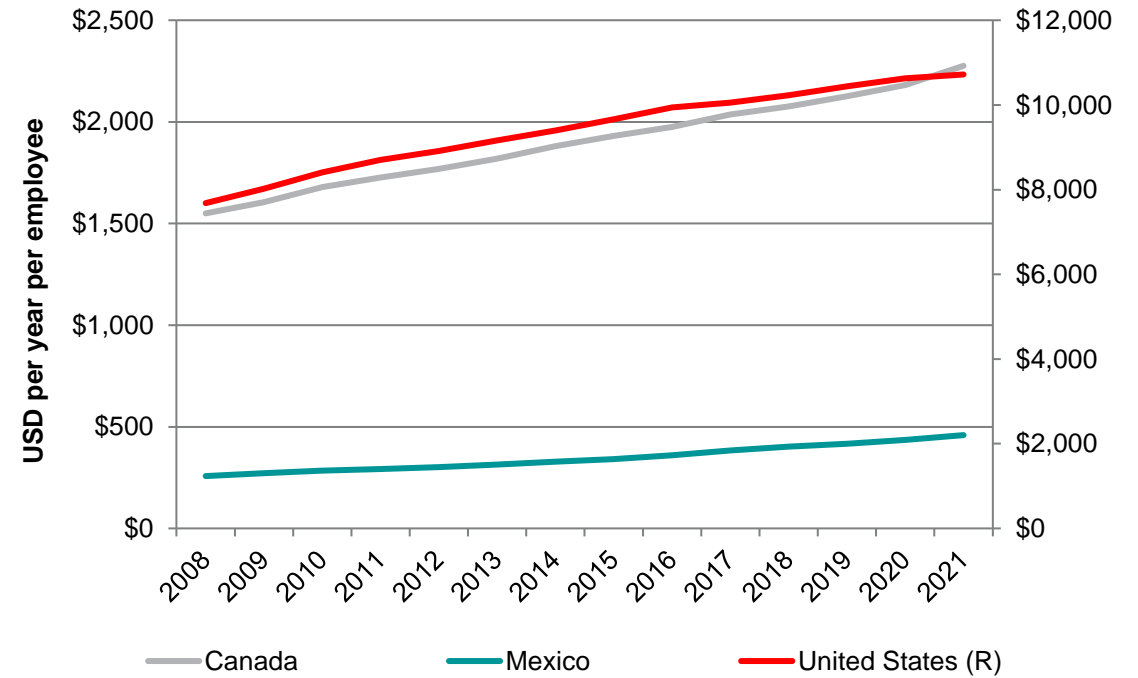
Hourly wages, US dollars/hour



Source: IHS Markit

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