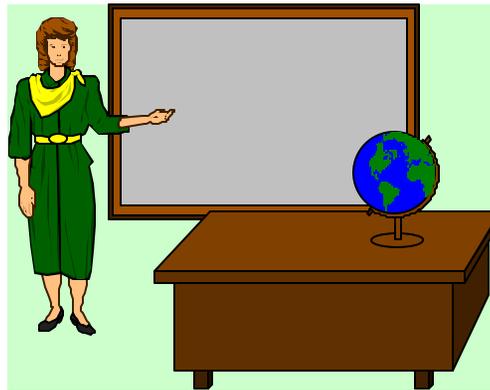


Industry and Occupational Employment Projections: 1998 - 2008

Northwest, VA Region



Virginia Employment Commission
Economic Information Services Division
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For more information about how the projections are done, call Ms. Lynn Bradford at (804) 786-8218. To obtain the projections for other geographical areas or additional copies of these projections, contact the Labor Market and Demographic Analysis Unit of the Economic Information Services Division at (804) 786-8223.

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NONMETROPOLITAN AREAS

Region 1 - Southwest Virginia

Bland County
Buchanan County
Carroll County
Craig County
Dickenson County
Floyd County
Franklin County
Giles County
Grayson County
Henry County
Lee County
Montgomery County
Patrick County
Pulaski County
Russell County
Smyth County
Tazewell County
Wise County
Wythe County
Galax City
Martinsville City
Norton City
Radford City

Region 2 - Southside Virginia

Amelia County
Appomattox County
Brunswick County
Buckingham County
Charlotte County
Cumberland County
Greensville County
Halifax County
Lunenburg County
Mecklenburg County
Nottoway County
Prince Edward County
Southampton County
Surry County
Sussex County
Emporia City
Franklin City

Region 3 - Northeast Virginia

Accomack County
Caroline County
Essex County
King & Queen County
King William County
Lancaster County
Middlesex County
Northampton County
Northumberland County
Richmond County
Westmoreland County

Region 4 - Northwest Virginia

Alleghany County
Augusta County
Bath County
Frederick County
Highland County
Louisa County
Madison County
Nelson County
Orange County
Page County
Rappahannock County
Rodkbridge County
Rockingham County
Shenandoah County
Buena Vista City
Clifton Forge City
Covington City
Harrisonburg City
Lexington City
Staunton City
Waynesboro City
Winchester City

METROPOLITAN STATISTICAL AREAS

Johnson City-Kingsport-Bristol, TN-VA MSA (Virginia Portion)

Scott County
 Washington County
 Bristol City

Charlottesville MSA

Albemarle County
 Fluvanna County
 Greene County
 Charlottesville City

Danville MSA

Pittsylvania County
 Danville City

Lynchburg MSA

Amherst County
 Bedford County
 Campbell County
 Bedford City
 Lynchburg City

Norfolk-Virginia Beach-Newport News, VA-NC MSA (Virginia Portion)

Gloucester County
 Isle of Wight County
 James City County
 Mathews County
 York County
 Chesapeake City
 Hampton City
 Newport News City
 Norfolk City
 Poquoson City
 Portsmouth City
 Suffolk City
 Virginia Beach City
 Williamsburg City

Washington DC-MD-VA-WV PMSA (Virginia Portion)

Arlington County
 Clarke County
 Culpeper County
 Fairfax County
 Fauquier County
 King George County
 Loudoun County
 Prince William County
 Spotsylvania County
 Stafford County
 Warren County
 Alexandria City
 Fairfax City
 Falls Church City
 Fredericksburg City
 Manassas City
 Manassas Park City

Richmond-Petersburg MSA

Charles City County
 Chesterfield County
 Dinwiddie County
 Goochland County
 Hanover County
 Henrico County
 New Kent County
 Powhatan County
 Prince George County
 Colonial Heights City
 Hopewell City
 Petersburg City
 Richmond City

Roanoke MSA

Botetourt County
 Roanoke County
 Roanoke City
 Salem City

METHODOLOGY

The following projections are extrapolations of past trends into the future. The methodology for extending these trends is based on certain assumptions, which include the following:

1. The economic structure of the United States and Virginia will not change radically;
2. No major event such as widespread or long-lasting energy shortages or war will significantly alter the industrial structure of the economy or the rate of economic growth; and
3. The effects of current technology and scientific trends on industrial employment will continue.

Industry Projections

The starting point in the projections process was the assembly of 1998 industry employment, mostly by three-digit Standard Industrial Classification (SIC) code, for the state, eight metropolitan statistical areas (MSAs), and four non-MSA regions. The employment data came from the Quarterly Employment and Wages (ES0202) program. The Bureau of Economic Analysis (BEA) was the source for some agricultural employment and the Current Employment Statistics (CES) program was the source for railroad employment. The second step was to obtain growth rates for each three-digit SIC code for the period of 1998-2008 from the U.S. Department of Labor. These growth rates were applied to the appropriate industries for all of the substate areas. The resulting projections were reviewed by the economists and the supervisor of Labor Market and Demographic Analysis in the Economic Information Services Division of the Virginia Employment Commission. The state industry projections were then created from the substate projections.

Occupational Projections

The procedure for bridging the gap between industries and occupations uses the industry-occupational employment matrix. The matrix is a table showing the occupational pattern of each industry, i.e., the ratios of employment by occupation in that industry. The statewide industry-occupational matrix is based on the annual Occupational Employment Statistics (OES) employment survey. This survey draws a sample from one-third of the Virginia business establishments and covers almost all SIC codes. Over a three-year cycle, almost all of the nonagricultural economy is sampled. Estimates of occupations are made by size class within each three-digit industry level and then summed across size classes to yield an occupation-by-industry matrix. The industry-occupational employment matrix used to produce the occupational employment projections in this report was developed from the 1996, 1997, and 1998 OES surveys. Supplemental data for some industrial sectors including Agriculture, Forestry and Fishing (except SIC 07, Agricultural Services), Private Households, and the Federal Government were obtained from sources such as the Census Bureau and the Office of Personnel Management since those are not covered under the OES survey. Occupational ratios for each industry were applied to the base year and the projected year industry employment for the state and substate areas. The projected year matrix has been adjusted for occupational change over the projection period based on information received from the U.S. Bureau of Labor Statistics.

