

**THE 1997 BENCHMARK VERSION OF THE ECONOMIC INPUT-OUTPUT LIFE CYCLE
ASSESSMENT (EIO-LCA) MODEL**

VOLUME II: APPENDICES

**BY GYORGYI CICAS, H. SCOTT MATTHEWS AND CHRIS HENDRICKSON,
GREEN DESIGN INSTITUTE, CARNEGIE MELLON UNIVERSITY.**

DECEMBER 2005

This Volume II contains four appendices to the main report:

1. Sector Mappings – pg. 2
2. 1997 Input-Output Sector Outputs – pg. 35
3. Conventional Air Emissions – pg. 47
4. Conventional air emission adjustments – pg. 50

Appendix I: The IO 1992 to SIC, SIC to NAICS and NAICS to IO 1997 Mappings

Table 1: The IO 1992 – SIC bridge

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
10100	0.25	0191	20202	0.090909	0191	20600	0.166667	0119
10100	0.25	0241	20202	0.090909	0219	20600	0.166667	0139
10100	0.25	0259	20202	0.090909	0259	20600	0.166667	0219
10100	0.25	0291	20202	0.090909	0291	20600	0.166667	0259
10200	0.142857	0191	20203	0.2	0139	20600	0.166667	0291
10200	0.142857	0219	20203	0.2	0191	20701	0.142857	0180
10200	0.142857	0251	20203	0.2	0219	20701	0.142857	0181
10200	0.142857	0252	20203	0.2	0259	20701	0.142857	0182
10200	0.142857	0253	20203	0.2	0291	20701	0.142857	0191
10200	0.142857	0259	20300	0.2	0132	20701	0.142857	0219
10200	0.142857	0291	20300	0.2	0191	20701	0.142857	0259
10301	0.125	0191	20300	0.2	0219	20701	0.142857	0291
10301	0.125	0211	20300	0.2	0259	20702	0.142857	0180
10301	0.125	0212	20300	0.2	0291	20702	0.142857	0181
10301	0.125	0213	20401	0.111111	0171	20702	0.142857	0182
10301	0.125	0214	20401	0.111111	0172	20702	0.142857	0191
10301	0.125	0219	20401	0.111111	0174	20702	0.142857	0219
10301	0.125	0259	20401	0.111111	0175	20702	0.142857	0259
10301	0.125	0291	20401	0.111111	0179	20702	0.142857	0291
10302	0.125	0191	20401	0.111111	0191	30001	0.333333	0811
10302	0.125	0219	20401	0.111111	0219	30001	0.333333	0831
10302	0.125	0259	20401	0.111111	0259	30001	0.333333	0971
10302	0.125	0271	20401	0.111111	0291	30002	0.25	0910
10302	0.125	0272	20402	0.166667	0173	30002	0.25	0912
10302	0.125	0273	20402	0.166667	0179	30002	0.25	0913
10302	0.125	0279	20402	0.166667	0191	30002	0.25	0919
10302	0.125	0291	20402	0.166667	0219	40001	0.0625	0254
20100	0.2	0131	20402	0.166667	0259	40001	0.0625	0279
20100	0.2	0191	20402	0.166667	0291	40001	0.0625	0711
20100	0.2	0219	20501	0.125	0119	40001	0.0625	0720
20100	0.2	0259	20501	0.125	0134	40001	0.0625	0721
20100	0.2	0291	20501	0.125	0139	40001	0.0625	0722
20201	0.1	0110	20501	0.125	0161	40001	0.0625	0723
20201	0.1	0111	20501	0.125	0191	40001	0.0625	0724
20201	0.1	0112	20501	0.125	0219	40001	0.0625	0750
20201	0.1	0115	20501	0.125	0259	40001	0.0625	0751
20201	0.1	0116	20501	0.125	0291	40001	0.0625	0752
20201	0.1	0119	20502	0.2	0133	40001	0.0625	0760
20201	0.1	0191	20502	0.2	0191	40001	0.0625	0761
20201	0.1	0219	20502	0.2	0219	40001	0.0625	0762
20201	0.1	0259	20502	0.2	0259	40001	0.0625	0851
20201	0.1	0291	20502	0.2	0291	40001	0.0625	0921
20202	0.090909	0110	20503	0.166667	0119	40002	0.25	0780
20202	0.090909	0111	20503	0.166667	0139	40002	0.25	0781

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
20202	0.090909	0112	20503	0.166667	0191	40002	0.25	0782
20202	0.090909	0115	20503	0.166667	0219	40002	0.25	0783
20202	0.090909	0116	20503	0.166667	0259	50001	0.333333	1011
20202	0.090909	0119	20503	0.166667	0291	50001	0.333333	1061
20202	0.090909	0139	20600	0.166667	0116	50001	0.333333	1099
60100	1	1021	110101	0.04	1752	110105	0.041667	1752
60200	0.166667	1031	110101	0.04	1761	110105	0.041667	1761
60200	0.166667	1040	110101	0.04	1771	110105	0.041667	1771
60200	0.166667	1041	110101	0.04	1781	110105	0.041667	1781
60200	0.166667	1044	110101	0.04	1791	110105	0.041667	1791
60200	0.166667	1081	110101	0.04	1793	110105	0.041667	1793
60200	0.166667	1094	110101	0.04	1794	110105	0.041667	1794
70000	0.2	1220	110101	0.04	1795	110105	0.041667	1795
70000	0.2	1221	110101	0.04	1796	110105	0.041667	1796
70000	0.2	1222	110101	0.04	1799	110105	0.041667	1799
70000	0.2	1231	110101	0.04	6552	110108	0.04	1500
70000	0.2	1241	110102	0.041667	1500	110108	0.04	1521
80001	0.166667	1311	110102	0.041667	1521	110108	0.04	1522
80001	0.166667	1321	110102	0.041667	1522	110108	0.04	1531
80001	0.166667	1380	110102	0.041667	1531	110108	0.04	1541
80001	0.166667	1381	110102	0.041667	1541	110108	0.04	1542
80001	0.166667	1382	110102	0.041667	1542	110108	0.04	1700
80001	0.166667	1389	110102	0.041667	1700	110108	0.04	1711
90001	0.2	1411	110102	0.041667	1711	110108	0.04	1721
90001	0.2	1420	110102	0.041667	1721	110108	0.04	1731
90001	0.2	1422	110102	0.041667	1731	110108	0.04	1741
90001	0.2	1423	110102	0.041667	1741	110108	0.04	1742
90001	0.2	1429	110102	0.041667	1742	110108	0.04	1743
90002	0.333333	1440	110102	0.041667	1743	110108	0.04	1751
90002	0.333333	1442	110102	0.041667	1751	110108	0.04	1752
90002	0.333333	1446	110102	0.041667	1752	110108	0.04	1761
90003	0.333333	1450	110102	0.041667	1761	110108	0.04	1771
90003	0.333333	1455	110102	0.041667	1771	110108	0.04	1781
90003	0.333333	1459	110102	0.041667	1781	110108	0.04	1791
90004	0.5	1481	110102	0.041667	1791	110108	0.04	1793
90004	0.5	1499	110102	0.041667	1793	110108	0.04	1794
100000	0.25	1470	110102	0.041667	1794	110108	0.04	1795
100000	0.25	1474	110102	0.041667	1795	110108	0.04	1796
100000	0.25	1475	110102	0.041667	1796	110108	0.04	1799
100000	0.25	1479	110102	0.041667	1799	110108	0.04	6552
110101	0.04	1500	110105	0.041667	1500	110400	0.043478	1600
110101	0.04	1521	110105	0.041667	1521	110400	0.043478	1611
110101	0.04	1522	110105	0.041667	1522	110400	0.043478	1622
110101	0.04	1531	110105	0.041667	1531	110400	0.043478	1623
110101	0.04	1541	110105	0.041667	1541	110400	0.043478	1629
110101	0.04	1542	110105	0.041667	1542	110400	0.043478	1700
110101	0.04	1700	110105	0.041667	1700	110400	0.043478	1711
110101	0.04	1711	110105	0.041667	1711	110400	0.043478	1721
110101	0.04	1721	110105	0.041667	1721	110400	0.043478	1731

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
110101	0.04	1731	110105	0.041667	1731	110400	0.043478	1741
110101	0.04	1741	110105	0.041667	1741	110400	0.043478	1742
110101	0.04	1742	110105	0.041667	1742	110400	0.043478	1743
110101	0.04	1743	110105	0.041667	1743	110400	0.043478	1751
110101	0.04	1751	110105	0.041667	1751	110400	0.043478	1752
110400	0.043478	1761	110800	0.041667	1522	110900	0.034483	1796
110400	0.043478	1771	110800	0.041667	1531	110900	0.034483	1799
110400	0.043478	1781	110800	0.041667	1541	120101	0.041667	1500
110400	0.043478	1791	110800	0.041667	1542	120101	0.041667	1521
110400	0.043478	1793	110800	0.041667	1700	120101	0.041667	1522
110400	0.043478	1794	110800	0.041667	1711	120101	0.041667	1531
110400	0.043478	1795	110800	0.041667	1721	120101	0.041667	1541
110400	0.043478	1796	110800	0.041667	1731	120101	0.041667	1542
110400	0.043478	1799	110800	0.041667	1741	120101	0.041667	1700
110501	0.041667	1500	110800	0.041667	1742	120101	0.041667	1711
110501	0.041667	1521	110800	0.041667	1743	120101	0.041667	1721
110501	0.041667	1522	110800	0.041667	1751	120101	0.041667	1731
110501	0.041667	1531	110800	0.041667	1752	120101	0.041667	1741
110501	0.041667	1541	110800	0.041667	1761	120101	0.041667	1742
110501	0.041667	1542	110800	0.041667	1771	120101	0.041667	1743
110501	0.041667	1700	110800	0.041667	1781	120101	0.041667	1751
110501	0.041667	1711	110800	0.041667	1791	120101	0.041667	1752
110501	0.041667	1721	110800	0.041667	1793	120101	0.041667	1761
110501	0.041667	1731	110800	0.041667	1794	120101	0.041667	1771
110501	0.041667	1741	110800	0.041667	1795	120101	0.041667	1781
110501	0.041667	1742	110800	0.041667	1796	120101	0.041667	1791
110501	0.041667	1743	110800	0.041667	1799	120101	0.041667	1793
110501	0.041667	1751	110900	0.034483	1500	120101	0.041667	1794
110501	0.041667	1752	110900	0.034483	1521	120101	0.041667	1795
110501	0.041667	1761	110900	0.034483	1522	120101	0.041667	1796
110501	0.041667	1771	110900	0.034483	1531	120101	0.041667	1799
110501	0.041667	1781	110900	0.034483	1541	120214	0.043478	1600
110501	0.041667	1791	110900	0.034483	1542	120214	0.043478	1611
110501	0.041667	1793	110900	0.034483	1600	120214	0.043478	1622
110501	0.041667	1794	110900	0.034483	1611	120214	0.043478	1623
110501	0.041667	1795	110900	0.034483	1622	120214	0.043478	1629
110501	0.041667	1796	110900	0.034483	1623	120214	0.043478	1700
110501	0.041667	1799	110900	0.034483	1629	120214	0.043478	1711
110601	0.25	1380	110900	0.034483	1700	120214	0.043478	1721
110601	0.25	1381	110900	0.034483	1711	120214	0.043478	1731
110601	0.25	1382	110900	0.034483	1721	120214	0.043478	1741
110601	0.25	1389	110900	0.034483	1731	120214	0.043478	1742
110602	0.142857	1081	110900	0.034483	1741	120214	0.043478	1743
110602	0.142857	1241	110900	0.034483	1742	120214	0.043478	1751
110602	0.142857	1380	110900	0.034483	1743	120214	0.043478	1752
110602	0.142857	1381	110900	0.034483	1751	120214	0.043478	1761
110602	0.142857	1382	110900	0.034483	1752	120214	0.043478	1771
110602	0.142857	1389	110900	0.034483	1761	120214	0.043478	1781
110602	0.142857	1481	110900	0.034483	1771	120214	0.043478	1791

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
110603	0.333333	1081	110900	0.034483	1781	120214	0.043478	1793
110603	0.333333	1241	110900	0.034483	1791	120214	0.043478	1794
110603	0.333333	1481	110900	0.034483	1793	120214	0.043478	1795
110800	0.041667	1500	110900	0.034483	1794	120214	0.043478	1796
110800	0.041667	1521	110900	0.034483	1795	120214	0.043478	1799
120215	0.25	1380	140900	1	2033	160300	0.333333	2269
120215	0.25	1381	141000	1	2034	160300	0.333333	2281
120215	0.25	1382	141100	1	2035	160300	0.333333	2282
120215	0.25	1389	141200	1	2092	160400	1	2284
120300	0.034483	1500	141301	1	2037	170100	1	2273
120300	0.034483	1521	141302	1	2038	170600	1	2295
120300	0.034483	1522	141401	1	2041	170700	1	2296
120300	0.034483	1531	141402	1	2043	170900	1	2298
120300	0.034483	1541	141403	1	2045	171001	1	2297
120300	0.034483	1542	141501	1	2047	171100	1	2299
120300	0.034483	1600	141502	1	2048	180101	1	2251
120300	0.034483	1611	141600	1	2044	180102	1	2252
120300	0.034483	1622	141700	1	2046	180201	1	2253
120300	0.034483	1623	141801	1	2051	180202	1	2254
120300	0.034483	1629	141802	1	2052	180203	1	2259
120300	0.034483	1700	141803	1	2053	180300	0.5	2257
120300	0.034483	1711	141900	0.333333	2061	180300	0.5	2258
120300	0.034483	1721	141900	0.333333	2062	180400	0.043478	2311
120300	0.034483	1731	141900	0.333333	2063	180400	0.043478	2321
120300	0.034483	1741	142002	1	2066	180400	0.043478	2322
120300	0.034483	1742	142004	1	2068	180400	0.043478	2323
120300	0.034483	1743	142005	0.5	2064	180400	0.043478	2325
120300	0.034483	1751	142005	0.5	2067	180400	0.043478	2326
120300	0.034483	1752	142101	1	2082	180400	0.043478	2329
120300	0.034483	1761	142102	1	2083	180400	0.043478	2331
120300	0.034483	1771	142103	1	2084	180400	0.043478	2335
120300	0.034483	1781	142104	1	2085	180400	0.043478	2337
120300	0.034483	1791	142200	1	2086	180400	0.043478	2339
120300	0.034483	1793	142300	1	2087	180400	0.043478	2341
120300	0.034483	1794	142400	1	2074	180400	0.043478	2342
120300	0.034483	1795	142500	1	2075	180400	0.043478	2353
120300	0.034483	1796	142600	1	2076	180400	0.043478	2361
120300	0.034483	1799	142700	1	2077	180400	0.043478	2369
130100	1	3761	142800	1	2095	180400	0.043478	2371
130200	1	3483	142900	1	2079	180400	0.043478	2381
130300	1	3795	143000	1	2097	180400	0.043478	2384
130500	1	3484	143100	1	2098	180400	0.043478	2385
130600	1	3482	143201	1	2096	180400	0.043478	2386
130700	1	3489	143202	1	2099	180400	0.043478	2387
140101	1	2011	150101	1	2111	180400	0.043478	2389
140102	1	2013	150102	1	2121	190100	1	2391
140105	1	2015	150103	1	2131	190200	1	2392
140200	1	2021	150200	1	2141	190301	1	2393
140300	1	2022	160100	0.2	2211	190302	1	2394

