

Shifting Ground of NAICS: *North American Industry Classification System*

St. Louis Federal Reserve
Beyond the Numbers
November 10, 2022

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The slides can be found at
<https://tinyurl.com/NAICSBTN22>



Jennifer C. Boettcher

Changes to NAICS Affects Researchers

Online Searcher 46, no. 4
(Jul, 2022): 16-21



Using NAICS Codes Effectively to Research Industries

Online Searcher 46, no. 5
(Sep, 2022): 10-15.

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Learn more

Links to informative educational material



01

What *is it?*

What is NAICS and Who creates
North American Industry
Classification System



Why Industry Classification?



History

- “Industry” as economic concept
 - Not classification - groupings
- 1939 Standard Industry Classification (SIC) adopted
- 1959 first use of SIC in Economic Census
- 1997 first version of NAICS



Usage

Trends and Comparisons

- Census- Economic Census (1954-)
- BEA- Gross Domestic Product (in/out tables) (GNP 1934-)
- BLS- Producer Price Index (inflation) (WPI 1891-1978, PPI [SIC]- 1945)
- Census- County Business Patterns (1986-)

North American Industry Classification System: *NAICS*

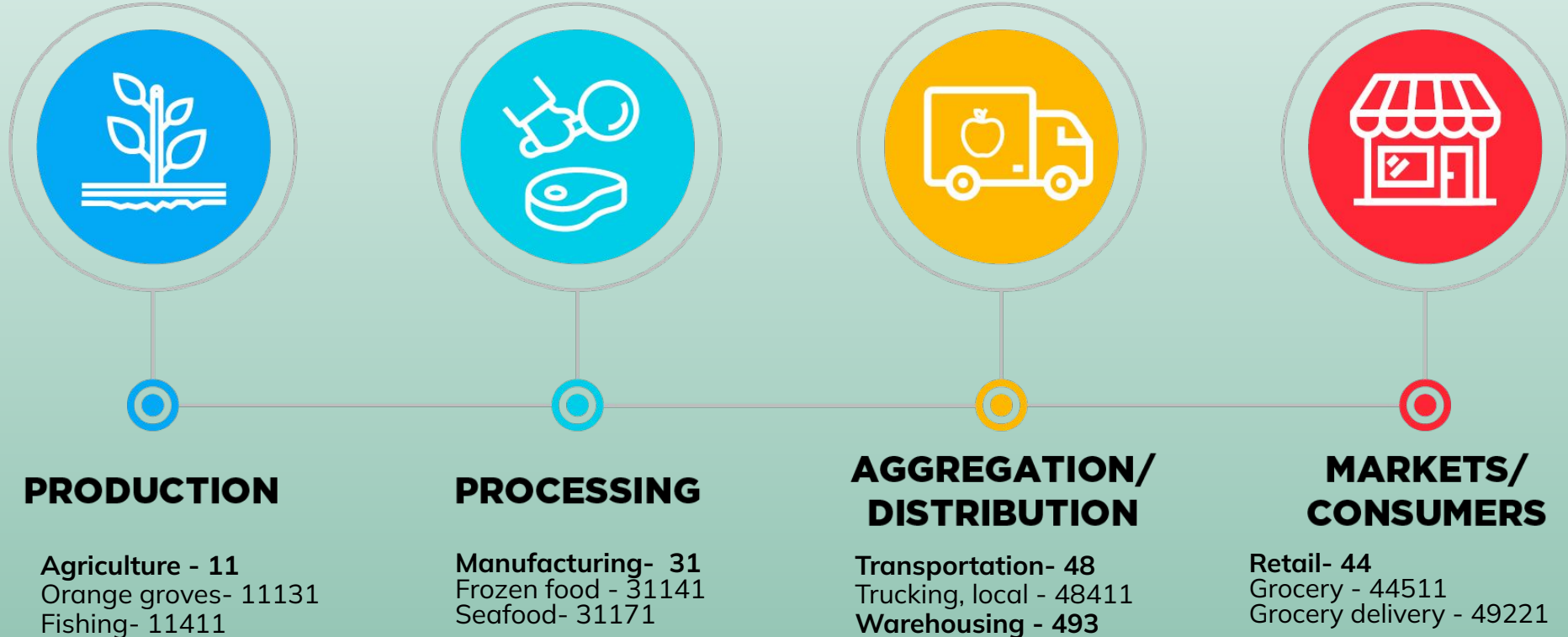
pronounced nākes, like snakes 🐍

- Standardize **taxonomy** used by Federal statistical agencies
- Classifying **business establishments**
- For the purpose of collecting, analyzing, and publishing **statistical data**
- Related to the U.S. business economy.

What is an Establishment?

Food Store **Supply Chain**

Image: [USDA](#)





Four principles of *NAICS*

1. 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.
2. 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.
3. Time series continuity is maintained to the extent possible.
4. The system strives for compatibility with the two-digit level of the International Standard Industrial Classification of All Economic Activities (ISIC Rev. 4) of the United Nations.





North American Industry Classification System (NAICS) Hierarchical Structure



Level	Code	Description
Sector *	31	Manufacturing
Subsector *	315	Apparel Manufacturing
Industry Group *	3152	Cut and Sew Apparel Manufacturing
Industry	31525	Cut and Sew Apparel Manufacturing (except contractors)
U.S. Industry	<u>315250</u>	Cut and Sew Apparel Manufacturing (except contractors)

* Mexico & Canada Compatible



315250 Cut and Sew Apparel Manufacturing (except Contractors)

Cross-References. Establishments primarily engaged in--

- Cutting and/or sewing materials owned by others for apparel--are classified in Industry [315210](#), Cut and Sew Apparel Contractors;
- Knitting apparel or knitting fabric and manufacturing apparel--are classified in Industry [315120](#), Apparel Knitting Mills;
- Manufacturing fur and leather mittens and gloves--are classified in Industry [315990](#), Apparel Accessories and Other Apparel Manufacturing;
- Dyeing and dressing furs--are classified in Industry [316110](#), Leather and Hide Tanning and Finishing; and
- Manufacturing cloth diapers--are classified in U.S. Industry [314999](#), All Other Miscellaneous Textile Product Mills.

