Organizations:
Plant Based Products Council (PBPC)
Corn Refiners Association (CRA)
American Soybean Association (ASA)
Biotechnology Innovation Organization (BIO)
National Corn Growers Association (NCGA)
National Hemp Association (NHA)

Date: February 18, 2025
Subject: 2022 North American Industry Classification System (NAICS)—Revisions for 2027 Comments
FR Reference: Federal Register / Vol. 89, No. 245 / Friday, December 20, 2024 / Notices
Docket Number: USBC-2024-0032

The undersigned organizations appreciate the opportunity to provide input in response to the Office of Management and Budget's (OMB) December 20, 2024 solicitation for proposed 2027 revisions to Statistical Policy Directive No. 8 North American Industry Classification System (NAICS). We support implementation of the statutory directive in the 2018 Farm Bill[1] to create distinct NAICS codes for manufacturers of renewable chemicals and biobased products as part of this process.

The Bioeconomy and Biobased Products

Every Presidential Administration since 2000 has prioritized the bioeconomy from an economic and national security perspective. A 2019 White House "Summit on America's Bioeconomy" highlighted that "the bioeconomy represents the infrastructure, innovation, products, technology, and data derived from biologically-related processes and science that drive economic growth, improve public health, agricultural, and security benefits."[2] And, in 2022, the National Institute of Standards and Technology (NIST), in consultation with an interagency working group with participants from across the U.S. government, developed a lexicon to harmonize "a base set of terms and definitions with the goal of helping to enable the development of measurements and measurement methods for the bioeconomy that support uses such as economic measurement, risk assessments, and the application of machine learning and other artificial intelligence tools."[3] This recently developed tool defines bioeconomy as

[1] Pub. L. No. 115-334, H.R. 2, the Agriculture Improvement Act of 2018. 115th Congress. §9002(f)(1). https://www.congress.gov/bill/115th-congress/house-bill/2.
[2] The White House Office of Science and Technology Policy. (2019, October). Summary of the 2019 White House Summit on America's Bioeconomy. https://trumpwhitehouse.archives.gov/wp-content/uploads/2019/10/Summary-of-White-House-Summit-on-Americas-Bioeconomy-October-2019.pdf.
[3] National Institute of Science and Technology. Bioeconomy Lexicon. (2022, December) https://www.nist.gov/bioscience/nistbioeconomy-lexicon.

the "economic activity derived from the life sciences, particularly in the areas of biotechnology and biomanufacturing, including industries, products, services, and the workforce"[4]

Given the Federal priority on the sector and market-driven demand, the domestic bioeconomy has grown rapidly over the past several decades. In fact, the most recent USDA-commissioned "An Economic Impact Analysis of the U.S. Biobased Products Industry" estimates that "the value added contribution to the U.S. economy grew even through the pandemic, from $470 billion in 2017 to $489 billion in 2021."[5] And, there is strong evidence to support the growth trend. In fact, a Boston Consulting Group report estimates "that scaling up industrial precision fermentation (alone) can create a $200 billion market by 2040, seven times the current size, if companies build enough production capacity to lower costs."[6]

Additionally, the biomanufacturing sector provides nearly 4 million jobs, and for each biobased products industry job, 1.4 more jobs are supported in other sectors of the U.S. economy. [7] The growing industry creates high-wage STEM jobs for engineers and chemists as well as high-quality skilled manufacturing, service, and related jobs to support this innovative sector. Workers in the agricultural feedstock and industrial biosciences earn an average of nearly $102,000 per year. That's significantly greater —about $30,000 —than the U.S. average private sector wage.[8]

Biobased products derived from renewable agricultural commodities are an important part of the U.S. and global bioeconomy. Biobased products span a diverse array of product categories including renewable chemicals, cleaning supplies, packaging, tableware, furniture, and clothing. And, innovation continues within the product categories. In past research, USDA's BioPreferred Program has identified about 20,000 biobased products, there are currently about 10,000 products listed in the database. However, not all biobased products

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[4] National Institute of Science and Technology. Bioeconomy Lexicon. (2022, December) https://www.nist.gov/bioscience/nistbioeconomy-lexicon..

[5] Golden, J.S., Handfield, R.B. Daystar, J., and S. Pires (2024). An Economic Impact Analysis of the U.S. Biobased Products Industry: 2023 Update. Volume V. A Joint Publication of the Dynamic Sustainability Lab at Syracuse University and the Supply Chain Resource Cooperative at North Carolina State University.

