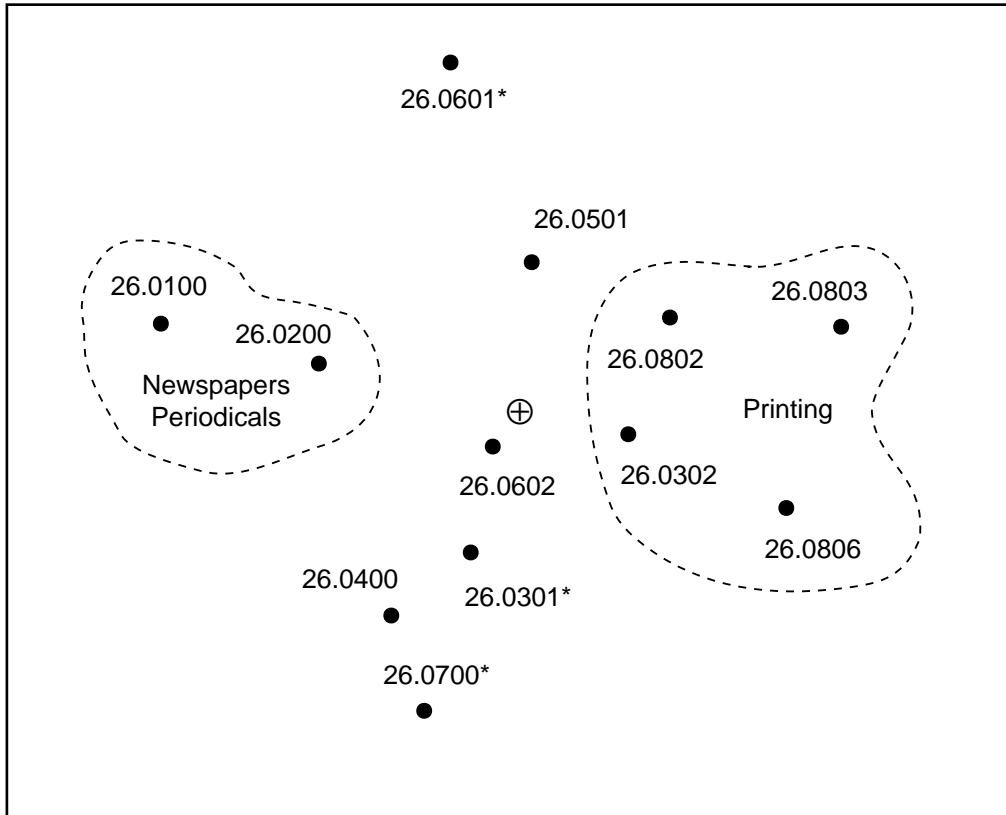


# FIGURE 1. PRINTING AND PUBLISHING

(⊕ marks the center of the space, stress = .077, asterisk marks products in Table 2)



## Current Aggregation:

### 26A. Newspapers and Periodicals

26.0100 newspapers  
26.0200 periodicals

### 26B. Other Printing and Publishing

26.0301 book publishing  
26.0302 book printing  
26.0400 miscellaneous publishing  
26.0501 commercial printing  
26.0601 manifold business forms  
26.0602 blankbooks, looseleaf binders, etc.  
26.0700 greeting cards  
26.0802 bookbinding and related work  
26.0803 typesetting  
26.0806 platemaking and related services

## Proposed Aggregation (\* marks revised category):

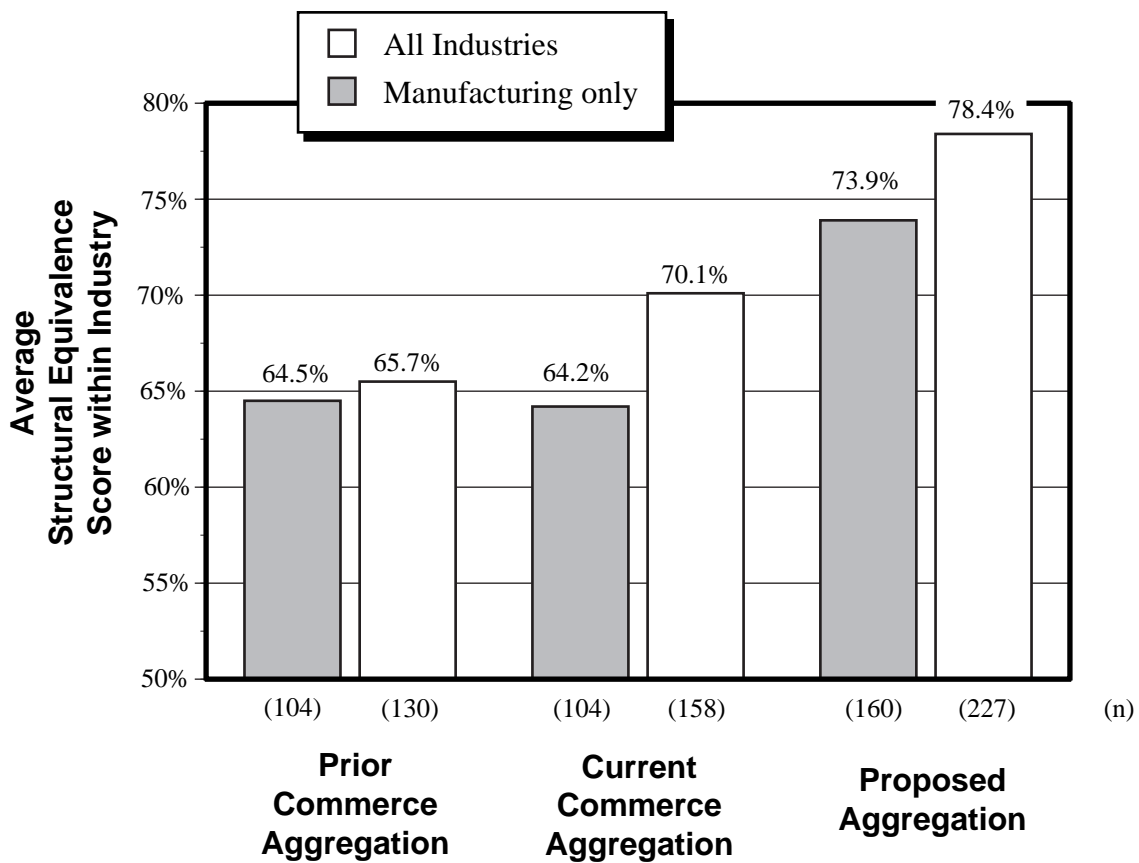
### \*26A. Publishing

26.0100 newspapers  
26.0200 periodicals  
26.0301 book publishing  
26.0400 miscellaneous publishing  
26.0700 greeting cards