2012 NAICS	2017 NAICS	2022 NAICS	Corresponding Index Entries
315280	315280	315250	Apparel, fur (except apparel contractors), manufacturing
315220	315220	315250	Aprons, work (except leather, waterproof), men's and boys', cut and sewn from purchased fabric (except apparel contractors)
315240	315240	315250	Aprons, work (except waterproof, leather), women's and girls', cut and sewn from purchased fabric (except apparel contractors)
315220	315220	315250	Athletic clothing, men's, boys' and unisex (i.e., sized without regard to gender), cut and sewn from purchased fabric (except apparel contractors)
315240	315240	315250	Athletic clothing, women's and girls', cut and sewn from purchased fabric (except apparel contractors)
315280	315280	315250	Athletic uniforms, team, cut and sewn from purchased fabric (except apparel contractors)
315220	315220	315250	Bakers' service apparel, washable, men's and boys', cut and sewn from purchased fabric (except apparel contractors)

Different NAICS in Supply Chain

Image: [USDA](#)



PRODUCTION

Agriculture - 11
Orange groves- 11131
Fishing- 11411

PROCESSING

Manufacturing- 31
Frozen food - 31141
Seafood- 31171

AGGREGATION/ DISTRIBUTION

Transportation- 48
Trucking, local - 48411
Warehousing - 493

MARKETS/ CONSUMERS

Retail- 44
Grocery - 44511
Grocery delivery - 49221

24 NAICS *Sectors*

11 Agriculture, Forestry, Fishing
and Hunting

21 Mining

22 Utilities

23 Construction

31-33 Manufacturing

42 Wholesale Trade

44-45 Retail Trade

48-49 Transportation and
Warehousing

51 Information

52 Finance and Insurance

53 Real Estate and Rental and Leasing

54 Professional, Scientific, and Technical
Services

55 Management of Companies and Enterprises

56 Administrative and Support and Waste
Management and Remediation Services

61 Education Services

62 Health Care and Social Assistance

71 Arts, Entertainment, and Recreation

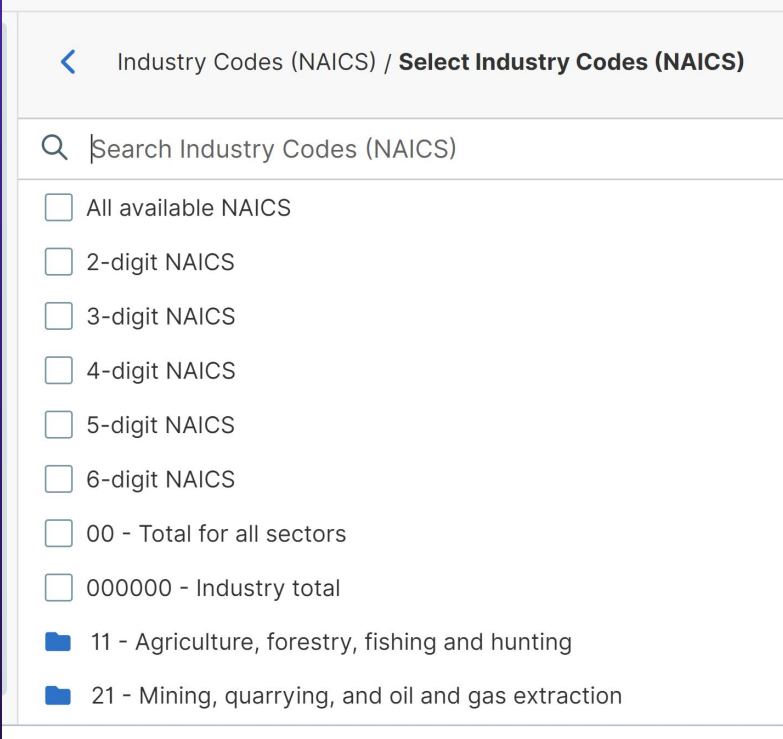
72 Accommodation and Food Services

81 Other Services (except Public Administration)

92 Public Administration

Advice

- When looking up an Industry
 - ◆ Find the right NAICS Code
 - ◆ Confirm there will not be a better code
Look at US Industry for details, 6 digits
- When looking for industry statistics
 - ◆ NAICS is the standard code NOT the data
 - ◆ Who collects it?
 - ◆ Read Methodology of how NAICS is collected and aggregated.
 - ◆ What level of aggregation?
 - ◆ What level of geography is available?
Small geographies will not have data at 6 digit
 - ◆ Try FRED before Data.gov



The screenshot shows a web interface for selecting NAICS codes. At the top, there is a breadcrumb trail: '< Industry Codes (NAICS) / Select Industry Codes (NAICS)'. Below this is a search bar with the placeholder text 'Search Industry Codes (NAICS)'. A list of options follows, each with an unchecked checkbox:

- All available NAICS
- 2-digit NAICS
- 3-digit NAICS
- 4-digit NAICS
- 5-digit NAICS
- 6-digit NAICS
- 00 - Total for all sectors
- 000000 - Industry total
- 11 - Agriculture, forestry, fishing and hunting
- 21 - Mining, quarrying, and oil and gas extraction

Census only data on data.census.gov

Who oversees NAICS?

Office of Management and Budget (OMB)'s Office of Information and Regulatory Affairs (OIRA) gives responsibility to **Economic Classification Policy Committee (ECPC)**

- Representatives from Census, BEA, BLS, and others as needed
- With Mexico's INEGI and Statistics Canada to negotiated harmonization
- Revision every 5 years



Do you want a new NAICS Code?