Job Openings Projections

Job openings result when new positions are created by industrial growth (expansion) or when existing positions are vacated because of the death, retirement, or separation from the labor force of incumbent employees (replacement). For the purposes of these data, vacancies created by promotion or transfer are not considered job openings since, overall, there is no aggregate change in job availability. Total job openings for the future equals the sum of expansion needs and replacement needs. Job Openings due to expansion are the annual average change in employment for the period. Openings due to replacement are based on separation rates by occupation which were derived from employment data gathered from the U.S. Department of Labor's Current Population Survey. The resulting separation rate for each occupation was then applied to the employment in the occupation for the base year to produce average annual separations. Statewide rates are used in estimating replacement needs for the substate areas.

Data Limitations

Every effort was made to ensure the reasonableness of the data. The best use of the projections will be as indicators of trends, rather than as absolute numbers.

This report makes no distinction between full-time and part-time jobs. Since these estimates are intended to count jobs rather than persons, the secondary jobs of multiple jobholders are included.

The accuracy of projections cannot exceed the accuracy of the input. The following assumptions were made:

1. That the base year industry employment is correct, i.e., industries are properly classified, counted in the correct geographic area, etc.
2. That the industry staffing patterns obtained by the OES survey are accurate, and that projected change factors are reasonable.
3. That the labor force separation rates used are accurate.
4. That the changes in occupational employment estimates for the projections period result mostly from changes in industrial employment.

TOTAL EMPLOYMENT BY INDUSTRY DIVISION AND MAJOR GROUP (2-DIGIT SIC)

Region 4 - Northwest VA 1998 – 2008

(SIC) INDUSTRY	EMPLOYMENT			PERCENT CHANGE	
	Estimated 1998	Projected 2008	Change	Total	Annual
Total All Industries	220,026	257,047	37,021	16.83%	1.57%
Agriculture, Forestry, & Fishing, Total	13,900	12,807	-1,093	-7.86%	-0.82%
(01) Agricultural Production, Crops	6,025	5,275	-750	-12.45%	-1.32%
(02) Agriculture Production, Livestock	6,177	5,407	-770	-12.47%	-1.32%
(07) Agricultural Services	1,596	2,033	437	27.38%	2.45%
(08) Forestry	102	92	-10	-9.80%	-1.03%
(09) Fishing, Hunting, & Trapping	0	0	0	0.00%	0.00%
Mining, Total	569	504	-65	-11.42%	-1.21%
(10) Metal Mining	0	0	0	0.00%	0.00%
(12) Coal Mining	0	0	0	0.00%	0.00%
(13) Oil & Gas Extraction	0	0	0	0.00%	0.00%
(14) Nonmetallic Minerals, Except Fuels	569	504	-65	-11.42%	-1.21%
Construction, Total	12,545	13,717	1,172	9.34%	0.90%
(15) General Building Contractors	3,461	3,737	276	7.97%	0.77%
(16) General Contractors, Exc Bldg	1,497	1,561	64	4.28%	0.42%
(17) Special Trade Contractors	7,587	8,419	832	10.97%	1.05%
Manufacturing, Total	55,437	56,036	599	1.08%	0.11%
Durable Goods Manufacturing, Total	19,923	19,618	-305	-1.53%	-0.15%
(24) Lumber & Wood Products	3,728	3,654	-74	-1.99%	-0.20%
(25) Furniture & Fixtures	1,106	1,097	-9	-0.81%	-0.08%
(32) Stone, Clay, & Glass	1,250	1,227	-23	-1.84%	-0.19%
(33) Primary Metal Industries	893	848	-45	-5.04%	-0.52%
(34) Fabricated Metal Products	3,478	3,343	-135	-3.88%	-0.40%
(35) Industrial Machinery & Equipment	3,559	3,638	79	2.22%	0.22%

D - Suppression of Industry Data to Prevent Disclosure of Confidential Data
SIC - Standard Industrial Classification

TOTAL EMPLOYMENT BY INDUSTRY DIVISION AND MAJOR GROUP (2-DIGIT SIC)

Region 4 - Northwest VA 1998 – 2008

(SIC) INDUSTRY	EMPLOYMENT			PERCENT CHANGE	
	Estimated 1998	Projected 2008	Change	Total	Annual
(36) Electronic & Other Electric Equipment	1,983	1,809	-174	-8.77%	-0.91%
(37) Transportation Equipment	2,358	2,346	-12	-0.51%	-0.05%
(38) Instruments & Related Products	1,379	1,461	82	5.95%	0.58%
(39) Misc Manufacturing Industries	189	195	6	3.17%	0.31%
Nondurable Goods Manufacturing, Total	35,514	36,418	904	2.55%	0.25%
(20) Food & Kindred Products	11,513	12,463	950	8.25%	0.80%
(21) Tobacco Products	0	0	0	0.00%	0.00%
(22) Textile Mill Products	4,204	4,010	-194	-4.61%	-0.47%
(23) Apparel & Other Textile Products	2,541	1,662	-879	-34.59%	-4.16%
(26) Paper & Allied Products	2,687	2,478	-209	-7.78%	-0.81%
(27) Printing & Publishing	4,213	4,283	70	1.66%	0.16%
(28) Chemicals & Allied Products	2,994	2,978	-16	-0.53%	-0.05%
(29) Petroleum & Coal Products	156	149	-7	-4.49%	-0.46%
(30) Rubber & Misc Plastics Products	7,203	8,392	1,189	16.51%	1.54%
(31) Leather & Leather Products	3	3	0	0.00%	0.00%
Transportation & Public Utilities, Total	10,174	10,845	671	6.60%	0.64%
Transportation, Total	6,516	7,092	576	8.84%	0.85%
(40) Railroad Transportation	485	389	-96	-19.79%	-2.18%
(41) Local & Interurban Passenger Transit	253	295	42	16.60%	1.55%
(42) Trucking & Warehousing	4,110	4,562	452	11.00%	1.05%
(43) U.S. Postal Service	1,053	1,087	34	3.23%	0.32%
(44) Water Transportation	0	0	0	0.00%	0.00%
(45) Transportation by Air	340	403	63	18.53%	1.71%
(46) Pipelines, Except Natural Gas	0	0	0	0.00%	0.00%

