

ECONOMIC GROWTH IN THE INFORMATION AGE

**A Prototype Industry-Level Production
Account for the United States, 1947-2010**

by

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ECONOMIC GROWTH IN THE INFORMATION AGE

A Prototype Industry-Level Production Account
for the United States, 1947-2010

Annual Make and Use Tables in Current and Constant Prices, 1947-2010

65 Industry Sectors; NAICS Industrial Classification.

Annual Capital, Labor, Energy, Materials, and Services Data in Current and
Constant Prices, 1947-2010

Capital Data Divided between IT and Non-IT; Labor Data Divided between
Hours and Labor Quality.

Postwar U.S. Economic History

The Postwar Recovery, the Big Slump, and the Great Recession

Projecting Productivity and Economic Growth

Range of Labor Productivity and Output Projections

THE HISTORICAL BACKGROUND

Benchmark Input-Output Tables for the United States

1947, 1958, 1963, Five-Year Intervals Since 1967

Annual Input-Output Tables for the United States

1998-2010 on a Continuously Revised Basis

Time Series of Input-Output Tables for the United States

Jorgenson, Gollop and Fraumeni (1987), 1948-1979

Jorgenson, Ho and Stiroh (2005), 1977-2000

Jorgenson, Ho and Samuels (2012), 1960-2007

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Productivity and U.S. Economic Growth



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Barbara M. Fraumeni

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Productivity

V O L U M E 3

*Information Technology
and the American Growth
Resurgence*

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and Kevin J. Stiroh

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INDUSTRIAL PRODUCTIVITY IN EUROPE

Growth and Crisis



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IT-RELATED INDUSTRIES

IT-Producing Industries

Computer and electronic products

Information and data processing services

Computer systems design and related services

IT-Using Industries

Machinery

Other transportation equipment

Furniture and related products

Miscellaneous manufacturing

Printing and related support activities

Wholesale Trade

Retail Trade

Air transportation

Water transportation

Truck transportation

Pipeline transportation

Publishing industries (includes software)

Motion picture and sound recording industries

Broadcasting and telecommunications

Federal Reserve banks credit

intermediation and related activities

Securities commodity contracts and investments

Insurance carriers and related activities

Rental and leasing services and lessors of intangible assets

Legal services

Misc. professional scientific and technical services

Management of companies and enterprises

Administrative and support services

Educational services

Ambulatory health care services

Hospitals Nursing and residential care facilities

Social assistance

Performing arts spectator sports museums and related activities

Other services except government

Federal General government

S&L Government enterprises

NON-IT INDUSTRIES

Farms
Forestry fishing and related activities
Oil and gas extraction
Mining except oil and gas
Support activities for mining
Utilities
Construction
Wood products
Nonmetallic mineral products
Primary metals
Fabricated metal products
Electrical equipment appliances and components
Motor vehicles bodies and trailers and parts
Food and beverage and tobacco products
Textile mills and textile product mills
Apparel and leather and allied products

Paper products
Petroleum and coal products
Chemical products
Plastics and rubber products
Rail transportation
Transit and ground passenger transportation
Other transportation and support activities
Warehousing and storage
Funds trusts and other financial vehicles
Real estate
Waste management and remediation services
Amusements gambling and recreation industries
Accommodation
Food services and drinking places
Federal Government enterprises
S&L General Government

ROLE OF INFORMATION TECHNOLOGY

Growth of Value Added and Productivity

Output Shares of IT

Computers, Information and Data Processing Services,
Computer Systems Design and Related Services

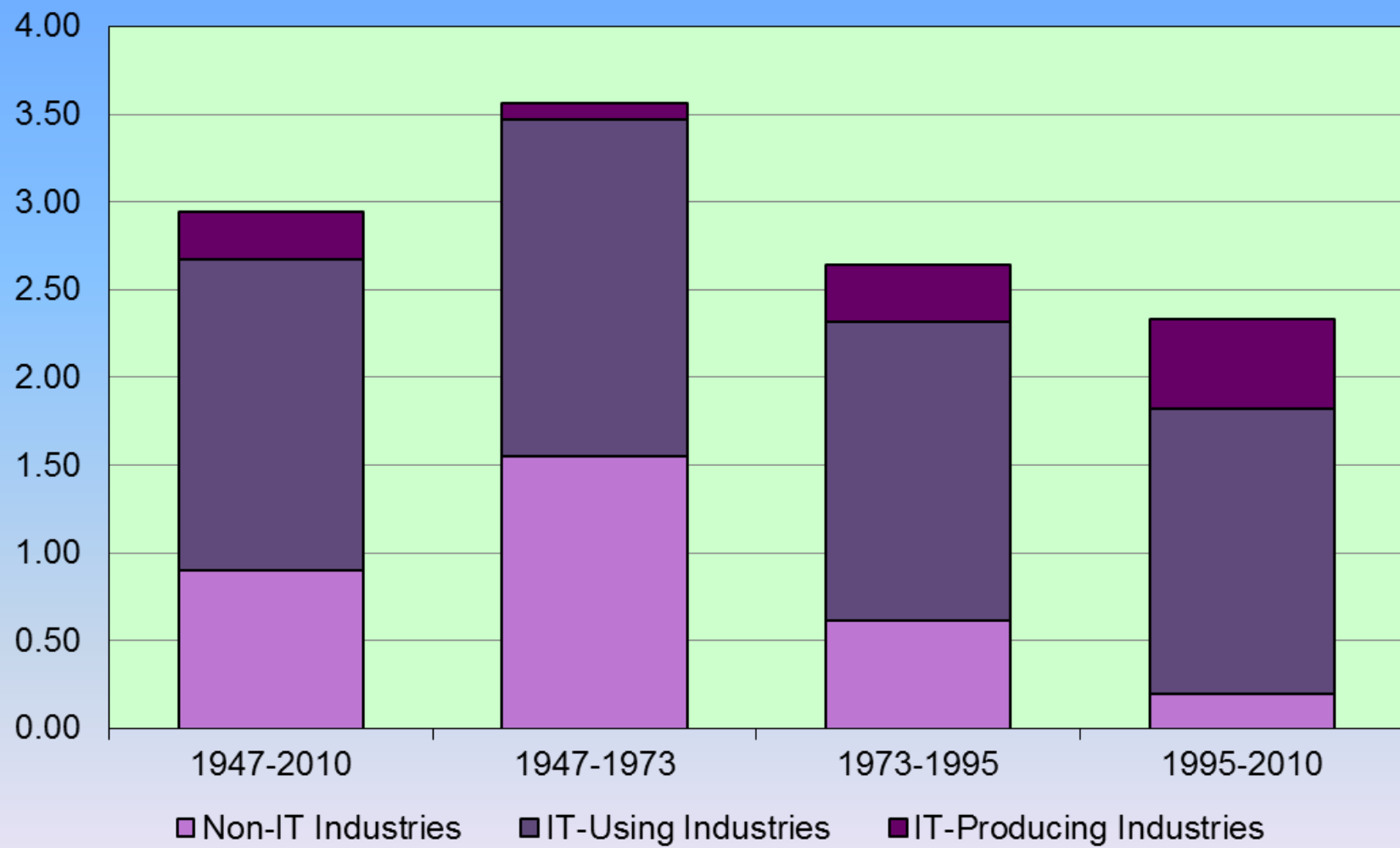
Output Contributions by Type

Computers, Information and Data Processing Services,
Computer Systems Design and Related Services

