Labor Market Outcomes within the U.S. National Accounts

Jon Samuels BEA Advisory Committee Meeting May 14, 2021





- BEA Strategic plan: "Launch new and improved data products to better measure economic well-being and growth"
- BEA's comparative advantage: measures that are tied to the accounts
- Executive order: Establishing an Equitable Data Working Group. Many Federal datasets are not disaggregated by race, ethnicity, gender, disability, income, veteran status, or other key demographic variables
- This presentation: Labor market outcomes by demographic group
- Potential to improve our understanding of "well-being"



- Data on # Workers, Hours, \$/hr (consistent with NIPAs) necessary for implementing labor composition adjustment
- Cross-classification: 2 (sex) x2 (class) x7 (age) x6 (educ) x 63 (industry) workers~11K
 Workers! (84 Demo groups of employees at the aggregate level)
- Data analogous to input-output tables
- Data challenges exist but are surmountable (ongoing work with BLS to improve)
- We currently publish only college and non college nominal and Q-indexes by industry



Average Growth in College Wages Relative to Non-College: 1987-2019

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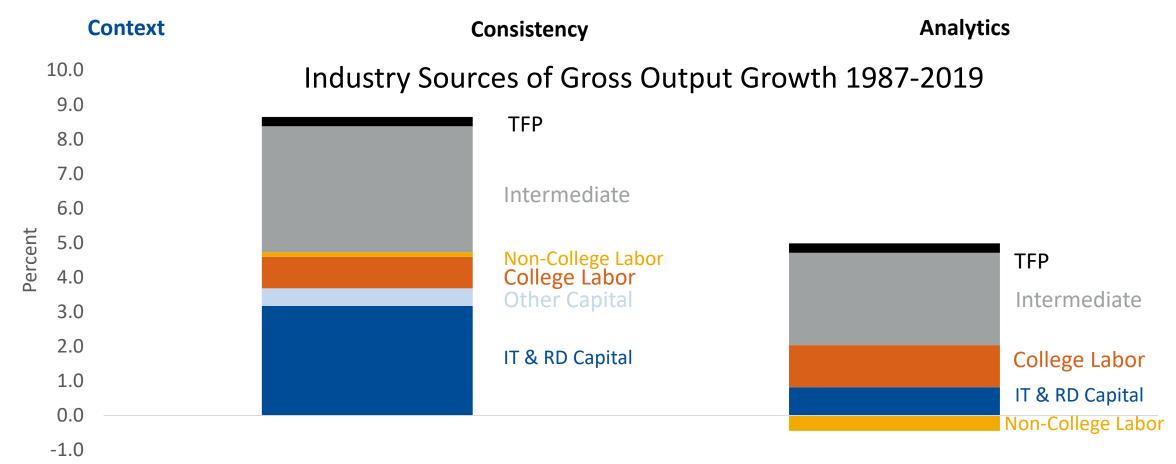
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Industries with above-average growth	Average Growth			
Motion picture and sound recording industries	1.49			
Data processing, internet publishing, and other information services	1.30			
Broadcasting and telecommunications	1.29			
Truck transportation	1.27			
Wood products	1.22			
Publishing industries, except internet (includes software)	1.15			
Transit and ground passenger transportation	1.13			
Rail transportation	1.07			
Chemical products	1.05			
Motor vehicles, bodies and trailers, and parts	1.02			
Apparel and leather and allied products	1.02			
Wholesale trade	1.01			
Other services, except government	1.01			
Other transportation equipment	0.98			
Computer and electronic products	0.98			
Air transportation	0.96			
Textile mills and textile product mills	0.96			
Funds, trusts, and other financial vehicles	0.95			
Food and beverage and tobacco products	0.92			
Retail trade	0.90			
Paper products	0.89			
Printing and related support activities	0.86			
Miscellaneous manufacturing	0.85			
Hospitals and nursing and residential care facilities	0.83			
Ambulatory health care services	0.81			
Plastics and rubber products	0.76			
Petroleum and coal products	0.75			
Construction	0.75			
Machinery	0.75			
Mining, except oil and gas	0.74			
Nonmetallic mineral products	0.73			
Legal services	0.68			
Water transportation	0.67			
Furniture and related products	0.66			
Amusements, gambling, and recreation industries	0.63			
Management of companies and enterprises	0.63			
Other transportation and support activities	0.62			

Industries with below-average growth	Average Growth			
Social assistance	0.59			
Miscellaneous professional, scientific, and technical services	0.57			
Federal Reserve banks, credit intermediation, and related activities	0.51			
Fabricated metal products	0.51			
Securities, commodity contracts, and investments	0.50			
Electrical equipment, appliances, and components	0.49			
Primary metals	0.48			
Waste management and remediation services	0.45			
Pipeline transportation	0.45			
Utilities	0.45			
Educational services	0.43			
Administrative and support services	0.40			
Warehousing and storage	0.38			
Farms	0.36			
State and local	0.35			
Computer systems design and related services	0.34			
Accommodation	0.24			
Performing arts, spectator sports, museums, and related activities	0.23			
Federal	0.21			
Food services and drinking places	0.17			
Support activities for mining	0.12			
Forestry, fishing, and related activities	0.08			
Oil and gas extraction	-0.26			
Rental and leasing services and lessors of intangible assets	-0.56			
Real estate	-0.59			
Insurance carriers and related activities	-0.88			

