

Appendix C-1: Net Gains and Losses in High Technology Establishments and Jobs, by Four-Digit Standard Industrial Code

Table 1				
Net gains in establishments from high tech firms moving into and out of PA (by 4 digit SIC) '90 - '06				
SIC Description	SIC	Out	In	Net
Computer Related Services, NEC (disk conversion services & computer systems consultants)	7379	98	118	20
Commercial Physical and Biological Research	8731	22	35	13
Plastics Products, NEC (inflatable plastic life jackets)	3089	24	33	9
Plastics Materials, Synthetic and Resins, and Non-vulcanizable Elastomers	2821	2	10	8
Prepackaged Software (mass reproduction of software & software publishing)	7372	38	45	7
Pharmaceutical Preparations	2834	16	20	4
Measuring and Controlling Devices, NEC	3829	8	12	4
Current-Carrying Wiring Devices	3643	1	5	4
Aircraft Engines and Engine Parts	3724	1	5	4
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical Systems and Instruments	3812	1	5	4
Electronic Connectors	3678	0	4	4
Electronic Components, NEC (antennas, radio headphones & printed circuit/elec. assembly mfg)	3679	10	13	3
Industrial Instruments for Measurement, Display & Control of Process Variables	3823	3	6	3
Biological Products, Except Diagnostic Substances	2836	1	4	3
Electrical Industrial Apparatus, NEC	3629	1	4	3
X-Ray Apparatus and Tubes and Related Irradiation Apparatus	3844	0	3	3
Industrial and Commercial Machinery and Equipment, NEC (water leak detectors)	3599	23	25	2
Wood Products, NEC (cork life preservers)	2499	10	12	2
Radio and Television Broadcasting and Communications Equipment	3663	7	9	2
Dental Equipment and Supplies	3843	3	5	2
Carbon and Graphite Products	3624	1	3	2
Automatic Controls for Regulating Residential and Commercial Environments and Appliances	3822	1	3	2

Magnetic and Optical Recording Media	3695	0	2	2
Computer Facilities Management Services	7376	0	2	2
Laboratory Analytical Instruments	3826	5	7	2
Computer Processing and Data Preparation and Processing Services	7374	41	42	1
Orthopedic, Prosthetic, and Surgical Appliances and Supplies	3842	9	10	1
Services Allied to Motion Picture Production (reproduction of video)	7819	6	7	1
Telephone and Telegraph Apparatus	3661	5	6	1
Laboratory Apparatus and Furniture	3821	4	5	1
In Vitro and In Vivo Diagnostic Substances	2835	2	3	1
Household Audio and Video Equipment	3651	2	3	1
Phonograph Records & Prerecorded Audio Tapes & Disks (repro. of all other media except video)	3652	2	3	1
Office Machines, NEC (time clocks and other time recording devices)	3579	1	2	1
Jewelers Findings and Materials and Lapidary Work (watch jewels)	3915	1	2	1
Medicinal Chemicals and Botanical Products	2833	0	1	1
Electronic Capacitors	3675	0	1	1
Guided Missile and Space Vehicle Propulsion Units and Propulsion Unit Parts	3764	0	1	1

Table 2

Net losses in establishments from high tech firms moving into and out of PA (by 4 digit SIC) '90 - '06

SIC Description	SIC	Out	In	Net
Business Services, NEC (microfilm services)	7389	387	366	-21
Computer Integrated Systems Design	7373	51	41	-10
Commercial Economic, Sociological & Educational Research (social sciences & humanities)	8732	34	24	-10
Computer Programming Services	7371	115	108	-7
Misc. Retail Stores, NEC (manufacture of orthopedic devices to prescription in a retail environment)	5999	98	91	-7
Radiotelephone Communications (paging & cellular carriers)	4812	12	7	-5
Optical Goods Stores (optical laboratories grinding lenses to prescription)	5995	11	7	-4
Electro-medical and Electrotherapeutic Apparatus	3845	5	1	-4
Computer Peripheral Equipment, NEC	3577	6	4	-2
Hardware, NEC (time locks)	3429	5	3	-2
Drawing and Insulating of Nonferrous Wire (fiber optic, communication & energy wire)	3357	4	2	-2