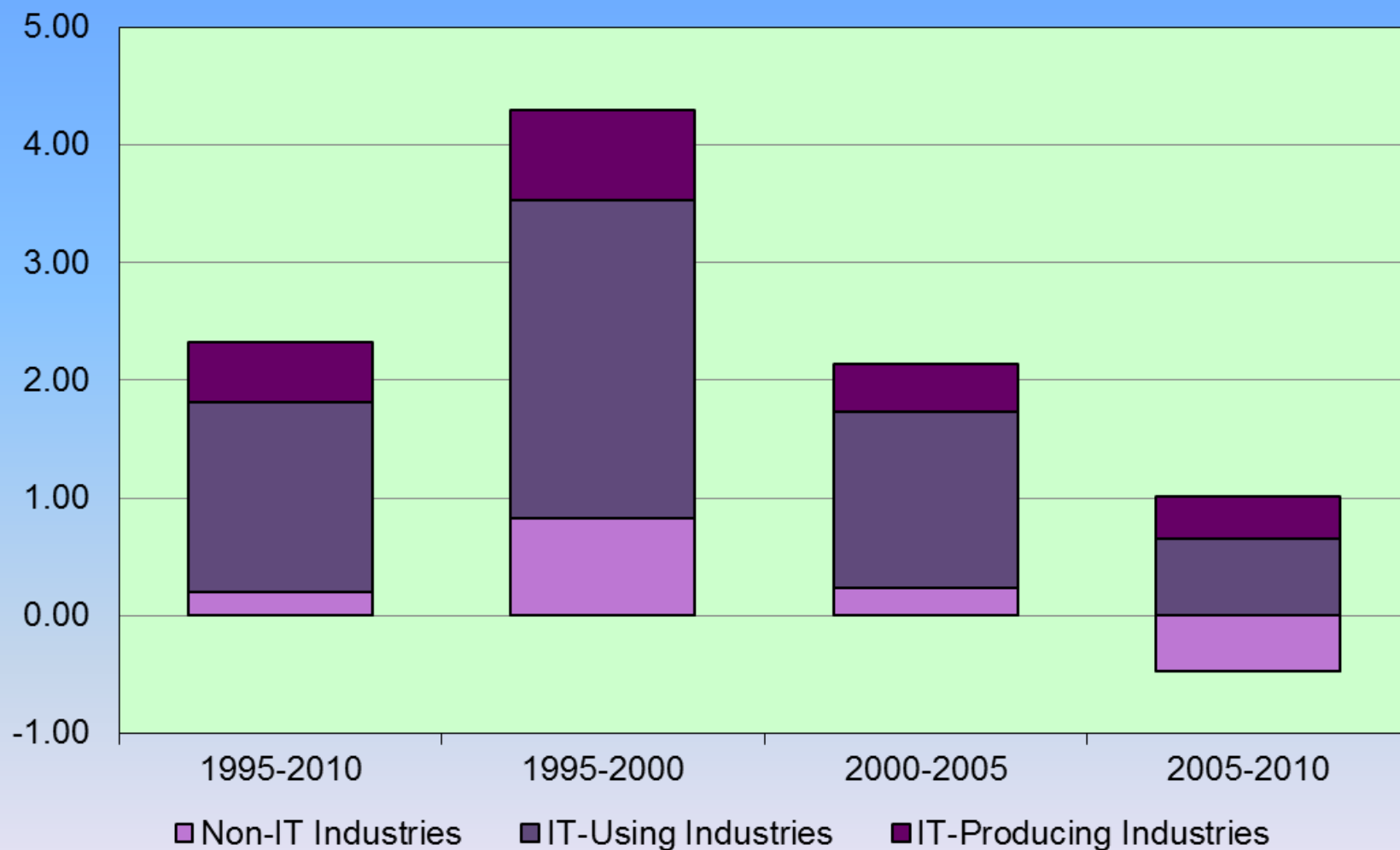
Output Contribution of IT

IT-Producing, IT-Using, and Non-IT

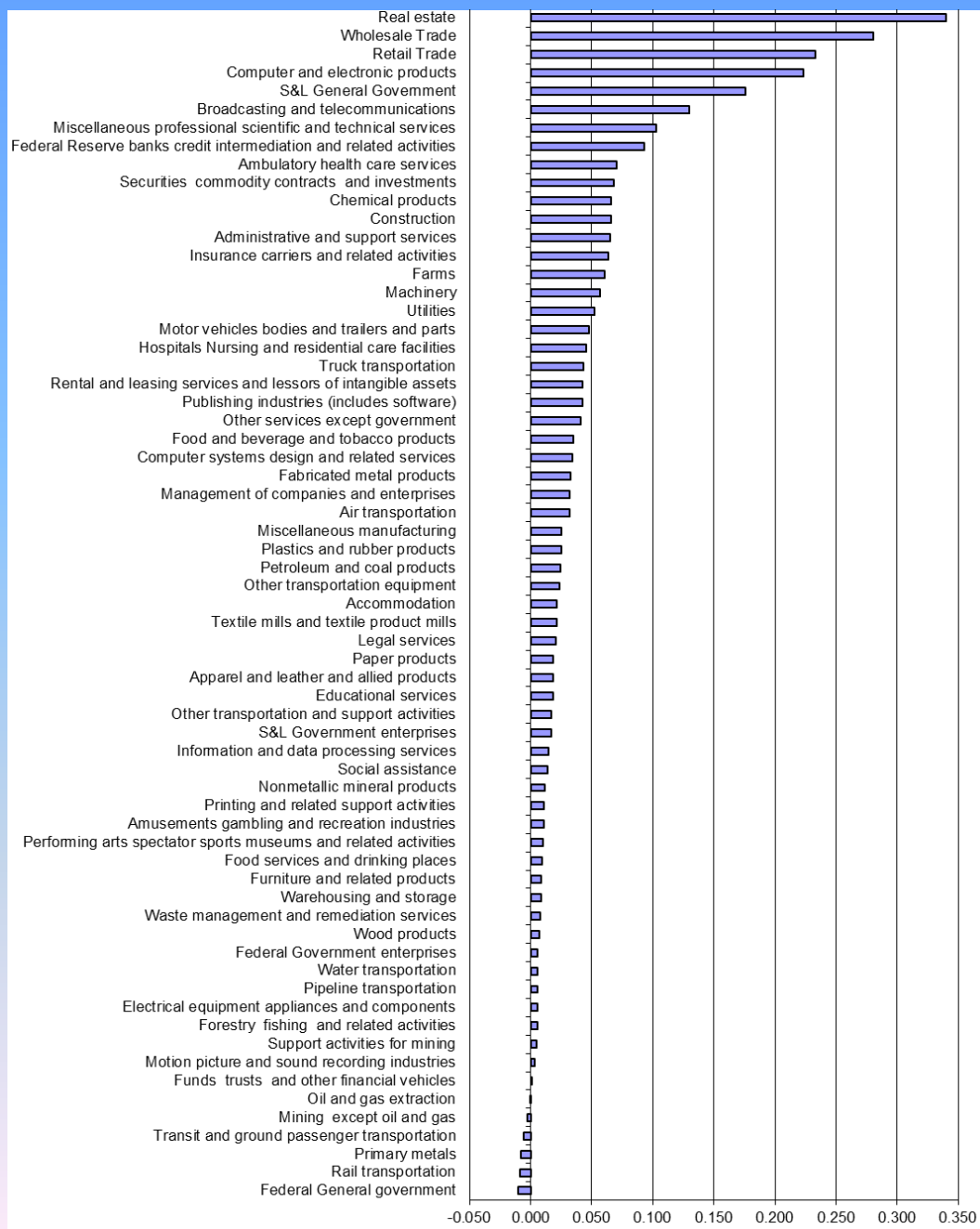
Contributions of Industry Groups to Value Added Growth, 1947-2010