Process

- Federal Register (FR) notice soliciting proposals
- ECPC review of proposals and trilateral negotiation
- FR notice containing OMB final decisions
- NAICS United States available on NAICS Website
- 2022 revision started in 2019

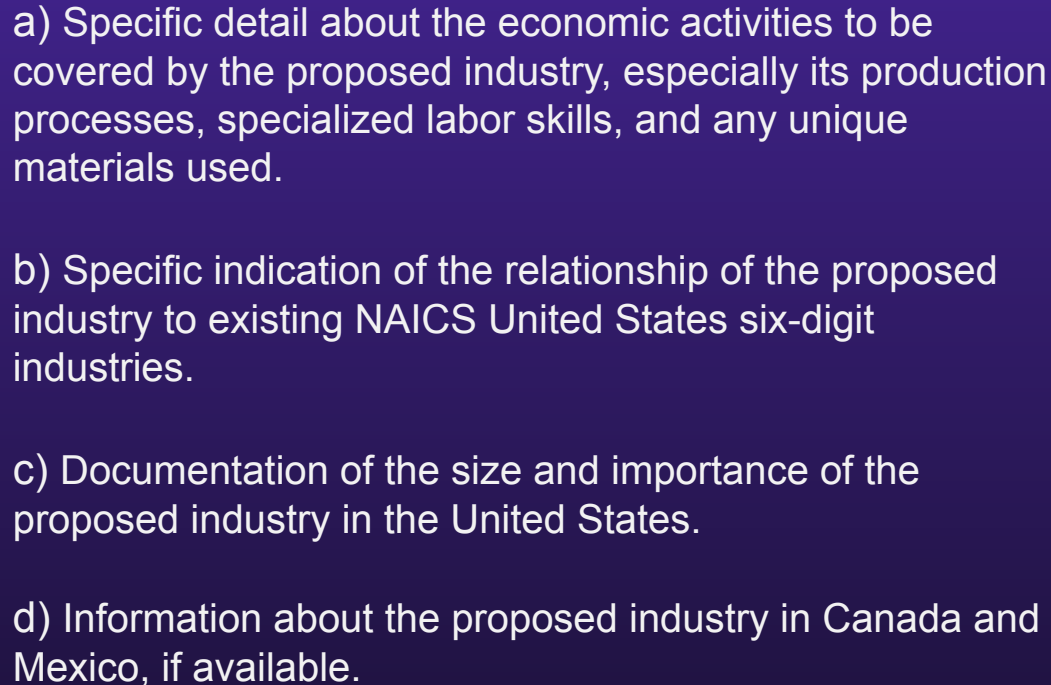
Considerations

- Be of appropriate size - for privacy
- Ability of government agencies to classify, collect, and publish data
- Applied by agencies within their normal processing operations for cost saving
- Take into account the cost of making the changes
- Activities of similar producing units cannot be separated (see NAPCS)

Talk to someone in the ECPC with your ideas.



Proposals for changes to NAICS

- a) Specific detail about the economic activities to be covered by the proposed industry, especially its production processes, specialized labor skills, and any unique materials used.
 - b) Specific indication of the relationship of the proposed industry to existing NAICS United States six-digit industries.
 - c) Documentation of the size and importance of the proposed industry in the United States.
 - d) Information about the proposed industry in Canada and Mexico, if available.
- 

NEWS: Death notice for SIC

February 26, 2020 OMB ask for permission to kill the Standard Industrial Classification (**SIC**).

With 86 FR No. 242 72277, December 21, 2021 SIC will be eliminated effective immediately.

The ECPC proposes **elimination** of Statistical Policy Directive No. 9, Standard Industrial Classification of Enterprises.

Long live the North American Industry Classification System (**NAICS**).

Thank you Economic Classification Policy Committee (ECPC)

02

NAICS *functions*

Who uses NAICS:
Statistical and Nonstatistical



The slides can be found at
<https://tinyurl.com/NAICSBTN22>

Statistical Indicators

County Business Patterns (ZIP, Congressional District, MA, Islands, State, United States)

Advance Monthly Sales for Retail and Food Services (MARTS)

Longitudinal Employer-Household Dynamics (LEHD)

New Small Business Pulse (SBP)

New Business Formation Statistics (BFS)

New Annual Business Survey (ABS)

Annual Survey of Manufactures (ASM) Producer Price Index (PPI)

Quarterly Financial Report (QFR) Employment (BLS)

Business Dynamics Statistics (BDS) Industry at a Glance (BLS)

Quarterly Services Survey (QSS) Tax Stats (IRS)

Nonemployer Statistics (NES) GDP by Industry (BEA)

Economic Census Job Patterns for Minorities and

Woman (EEOC)



All Census Programs

Economic Census

New NAICS introduced - Every five years with years ending in 2 and 7

- Legal Basis Title 13, United States Code (U.S.C.), Section 9, 131, 224, and 225.
 - Copies retained in respondents' files are immune from legal process.

Census, not a survey- All Business

- Administrative records- Social Security & IRS, NOT Nonemployer Establishments

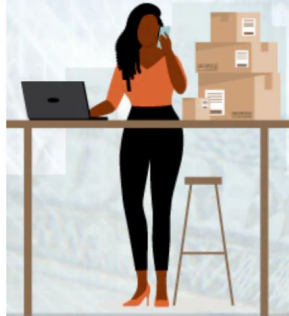
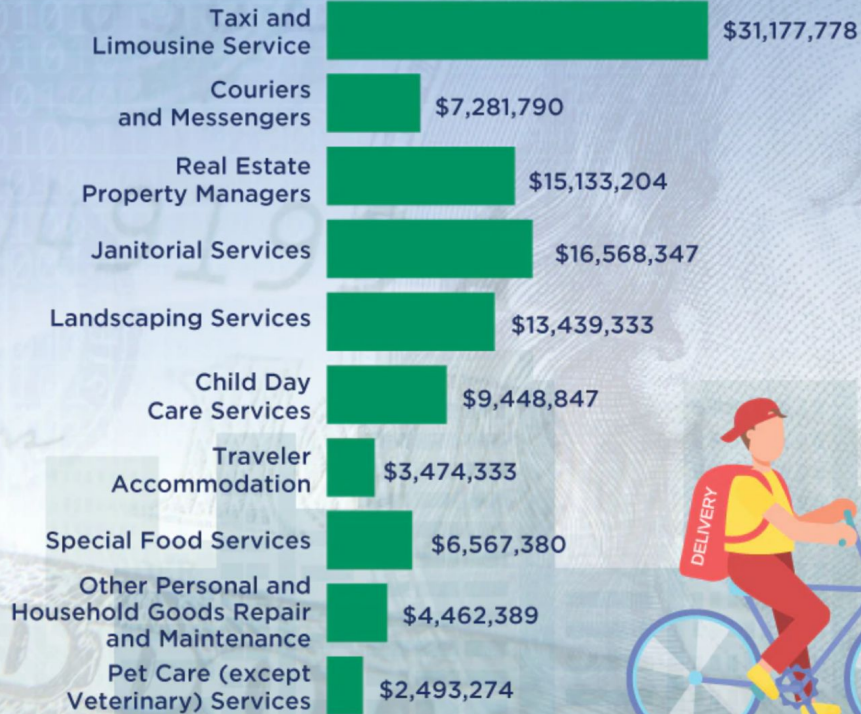
Core data (Geographic) National, state, metro, county, place, and ZIP Code levels