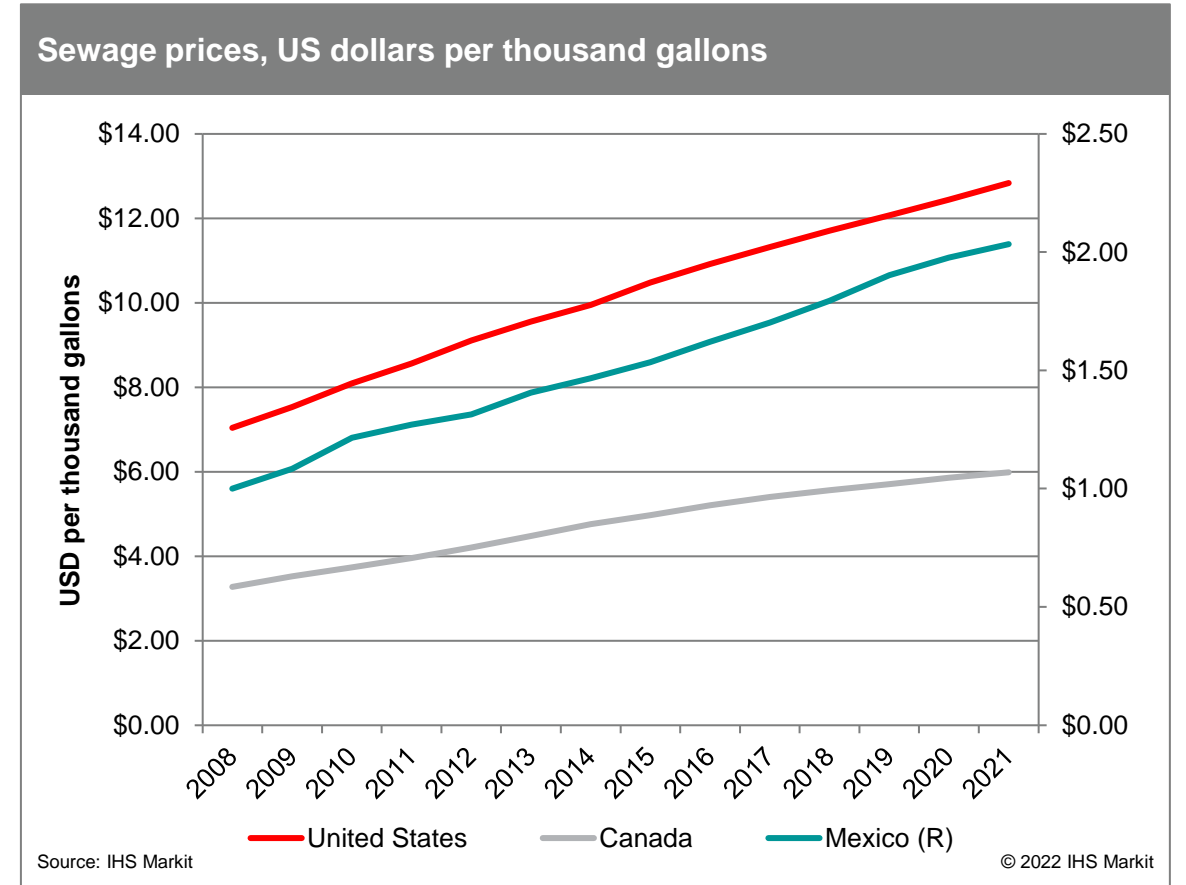
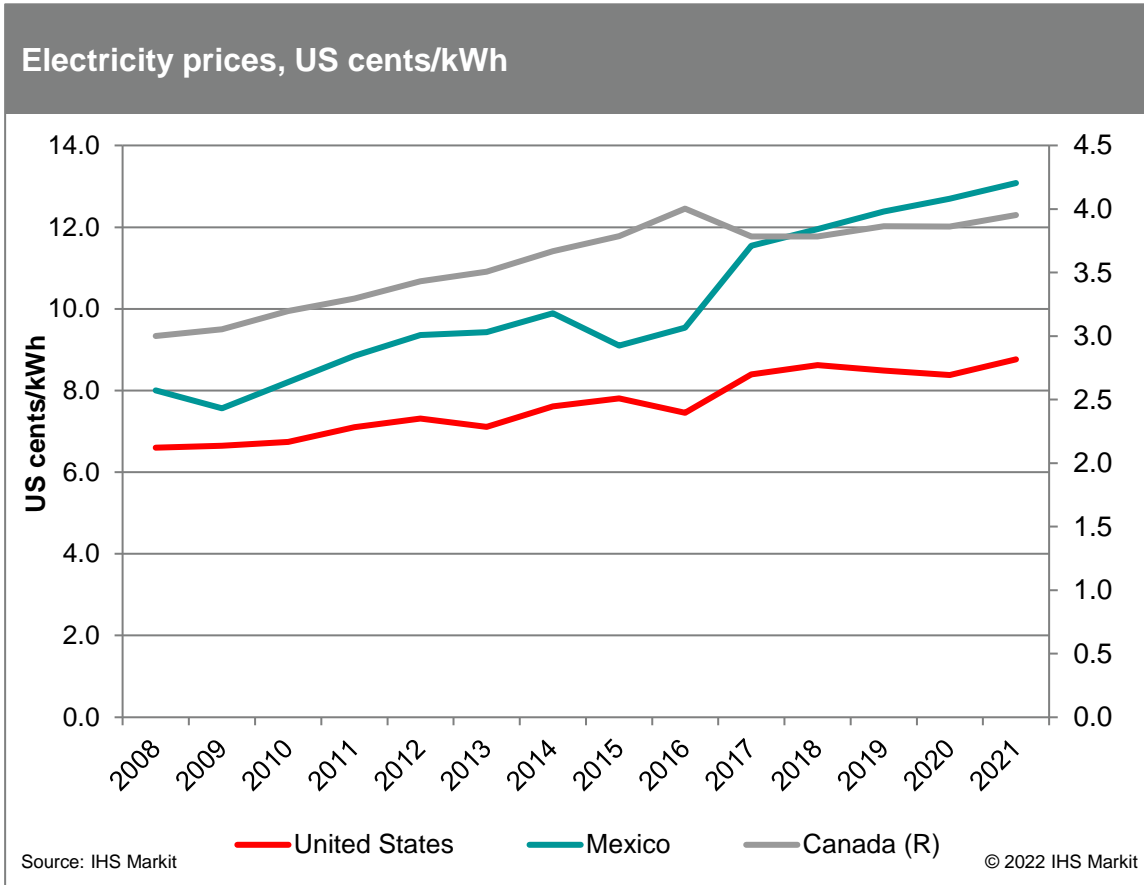
Healthcare Employer Cost, US dollars/year per employee