Contributions of Industry Groups to Value Added Growth, 1995-2010



Contributions of Individual Industries to Value Added Growth



ROLE OF TOTAL FACTOR PRODUCTIVITY

Total Factor Productivity

IT-Producing, IT-Using and Non-IT Industries

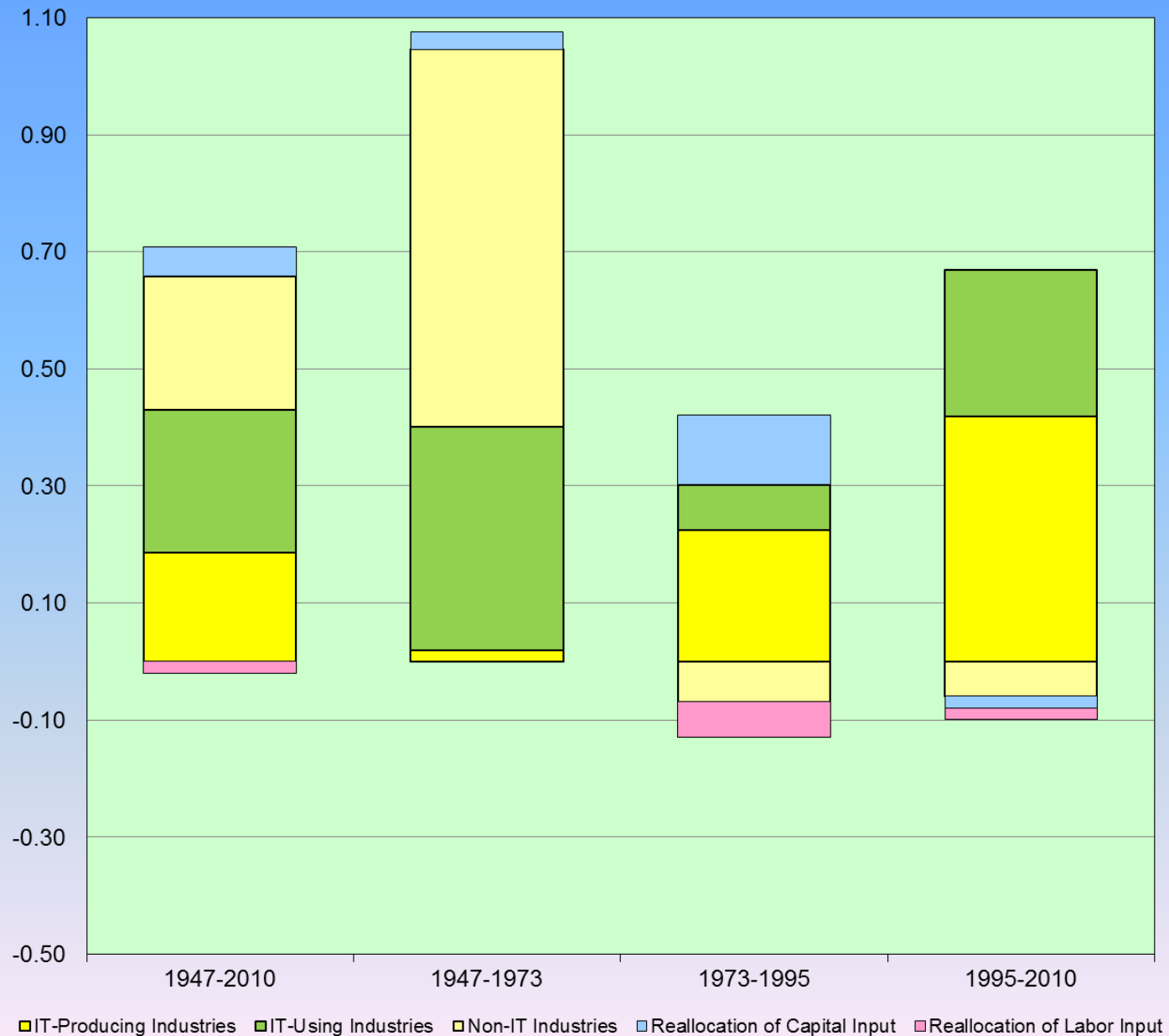
Reallocation of Factor Inputs

Capital Input and Labor Input

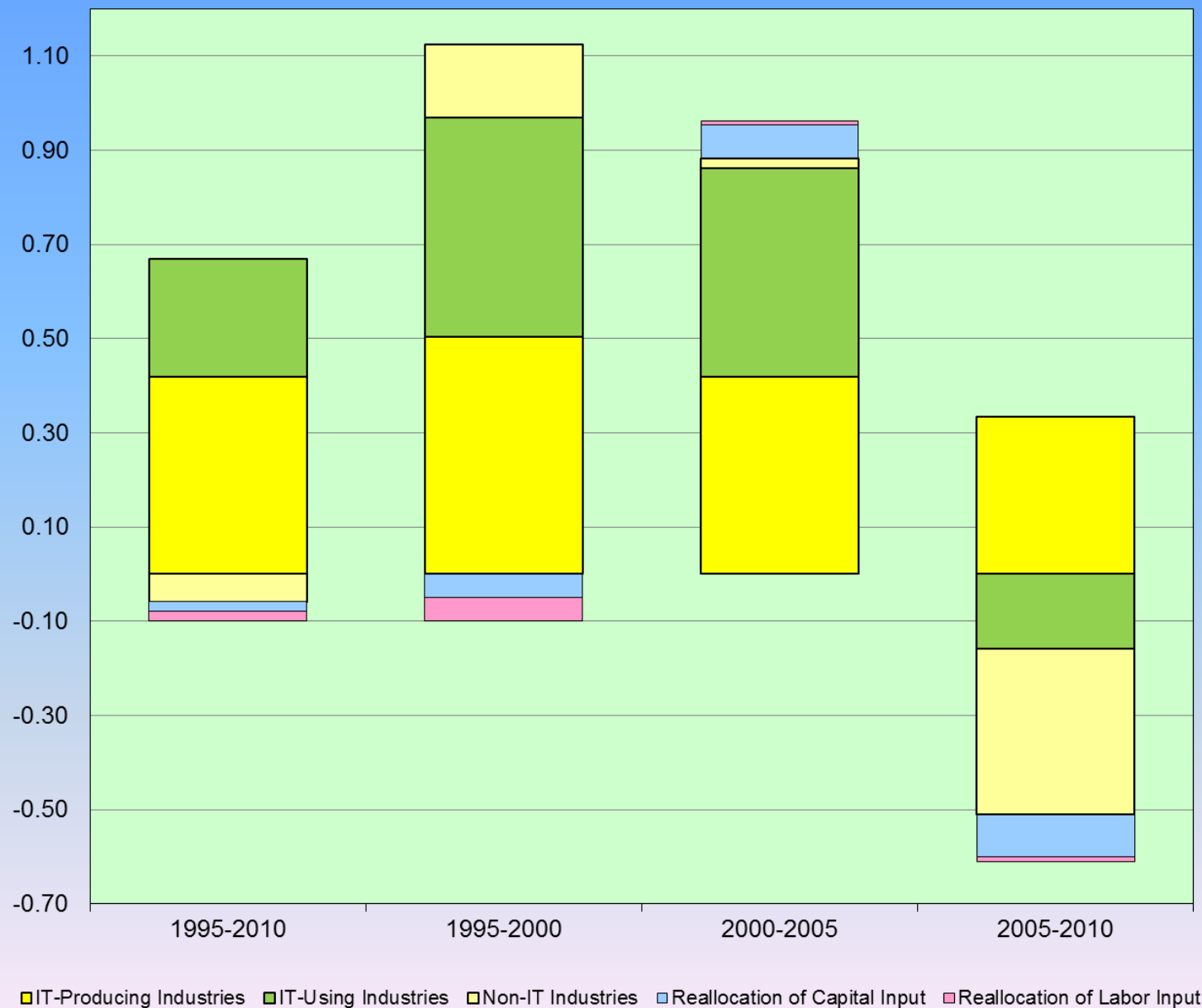
Aggregate Productivity Growth

Industry Productivity and Factor Reallocations

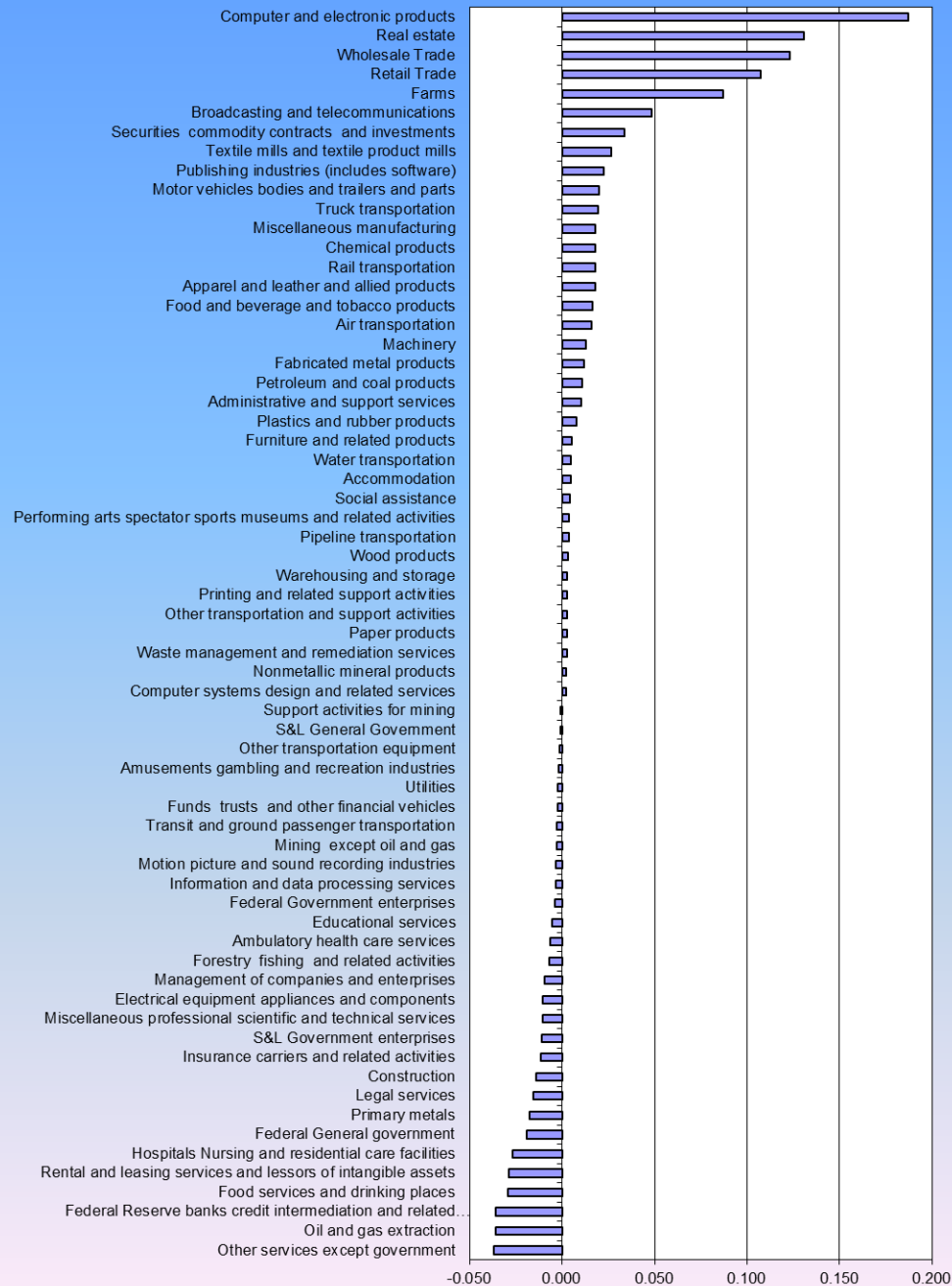
Contribution of Industry Groups to Productivity Growth, 1947-2010