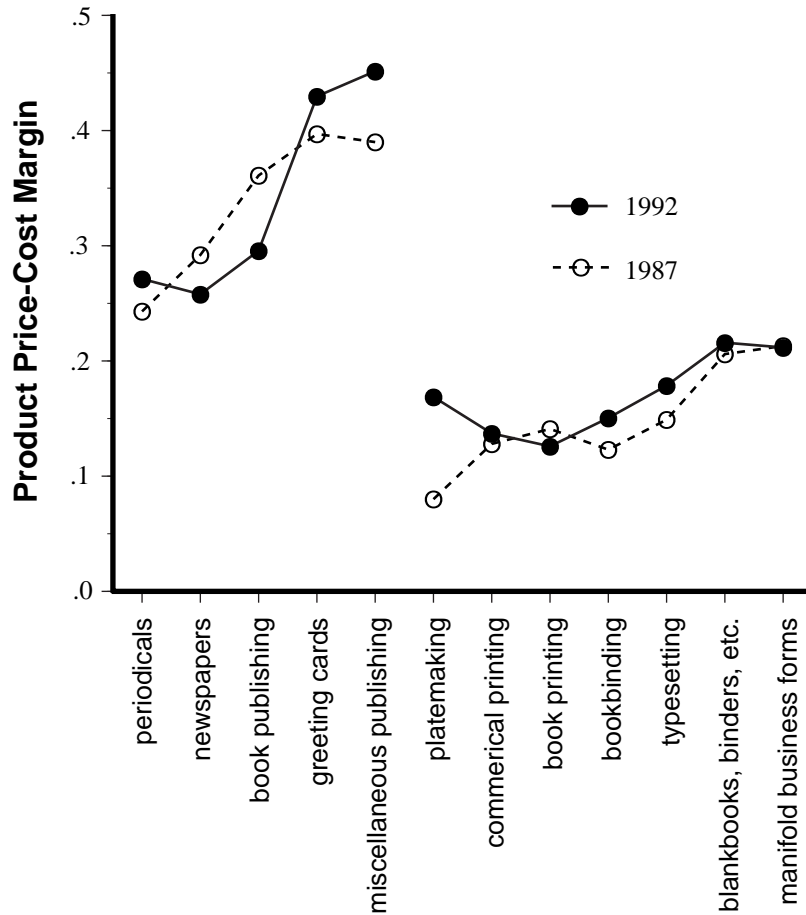
### \*26B. Printing

26.0302 book printing  
26.0501 commercial printing  
26.0601 manifold business forms  
26.0602 blankbooks, looseleaf binders, etc.  
26.0802 bookbinding and related work  
26.0803 typesetting  
26.0806 platemaking and related services

**FIGURE 2.**  
**RELIABILITY INDICATED BY**  
**STRUCTURAL EQUIVALENCE**

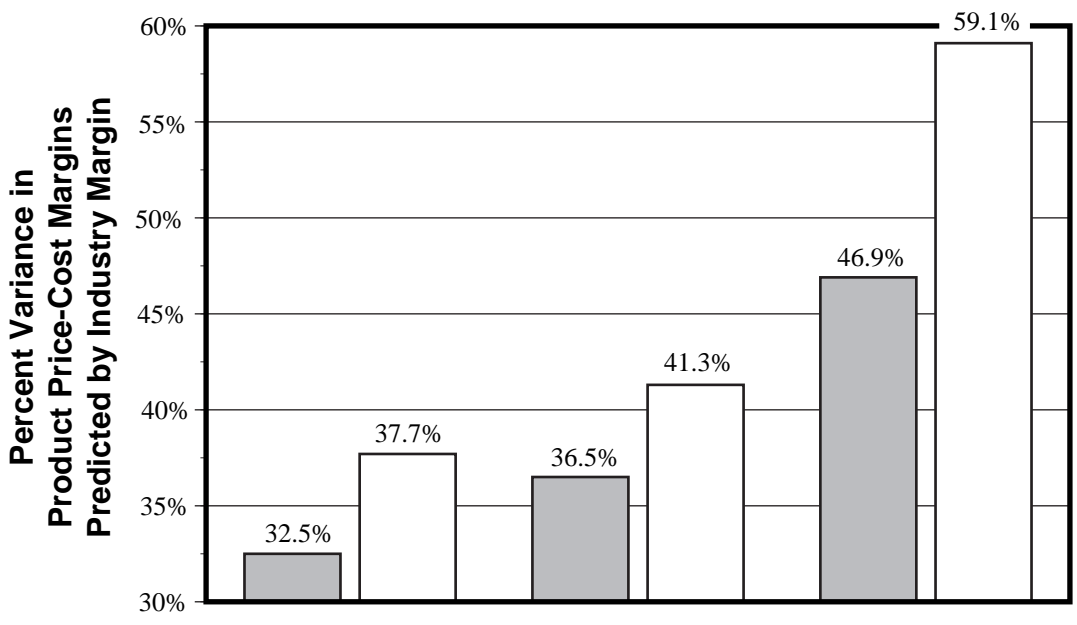
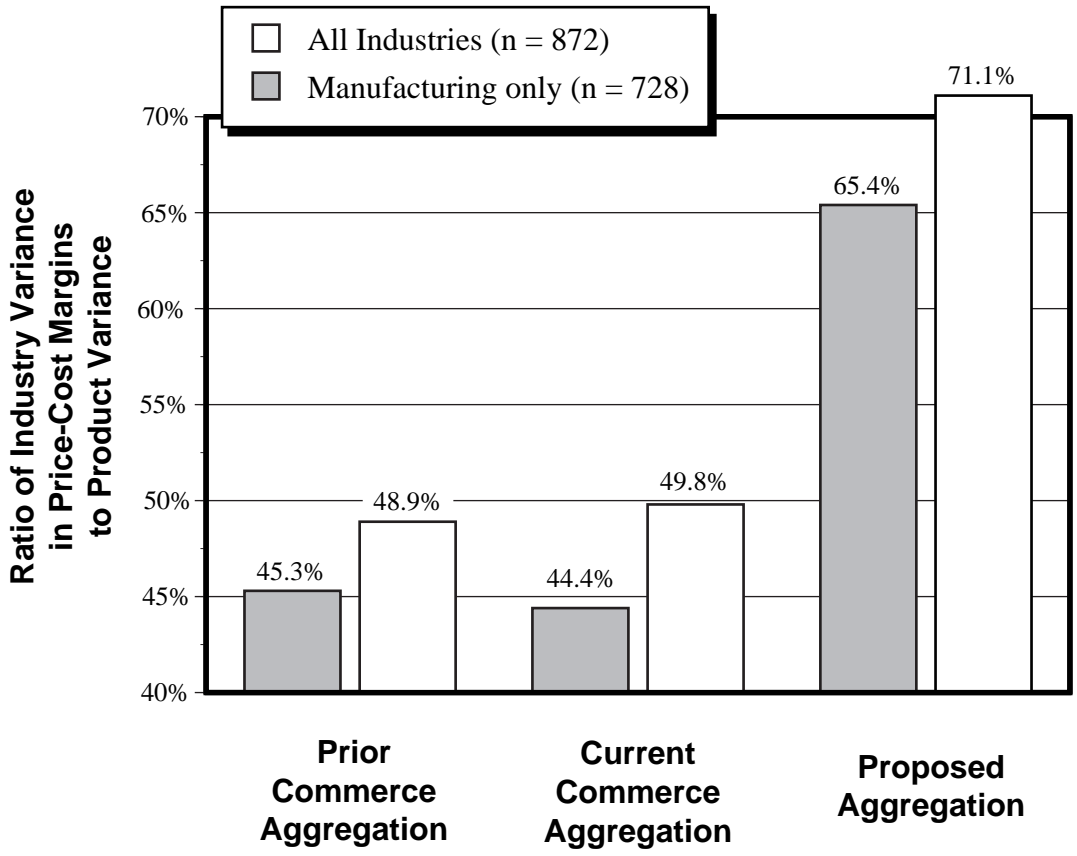


