

Would a Spoonful of Sugar Help: Is Competition Structure in the U.S. Raw Cane Sugar Refining Sector Changing?

[Brad Gehrke](#), Office of Industry and Competitiveness Analysis

U.S. sugar industry concentration was highlighted when the U.S. Department of Justice (DOJ) sued to stop the United States Sugar Corporation (U.S. Sugar) from acquiring the sugar assets of Louis Dreyfus Co (a.k.a. Imperial Sugar) in 2021. This EBOT—the third and final in a series—outlines geographic and firm concentration in the U.S. cane sugar refining industry. This analysis includes traditional as well as non-traditional refiners. Non-traditional refiners, including Sugaright, Sucro, and California Sugar Refiners, are relative newcomers to the industry and primarily produce refined liquid sugar.¹ While closings and acquisitions increased concentration based on only traditional raw sugar refining capacity, increasing non-traditional refining capacity offsets some of that concentration.

The U.S. raw cane sugar refining industry consists of operations that convert raw cane sugar into food-grade refined sugar products. Raw sugar is typically stored and handled in bulk that creates opportunities for the introduction of foreign matter and decomposition. The U.S. Food and Drug Administration (FDA) considers refining of raw sugar as the only practical process to remove impurities and transform raw sugar into a food-grade product.²

Traditional refineries can refine any grade of raw sugar by applying a set of traditional processing steps to primarily produce white granulated sugar, including affination, melting, clarification, char treatment, ion exchange, decolorization, polishing, evaporation, and crystallization. Non-traditional refiners must generally start with VHP (very high polarity)³ raw sugar and primarily produce colored and clear liquid sugar using fewer of these same processing steps, including melting, press filtration, ion exchange, decolorization, and in some cases evaporation and crystallization.⁴ Liquid sugar can be directly substituted for granulated sugar in many food manufacturing processes, including dairy products, such as ice cream; packaged beverages, such as teas; and many baked goods. Various traditional refiners also produce and market clear liquid sugar.

In its 2015 import injury investigations of sugar from Mexico, the U.S. International Trade Commission (USITC) listed seven refining companies; of these, two have ceased operations and one has been acquired.⁵ Economic conditions led the Hawaiian Commercial & Sugar company to end all sugar operations in 2016.⁶ The AmCane refinery in Taylor, Michigan (most recently owned by Michigan Sugar Cooperative, a beet sugar cooperative) closed in 2020 because of an inconsistent supply chain exacerbated by loss of its deep-water port.⁷ The acquisition of Imperial Sugar by U.S. Sugar

¹ Sugaright began operations as a melt house in 2006 but has since added raw sugar refining capacity and received a USDA license to participate in sugar re-export programs in 2009. Sucro refines raw cane sugar and received a USDA sugar re-export license in August 2023. California Sugar Refiners (CSR) was founded in 2018 by Zucarmex—a fully integrated Mexican sugar producer—and refines imported bulk raw sugar from Mexico, it is not licensed to participate in re-export programs. See here <https://fas.usda.gov/programs/sugar-import-program> for a description of sugar re-export licensing programs. Farmer, Paul J., “[Current State of the Cane Refining Industry](#),” USDA Outlook Forum 2023, February 24, 2023; Sugar Producer, “[Sucro Wins Approval From USDA for Sugar Refiner’s License](#),” August 16, 2023; 85 FR 3620.

² In contrast, melt houses do not have capacity to refine raw sugar and begin with sugar that is already considered fit for human consumption. For the purposes of this EBOT, raw sugar refers to cane sugar that is considered unfit for human consumption according to FDA; for tariff purposes, the HTS defines “raw sugar” as having a polarimeter reading of less than 99.5 degrees. FDA, “[CPG Sec 515.400 Raw Sugar](#),” revised March 1995; USITC, “HTS, Chapter 17, Subheading Note 1,” 2023 Revision 11.

³ Brazil is the primary producer of VHP raw cane sugar. The Sugar Room, “[VHP Raw Sugar](#),” accessed October 4, 2024.

⁴ Sugaright states that non-traditional refining uses less energy—about 80 percent of traditional refining—and less water and is therefore more efficient and sustainable than traditional refining. Sugaright, “[Refining Process](#)” accessed October 4, 2024.

⁵ USITC, [Sugar from Mexico \(Final\), Pub. No. 4577](#), October 2015, Table III-3, III-7.

⁶ Maalaea.com, “[Keeping Hawaiian Commercial & Sugar Co. Alive](#),” accessed October 4, 2024.

⁷ Galloway, Mitch, “[Michigan Sugar to Close Sugar Cane Facility in Taylor](#),” November 20, 2019.