- Number of establishments
- Value of sales, receipts, revenue, shipments, or business done
- Annual payroll
- Number of employees

○ Economic Census NOT Census of Population and Housing

Selected Industries That Contributed to the U.S. Gig Economy: 2019

2017 NAICS Industry Receipts (\$1,000)



GDP by Industry

From [BEA](#)

Line		2020				2021				2022	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Gross domestic product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2	Private industries	87.4	86.5	87.3	87.4	87.7	87.9	87.9	88.2	88.3	88.4
3	Agriculture, forestry, fishing, and hunting	0.8	0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.1	1.2
4	Farms	0.6	0.5	0.5	0.6	0.6	0.7	0.8	0.7	0.9	1.0
5	Forestry, fishing, and related activities	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6	Mining	1.1	0.7	0.9	1.0	1.3	1.3	1.5	1.6	1.7	2.1
7	Oil and gas extraction	0.7	0.3	0.5	0.6	0.9	0.9	1.0	1.2	1.3	1.7
8	Mining, except oil and gas	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
9	Support activities for mining	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
10	Utilities	1.5	1.7	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.8
11	Construction	4.3	4.3	4.2	4.2	4.2	4.1	4.0	4.0	4.0	3.9
12	Manufacturing	10.8	10.5	10.7	10.6	10.7	10.7	10.6	10.9	10.9	11.0
13	Durable goods	6.1	5.8	6.2	6.1	6.1	6.0	5.9	6.0	6.0	6.0

FRED: 39,850 NAICS

Search Results

Displaying 18797 series for naics.

North American Industry Classification System ✕ Reset

Refine your search: Sort by Last Updated ▾

Concepts —

Industrial Production	(12089)
Manufacturing	(10258)
Production	(3695)
Hours	(3639)
Employment	(3396)
Output	(2971)
Labor	(2745)
Retail	(2691)
Sales	(2674)
Retail Trade	(2668)

Relative Importance Weights (Contribution to the Total Industrial Production Index): Utilities: Renewables and Other Electric Power Generation (NAICS = 221114-8)

Percent, Monthly, Seasonally Adjusted Jan 2001 to Jul 2022 (Oct 18)

The Industrial Production (IP) proportions (typically shown in the first column of the relevant tables in the C.17 release) are estimates of the industries' relative contributions to overall growth in the following year. For example, the relative...

Relative Importance Weights (Contribution to the Total Industrial Production Index): Manufacturing: Non-Durable Goods: Alkalies and Chlorine (NAICS = 32518pt.)

Percent, Monthly, Seasonally Adjusted Jan 1972 to Jun 2022 (Oct 18)

The Industrial Production (IP) proportions (typically shown in the first column of the relevant tables in the C.17 release) are estimates of the industries' relative contributions to overall growth in the following year. For example, the relative...

Relative Importance Weights (Contribution to the Total Industrial Production Index): Manufacturing: Durable Goods: Miscellaneous Aluminum Materials (NAICS = 331315,8pt.)

Percent, Monthly, Seasonally Adjusted Jan 1972 to Aug 2022 (Oct 18)

NAICS is the linchpin in *Industry Analysis*



Financials

Ratio Analysis/comps
Pro Forma Statements



Directories

Business Competitors
Market size (how many)
Market share (dominate company)



Field Searching

NAICS Field in most article
indexing services

Business Competitors

Market Size (how many)

Results : 521 Companies Found

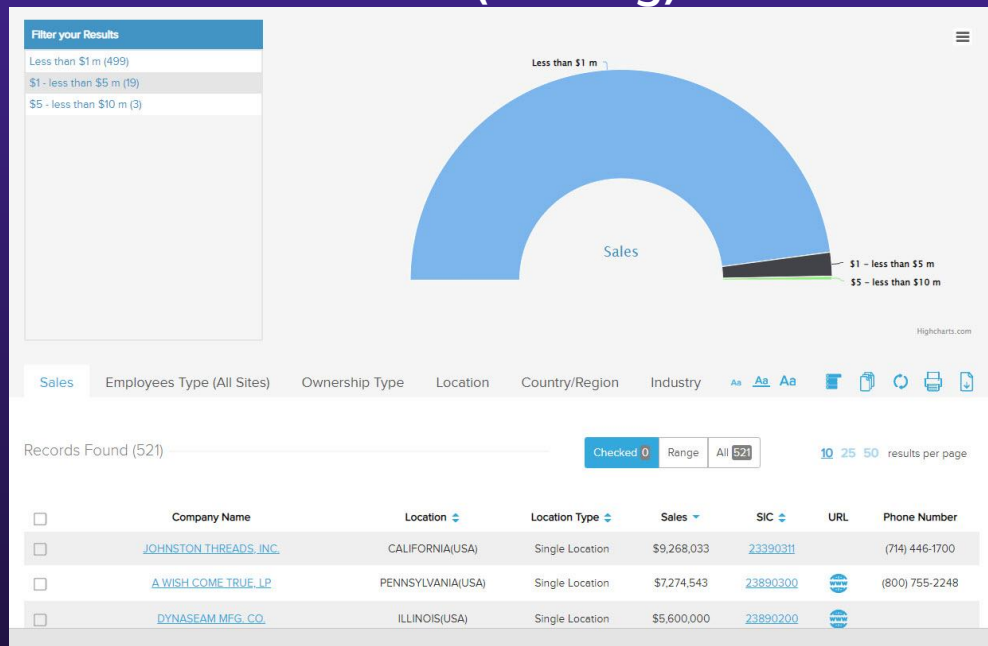
Exclude Inactive companies from results x

Include U.S Companies x

Industry
NAICS codes
315280 x

Images from Mergent Intellect

Market Share (ranking)