**FIGURE 3.**  
**PRICE-COST MARGINS**  
**IN PRINTING AND PUBLISHING**



	Ratio of Industry Variance in Price-Cost Margins to Product Variance	Percent Variance in Product Price-Cost Margins Predicted by Industry Margin
Prior Commerce Aggregation	0.0%	0.0%
Current Commerce Aggregation	5.2%	2.2%
Proposed Aggregation	55.8%	72.1%

**FIGURE 4.**  
**CONSTRUCT VALIDITY INDICATED**  
**BY PERFORMANCE VARIANCE**



# Table 1. Current Commerce Aggregation

Product Categories			Commerce			
1982	1987	1992	SE	SIC	ID	Industry
4	4	4	—	1, 2	1	Livestock and livestock products
13	13	13	—	1, 2	2	Other agricultural products
2	2	2	—	8, 9	3	Forestry and fishery products
2	2	2	—	2, 7, 8, 9	4	Agricultural, forestry, and fishery services
3	3	3	—	10	5-6	Metallic ores mining (iron, copper, and other)
1	1	1	—	12	7	Coal mining
1	1	1	—	13	8	Crude petroleum and natural gas
5	5	5	—	14	9-10	Nonmetallic minerals mining
54	5	15	—	10, 13-17	11-12	Construction
6	6	6	51.4	34, 37	13	Ordnance and accessories
45	47	46	61.7	20	14	Food and kindred products
4	4	4	70.7	21	15	Tobacco products
4	4	4	82.4	22	16	Broad and narrow fabrics, yarn and thread mills
10	6	6	56.5	22	17	Miscellaneous textile goods and floor coverings
7	7	7	67.4	22, 23	18	Apparel
8	8	8	56.9	23	19	Miscellaneous fabricated textile products
14	15	15	64.2	24	20-21	Lumber and wood products
13	13	13	49.6	25	22-23	Furniture and fixtures
12	9	9	47.1	26	24	Paper and allied products, except containers
1	1	1	100	26	25	Paperboard containers and boxes
2	2	2	89.0	27	26A	Newspapers and periodicals
12	10	10	46.9	27	26B	Other printing and publishing
11	7	7	46.3	28	27A	Industrial and other chemicals
3	3	3	64.3	28	27B	Agricultural fertilizers and chemicals
4	4	4	73.2	28	28	Plastics and synthetic materials
1	1	1	100	28	29A	Drugs
4	4	4	59.9	28	29B	Cleaning and toilet preparations
1	1	1	100	28	30	Paints and allied products
5	5	5	47.7	29	31	Petroleum refining and related products
6	6	6	63.6	30	32	Rubber and miscellaneous plastics products
9	9	9	56.8	31	33-34	Footwear, leather, and leather products
2	2	2	75.4	32	35	Glass and glass products
23	22	22	60.8	32	36	Stone and clay products
9	9	9	48.6	33	37	Primary iron and steel manufacturing
14	12	12	43.2	33	38	Primary nonferrous metals manufacturing
2	2	2	74.7	34	39	Metal containers
10	10	10	71.5	34	40	Heating, plumbing, and fabricated structural metal products
4	4	4	59.0	34	41	Screw machine products and stampings
11	11	11	56.3	34	42	Other fabricated metal products
2	2	2	79.7	35	43	Engines and turbines
5	5	5	63.9	35	44-45	Farm, construction, and mining machinery
4	4	4	65.9	35	46	Materials handling machinery and equipment
6	8	8	60.7	35	47	Metalworking machinery and equipment
6	6	6	70.4	35	48	Special industry machinery and equipment
7	7	7	64.3	35	49	General industrial machinery and equipment
2	4	4	62.4	35	50	Miscellaneous machinery, except electrical
4	4	4	78.2	35	51	Computer and office equipment
5	5	5	71.7	35	52	Service industry machinery
8	6	6	50.4	36	53	Electrical industrial equipment and apparatus
7	6	6	72.8	36	54	Household appliances
3	3	3	77.4	36	55	Electric lighting and wiring equipment
4	4	4	49.9	36	56	Audio, video, and communication equipment
3	3	3	70.6	36	57	Electronic components and accessories
5	5	5	54.0	36	58	Miscellaneous electrical machinery and supplies
1	1	1	100	37	59A	Motor vehicles (passenger cars and trucks)
3	3	3	66.5	37	59B	Truck and bus bodies, trailers, and motor vehicles parts
3	3	3	73.7	37	60	Aircraft and parts
8	7	7	46.1	37	61	Other transportation equipment
7	12	12	56.4	38	62	Scientific and controlling instruments
3	2	2	60.3	38	63	Ophthalmic and photographic equipment
20	18	18	47.1	39	64	Miscellaneous manufacturing
2	2	2	70.8	40, 41, 47	65A	Railroads and related services; passenger ground transportation
1	1	2	74.3	42, 47	65B	Motor freight transportation and warehousing
1	1	1	100	44	65C	Water transportation
1	1	1	100	45	65D	Air transportation
3	3	3	61.4	46, 47	65E	Pipelines, freight forwarders, and related services
1	1	2	75.0	48	66	Communications, except radio and TV
1	1	1	100	48	67	Radio and TV broadcasting
1	1	1	100	49	68A	Electric services (utilities)
1	1	2	71.2	49	68B	Gas production and distribution (utilities)
2	2	2	83.6	49	68C	Water and sanitary services
1	1	1	100	50, 51	69A	Wholesale trade
1	1	1	100	52-57	69B	Retail trade
3	3	3	71.8	60-62, 67	70A	Finance
2	2	2	51.9	36, 64	70B	Insurance
1	1	1	100	—	71A	Owner-occupied dwellings
2	2	2	53.8	65	71B	Real estate and royalties
1	1	2	70.2	70	72A	Hotels and lodging places
6	6	6	56.5	72, 76	72B	Personal and repair services (except auto)
1	1	1	100	73	73A	Computer and data processing services
3	3	3	64.8	81, 87, 89	73B	Legal, engineering, accounting, and related services
8	8	9	62.8	73, 76, 87	73C	Other business and professional services, except medical
1	1	1	100	73	73D	Advertising
1	1	1	100	58	74	Eating and drinking places
3	3	3	68.2	75	75	Automotive repair and services
7	8	8	62.4	78, 79	76	Amusements
4	4	6	78.9	7, 80	77A	Health services
11	11	11	72.1	82-84, 86-87	77B	Educational and social services, and membership organizations
528	469	485	—	—	88	Total Number of Categories