Contribution of Industry Groups to Productivity Growth, 1995-2010



Contributions of Individual Industries to Productivity Growth



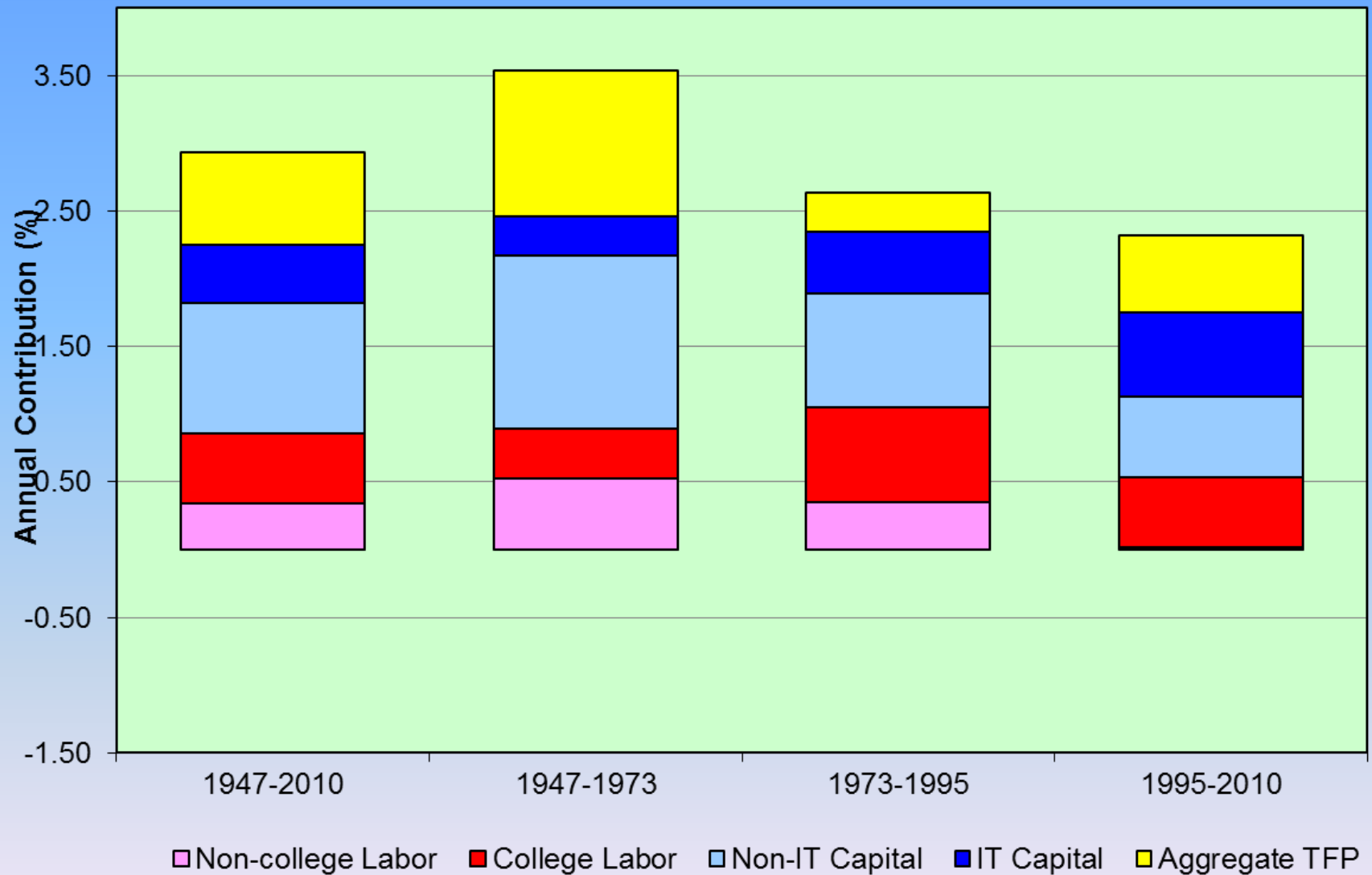
SOURCES OF U.S. ECONOMIC GROWTH, 1947-2010

Contribution of Capital Input
IT and Non-IT Capital

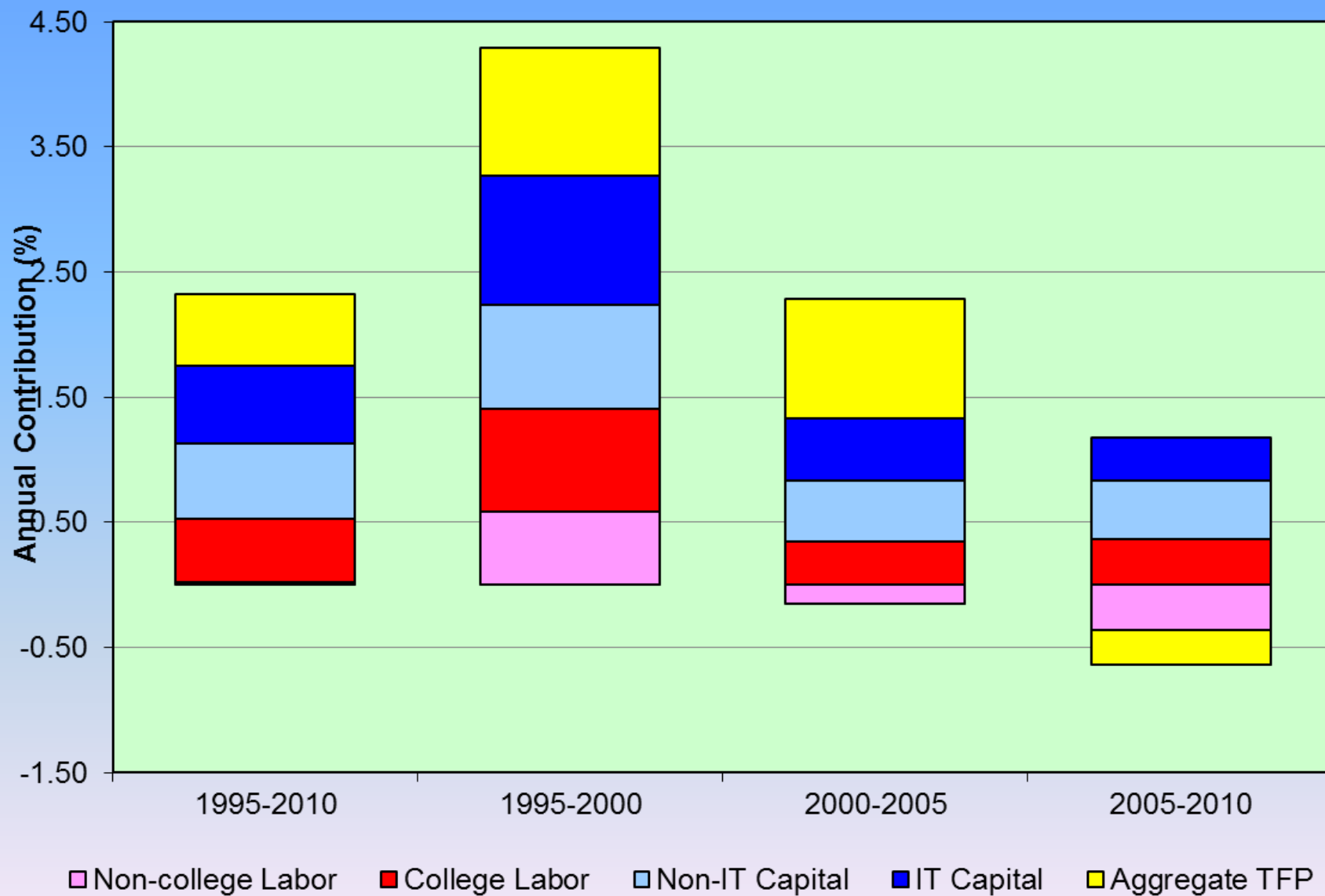
Contribution of Labor Input
Hours and Labor Quality