Financial Norms

Income Statements

Net income status, item	Manufacturing					
	Total- Sector	Food manufacturing	Textile and textile product mills	Apparel - Subsector	Leather and allied	Wood products
BUSINESSES WITH AND WITHOUT NET INCOME						
Number of returns	386,848	64,908	11,633	23,677	9,213	25,437
Business receipts, total [1]	33,325,974	6,250,851	548,675	1,344,248	302,740	2,922,194
Income from sales and operations	32,785,162	5,892,108	529,292	** 1,645,572	**	2,999,485
Other business income (loss)	540,812	358,743	* 19,383	** 1,415	**	-77,291
Business deductions, total [1]	30,076,995	6,152,711	528,625	1,357,121	218,131	2,722,539
Cost of sales and operations, total	14,872,996	3,264,428	283,477	631,630	86,247	** 1,687,294
Inventory, beginning of year	2,418,260	662,188	26,920	152,669	* 42,936	** 193,747
Cost of labor	1,598,269	175,894	* 7,791	* 58,129	* 45	** 198,741
Purchases	9,295,997	2,393,164	233,713	422,084	* 61,319	** 1,216,007
Materials and supplies	2,419,618	540,476	* 11,050	77,377	* 13,633	** 231,948
Other costs	1,892,646	304,960	28,457	67,675	* 5,372	** 146,907
Inventory, end of year	2,751,795	812,254	24,453	148,305	* 37,058	** 300,057
Advertising expenses	420,710	103,310	8,662	52,764	4,715	** 10,308
Car and truck expenses	1,101,844	139,511	18,106	32,391	15,645	** 73,274
Commissions	225,225	28,814	* 1,275	17,481	* 2,557	5,948

FROM:

IRS's Statistics of Income

<https://www.irs.gov/statistics/soi-tax-stats-nonfarm-sole-proprietors-hip-statistics>

Receipts & Net Income

Industrial sector	Businesses with and without net income							
	Number of returns	Business receipts	Depreciation deduction [1]	Rent paid on machinery and equipment	Rent paid on other business property	Interest paid deduction [2]	Payroll [3]	Net income less deficit
Manufacturing	386,848	33,325,974	1,374,436	156,143	1,174,123	254,038	4,235,834	3,115,369
Food manufacturing	64,908	6,250,851	223,105	37,957	263,398	57,064	740,455	-34,525
Textile and textile product mills	11,633	548,675	29,685	* 355	* 9,932	6,299	* 34,474	20,234
Apparel	23,677	1,344,248	13,987	** 14,766	68,603	** 7,551	187,096	-12,873
Leather and allied products	9,213	302,740	* 11,262	**	* 14,412	**	* 2,225	84,621
Wood products	25,437	2,922,194	** 171,052	** 4,550	** 59,145	** 29,480	** 409,769	199,607

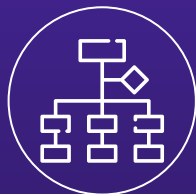
Government/Nonstatistical:

155 mentions in CFR



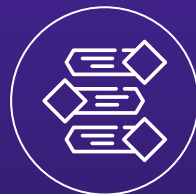
SBA

What is a small
business? 13 CFR 121



OPM

Federal Wage System



OSHA

Injury and Illness
Regulations



Foreign Trade

Military Exports



Who assigns NAICS
to a company/firm?

self-assigned

NAICS *interpretation*

30% of IRS returns wrong

From person files a 1040
Schedule C (for business)

21% are errors, and 13.6% do
not even include sector (2 digit)

Oehlert, C., Schulz, E., & Parker, A. (2022). NAICS Code Prediction
Using Supervised Methods. *Statistics and Public Policy*, 9(1),
58–66.

29% of CO's wrong

contracting officers helping to fill
procurement form

Miller, M. A., & Ellis, J. M. (2016). *The NAICS Code Selection Process And Small
Business Participation*. NAVAL POSTGRADUATE SCHOOL MONTEREY CA
MONTEREY United States.

AI solution and better training



Reflection

What questions do you have?

Advice:

If statistical agencies are different,
compare the methodology

Know what NAICS Version is being used



03

2022 NAICS

Will not appear until 2024, as
part of the Economic Census

The slides can be found at

<https://tinyurl.com/NAICSBTN22>



Changing NAICS

hierarchy	defination	1997	2002	2007	2012	2017	2022
2 digit	Sectors	24	24	24	24	24	24
3 digit	Subsectors	96	100	99	99	99	96
4 digit	Industry Groups	313	318	313	312	311	308
5 digit	Industries	721	725	721	713	709	689
6 digit	US Industries	1170	1179	1175	1065	1057	1012

Note Consolidation in 2022

Changes in 2022

Sector	Description	2022 Changes
21	Mining, Quarrying, and Oil and Gas	6
31	Food & Textile Manufacturing	5
32	Materials Manufacturing	4
33	Finished Product Manufacturing	11
42	Wholesale Trade	3
44	Retailers	38
45	Retailers	74
51	Information	41
52	Finance and Insurance	9
81	Other Services (except Public Admir	2



30	title change, no content change
185	new US code for 2022 NAICS
7	re-used code, content change
3	re-used code, content change at lower level with insignificant impact



New 2022 NAICS Codes with change indicators



Mining – 21 Sector

2022

21214 surface coal
212115 underground
212220 gold & silver
212290 other metal ore
21232 Kaolin, clay...
212339 Other
Nonmetallic Mineral
Quarrying

2017

212111 bituminous & 212113 anthracite
212112 bituminous & 212113 anthracite
212221 gold & 212221 silver
212222 uranium & 212299 all other metals
212324 Kaolin & 212325 Clay, ceramic,...
Potash, Phosphate, other chem, all other
nonmetallic mineral mining



Manufacturing – 31 & 32 Sectors

2022

315120 (Apparel Knitting Mills)
315250(Cut & Sew Apparel)

316990 (Other Leather & Allied)

321215 (Engineered Wood)
322120(Paper Mills)

R 325314(Fertilizer)
325315(Compost)

2017

31511 (Hosiery & Socks) & 31519 (Other Apparel Knitting)
31522 (Men's & Boy's Cut & Sew Apparel) &
31524(Woman's, Girl's, & Infant's Cut) & 31526 (Other Cut
& Sew Apparel)

316992 (Women's Handbag & Purse) & 316998 (All other
Leather Good & Allied Product)

321213 (Engineered Wood Member) & 321214 (Truss)
322121(Paper [except Newsprint]) & 322121 (Newsprint)

325314 (Fertilizer & Compost)

Manufacturing – 33 Sector

2022

333248 All Other Industrial
333310 Commercial &
Services Industry Mach
333996 All Other Misc
334610 Reproduction
Magnetic & Optical Media