**TABLE 2. SUPPLIER-BUYER TRANSACTIONS  
DISTINGUISHING PUBLISHING FROM PRINTING**

Publishing (26A)	Printing (part 26B)	Book Publishing (26.0301)	Greeting Cards (26.0700)	Business Forms (26.0601)	
					<b>Suppliers in 1992</b>
0.02	0.52	0.00	0.01	0.00	Photography
0.00	0.36	0.00	0.03	0.02	Printing Machinery
0.25	0.40	0.24	0.25	0.15	Wholesale Trade
0.82	0.69	0.22	0.42	1.00	Paper
					<b>Customers in 1992</b>
0.05	0.89	0.23	-0.01	1.00	State and Local Government
0.01	0.34	-0.00	0.00	0.28	Federal Government
0.36	0.00	0.01	0.00	0.79	Retail Trade
0.39	0.03	0.10	0.00	0.07	Other Membership Orgs.
0.44	0.00	0.73	0.00	0.19	Colleges, Universities, Prof. Schools
0.47	0.00	0.35	0.00	0.10	Banking
0.60	0.01	0.05	0.00	0.12	Social Services n.e.c.
0.61	0.02	0.12	0.00	0.04	Priv. Libraries, Voc. Schools, Ed. Serv. n.e.c.
0.78	0.00	0.14	0.00	0.86	Wholesale Trade
1.00	0.00	0.05	0.00	0.58	Hospitals
1.00	0.00	1.00	1.00	0.00	Households

Note — The two negative entries here indicate government subsidies.