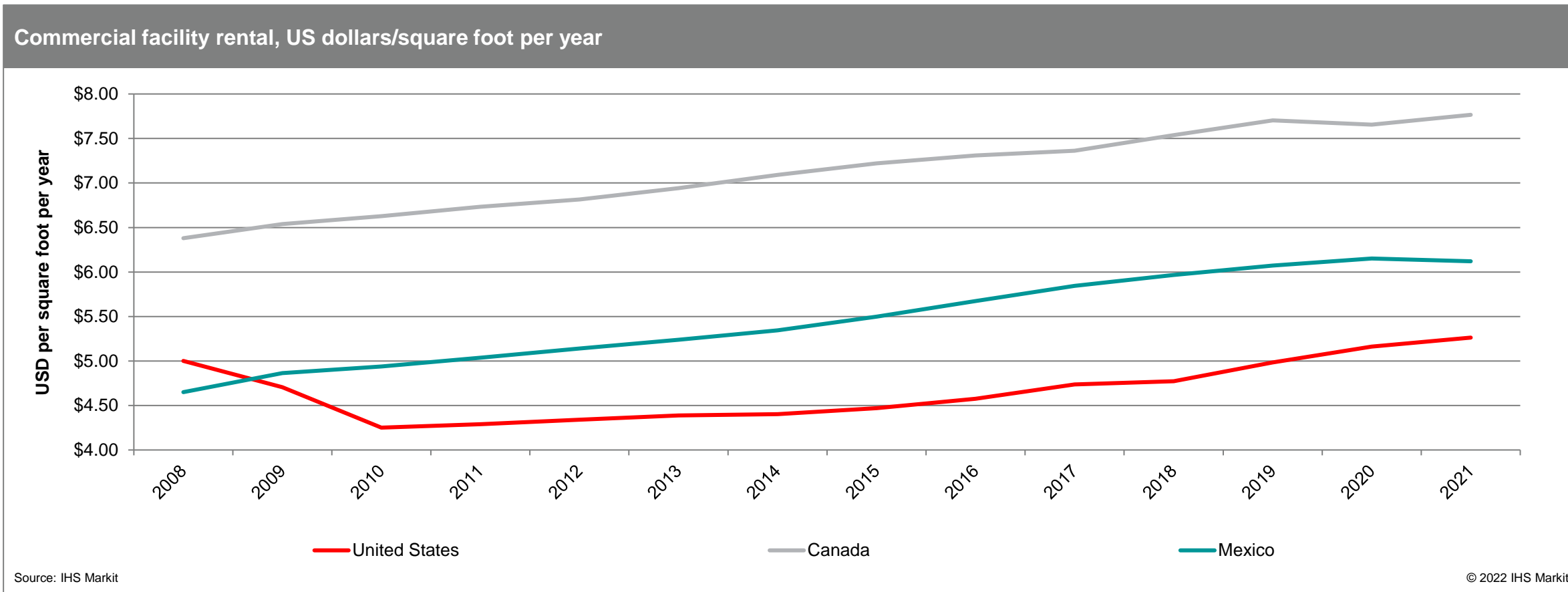
Source: IHS Markit

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