2017

333244 Printing Machinery & 333249 Other Industrial
333314 Optical & 333316 Photographic & 333318 Other
Commercial & Services Industry Machinery
333997 Scale & Balance & 333999 All Other Misc General
334613 Blank Magnetic Recording Media & 334614
Software & Other PreRecorded CD, Tape, & Record

Manufacturing – 33 Sector

2022

335131 Electric Lighting
335132 Commercial Industrial
& Institutional
335139 Electric Lamp Bulbs &
Other
33591 Battery
33611 Auto & Light Duty
Motor Vehicles

337126 Household Furniture
(except Wood & Upholstered)

2017

335121 Residential Electric Lighting Fixtures
335122 Commercial Industrial & Institutional Electric
Lighting Fixtures
33511 Electric Lamp Bulbs and Parts & 335129 Other
Lighting Equipment
335911 Storage Battery & 335912 Primary Battery
336111 Automobile & 336112 Light Trucks & Utility
Vehicles

337125 Metal Household Furniture & 337125 Household
furniture (except wood & Metal)

Wholesale - 42 Sector

2022

42435 Clothing &
Clothing Accessories

R 425120 Wholesale
Trade Agents & Brokers

2017

424320 Men's and Boy's Clothing and Furnishing &
424330 Women's and Children's, and Infants clothing and
Assoc

425111 Business to Business Electronic Markets

2022 NAICS: *Retailers not stores or website*

2022 NAICS Code	2022 NAICS Title	2017 NAICS Code	2017 NAICS Title
459210	Book Retailers and News Dealers	451211	Book Stores
459210	Book Retailers and News Dealers	Pt 451212	News Dealers and Newsstands
459210	Book Retailers and News Dealers	Pt 454110	Electronic Shopping and Mail-Order Houses
513130	Book Publishers	511130	Book Publishers
513130	Book Publishers	Pt 519130	Internet Publishing and Broadcasting and Web Search Portals - Internet book publishers



Other Retail – 44 & 45 Sectors

2022

2017

445132 Vending Machines

45421 Vending Machines Operators

458110 Clothing & Clothing
Accessories

Men's, Women's, Children's, Family Clothing Stores &
Clothing accessories & Other Clothing Stores & Electronic
Shopping & Mail-Order Houses & Other Direct Selling

459930 Manufactured (Mobile)
Home Dealers

45393 Manufactured (Mobile) Home Dealers

459991 Tobacco, Electric
Cigarette, & Other Smoking

453991 Tobacco Stores

Publishing – 513 Subsector

2022

513110 Newspaper
513120 Periodical
513130 Book
513140 Directory &
Mailing Lists
513191 Greeting Cards
513199 All Other
Publishing
513210 Software

2017

51111 Newspaper Publishers & Pt 51913 Internet
Newspaper
51112 Periodical & Pt 51913 Internet Periodicals
51113 Books & Pt 51913 Internet Books
51114 Directory & Mailing Lists & Pt 51913 Internet
Directory and Mailing Lists
511191 Greeting Cards & Pt 51913 Internet Greeting Cards
513199 All Other Publishing & Pt 51913 Internet All Other
Publishing
51121 Software Publishing

Broadcasting & Content Providers – 516 Subsector

2022

516110 Radio
516120 Television

516210 Media Streaming
Distribution Services, Social
Networks, and Other Media
Networks & Content providers

2017

515112 Radio Stations
Pt 515120 Television Broadcasting

515111 Radio Networks & 51521 Cable & Other
Subscription Programming & 51911 News Syndicates & Pt
51512 Television Networks & Pt Internet Broadcasting



Telecommunications – 517 Subsector

2022

517111 Wired Carriers
517112 Wireless Carriers
517121 Telecom Resellers
517122 Agents For
Wireless
517810 All Other

2017

517311 Wired Telecommunications Carriers
Pt. 517312 Wireless Carriers except Agents
Pt 517911 Telecommunications Resellers except Agents
Pt 517312 Wireless Agents & Pt 517911 Resellers except
Agents
517919 All Other Telecommunications

Web Search Portals, Libraries, Archives, Others Information Services – 519 Subsector

2022

519

519210 Libraries &
Archives

519290 Web Search
Portals and All Other
Information Services

2017

Pt 519 News syndicates and Internet publishing &
Broadcasting

51912 Libraries & Archives

Pt 519130 Web Search Portals & 51919 All Other
Information Services

Banking – 52 Sector

2022

522180 Savings Institutions &
Other Depository Credit
Intermediation

533399 International, Secondary
Market, & All Other
Nondepository Credit

523150 Investment Banking &
Securities Intermediation

523160 Commodity Contracts

523940 Portfolio Management &
Investment Advice

2017

52212 Savings Institutions & 52219 Other Depository
Credit Intermediation

522293 International Trade Financing & 522294
Secondary Market Financing & 522298 All Other
Nondepository Credit Intermediation

52311 Investment Banking and Securities Dealing &
52312 Securities Brokerage

52313 Commodity Contracts Dealing & 523140
Commodity Contracts Brokerage

52392 Portfolio Management & 52393 Investment Advice

Repair Services – 81 Sector

2022

811114 Specialized
Automotive Repair

811210 Electronic &
Precision equipment
Repair & Maintenance

2017

811112 Auto Exhaust System & 811113 Auto
Transmission & 811118 Other Automotive Mechanical &
Electrical Maint

811211 Consumer Electronics & 811212 Computer and
Office Machine & 811213 Communications Equipment &
811219 Other Electronic and Precision Equipment Repair
and Maintenance

North American Product Classification System 2017 (NAPCS)

Hierarchical Structure

Example (library services)

Level	Digits	Agregation level	Categories
1	2	Section	24
2	3	Subsection	61
3	5	Division	172
4	7	Group	276
5	9	Subgroup	497
6	11	Trilateral product	1167

New Product-, Merchandise-,
and Services- Lines

North American Product Classification System 2017 (NAPCS 2017) version Beta 1.0	
Code	Product title
24	Home entertainment, recreation and culture products, including household pets and related products
241	Home entertainment, recreation and culture products
24110	Other home entertainment, recreation and culture products
2411001	Other home entertainment, recreation and culture products
241100101	Gambling products
241100102	Leisure, recreational, and athletic instructional programs
241100103	Library and archive services
24110010301	Library and archive services

Questions will come

Think of the researchers
whose careers are based in
one industry, that just
changed

Who is doing the
counting and assigning?