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TOTAL EMPLOYMENT BY INDUSTRY DIVISION AND MAJOR GROUP (2-DIGIT SIC)

Region 4 - Northwest VA 1998 – 2008

(SIC) INDUSTRY	EMPLOYMENT			PERCENT CHANGE	
	Estimated 1998	Projected 2008	Change	Total	Annual
(47) Transportation Services	275	356	81	29.45%	2.62%
Communications & Utilities, Total	3,658	3,753	95	2.60%	0.26%
(48) Communications	1,829	2,161	332	18.15%	1.68%
(49) Electric, Gas, & Sanitary Services	1,829	1,592	-237	-12.96%	-1.38%
Wholesale & Retail Trade, Total	46,607	55,780	9,173	19.68%	1.81%
Wholesale Trade, Total	7,697	8,193	496	6.44%	0.63%
(50) Wholesale Trade, Durable Goods	4,054	4,295	241	5.94%	0.58%
(51) Wholesale Trade, Nondurable Goods	3,643	3,898	255	7.00%	0.68%
Retail Trade, Total	38,910	47,587	8,677	22.30%	2.03%
(52) Bldg. Materials & Garden Supplies	1,878	2,328	450	23.96%	2.17%
(53) General Merchandise Stores	6,224	7,120	896	14.40%	1.35%
(54) Food Stores	6,263	7,242	979	15.63%	1.46%
(55) Auto Dealers & Service Stations	5,064	6,107	1,043	20.60%	1.89%
(56) Apparel & Accessory Stores	1,422	1,517	95	6.68%	0.65%
(57) Furniture & Homefurnishings Stores	1,836	2,415	579	31.54%	2.78%
(58) Eating & Drinking Places	11,840	15,058	3,218	27.18%	2.43%
(59) Miscellaneous Retail	4,383	5,800	1,417	32.33%	2.84%
Finance, Insurance, & Real Estate, Total	5,908	6,473	565	9.56%	0.92%
(60) Depository Institutions	2,323	2,362	39	1.68%	0.17%
(61) Nondepository Institutions	289	375	86	29.76%	2.64%
(62) Security & Commodity Brokers	144	200	56	38.89%	3.34%
(63) Insurance Carriers	382	422	40	10.47%	1.00%
(64) Insurance Agents, Brokers, & Service	661	731	70	10.59%	1.01%
(65) Real Estate	1,988	2,242	254	12.78%	1.21%

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TOTAL EMPLOYMENT BY INDUSTRY DIVISION AND MAJOR GROUP (2-DIGIT SIC)

Region 4 - Northwest VA 1998 – 2008

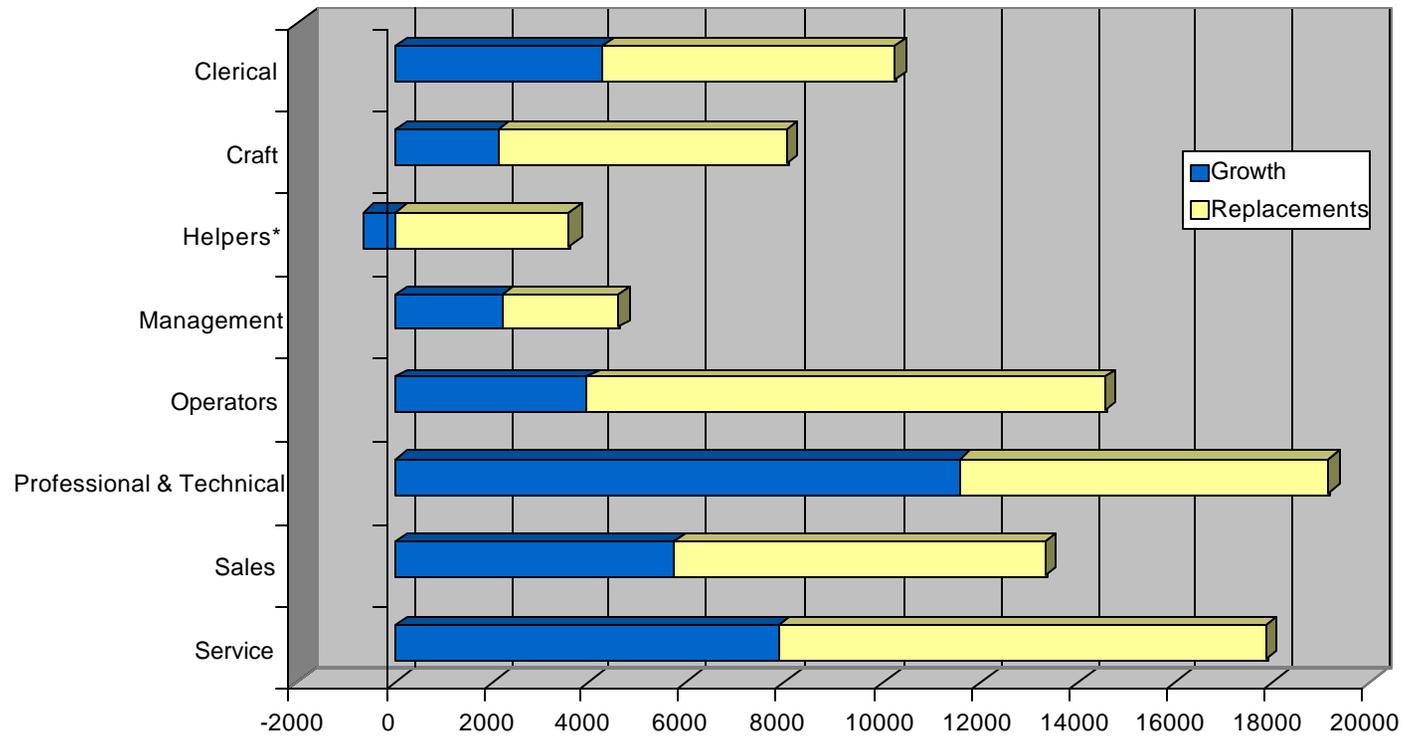
(SIC) INDUSTRY	EMPLOYMENT			PERCENT CHANGE	
	Estimated 1998	Projected 2008	Change	Total	Annual
(67) Holding & Other Investment Offices	121	141	20	16.53%	1.54%
Services, Total	62,812	87,602	24,790	39.47%	3.38%
(70) Hotels & Other Lodging Places	5,272	6,196	924	17.53%	1.63%
(72) Personal Services	1,589	1,753	164	10.32%	0.99%
(73) Business Services	6,833	15,054	8,221	120.31%	8.22%
(75) Auto Repair, Services & Parking	1,508	2,025	517	34.28%	2.99%
(76) Misc Repair Services	541	571	30	5.55%	0.54%
(78) Motion Pictures	449	484	35	7.80%	0.75%
(79) Amusement & Recreation Services	1,705	2,251	546	32.02%	2.82%
(80) Health Services (Inc Govt Hosp)	15,946	20,303	4,357	27.32%	2.45%
(81) Legal Services	839	1,035	196	23.36%	2.12%
(82) Educational Services (Inc Govt Educ)	21,181	28,923	7,742	36.55%	3.16%
(83) Social Services	2,962	4,311	1,349	45.54%	3.82%
(84) Museums, Botanical, Zoological Gardens	213	302	89	41.78%	3.55%
(86) Membership Organizations	1,187	1,301	114	9.60%	0.92%
(87) Engineering & Management Services	1,738	2,392	654	37.63%	3.25%
(88) Private Households	789	622	-167	-21.17%	-2.35%
(89) Services, NEC	60	79	19	31.67%	2.79%
Federal Government (Exc Post Office)	1,009	918	-91	-9.02%	-0.94%
State Government (Exc Educ & Hosp)	3,934	4,354	420	10.68%	1.02%
Local Government (Exc Educ & Hosp)	7,131	8,011	880	12.34%	1.17%