Contribution of Productivity
Replication vs. Innovation

Sources of U.S. Economic Growth, 1947-2010



Sources of U.S. Economic Growth, 1995-2010



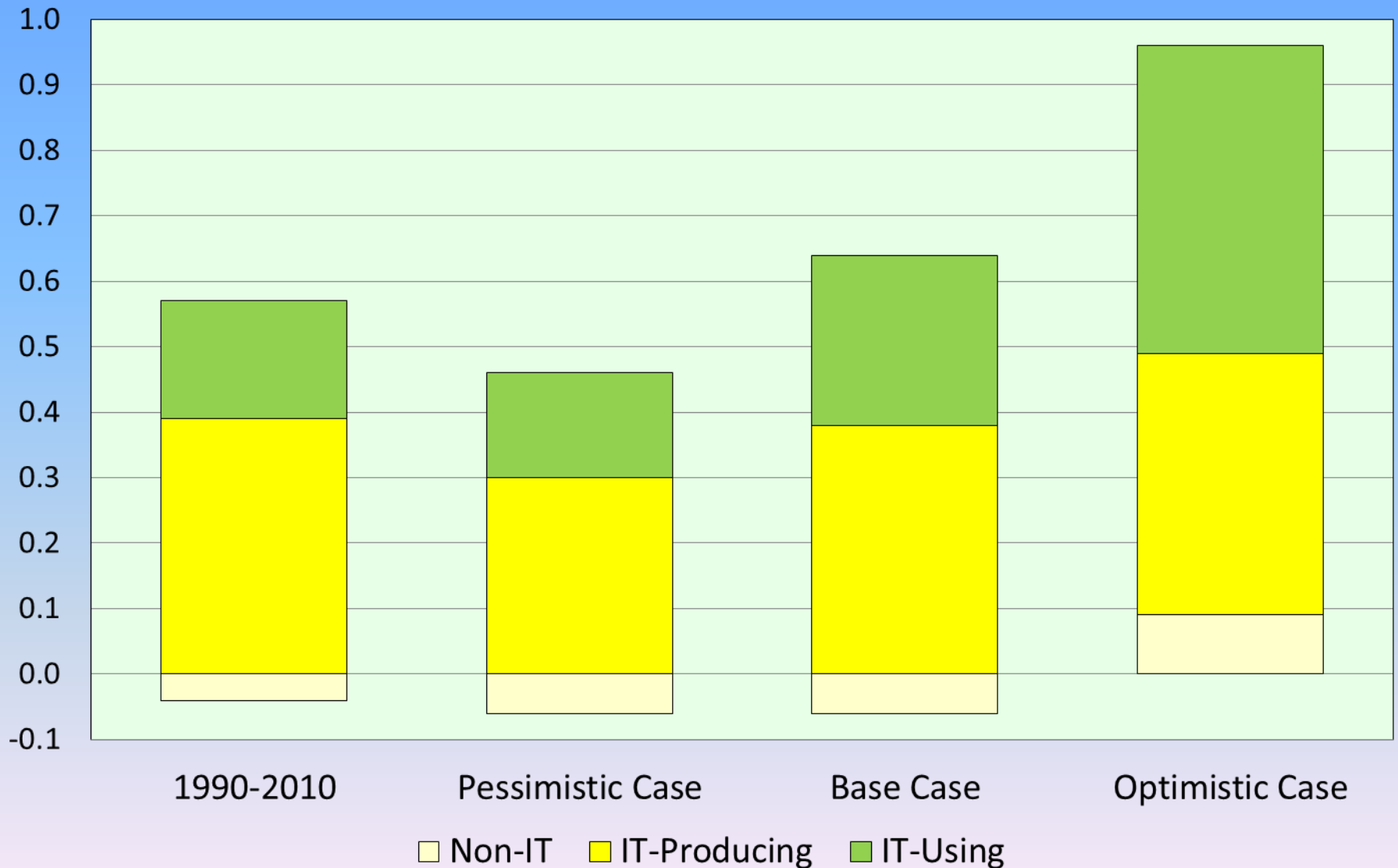
PROJECTING PRODUCTIVITY AND ECONOMIC GROWTH