Where is my industry? Cannabis, ghost
kitchens, etc.

There will be new peers and opportunities

You will have to use NAPCS to learn about the car, SUV, van,
and light truck market

What do you mean there is no
difference between Brick and Mortar
and Online businesses?

What we can *DO*

- There will be new peers and opportunities for your company?
- Ask vendors how they will treat the changes
- Empathy for those data users having to deal with disruptions
 - Cost & time series
- Learn more about the NAPCS
- Learn more about changes in the [2022 Economic Census](#)
- Provide insights, comments, and suggestions to the ECPC

Be ready when the questions start coming



04

Learn *more*

About Government Data



The slides can be found at
<https://tinyurl.com/NAICSBTN22>



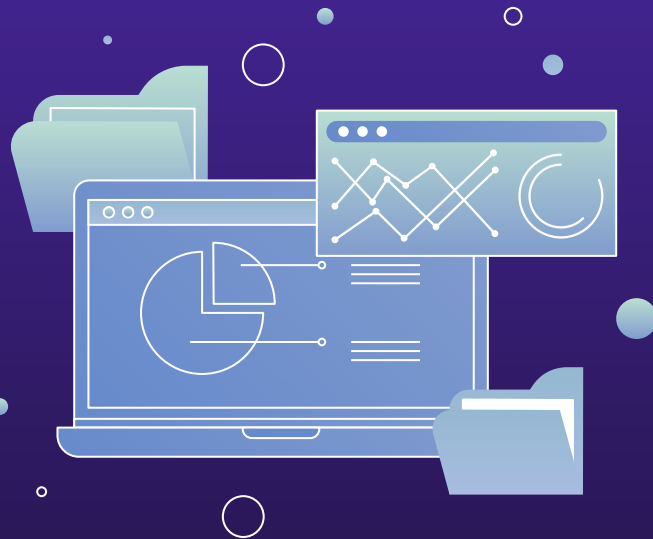
MENU

ANALYSIS

CONTACT

DATA ANALYSIS

"It is a capital mistake
to theorize before
one has data."



Sir Arthur Conan Doyle



Federal Government Information

Executive Branch

- Regulations
- Data, API
- Data, Statistics or Indicators
- Press releases or Trade press or Bulletin
- Handbooks or Fact Books
- Department's Reports
- Industry Reports or Surveys or Review
- State of the Industry and Outlooks
- Geographic specific
- New Technology and direction

Congressional Branch

- Forthcoming laws
- Committee reports/prints
- Congressional Research Section
- Library of Congress, Reading Rooms
- Government Publishing Office