D - Suppression of Industry Data to Prevent Disclosure of Confidential Data
 SIC - Standard Industrial Classification

Total Job Openings 1998 - 2008

By Major Occupational Group

Northwest, VA Region



* Decline

EMPLOYMENT AND TOTAL JOB OPENINGS BY MAJOR OCCUPATIONAL GROUP

Region 4 - Northwest VA 1998 – 2008

MAJOR OCCUPATIONAL GROUP	TOTAL OCCUPATIONAL EMPLOYMENT			TOTAL JOB OPENINGS 1998-2008		
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
Total, All Occupations	219,984	257,017	16.83%	53,580	37,033	90,680
Executive, Administrative & Managerial Occs	13,425	15,622	16.36%	2,400	2,197	4,580
Professional Specialty Occs	38,008	49,573	30.43%	7,580	11,565	19,210
Marketing & Sales Occupations	24,410	30,147	23.50%	7,570	5,737	13,310
Administrative Support Occs, Clerical	28,481	32,737	14.94%	5,970	4,256	10,220
Service Occupations	30,866	38,740	25.51%	9,970	7,874	17,900
Agriculture, Forestry, & Fishing Occupations	12,875	12,202	-5.23%	3,590	-673	3,590
Precision Production, Craft & Repair Occs	25,355	27,472	8.35%	5,920	2,117	8,000
Operators, Fabricators, & Laborers	46,564	50,524	8.50%	10,580	3,960	14,540

SPECIFIC OCCUPATIONS WITH THE LARGEST PERCENT INCREASE IN EMPLOYMENT (TOTAL GROWTH > 99)

Region 4 - Northwest VA 1998 – 2008

RANK	OCCUPATIONAL TITLE	EMPLOYMENT			OPENINGS		
		Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
1	Telemarketers, Door-To-Door Sales	554	1,182	113.36%	140	628	770
2	Systems Analysts	523	1,038	98.47%	30	515	550
3	Computer Support Specialists	426	843	97.89%	30	417	450
4	Guards	1,276	2,267	77.66%	320	991	1,310
5	Health Diagnostics Teachers, Pstsc ndry	201	351	74.63%	60	150	210
6	Sales Agents, Business	291	498	71.13%	60	207	270
7	Computer Engineers	361	603	67.04%	20	242	260
8	Home Health Aides	567	927	63.49%	80	360	440
9	Dental Assistants	308	497	61.36%	50	189	240
10	Dental Hygienists	168	271	61.31%	40	103	140
11	Medical Assistants	348	561	61.21%	90	213	300
12	Teacher Aides, Paraprofessional	982	1,539	56.72%	110	557	670
13	Teachers, Special Education	635	995	56.69%	50	360	410
14	Residential Counselors	236	352	49.15%	50	116	170
15	Teacher Aides & Educational Assts	490	719	46.73%	60	229	290
16	Computer Programmers	412	603	46.36%	130	191	320
17	Teachers, Secondary School	2,509	3,604	43.64%	800	1,095	1,900
18	Data Entry Keyers, Ex Composing	350	501	43.14%	30	151	180
19	Adjustment Clerks	676	959	41.86%	40	283	320
20	Counselors, Vocational Education	297	417	40.40%	70	120	190
21	Nursing Aides & Orderlies	2,199	3,071	39.65%	310	872	1,180
22	Physicians	676	934	38.17%	110	258	370
23	Child Care Workers	424	581	37.03%	40	157	200
24	Social Workers, Ex Med, Psych	532	712	33.83%	70	180	250
25	Social/Human Service Assistants	391	523	33.76%	100	132	230