[6] Bobier, J.F., Cerisy, T., Coulin, A. D., Bleecher, C, Sassoon, V, and B. Alexander (2024, February). Breaking the Cost Barrier in Biomanufacturing. Boston Consulting Group. https://web-assets.bcg.com/b6/15/6a10d22c481e8bebaf0c2fab8294/bcg-breaking-the-cost-barrier-on-biomanufacturing-rev.pdf

[7] Golden, J.S., Handfield, R.B. Daystar, J., and S. Pires (2024). An Economic Impact Analysis of the U.S. Biobased Products Industry: 2023 Update. Volume V. A Joint Publication of the Dynamic Sustainability Lab at Syracuse University and the Supply Chain Resource Cooperative at North Carolina State University.

[8] Teconomy Partners LLC. (2024, June). The Economic Impact of the U.S. Industrial Bioeconomy. https://content.presspage.com/uploads/2544/4f7314e2-c45e-4e26-86be-70580565812b/economicimpactofu.s.industrialbioeconomy.v6.6.pdf?10000

participate in the voluntary program. Thus, a conservative estimate of the actual number of biobased products is over 40,000.[9]

Importance of NAICS Codes to the Bioeconomy

Distinct NAICS codes for manufacturers of renewable chemicals and biobased products are key to the future success of these biobased industries. Stakeholders across the U.S. economy, including industry, academia, research, and government agencies, struggle to track and analyze the economic activity and growth of the bioeconomy overall as well as biobased product segments due to the absence of distinct NAICS codes. Several academic researchers and economists, in attempting to measure the bioeconomy, repeatedly highlight that the existing NAICS system "does not provide an effective means of tracking the economic and job implications of the biobased products sector in the United States."[10] And, we have seen academic researchers and economists expressly join industry groups calling for unique NAICS codes to improve measurement and economic contributions of the bioeconomy.[11]

Without distinct NAICS codes, data collection and statistical reporting for the growing bioeconomy are challenged. In addition, the lack of specific industry NAICS codes masks the growth, market developments, and trends in these biobased industries, limiting efforts by policymakers, businesses, investors, and industry stakeholders to make well-informed decisions. Distinct biobased NAICS codes would strengthen USDA's efforts to highlight evolving market opportunities for U.S. farmers. Transparent measurement of growth in economic areas like jobs and average wages is key to understanding how public policy is impacting the bioeconomy, what barriers should be addressed, and where investment may be needed. Currently, manufacturers of biobased products are by default hidden in a smattering of NAICS code product classifications (e.g., plastic, chemicals, packaging).

Because of this identified need for NAICS codes specific to biobased products, Sec. 9002 of the 2018 Farm Bill, the Agriculture Improvement Act of 2018. provides that "[t]he Secretary and the Secretary of Commerce shall jointly develop North American Industry Classification System codes for— (A) renewable chemicals manufacturers; and (B) biobased product manufacturers."[12] This directive compels USDA and Commerce to jointly develop NAICS codes for biobased product manufacturing.

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[9] Golden, J.S., Handfield, R.B. Daystar, J., and S. Pires (2024). An Economic Impact Analysis of the U.S. Biobased Products Industry: 2023 Update. Volume V. A Joint Publication of the Dynamic Sustainability Lab at Syracuse University and the Supply Chain Resource Cooperative at North Carolina State University.

[10] Golden, J.S., Handfield, R.B., Daystar, J. and, T.E. McConnell. *An Economic Impact Analysis of the U.S. Biobased Products Industry A Report to the Congress of the United States of America.* U.S. Department of Agriculture (2015) p. 83.

[11] Golden, J.S., Handfield, R.B., Daystar, J., and McConnell, T.E., *An Economic Impact Analysis of the U.S. Biobased Products Industry.* U.S. Department of Agriculture (2016) p. 13.