### Table 3. Proposed Aggregation

YR	Output (mil \$)	PCM	N	SD		EO	EC	ID	Sequence, Name (SIC codes)
				SE	PCM				
1987	87484	0.1348	4	—	—	0.7503	0.2592	1	1. Livestock and livestock products (*019, 0251-3, 0211-4, *0219, 024, *0259, 0271-3, *0279, *029)
1992	91504	0.1210	4	—	—	0.8278	0.2884		
1987	86742	0.4738	13	—	—	0.8917	0.1499	2	2. Other agricultural products (011, 013, 016, 017, 018, *019, *0219, *0259, *029)
1992	108294	0.4605	13	—	—	0.8804	0.1148		
1987	7456	0.3928	2	—	—	0.8730	0.1828	3	3. Forestry and fishery products (081, 083, 097, 091)
1992	9613	0.3282	2	—	—	0.8817	0.1975		
1987	22200	0.0003	2	—	—	0.5140	0.1846	4	4. Agricultural, forestry, and fishery services (0254, *0279, 071-2, 075-6, 078, 085, 092)
1992	28251	0.0982	2	—	—	0.7401	0.1911		
1987	6807	0.2410	3	—	—	0.5816	0.0634	5-6	5. Metallic ores mining (iron, copper and other; 101-4, 106, *108, 1094, 1099)
1992	10749	0.1497	3	—	—	0.4002	0.0549		
1987	25452	0.2792	1	—	—	0.8648	0.3088	7	6. Coal mining (122-3, *124)
1992	26917	0.2763	1	—	—	0.9112	0.3395		
1987	84228	0.5198	1	—	—	0.9498	0.3578	8	7. Crude petroleum and natural gas (131-2, *138)
1992	105369	0.3339	1	—	—	0.9245	0.3243		
1987	12964	0.3244	5	—	—	0.8089	0.1405	9-10	8. Nonmetallic minerals mining (141-2, 144, 145, 147, *148, 149)
1992	13682	0.2715	5	—	—	0.7713	0.1119		
1987	618813	0.1632	5	—	—	0.3795	0.0508	11-12	9. Construction (15, 16, 17, *108, *124, *138, *148, *6552)
1992	679330	0.1027	15	—	—	0.3156	0.0559		
<b>Manufacturing</b>									
1987	2046	0.2643	2	78.5	0.0190	0.6532	0.0754	13A	10. Small arms (3482, 3484)
1992	2539	0.2836	2	80.5	0.0350	0.5827	0.0506		
1987	21218	0.2209	1	100.0	0.0000	0.6445	0.0919	13B	11. Guided missiles and space vehicles (3761)
1992	16558	0.1832	1	100.0	0.0000	0.5109	0.0620		
1987	8173	0.1627	3	69.3	0.0450	0.3376	0.0460	13C	12. Other ordnance (3483, 3489, 3795)
1992	6663	0.1511	3	75.5	0.2120	0.2618	0.0419		
1987	34772	0.0560	9	62.4	0.0830	0.6631	0.2466	14A-15B	13. Milling and oil products (2044, 2046, 2048, 2074-7, 2083, 214)
1992	42714	0.0955	9	59.7	0.1030	0.7803	0.2375		
1987	119730	0.0495	10	78.6	0.0760	0.6827	0.2814	14B	14. Meat and dairy products (2011, 2013, 2015, 2021-4, 2026, 2091-2)
1992	150371	0.0693	10	84.5	0.0750	0.7923	0.2824		
1987	25589	0.4418	3	84.0	0.1990	0.8436	0.1013	14C	15. Alcoholic beverages (2082, 2084-5)
1992	32258	0.4566	3	85.3	0.1480	0.8956	0.1369		
1987	19656	0.1820	1	100.0	0.0000	0.6131	0.0990	14D	16. Soft drinks (2086)
1992	23756	0.1280	1	100.0	0.0000	0.6022	0.1000		
1987	27728	0.3606	3	87.8	0.1030	0.8254	0.1330	14E	17. Bakery goods (2051-3)
1992	33330	0.2369	3	88.1	0.1430	0.7888	0.1416		
1987	14418	0.2167	4	76.8	0.1170	0.7589	0.1751	14F	18. Other flour products (2041, 2043, 2045, 2098)
1992	20056	0.1025	4	75.3	0.0570	0.6694	0.1395		
1987	41118	0.2498	7	75.0	0.0230	0.6825	0.0940	14G	19. Canned and frozen food (exc. fish; 2032-5, 2037-8, 2095)
1992	50201	0.2540	7	76.5	0.0910	0.7410	0.1029		
1987	23475	0.2102	6	76.4	0.1000	0.6898	0.1212	14H	20. Candy and snack foods (2061-4, 2066-8, 2096)
1992	29449	0.2002	5	82.3	0.1070	0.7413	0.1278		
1987	22990	0.2738	5	49.8	0.1230	0.6963	0.0886	14I	21. Food products, n.e.c. (2047, 2079, 2087, 2099)
1992	29919	0.2791	5	58.1	0.2010	0.7565	0.1004		
1987	22878	0.5796	3	96.5	0.1600	0.9370	0.1872	15A	22. Tobacco products (211-3)
1992	36574	0.6052	3	92.3	0.1870	0.9453	0.1567		
1987	38244	0.0974	4	75.6	0.0130	0.5784	0.1368	16	23. Broad and narrow fabrics, yarn and thread mills (221-4, 2261-2, 2269, 2281-2, 2284)
1992	41646	0.0983	4	82.4	0.0230	0.6636	0.1388		
1987	15982	0.1017	6	44.6	0.0350	0.5469	0.1189	17	24. Miscellaneous textile goods and floor coverings (227, 2295-9)
1992	17580	0.1238	6	56.5	0.1060	0.5952	0.0995		
1987	64184	0.1480	7	71.3	0.0240	0.7060	0.1856	18	25. Apparel (2251-9, 231-8)
1992	69132	0.0612	7	67.4	0.0300	0.6962	0.1827		
1987	16988	0.1688	8	53.8	0.0930	0.6365	0.1177	19	26. Miscellaneous fabricated textile products (2391-7, 2399)
1992	19055	0.1166	8	56.9	0.1040	0.6876	0.1415		
1987	68792	0.1356	14	61.3	0.0350	0.6151	0.1288	20-21	27. Lumber and wood products (241, 2421, 2426, 2429, 2435-6, 2431, 2434, 2439, 2441, 2448-9, 2452, 2491, 2493, 2499)
1992	82383	0.1560	14	68.5	0.0680	0.6767	0.1159		
1987	40859	0.1535	14	46.0	0.0500	0.4668	0.0687	22-23	28. Furniture and fixtures (2451, 2511-2, 2514-5, 2517, 2519, 2521-2, 253, 2541-2, 2591, 2599)
1992	47459	0.1468	14	52.3	0.0620	0.4803	0.0664		
1987	46788	0.1977	2	81.1	0.0400	0.6663	0.1154	24A	29. Paper (261-3)
1992	54592	0.1770	2	89.1	0.0330	0.6955	0.1147		
1987	60706	0.1803	8	63.0	0.0930	0.5751	0.0859	24B-25	30. Paper products (265, 2671-9)
1992	76959	0.1577	8	66.5	0.0880	0.5803	0.0831		
1987	72696	0.3061	5	61.7	0.0670	0.7667	0.1132	26A	31. Publishing (271, 272, 2731, 274, 277)
1992	87849	0.2998	5	59.2	0.0920	0.8004	0.1180		
1987	64408	0.1404	7	54.4	0.0470	0.5133	0.0856	26B	32. Printing (2732, 275, 276, 2782, 2789, 2791, 2796)
1992	79426	0.1492	7	55.9	0.0350	0.6319	0.1012		
1987	84374	0.2571	7	44.7	0.0430	0.5948	0.0609	27A	33. Industrial and other chemicals (281, 2861, 2865, 2869, 2891-3, 2895, 2899)
1992	109880	0.1668	7	46.3	0.1010	0.4826	0.0616		
1987	13512	0.1046	3	64.1	0.2260	0.6188	0.1548	27B	34. Agricultural fertilizers and chemicals (2873-5, 2879)
1992	17831	0.2073	3	64.3	0.1380	0.8235	0.1983		
1987	40672	0.1919	4	67.2	0.0490	0.6405	0.1057	28	35. Plastics and synthetic materials (2821-4)
1992	48040	0.1155	4	73.2	0.0900	0.5815	0.0987		
1987	36012	0.3854	1	100.0	0.0000	0.8296	0.1207	29A	36. Drugs (283)
1992	62674	0.3178	1	100.0	0.0000	0.8042	0.1124		
1987	33230	0.3713	4	61.4	0.1080	0.7487	0.0704	29B	37. Cleaning and toilet preparations (2841-4)
1992	39628	0.3145	4	59.9	0.0720	0.7181	0.0728		
1987	12072	0.2537	1	100.0	0.0000	0.6855	0.0935	30	38. Paints and allied products (285)
1992	14198	0.2036	1	100.0	0.0000	0.6428	0.0846		
1987	130036	0.1240	3	56.2	0.0350	0.7516	0.2772	31A	39. Petroleum refining (291, 2992, 2999)
1992	137917	0.0677	3	57.7	0.1050	0.7769	0.2604		
1987	7836	0.1623	2	95.4	0.0030	0.7329	0.2003	31B	40. Asphalt (2951-2)
1992	7792	0.1758	2	95.4	0.0510	0.7812	0.1732		
1987	85572	0.1658	6	63.3	0.0310	0.4169	0.0555	32	41. Rubber and miscellaneous plastics products (301, 302, 306, 308, 3052-3)
1992	111361	0.1587	6	63.6	0.0590	0.4018	0.0530	32	

Table 3, cont.