SPECIFIC OCCUPATIONS WITH THE LARGEST PERCENT INCREASE IN EMPLOYMENT (TOTAL GROWTH > 99)

Region 4 - Northwest VA 1998 – 2008

RANK	OCCUPATIONAL TITLE	EMPLOYMENT			OPENINGS		
		Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
26	Social Workers, Med & Psych	350	468	33.71%	50	118	170
27	Correctional Officers	653	871	33.38%	180	218	400
28	Teachers, Preschool, Educ Srvcs	349	465	33.24%	70	116	190
29	Instructors & Coaches, Sports	546	726	32.97%	60	180	240
30	Receptionists & Information Clerks	1,760	2,332	32.50%	340	572	910
31	Police Patrol Officers	467	614	31.48%	120	147	270
32	Education Administrators	710	933	31.41%	180	223	400
33	Bus Drivers, School	1,008	1,317	30.65%	180	309	490
34	Teachers, Elementary	2,755	3,598	30.60%	640	843	1,480
35	Engineering/Math/Computer/Ntrl Sci Mgrs	399	520	30.33%	70	121	190
36	Cooks, Fast Food	1,231	1,567	27.29%	320	336	660
37	Hosts & Hostesses:Restaurant, Lounge	396	503	27.02%	120	107	230
38	Cashiers	6,541	8,291	26.75%	2,850	1,750	4,600
39	Licensed Practical/Vocational Nurses	1,227	1,550	26.32%	260	323	580
40	Cooks, Restaurant	1,256	1,581	25.88%	330	325	660
41	Meat, Poultry & Fish Cutters, Hand	1,952	2,446	25.31%	450	494	940
42	Laborers, Landscapers, & Groundskprs	1,406	1,755	24.82%	420	349	770
43	Food Service & Lodging Mgrs	706	880	24.65%	120	174	290
44	Truck Drivers, Light	2,145	2,652	23.64%	310	507	820
45	Hand Packers & Packagers	2,697	3,331	23.51%	670	634	1,300
46	Counter & Rental Clerks	633	781	23.38%	270	148	420
47	General Office Clerks	4,155	5,087	22.43%	1,150	932	2,080
48	Registered Nurses	3,170	3,856	21.64%	520	686	1,210
49	Salespersons, Retail	7,336	8,912	21.48%	2,490	1,576	4,070
50	Waiters & Waitresses	3,281	3,984	21.43%	1,810	703	2,510

SPECIFIC OCCUPATIONS WITH THE LARGEST PERCENT DECREASE IN EMPLOYMENT (TOTAL GROWTH < -24)

Region 4 - Northwest VA 1998 – 2008

RANK	OCCUPATIONAL TITLE	EMPLOYMENT			OPENINGS		
		Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
1	Sewing Machine Oprs, Garment	1,548	986	-36.30%	210	-562	210
2	Child Care Workers, Private	157	105	-33.12%	70	-52	70
3	Pressing Machine Oprs/Tndrs, Textiles	179	137	-23.46%	30	-42	30
4	Textile Machine Oprs/Tndrs	1,232	964	-21.75%	210	-268	210
5	Machine Tool Cutting Oprs, M/P	131	106	-19.08%	30	-25	30
6	Supervisors, Farm Workers	219	184	-15.98%	20	-35	20
7	Farm Equipment Operators	2,899	2,579	-11.04%	890	-320	890
8	Cleaners & Servants, Private	338	301	-10.95%	70	-37	70
9	Production Inspectors, Graders	1,145	1,031	-9.96%	260	-114	260
10	Machine Forming Operators, M/P	374	340	-9.09%	90	-34	90
11	Bank Tellers	751	706	-5.99%	320	-45	320
12	Farm Managers	1,157	1,131	-2.25%	190	-26	190

SPECIFIC OCCUPATIONS WITH THE LARGEST NUMBER OF TOTAL OPENINGS

Region 4 - Northwest VA 1998 – 2008

RANK	OCCUPATIONAL TITLE	EMPLOYMENT			OPENINGS		
		Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
1	Cashiers	6,541	8,291	26.75%	2,850	1,750	4,600
2	Salespersons, Retail	7,336	8,912	21.48%	2,490	1,576	4,070
3	Waiters & Waitresses	3,281	3,984	21.43%	1,810	703	2,510
4	General Office Clerks	4,155	5,087	22.43%	1,150	932	2,080
5	Teachers, Secondary School	2,509	3,604	43.64%	800	1,095	1,900
6	General Managers & Top Executives	5,506	6,416	16.53%	960	910	1,870
7	Combined Food Prep & Serv Workers	2,271	2,747	20.96%	1,250	476	1,730
8	Teachers, Elementary	2,755	3,598	30.60%	640	843	1,480
9	Food Preparation Workers	1,911	2,296	20.15%	1,050	385	1,440
10	Guards	1,276	2,267	77.66%	320	991	1,310
11	Hand Packers & Packagers	2,697	3,331	23.51%	670	634	1,300
12	Registered Nurses	3,170	3,856	21.64%	520	686	1,210
13	Nursing Aides & Orderlies	2,199	3,071	39.65%	310	872	1,180
14	Janitors & Cleaners	2,920	3,347	14.62%	630	427	1,060
15	Truck Drivers, Heavy	3,533	4,013	13.59%	510	480	990
16	Meat, Poultry & Fish Cutters, Hand	1,952	2,446	25.31%	450	494	940
17	Receptionists & Information Clerks	1,760	2,332	32.50%	340	572	910
18	Farm Equipment Operators	2,899	2,579	-11.04%	890	-320	890
19	Secretaries, Except Legal or Medical	3,591	3,820	6.38%	590	229	820
20	Maids & Housekeeping Cleaners	2,190	2,600	18.72%	410	410	820
21	Truck Drivers, Light	2,145	2,652	23.64%	310	507	820
22	Telemarketers, Door-To-Door Sales	554	1,182	113.36%	140	628	770
23	Laborers, Landscapers, & Groundskprs	1,406	1,755	24.82%	420	349	770
24	Teacher Aides, Paraprofessional	982	1,539	56.72%	110	557	670
25	Cooks, Restaurant	1,256	1,581	25.88%	330	325	660