Storage Batteries	3691	3	1	-2
Communications Services, NEC (ship to shore broadcasting carriers & satellite communications)	4899	11	10	-1
Fabricated Rubber Products, NEC (rubber gloves, inflatable rubber lifejackets)	3069	7	6	-1
Printed Circuit Boards	3672	5	4	-1
Wire Springs (clock and watch springs)	3495	3	2	-1
Totalizing Fluid Meters and Counting Devices	3824	3	2	-1
Aircraft Parts and Auxiliary Equipment, NEC	3728	2	1	-1
Watches, Clocks, Clockwork Operated Devices, and Parts	3873	2	1	-1
Computer Terminals	3575	1	0	-1
Surgical and Medical Instruments and Apparatus	3841	19	19	0
Noncommercial Research Organizations (physical, engineering, humanities & life & social sciences)	8733	17	17	0
Dental Laboratories	8072	13	13	0
Electrical Machinery, Equipment, and Supplies, NEC (other electrical industrial apparatus)	3699	9	9	0
Instruments for Measuring & Testing of Electrical Signals (auto. ammeters & voltmeters)	3825	6	6	0
Electronic Computers	3571	5	5	0
Semiconductors and Related Devices	3674	5	5	0
Communications Equipment, NEC	3669	3	3	0
Electronic Coils, Transformers, and Other Inductors	3677	3	3	0
Computer Storage Devices	3572	1	1	0
Noncurrent-Carrying Wiring Devices (except fishwire, electrical wiring tool)	3644	1	1	0
Aircraft	3721	1	1	0
Ophthalmic Goods (intra-ocular lenses, i.e., surgical implants)	3851	1	1	0

Table 3				
Net job gains from high tech firms moving into and out of PA (by 4 digit SIC) '90 - '06				
SIC Description	SIC	Out	In	Net
Radio and Television Broadcasting and Communications Equipment	3663	72	2,344	2,272
Electrical Industrial Apparatus, NEC	3629	50	1,549	1,499
Aircraft Engines and Engine Parts	3724	1	577	576
Telephone and Telegraph Apparatus	3661	42	572	530
Commercial Physical and Biological Research	8731	154	619	465
Hardware, NEC (time locks)	3429	42	453	411
Plastics Materials, Synthetic and Resins, and Non-vulcanizable Elastomers	2821	67	405	338
X-Ray Apparatus and Tubes and Related Irradiation Apparatus	3844	0	313	313
Current-Carrying Wiring Devices	3643	119	382	263
Electronic Connectors	3678	0	258	258
Prepackaged Software (mass reproduction of software & software publishing)	7372	636	855	219
Electronic Computers	3571	65	260	195
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical Systems and Instruments	3812	5	183	178
Computer Related Services, NEC (disk conversion services & computer systems consultants)	7379	1,012	1,161	149
Electronic Capacitors	3675	0	140	140
Computer Peripheral Equipment, NEC	3577	134	263	129
In Vitro and In Vivo Diagnostic Substances	2835	16	108	92
Biological Products, Except Diagnostic Substances	2836	5	83	78
Computer Processing and Data Preparation and Processing Services	7374	560	631	71
Dental Equipment and Supplies	3843	55	117	62
Industrial and Commercial Machinery and Equipment, NEC (water leak detectors)	3599	312	371	59
Wood Products, NEC (cork life preservers)	2499	70	119	49
Wire Springs (clock and watch springs)	3495	37	86	49
Radiotelephone Communications (paging & cellular carriers)	4812	73	117	44
Aircraft Parts and Auxiliary Equipment, NEC	3728	7	50	43
Computer Integrated Systems Design	7373	681	713	32
Automatic Controls for Regulating Residential and Commercial Environments and Appliances	3822	2	33	31
Computer Facilities Management Services	7376	0	30	30
Electronic Coils, Transformers, and Other Inductors	3677	110	135	25