YR	Output		N	SE	SD			ID	Sequence, Name (SIC codes)
	(mil \$)	PCM			PCM	EO	EC		
1987	2544	0.0911	2	75.8	0.0350	0.5421	0.1238	33-34A	42. leather stock (311, 313)
1992	3252	0.0661	2	82.9	0.0690	0.6141	0.1331		
1987	6156	0.1767	7	69.1	0.0620	0.6244	0.1069	33-34B	43. Leather products (3142-4, 3149, 315-6, 3171-2, 319)
1992	6116	0.1521	7	73.6	0.0920	0.6561	0.1089		
1987	11264	0.2134	1	100.0	0.0000	0.5109	0.0570	35A	44. Glass and glass products (321, 3229, 323)
1992	12911	0.2233	1	100.0	0.0000	0.5195	0.0539		
1987	5712	0.1966	4	71.6	0.0480	0.6551	0.1100	36A-35B	45. Glass, stone and clay containers (3221, 3262-3, 3269)
1992	5912	0.1834	4	70.1	0.1030	0.7306	0.1301		
1987	24786	0.1809	4	74.9	0.0280	0.7628	0.2188	36B	46. Concrete (324, 3271-3)
1992	23104	0.1462	4	71.9	0.0500	0.7670	0.1805		
1987	18054	0.2180	15	63.4	0.0600	0.6976	0.1211	36C	47. Other stone and clay products (3251, 3253, 3255, 3259, 3261, 3264, 3274-5, 328, 3291-2, 3295-7, 3299)
1992	18792	0.1938	15	64.8	0.0670	0.6725	0.0980		
1987	68090	0.1098	9	46.6	0.1060	0.2942	0.0552	37	48. Primary iron and steel manufacturing (3312-3, 3315-7, 332, 3462, 3398-9)
1992	76565	0.0848	9	48.6	0.0480	0.1420	0.0452		
1987	56376	0.0669	12	37.3	0.1340	0.0907	0.0462	38	49. Primary nonferrous metals manufacturing (3331, 3334, 3339, 334, 3351, 3353-7, 3363-4, 3365-6, 3369, 3463)
1992	63773	0.0762	12	43.2	0.0480	0.1103	0.0447		
1987	11904	0.1178	2	68.8	0.0460	0.4169	0.0722	39	50. Metal containers (3411-2)
1992	13065	0.0370	2	74.7	0.0310	0.3277	0.0745		
1987	43930	0.1418	10	66.2	0.0490	0.6506	0.1456	40	51. Heating, plumbing, and fab. metal products (3431-3, 3441-4, 3446, 3448-9)
1992	49491	0.1121	10	71.5	0.0420	0.6096	0.1092		
1987	23718	0.0781	3	68.5	0.0650	0.4783	0.1076	41A	52. Screw machine products (345, 3465-6)
1992	25272	0.0505	3	71.9	0.0790	0.5414	0.1143		
1987	8256	0.1319	1	100.0	0.0000	0.2923	0.0488	41B	53. Metal stampings (3469)
1992	9431	0.0973	1	100.0	0.0000	0.0000	0.0354		
1987	36656	0.1769	9	59.0	0.0610	0.4598	0.0592	42A	54. Other fabricated metal (3421, 3423, 3425, 3429, 3491-6, 3497-9)
1992	43986	0.1518	9	65.5	0.0760	0.3968	0.0539		
1987	7769	0.1375	2	70.5	0.0140	0.2935	0.0474	42B	55. Metal finishing (3471, 3479)
1992	9988	0.1417	2	70.2	0.0370	0.2605	0.0435		
1987	14096	0.1598	2	73.4	0.0110	0.4630	0.0657	43	56. Engines and turbines (3511, 3519)
1992	17044	0.1217	2	79.7	0.0900	0.2814	0.0489		
1987	10977	0.1921	2	79.6	0.0170	0.5174	0.0655	44	57. Farm and garden machinery (3523-4)
1992	14156	0.1902	2	76.0	0.0030	0.4508	0.0521		
1987	15776	0.1436	3	79.0	0.0540	0.5078	0.0827	45	58. Construction and mining equipment (3531-3)
1992	17875	0.0919	3	76.8	0.0350	0.3571	0.0633		
1987	7194	0.1252	4	71.4	0.0270	0.4957	0.0879	46	59. Materials handling machinery and equipment (3534-7)
1992	8152	0.1033	4	65.9	0.0690	0.4303	0.0704		
1987	21227	0.1238	8	54.8	0.0530	0.2559	0.0470	47	60. Metalworking machinery and equipment (354)
1992	25611	0.1016	8	60.7	0.0570	0.1082	0.0403		
1987	16254	0.1506	6	66.3	0.0210	0.3305	0.0482	48	61. Special industry machinery and equipment (3552-6, 3559)
1992	20231	0.1104	6	70.4	0.0330	0.1923	0.0440		
1987	23236	0.1660	7	63.1	0.0180	0.3720	0.0492	49	62. General industrial machinery and equipment (356)
1992	29814	0.1246	7	64.3	0.0360	0.2552	0.0461		
1987	20003	0.1224	4	58.6	0.0610	0.3355	0.0569	50	63. Miscellaneous machinery, except electrical (3592-4, 3596, 3599)
1992	25071	0.0903	4	62.4	0.0570	0.0972	0.0416		
1987	55820	0.1901	4	80.1	0.0440	0.5217	0.0672	51	64. Computer and office equipment (3571-2, 3575, 3577-9)
1992	63924	0.0725	4	78.2	0.0790	0.5221	0.0993		
1987	22409	0.1715	5	65.5	0.0320	0.5755	0.0903	52	65. Service industry machinery (3581-2, 3585-6, 3589)
1992	26455	0.1317	5	71.7	0.0360	0.4878	0.0718		
1987	22666	0.1628	6	59.2	0.0350	0.3414	0.0463	53	66. Electrical industrial equipment & apparatus (3612-3, 3621, 3624-5, 3629)
1992	27809	0.1524	6	50.4	0.0720	0.2869	0.0435		
1987	17237	0.2018	7	63.8	0.0520	0.4795	0.0549	54-58A	67. Household appliances (3631-5, 3639, 3692)
1992	18416	0.1493	7	69.1	0.0720	0.3490	0.0495		
1987	17615	0.2176	3	69.8	0.0790	0.6846	0.1134	55	68. Electric lighting and wiring equipment (3641, 3643-8)
1992	19111	0.1736	3	77.4	0.0950	0.6676	0.1043		
1987	5888	0.1265	1	100.0	0.0000	0.5523	0.1059	56A	69. Household audio-video equipment (3651)
1992	8355	0.0479	1	100.0	0.0000	0.5605	0.1217		
1987	5273	0.2155	2	76.6	0.1700	0.5104	0.0563	56B-58B	70. Recordings (3652, 3695)
1992	6068	0.1783	2	71.1	0.0850	0.5294	0.0662		
1987	32886	0.2281	2	80.4	0.0140	0.6160	0.0779	56C	71. Communication equipment (3661, 3663, 3669)
1992	41937	0.2215	2	82.5	0.0170	0.6744	0.0883		
1987	30307	0.1717	2	74.9	0.0420	0.4171	0.0538	57A	72. Electronic components (3671-2, 3675-9)
1992	40815	0.0634	2	73.4	0.0450	0.3780	0.0739		
1987	18346	0.1725	1	100.0	0.0000	0.4271	0.0551	57B	73. Semiconductors (3674)
1992	30125	0.2734	1	100.0	0.0000	0.6732	0.0715		
1987	15600	0.1219	3	54.6	0.0560	0.4864	0.0869	58C	74. Miscellaneous electrical equipment (3691, 3694, 3699)
1992	15238	0.1078	3	69.9	0.0750	0.4527	0.0728		
1987	134114	0.0729	1	100.0	0.0000	0.5103	0.1227	59A	75. Motor vehicles (passenger cars and trucks; 3711)
1992	150738	0.0463	1	100.0	0.0000	0.5156	0.1085		
1987	8244	0.1562	2	76.9	0.0530	0.4256	0.0601	59B	76. Truck and buses (3713, 3715)
1992	7881	0.0656	2	79.7	0.0380	0.2998	0.0633		
1987	60746	0.0974	1	100.0	0.0000	0.6109	0.1559	59C	77. Motor vehicle parts (3714)
1992	72385	0.0333	1	100.0	0.0000	0.5517	0.1259		
1987	82128	0.1157	3	84.2	0.0500	0.2451	0.0479	60	78. Aircraft (3721, 3724, 3764, 3728, 3769)
1992	101709	0.0828	3	77.8	0.0780	0.1433	0.0456		
1987	8720	0.0922	1	100.0	0.0000	0.3132	0.0636	61A	79. Ships (3731)
1992	10363	0.0980	1	100.0	0.0000	0.2408	0.0500		
1987	2682	0.1135	1	100.0	0.0000	0.5876	0.1299	61B	80. Railroad equipment (374)
1992	4790	0.1221	1	100.0	0.0000	0.5271	0.0825		
1987	12679	0.1241	5	57.2	0.0530	0.3673	0.0611	61C	81. Other transportation equipment (3716, 3732, 375, 3792, 3799)
1992	14847	0.1460	5	57.9	0.0800	0.4009	0.0557		
1987	38962	0.1529	2	69.8	0.0210	0.4196	0.0601	62A	82. Search and navigation equipment (381, 3822)
1992	36875	0.1458	2	72.1	0.0110	0.3992	0.0555		
1987	17023	0.2409	3	70.4	0.0100	0.7376	0.1341	62B	83. Dental and surgical equipment (3841-3)
1992	27856	0.2823	3	78.5	0.0760	0.8424	0.1685		
1987	28354	0.1889	6	70.5	0.0580	0.3948	0.0461	62C	84. Other instruments (3821, 3823-7, 3829, 3844-5)
1992	40031	0.1833	6	68.2	0.0560	0.4370	0.0519		
1987	2665	0.1964	2	74.5	0.0140	0.4542	0.0523	62D-63A	85. Watches and ophthalmic goods (385, 387)
1992	3133	0.1740	2	74.7	0.0780	0.5222	0.0661		