SPECIFIC OCCUPATIONS WITH THE LARGEST NUMBER OF TOTAL OPENINGS

Region 4 - Northwest VA 1998 – 2008

RANK	OCCUPATIONAL TITLE	EMPLOYMENT			OPENINGS		
		Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
26	Cooks, Fast Food	1,231	1,567	27.29%	320	336	660
27	Maintenance Repairers, General Utility	1,987	2,157	8.56%	440	170	610
28	Licensed Practical/Vocational Nurses	1,227	1,550	26.32%	260	323	580
29	Automotive Mechanics	1,309	1,542	17.80%	330	233	560
30	Systems Analysts	523	1,038	98.47%	30	515	550
31	First Line Supervisors: Productn/Operatg	1,811	1,855	2.43%	510	44	550
32	Sales Representatives, Mfg & Wholesale	1,634	1,778	8.81%	400	144	540
33	Bus Drivers, School	1,008	1,317	30.65%	180	309	490
34	Carpenters	1,352	1,461	8.06%	360	109	470
35	Computer Support Specialists	426	843	97.89%	30	417	450
36	Bookkeeping, Accounting, Audit Clerks	2,433	2,435	0.08%	450	2	450
37	Home Health Aides	567	927	63.49%	80	360	440
38	Plastic Molding/Casting Machn Oprs/Tndrs	1,022	1,210	18.40%	250	188	440
39	Counter & Rental Clerks	633	781	23.38%	270	148	420
40	Packaging & Filling Machine Oprs/Tndrs	1,387	1,445	4.18%	360	58	420
41	Teachers, Special Education	635	995	56.69%	50	360	410
42	Education Administrators	710	933	31.41%	180	223	400
43	Correctional Officers	653	871	33.38%	180	218	400
44	First Line Supervisors: Mechanics & Rprs	903	1,012	12.07%	270	109	380
45	Physicians	676	934	38.17%	110	258	370
46	Stock Clerks, Sales Floor	1,877	1,969	4.90%	280	92	370
47	Hotel/Motel/Resort Desk Clerks	641	732	14.20%	250	91	340
48	Stock Clerks:Stockroom/Warehouse/Yard	1,221	1,376	12.69%	180	155	340
49	Traffic, Shipping & Receiving Clerks	1,534	1,616	5.35%	260	82	340
50	First Line Supervisors: Constrctn, Extrctn	836	957	14.47%	220	121	340

SPECIFIC OCCUPATIONS WITH THE LARGEST NUMBER OF TOTAL OPENINGS -- DUE TO GROWTH

Region 4 - Northwest VA 1998 – 2008

RANK	OCCUPATIONAL TITLE	EMPLOYMENT			OPENINGS		
		Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
1	Cashiers	6,541	8,291	26.75%	2,850	1,750	4,600
2	Salespersons, Retail	7,336	8,912	21.48%	2,490	1,576	4,070
3	Teachers, Secondary School	2,509	3,604	43.64%	800	1,095	1,900
4	Guards	1,276	2,267	77.66%	320	991	1,310
5	General Office Clerks	4,155	5,087	22.43%	1,150	932	2,080
6	General Managers & Top Executives	5,506	6,416	16.53%	960	910	1,870
7	Nursing Aides & Orderlies	2,199	3,071	39.65%	310	872	1,180
8	Teachers, Elementary	2,755	3,598	30.60%	640	843	1,480
9	Waiters & Waitresses	3,281	3,984	21.43%	1,810	703	2,510
10	Registered Nurses	3,170	3,856	21.64%	520	686	1,210
11	Hand Packers & Packagers	2,697	3,331	23.51%	670	634	1,300
12	Telemarketers, Door-To-Door Sales	554	1,182	113.36%	140	628	770
13	Receptionists & Information Clerks	1,760	2,332	32.50%	340	572	910
14	Teacher Aides, Paraprofessional	982	1,539	56.72%	110	557	670
15	Systems Analysts	523	1,038	98.47%	30	515	550
16	Truck Drivers, Light	2,145	2,652	23.64%	310	507	820
17	Meat, Poultry & Fish Cutters, Hand	1,952	2,446	25.31%	450	494	940
18	Truck Drivers, Heavy	3,533	4,013	13.59%	510	480	990
19	Combined Food Prep & Serv Workers	2,271	2,747	20.96%	1,250	476	1,730
20	Janitors & Cleaners	2,920	3,347	14.62%	630	427	1,060
21	Computer Support Specialists	426	843	97.89%	30	417	450
22	Maids & Housekeeping Cleaners	2,190	2,600	18.72%	410	410	820
23	Food Preparation Workers	1,911	2,296	20.15%	1,050	385	1,440
24	Teachers, Special Education	635	995	56.69%	50	360	410
25	Home Health Aides	567	927	63.49%	80	360	440