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
140400	1	2023	160100	0.2	2221	190303	1	2395
140500	1	2024	160100	0.2	2231	190304	1	2396
140600	1	2026	160100	0.2	2261	190305	1	2397
140700	1	2091	160100	0.2	2262	190306	1	2399
140800	1	2032	160200	1	2241	200100	1	2411
200200	1	2421	260301	1	2731	320100	1	3011
200300	1	2426	260302	1	2732	320200	1	3021
200400	1	2429	260400	1	2741	320300	0.333333	3060
200501	1	2431	260501	0.25	2750	320300	0.333333	3061
200502	1	2434	260501	0.25	2752	320300	0.333333	3069
200600	0.5	2435	260501	0.25	2754	320400	0.1	3080
200600	0.5	2436	260501	0.25	2759	320400	0.1	3081
200701	1	2439	260601	1	2761	320400	0.1	3082
200702	1	2452	260602	1	2782	320400	0.1	3083
200703	1	2451	260700	1	2771	320400	0.1	3084
200800	1	2491	260802	1	2789	320400	0.1	3085
200901	1	2448	260803	1	2791	320400	0.1	3086
200903	1	2499	260806	1	2796	320400	0.1	3087
200904	1	2493	270100	0.142857	2810	320400	0.1	3088
210000	0.5	2441	270100	0.142857	2812	320400	0.1	3089
210000	0.5	2449	270100	0.142857	2813	320500	1	3052
220101	1	2511	270100	0.142857	2816	320600	1	3053
220102	1	2519	270100	0.142857	2819	330001	1	3111
220103	1	2517	270100	0.142857	2865	340100	1	3131
220200	1	2512	270100	0.142857	2869	340201	0.333333	3143
220300	1	2514	270201	0.5	2873	340201	0.333333	3144
220400	1	2515	270201	0.5	2874	340201	0.333333	3149
230100	1	2521	270202	1	2875	340202	1	3142
230200	1	2522	270300	1	2879	340301	1	3151
230300	1	2531	270401	1	2861	340302	1	3161
230400	1	2541	270402	1	2891	340303	1	3171
230500	1	2542	270403	1	2892	340304	1	3172
230600	1	2591	270404	1	2893	340305	1	3199
230700	1	2599	270405	1	2895	350100	0.333333	3211
240100	1	2611	270406	1	2899	350100	0.333333	3229
240400	1	2677	280100	1	2821	350100	0.333333	3231
240500	1	2676	280200	1	2822	350200	1	3221
240701	0.5	2671	280300	1	2823	360100	1	3241
240701	0.5	2672	280400	1	2824	360200	1	3251
240702	0.5	2673	290100	0.2	2830	360300	1	3253
240702	0.5	2674	290100	0.2	2833	360400	1	3255
240703	1	2675	290100	0.2	2834	360500	1	3259
240705	1	2678	290100	0.2	2835	360600	1	3261
240706	1	2679	290100	0.2	2836	360701	1	3262
240800	0.5	2621	290201	1	2841	360702	1	3263
240800	0.5	2631	290202	1	2842	360800	1	3264
250000	0.166667	2650	290203	1	2843	360900	1	3269
250000	0.166667	2652	290300	1	2844	361000	1	3271
250000	0.166667	2653	300000	1	2851	361100	1	3272

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
250000	0.166667	2655	310101	1	2911	361200	1	3273
250000	0.166667	2656	310102	1	2992	361300	1	3274
250000	0.166667	2657	310103	1	2999	361400	1	3275
260100	1	2711	310200	1	2951	361500	1	3281
260200	1	2721	310300	1	2952	361600	1	3291
361700	1	3292	410202	1	3466	490600	1	3567
361900	1	3295	410203	1	3469	490700	1	3569
362000	1	3296	420100	1	3421	490800	1	3565
362100	1	3297	420201	1	3423	500100	1	3592
362200	1	3299	420202	1	3425	500200	0.5	3593
370101	1	3312	420300	1	3429	500200	0.5	3594
370102	1	3313	420401	1	3471	500300	1	3596
370103	1	3315	420402	1	3479	500400	1	3599
370104	1	3316	420500	0.5	3495	510102	1	3578
370105	1	3317	420500	0.5	3496	510103	1	3571
370200	0.2	3320	420700	1	3493	510104	0.333333	3572
370200	0.2	3321	420800	0.25	3491	510104	0.333333	3575
370200	0.2	3322	420800	0.25	3492	510104	0.333333	3577
370200	0.2	3324	420800	0.25	3494	510400	1	3579
370200	0.2	3325	420800	0.25	3498	520100	1	3581
370300	1	3462	421000	1	3497	520200	1	3582
370401	1	3398	421100	1	3499	520300	1	3585
370402	1	3399	430100	1	3511	520400	1	3586
380100	1	3331	430200	1	3519	520500	1	3589
380400	1	3334	440001	1	3523	530200	1	3612
380501	1	3339	440002	1	3524	530300	1	3613
380700	1	3351	450100	1	3531	530400	1	3621
380800	0.333333	3353	450200	1	3532	530500	1	3625
380800	0.333333	3354	450300	1	3533	530700	1	3624
380800	0.333333	3355	460100	1	3534	530800	1	3629
380900	1	3356	460200	1	3535	540100	1	3631
381000	1	3357	460300	1	3536	540200	1	3632
381100	0.5	3363	460400	1	3537	540300	1	3633
381100	0.5	3365	470100	1	3541	540400	1	3634
381200	1	3366	470200	1	3542	540500	1	3635
381300	0.5	3364	470300	0.5	3544	540700	1	3639
381300	0.5	3369	470300	0.5	3545	550100	1	3641
381400	1	3463	470401	1	3546	550200	0.25	3645
390100	1	3411	470402	1	3547	550200	0.25	3646
390200	1	3412	470404	1	3548	550200	0.25	3647
400100	1	3431	470405	1	3543	550200	0.25	3648
400200	1	3432	470500	1	3549	550300	0.5	3643
400300	1	3433	480100	1	3556	550300	0.5	3644
400400	1	3441	480200	1	3552	560100	1	3651
400500	1	3442	480300	1	3553	560200	1	3652
400600	1	3443	480400	1	3554	560300	1	3661
400700	1	3444	480500	1	3555	560500	0.5	3663
400800	1	3446	480600	1	3559	560500	0.5	3669
400901	1	3448	490100	0.5	3561	570100	1	3671

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
400902	1	3449	490100	0.5	3563	570200	1	3674
410100	0.333333	3450	490200	1	3562	570300	0.166667	3672
410100	0.333333	3451	490300	1	3564	570300	0.166667	3675
410100	0.333333	3452	490500	0.5	3566	570300	0.166667	3676
410201	1	3465	490500	0.5	3568	570300	0.166667	3677
570300	0.166667	3678	640502	1	3952	650500	0.2	4581
570300	0.166667	3679	640503	1	3953	650600	0.25	4600
580100	1	3691	640504	1	3955	650600	0.25	4612
580200	1	3692	640700	1	3965	650600	0.25	4613
580400	1	3694	640800	1	3991	650600	0.25	4619
580600	1	3695	640900	1	3996	650701	0.25	4731
580700	1	3699	641000	1	3995	650701	0.25	4780
590100	1	3713	641100	1	3993	650701	0.25	4783
590200	1	3715	641200	1	3999	650701	0.25	4785
590301	1	3711	650100	0.25	4000	650702	0.25	4720
590302	1	3714	650100	0.25	4011	650702	0.25	4724
600100	1	3721	650100	0.25	4013	650702	0.25	4725
600200	0.5	3724	650100	0.25	4741	650702	0.25	4729
600200	0.5	3764	650200	0.111111	4100	660100	0.25	4812
600400	0.5	3728	650200	0.111111	4111	660100	0.25	4813
600400	0.5	3769	650200	0.111111	4119	660100	0.25	4822
610100	1	3731	650200	0.111111	4121	660100	0.25	4899
610200	1	3732	650200	0.111111	4131	660200	1	4841
610300	1	3743	650200	0.111111	4141	670000	0.5	4832
610500	1	3751	650200	0.111111	4142	670000	0.5	4833
610601	1	3792	650200	0.111111	4151	680100	0.5	4911
610603	1	3716	650200	0.111111	4173	680100	0.5	4931
610700	1	3799	650301	0.166667	4210	680201	0.5	4922
620101	1	3812	650301	0.166667	4212	680201	0.5	4923
620102	1	3821	650301	0.166667	4213	680202	0.2	4923
620200	0.333333	3823	650301	0.166667	4214	680202	0.2	4924
620200	0.333333	3824	650301	0.166667	4215	680202	0.2	4925
620200	0.333333	3829	650301	0.166667	4231	680202	0.2	4932
620300	1	3822	650302	0.2	4220	680202	0.2	4939
620400	1	3841	650302	0.2	4221	680301	0.5	4941
620500	1	3842	650302	0.2	4222	680301	0.5	4952
620600	1	3843	650302	0.2	4225	680302	0.25	4953
620700	1	3873	650302	0.2	4226	680302	0.25	4959
620800	1	3844	650400	0.083333	4400	680302	0.25	4961
620900	1	3845	650400	0.083333	4412	680302	0.25	4971
621000	0.5	3826	650400	0.083333	4424	690100	0.014085	5000
621000	0.5	3827	650400	0.083333	4432	690100	0.014085	5012
621100	1	3825	650400	0.083333	4449	690100	0.014085	5013
630200	1	3851	650400	0.083333	4481	690100	0.014085	5014
630300	1	3861	650400	0.083333	4482	690100	0.014085	5015
640101	1	3911	650400	0.083333	4489	690100	0.014085	5021
640102	1	3915	650400	0.083333	4491	690100	0.014085	5023
640104	1	3914	650400	0.083333	4492	690100	0.014085	5031
640105	1	3961	650400	0.083333	4493	690100	0.014085	5032

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
640200	1	3931	650400	0.083333	4499	690100	0.014085	5033
640301	1	3944	650500	0.2	4500	690100	0.014085	5039
640302	1	3942	650500	0.2	4512	690100	0.014085	5043
640400	1	3949	650500	0.2	4513	690100	0.014085	5044
640501	1	3951	650500	0.2	4522	690100	0.014085	5045
690100	0.014085	5046	690100	0.014085	5181	690200	0.014925	5735
690100	0.014085	5047	690100	0.014085	5182	690200	0.014925	5736
690100	0.014085	5048	690100	0.014085	5191	690200	0.014925	5900
690100	0.014085	5049	690100	0.014085	5192	690200	0.014925	5912
690100	0.014085	5051	690100	0.014085	5193	690200	0.014925	5921
690100	0.014085	5052	690100	0.014085	5194	690200	0.014925	5932
690100	0.014085	5063	690100	0.014085	5198	690200	0.014925	5941
690100	0.014085	5064	690100	0.014085	5199	690200	0.014925	5942
690100	0.014085	5065	690200	0.014925	5200	690200	0.014925	5943
690100	0.014085	5072	690200	0.014925	5211	690200	0.014925	5944
690100	0.014085	5074	690200	0.014925	5231	690200	0.014925	5945
690100	0.014085	5075	690200	0.014925	5251	690200	0.014925	5946
690100	0.014085	5078	690200	0.014925	5261	690200	0.014925	5947
690100	0.014085	5082	690200	0.014925	5271	690200	0.014925	5948
690100	0.014085	5083	690200	0.014925	5300	690200	0.014925	5949
690100	0.014085	5084	690200	0.014925	5311	690200	0.014925	5961
690100	0.014085	5085	690200	0.014925	5331	690200	0.014925	5962
690100	0.014085	5087	690200	0.014925	5399	690200	0.014925	5963
690100	0.014085	5088	690200	0.014925	5411	690200	0.014925	5983
690100	0.014085	5091	690200	0.014925	5421	690200	0.014925	5984
690100	0.014085	5092	690200	0.014925	5431	690200	0.014925	5989
690100	0.014085	5093	690200	0.014925	5441	690200	0.014925	5992
690100	0.014085	5094	690200	0.014925	5451	690200	0.014925	5993
690100	0.014085	5099	690200	0.014925	5499	690200	0.014925	5994
690100	0.014085	5100	690200	0.014925	5500	690200	0.014925	5995
690100	0.014085	5111	690200	0.014925	5511	690200	0.014925	5999
690100	0.014085	5112	690200	0.014925	5521	700100	0.071429	6000
690100	0.014085	5113	690200	0.014925	5531	700100	0.071429	6011
690100	0.014085	5122	690200	0.014925	5541	700100	0.071429	6019
690100	0.014085	5131	690200	0.014925	5551	700100	0.071429	6021
690100	0.014085	5136	690200	0.014925	5561	700100	0.071429	6022
690100	0.014085	5137	690200	0.014925	5571	700100	0.071429	6029
690100	0.014085	5139	690200	0.014925	5599	700100	0.071429	6035
690100	0.014085	5141	690200	0.014925	5600	700100	0.071429	6036
690100	0.014085	5142	690200	0.014925	5611	700100	0.071429	6061
690100	0.014085	5143	690200	0.014925	5621	700100	0.071429	6062
690100	0.014085	5144	690200	0.014925	5632	700100	0.071429	6081
690100	0.014085	5145	690200	0.014925	5641	700100	0.071429	6082
690100	0.014085	5146	690200	0.014925	5651	700100	0.071429	6091
690100	0.014085	5147	690200	0.014925	5661	700100	0.071429	6099
690100	0.014085	5148	690200	0.014925	5699	700200	0.058824	6100
690100	0.014085	5149	690200	0.014925	5700	700200	0.058824	6111
690100	0.014085	5153	690200	0.014925	5712	700200	0.058824	6141
690100	0.014085	5154	690200	0.014925	5713	700200	0.058824	6153

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
690100	0.014085	5159	690200	0.014925	5714	700200	0.058824	6159
690100	0.014085	5162	690200	0.014925	5719	700200	0.058824	6162
690100	0.014085	5169	690200	0.014925	5722	700200	0.058824	6163
690100	0.014085	5171	690200	0.014925	5731	700200	0.058824	6700
690100	0.014085	5172	690200	0.014925	5734	700200	0.058824	6712
700200	0.058824	6719	720203	0.333333	7221	730111	0.166667	8741
700200	0.058824	6722	720203	0.333333	7291	730111	0.166667	8742
700200	0.058824	6726	720203	0.333333	7299	730111	0.166667	8743
700200	0.058824	6733	720204	0.25	7620	730111	0.166667	8744
700200	0.058824	6792	720204	0.25	7622	730111	0.166667	8748
700200	0.058824	6794	720204	0.25	7623	730112	0.333333	8731
700200	0.058824	6798	720204	0.25	7629	730112	0.333333	8732
700200	0.058824	6799	720205	0.5	7631	730112	0.333333	8734
700300	0.166667	6200	720205	0.5	7641	730200	0.2	7310
700300	0.166667	6211	720300	0.5	7231	730200	0.2	7311
700300	0.166667	6221	720300	0.5	7241	730200	0.2	7312
700300	0.166667	6231	730101	0.25	7690	730200	0.2	7313
700300	0.166667	6282	730101	0.25	7692	730200	0.2	7319
700300	0.166667	6289	730101	0.25	7694	730301	1	8111
700400	0.111111	6300	730101	0.25	7699	730302	0.25	8710
700400	0.111111	6311	730102	0.333333	7340	730302	0.25	8711
700400	0.111111	6321	730102	0.333333	7342	730302	0.25	8712
700400	0.111111	6324	730102	0.333333	7349	730302	0.25	8713
700400	0.111111	6331	730103	0.333333	7360	730303	0.5	8721
700400	0.111111	6351	730103	0.333333	7361	730303	0.5	8999
700400	0.111111	6361	730103	0.333333	7363	740000	0.25	5461
700400	0.111111	6371	730104	0.1	7370	740000	0.25	5800
700400	0.111111	6399	730104	0.1	7371	740000	0.25	5812
700500	1	6411	730104	0.1	7372	740000	0.25	5813
710201	0.111111	6512	730104	0.1	7373	750001	0.2	7510
710201	0.111111	6513	730104	0.1	7374	750001	0.2	7513
710201	0.111111	6514	730104	0.1	7375	750001	0.2	7514
710201	0.111111	6515	730104	0.1	7376	750001	0.2	7515
710201	0.111111	6517	730104	0.1	7377	750001	0.2	7519
710201	0.111111	6519	730104	0.1	7378	750002	0.111111	7530
710201	0.111111	6531	730104	0.1	7379	750002	0.111111	7532
710201	0.111111	6541	730106	0.5	7381	750002	0.111111	7533
710201	0.111111	6553	730106	0.5	7382	750002	0.111111	7534
720101	1	7011	730107	0.25	7350	750002	0.111111	7536
720102	0.25	7021	730107	0.25	7352	750002	0.111111	7537
720102	0.25	7032	730107	0.25	7353	750002	0.111111	7538
720102	0.25	7033	730107	0.25	7359	750002	0.111111	7539
720102	0.25	7041	730108	0.333333	7335	750002	0.111111	7549
720201	0.1	7210	730108	0.333333	7336	750003	0.5	7521
720201	0.1	7211	730108	0.333333	7384	750003	0.5	7542
720201	0.1	7212	730109	0.125	7322	760101	0.142857	7800
720201	0.1	7213	730109	0.125	7323	760101	0.142857	7812
720201	0.1	7215	730109	0.125	7330	760101	0.142857	7819
720201	0.1	7216	730109	0.125	7331	760101	0.142857	7822