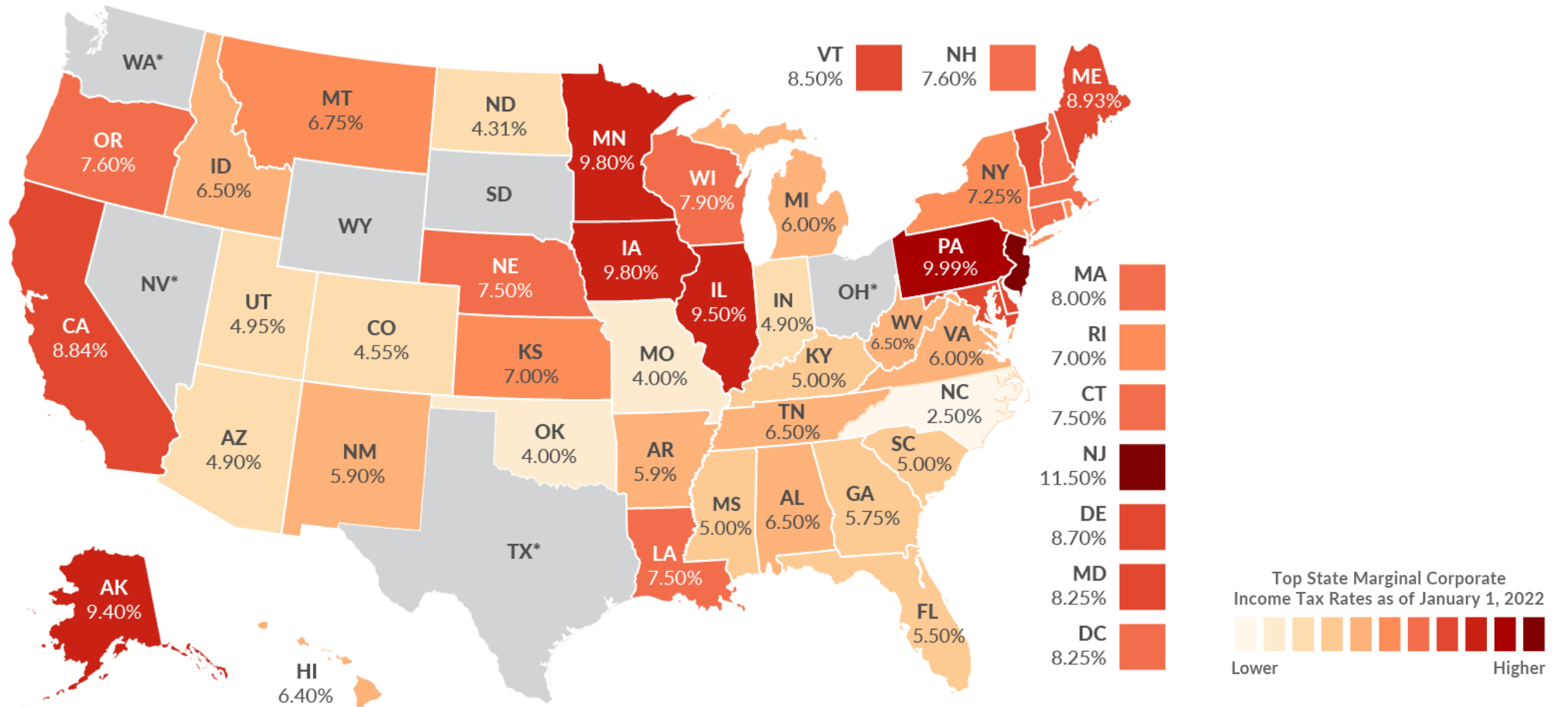
Trends in sewage and electricity prices