SPECIFIC OCCUPATIONS WITH THE LARGEST NUMBER OF TOTAL OPENINGS -- DUE TO GROWTH

Region 4 - Northwest VA 1998 – 2008

RANK	OCCUPATIONAL TITLE	EMPLOYMENT			OPENINGS		
		Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
26	Laborers, Landscapers, & Groundskprs	1,406	1,755	24.82%	420	349	770
27	Cooks, Fast Food	1,231	1,567	27.29%	320	336	660
28	Cooks, Restaurant	1,256	1,581	25.88%	330	325	660
29	Licensed Practical/Vocational Nurses	1,227	1,550	26.32%	260	323	580
30	Bus Drivers, School	1,008	1,317	30.65%	180	309	490
31	Adjustment Clerks	676	959	41.86%	40	283	320
32	Physicians	676	934	38.17%	110	258	370
33	Computer Engineers	361	603	67.04%	20	242	260
34	Automotive Mechanics	1,309	1,542	17.80%	330	233	560
35	Teacher Aides & Educational Assts	490	719	46.73%	60	229	290
36	Secretaries, Except Legal or Medical	3,591	3,820	6.38%	590	229	820
37	Education Administrators	710	933	31.41%	180	223	400
38	Correctional Officers	653	871	33.38%	180	218	400
39	Medical Assistants	348	561	61.21%	90	213	300
40	Sales Agents, Business	291	498	71.13%	60	207	270
41	Computer Programmers	412	603	46.36%	130	191	320
42	Dental Assistants	308	497	61.36%	50	189	240
43	Plastic Molding/Casting Machn Oprs/Tndrs	1,022	1,210	18.40%	250	188	440
44	Social Workers, Ex Med, Psych	532	712	33.83%	70	180	250
45	Instructors & Coaches, Sports	546	726	32.97%	60	180	240
46	Food Service & Lodging Mgrs	706	880	24.65%	120	174	290
47	Maintenance Repairers, General Utility	1,987	2,157	8.56%	440	170	610
48	Accountants & Auditors	1,035	1,197	15.65%	160	162	320
49	Child Care Workers	424	581	37.03%	40	157	200
50	Stock Clerks:Stockroom/Warehouse/Yard	1,221	1,376	12.69%	180	155	340

SPECIFIC OCCUPATIONS WITH THE LARGEST NUMBER OF TOTAL OPENINGS -- DUE TO REPLACEMENTS

Region 4 - Northwest VA 1998 – 2008

RANK	OCCUPATIONAL TITLE	EMPLOYMENT			OPENINGS		
		Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
1	Cashiers	6,541	8,291	26.75%	2,850	1,750	4,600
2	Salespersons, Retail	7,336	8,912	21.48%	2,490	1,576	4,070
3	Waiters & Waitresses	3,281	3,984	21.43%	1,810	703	2,510
4	Combined Food Prep & Serv Workers	2,271	2,747	20.96%	1,250	476	1,730
5	General Office Clerks	4,155	5,087	22.43%	1,150	932	2,080
6	Food Preparation Workers	1,911	2,296	20.15%	1,050	385	1,440
7	General Managers & Top Executives	5,506	6,416	16.53%	960	910	1,870
8	Farm Equipment Operators	2,899	2,579	-11.04%	890	-320	890
9	Teachers, Secondary School	2,509	3,604	43.64%	800	1,095	1,900
10	Hand Packers & Packagers	2,697	3,331	23.51%	670	634	1,300
11	Teachers, Elementary	2,755	3,598	30.60%	640	843	1,480
12	Janitors & Cleaners	2,920	3,347	14.62%	630	427	1,060
13	Secretaries, Except Legal or Medical	3,591	3,820	6.38%	590	229	820
14	Registered Nurses	3,170	3,856	21.64%	520	686	1,210
15	First Line Supervisors: Productn/Operatg	1,811	1,855	2.43%	510	44	550
16	Truck Drivers, Heavy	3,533	4,013	13.59%	510	480	990
17	Bookkeeping, Accounting, Audit Clerks	2,433	2,435	0.08%	450	2	450
18	Meat, Poultry & Fish Cutters, Hand	1,952	2,446	25.31%	450	494	940
19	Maintenance Repairers, General Utility	1,987	2,157	8.56%	440	170	610
20	Laborers, Landscapers, & Groundskprs	1,406	1,755	24.82%	420	349	770
21	Maids & Housekeeping Cleaners	2,190	2,600	18.72%	410	410	820
22	Sales Representatives, Mfg & Wholesale	1,634	1,778	8.81%	400	144	540
23	Carpenters	1,352	1,461	8.06%	360	109	470
24	Packaging & Filling Machine Oprs/Tndrs	1,387	1,445	4.18%	360	58	420
25	Receptionists & Information Clerks	1,760	2,332	32.50%	340	572	910

SPECIFIC OCCUPATIONS WITH THE LARGEST NUMBER OF TOTAL OPENINGS -- DUE TO REPLACEMENTS

Region 4 - Northwest VA 1998 – 2008

RANK	OCCUPATIONAL TITLE	EMPLOYMENT			OPENINGS		
		Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
26	Cooks, Restaurant	1,256	1,581	25.88%	330	325	660
27	Automotive Mechanics	1,309	1,542	17.80%	330	233	560
28	Bank Tellers	751	706	-5.99%	320	-45	320
29	Guards	1,276	2,267	77.66%	320	991	1,310
30	Cooks, Fast Food	1,231	1,567	27.29%	320	336	660
31	Nursing Aides & Orderlies	2,199	3,071	39.65%	310	872	1,180
32	Truck Drivers, Light	2,145	2,652	23.64%	310	507	820
33	Stock Clerks, Sales Floor	1,877	1,969	4.90%	280	92	370
34	Counter & Rental Clerks	633	781	23.38%	270	148	420
35	First Line Supervisors: Mechanics & Rprs	903	1,012	12.07%	270	109	380
36	Licensed Practical/Vocational Nurses	1,227	1,550	26.32%	260	323	580
37	Traffic, Shipping & Receiving Clerks	1,534	1,616	5.35%	260	82	340
38	Production Inspectors, Graders	1,145	1,031	-9.96%	260	-114	260
39	Hotel/Motel/Resort Desk Clerks	641	732	14.20%	250	91	340
40	Counter Attendants, Lunchroom	302	368	21.85%	250	66	320
41	Plastic Molding/Casting Machn Oprs/Tndrs	1,022	1,210	18.40%	250	188	440
42	First Line Supervisors: Constrctn, Extrctn	836	957	14.47%	220	121	340
43	Industrial Machinery Mechanics	920	961	4.46%	210	41	250
44	Slaughterers & Meat Packers	887	902	1.69%	210	15	230
45	Textile Machine Oprs/Tndrs	1,232	964	-21.75%	210	-268	210
46	Sewing Machine Oprs, Garment	1,548	986	-36.30%	210	-562	210
47	Dining Room & Cafeteria Helpers	653	750	14.85%	200	97	300
48	Helpers: Carpenters & Related	428	473	10.51%	200	45	250
49	Farm Managers	1,157	1,131	-2.25%	190	-26	190
50	Education Administrators	710	933	31.41%	180	223	400