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
720201	0.1	7217	730109	0.125	7334	760101	0.142857	7829
720201	0.1	7218	730109	0.125	7338	760101	0.142857	7832
720201	0.1	7219	730109	0.125	7383	760101	0.142857	7833
720201	0.1	7251	730109	0.125	7389	760102	1	7841
720202	1	7261	730111	0.166667	8740	760201	0.5	7922
760201	0.5	7929	770504	0.142857	8400			
760202	1	7933	770504	0.142857	8412			
760203	1	7941	770504	0.142857	8422			
760204	1	7948	770504	0.142857	8651			
760205	0.5	7991	770504	0.142857	8699			
760205	0.5	7997	770504	0.142857	8733			
760206	0.2	7911	770600	1	8331			
760206	0.2	7992	770700	1	8351			
760206	0.2	7993	770800	1	8361			
760206	0.2	7996	770900	0.5	8322			
760206	0.2	7999	770900	0.5	8399			
770100	0.25	8011	780100	1	4311			
770100	0.25	8021						
770100	0.25	8031						
770100	0.25	8041						
770200	0.333333	8062						
770200	0.333333	8063						
770200	0.333333	8069						
770301	0.333333	8051						
770301	0.333333	8052						
770301	0.333333	8059						
770303	1	8082						
770304	0.333333	0740						
770304	0.333333	0741						
770304	0.333333	0742						
770305	0.125	8042						
770305	0.125	8043						
770305	0.125	8049						
770305	0.125	8071						
770305	0.125	8072						
770305	0.125	8092						
770305	0.125	8093						
770305	0.125	8099						
770401	1	8211						
770402	0.5	8221						
770402	0.5	8222						
770403	0.2	8231						
770403	0.2	8243						
770403	0.2	8244						
770403	0.2	8249						
770403	0.2	8299						
770501	0.5	8611						
770501	0.5	8621						
770502	0.5	8631						

IO 1992	Ratio	SIC	IO 1992	Ratio	SIC	IO 1992	Ratio	SIC
770502	0.5	8641						
770503	1	8661						
770504	0.142857	6732						

Table 2: The SIC – NAICS bridge

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
0111	1	111140	0271	1	112930	1081	0	541360
0112	1	111160	0272	1	112920	1094	1	212291
0115	1	111150	0273	1	112511	1099	1	212299
0116	1	111110	0273	0	112512	1221	1	212111
0119	0.072884	111120	0273	0	112519	1222	1	212112
0119	0.023322	111130	0279	1	112519	1231	1	212113
0119	0.903794	111150	0279	1	112910	1241	1	213113
0119	0	111191	0279	0	112990	1311	1	211111
0119	0	111199	0291	1	112990	1321	1	211112
0131	1	111920	0711	1	115112	1381	1	213111
0132	1	111910	0721	1	115112	1382	0.37	213112
0133	0.434211	111930	0722	1	115113	1382	0.63	541360
0133	0.565789	111991	0723	0.5	115114	1389	1	213112
0134	1	111211	0723	0.5	311119	1411	1	212311
0139	0.520251	111219	0724	1	115111	1422	1	212312
0139	0.437326	111940	0741	1	541940	1423	1	212313
0139	0.042423	111992	0742	1	541940	1429	1	212319
0139	0	111998	0751	0.5	115210	1442	1	212321
0161	1	111219	0751	0.5	311611	1446	1	212322
0171	0.795437	111333	0752	0.9	115210	1455	1	212324
0171	0.204563	111334	0752	0.1	812910	1459	1	212325
0172	1	111332	0761	1	115115	1474	1	212391
0173	1	111335	0762	1	115116	1475	1	212392
0174	0.731856	111310	0781	0.5	541320	1479	1	212393
0174	0.268144	111320	0781	0.5	541690	1481	0.96	213115
0175	1	111331	0782	1	561730	1481	0.04	541360
0175	0	111339	0783	1	561730	1499	0.3	212319
0179	1	111336	0811	0.5	111421	1499	0.97	212399
0179	0	111339	0811	0.5	113110	1521	1	233210
0181	1	111421	0831	1	111998	1522	0.69	233220
0181	0	111422	0831	1	113210	1522	0.31	233320
0182	1	111411	0851	1	115310	1531	0.93	233210
0182	0	111419	0912	1	114111	1531	0.03	233220
0191	1	111998	0913	1	114112	1531	0.01	233310
0211	1	112112	0919	0.5	111998	1531	0.03	233320
0212	1	112111	0919	0.5	114119	1541	0.86	233310
0213	1	112210	0921	0.5	112511	1541	0.14	233320
0214	1	112410	0921	0.5	112512	1542	1	233320
0214	0	112420	0971	1	114210	1611	1	234110
0219	1	112990	1011	1	212210	1622	1	234120
0241	0	112111	1021	1	212234	1623	0.74	234910
0241	1	112120	1031	1	212231	1623	0.26	234920
0251	1	112320	1041	1	212221	1629	0.25	234930
0252	1	112310	1044	1	212222	1629	0.75	234990
0253	1	112330	1061	1	212234	1711	1	235110
0254	1	112340	1061	0	212299	1721	1	235210
0259	1	112390	1081	1	213114	1731	1	235310

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
1741	1	235410	1742	1	235420	1743	0	235420
1743	1	235430	2051	1	311812	2099	0.01	311423
1751	1	235510	2052	0	311812	2099	0	311823
1752	1	235520	2052	0.94	311821	2099	0.08	311830
1761	1	235610	2052	0.06	311919	2099	0.05	311911
1771	0.03	235420	2053	1	311813	2099	0.06	311920
1771	0.97	235710	2061	1	311311	2099	0.02	311941
1781	1	235810	2062	1	311312	2099	0.21	311942
1791	1	235910	2063	1	311313	2099	0.19	311991
1793	1	235920	2064	0.61	311330	2099	0.38	311999
1794	1	235930	2064	0.39	311340	2111	1	312221
1795	1	235940	2066	1	311320	2121	1	312229
1796	1	235950	2066	0	311330	2131	1	312229
1799	0.01	235210	2067	1	311340	2141	0.94	312210
1799	0.01	235920	2068	1	311911	2141	0.06	312229
1799	0.9	235990	2074	1	311223	2211	1	313210
1799	0.08	562910	2074	0	311225	2221	1	313210
2011	1	311611	2075	0.94	311222	2231	0.92	313210
2013	1	311612	2075	0.06	311225	2231	0.06	313311
2013	0	311613	2076	0.88	311223	2231	0.02	313312
2015	0.95	311615	2076	0.12	311225	2241	1	313221
2015	0.05	311999	2077	0.33	311613	2251	0	313312
2021	1	311512	2077	0.33	311711	2251	1	315111
2022	1	311513	2077	0.33	311712	2252	0	313312
2023	1	311514	2079	0	311222	2252	0.01	315111
2024	1	311520	2079	0	311223	2252	0.99	315119
2026	1	311511	2079	1	311225	2253	0	313312
2026	0	311514	2082	0	311942	2253	1	315191
2032	1	311422	2082	1	312120	2253	0	315192
2032	1	311999	2083	1	311213	2254	0	313312
2033	1	311421	2084	1	312130	2254	1	315192
2034	0	311211	2085	0	312130	2257	0.63	313241
2034	1	311423	2085	1	312140	2257	0.37	313312
2034	0	311999	2086	0.98	312111	2258	0.78	313249
2035	0.21	311421	2086	0.02	312112	2258	0.22	313312
2035	0.79	311941	2087	0	311920	2259	0.2	313241
2037	1	311411	2087	0.33	311930	2259	0.2	313249
2038	1	311412	2087	0.33	311942	2259	0.2	313312
2041	1	311211	2087	0.33	311999	2259	0.2	315191
2043	1	311230	2091	1	311711	2259	0.2	315192
2043	0	311920	2092	1	311712	2261	1	313311
2044	1	311212	2095	1	311920	2262	1	313311
2045	1	311822	2096	1	311919	2269	1	313312
2046	1	311221	2097	1	312113	2273	1	314110
2046	0	311225	2098	1	311823	2281	1	313111
2047	1	311111	2099	0	111998	2282	1	313112
2048	1	311119	2099	0	311212	2284	0.5	313113
2295	1	313320	2298	1	314991	2299	0.142857	313210
2296	1	314992	2299	0.142857	313111	2299	0.142857	313221

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
2297	1	313230	2299	0.142857	313113	2299	0.142857	313230
2299	0.142857	313312		0.111111	315234	2399	0.11	336360
2299	0.142857	314999	2369	0.111111	315239	2411	1	113310
2311	0.14	315211	2369	0.111111	315291	2421	0.84	321113
2311	0.86	315222	2371	0	315211	2421	0.15	321912
2321	0	315211	2371	0	315212	2421	0	321918
2321	1	315223	2371	1	315292	2421	0.01	321999
2322	0.91	315211	2381	0	315211	2426	0	321113
2322	0.09	315221	2381	0	315212	2426	0.45	321912
2323	0	315211	2381	1	315992	2426	0.43	321918
2323	1	315993	2384	0.25	315211	2426	0.12	337215
2325	0.06	315211	2384	0.25	315212	2429	0.21	321113
2325	0.94	315224	2384	0.25	315221	2429	0	321912
2326	0.03	315211	2384	0.25	315231	2429	0.53	321920
2326	0.97	315225	2385	0.111111	315211	2429	0.26	321999
2329	0.13	315211	2385	0.111111	315212	2431	0.74	321911
2329	0.76	315228	2385	0.111111	315222	2431	0.26	321918
2329	0.11	315299	2385	0.111111	315228	2434	1	337110
2331	0.12	315212	2385	0.111111	315234	2435	1	321211
2331	0.88	315232	2385	0.111111	315239	2436	1	321212
2335	0.16	315212	2385	0.111111	315291	2439	0.28	321213
2335	0.84	315233	2385	0.111111	315299	2439	0.72	321214
2337	0.09	315212	2385	0.111111	315999	2441	1	321920
2337	0.91	315234	2386	0	315211	2448	1	321920
2339	0.18	315212	2386	0	315212	2449	1	321920
2339	0.81	315239	2386	1	315292	2451	1	321991
2339	0.02	315299	2387	0	315211	2452	1	321992
2339	0	315999	2387	0	315212	2491	1	321114
2341	0.2	315211	2387	1	315999	2493	1	321219
2341	0.2	315212	2389	0	315211	2499	0.01	321920
2341	0.2	315221	2389	0.03	315212	2499	0.73	321999
2341	0.2	315231	2389	0	315231	2499	0.02	333414
2341	0.2	315291	2389	0.82	315299	2499	0.24	339999
2342	0.03	315212	2389	0.15	315999	2511	1	337122
2342	0.97	315231	2391	1	314121	2511	0	337215
2353	0	315211	2392	0.95	314129	2512	1	337121
2353	0	315212	2392	0	314911	2514	0	337121
2353	1	315991	2392	0	314999	2514	1	337124
2361	0	315211	2392	0.05	339994	2514	0	337215
2361	0.2	315212	2393	1	314911	2515	0.04	337121
2361	0.2	315223	2394	1	314912	2515	0.96	337910
2361	0.2	315232	2395	0.87	314999	2517	1	337129
2361	0.2	315233	2395	0.04	315211	2519	1	337125
2361	0.2	315291	2395	0.09	315212	2521	1	337211
2369	0	315211	2396	0.04	314999	2522	1	337214
2369	0.111111	315212	2396	0.11	315999	2531	0.77	336360
2369	0.111111	315221	2396	0.38	323113	2531	0.22	337127
2369	0.111111	315222	2396	0.47	336360	2531	0.01	339942
2369	0.111111	315224	2397	1	313222	2541	0	337127

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
2369	0.111111	315228	2399	0.72	314999	2541	0.41	337212
2542	0	337127	2759	0.27	323119	2891	1	325520
2542	1	337215	2761	1	323116	2892	1	325920
2591	1	337920	2771	0.01	323110	2893	1	325910
2599	0.78	337127	2771	0	323111	2895	1	325182
2599	0.22	339111	2771	0	323112	2899	0.25	311942
2611	1	322110	2771	0	323113	2899	0.25	325199
2611	0	322121	2771	0.01	323119	2899	0.25	325510
2611	0	322122	2771	0.98	511191	2899	0.25	325998
2611	0	322130	2782	0.42	323116	2911	1	324110
2621	0.84	322121	2782	0.58	323118	2951	1	324121
2621	0.16	322122	2789	1	323121	2952	1	324122
2631	1	322130	2791	1	323122	2992	1	324191
2652	1	322213	2796	1	323122	2999	1	324199
2653	1	322211	2812	1	325181	3011	1	326211
2655	1	322214	2813	1	325120	3021	1	316211
2656	1	322215	2816	0.1	325131	3052	1	326220
2657	1	322212	2816	0.9	325182	3053	1	339991
2671	0.3	322221	2819	0.2	211112	3061	1	326291
2671	0.7	326112	2819	0.2	325131	3069	0.04	313320
2672	1	322222	2819	0.2	325188	3069	0	315299
2673	0.07	322223	2819	0.2	325998	3069	0	315999
2673	0.93	326111	2819	0.2	331311	3069	0.01	326192
2674	1	322224	2821	1	325211	3069	0.95	326299
2675	0.4	322226	2822	1	325212	3069	0	339113
2675	0.5	322231	2823	1	325221	3069	0	339920
2675	0.1	322299	2824	1	325222	3069	0	339932
2676	1	322291	2833	1	325411	3081	1	326113
2677	1	322232	2834	1	325412	3082	1	326121
2678	1	322233	2835	0.13	325412	3083	1	326130
2679	0	322211	2835	0.87	325413	3084	1	326122
2679	0.21	322222	2836	1	325414	3085	1	326160
2679	0.12	322231	2841	1	325611	3086	0.43	326140
2679	0.67	322299	2842	1	325612	3086	0.57	326150
2711	1	511110	2843	1	325613	3087	1	325991
2721	1	511120	2844	0.04	325611	3088	1	326191
2731	1	511130	2844	0.96	325620	3089	0	326121
2731	1	512230	2851	1	325510	3089	0.01	326122
2732	1	323117	2861	1	325191	3089	0.99	326199
2741	0	511120	2865	1	325110	3089	0	337215
2741	0	511130	2865	1	325132	3111	1	316110
2741	0.65	511140	2865	1	325192	3131	0.33	316999
2741	0.34	511199	2869	0.2	325110	3131	0.33	321999
2741	0.01	512230	2869	0.2	325120	3131	0.33	339993
2752	0.93	323110	2869	0.2	325188	3142	1	316212
2752	0.07	323114	2869	0.2	325193	3143	1	316213
2754	1	323111	2869	0.2	325199	3144	1	316214
2759	0.38	323112	2873	1	325311	3149	1	316219
2759	0.27	323113	2874	1	325312	3151	0	315211

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
2759	0.05	323114	2875	1	325314	3151	0	315212
3161	1	316991	3322	1	331511	3442	1	332321
3171	1	316992	3324	1	331512	3443	0.25	332313
3172	1	316993	3325	1	331513	3443	0.34	332410
3199	1	316999	3331	1	331411	3443	0.41	332420
3211	1	327211	3334	1	331312	3443	0	333414
3221	1	327213	3339	1	331419	3444	0.98	332322
3229	1	327212	3341	0.5	331314	3444	0.02	332439
3231	1	327215	3341	0.16	331423	3444	0	333414
3241	1	327310	3341	0.34	331492	3446	1	332323
3251	1	327121	3351	1	331421	3448	1	332311
3251	0	327331	3353	1	331315	3449	0.54	332114
3253	1	327122	3354	1	331316	3449	0.38	332312
3255	1	327124	3355	1	331319	3449	0.02	332321
3259	1	327123	3356	1	331491	3449	0.06	332323
3261	1	327111	3357	0.02	331319	3451	1	332721
3262	1	327112	3357	0.05	331422	3452	1	332722
3263	1	327112	3357	0.13	331491	3462	1	332111
3264	1	327113	3357	0.15	335921	3463	1	332112
3269	1	327112	3357	0.65	335929	3465	1	336370
3271	1	327331	3363	1	331521	3466	1	332115
3272	0.23	327332	3364	1	331522	3469	0.9	332116
3272	0.67	327390	3365	1	331524	3469	0.1	332214
3272	0.1	327999	3366	1	331525	3471	1	332813
3273	1	327320	3369	1	331528	3479	1	332812
3274	1	327410	3398	1	332811	3479	0	339911
3275	1	327420	3399	0	331221	3479	0	339912
3281	1	327991	3399	0.07	331314	3479	0	339914
3291	0.95	327910	3399	0.08	331423	3482	1	332992
3291	0.05	332999	3399	0.49	331492	3483	1	332993
3292	1	327999	3399	0.12	332618	3484	1	332994
3292	0	336340	3399	0.24	332813	3489	1	332995
3295	0	212324	3411	1	332431	3491	1	332911
3295	0	212325	3412	1	332439	3492	1	332912
3295	0	212393	3421	0	332211	3493	1	332611
3295	0	212399	3421	1	332212	3494	0.97	332919
3295	1	327992	3423	1	332212	3494	0.03	332999
3296	1	327993	3425	1	332213	3495	0.5	332612
3297	1	327125	3429	0.142857	332439	3495	0.5	334518
3299	0.22	327112	3429	0.142857	332510	3496	1	332618
3299	0.05	327420	3429	0.142857	332722	3496	0	333924
3299	0.73	327999	3429	0.142857	332919	3497	0.47	322225
3312	0.01	324199	3429	0.142857	332999	3497	0.53	332999
3312	0.99	331111	3429	0.142857	336399	3498	1	332996
3312	0	331221	3429	0.142857	337215	3499	0.142857	332117
3313	1	331112	3431	1	332998	3499	0.142857	332439
3315	0.93	331222	3432	0.97	332913	3499	0.142857	332510
3315	0.07	332618	3432	0	332919	3499	0.142857	332919
3316	1	331221	3432	0.03	332999	3499	0.142857	332999