Noncurrent-Carrying Wiring Devices (except fishwire, electrical wiring tool)	3644	1	25	24
Industrial Instruments for Measurement, Display & Control of Process Variables	3823	9	31	22
Magnetic and Optical Recording Media	3695	0	21	21
Medicinal Chemicals and Botanical Products	2833	0	15	15
Guided Missile and Space Vehicle Propulsion Units and Propulsion Unit Parts	3764	0	15	15
Household Audio and Video Equipment	3651	32	44	12
Noncommercial Research Organizations (physical, engineering, humanities and life & social sciences)	8733	66	73	7
Dental Laboratories	8072	50	56	6
Phonograph Records & Prerecorded Audio Tapes & Disks (repro. of all other media except video)	3652	9	15	6
Laboratory Apparatus and Furniture	3821	181	186	5
Instruments for Measuring & Testing of Electricity & Electrical Signals (auto. ammeters and voltmeters)	3825	70	75	5
Services Allied to Motion Picture Production (reproduction of video)	7819	23	26	3

Table 4				
Net job losses from high tech firms moving into and out of PA (by 4 digit SIC) '90 - '06				
SIC Description	SIC	Out	In	Net
Orthopedic, Prosthetic, and Surgical Appliances and Supplies	3842	3,045	179	-2,866
Business Services, NEC (microfilm services)	7389	4,207	2,974	-1,233
Totalizing Fluid Meters and Counting Devices	3824	1,270	71	-1,199
Storage Batteries	3691	1,085	15	-1,070
Pharmaceutical Preparations	2834	1,358	318	-1,040
Laboratory Analytical Instruments	3826	828	121	-707
Carbon and Graphite Products	3624	700	22	-678
Electronic Components, NEC (antennas, radio headphones & printed circuit/electronic assembly mfg)	3679	806	187	-619
Drawing and Insulating of Nonferrous Wire (fiber optic, communication & energy wire)	3357	567	23	-544
Surgical and Medical Instruments and Apparatus	3841	650	289	-361
Commercial Economic, Sociological, and Educational Research (social sciences and humanities)	8732	498	213	-285
Computer Programming Services	7371	1,523	1,369	-154
Jewelers Findings and Materials and Lapidary Work (watch jewels)	3915	145	3	-142

Fabricated Rubber Products, NEC (rubber gloves, inflatable rubber lifejackets)	3069	485	369	-116
Measuring and Controlling Devices, NEC	3829	234	126	-108
Plastics Products, NEC (inflatable plastic life jackets)	3089	1,419	1,328	-91
Printed Circuit Boards	3672	100	29	-71
Office Machines, NEC (time clocks and other time recording devices)	3579	74	15	-59
Semiconductors and Related Devices	3674	150	95	-55
Electrical Machinery, Equipment, and Supplies, NEC (other electrical industrial apparatus)	3699	200	157	-43
Communications Services, NEC (ship to shore broadcasting carriers & satellite communications)	4899	106	64	-42
Watches, Clocks, Clockwork Operated Devices, and Parts	3873	47	15	-32
Miscellaneous Retail Stores, NEC (manu. of orthopedic devices to prescription in retail environment)	5999	561	532	-29
Electromedical and Electrotherapeutic Apparatus	3845	35	9	-26
Aircraft	3721	8	1	-7
Optical Goods Stores (optical laboratories grinding lenses to prescription)	5995	51	44	-7
Communications Equipment, NEC	3669	14	9	-5
Computer Terminals	3575	2	0	-2
Computer Storage Devices	3572	4	4	0
Ophthalmic Goods (intraocular lenses, i.e., surgical implants)	3851	2	2	0