Trends in commercial facility rental rates

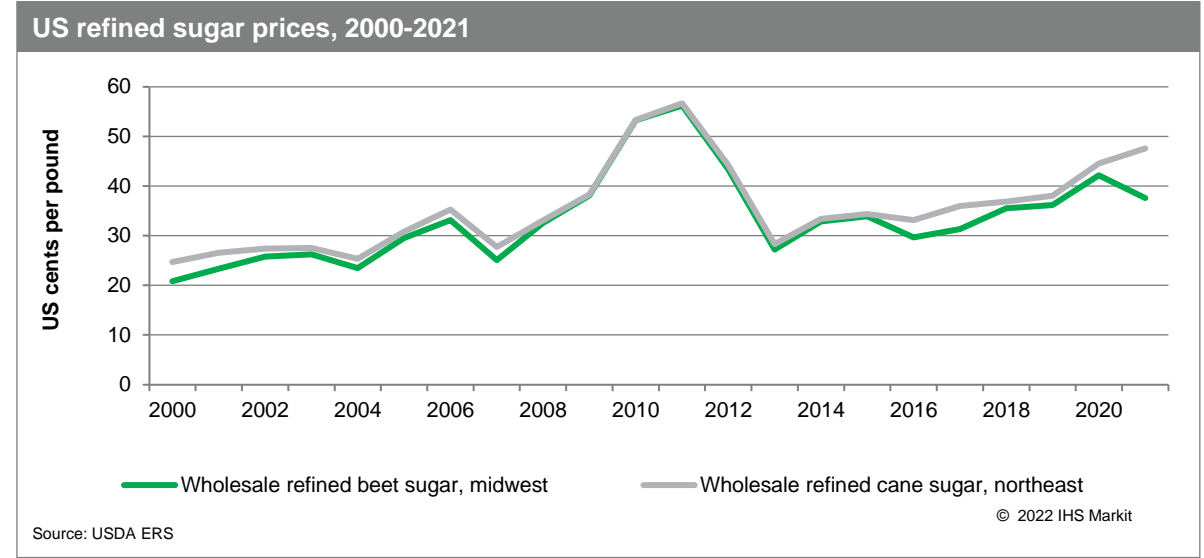
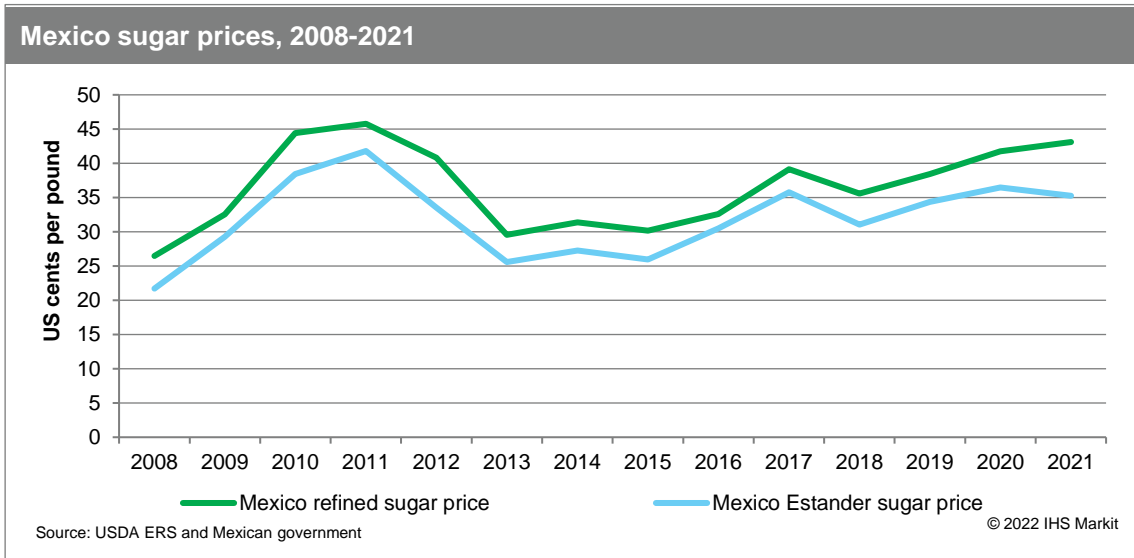