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
3317	1	331210	3433	1	333414	3499	0.142857	336360
3499	0.142857	337215	3565	1	333993	3639	0.33	335228
3511	1	333611	3566	1	333612	3641	1	335110
3519	0.5	333618	3567	1	333994	3643	1	335931
3519	0.5	336399	3568	1	333613	3644	0	332212
3523	0.25	332212	3569	0	314999	3644	1	335932
3523	0.25	332323	3569	0	333414	3645	1	335121
3523	0.25	333111	3569	1	333999	3646	1	335122
3523	0.25	333922	3571	1	334111	3647	1	336321
3524	0.5	332212	3572	1	334112	3648	1	335129
3524	0.5	333112	3575	1	334113	3651	1	334310
3531	0.91	333120	3577	1	334119	3652	1	334612
3531	0.08	333923	3577	0	334418	3652	0	512220
3531	0.01	336510	3577	0	334613	3661	0.96	334210
3532	1	333131	3578	0	333311	3661	0.04	334418
3533	1	333132	3578	0.07	333313	3663	1	334220
3534	1	333921	3578	0.93	334119	3669	1	334290
3535	1	333922	3579	0.33	333313	3671	1	334411
3536	1	333923	3579	0.33	334518	3672	1	334412
3537	0.01	332439	3579	0.33	339942	3674	1	334413
3537	0.01	332999	3581	1	333311	3675	1	334414
3537	0.98	333924	3582	1	333312	3676	1	334415
3541	1	333512	3585	0.8	333415	3677	1	334416
3542	1	333513	3585	0.2	336391	3678	1	334417
3543	1	332997	3586	1	333913	3679	0.06	334220
3544	0.38	333511	3589	1	333319	3679	0	334310
3544	0.62	333514	3592	1	336311	3679	0.63	334418
3545	0.12	332212	3593	1	333995	3679	0.31	334419
3545	0.88	333515	3594	1	333996	3691	1	335911
3546	1	333991	3596	1	333997	3692	1	335912
3547	1	333516	3599	0.94	332710	3694	1	336322
3548	1	333992	3599	0.01	332999	3695	1	334613
3548	0	335311	3599	0.01	333319	3699	0.2	333319
3549	1	333518	3599	0.03	333999	3699	0.2	333618
3552	1	333292	3599	0	336399	3699	0.2	333992
3553	1	333210	3612	1	335311	3699	0.2	335129
3554	1	333291	3613	1	335313	3699	0.2	335999
3555	1	333293	3621	1	335312	3711	0.2	336111
3556	1	333294	3624	1	335991	3711	0.2	336112
3559	0.2	332410	3625	1	335314	3711	0.2	336120
3559	0	333111	3629	1	335999	3711	0.2	336211
3559	0.2	333220	3631	1	335221	3711	0.2	336992
3559	0.2	333295	3632	1	335222	3713	1	336211
3559	0.2	333298	3633	1	335224	3714	0	336211
3559	0.2	333319	3634	0.09	333414	3714	0.22	336312
3561	1	333911	3634	0.91	335211	3714	0.05	336322
3562	1	332991	3634	0	339999	3714	0.09	336330
3563	1	333912	3635	1	335212	3714	0.08	336340
3564	0.53	333411	3639	0.33	333298	3714	0.28	336350

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
3564	0.47	333412	3639	0.33	335212	3714	0.28	336399
3715	1	336212	3844	1	334517	4111	0.2	485119
3716	1	336213	3845	1	334510	4111	0.2	485999
3721	1	336411	3845	0	334517	4119	0.23	485320
3721	0	541710	3851	0	339113	4119	0.02	485410
3724	1	336412	3851	1	339115	4119	0.14	485991
3724	0	541710	3861	0.6	325992	4119	0.01	485999
3728	0	332912	3861	0.4	333315	4119	0.06	487110
3728	0	336411	3873	1	334518	4119	0.54	621910
3728	1	336413	3911	1	339911	4121	1	485310
3728	0	541710	3914	0.01	332211	4131	1	485210
3731	1	336611	3914	0	332999	4141	1	485510
3731	0	488390	3914	0.99	339912	4142	1	485510
3732	0.87	336612	3915	0	334518	4151	1	485410
3732	0.13	811490	3915	1	339913	4173	1	488490
3743	0	333911	3931	1	339992	4212	0.22	484110
3743	1	336510	3942	1	339931	4212	0.02	484210
3751	1	336991	3944	0.5	336991	4212	0.37	484220
3761	1	336414	3944	0.5	339932	4212	0.35	562111
3761	0	541710	3949	1	339920	4212	0.02	562112
3764	1	336415	3951	1	339941	4212	0.02	562119
3764	0	541710	3952	0	325998	4213	0.48	484121
3769	1	336419	3952	0.02	337127	4213	0.24	484122
3769	0	541710	3952	0.98	339942	4213	0.09	484210
3792	1	336214	3953	1	339943	4213	0.19	484230
3795	1	336992	3955	1	339944	4214	0.28	484110
3799	0.25	333924	3961	1	339914	4214	0.54	484210
3799	0.25	336214	3965	1	339993	4214	0.18	484220
3799	0.25	336399	3991	1	339994	4215	0.85	492110
3799	0.25	336999	3993	1	339950	4215	0.15	492210
3812	1	334511	3995	1	339995	4221	1	493130
3821	1	339111	3996	1	326192	4222	1	493120
3822	1	334512	3999	0.083333	316110	4225	0.68	493110
3823	1	334513	3999	0.083333	325998	4225	0.32	531130
3824	1	334514	3999	0.083333	326199	4226	0	493110
3825	1	334514	3999	0.083333	332211	4226	0	493120
3825	1	334515	3999	0.083333	332212	4226	1	493190
3826	1	334516	3999	0.083333	332999	4231	1	488490
3827	1	333314	3999	0.083333	333319	4311	1	491110
3829	0	334514	3999	0.083333	335121	4412	1	483111
3829	0	334518	3999	0.083333	335211	4424	1	483113
3829	0.99	334519	3999	0.083333	337127	4432	1	483113
3829	0.01	339112	3999	0.083333	339932	4449	1	483211
3841	0	332994	3999	0.083333	339999	4481	0.98	483112
3841	0	339111	4011	1	482111	4481	0.02	483114
3841	1	339112	4013	1	482112	4482	0.43	483114
3842	0.33	322291	4013	0	488210	4482	0.57	483212
3842	0.33	334510	4111	0.2	485111	4489	0.17	483212
3842	0.33	339113	4111	0.2	485112	4489	0.83	487210

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
3843	1	339114	4111	0.2	485113	4491	0.17	488310
4491	0.83	488320	4899	0.04	513322	5021	0.91	421210
4492	1	488330	4899	0.72	513340	5021	0.19	442110
4493	1	713930	4899	0.16	513390	5023	0.9	421220
4499	0	488310	4911	0.02	221111	5023	0.1	442210
4499	0.36	488330	4911	0.22	221112	5031	1	421310
4499	0.32	488390	4911	0.06	221113	5032	0.75	421320
4499	0.32	532411	4911	0.04	221119	5032	0.25	444190
4512	0.75	481111	4911	0	221121	5033	1	421330
4512	0.25	481112	4911	0.66	221122	5039	0.65	421390
4513	1	492110	4922	1	486210	5039	0.35	444190
4522	0.57	481211	4923	0	221210	5043	1	421410
4522	0.26	481212	4923	1	486210	5044	1	421420
4522	0.04	487990	4924	1	221210	5044	0	453210
4522	0.13	621910	4925	1	221210	5045	0.92	421430
4581	0.01	488111	4931	0.142857	221111	5045	0.18	443120
4581	0.35	488119	4931	0.142857	221112	5046	1	421440
4581	0.63	488190	4931	0.142857	221113	5047	0.98	421450
4581	0.01	561720	4931	0.142857	221119	5047	0.02	446199
4612	1	486110	4931	0.142857	221121	5048	1	421460
4613	1	486910	4931	0.142857	221122	5049	0.96	421490
4619	1	486990	4931	0.142857	221210	5049	0.04	453210
4724	1	561510	4932	1	221210	5051	1	421510
4725	1	561520	4939	0.142857	221111	5052	1	421520
4729	0.01	488999	4939	0.142857	221112	5063	0.79	421610
4729	0.99	561599	4939	0.142857	221113	5063	0.21	444190
4731	0.99	488510	4939	0.142857	221119	5064	1	421620
4731	0.01	541614	4939	0.142857	221121	5065	1	421690
4741	0	488210	4939	0.142857	221122	5072	1	421710
4741	1	532411	4939	0.142857	221210	5072	0	444130
4783	1	488991	4941	1	221310	5074	0.58	421720
4785	0.6	488390	4952	1	221320	5074	0.42	444190
4785	0.4	488490	4953	0.2	562211	5075	1	421730
4789	0.25	487110	4953	0.2	562212	5078	1	421740
4789	0.25	488210	4953	0.2	562213	5082	1	421810
4789	0.25	488999	4953	0.2	562219	5083	0.97	421820
4789	0.25	722310	4953	0.2	562920	5083	0.03	444210
4812	0.44	513321	4959	1	488119	5084	1	421830
4812	0.54	513322	4959	0.333333	561710	5085	0.11	421830
4812	0.02	513330	4959	0.333333	562910	5085	0.89	421840
4813	0.96	513310	4959	0.333333	562998	5087	0.99	421850
4813	0.03	513330	4961	1	221330	5087	0.01	446120
4813	0.01	513340	4971	1	221310	5088	1	421860
4822	1	513310	5012	1	421110	5091	1	421910
4832	0.08	513111	5013	0.79	421120	5092	1	421920
4832	0.92	513112	5013	0.21	441310	5093	1	421930
4833	1	513120	5014	0.72	421130	5094	1	421940
4841	0.23	513210	5014	0.28	441320	5099	1	421990
4841	0.77	513220	5015	1	421140	5111	1	422110

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
4899	0.08	485310	5015	0	441310	5112	0.66	422120
5112	0.34	453210	5331	1	452990	5714	0	314129
5113	1	422130	5399	0.5	452910	5714	0.5	442291
5122	1	422210	5399	0.5	452990	5714	0.14	451130
5131	0.03	313311	5411	0.88	445110	5719	0.04	442291
5131	0.03	313312	5411	0.04	445120	5719	0.96	442299
5131	0.94	422310	5411	0.07	447110	5722	1	443111
5136	1	422320	5411	0.01	452910	5731	0.03	441310
5137	1	422330	5421	0.73	445210	5731	0.97	443112
5139	1	422340	5421	0.21	445220	5734	1	443120
5141	1	422410	5421	0.06	454390	5735	1	451220
5142	1	422420	5431	1	445230	5736	1	451140
5143	1	422430	5441	0.13	311330	5812	0.142857	711110
5144	1	422440	5441	0.06	311340	5812	0.142857	722110
5145	1	422450	5441	0.81	445292	5812	0.142857	722211
5146	1	422460	5451	1	445299	5812	0.142857	722212
5147	0.03	311612	5461	0.35	311811	5812	0.142857	722213
5147	0.97	422470	5461	0.16	445291	5812	0.142857	722310
5148	1	422480	5461	0.49	722213	5812	0.142857	722320
5149	0	312112	5499	0	445210	5813	1	722410
5149	1	422490	5499	0.19	445299	5912	1	446110
5153	1	422510	5499	0.81	446191	5921	1	445310
5154	1	422520	5511	1	441110	5932	0.7	453310
5159	1	422590	5521	1	441120	5932	0.3	522298
5162	1	422610	5531	0.58	441310	5941	1	451110
5169	1	422690	5531	0.38	441320	5942	1	451211
5171	0.97	422710	5531	0.04	452990	5943	1	453210
5171	0.01	454311	5541	0.59	447110	5944	1	448310
5171	0.02	454312	5541	0.41	447190	5945	1	451120
5172	1	422720	5551	1	441222	5946	1	443130
5181	1	422810	5561	1	441210	5947	1	453220
5182	1	422820	5571	1	441221	5948	1	448320
5191	0.72	422910	5599	1	441229	5949	1	451130
5191	0.28	444220	5611	1	448110	5961	1	454110
5192	1	422920	5611	0	448150	5962	1	454210
5193	0.88	422930	5621	1	448120	5963	0.94	454390
5193	0.12	444220	5632	0.36	448150	5963	0.06	722330
5194	1	422940	5632	0.64	448190	5983	1	454311
5198	1	422950	5641	1	448130	5984	1	454312
5199	0.9	422990	5651	1	448140	5989	1	454319
5199	0.1	541890	5661	1	448210	5992	1	453110
5211	0.5	444110	5699	0.04	315000	5993	1	453991
5211	0.5	444190	5699	0.06	448150	5994	1	451212
5231	0.85	444120	5699	0.9	448190	5995	0	339115
5231	0.15	444190	5712	0.02	337110	5995	1	446130
5251	1	444130	5712	0.01	337121	5999	0.08	443112
5261	0.33	444210	5712	0.01	337122	5999	0.16	446120
5261	0.67	444220	5712	0.96	442110	5999	0.12	446199
5271	1	453930	5713	1	442210	5999	0.2	453910

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
5311	1	452110	5714	0.36	314121	5999	0.11	453920
5999	0.33	453998	6221	0.29	523130	6552	1	233110
6011	1	521110	6221	0.71	523140	6553	1	812220
6019	1	522298	6231	1	523210	6712	1	551111
6021	0.97	522110	6282	0.82	523920	6719	1	551112
6021	0.03	522210	6282	0.18	523930	6722	1	525910
6022	0.91	522110	6289	0.72	523991	6726	1	525990
6022	0.02	522190	6289	0.28	523999	6732	1	813211
6022	0.07	522210	6311	0.5	524113	6733	0.13	523920
6029	1	522110	6311	0.5	524130	6733	0.87	523991
6035	1	522120	6321	0.69	524113	6733	0	525190
6036	1	522120	6321	0.3	524114	6733	0	525920
6061	1	522130	6321	0.01	524130	6792	0.7	523910
6062	1	522130	6321	0	525190	6792	0.3	533110
6081	0.92	522110	6324	0.33	524114	6794	1	533110
6081	0.02	522293	6324	0.33	524130	6798	1	525930
6081	0.06	522298	6324	0.33	525190	6799	0.05	523130
6082	0.99	522293	6331	0.98	524126	6799	0.94	523910
6082	0.01	522298	6331	0	524128	6799	0.01	523920
6091	1	523991	6331	0.02	524130	7011	0.77	721110
6099	0.25	522320	6331	0	525190	7011	0.22	721120
6099	0.25	522390	6351	0.96	524126	7011	0.1	721191
6099	0.25	523130	6351	0.04	524130	7011	0	721199
6099	0.25	523991	6361	0.99	524127	7021	1	721310
6111	0.05	522292	6361	0.01	524130	7032	1	721214
6111	0	522293	6371	0	523920	7033	1	721211
6111	0.87	522294	6371	1	524292	7041	0.22	721110
6111	0.08	522298	6371	0	525110	7041	0.78	721310
6141	0.25	522210	6371	0	525120	7211	1	812320
6141	0.25	522220	6371	0	525990	7212	1	812320
6141	0.25	522291	6399	1	524128	7213	1	812331
6141	0.25	522298	6411	0.78	524210	7215	1	812310
6153	0.1	522210	6411	0.05	524291	7216	1	812320
6153	0.55	522220	6411	0.11	524292	7217	1	561740
6153	0.23	522320	6411	0.06	524298	7218	1	812332
6153	0.12	523910	6512	0.99	531120	7219	0.65	811490
6159	0	5220	6512	0.01	711310	7219	0.26	812320
6159	0	5320	6513	1	531110	7219	0.09	812331
6159	0.84	522220	6514	1	531110	7221	1	541921
6159	0	522292	6515	1	531190	7231	0.333333	611511
6159	0.02	522293	6517	1	531190	7231	0.333333	812112
6159	0.06	522294	6519	1	531190	7231	0.333333	812113
6159	0.08	522298	6531	0.52	531210	7241	0.07	611511
6162	0.89	522292	6531	0.17	531311	7241	0.93	812111
6162	0.11	522390	6531	0.11	531312	7251	1	811430
6163	1	522310	6531	0.04	531320	7251	0	812990
6211	0.25	523110	6531	0.06	531390	7261	0.99	812210
6211	0.25	523120	6531	0	812220	7261	0.01	812220
6211	0.25	523910	6531	0.1	813990	7291	1	541213