Wage: Index of avg. \$/hr adjusted for gender, age, education

Advantages of Estimates within the National Accounts





Data processing, internet publishing, and other information services

Insurance carriers and related activities

Context: Labor data is reflected in the industry accounts

Source: BEA-BLS Integrated industry-level Production Account

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Consistency: # Workers, Hours, Worker comp controlled to the national accounts.

Advantages of Estimates within the National Accounts

Context

Table 6.2D. Compensation of Employees by Industry

[Millions of dollars]

Last Revised on: July 31, 2020

Line		2012	2013	2014	2015	2016	2017	2018	2019
1	Compensation of employees	8,566,725	8,834,222	9,249,097	9,699,419	9,963,857	10,422,544	10,950,099	11,432,433
2	Domestic industries	8,575,371	8,843,638	9,259,655	9,709,535	9,974,845	10,433,094	10,960,567	11,444,494
3	Private industries	6,871,565	7,095,280	7,468,702	7,863,213	8,087,977	8,497,006	8,944,225	9,358,342
4	Agriculture, forestry, fishing, and hunting	48,063	48,866	50,971	50,616	53,652	56,207	55,126	57,671
5	Farms ¹	28,304	28,556	29,109	27,205	29,030	30,857	28,423	30,021
6	Forestry, fishing, and related activities	19,759	20,310	21,862	23,410	24,622	25,350	26,703	27,650
7	Mining	90,527	93,523	101,138	91,867	74,503	76,757	84,523	86,582
8	Oil and gas extraction	34,978	36,431	39,296	38,814	33,722	29,153	29,793	30,969
9	Mining, except oil and gas	18,912	18,562	18,454	18,055	16,384	17,638	18,982	19,258
10	Support activities for mining	36,637	38,530	43,387	34,998	24,397	29,966	35,748	36,355
11	Utilities	69,760	72,778	75,188	77,628	81,410	81,688	84,299	88,212
12	Construction	365,908	387,956	422,384	458,477	485,926	520,054	557,565	592,431

Consistency



Analytics

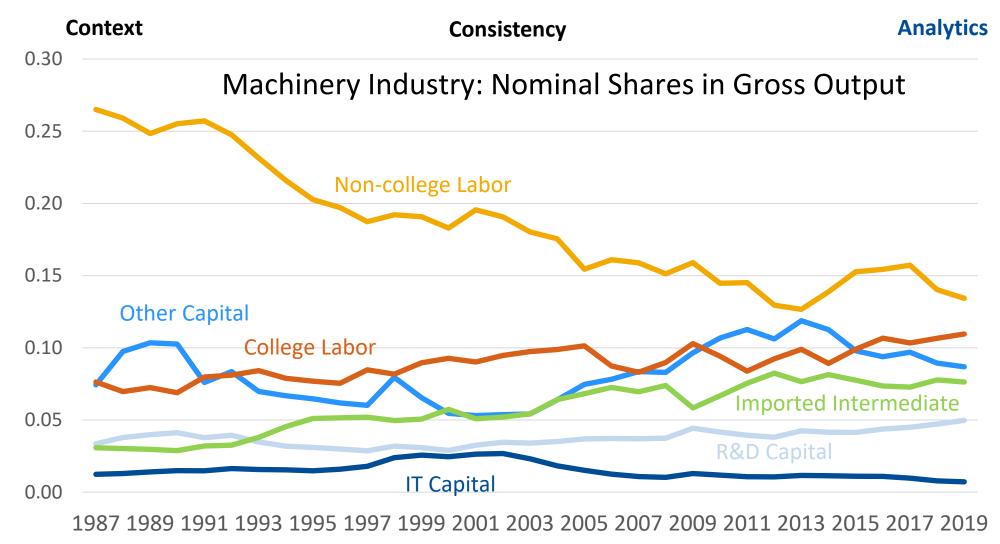
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Advantages of Estimates within the National Accounts





Analytics: Impacts of (biased) technological change and globalization

Source: BEA-BLS Integrated industry-level Production Account

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- BEA holds underlying data on labor market outcomes for a large set of demographic groups
- Major advantage: consistent with the official NIPA and Industry Accounts
- Potential next steps:
 - $_{\odot}$ Work with BLS to publish underlying detail
 - Informative for labor market outcomes by gender, age, education, industry
 - Expand underlying detail;
 - Race; marital status; occupation, etc.
- Labor data integrated with national accounts has the potential to improve our understanding of "well-being"