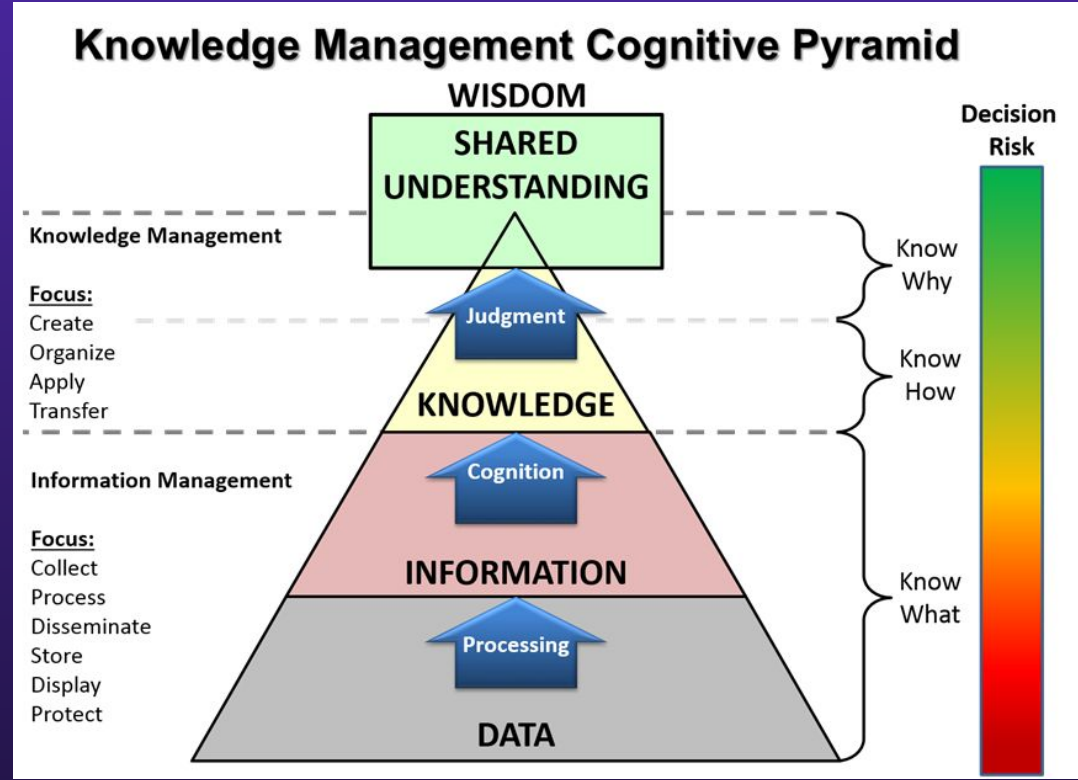
Judicial Branch

- Interpreting laws
- Courts, transcribes
- Courts, defendants

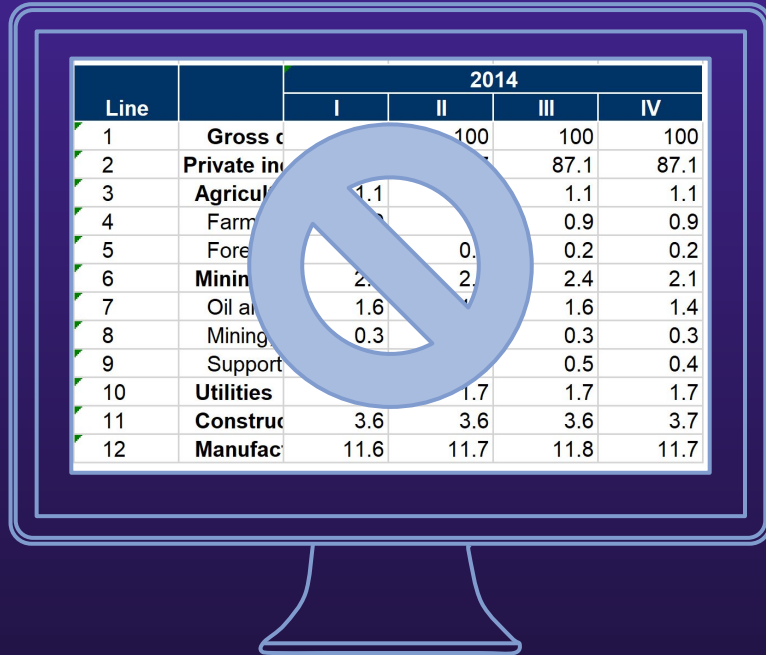
Words about Data

Data are not:
Information Technology
Digital Analytics
Evidence
Research
Visualizations
Ideas

**Data are
collected facts
“raw material”**



How do you present data



Line		2014			
		I	II	III	IV
1	Gross c	100	100	100	100
2	Private in	87.1	87.1	87.1	87.1
3	Agricul	1.1	1.1	1.1	1.1
4	Farm	0.9	0.9	0.9	0.9
5	Fore	0.2	0.2	0.2	0.2
6	Minin	2.4	2.4	2.4	2.1
7	Oil an	1.6	1.6	1.6	1.4
8	Mining	0.3	0.3	0.3	0.3
9	Support	0.5	0.5	0.5	0.4
10	Utilities	1.7	1.7	1.7	1.7
11	Construc	3.6	3.6	3.6	3.7
12	Manufac	11.6	11.7	11.8	11.7



Graphs for time series

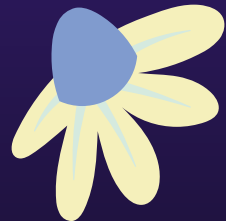


Pie chart for comparison to the whole



Bar charts showing the differences

Common-size to per capita for story





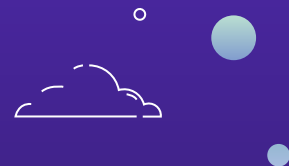
MENU

ANALYSIS

CONTACT

DATA ANALYSIS

TYPES OF DATA ANALYSIS



DESCRIPTIVE

Increase/decrease



PREDICTIVE

Estimates

DIAGNOSTIC

Relationships



PRESCRIPTIVE

Policy & Decision Making





What most people do



Google

"Employee Benefits"
data site:.gov



Data.Gov

Inventory, has promise



Commercial

ICPSR- Great
Data Planet- Good
Wolfram Alpha- Science



Federal Data Sources: Social Science

Census

Demographics,
Manufacturing, Retail,
Wholesale, Construction,
most other industries

Labor

Labor and price data

Companies

Publicly Traded
Companies

Banking

Banking & economic
conditions

Transportation

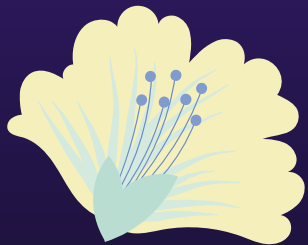
Ideal for tourism and
comparisons

Telecommunications

Complaints, cable, mobile,
broadcasting, broadband

Mortgage

Education



Federal Data Sources: Natural Science



Agriculture

Including Fisheries
and Forestry

Health

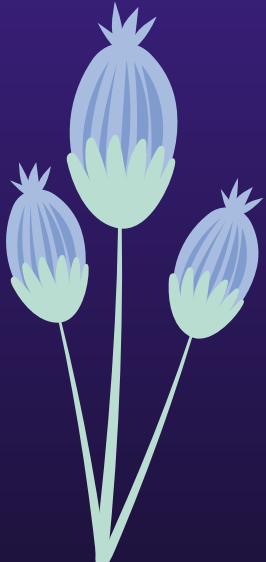
State sources will be
better

Environment

Including Minerals
and Energy

Weather

Regional center better



Business of Government



Procurement

[Sam.com](https://sam.gov)

Assistance

[Federal Grants and
other Benefits](#)

Public Finance

[Spending](#)

[Taxes](#)

[Federal Budget Projections](#)



We can get there together

[FDLP Academy](#)

[Accidental Government Librarian](#)

[Census Academy for Business](#)

[BLS Training Videos](#)

[API University from OMB](#)

[Inter-university Consortium for Political and Social Research \(ICPSR\) repository](#)



Boettcher webinars to watch



2022

[Knowing NAICS](#)

2022

[Data Sources for Librarian](#)

2022

[Free Business Sources for
New England](#)

2020

[Public Domain vs.
Open Access Data](#)

2020

[Business Sources from the
Federal Government: Classic and
New](#)

2019

[Industry Research Using
the Economic Census](#)

2019

[Federal Data Strategies
Webinar](#)

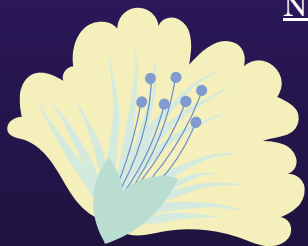
2018

[ZombieList
Slides only](#)

2017

[Census Of
Governments](#)

July 2018, article: [Government Data as Intellectual Property: Is Public Domain the Same as Open Access?](#) Online Searcher, with Matthew Dames



Let's discuss

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One Statistical Office in US: Why Not?

1. **Privacy:** The Privacy Act of 1974, Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA), and Statistical Policy Directive No. 1 (2014) require agencies to ensure that the collection and maintenance of citizens' data is accurate, confidential, and within legal restrictions. With different offices having access to those records, there would be less possibility of everything being leaked.
2. **Security:** Along the lines of fewer offices having access to data records. The more servers that hold the data, the safer it is. The times when an exchange of information is necessary laws and regulations among departments allow to protect access to data.
3. **Integrity:** The income you report to IRS might be different from what you report to the Census Bureau.
4. **Methodology:** Sometimes data must have a higher number of people questioned so the accuracy will be better; different methods of collection or sampling may be required.
5. **Popularity:** Anything being done by the government has a political dimension, especially funding for employees and for modernizing and updating technology, attractiveness of the research, and repetition of statistical programs by agencies.

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