US corporate tax rates by state

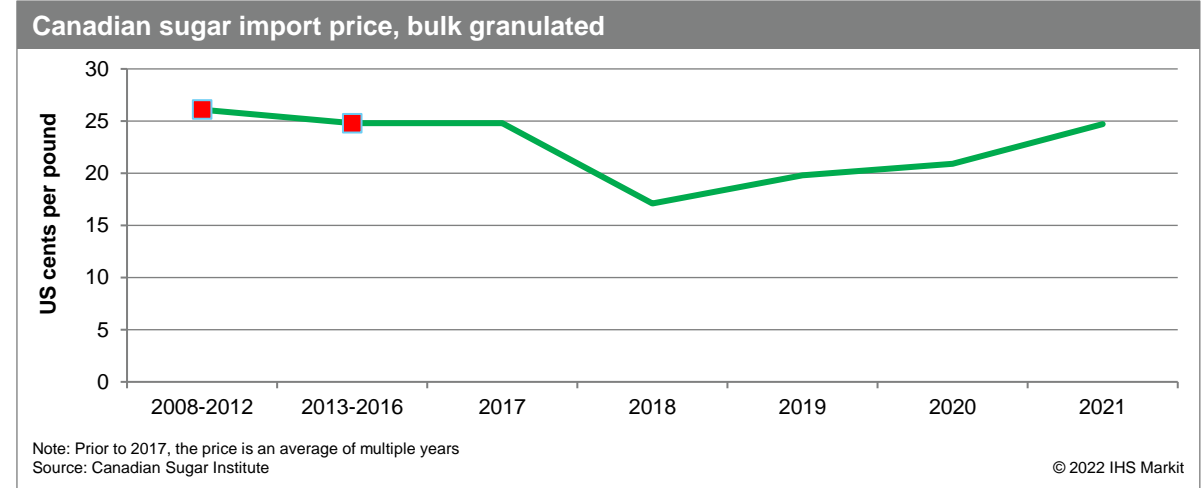


Notes: Nevada, Ohio, Texas, and Washington do not have a corporate income tax but do have a gross receipts tax with rates not strictly comparable to corporate income taxes. Delaware and Oregon have gross receipts taxes in addition to corporate income taxes, as do several states like Pennsylvania, Virginia, and West Virginia. Source: Tax Foundation, state tax statutes, forms and instructions; Bloomberg Tax. Accessed June 13th, 2022.