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
6211	0.25	523999	6541	1	541191	7299	0.17	532220
7299	0	561310	7377	1	532420	7389	0.01	812990
7299	0.24	812191	7378	0	443120	7513	1	532120
7299	0.26	812199	7378	1	811212	7514	1	532111
7299	0	812930	7379	0.06	514210	7515	1	532112
7299	0.33	812990	7379	0.74	541512	7519	1	532120
7311	1	541810	7379	0.2	541519	7521	1	812930
7312	1	541850	7381	0.15	561611	7532	1	811121
7313	1	541840	7381	0.74	561612	7533	1	811112
7319	0.19	541830	7381	0.11	561613	7534	0.86	326212
7319	0.4	541850	7382	1	561621	7534	0.14	811198
7319	0.15	541870	7383	1	514110	7536	1	811122
7319	0.26	541890	7383	0	711510	7537	1	811113
7322	1	561440	7384	0.81	812921	7538	1	811111
7323	1	561450	7384	0.19	812922	7539	1	811118
7331	0.15	511140	7389	0	313311	7542	1	811192
7331	0.85	541860	7389	0	314999	7549	0.39	488410
7334	0	323114	7389	0	325998	7549	0	811122
7334	1	561439	7389	0	421860	7549	0.47	811191
7335	1	541922	7389	0	491110	7549	0.14	811198
7336	1	541430	7389	0.01	512240	7622	0	443112
7338	0.52	561410	7389	0	512290	7622	0.53	811211
7338	0.48	561492	7389	0	514199	7622	0.47	811213
7342	0.99	561710	7389	0	514210	7623	0	443111
7342	0.01	561720	7389	0.09	522320	7623	0.7	811310
7349	1	561720	7389	0.02	541199	7623	0.3	811412
7349	0	561790	7389	0.01	541340	7629	0.03	443111
7352	0.5	532291	7389	0.01	541350	7629	0	811211
7352	0.5	532490	7389	0	541370	7629	0.13	811212
7353	0.34	234990	7389	0.06	541410	7629	0.03	811213
7353	0.66	532412	7389	0.02	541420	7629	0.36	811219
7359	0.09	532210	7389	0.01	541490	7629	0.45	811412
7359	0.11	532299	7389	0.13	541870	7631	1	811490
7359	0.2	532310	7389	0.01	541890	7641	0	711510
7359	0.08	532411	7389	0.01	541930	7641	1	811420
7359	0.08	532412	7389	0.02	541990	7692	1	811310
7359	0.02	532420	7389	0.02	561421	7694	0.18	335312
7359	0.34	532490	7389	0.11	561422	7694	0.82	811310
7359	0.08	562991	7389	0.03	561431	7699	0	115210
7361	0.53	541612	7389	0	561439	7699	0	235110
7361	0.47	561310	7389	0.01	561491	7699	0	442299
7363	0.7	561320	7389	0.04	561499	7699	0	451110
7363	0.3	561330	7389	0.01	561591	7699	0	488390
7371	1	541511	7389	0.01	561599	7699	0.06	561622
7372	0	334611	7389	0	561790	7699	0.05	561790
7372	1	511210	7389	0.05	561910	7699	0.05	562991
7373	1	541512	7389	0.09	561920	7699	0	562998
7374	1	514210	7389	0.21	561990	7699	0	711510
7375	1	514191	7389	0.01	711410	7699	0	811211

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
7376	1	541513	7389	0	812320	7699	0	811212
7699	0.02	811219	7993	0.38	713990	8072	1	339116
7699	0.71	811310	7996	1	713110	8082	1	621610
7699	0.04	811411	7997	0.69	713910	8092	1	621492
7699	0	811412	7997	0.26	713940	8093	0.04	621410
7699	0	811430	7997	0.05	713990	8093	0.21	621420
7699	0.07	811490	7999	0.03861	487110	8093	0.75	621498
7812	1	512110	7999	0.123552	487210	8099	0.01	541430
7819	0.13	334612	7999	0.003861	487990	8099	0.01	541922
7819	0.29	512191	7999	0.254826	532292	8099	0	621410
7819	0.06	512199	7999	0.216216	561599	8099	0.43	621991
7819	0	532220	7999	0.023166	611620	8099	0.55	621999
7819	0.05	532490	7999	0	611699	8111	1	541110
7819	0.34	541214	7999	0.003861	711190	8211	1	611110
7819	0.01	561310	7999	0.003861	711219	8221	1	611310
7819	0.12	711510	7999	0	711310	8222	1	611210
7822	0.38	421990	7999	0.007722	711320	8231	1	514120
7822	0.62	512120	7999	0	712190	8243	0.97	611420
7829	0	512120	7999	0.173745	713210	8243	0.03	611519
7829	1	512199	7999	0.065637	713290	8244	1	611410
7829	0	514120	7999	0.023166	713920	8249	0.1	611512
7832	1	512131	7999	0.019305	713940	8249	0.04	611513
7833	1	512132	7999	0.042471	713990	8249	0.86	611519
7841	1	532230	8011	0.95	621111	8299	0.3	611430
7911	0.89	611610	8011	0.02	621112	8299	0.11	611512
7911	0.11	713990	8011	0.01	621491	8299	0	611519
7922	0.1	512290	8011	0.02	621493	8299	0.04	611610
7922	0.1	532490	8021	1	621210	8299	0.07	611630
7922	0.1	561310	8031	0.98	621111	8299	0.12	611691
7922	0.1	561599	8031	0.02	621112	8299	0.05	611692
7922	0.1	711110	8041	1	621310	8299	0.24	611699
7922	0.1	711120	8042	1	621320	8299	0.07	611710
7922	0.1	711310	8043	1	621391	8322	0.2	624110
7922	0.1	711320	8049	0.19	621330	8322	0.29	624120
7922	0.1	711410	8049	0.67	621340	8322	0.47	624190
7922	0.1	711510	8049	0.14	621399	8322	0.01	624210
7929	0.42	711130	8051	0	623110	8322	0.01	624221
7929	0.08	711190	8051	1	623311	8322	0.01	624229
7929	0.5	711510	8052	0.333333	623110	8322	0.01	624230
7933	1	713950	8052	0.333333	623210	8322	0	922150
7941	0.78	711211	8052	0.333333	623311	8331	1	624310
7941	0.05	711310	8059	0.5	623110	8351	1	624410
7941	0.13	711320	8059	0.5	623311	8361	0.18	623220
7941	0.04	711410	8062	1	622110	8361	0.72	623312
7948	0.75	711212	8063	1	622210	8361	0.1	623990
7948	0.25	711219	8069	0.03	622110	8399	0.26	813212
7991	1	713940	8069	0.1	622210	8399	0.45	813219
7992	1	713910	8069	0.87	622310	8399	0.09	813311
7993	0.27	713120	8071	0.64	621511	8399	0.07	813312

SIC	Ratio	NAICS	SIC	Ratio	NAICS	SIC	Ratio	NAICS
7993	0.35	713290	8071	0.36	621512	8399	0.13	813319
8412	0.9	712110	8999	0.142857	514199			
8412	0.1	712120	8999	0.142857	541612			
8422	0.81	712130	8999	0.142857	541620			
8422	0.19	712190	8999	0.142857	541690			
8611	1	813910	8999	0.142857	711510			
8621	1	813920	9111	1	921110			
8631	1	813930	9121	1	921120			
8641	0.333333	813410	9131	1	921140			
8641	0.333333	813990	9199	1	921190			
8641	0.333333	921150	9211	1	922110			
8651	1	813940	9221	1	922120			
8661	1	813110	9222	1	922130			
8699	0.2	561599	9223	1	922140			
8699	0.2	813312	9224	1	922160			
8699	0.2	813410	9229	1	922190			
8699	0.2	813910	9311	1	921130			
8699	0.2	813990	9411	1	923110			
8711	1	541330	9431	1	923120			
8712	1	541310	9441	1	923130			
8713	0.16	541360	9451	1	923140			
8713	0.84	541370	9511	1	924110			
8721	0.71	541211	9512	1	924120			
8721	0.18	541214	9531	1	925110			
8721	0.11	541219	9532	1	925120			
8731	1	541710	9611	1	926110			
8732	0.14	541720	9621	0.5	488111			
8732	0.86	541910	9621	0.5	926120			
8733	0.84	541710	9631	1	926130			
8733	0.16	541720	9641	1	926140			
8734	1	541380	9651	1	926150			
8734	0	541940	9661	1	927110			
8741	0.02	233220	9711	1	928110			
8741	0.98	561110	9721	1	928120			
8742	0.65	541611						
8742	0.1	541612						
8742	0.18	541613						
8742	0.07	541614						
8743	1	541820						
8744	1	561210						
8748	0	541320						
8748	0	541330						
8748	0.19	541618						
8748	0.52	541690						
8748	0.29	611710						
8811	1	814110						
8999	0.142857	512210						
8999	0.142857	512230						

Table 3: The NAICS – IO 1997 bridge

NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997
111110	1	1111A0	113110	1	113A00	221122	1	221100
111120	1	1111A0	113210	1	113A00	221210	1	221200
111130	1	1111B0	113310	1	113300	221310	1	221300
111140	1	1111B0	114111	1	114100	221320	1	221300
111150	1	1111B0	114112	1	114100	221330	1	221300
111160	1	1111B0	114119	1	114100	230110	1	230110
111191	1	1111B0	114210	1	114200	230120	1	230120
111199	1	1111B0	115111	1	115000	230130	1	230130
111211	1	111200	115112	1	115000	230140	1	230140
111219	1	111200	115113	1	115000	230210	1	230210
111310	1	1113A0	115114	1	115000	230220	1	230220
111320	1	1113A0	115115	1	115000	230230	1	230230
111331	1	1113A0	115116	1	115000	230240	1	230240
111332	1	1113A0	115210	1	115000	230250	1	230250
111333	1	1113A0	115310	1	115000	230310	1	230310
111334	1	1113A0	211111	1	211000	230320	1	230320
111335	1	111335	211112	1	211000	230330	1	230330
111336	1	1113A0	212111	1	212100	230340	1	230340
111339	1	1113A0	212112	1	212100	233110	1	230250
111411	1	111400	212113	1	212100	233210	1	230110
111419	1	111400	212210	1	212210	233220	1	230120
111421	1	111400	212221	1	2122A0	233310	1	230210
111422	1	111400	212222	1	2122A0	233320	1	230220
111910	1	111910	212231	1	212230	234110	1	230230
111920	1	111920	212234	1	212230	234120	1	230230
111930	1	1119A0	212291	1	2122A0	234910	1	230240
111940	1	1119B0	212299	1	2122A0	234920	1	230250
111991	1	1119A0	212311	1	212310	234930	1	230250
111992	1	1119B0	212312	1	212310	234990	1	230250
111998	1	1119B0	212313	1	212310	235110	0.164223	230340
112111	1	112100	212319	1	212310	235110	0.835777	230250
112112	1	112100	212321	1	212320	235210	0.164223	230340
112120	1	112100	212322	1	212320	235210	0.835777	230250
112210	1	112A00	212324	1	212320	235310	0.164223	230340
112310	1	112300	212325	1	212320	235310	0.835777	230250
112320	1	112300	212391	1	212390	235410	0.164223	230340
112330	1	112300	212392	1	212390	235410	0.835777	230250
112340	1	112300	212393	1	212390	235420	0.164223	230340
112390	1	112300	212399	1	212390	235420	0.835777	230250
112410	1	112A00	213111	1	213111	235430	0.164223	230340
112420	1	112A00	213112	1	213112	235430	0.835777	230250
112511	1	112A00	213113	1	21311A	235510	0.164223	230340
112512	1	112A00	213114	1	21311A	235510	0.835777	230250
112519	1	112A00	213115	1	21311A	235520	0.164223	230340
112910	1	112A00	221111	1	221100	235520	0.835777	230250
112920	1	112A00	221112	1	221100	235610	0.164223	230340
112930	1	112A00	221113	1	221100	235610	0.835777	230250

NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997
112990	1	112A00	221119	1	221100	235710	0.164223	230340
235810	0.164223	230340	311821	1	311821	315192	1	315190
235810	0.835777	230250	311822	1	311822	315211	1	315200
235910	0.164223	230340	311823	1	311823	315212	1	315200
235910	0.835777	230250	311830	1	311830	315221	1	315200
235920	0.164223	230340	311911	1	311911	315222	1	315200
235920	0.835777	230250	311919	1	311919	315223	1	315200
235930	0.164223	230340	311920	1	311920	315224	1	315200
235930	0.835777	230250	311930	1	311930	315225	1	315200
235940	0.164223	230340	311941	1	311941	315228	1	315200
235940	0.835777	230250	311942	1	311942	315231	1	315200
235950	0.164223	230340	311991	1	311990	315232	1	315200
235950	0.835777	230250	311999	1	311990	315233	1	315200
235990	0.164223	230340	312111	1	312110	315234	1	315200
235990	0.835777	230250	312112	1	312110	315239	1	315200
311111	1	311111	312113	1	312110	315291	1	315200
311119	1	311119	312120	1	312120	315292	1	315200
311211	1	311211	312130	1	312130	315299	1	315200
311212	1	311212	312140	1	312140	315991	1	315900
311213	1	311213	312210	1	312210	315992	1	315900
311221	1	311221	312221	1	312221	315993	1	315900
311222	1	311222	312229	1	312229	315999	1	315900
311223	1	311223	313111	1	313100	316110	1	316100
311225	1	311225	313112	1	313100	316211	1	316200
311230	1	311230	313113	1	313100	316212	1	316200
311311	1	311310	313210	1	313210	316213	1	316200
311312	1	311310	313221	1	313220	316214	1	316200
311313	1	311310	313222	1	313220	316219	1	316200
311320	1	311320	313230	1	313230	316991	1	316900
311330	1	311330	313241	1	313240	316992	1	316900
311340	1	311340	313249	1	313240	316993	1	316900
311411	1	311410	313311	1	313310	316999	1	316900
311412	1	311410	313312	1	313310	321113	1	321113
311421	1	311420	313320	1	313320	321114	1	321114
311422	1	311420	314110	1	314110	321211	1	32121A
311423	1	311420	314121	1	314120	321212	1	32121A
311511	1	311511	314129	1	314120	321213	1	32121B
311512	1	311512	314911	1	314910	321214	1	32121B
311513	1	311513	314912	1	314910	321219	1	321219
311514	1	311514	314991	1	31499A	321911	1	321911
311520	1	311520	314992	1	314992	321912	1	321912
311611	1	311611	314999	1	31499A	321918	1	321918
311612	1	311612	315000	0.023379	315111	321920	1	321920
311613	1	311613	315000	0.043343	315119	321991	1	321991
311615	1	311615	315000	0.06917	315900	321992	1	321992
311711	1	311700	315000	0.075895	315190	321999	1	321999
311712	1	311700	315000	0.788212	315200	322110	1	322110
311811	1	31181A	315111	1	315111	322121	1	3221A0
311812	1	31181A	315119	1	315119	322122	1	3221A0

NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997
322130	1	3221A0	325311	1	325311	327320	1	327320
322211	1	322210	325312	1	325312	327331	1	327331
322212	1	322210	325314	1	325314	327332	1	327332
322213	1	322210	325320	1	325320	327390	1	327390
322214	1	322210	325411	1	325400	327410	1	327410
322215	1	322210	325412	1	325400	327420	1	327420
322221	1	32222A	325413	1	325400	327910	1	327910
322222	1	32222A	325414	1	325400	327991	1	327991
322223	1	32222B	325510	1	325510	327992	1	327992
322224	1	32222B	325520	1	325520	327993	1	327993
322225	1	322225	325611	1	325611	327999	1	327999
322226	1	322226	325612	1	325612	331111	1	331111
322231	1	322231	325613	1	325613	331112	1	331112
322232	1	322232	325620	1	325620	331210	1	331210
322233	1	322233	325910	1	325910	331221	1	331221
322291	1	322291	325920	1	325920	331222	1	331222
322299	1	322299	325991	1	325991	331311	1	331311
323110	1	32311A	325992	1	325992	331312	1	331312
323111	1	32311A	325998	1	325998	331314	1	331314
323112	1	32311A	326111	1	326110	331315	1	331315
323113	1	32311A	326112	1	326110	331316	1	331316
323114	1	32311A	326113	1	326110	331319	1	331319
323115	1	32311A	326121	1	326120	331411	1	331411
323116	1	323116	326122	1	326120	331419	1	331419
323117	1	323117	326130	1	326130	331421	1	331421
323118	1	323118	326140	1	3261A0	331422	1	331422
323119	1	32311A	326150	1	3261A0	331423	1	331423
323121	1	323121	326160	1	326160	331491	1	331491
323122	1	323122	326191	1	32619A	331492	1	331492
324110	1	324110	326192	1	326192	331511	1	331510
324121	1	324121	326199	1	32619A	331512	1	331510
324122	1	324122	326211	1	326210	331513	1	331510
324191	1	324191	326212	1	326210	331521	1	33152A
324199	1	324199	326220	1	326220	331522	1	33152B
325110	1	325110	326291	1	326290	331524	1	33152A
325120	1	325120	326299	1	326290	331525	1	33152B
325131	1	325130	327111	1	327111	331528	1	33152B
325132	1	325130	327112	1	327112	332111	1	332111
325181	1	325180	327113	1	327113	332112	1	332112
325182	1	325180	327121	1	327121	332114	1	332114
325188	1	325180	327122	1	327122	332115	1	33211A
325191	1	325190	327123	1	32712A	332116	1	33211A
325192	1	325190	327124	1	32712A	332117	1	33211A
325193	1	325190	327125	1	327125	332211	1	332211
325199	1	325190	327211	1	32721A	332212	1	332212
325211	1	325211	327212	1	32721A	332213	1	332213
325212	1	325212	327213	1	327213	332214	1	332214
325221	1	325221	327215	1	32721A	332311	1	332311
325222	1	325222	327310	1	327310	332312	1	332312

NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997
332313	1	332313	333319	1	333319	334511	1	334511
332321	1	332321	333411	1	333411	334512	1	334512
332322	1	332322	333412	1	333412	334513	1	334513
332323	1	332323	333414	1	333414	334514	1	334514
332410	1	332410	333415	1	333415	334515	1	334515
332420	1	332420	333511	1	333511	334516	1	334516
332431	1	332430	333512	1	333512	334517	1	334517
332439	1	332430	333513	1	333513	334518	1	33451A
332510	1	332500	333514	1	333514	334519	1	33451A
332611	1	332600	333515	1	333515	334611	1	334611
332612	1	332600	333516	1	33351A	334612	1	334612
332618	1	332600	333518	1	33351A	334613	1	334613
332710	1	332710	333611	1	333611	335110	1	335110
332721	1	332720	333612	1	33361A	335121	1	335120
332722	1	332720	333613	1	33361A	335122	1	335120
332811	1	332811	333618	1	333618	335129	1	335120
332812	1	332812	333911	1	333911	335211	1	335211
332813	1	332813	333912	1	333912	335212	1	335212
332911	1	332910	333913	1	333913	335221	1	335221
332912	1	332910	333921	1	333921	335222	1	335222
332913	1	332910	333922	1	333922	335224	1	335224
332919	1	332910	333923	1	333923	335228	1	335228
332991	1	332991	333924	1	333924	335311	1	335311
332992	1	33299A	333991	1	333991	335312	1	335312
332993	1	33299A	333992	1	333992	335313	1	335313
332994	1	332994	333993	1	333993	335314	1	335314
332995	1	332995	333994	1	333994	335911	1	335911
332996	1	332996	333995	1	333995	335912	1	335912
332997	1	332997	333996	1	333996	335921	1	335921
332998	1	332998	333997	1	33399A	335929	1	335929
332999	1	332999	333999	1	33399A	335931	1	335930
333111	1	333111	334111	1	334111	335932	1	335930
333112	1	333112	334112	1	334112	335991	1	335991
333120	1	333120	334113	1	334113	335999	1	335999
333131	1	333131	334119	1	334119	336111	1	336110
333132	1	333132	334210	1	334210	336112	1	336110
333210	1	333210	334220	1	334220	336120	1	336120
333220	1	333220	334290	1	334290	336211	1	336211
333291	1	333291	334310	1	334300	336212	1	336212
333292	1	333292	334411	1	334411	336213	1	336213
333293	1	333293	334412	1	33441A	336214	1	336214
333294	1	333294	334413	1	334413	336311	1	336300
333295	1	333295	334414	1	33441A	336312	1	336300
333298	1	333298	334415	1	33441A	336321	1	336300
333311	1	33331A	334416	1	33441A	336322	1	336300
333312	1	33331A	334417	1	33441A	336330	1	336300
333313	1	333313	334418	1	33441A	336340	1	336300
333314	1	333314	334419	1	33441A	336350	1	336300
333315	1	333315	334510	1	334510	336360	1	336300

NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997
336370	1	336300	339994	1	339994	s	1	420000
336391	1	336300	339995	1	339995	422430	1	420000
336399	1	336300	339999	1	33999A	422440	1	420000
336411	1	336411	421110	1	420000	422450	1	420000
336412	1	336412	421120	1	420000	422460	1	420000
336413	1	336413	421130	1	420000	422470	1	420000
336414	1	336414	421140	1	420000	422480	1	420000
336415	1	33641A	421210	1	420000	422490	1	420000
336419	1	33641A	421220	1	420000	422510	1	420000
336510	1	336500	421310	1	420000	422520	1	420000
336611	1	336611	421320	1	420000	422590	1	420000
336612	1	336612	421330	1	420000	422610	1	420000
336991	1	336991	421390	1	420000	422690	1	420000
336992	1	336992	421410	1	420000	422710	1	420000
336999	1	336999	421420	1	420000	422720	1	420000
337110	1	337110	421430	1	420000	422810	1	420000
337121	1	337121	421440	1	420000	422820	1	420000
337122	1	337122	421450	1	420000	422910	1	420000
337124	1	337124	421460	1	420000	422920	1	420000
337125	1	33712A	421490	1	420000	422930	1	420000
337127	1	337127	421510	1	420000	422940	1	420000
337129	1	33712A	421520	1	420000	422950	1	420000
337211	1	337211	421610	1	420000	422990	1	420000
337212	1	337212	421620	1	420000	441110	1	4A0000
337214	1	337214	421690	1	420000	441120	1	4A0000
337215	1	337215	421710	1	420000	441210	1	4A0000
337910	1	337910	421720	1	420000	441221	1	4A0000
337920	1	337920	421730	1	420000	441222	1	4A0000
339111	1	339111	421740	1	420000	441229	1	4A0000
339112	1	339112	421810	1	420000	441310	1	4A0000
339113	1	339113	421820	1	420000	441320	1	4A0000
339114	1	339114	421830	1	420000	442110	1	4A0000
339115	1	339115	421840	1	420000	442210	1	4A0000
339116	1	339116	421850	1	420000	442291	1	4A0000
339911	1	339910	421860	1	420000	442299	1	4A0000
339912	1	339910	421910	1	420000	443111	1	4A0000
339913	1	339910	421920	1	420000	443112	1	4A0000
339914	1	339910	421930	1	420000	443120	1	4A0000
339920	1	339920	421940	1	420000	443130	1	4A0000
339931	1	339930	421990	1	420000	444110	1	4A0000
339932	1	339930	422110	1	420000	444120	1	4A0000
339941	1	339940	422120	1	420000	444130	1	4A0000
339942	1	339940	422130	1	420000	444190	1	4A0000
339943	1	339940	422210	1	420000	444210	1	4A0000
339944	1	339940	422310	1	420000	444220	1	4A0000
339950	1	339950	422320	1	420000	445110	1	4A0000
339991	1	339991	422330	1	420000	445120	1	4A0000
339992	1	339992	422340	1	420000	445210	1	4A0000
339993	1	33999A	422410	1	420000	445220	1	4A0000

NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997
445230	1	4A0000	481212	1	481000	493110	1	493000
445291	1	4A0000	482111	1	482000	493120	1	493000
445292	1	4A0000	482112	1	482000	493130	1	493000
445299	1	4A0000	483111	1	483000	493190	1	493000
445310	1	4A0000	483112	1	483000	511110	1	511110
446110	1	4A0000	483113	1	483000	511120	1	511120
446120	1	4A0000	483114	1	483000	511130	1	511130
446130	1	4A0000	483211	1	483000	511140	1	5111A0
446191	1	4A0000	483212	1	483000	511191	1	5111A0
446199	1	4A0000	484110	1	484000	511199	1	5111A0
447110	1	4A0000	484121	1	484000	511210	1	511200
447190	1	4A0000	484122	1	484000	512110	1	512100
448110	1	4A0000	484210	1	484000	512120	1	512100
448120	1	4A0000	484220	1	484000	512131	1	512100
448130	1	4A0000	484230	1	484000	512132	1	512100
448140	1	4A0000	485111	1	485000	512191	1	512100
448150	1	4A0000	485112	1	485000	512199	1	512100
448190	1	4A0000	485113	1	485000	512210	1	512200
448210	1	4A0000	485119	1	485000	512220	1	512200
448310	1	4A0000	485210	1	485000	512230	1	512200
448320	1	4A0000	485310	1	485000	512240	1	512200
451110	1	4A0000	485320	1	485000	512290	1	512200
451120	1	4A0000	485410	1	485000	513111	1	513100
451130	1	4A0000	485510	1	485000	513112	1	513100
451140	1	4A0000	485991	1	485000	513120	1	513100
451211	1	4A0000	485999	1	485000	513210	1	513200
451212	1	4A0000	486110	1	486000	513220	1	513200
451220	1	4A0000	486210	1	486000	513310	1	513300
452110	1	4A0000	486910	1	486000	513321	1	513300
452910	1	4A0000	486990	1	486000	513322	1	513300
452990	1	4A0000	487110	1	48A000	513330	1	513300
453110	1	4A0000	487210	1	48A000	513340	1	513300
453210	1	4A0000	487990	1	48A000	513390	1	513300
453220	1	4A0000	488111	1	48A000	514110	1	514100
453310	1	4A0000	488119	1	48A000	514120	1	514100
453910	1	4A0000	488190	1	48A000	514191	1	514100
453920	1	4A0000	488210	1	48A000	514199	1	514100
453930	1	4A0000	488310	1	48A000	514210	1	514200
453991	1	4A0000	488320	1	48A000	521110	1	52A000
453998	1	4A0000	488330	1	48A000	522110	1	52A000
454110	1	4A0000	488390	1	48A000	522120	1	52A000
454210	1	4A0000	488410	1	48A000	522130	1	52A000
454311	1	4A0000	488490	1	48A000	522190	1	52A000
454312	1	4A0000	488510	1	48A000	522210	1	522A00
454319	1	4A0000	488991	1	48A000	522220	1	522A00
454390	1	4A0000	488999	1	48A000	522291	1	522A00
481111	1	481000	491110	1	491000	522292	1	522A00
481112	1	481000	492110	1	492000	522293	1	522A00
481211	1	481000	492210	1	492000	522294	1	522A00

NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997
522298	1	522A00	532310	1	532A00	541930	1	5419A0
522310	1	522A00	532411	1	532400	541940	1	541940
522320	1	522A00	532412	1	532400	541990	1	5419A0
522390	1	522A00	532420	1	532400	551111	1	550000
523110	1	523000	532490	1	532400	551112	1	550000
523120	1	523000	533110	1	533000	561110	1	561100
523130	1	523000	541110	1	541100	561210	1	561200
523140	1	523000	541191	1	541100	561310	1	561300
523210	1	523000	541199	1	541100	561320	1	561300
523910	1	523000	541211	1	541200	561330	1	561300
523920	1	523000	541213	1	541200	561410	1	561400
523930	1	523000	541214	1	541200	561421	1	561400
523991	1	523000	541219	1	541200	561422	1	561400
523999	1	523000	541310	1	541300	561431	1	561400
524113	1	524100	541320	1	541300	561439	1	561400
524114	1	524100	541330	1	541300	561440	1	561400
524126	1	524100	541340	1	541300	561450	1	561400
524127	1	524100	541350	1	541300	561491	1	561400
524128	1	524100	541360	1	541300	561492	1	561400
524130	1	524100	541370	1	541300	561499	1	561400
524210	1	524200	541380	1	541300	561510	1	561500
524291	1	524200	541410	1	541400	561520	1	561500
524292	1	524200	541420	1	541400	561591	1	561500
524298	1	524200	541430	1	541400	561599	1	561500
525110	1	525000	541490	1	541400	561611	1	561600
525120	1	525000	541511	1	541511	561612	1	561600
525190	1	525000	541512	1	541512	561613	1	561600
525910	1	525000	541513	1	54151A	561621	1	561600
525920	1	525000	541519	1	54151A	561622	1	561600
525930	1	525000	541611	1	541610	561710	1	561700
525990	1	525000	541612	1	541610	561720	1	561700
531110	1	531000	541613	1	541610	561730	1	561700
531120	1	531000	541614	1	541610	561740	1	561700
531130	1	531000	541618	1	541610	561790	1	561700
531190	1	531000	541620	1	5416A0	561910	1	561900
531210	1	531000	541690	1	5416A0	561920	1	561900
531311	1	531000	541710	1	541700	561990	1	561900
531312	1	531000	541720	1	541700	562111	1	562000
531320	1	531000	541810	1	541800	562112	1	562000
531390	1	531000	541820	1	541800	562119	1	562000
532111	1	532100	541830	1	541800	562211	1	562000
532112	1	532100	541840	1	541800	562212	1	562000
532120	1	532100	541850	1	541800	562213	1	562000
532210	1	532A00	541860	1	541800	562219	1	562000
532220	1	532A00	541870	1	541800	562910	1	562000
532230	1	532230	541890	1	541800	562920	1	562000
532291	1	532A00	541910	1	5419A0	562991	1	562000
532292	1	532A00	541921	1	541920	562998	1	562000
532299	1	532A00	541922	1	541920	611110	1	611100

NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997
611210	1	611A00	624120	1	624A00	722410	1	722000
611310	1	611A00	624190	1	624A00	811111	1	8111A0
611410	1	611B00	624210	1	624A00	811112	1	8111A0
611420	1	611B00	624221	1	624A00	811113	1	8111A0
611430	1	611B00	624229	1	624A00	811118	1	8111A0
611511	1	611B00	624230	1	624A00	811121	1	8111A0
611512	1	611B00	624310	1	624A00	811122	1	8111A0
611513	1	611B00	624410	1	624400	811191	1	8111A0
611519	1	611B00	711110	1	711100	811192	1	811192
611610	1	611B00	711120	1	711100	811198	1	8111A0
611620	1	611B00	711130	1	711100	811211	1	811200
611630	1	611B00	711190	1	711100	811212	1	811200
611691	1	611B00	711211	1	711200	811213	1	811200
611692	1	611B00	711212	1	711200	811219	1	811200
611699	1	611B00	711219	1	711200	811310	1	811300
611710	1	611B00	711310	1	711A00	811411	1	811400
621111	1	621A00	711320	1	711A00	811412	1	811400
621112	1	621A00	711410	1	711A00	811420	1	811400
621210	1	621A00	711510	1	711500	811430	1	811400
621310	1	621A00	712110	1	712000	811490	1	811400
621320	1	621A00	712120	1	712000	812111	1	812100
621330	1	621A00	712130	1	712000	812112	1	812100
621340	1	621A00	712190	1	712000	812113	1	812100
621391	1	621A00	713110	1	713A00	812191	1	812100
621399	1	621A00	713120	1	713A00	812199	1	812100
621410	1	621B00	713210	1	713A00	812210	1	812200
621420	1	621B00	713290	1	713A00	812220	1	812200
621491	1	621B00	713910	1	713A00	812310	1	812300
621492	1	621B00	713920	1	713A00	812320	1	812300
621493	1	621B00	713930	1	713A00	812331	1	812300
621498	1	621B00	713940	1	713940	812332	1	812300
621511	1	621B00	713950	1	713950	812910	1	812900
621512	1	621B00	713990	1	713A00	812921	1	812900
621610	1	621600	721110	1	7211A0	812922	1	812900
621910	1	621B00	721120	1	7211A0	812930	1	812900
621991	1	621B00	721191	1	721A00	812990	1	812900
621999	1	621B00	721199	1	721A00	813110	1	813100
622110	1	622000	721211	1	721A00	813211	1	813A00
622210	1	622000	721214	1	721A00	813212	1	813A00
622310	1	622000	721310	1	721A00	813219	1	813A00
623110	1	623000	722110	1	722000	813311	1	813A00
623210	1	623000	722211	1	722000	813312	1	813A00
623220	1	623000	722212	1	722000	813319	1	813A00
623311	1	623000	722213	1	722000	813410	1	813B00
623312	1	623000	722310	1	722000	813910	1	813B00
623990	1	623000	722320	1	722000	813920	1	813B00
624110	1	624A00	722330	1	722000	813930	1	813B00
814000	1	814000	S00101	1	S00101	813940	1	813B00
814110	1	814000	S00102	1	S00102	813990	1	813B00

NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997	NAICS	Ratio	IO 1997
S00201	1	S00201						
S00202	1	S00202						
S00203	1	S00203						
S00500	1	S00500						

Appendix 2: 1997 Input-Output Sector Outputs

Sector Name	IO Number	Total Industry Output, [\$million]
Oilseed farming	1111A0	20250
Grain farming	1111B0	38517
Vegetable and melon farming	111200	14469
Tree nut farming	111335	2200
Fruit farming	1113A0	11251
Greenhouse and nursery production	111400	13415
Tobacco farming	111910	3271
Cotton farming	111920	7181
Sugarcane and sugar beet farming	1119A0	2230
All other crop farming	1119B0	22128
Cattle ranching and farming	112100	60552
Poultry and egg production	112300	24577
Animal production, except cattle and poultry and eggs	112A00	19944
Logging	113300	22706
Forest nurseries, forest products, and timber tracts	113A00	4946
Fishing	114100	3582
Hunting and trapping	114200	2466
Agriculture and forestry support activities	115000	12596
Oil and gas extraction	211000	91333
Coal mining	212100	23316
Iron ore mining	212210	1919
Copper, nickel, lead, and zinc mining	212230	4532
Gold, silver, and other metal ore mining	2122A0	4776
Stone mining and quarrying	212310	7819
Sand, gravel, clay, and refractory mining	212320	5590
Other nonmetallic mineral mining	212390	3752
Drilling oil and gas wells	213111	9495
Support activities for oil and gas operations	213112	13485
Support activities for other mining	21311A	1975
Power generation and supply	221100	212961
Natural gas distribution	221200	53413
Water, sewage and other systems	221300	5904
New residential 1-unit structures, nonfarm	230110	172439
New multifamily housing structures, nonfarm	230120	26234
New residential additions and alterations, nonfarm	230130	57679
New farm housing units and additions and alterations	230140	5429
Manufacturing and industrial buildings	230210	27487
Commercial and institutional buildings	230220	190818
Highway, street, bridge, and tunnel construction	230230	43401
Water, sewer, and pipeline construction	230240	17207
Other new construction	230250	90757

Sector Name	IO Number	Total Industry Output, [\$million]
Maintenance and repair of farm and nonfarm residential structures	230310	36384
Maintenance and repair of nonresidential buildings	230320	56012
Maintenance and repair of highways, streets, bridges, and tunnels	230330	12411
Other maintenance and repair construction	230340	17833
Dog and cat food manufacturing	311111	8181
Other animal food manufacturing	311119	20129
Flour milling	311211	7865
Rice milling	311212	2312
Malt manufacturing	311213	768
Wet corn milling	311221	8202
Soybean processing	311222	13539
Other oilseed processing	311223	1626
Fats and oils refining and blending	311225	6852
Breakfast cereal manufacturing	311230	8677
Sugar manufacturing	311310	7394
Confectionery manufacturing from cacao beans	311320	3847
Confectionery manufacturing from purchased chocolate	311330	7798
Nonchocolate confectionery manufacturing	311340	5167
Frozen food manufacturing	311410	19206
Fruit and vegetable canning and drying	311420	26519
Fluid milk manufacturing	311511	20155
Creamery butter manufacturing	311512	1340
Cheese manufacturing	311513	19661
Dry, condensed, and evaporated dairy products	311514	8976
Ice cream and frozen dessert manufacturing	311520	5435
Animal, except poultry, slaughtering	311611	52915
Meat processed from carcasses	311612	24046
Rendering and meat byproduct processing	311613	2483
Poultry processing	311615	33132
Seafood product preparation and packaging	311700	6587
Frozen cakes and other pastries manufacturing	311813	2486
Bread and bakery product, except frozen, manufacturing	31181A	28113
Cookie and cracker manufacturing	311821	8690
Mixes and dough made from purchased flour	311822	4884
Dry pasta manufacturing	311823	1759
Tortilla manufacturing	311830	1065
Roasted nuts and peanut butter manufacturing	311911	3988
Other snack food manufacturing	311919	9559
Coffee and tea manufacturing	311920	7778
Flavoring syrup and concentrate manufacturing	311930	6431
Mayonnaise, dressing, and sauce manufacturing	311941	5765
Spice and extract manufacturing	311942	3820
All other food manufacturing	311990	10984

Sector Name	IO Number	Total Industry Output, [\$million]
Soft drink and ice manufacturing	312110	30115
Breweries	312120	21445
Wineries	312130	7704
Distilleries	312140	6770
Tobacco stemming and redrying	312210	3714
Cigarette manufacturing	312221	34763
Other tobacco product manufacturing	312229	3212
Fiber, yarn, and thread mills	313100	12795
Broadwoven fabric mills	313210	17986
Narrow fabric mills and schiffli embroidery	313220	1646
Nonwoven fabric mills	313230	4340
Knit fabric mills	313240	5697
Textile and fabric finishing mills	313310	13550
Fabric coating mills	313320	2214
Carpet and rug mills	314110	11631
Curtain and linen mills	314120	8821
Textile bag and canvas mills	314910	2480
Tire cord and tire fabric mills	314992	1191
Other miscellaneous textile product mills	31499A	6769
Sheer hosiery mills	315111	1547
Other hosiery and sock mills	315119	2868
Other apparel knitting mills	315190	5022
Cut and sew apparel manufacturing	315200	52156
Accessories and other apparel manufacturing	315900	4577
Leather and hide tanning and finishing	316100	3390
Footwear manufacturing	316200	3863
Other leather product manufacturing	316900	2724
Sawmills	321113	24672
Wood preservation	321114	4478
Reconstituted wood product manufacturing	321219	5285
Veneer and plywood manufacturing	32121A	8579
Engineered wood member and truss manufacturing	32121B	4812
Wood windows and door manufacturing	321911	8497
Cut stock, resawing lumber, and planing	321912	5787
Other millwork, including flooring	321918	4501
Wood container and pallet manufacturing	321920	4490
Manufactured home, mobile home, manufacturing	321991	10183
Prefabricated wood building manufacturing	321992	2956
Miscellaneous wood product manufacturing	321999	3780
Pulp mills	322110	3199
Paper and paperboard mills	3221A0	68053
Paperboard container manufacturing	322210	38913
Flexible packaging foil manufacturing	322225	1545

Sector Name	IO Number	Total Industry Output, [\$million]
Surface-coated paperboard manufacturing	322226	1132
Coated and laminated paper and packaging materials	32222A	13126
Coated and uncoated paper bag manufacturing	32222B	3277
Die-cut paper office supplies manufacturing	322231	1975
Envelope manufacturing	322232	3479
Stationery and related product manufacturing	322233	1823
Sanitary paper product manufacturing	322291	7712
All other converted paper product manufacturing	322299	3688
Manifold business forms printing	323116	9225
Books printing	323117	5539
Blankbook and looseleaf binder manufacturing	323118	2361
Commercial printing	32311A	72168
Tradebinding and related work	323121	1963
Prepress services	323122	5013
Petroleum refineries	324110	155525
Asphalt paving mixture and block manufacturing	324121	5843
Asphalt shingle and coating materials manufacturing	324122	4743
Petroleum lubricating oil and grease manufacturing	324191	5942
All other petroleum and coal products manufacturing	324199	1665
Petrochemical manufacturing	325110	18357
Industrial gas manufacturing	325120	5140
Synthetic dye and pigment manufacturing	325130	6266
Other basic inorganic chemical manufacturing	325180	24001
Other basic organic chemical manufacturing	325190	59318
Plastics material and resin manufacturing	325211	44982
Synthetic rubber manufacturing	325212	6032
Cellulosic organic fiber manufacturing	325221	1105
Noncellulosic organic fiber manufacturing	325222	11940
Nitrogenous fertilizer manufacturing	325311	3789
Phosphatic fertilizer manufacturing	325312	5724
Fertilizer, mixing only, manufacturing	325314	2956
Pesticide and other agricultural chemical manufacturing	325320	11259
Pharmaceutical and medicine manufacturing	325400	84873
Paint and coating manufacturing	325510	18076
Adhesive manufacturing	325520	7041
Soap and other detergent manufacturing	325611	15569
Polish and other sanitation good manufacturing	325612	7059
Surface active agent manufacturing	325613	4647
Toilet preparation manufacturing	325620	23124
Printing ink manufacturing	325910	4130
Explosives manufacturing	325920	1272
Custom compounding of purchased resins	325991	7542
Photographic film and chemical manufacturing	325992	12765

Sector Name	IO Number	Total Industry Output, [\$million]
Other miscellaneous chemical product manufacturing	325998	11796
Plastics packaging materials, film and sheet	326110	24204
Plastics pipe, fittings, and profile shapes	326120	9137
Laminated plastics plate, sheet, and shapes	326130	3152
Plastics bottle manufacturing	326160	6414
Resilient floor covering manufacturing	326192	1868
Plastics plumbing fixtures and all other plastics products	32619A	65916
Foam product manufacturing	3261A0	11495
Tire manufacturing	326210	15617
Rubber and plastics hose and belting manufacturing	326220	3946
Other rubber product manufacturing	326290	14362
Vitreous china plumbing fixture manufacturing	327111	1069
Vitreous china and earthenware articles manufacturing	327112	1602
Porcelain electrical supply manufacturing	327113	1186
Brick and structural clay tile manufacturing	327121	1371
Ceramic wall and floor tile manufacturing	327122	830
Nonclay refractory manufacturing	327125	1538
Clay refractory and other structural clay products	32712A	1212
Glass container manufacturing	327213	4153
Glass and glass products, except glass containers	32721A	18251
Cement manufacturing	327310	6341
Ready-mix concrete manufacturing	327320	17809
Concrete block and brick manufacturing	327331	2379
Concrete pipe manufacturing	327332	1925
Other concrete product manufacturing	327390	5803
Lime manufacturing	327410	1139
Gypsum product manufacturing	327420	4291
Abrasive product manufacturing	327910	4562
Cut stone and stone product manufacturing	327991	1222
Ground or treated minerals and earths manufacturing	327992	2359
Mineral wool manufacturing	327993	4299
Miscellaneous nonmetallic mineral products	327999	1678
Iron and steel mills	331111	57132
Ferroalloy and related product manufacturing	331112	1201
Iron, steel pipe and tube from purchased steel	331210	7439
Rolled steel shape manufacturing	331221	6387
Steel wire drawing	331222	4818
Alumina refining	331311	1193
Primary aluminum production	331312	6151
Secondary smelting and alloying of aluminum	331314	3581
Aluminum sheet, plate, and foil manufacturing	331315	13440
Aluminum extruded product manufacturing	331316	6182
Other aluminum rolling and drawing	331319	1647

Sector Name	IO Number	Total Industry Output, [\$million]
Primary smelting and refining of copper	331411	6361
Primary nonferrous metal, except copper and aluminum	331419	3471
Copper rolling, drawing, and extruding	331421	7534
Copper wire, except mechanical, drawing	331422	1031
Secondary processing of copper	331423	1176
Nonferrous metal, except copper and aluminum, shaping	331491	7197
Secondary processing of other nonferrous	331492	3101
Ferrous metal foundries	331510	17208
Aluminum foundries	33152A	7620
Nonferrous foundries, except aluminum	33152B	3787
Iron and steel forging	332111	4956
Nonferrous forging	332112	1860
Custom roll forming	332114	3020
All other forging and stamping	33211A	14083
Cutlery and flatware, except precious, manufacturing	332211	2191
Hand and edge tool manufacturing	332212	6018
Saw blade and handsaw manufacturing	332213	1259
Kitchen utensil, pot, and pan manufacturing	332214	1266
Prefabricated metal buildings and components	332311	3993
Fabricated structural metal manufacturing	332312	15140
Plate work manufacturing	332313	2794
Metal window and door manufacturing	332321	9823
Sheet metal work manufacturing	332322	15725
Ornamental and architectural metal work manufacturing	332323	3896
Power boiler and heat exchanger manufacturing	332410	3709
Metal tank, heavy gauge, manufacturing	332420	4669
Metal can, box, and other container manufacturing	332430	14068
Hardware manufacturing	332500	10474
Spring and wire product manufacturing	332600	7984
Machine shops	332710	25889
Turned product and screw, nut, and bolt manufacturing	332720	16015
Metal heat treating	332811	3495
Metal coating and nonprecious engraving	332812	8441
Electroplating, anodizing, and coloring metal	332813	5975
Metal valve manufacturing	332910	20970
Ball and roller bearing manufacturing	332991	6095
Small arms manufacturing	332994	1327
Other ordnance and accessories manufacturing	332995	1776
Fabricated pipe and pipe fitting manufacturing	332996	4037
Industrial pattern manufacturing	332997	659
Enameled iron and metal sanitary ware manufacturing	332998	1584
Miscellaneous fabricated metal product manufacturing	332999	10375
Ammunition manufacturing	33299A	2475

Sector Name	IO Number	Total Industry Output, [\$million]
Farm machinery and equipment manufacturing	333111	15538
Lawn and garden equipment manufacturing	333112	6864
Construction machinery manufacturing	333120	20388
Mining machinery and equipment manufacturing	333131	2542
Oil and gas field machinery and equipment	333132	6156
Sawmill and woodworking machinery	333210	1189
Plastics and rubber industry machinery	333220	3373
Paper industry machinery manufacturing	333291	3233
Textile machinery manufacturing	333292	1657
Printing machinery and equipment manufacturing	333293	3316
Food product machinery manufacturing	333294	2767
Semiconductor machinery manufacturing	333295	10603
All other industrial machinery manufacturing	333298	7986
Office machinery manufacturing	333313	2960
Optical instrument and lens manufacturing	333314	3133
Photographic and photocopying equipment manufacturing	333315	7612
Other commercial and service industry machinery manufacturing	333319	8851
Automatic vending, commercial laundry and dry-cleaning machinery	33331A	1865
Air purification equipment manufacturing	333411	2072
Industrial and commercial fan and blower manufacturing	333412	1838
Heating equipment, except warm air furnaces	333414	3619
AC, refrigeration, and forced air heating	333415	21887
Industrial mold manufacturing	333511	5017
Metal cutting machine tool manufacturing	333512	4975
Metal forming machine tool manufacturing	333513	2125
Special tool, die, jig, and fixture manufacturing	333514	8152
Cutting tool and machine tool accessory manufacturing	333515	5112
Rolling mill and other metalworking machinery	33351A	3967
Turbine and turbine generator set units manufacturing	333611	5307
Other engine equipment manufacturing	333618	18234
Speed changers and mechanical power transmission equipment	33361A	5500
Pump and pumping equipment manufacturing	333911	6480
Air and gas compressor manufacturing	333912	5186
Measuring and dispensing pump manufacturing	333913	1274
Elevator and moving stairway manufacturing	333921	1570
Conveyor and conveying equipment manufacturing	333922	5866
Overhead cranes, hoists, and monorail systems	333923	3084
Industrial truck, trailer, and stacker manufacturing	333924	5097
Power-driven hand tool manufacturing	333991	3369
Welding and soldering equipment manufacturing	333992	4358
Packaging machinery manufacturing	333993	4550
Industrial process furnace and oven manufacturing	333994	2780
Fluid power cylinder and actuator manufacturing	333995	3444

