

# NMSC NAICS Effort

Building the Business Case for NAICS



# NMSC NAICS Effort

- The North American Industry Classification System (NAICS) is the Federal standard for collecting statistical data across U.S. business sectors
- In 2014, the NMSC, NTSA and a coalition of supporting organizations submitted a proposal recommending new NAICS codes for Modeling & Simulation—the proposal recommended new industry codes for M&S in both the Manufacturing Sector (Products) and the Professional, Scientific and Technical Services Sector
- Based on the 2014 submissions, the Economic Classification Policy Committee (ECPC) supported adding the phrase "modeling and simulation" as a part of the definition of NAICS Industry Group 5417, Scientific Research and Development Services
- NAICS is updated once every five years—NMSC is a year into a three-year plan to identify why a NAICS code for M&S will provide better statistical data related to the U.S. economy, socialize our findings with the technology community and policymakers, and produce a compelling proposal to continue to improve the visibility of M&S within NAICS

# NAICS Principles

- NAICS is erected on a production oriented conceptual framework—this means that producing units that use the **same or similar production processes** are grouped together in NAICS
- NAICS gives special attention to developing **production-oriented classifications** for (a) new and emerging industries, (b) service industries in general, and (c) industries engaged in the production of advanced technologies
- The system aims to maintain time series continuity to the extent possible
- The system strives for compatibility with the two-digit level of the United Nations' International Standard Industrial Classification of All Economic Activities (ISIC, Revision 4)

# 2012 NAICS Definition

## **5417 Scientific Research and Development Services**

This industry group comprises establishments engaged in conducting original investigation undertaken on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development). The industries within this industry group are defined on the basis of the domain of research; that is, on the scientific expertise of the establishment.

# 2017 NAICS Definition

## **5417 Scientific Research and Development Services**

This industry group comprises establishments engaged in conducting original investigation undertaken on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development).

**Techniques may include modeling and simulation.** The industries within this industry group are defined on the basis of the domain of research; that is, on the scientific expertise of the establishment.

# 5417 Codes for 2017

- 54171 Research and Development in the Physical, Engineering, and Life Sciences**
- 541713 Research and Development in Nanotechnology
- 541714 Research and Development in Biotechnology (except Nanobiotechnology)
- 541715 Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)
- 54172 Research and Development in the Social Sciences and Humanities**
- 541720 Research and Development in the Social Sciences and Humanities

# 2012 and 2017 Index Entries with “simulation”

## **2012 Corresponding Index Entries with “simulation”**

332313 Space simulation chambers, fabricated metal plate work,  
manufacturing

333318 Flight simulation machinery manufacturing

## **2017 Corresponding Index Entries with “simulation”**

332313 Space simulation chambers, fabricated metal plate work,  
manufacturing

333318 Flight simulation machinery manufacturing

**611512 Flight simulation training**



# Proposal Plan Year 1 – Build the Business Case for NAICS

- NAICS workshops
  - NMSC Annual Meeting held on March 10, 2016
  - MODSIM World Conference held on April 28, 2016
  - I/ITSEC held on November 29, 2016
- Year 1 objectives
  - Identifying stakeholders, influencers, and relevant science and technology, industry, and community organizations
  - Articulating win themes
  - Planning year 2 activities



## Win Themes—Answer These

- Identify M&S **production processes**—how is M&S different from other production processes such as computer programming
- Write specific new **production-oriented classifications** for M&S products and services and identify where these classifications fall in the NAICS
- Write new descriptive text for existing codes to improve the visibility of M&S within NAICS
- Identify why improved NAICS visibility for M&S will provide better statistical data related to the U.S. economy

# Moving Forward

- Develop a strategy with regards to the ECPC's recommendation that "statistical programs consider adding inquiries for relevant industries to better quantify the production of modeling and simulation...".
- Research and monitor the development of the North American Product Classification System (NAPCS). Take appropriate actions to make sure that Modeling & Simulation products and services will be properly represented.
- Continue to build a matrix of organizations (with an interest in M&S) beyond the defense industry. Forge and strengthen relationships and build a stronger coalition. Broader consensus is needed not just on NAICS & NAPCS, but on a variety of issues requiring collective action.
- Recruit government/military representatives to participate in the NAICS & NACPS effort. The customer perspective has not previously been adequately captured or articulated.