Trends in North America sugar prices

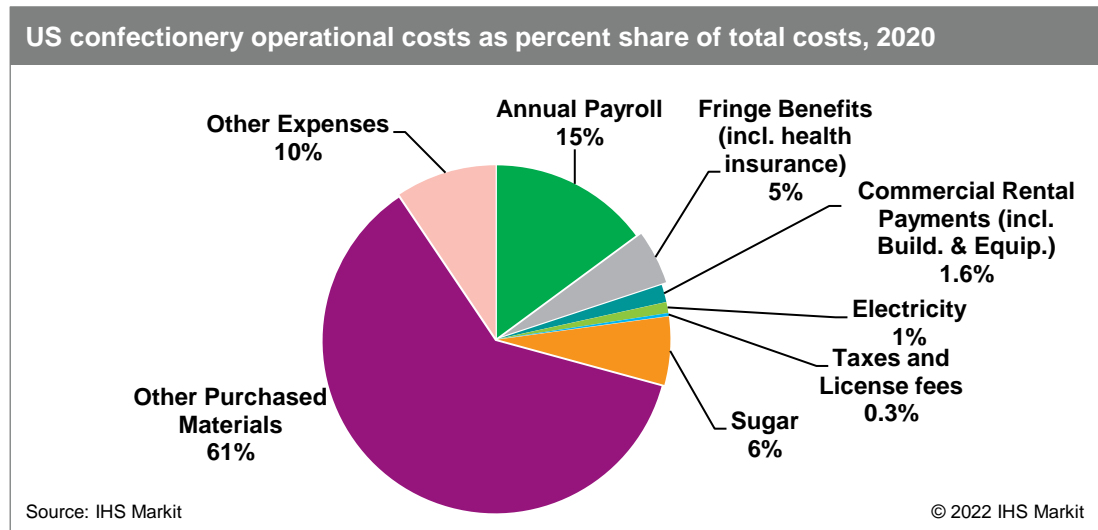
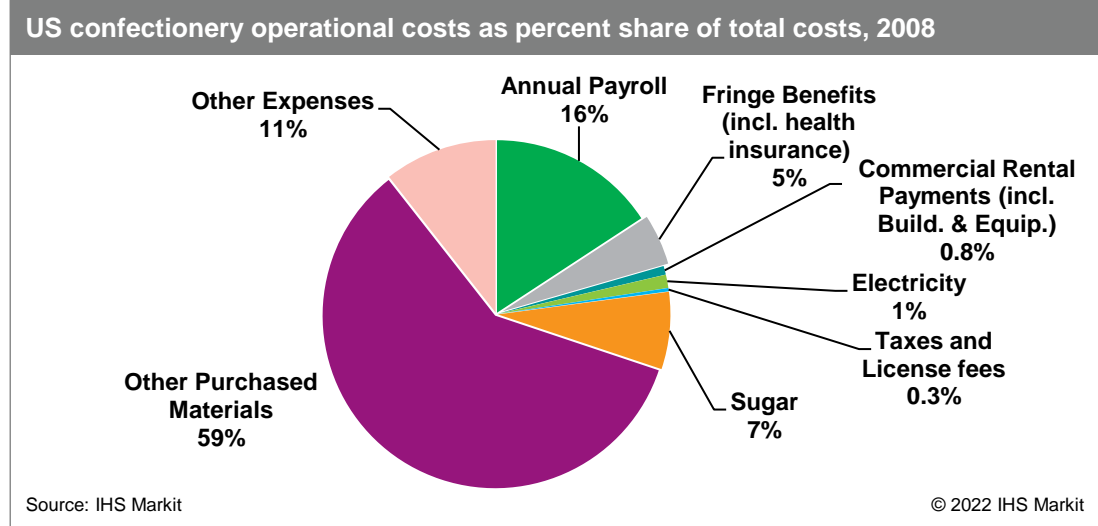


- The US wholesale refined sugar beet price averaged within two cents per pound of the northeast refined sugar cane price from 2000 to 2020, but the spread has widened to about 10 cents in 2021.
- Mexico’s Estander refined sugar price has averaged about 6 cents per pound less than Mexico sugar refined price in 2021.
- Canada’s refined sugar price dropped sharply in 2018 but has risen in 2021 approaching levels seen prior to 2017 according to data from the Canadian Sugar Institute.



US growth in total confectionery revenues and total operational costs

- Another way of looking at changes in revenues and costs of the US confectionery industry is evaluating total cost data from the Annual Manufacturers Survey. This slide compares nominal or current dollar costs and revenues with constant dollar costs and revenues deflated by the consumer price index. Constant dollars take into account inflation.
- Total costs for the industry increased at a faster rate than revenues from 2008 to 2020 with costs up 66% compared with revenues up 46% during the same time period. High rental lease rates, health care benefits paid by the industry and higher labor costs are some of the main reasons for increasing costs. However, when constant dollar costs are deflated, costs are up only 23% and revenues only 8%.
- The largest increase in costs were in labor, fringe health benefits and commercial rental payments.
- Sugar costs were up less than the increases for labor, fringe benefits and commercial lease payments.
- Labor costs account for nearly 15% of total costs followed by sugar at 6% and fringe health benefits 5%.



Note: Sugar costs based on sugar cost shares in the Economic Census of 2007 and 2017. The Annual Manufacturers Survey does not separate sugar costs from total purchased materials
 Source: Annual Manufacturers Survey and IHS Markit

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