[12] Agriculture Improvement Act of 2018 § 9002. https://www.congress.gov/115/plaws/publ334/PLAW-115publ334.pdf

Interagency Technical Working Group Recommendations

Given the recognition of the importance of developing better data on the bioeconomy, an Interagency Technical Working Group (ITWG) was established by the Chief Statistician of the United States to develop recommendations for bioeconomy related revisions to the NAICs and the North American Product Classification System (NAPCS) to the Economic Classification Policy Committee. The Bioeconomy ITWG was comprised of 14 voting members from 8 Federal agencies and 2 nonvoting members from the Economic Classification Policy Committee and the Office of Management and Budget. Federal agencies represented on the ITWG include the National Science Foundation (NSF), Department of Energy (DOE), Small Business Administration (SBA), Bureau of Economic Analysis (BEA), Environmental Protection Agency (EPA), U.S. Department of Agriculture (USDA), Bureau of Labor Statistics (BLS), the Food and Drug Administration (FDA), and the U.S. Census Bureau.

To inform its enclosed recommended revisions to the NAICS and NAPCS, the ITWG solicited comments and recommendations in a public and transparent manner. A Request for Information (RFI) was published in the Federal Register, and five listening sessions with industry experts, advocates and representatives. Among the feedback received, there were recommendations to "add specific industry and product categories including expanding and creating specific NAICS codes to identify biomanufacturing processes as well as specific NAPCS codes for distinct biobased manufactured products."[13]

In developing its recommendations, the ITWG considered identification of establishments, self-reporting and misclassification, data disclosure concerns, the purpose of NAICS and complexity of clearly different production processes, and time series consistencies.

Following the thoughtful and deliberative interagency process, the ITWG recommended twelve updates as part of the 2027 NAICS revisions. These recommended revisions include the following items that are of interest to the organizations we represent:

(1) Differentiate biobased component of 325211 "Plastics Material and Resin Manufacturing"
325211a "Plastics Materials and Resin Manufacturing, Petroleum Based"
325211b "Plastics Materials and Resin Manufacturing, (Biobased)"

(2) Differentiating biobased 313110 "Fiber, Yarn, and Thread Mills" and 325220 "Artificial and Synthetic Fibers and Filaments Manufacturing"
313110b "Fiber, Yarn, and Thread Mills (Biobased)"
325220b "Artificial and Synthetic Fibers and Filaments Manufacturing (Biobased)"

[13] Interagency Technical Working Group. Measuring the Bioeconomy, Recommended Revisions to the NAICS and NAPCS. (Formatted for web, June 2024). https://www.usda.gov/sites/default/files/documents/OCE-Measuring-the-Bioeconomy.pdf

(3) Breakout/rename 32512 “Industrial Gas Manufacturing”
325121 “Industrial Gas Refineries, (Excluding Biogas)”
325122 “Industrial Gas Refineries, (Biogas)”

(12) Establish five new industries under 325199 “All Other Basic Organic Chemical Manufacturing”

Production of Basic Organic Chemicals Using Synthetic Biology (Split out of 325199)

Production of Basic Organic Chemicals Using Biobased Feedstocks (Split out of 325199)

Fatty Acid Ester Production from Biobased Feedstocks. (Includes fatty acid esters for non-fuel use and fuel use (biodiesel). Split out of 325199)

Production of RNG from biogas. (Includes establishments whose primary output is pipeline-grade natural gas produced from biogas. Split out of 325199)

Hydrotreatment of Esters and Fatty Acids (Production of hydrocarbon fuels from vegetable oils or animal fats. Includes production of renewable diesel, renewable jet fuel, renewable naphtha, and renewable propane/butane. Split out of 325199. Does not include biodiesel, since biodiesel is chemically distinct from hydrocarbon fuels.)

(13) Split one new industry out from 324191 “Petroleum Lubricating Oil and Grease Manufacturing”
Biobased Lubricating Oil and Grease Manufacturing

In addition to the specific relevant revisions, the ITWG also recommended emerging technologies for additional monitoring for potential further revisions.

Consistent with the legislative directive of the 2018 Farm Bill and commitments across several Presidential Administrations to improve data and statistical measurement of the bioeconomy, the undersigned stakeholders request that OMB and the ECPC advance the work of the ITWG and develop NAICS codes for renewable chemicals and biobased product manufacturers.

NAICS codes are essential for the success of the renewable chemical and biobased products industry as well as the future of the U.S. bioeconomy. It is imperative that these codes be developed so that a robust U.S. bioeconomy can continue growing and the associated economic, national security, and environmental benefits are fully realized.

Thank you for your consideration of these comments. Should you have any questions, please contact James Glueck at 202-331-1634 or james@pbpc.com.

Sincerely,


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