Sector Name	IO Number	Total Industry Output, [\$million]
Fluid power pump and motor manufacturing	333996	2530
Scales, balances, and miscellaneous general purpose machinery	33399A	9156
Electronic computer manufacturing	334111	60511
Computer storage device manufacturing	334112	13019
Computer terminal manufacturing	334113	1370
Other computer peripheral equipment manufacturing	334119	23926
Telephone apparatus manufacturing	334210	37541
Broadcast and wireless communications equipment	334220	38861
Other communications equipment manufacturing	334290	3982
Audio and video equipment manufacturing	334300	8154
Electron tube manufacturing	334411	3835
Semiconductors and related device manufacturing	334413	77367
All other electronic component manufacturing	33441A	54749
Electromedical apparatus manufacturing	334510	10924
Search, detection, and navigation instruments	334511	31990
Automatic environmental control manufacturing	334512	2729
Industrial process variable instruments	334513	7536
Totalizing fluid meters and counting devices	334514	3717
Electricity and signal testing instruments	334515	13530
Analytical laboratory instrument manufacturing	334516	6643
Irradiation apparatus manufacturing	334517	3657
Watch, clock, and other measuring and controlling device manufacturing	33451A	5590
Software reproducing	334611	1242
Audio and video media reproduction	334612	3741
Magnetic and optical recording media manufacturing	334613	4600
Electric lamp bulb and part manufacturing	335110	3183
Lighting fixture manufacturing	335120	8930
Electric house wares and household fan manufacturing	335211	3005
Household vacuum cleaner manufacturing	335212	2233
Household cooking appliance manufacturing	335221	3464
Household refrigerator and home freezer manufacturing	335222	4837
Household laundry equipment manufacturing	335224	3557
Other major household appliance manufacturing	335228	3259
Electric power and specialty transformer manufacturing	335311	4650
Motor and generator manufacturing	335312	11815
Switchgear and switchboard apparatus manufacturing	335313	7309
Relay and industrial control manufacturing	335314	10760
Storage battery manufacturing	335911	4395
Primary battery manufacturing	335912	2351
Fiber optic cable manufacturing	335921	2741
Other communication and energy wire manufacturing	335929	12243
Wiring device manufacturing	335930	10079
Carbon and graphite product manufacturing	335991	2262

Sector Name	IO Number	Total Industry Output, [\$million]
Miscellaneous electrical equipment manufacturing	335999	6714
Automobile and light truck manufacturing	336110	205816
Heavy duty truck manufacturing	336120	14389
Motor vehicle body manufacturing	336211	8599
Truck trailer manufacturing	336212	5328
Motor home manufacturing	336213	3921
Travel trailer and camper manufacturing	336214	4421
Motor vehicle parts manufacturing	336300	173523
Aircraft manufacturing	336411	54867
Aircraft engine and engine parts manufacturing	336412	22099
Other aircraft parts and equipment	336413	20122
Guided missile and space vehicle manufacturing	336414	15122
Propulsion units and parts for space vehicles and guided missiles	33641A	3976
Railroad rolling stock manufacturing	336500	8260
Ship building and repairing	336611	10543
Boat building	336612	5404
Motorcycle, bicycle, and parts manufacturing	336991	3176
Military armored vehicles and tank parts manufacturing	336992	1023
All other transportation equipment manufacturing	336999	4437
Wood kitchen cabinet and countertop manufacturing	337110	9098
Upholstered household furniture manufacturing	337121	8385
Non-upholstered wood household furniture manufacturing	337122	10741
Metal household furniture manufacturing	337124	2306
Institutional furniture manufacturing	337127	4104
Other household and institutional furniture	33712A	863
Wood office furniture manufacturing	337211	3093
Custom architectural woodwork and millwork	337212	2256
Office furniture, except wood, manufacturing	337214	8027
Showcases, partitions, shelving, and lockers	337215	7750
Mattress manufacturing	337910	3879
Blind and shade manufacturing	337920	2213
Laboratory apparatus and furniture manufacturing	339111	2216
Surgical and medical instrument manufacturing	339112	17551
Surgical appliance and supplies manufacturing	339113	14029
Dental equipment and supplies manufacturing	339114	2400
Ophthalmic goods manufacturing	339115	3387
Dental laboratories	339116	3006
Jewelry and silverware manufacturing	339910	11693
Sporting and athletic goods manufacturing	339920	10889
Doll, toy, and game manufacturing	339930	4362
Office supplies, except paper, manufacturing	339940	4214
Sign manufacturing	339950	8959
Gasket, packing, and sealing device manufacturing	339991	5038

Sector Name	IO Number	Total Industry Output, [\$million]
Musical instrument manufacturing	339992	1321
Broom, brush, and mop manufacturing	339994	1974
Burial casket manufacturing	339995	1271
Buttons, pins, and all other miscellaneous manufacturing	33999A	9493
Wholesale trade	420000	752854
Air transportation	481000	119445
Rail transportation	482000	37967
Water transportation	483000	24397
Truck transportation	484000	169397
Transit and ground passenger transportation	485000	24626
Pipeline transportation	486000	27284
Scenic and sightseeing transportation and support activities for transportation	48A000	44338
Postal service	491000	58861
Couriers and messengers	492000	41786
Warehousing and storage	493000	29223
Retail trade	4A0000	729824
Newspaper publishers	511110	41043
Periodical publishers	511120	29522
Book publishers	511130	22306
Database, directory, and other publishers	5111A0	20672
Software publishers	511200	61377
Motion picture and video industries	512100	49744
Sound recording industries	512200	11428
Radio and television broadcasting	513100	41272
Cable networks and program distribution	513200	45175
Telecommunications	513300	277605
Information services	514100	11704
Data processing services	514200	35812
Non-depository credit intermediation and related activities	522A00	124794
Securities, commodity contracts, investments	523000	198075
Insurance carriers	524100	249661
Insurance agencies, brokerages, and related	524200	90354
Funds, trusts, and other financial vehicles	525000	64300
Monetary authorities and depository credit intermediation	52A000	343510
Real estate	531000	607472
Automotive equipment rental and leasing	532100	42162
Video tape and disc rental	532230	8324
Machinery and equipment rental and leasing	532400	41085
General and consumer goods rental except video tapes and discs	532A00	17143
Lessors of non-financial intangible assets	533000	102007
Legal services	541100	152041
Accounting and bookkeeping services	541200	71433
Architectural and engineering services	541300	131136

Sector Name	IO Number	Total Industry Output, [\$million]
Specialized design services	541400	17739
Custom computer programming services	541511	86327
Computer systems design services	541512	29508
Other computer related services, including facilities management	54151A	23429
Management consulting services	541610	69148
Environmental and other technical consulting services	5416A0	15915
Scientific research and development services	541700	63340
Advertising and related services	541800	57713
Photographic services	541920	8874
Veterinary services	541940	10398
All other miscellaneous professional and technical services	5419A0	41432
Management of companies and enterprises	550000	315497
Office administrative services	561100	29642
Facilities support services	561200	8044
Employment services	561300	88653
Business support services	561400	40562
Travel arrangement and reservation services	561500	25097
Investigation and security services	561600	21834
Services to buildings and dwellings	561700	61125
Other support services	561900	28717
Waste management and remediation services	562000	41690
Elementary and secondary schools	611100	22039
Colleges, universities, and junior colleges	611A00	55821
Other educational services	611B00	23832
Home health care services	621600	36198
Offices of physicians, dentists, and other health practitioners	621A00	268711
Other ambulatory health care services	621B00	75161
Hospitals	622000	267335
Nursing and residential care facilities	623000	93582
Child day care services	624400	26766
Social assistance, except child day care services	624A00	39516
Performing arts companies	711100	8934
Spectator sports	711200	15696
Independent artists, writers, and performers	711500	14264
Promoters of performing arts and sports and agents for public figures	711A00	10511
Museums, historical sites, zoos, and parks	712000	4514
Fitness and recreational sports centers	713940	11068
Bowling centers	713950	2256
Other amusement, gambling, and recreation industries	713A00	66164
Hotels and motels, including casino hotels	7211A0	70574
Other accommodations	721A00	8382
Food services and drinking places	722000	344334
Car washes	811192	7237

Sector Name	IO Number	Total Industry Output, [\$million]
Automotive repair and maintenance, except car washes	8111A0	138414
Electronic equipment repair and maintenance	811200	36964
Commercial machinery repair and maintenance	811300	32976
Household goods repair and maintenance	811400	24649
Personal care services	812100	28756
Death care services	812200	11408
Dry-cleaning and laundry services	812300	20175
Other personal services	812900	34924
Religious organizations	813100	40397
Grant making and giving and social advocacy organizations	813A00	13979
Civic, social, professional and similar organizations	813B00	45081
Private households	814000	12035
Federal electric utilities	S00101	8337
Other Federal Government enterprises	S00102	7424
State and local government passenger transit	S00201	7513
State and local government electric utilities	S00202	22167
Other State and local government enterprises	S00203	94676
General government industry	S00500	937812
Inventory valuation adjustment	S00700	9211
Owner-occupied dwellings	S00800	592862

Appendix 3: Adjustments Made in Conventional Air Pollutant Vector Based on EPA Estimates

Source	IO 1997	Ratio of outputs	Sector name
Fuel combustion of electric utilities	221100	1.00	Power generation and supply
Fuel combustion other – Residential wood & residential other	814000	1.00	Households
Chemical and allied product mfg – Organic chemical mfg	325190	1.00	Other basic organic chemical manufacturing
Chemical and allied product mfg – Inorganic chemical mfg - Pigments	325130	1.00	Synthetic dye and pigment manufacturing
Chemical and allied product mfg – Inorganic chemical mfg – Polymer and resin	325211	1.00	Plastics material and resin manufacturing
Chemical and allied product mfg – Inorganic chemical mfg – Agricultural chemical	325311	0.16	Nitrogenous fertilizer manufacturing
	325312	0.24	Phosphatic fertilizer manufacturing
	325314	0.12	Fertilizer, mixing only, manufacturing
	325320	0.48	Pesticide and other agricultural chemical manufacturing
Chemical and allied product mfg – Inorganic chemical mfg – Paint, etc.	325510	1.00	Paint and coating manufacturing
Chemical and allied product mfg – Inorganic chemical mfg – Pharmaceutical	325400	1.00	Pharmaceutical and medicine manufacturing
Storage & transport – Petroleum & petroleum product, Organic chemical transport	486000	1.00	Pipeline transportation
Storage & transport – Storages	493000	1.00	Warehousing and storage
Waste disposal & recycling	562000	1.00	Waste management and remediation services
Non-road engines and vehicles – light commercial	420000	1.00	Wholesale trade
Non-road engines and vehicles – Aircraft	481000	1.00	Air transportation
Non-road engines and vehicles – Marine vessels	483000	1.00	Water transportation
Non-road engines and vehicles – Railroads	482000	1.00	Rail transportation
Other industrial processes – Wood, pulp & paper &	322110	0.01	Pulp mills
	3221A0	0.29	Paper and paperboard mills

Source	IO 1997	Ratio of outputs	Sector name
publishing products	322210	0.16	Paperboard container manufacturing
	322225	0.01	Flexible packaging foil manufacturing
	322226	0.00	Surface-coated paperboard manufacturing
	32222A	0.06	Coated and laminated paper and packaging materials
	32222B	0.01	Coated and uncoated paper bag manufacturing
	322231	0.01	Die-cut paper office supplies manufacturing
	322232	0.01	Envelope manufacturing
	322233	0.01	Stationery and related product manufacturing
	322291	0.03	Sanitary paper product manufacturing
	322299	0.02	All other converted paper product manufacturing
	323116	0.04	Manifold business forms printing
	323117	0.02	Books printing
	323118	0.01	Blankbook and loose-leaf binder manufacturing
	32311A	0.30	Commercial printing
Transportation – On-road vehicles	420000	NA	Wholesale trade
	484000	NA	Truck transportation
	485000	NA	Transit and ground passenger transportation
	491000	NA	Postal service
	492000	NA	Couriers and messengers
	4A0000	NA	Retail trade
Transportation – Non-road engines and vehicles – farm	1111A0	NA	Oilseed farming
	1111B0	NA	Grain farming
	111200	NA	Vegetable and melon farming
	111335	NA	Tree nut farming
	1113A0	NA	Fruit farming
	111400	NA	Greenhouse and nursery production
	111910	NA	Tobacco farming
	111920	NA	Cotton farming
	1119A0	NA	Sugarcane and sugar beet farming
	1119B0	NA	All other crop farming
112100	NA	Cattle ranching and farming	
Transportation – Non-road engines and vehicles –	230110	NA	New residential 1-unit structures, nonfarm

Source	IO 1997	Ratio of outputs	Sector name
construction	230120	NA	New multifamily housing structures, nonfarm
	230130	NA	New residential additions and alterations, nonfarm
	230140	NA	New farm housing units and additions and alterations
	230210	NA	Manufacturing and industrial buildings
	230220	NA	Commercial and institutional buildings
	230230	NA	Highway, street, bridge, and tunnel construction
	230240	NA	Water, sewer, and pipeline construction
	230250	NA	Other new construction
	230310	NA	Maintenance and repair of farm and nonfarm residential structures
	230320	NA	Maintenance and repair of nonresidential buildings
	230330	NA	Maintenance and repair of highways, streets, bridges, and tunnels
	230340	NA	Other maintenance and repair construction

Appendix 4: Adjustments Made in GWP Vector Based on EPA Estimates

Emission	Source	Amount of GHG allocated, Tg CO ₂ Eq.	IO number	Ratio of outputs	Sector name
CO ₂	Electricity generation	2,070.8	221100	1.00	Power generation and supply
	Transportation 50%	813.45	420000	0.37	Wholesale trade
			481000	0.06	Air transportation
			482000	0.02	Rail transportation
			483000	0.01	Water transportation
			484000	0.08	Truck transportation
			485000	0.01	Transit and ground passenger transportation
			486000	0.01	Pipeline transportation
			48A000	0.02	Scenic and sightseeing transportation and support activities for transportation
			491000	0.03	Postal service
			492000	0.02	Couriers and messengers
			493000	0.01	Warehousing and storage
	4A0000	0.35	Retail trade		
	Iron and steel production	71.9	331111	0.58	Iron and steel mills
			331112	0.01	Ferroalloy and related product manufacturing
			331210	0.08	Iron, steel pipe and tube from purchased steel
			331221	0.06	Rolled steel shape manufacturing
			331222	0.05	Steel wire drawing
			331510	0.17	Ferrous metal foundries
			332111	0.05	Iron and steel forging
	Cement manufacture	38.3	327310	1.00	Cement manufacturing
Lime manufacture	13.7	327410	1.00	Lime manufacturing	
CH ₄	Landfills	207.5	562000	1.00	Waste management and remediation services
	Natural gas systems	126.0	221200	0.37	Natural gas distribution
			211000	0.63	Oil and gas extraction
	Coal mining	68.1	212100	1.00	Coal mining
	Enteric fermentation	118.3	112100	1.00	Cattle ranching and farming
Petroleum systems	23.6	324110	1.00	Petroleum refineries	
N ₂ O	Agricultural	298.2	1111A0	0.15	Oilseed farming

Emission	Source	Amount of GHG allocated, Tg CO ₂ Eq.	IO number	Ratio of outputs	Sector name
	soil management		1111B0	0.29	Grain farming
			111200	0.11	Vegetable and melon farming
			111335	0.02	Tree nut farming
			1113A0	0.08	Fruit farming
			111400	0.10	Greenhouse and nursery production
			111910	0.02	Tobacco farming
			111920	0.05	Cotton farming
			1119A0	0.02	Sugarcane and sugar beet farming
	1119B0	0.16	All other crop farming		
	Stationary combustion	13.7	221100	1.00	Power generation and supply
	Adipic acid	10.3	325211	1.00	Plastics material and resin manufacturing
CFCs and HCFCs	Electrical transmission and distribution	25.2	221100	1.00	Power generation and supply
	Semiconductor manufacture	6.5	334413	1.00	Semiconductors and related device manufacturing
	Aluminum production	11.0	331311	0.03	Alumina refining
			331312	0.15	Primary aluminum production
			331314	0.09	Secondary smelting and alloying of aluminum
			331315	0.34	Aluminum sheet, plate, and foil manufacturing
			331316	0.16	Aluminum extruded product manufacturing
			331319	0.04	Other aluminum rolling and drawing
			33152A	0.19	Aluminum foundries
	Magnesium production and processing	6.3	331419	0.10	Primary nonferrous metal, except copper and aluminum
			331491	0.20	Copper rolling, drawing, and extruding
			331492	0.08	Copper wire, except mechanical, drawing
			33152B	0.10	Secondary processing of copper
			332112	0.05	Nonferrous metal, except copper and aluminum, shaping
			332114	0.08	Secondary processing of other nonferrous
			33211A	0.39	Ferrous metal foundries