Contribution of Industry Groups to
Productivity Growth

Range of Labor Productivity
Growth Projections

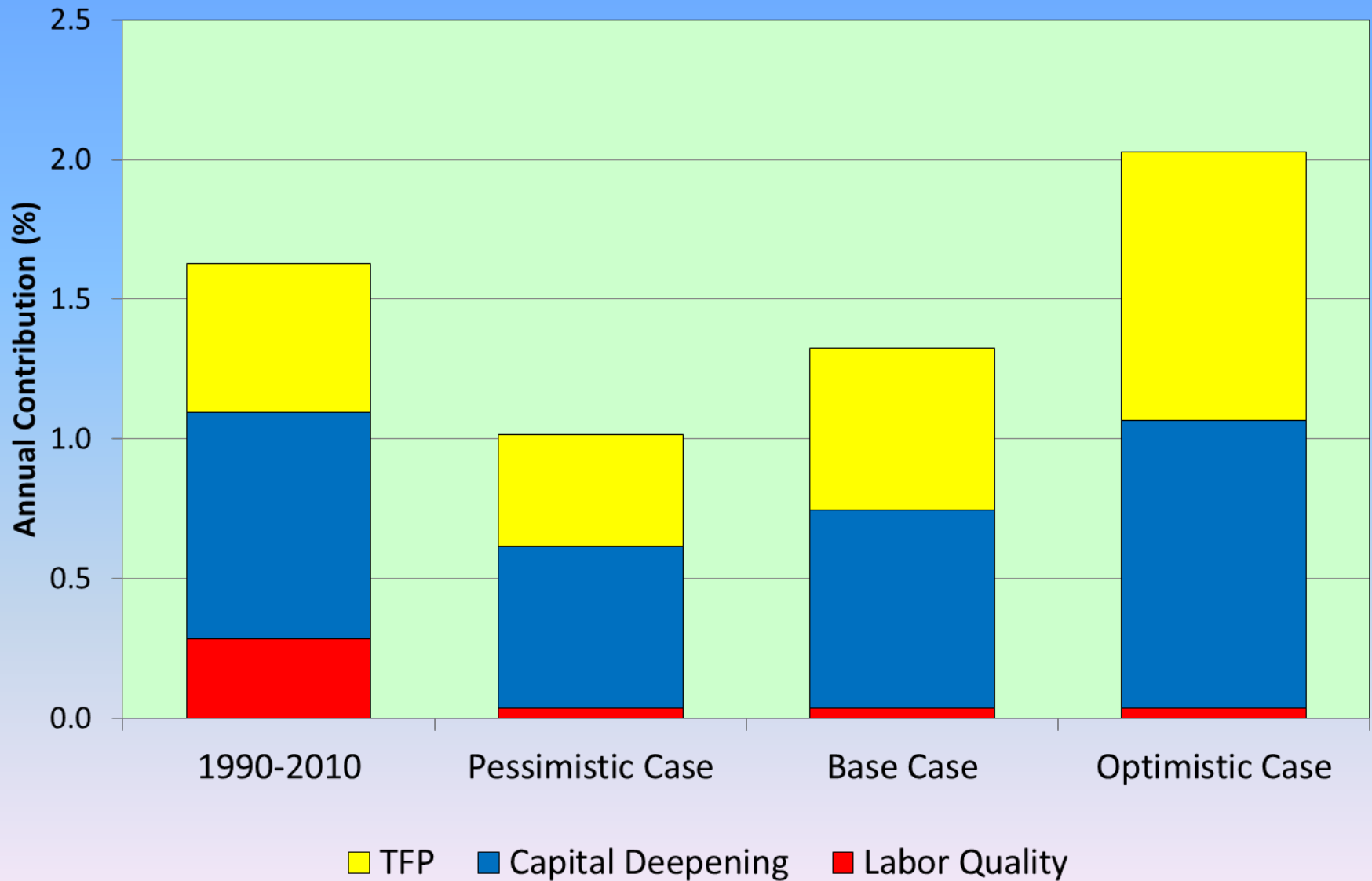
Range of Potential Output Projections

Contribution of Industry Groups to Productivity Growth, 2010-2020



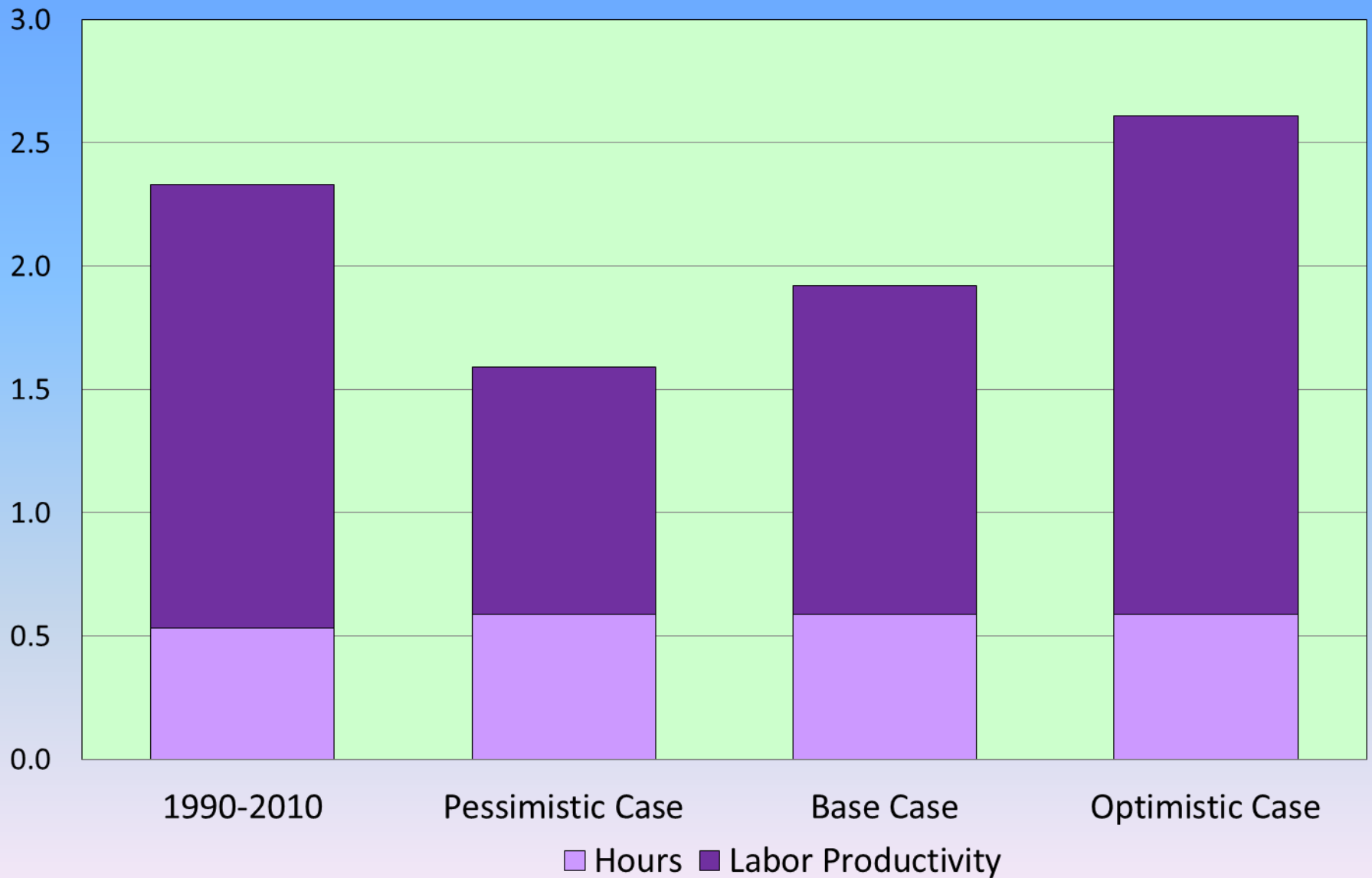
Range of Labor Productivity Projections, 2010-2020

Annual percentage growth rates



Range of U.S. Potential Output Projections, 2010-2020

Annual percentage growth rates



ECONOMIC GROWTH IN THE INFORMATION AGE

Summary and Conclusions

Sources of U.S. Economic Growth
Replication versus Innovation

Postwar U.S. Economic History
The Postwar Recovery, the Big Slump and the Great
Recession

Projecting Productivity and Economic Growth
Demography and Technology

**Appendix Table 1: Growth in Aggregate Value-Added and the Sources of Growth
Aggregate Production Possibility Frontier**

	1947-2010	1947-1973	1973-1995	1995-2010	1995-2000	2000-2005	2005-2010
	Contributions						
Value-Added	2.95	3.56	2.64	2.32	4.30	2.14	0.54
IT-Producing Industries	0.27	0.09	0.33	0.51	0.76	0.40	0.36
IT-Using Industries	1.77	1.92	1.71	1.62	2.71	1.50	0.65
Non-IT Industries	0.90	1.55	0.61	0.20	0.83	0.24	-0.47
Capital Input	1.39	1.57	1.30	1.22	1.86	0.98	0.82
IT Capital	0.43	0.29	0.46	0.62	1.03	0.49	0.35
Non-IT Capital	0.96	1.28	0.84	0.60	0.84	0.49	0.47
Labor Input	0.87	0.91	1.06	0.53	1.40	0.19	0.00
College Labor	0.52	0.37	0.70	0.51	0.82	0.35	0.37
Non-college Labor	0.34	0.52	0.35	0.02	0.58	-0.15	-0.37
Aggregate TFP	0.68	1.08	0.29	0.57	1.03	0.96	-0.27
	Quality and Stock Contributions						
Contribution of Capital Quality	0.38	0.46	0.30	0.36	0.75	0.19	0.14
Contribution of Capital Stock	1.01	1.11	1.00	0.86	1.11	0.79	0.67
Contribution of Labor Quality	0.26	0.26	0.24	0.28	0.22	0.25	0.36
Contribution of Labor Hours	0.61	0.66	0.81	0.25	1.18	-0.06	-0.36

Notes: All figures are average annual percentages. The contribution of an output or input is the growth rate multiplied by the average value share. The IT-producing, IT-using, and non-IT industries are defined in Table 2.10. IT capital input includes computer hardware, computer software, and telecommunications equipment.

Appendix Table 2: Growth and Shares of Aggregate Variables
Aggregate Production Possibility Frontier

	1947-2010	1947-1973	1973-1995	1995-2010	1995-2000	2000-2005	2005-2010
Growth Rates							
Value-Added	2.95	3.56	2.64	2.32	4.30	2.14	0.54
IT-Producing Industries	10.76	5.05	13.83	16.14	24.28	13.34	10.80
IT-Using Industries	3.24	3.80	2.98	2.64	4.45	2.43	1.04
Non-IT Industries	2.00	3.21	1.57	0.54	2.31	0.68	-1.36
Capital Input	3.58	3.94	3.42	3.17	4.88	2.58	2.04
IT Capital	15.07	17.56	14.80	11.17	18.95	8.45	6.11
Non-IT Capital	2.64	3.33	2.40	1.81	2.56	1.52	1.35
Labor Input	1.44	1.55	1.71	0.87	2.27	0.32	0.02
College Labor	3.37	3.94	3.73	1.87	3.15	1.21	1.26
Non-college Labor	0.74	1.07	0.86	-0.01	1.62	-0.44	-1.21
Shares							
Value-Added	100.0	100.0	100.0	100	100.0	100.0	100.0
IT-Producing Industries	2.3	1.7	2.4	3.14	3.1	3.0	3.3
IT-Using Industries	55.4	50.1	57.4	61.66	60.9	61.8	62.3
Non-IT Industries	42.3	48.2	40.2	35.20	36.0	35.2	34.4
Capital Input	39.0	40.2	37.9	38.66	38.1	38.2	39.7
IT Capital	3.0	1.4	3.1	5.66	5.4	5.9	5.7
Non-IT Capital	36.0	38.7	34.8	33.00	32.8	32.3	34.0
Labor Input	61.0	59.8	62.1	61.34	61.9	61.8	60.3
College Labor	17.6	9.8	19.6	28.16	26.0	28.5	29.9
Non-college Labor	43.4	50.0	42.5	33.18	35.8	33.3	30.4

Notes: Growth rates are average annual percentages. Shares are the mean two-period average for each period in percentages.