## Proposal Plan Year 2 – Socialize NAICS Business Case

- Build partnerships with multiple S&T and industry community organizations on the NAICS issue
- Publish articles making the case for each element of the NAICS argument in multiple S&T and industry community venues (not just the regular MS&T venues)
- Calls on influencers from multiple S&T and industry community organizations
- Identify decision-makers



# Proposal Plan Year 3 – Proposal Production

- Year-long color team process
- Calls on and letter campaign to decision-makers by influencers
- Submit early
- Win party



# Contact If You Want to Help

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Backup



# ECPC General Guidance

- The Economic Classification Policy Committee (ECPC) applied the following general guidance when considering changes to NAICS in 2017:
  - Because of the cost of change and the disruption of statistical data series that have already resulted from the ongoing implementation of NAICS, **the ECPC will limit the scope of NAICS changes for 2017 to those that significantly improve the relevance and efficiency of the classification system**
  - The ECPC will recommend new and emerging industries identified through the comment process that are supported by the guiding principles of NAICS
  - The ECPC will undertake additional research and evaluation before making its recommendation on the classification of manufacturing units that outsource transformation
  - The ECPC will make changes to account for errors and omissions as well as recommend narrative improvements to clarify the content of existing industries
  - The ECPC also considered the views of its member agencies

# ECPC Comments Received

- Of the 113 uniquely numbered comments received in response to the Federal Register notice:
  - 53 supported comprehensive changes to create new industries and regroup a variety of existing industries that make up the “outdoor trade industry”
  - 5 requested new nanotechnology-related industries
  - 5 supported creating a NAICS industry for biogas production
  - 4 requested new industries and changes to existing industries for modeling and simulation
  - 4 addressed updating the structure of the oil and gas industries
  - 3 requested a new industry for acupuncture practices
  - 2 requested a new industry for building envelope consulting services,
  - Single comments requested other new industries such as welding services, fire extinguisher installation and maintenance, pipeline inspection by type of utility (sanitary, electric, gas, etc.), freestanding urgent care centers and clinics, telehealth services, and offices of nurse practitioners
  - 3 comments supported continuing printed publication of NAICS 2017





# ECPC Responses Regarding Changes for 2017

- Docket 17-0140 requested new NAICS industries for modeling and simulation in Sector 31-33, Manufacturing, and Sector 54, Professional, Scientific, and Technical Services
  - The ECPC recommends that the current classification treatment for modeling and simulation services remain unchanged. Modeling and simulation activities or services are embedded in product development and production processes of different industries, such as health and medicine, manufacturing, education, and entertainment.
  - The ECPC acknowledges the support for the creation of a new industry but remains concerned about the ability to identify and quantify the activity in an industry classification. Pure modeling and simulation services are unique for each application and are developed to meet specific needs. The occupation is growing, and specialized training and education are clearly present. Professional standards have been developed and are being more widely applied. However, the product of modeling and simulation is provided by a wide range of business types currently classified throughout the NAICS classification.
  - The ECPC supports adding the phrase "modeling and simulation" as a part of the definition of NAICS Industry Group 5417, Scientific Research and Development Services, due to its growth in prominence in academia and in both the private and public sectors of the economy. The ECPC recommends that statistical programs consider adding inquiries for relevant industries to better quantify the production of modeling and simulation services across the range of producers. With the development of the North American Product Classification System (NAPCS), a system that can account for more end use or demand-oriented concepts, additional evaluation could result in narrowly defined products, which may satisfy some aspects of this docket.
- ECPC Responses on Public Comments Regarding Changes for 2017

<http://www.census.gov/eos/www/naics/fr2015/responses/responses.html>