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was finalized in 2022.⁸ The remaining traditional refineries located in the United States are owned by ASR Group/Florida Crystals, US Sugar Corporation, and Louisiana Sugar Refining (LSR) (table 1).⁹

Table 1. United States Sugar Refiners, Locations, Capacities, and Capacity Shares, 2023.

Owner/Operator/Location	State	Estimated Annual Melt Capacity Short tons, Raw value	Share of Melt Capacity Percentage
Traditional Sugar Refineries			
U.S. Sugar Corporation	—	1,600,000	22.4
Savannah/Port Wentworth	GA	825,000	11.6
Clewiston/Bryant	FL	775,000	10.9
ASR Group/Florida Crystals	—	3,365,000	47.2
Yonkers (Domino)	NY	540,000	7.6
Baltimore (Domino)	MD	825,000	11.6
Chalmette (Domino)	LA	940,000	13.2
Crockett (C&H)	CA	750,000	10.5
South Bay (Florida Crystals)	FL	310,000	4.3
Louisiana Sugar Refining	—	900,000	12.6
Gramercy	LA	900,000	12.6
Total Traditional Refiners	—	5,865,000	82.3
Non-Traditional Sugar Refineries			
Sugaright/CSC Sugar	—	725,000	10.2
Fairless Hills	PA	130,000	1.8
Springdale	OH	130,000	1.8
Harrisonburg	VA	130,000	1.8
Dallas	TX	130,000	1.8
El Paso	TX	75,000	1.1
Covington	TN	130,000	1.8
Sucro	—	412,000	5.8
Lackawanna [1]	NY	412,000	5.8
California Sugar Refiners/Zucarmex	CA	125,000	1.8
Total Non-Traditional Refiners	—	1,137,000	17.7
Total New and Traditional Refiners	—	7,002,000	100.0

Sources: USITC Estimates; Anderson, Katie, [Sucro sees room to grow at Lackawanna sugar refinery](#); Farmer, Paul J., [Current State of the Cane Refining Industry, USDA Outlook Forum, 2023](#). [1] Reported capacity of 350,000 metric tons was assumed to be on a crystalized sugar basis and was converted to a short tons, raw value basis.

Traditionally, sugar refineries were located where they had access to a domestic raw cane sugar supply and/or port facilities. Refineries near domestic raw sugar supplies in Florida account for 18.5 percent while those in Louisiana account for 31.3 percent based on traditional capacity only, falling to 15.2 and 25.8 percent, respectively, when non-traditional refineries are included (table 1). Three east-coast refineries with port access in New York, Maryland, and Georgia account for 37.4 percent of traditional refining capacity, or 30.8 when non-traditional refineries are included. The remaining refinery in California accounts for 12.8 percent of traditional refinery capacity, and 10.5 percent including non-traditional capacity.

Non-traditional refiners approached refinery siting differently. Smaller capacity facilities were sited based on proximity to customers, to offset increased shipping costs of a liquid product. However, access to multiple modes of transportation was also considered. Deep-water port access is important because most non-traditional refiners rely on imported raw cane sugar as most domestic growing and milling operations are vertically integrated with traditional refiners. Rail, barge, and truck access are important to supplement port access for receiving raw sugar and shipping finished product. For example, Sucro constructed its refinery on the site of a former Bethlehem Steel plant in Lackawanna, New York, to make use of existing buildings and infrastructure, including port access for deliveries of imported raw cane sugar as well as rail and highway access. When non-traditional refiners are included in share of capacity calculations, traditional refiners' share of refinery capacity is reduced to 82.3 percent (table 1). The addition of refining capacity at Sucro's Chicago melting facility, expected to have the same capacity as the Lackawanna plant, will further decrease overall concentration in the U.S. sugar refining industry.¹⁰

⁸ The DOJ lost the case in the court of first instance and on appeal allowing the acquisition to be completed. [United States v. United States Sugar Corp., No. 21-1644 \(MN\), 2022 U.S. Dist. LEXIS 175817 \(D. Del. Sep. 23, 2022\)](#); [United States v. United States Sugar Corp., 73 F.4th 197 \(3d Cir. 2023\)](#).

⁹ Traditional refineries in the United States are vertically integrated. ASR Group is jointly owned by Florida Crystals Corporation and the Sugar Cane Growers Cooperative of Florida. LSR is jointly owned by Cargill Corporation and the Louisiana Sugar Growers and Refiners, Inc. U.S. Sugar Corporation owns sugar cane growing, milling and refining operations in Florida.

¹⁰ Sucro, ["Sucro Announces Plans for New Cane Sugar Refinery in Chicago,"](#) February 20, 2024.

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