**Appendix Table 3: Decomposition of Aggregate Labor Productivity
Aggregate Production Possibility Frontier**

	1947-2010	1947-1973	1973-1995	1995-2010	1995-2000	2000-2005	2005-2010
Contributions							
Average Labor Productivity	1.93	2.45	1.33	1.91	2.39	2.22	1.12
Capital Deepening	0.99	1.12	0.80	1.06	1.13	1.01	1.03
IT Capital	0.40	0.27	0.41	0.60	0.92	0.50	0.38
Non-IT Capital	0.59	0.84	0.38	0.46	0.21	0.51	0.65
Labor Quality	0.26	0.26	0.24	0.28	0.22	0.25	0.36
College Labor Quality	-0.01	0.00	0.00	-0.02	0.00	-0.01	-0.04
Non-college Labor Quality	0.12	0.16	0.09	0.09	0.08	0.08	0.11
Reallocation of Hours	0.15	0.10	0.16	0.21	0.15	0.18	0.30
Aggregate TFP	0.68	1.08	0.29	0.57	1.03	0.96	-0.27
Growth Rates							
Aggregate Value-Added	2.95	3.56	2.64	2.32	4.30	2.14	0.54
Average Labor Productivity	1.93	2.45	1.33	1.91	2.39	2.22	1.12
Hours	1.01	1.11	1.31	0.41	1.91	-0.08	-0.58

Notes: Notes: All figures are average annual percentages. The contribution of an output or input is the growth rate multiplied by the average value share. IT capital includes computer hardware, computer software, and telecommunications equipment.

Appendix Table 4: Aggregate Reallocation Effects

	1947-2010	1947-1973	1973-1995	1995-2010	1995-2000	2000-2005	2005-2010
Aggregate Production Possibility Frontier vs. Aggregate Production Function							
Aggregate Production Function Value-Added	2.41	3.06	1.95	1.95	3.11	2.00	0.73
Aggregate Production Possibility Frontier Value-Added	2.95	3.56	2.64	2.32	4.30	2.14	0.54
Reallocation of Value-Added	-0.54	-0.50	-0.69	-0.37	-1.19	-0.14	0.19
Aggregate Production Possibility Frontier vs. Direct Aggregation Across Industries							
Aggregate TFP	0.68	1.08	0.29	0.57	1.03	0.96	-0.27
Domar-Weighted Productivity	0.66	1.05	0.23	0.61	1.12	0.88	-0.18
IT-Producing Industries	0.19	0.02	0.22	0.42	0.50	0.42	0.33
IT-Using Industries	0.24	0.38	0.08	0.25	0.47	0.44	-0.16
Non-IT Industries	0.23	0.64	-0.07	-0.06	0.15	0.02	-0.35
Reallocation of Capital Input	0.05	0.03	0.12	-0.02	-0.05	0.07	-0.09
Reallocation of Labor Input	-0.02	0.00	-0.06	-0.02	-0.05	0.01	-0.01

Notes: Notes: All figures are average annual percentages. The contribution of an output or input is the growth rate multiplied by the average value share.

Appendix Table 5: Industry Decomposition of Labor Productivity Growth

	1947-2010	1947-1973	1973-1995	1995-2010	1995-2000	2000-2005	2005-2010
Average Labor Productivity	1.93	2.45	1.33	1.910	2.39	2.22	1.12
Decomposition using Industry Gross Output Productivity							
Weighted $d\ln y$	1.98	2.23	1.64	2.040	3.23	2.32	0.58
IT-Producing Industries	0.15	0.06	0.16	0.270	0.40	0.18	0.23
IT-Using Industries	1.10	0.98	1.09	1.310	1.89	1.45	0.59
Other Industries	0.73	1.19	0.38	0.460	0.93	0.68	-0.24
Material Reallocation, $-R^M$	-0.17	-0.20	-0.26	0.01	-0.44	-0.02	0.48
Hours Reallocation, R^H	0.12	0.42	-0.05	-0.140	-0.40	-0.08	0.06
Decomposition using Industry Value-Added Productivity							
Weighted $d\ln v$	1.81	2.04	1.38	2.050	2.79	2.30	1.06
IT-Producing Industries	0.23	0.04	0.27	0.510	0.61	0.53	0.40
IT-Using Industries	0.92	0.83	0.83	1.230	1.60	1.37	0.71
Other Industries	0.66	1.17	0.29	0.310	0.58	0.40	-0.05
Hours Reallocation, R^H	0.12	0.42	-0.05	-0.140	-0.40	-0.08	0.06

Note: Decomposition framework is defined in Equations (6.26) and (6.27).

Table 6: Industry Contributions to Aggregate Value-Added and TFP Growth, 1947-2010

	Value-Added			Productivity		
	V-A Weight	V-A Growth	Contribution to Aggregate V-A	Domar Weight	TFP Growth	Contribution to Aggregate TFP
Farms	0.027	2.55	0.061	0.054	1.54	0.087
Forestry fishing and related activities	0.003	1.46	0.005	0.007	-0.96	-0.007
Oil and gas extraction	0.011	-0.52	-0.001	0.018	-1.76	-0.036
Mining except oil and gas	0.006	0.50	-0.003	0.012	0.23	-0.003
Support activities for mining	0.002	2.58	0.005	0.006	0.22	-0.001
Utilities	0.021	2.71	0.053	0.036	0.14	-0.002
Construction	0.046	1.49	0.066	0.106	-0.16	-0.014
Wood products	0.004	1.46	0.007	0.014	0.35	0.004
Nonmetallic mineral products	0.007	1.04	0.012	0.014	0.16	0.002
Primary metals	0.014	-1.36	-0.008	0.040	-0.34	-0.018
Fabricated metal products	0.017	1.58	0.033	0.040	0.29	0.012
Machinery	0.019	2.58	0.057	0.038	0.40	0.013
Computer and electronic products	0.015	13.71	0.223	0.037	4.37	0.187
Electrical equipment appliances and compo	0.008	0.30	0.005	0.017	-0.52	-0.010
Motor vehicles bodies and trailers and parts	0.016	1.80	0.048	0.059	0.30	0.020
Other transportation equipment	0.012	1.44	0.024	0.028	-0.03	-0.001
Furniture and related products	0.004	1.81	0.009	0.009	0.61	0.005
Miscellaneous manufacturing	0.006	4.27	0.026	0.015	1.21	0.018
Food and beverage and tobacco products	0.022	1.10	0.035	0.096	0.07	0.017
Textile mills and textile product mills	0.007	2.14	0.022	0.022	1.10	0.027
Apparel and leather and allied products	0.008	0.45	0.019	0.024	0.66	0.018
Paper products	0.009	1.57	0.019	0.024	0.12	0.003
Printing and related support activities	0.005	1.83	0.011	0.013	0.24	0.003
Petroleum and coal products	0.006	6.83	0.024	0.034	0.47	0.011
Chemical products	0.019	3.36	0.066	0.049	0.44	0.018
Plastics and rubber products	0.007	3.39	0.025	0.016	0.48	0.008
Wholesale Trade	0.051	5.46	0.280	0.073	1.68	0.123
Retail Trade	0.068	3.39	0.233	0.109	0.98	0.108
Air transportation	0.004	9.32	0.032	0.010	2.10	0.016
Rail transportation	0.010	-0.55	-0.009	0.015	1.11	0.018
Water transportation	0.001	4.73	0.006	0.005	1.32	0.005
Truck transportation	0.010	4.47	0.044	0.019	1.04	0.020
Transit and ground passenger transportation	0.003	-0.49	-0.006	0.005	-0.24	-0.003
Pipeline transportation	0.001	4.50	0.005	0.003	1.40	0.004
Other transportation and support activities	0.007	2.23	0.017	0.011	0.22	0.003
Warehousing and storage	0.002	3.57	0.009	0.003	1.07	0.003
Publishing industries (includes software)	0.009	4.73	0.042	0.019	1.17	0.022
Motion picture and sound recording industr	0.004	1.51	0.003	0.006	-0.21	-0.003
Broadcasting and telecommunications	0.022	6.00	0.130	0.035	1.37	0.048
Information and data processing services	0.003	4.67	0.015	0.005	-1.59	-0.003
Federal Reserve banks credit intermediation	0.026	3.83	0.093	0.042	-0.80	-0.036

Table 6: Industry Contributions to Aggregate Value-Added and TFP Growth, 1947-2010