Table 3, cont.

YR	Output		N	SD			EO	EC	ID	Sequence, Name (SIC codes)
	(mil \$)	PCM		SE	PCM	EO				
1987	18186	0.3669	1	100.0	0.0000	0.7060	0.0561	63B	86. Photographic equipment (386)	
1992	21725	0.4099	1	100.0	0.0000	0.7898	0.0713			
1987	8137	0.2137	4	67.1	0.0630	0.5108	0.0571	64A	87. Jewelry (3911, 3914-5, 3961)	
1992	9106	0.1244	4	72.8	0.0910	0.4376	0.0658			
1987	9244	0.2621	4	65.0	0.0410	0.5653	0.0529	64B	88. Toys and games (393, 3942, 3944, 3949)	
1992	12446	0.1369	4	74.3	0.0290	0.5437	0.0813			
1987	15708	0.1874	10	50.6	0.0540	0.4496	0.0542	64C	89. Miscellaneous manufacturing (3951-3, 3955, 3965, 3991, 3993, 3995-6, 3999)	
1992	19763	0.1434	10	50.6	0.0790	0.4454	0.0620			
<b>Distribution and Services</b>										
1987	43458	0.1849	2	70.8	0.0250	0.4844	0.0611	65A	90. Railroads and related services (40,41, 474)	
1992	55754	0.1961	2	70.8	0.0150	0.4952	0.0565			
1987	116095	0.2069	1	100.0	0.0000	0.4766	0.0529	65B	91. Motor freight transportation and warehousing (421-3)	
1992	166953	0.1667	2	74.3	0.0750	0.4117	0.0524			
1987	24053	0.0796	1	100.0	0.0000	0.2419	0.0579	65C	92. Water transportation (44)	
1992	32440	0.1744	1	100.0	0.0000	0.4557	0.0560			
1987	76253	0.1570	1	100.0	0.0000	0.4675	0.0676	65D	93. Air transportation (45)	
1992	94141	0.0999	1	100.0	0.0000	0.4336	0.0718			
1987	18020	0.1480	2	79.6	0.0100	0.5687	0.1000	65E	94. Freight forwarders and travel agents (472-3, 478)	
1992	26301	0.1736	2	79.6	0.1090	0.6549	0.0995			
1987	7888	0.5955	1	100.0	0.0000	0.9684	0.4367	65F	95. Pipelines (except nat. gas; 46)	
1992	7315	0.5944	1	100.0	0.0000	0.9779	0.4015			
1987	161127	0.3611	1	100.0	0.0000	0.7320	0.0672	66	96. Communication (except radio & TV; 481-2, 484, 489)	
1992	208094	0.3681	2	75.0	0.0390	0.7674	0.0744			
1987	29396	0.1216	1	100.0	0.0000	0.7283	0.2433	67	97. Radio and TV broadcasting (483)	
1992	29359	0.1161	1	100.0	0.0000	0.8531	0.3564			
1987	132372	0.5005	1	100.0	0.0000	0.8115	0.0548	68A	98. Electric services (utilities; 491, 4931)	
1992	170896	0.5192	1	100.0	0.0000	0.8344	0.0615			
1987	67548	0.2620	1	100.0	0.0000	0.8051	0.1916	68B	99. Gas production and distribution (utilities; 4922-5, 4932, 4939)	
1992	93157	0.1775	2	71.2	0.1520	0.8772	0.3450			
1987	11262	0.0244	2	83.6	0.0010	0.0000	0.0496	68C	100. Water and sanitary services (494, 4952-3, 4959, 496-7)	
1992	19182	0.2328	2	83.6	0.0580	0.6275	0.0714			
1987	423750	0.2909	1	100.0	0.0000	0.5513	0.0429	69A	101. Wholesale trade(50, 51)	
1992	568970	0.2963	1	100.0	0.0000	0.5361	0.0421			
1987	420694	0.2506	1	100.0	0.0000	0.6963	0.1006	69B	102. Retail trade(52-7, 59)	
1992	522519	0.2742	1	100.0	0.0000	0.7817	0.1171			
1987	286612	0.1226	3	69.5	0.3460	0.4196	0.0708	70A	103. Finance (60, 61, 62, 67, excluding 6732)	
1992	416272	0.2515	3	71.8	0.1810	0.6822	0.0807			
1987	123974	0.0546	1	100.0	0.0000	0.6652	0.2509	70B	104. Insurance carriers (63)	
1992	168993	-0.0276	1	100.0	0.0000	0.7242	0.2630			
1987	48876	0.3544	1	100.0	0.0000	0.9240	0.4886	70C	105. Insurance agents (64)	
1992	62104	0.2677	1	100.0	0.0000	0.9287	0.4510			
1987	325144	0.8582	1	100.0	0.0000	0.9816	0.1961	71A	106. Owner-occupied dwellings (—)	
1992	457250	0.8722	1	100.0	0.0000	0.9863	0.1953			
1987	347225	0.6340	1	100.0	0.0000	0.8977	0.0680	71B	107. Real estate agents (65, excluding 6552)	
1992	494402	0.6233	1	100.0	0.0000	0.8986	0.0727			
1987	33050	1.0000	1	100.0	0.0000	1.0000	0.5109	71C	108. Royalties (—)	
1992	55711	1.0000	1	100.0	0.0000	1.0000	0.3543			
1987	56358	0.2317	1	100.0	0.0000	0.5735	0.0644	72A	109. Hotels and lodging places (701-4)	