	Value-Added			Productivity		
	V-A Weight	V-A Growth	Contribution to Aggregate V-A	Domar Weight	TFP Growth	Contribution to Aggregate TFP
Securities commodity contracts and invest	0.006	8.56	0.068	0.013	1.14	0.034
Insurance carriers and related activities	0.019	3.66	0.064	0.036	-0.34	-0.011
Funds trusts and other financial vehicles	0.001	1.16	0.001	0.005	-0.52	-0.003
Real estate	0.105	3.32	0.340	0.137	0.99	0.131
Rental and leasing services and lessors of ir	0.010	4.45	0.042	0.014	-2.03	-0.029
Legal services	0.010	2.72	0.021	0.014	-0.94	-0.015
Computer systems design and related servic	0.005	6.57	0.035	0.007	-0.55	0.002
Miscellaneous professional scientific and te	0.025	4.66	0.103	0.038	-0.26	-0.011
Management of companies and enterprises	0.014	2.35	0.032	0.022	-0.32	-0.009
Administrative and support services	0.014	5.17	0.065	0.021	0.58	0.010
Waste management and remediation service	0.002	3.91	0.008	0.005	0.59	0.003
Educational services	0.007	3.04	0.019	0.012	-0.25	-0.005
Ambulatory health care services	0.021	3.58	0.071	0.032	-0.05	-0.006
Hospitals Nursing and residential care facili	0.019	2.92	0.046	0.031	-0.73	-0.027
Social assistance	0.003	5.84	0.014	0.005	1.67	0.004
Performing arts spectator sports museums a	0.003	3.39	0.011	0.006	0.75	0.004
Amusements gambling and recreation indu:	0.004	2.90	0.011	0.006	-0.20	-0.002
Accommodation	0.007	3.32	0.022	0.011	0.44	0.005
Food services and drinking places	0.017	0.59	0.009	0.037	-0.73	-0.029
Other services except government	0.027	1.48	0.041	0.043	-0.87	-0.037
Federal General government	0.053	-0.05	-0.010	0.086	-0.21	-0.019
Federal Government enterprises	0.007	0.73	0.006	0.009	-0.46	-0.004
S&L Government enterprises	0.008	1.99	0.017	0.014	-0.72	-0.011
S&L General Government	0.073	2.67	0.176	0.102	0.08	-0.001
Sum	1.000		2.947	1.887		0.658

Notes: All figures are annual averages. Value-added weights are industry value-added as a share of aggregate value-added. Domar weights are industry output as a share of aggregate value-added. A contribution is a share-weighted growth rate.

Table 7: Industry Contributions to Aggregate Capital and Labor Input Growth, 1947-2010

	Capital			Labor		
	Total	IT	Non-IT	Total	College	Non-College
Farms	0.015	0.000	0.014	-0.041	0.001	-0.042
Forestry fishing and related activities	0.008	0.001	0.007	0.004	0.001	0.003
Oil and gas extraction	0.032	0.002	0.030	0.003	0.002	0.001
Mining except oil and gas	0.005	0.000	0.004	-0.005	0.000	-0.005
Support activities for mining	0.004	0.001	0.004	0.001	0.001	0.000
Utilities	0.049	0.006	0.044	0.006	0.003	0.002
Construction	0.018	0.004	0.014	0.062	0.016	0.045
Wood products	0.003	0.001	0.003	0.000	0.001	-0.001
Nonmetallic mineral products	0.008	0.002	0.005	0.002	0.001	0.000
Primary metals	0.016	0.004	0.013	-0.006	0.002	-0.008
Fabricated metal products	0.011	0.004	0.007	0.010	0.004	0.006
Machinery	0.039	0.013	0.026	0.005	0.004	0.001
Computer and electronic products	0.020	0.011	0.009	0.017	0.013	0.004
Electrical equipment appliances and compo	0.014	0.002	0.012	0.002	0.002	0.000
Motor vehicles bodies and trailers and parts	0.022	0.007	0.016	0.006	0.005	0.001
Other transportation equipment	0.015	0.003	0.011	0.011	0.007	0.004
Furniture and related products	0.002	0.000	0.001	0.002	0.001	0.001
Miscellaneous manufacturing	0.005	0.002	0.003	0.002	0.003	-0.001
Food and beverage and tobacco products	0.018	0.004	0.013	0.001	0.004	-0.003
Textile mills and textile product mills	0.002	0.001	0.002	-0.007	0.001	-0.008
Apparel and leather and allied products	0.005	0.001	0.004	-0.004	0.001	-0.005
Paper products	0.011	0.002	0.010	0.005	0.002	0.003
Printing and related support activities	0.003	0.001	0.002	0.005	0.003	0.003
Petroleum and coal products	0.014	0.003	0.011	0.000	0.001	-0.001
Chemical products	0.038	0.009	0.030	0.010	0.009	0.001
Plastics and rubber products	0.010	0.001	0.009	0.008	0.002	0.006
Wholesale Trade	0.100	0.026	0.075	0.057	0.031	0.027
Retail Trade	0.064	0.017	0.047	0.062	0.027	0.035
Air transportation	0.009	0.005	0.004	0.007	0.003	0.004
Rail transportation	-0.002	0.001	-0.003	-0.024	0.000	-0.024
Water transportation	0.000	0.001	0.000	0.000	0.001	0.000
Truck transportation	0.009	0.001	0.008	0.015	0.002	0.012
Transit and ground passenger transportation	-0.002	0.001	-0.003	-0.001	0.001	-0.001
Pipeline transportation	0.002	0.001	0.001	-0.001	0.000	-0.001
Other transportation and support activities	0.003	0.002	0.001	0.011	0.004	0.007
Warehousing and storage	0.001	0.000	0.001	0.005	0.001	0.004
Publishing industries (includes software)	0.012	0.009	0.003	0.008	0.009	-0.001
Motion picture and sound recording industr	0.006	0.002	0.004	0.001	0.002	-0.001
Broadcasting and telecommunications	0.071	0.048	0.023	0.011	0.007	0.004
Information and data processing services	0.013	0.009	0.004	0.005	0.003	0.002
Federal Reserve banks credit intermediator	0.099	0.040	0.059	0.030	0.018	0.012

Table 7: Industry Contributions to Aggregate Capital and Labor Input Growth, 1947-2010

	Capital			Labor		
	Total	IT	Non-IT	Total	College	Non-College
Securities commodity contracts and invest	0.013	0.012	0.002	0.021	0.018	0.003
Insurance carriers and related activities	0.051	0.026	0.025	0.025	0.017	0.008
Funds trusts and other financial vehicles	0.004	0.001	0.002	0.000	0.001	0.000
Real estate	0.193	0.005	0.233	0.016	0.009	0.007
Rental and leasing services and lessors of ir	0.066	0.025	0.041	0.005	0.002	0.003
Legal services	0.025	0.010	0.015	0.011	0.010	0.001
Computer systems design and related servic	0.013	0.009	0.004	0.020	0.015	0.005
Miscellaneous professional scientific and te	0.058	0.032	0.026	0.056	0.040	0.016
Management of companies and enterprises	0.028	0.019	0.009	0.013	0.018	-0.005
Administrative and support services	0.017	0.010	0.007	0.038	0.012	0.026
Waste management and remediation service	0.003	0.000	0.002	0.003	0.001	0.002
Educational services	0.007	0.003	0.004	0.017	0.014	0.003
Ambulatory health care services	0.018	0.004	0.015	0.059	0.035	0.024
Hospitals Nursing and residential care facili	0.027	0.005	0.022	0.046	0.022	0.023
Social assistance	0.002	0.000	0.001	0.008	0.003	0.005
Performing arts spectator sports museums a	0.002	0.001	0.001	0.005	0.004	0.001
Amusements gambling and recreation indus	0.005	0.001	0.005	0.007	0.002	0.005
Accommodation	0.008	0.001	0.007	0.010	0.003	0.007
Food services and drinking places	0.008	0.001	0.006	0.031	0.007	0.024
Other services except government	0.020	0.004	0.016	0.059	0.017	0.042
Federal General government	0.002	0.005	-0.003	0.007	0.013	-0.006
Federal Government enterprises	0.009	0.001	0.008	0.001	0.001	0.000
S&L Government enterprises	0.017	0.002	0.015	0.010	0.003	0.008
S&L General Government	0.079	0.010	0.070	0.098	0.074	0.024
Sum	1.441	0.429	1.057	0.848	0.536	0.311

Notes: All figures are annual averages. Value-added weights are industry value-added as a share of aggregate value-added. Domar weights are industry output as a share of aggregate value-added. A contribution is a share-weighted growth rate.