1992	59602	0.2075	2	70.2	0.0320	0.6272	0.0789			
1987	50942	0.2226	6	56.5	0.1220	0.5606	0.0645	72B	110. Personal and repair services (except auto; 721-6, 729, 762-4)	
1992	91772	0.2573	6	56.5	0.0740	0.6836	0.0793			
1987	60822	0.1698	1	100.0	0.0000	0.5404	0.0801	73A	111. Computer and data processing services (737)	
1992	115730	0.1895	1	100.0	0.0000	0.6171	0.0820			
1987	76890	0.2124	1	100.0	0.0000	0.6501	0.0986	73B	112. Legal services (81)	
1992	116396	0.2603	1	100.0	0.0000	0.7160	0.0896			
1987	60154	0.0932	1	100.0	0.0000	0.6262	0.1702	73C	113. Engineering services (871)	
1992	84850	0.1318	1	100.0	0.0000	0.6981	0.1389			
1987	105355	0.0651	2	76.2	0.0300	0.2740	0.0673	73D	114. Management consulting (872, 874, 89)	
1992	131009	0.2052	2	83.7	0.0230	0.6380	0.0826			
1987	143416	0.2749	6	71.6	0.1260	0.6449	0.0685	73E	115. General business services (7331, 732, 7334, 7338, 734-6, 7381-3, 7389, 769)	
1992	220808	0.3449	6	71.3	0.1480	0.7489	0.0744	73F	116. Photographic services (7335-6, 7384)	
1987	12844	0.2909	1	100.0	0.0000	0.7073	0.0856			
1992	15728	0.3982	1	100.0	0.0000	0.8548	0.1169			
1987	-9	-9.0000	0	-9.0	-9.0000	-9.0000	-9.0000	73G	117. R & D services (8731-2, 8734)	
1992	28015	0.0956	1	100.0	0.0000	0.5004	0.0856			
1987	15884	0.2228	1	100.0	0.0000	0.5923	0.0728	73H	118. Advertising (731)	
1992	29865	0.2496	1	100.0	0.0000	0.6951	0.0856			
1987	209394	0.1284	1	100.0	0.0000	0.4721	0.0801	74	119. Eating and drinking places (58)	
1992	280708	0.1404	1	100.0	0.0000	0.5446	0.0803			
1987	130704	0.2555	3	69.2	0.0900	0.6219	0.0687	75	120. Automotive repair and services (751-3, 7542, 7549)	
1992	138381	0.2451	3	68.2	0.0780	0.6492	0.0732			
1987	78192	0.1642	8	61.6	0.2210	0.5837	0.0969	76	121. Amusements (781-4, 791-3, 7941, 7948, 7991-3, 7996-7, 7999)	
1992	121368	0.2249	8	62.4	0.0940	0.7219	0.1059			
1987	338511	0.1201	4	78.9	0.0790	0.4763	0.0849	77A	122. Health services (074, 801-3, 8041-3, 8049, 805-6, 807-9)	
1992	564986	0.1427	6	78.9	0.0840	0.5990	0.0933			
1987	152678	0.0294	11	72.1	0.0950	0.3103	0.0889	77B	123. Educational and social services (6732, 821-4, 829, 832-3, 835-6, 839, 84, 861-6, 869, 8733)	
1992	228332	0.0420	11	72.1	0.0850	0.5388	0.1172			

**TABLE 4. STRUCTURAL EQUIVALENCE  
WITHIN PRINTING AND PUBLISHING**

	1992	1987
<b>Prior Aggregation</b>		
26. Printing & Publishing (12)	46.2%	50.2%
<b>Current Aggregation</b>		
26A. Newspapers & Periodicals (2)	89.0%	76.4%
26B. Other Printing and Publishing (10)	46.9%	50.4%
<b>Proposed Aggregation</b>		
26A. Publishing (5)	59.2%	61.7%
26B. Printing (7)	55.9%	54.4%

NOTE — These are transaction variances described by the first principal component for product categories combined in the same industry. Parentheses contain number of 1992 product categories aggregated in industry.

**TABLE 5. STRUCTURAL EQUIVALENCE  
RESULTS FOR THE ALTERNATIVE AGGREGATIONS**

Number of Products in Industry	Prior Aggregation		Current Aggregation		Proposed Aggregation	
	Industries	Mean SE (%)	Industries	Mean SE (%)	Industries	Mean SE (%)
1	13	100.0	32	100.0	67	100.0
2	13	75.4	22	70.2	38	77.3
3	12	71.1	18	68.8	30	74.6
4	19	66.1	19	67.1	23	71.1
5	11	56.9	8	57.7	12	65.2
6	14	59.5	15	61.0	13	61.9
7-8	19	59.4	14	57.0	22	63.9
9 or more	29	53.9	30	54.9	22	60.0
All Industries	130	65.7	158	70.1	227	78.4

NOTE — These are percentages of transaction variance described by the first principal component for product categories combined in the same industry. Results are averaged across 1987 and 1992.