ALPHABETICAL INDEX OF OCCUPATIONS

To Be Used in Locating Individual Occupations in the Employment and Openings Table

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE
32	Accountants & Auditors	602	Boilermakers	728	Coat/Paint/Spray Machine Setters/Oprs
27	Accountants, Auditors, Financial Specialists	340	Bookkeeping, Accounting, Audit Clerks	542	Coin & Vending Machine Servicers
133	Adjudicators, Hearing Officers	556	Brick Masons	142	College & University Faculty
296	Adjustment Clerks	244	Broadcast & Sound Technicians	661	Combination Machine Tool Setters, M/P
8	Administrative Services Mgrs	298	Brokerage Clerks	662	Combination Machn Tool Oprs/Tndrs, M/P
3	Administrative Specialty Mgrs	265	Brokers, Real Estate	415	Combined Food Prep & Serv Workers
285	Administrative Support Occs, Clerical	33	Budget Analysts	353	Communication Equip Oprs, Mail Wrkrs
286	Administrative Support Supervisors	780	Bus Drivers, School	18	Communication/Transportation/Utilities Mgrs
449	Agriculture, Forestry, & Fishing Occupations	779	Bus Drivers, Transit/Intercity	510	Communications Equipment Mechanics
474	Agriculture, Forestry, Fishing Wkrs, NEC	504	Bus, Truck, Diesel Engine Mechanics	516	Communications Equipmt Mechns, NEC
508	Aircraft Mechanics	167	Business Teachers, Postsecondary	152	Communications Teachers, Pstscndry
425	Ambulance Drivers & Attendants, Ex EMT	409	Butchers & Meatcutters, Retail	99	Computer & Math Occupations
438	Amusement & Recreation Attendants	607	Cabinetmakers & Bench Carpenters	61	Computer Engineers
466	Animal Caretakers, Ex Farm	757	Cannery Workers	348	Computer Operators, Ex Peripheral
241	Announcers, Radio & TV	229	Cardiology Technols/Techns	105	Computer Programmer Aides
160	Anthropology/Sociology Tchrs, Pstscndry	549	Carpenters	104	Computer Programers
67	Architects & Surveyors	568	Carpet Installers	159	Computer Science Teachers, Pstscndry
68	Architects, Ex Landscape & Naval	281	Cashiers	107	Computer Scientists, NEC
155	Art, Drama & Music Teachers, Pstscndry	550	Ceiling Tile Installers & Acoust Carptrs	103	Computer Support Specialists
246	Artists & Commercial Artists	730	Cement & Gluing Machine Oprs/Tndrs	100	Computer Systems Anlsts/Engnrs/Scientists
764	Assemblers & Fabricators, NEC	511	Central Office & PBX Installers, Rprs	108	Computer/Math Scientists & Rsrch Anlsts
740	Assemblers, Precision	57	Chemical Engineers	559	Concrete Fnshr/Cement Msn/Terrazzo Wkr
49	Assessors	723	Chemical Equipment Controllers/Oprs	592	Construction & Extractive Workers, NEC
254	Athletes, Coaches, Umpires	724	Chemical Equipment Tenders	482	Construction & Rltd Supervisors, NEC
189	Audio-Visual Specialists	768	Chemical Plant & System Oprs	16	Construction Managers
502	Automotive Body Repairers	96	Chemical Techns/Technols, Ex Health	547	Construction Trades & Extractive Occs
501	Automotive Mechanics	147	Chemistry Teachers, Postsecondary	824	Construction Trades Helpers, NEC
441	Baggage Porters & Bellhops	84	Chemists	548	Construction Trades Workers
408	Bakers, Bread & Pastry	446	Child Care Workers	584	Construction Trades Workers, NEC
632	Bakers, Manufacturing	386	Child Care Workers, Private	46	Construction, Bldg Inspectors
289	Bank Tellers	73	Civil Engineering Techns/Technols	810	Conveyor Operators/Tenders
288	Bank, Security, Finance, Credit Workers	59	Civil Engineers, Incl Traffic	717	Cooking Machine Oprs, Food & Tobacco
403	Bartenders	50	Claims Examiners, Insurance	412	Cooks, Fast Food
308	Bill & Account Collectors	387	Cleaners & Servants, Private	411	Cooks, Institution or Cafeteria
342	Billing, Cost & Rate Clerks	833	Cleaners of Vehicules/Equipment	410	Cooks, Restaurant
345	Billing, Posting & Calculating Machn Oprs	428	Cleaning & Building Service Occupations	413	Cooks, Short Order
699	Bindery Machine Operators	432	Cleaning/Bldg Serv Wrks, NEC	721	Cooling & Freezing Equipment Oprs/Tndrs
694	Bindery Machine Setters/Oprs	731	Cleaning/Washing/Pickling Eqp Oprs/Tndrs	392	Correctional Officers
91	Biological Scientists	128	Clergy	44	Cost Estimators
95	Biological, Agriculture & Food Techns	376	Clerical Occupations, NEC	191	Counselors, Vocational Education
720	Boiler Operators & Tenders, Low Pressure	729	Coat/Paint/Spray Machine Oprs/Tndrs	279	Counter & Rental Clerks

ALPHABETICAL INDEX OF OCCUPATIONS

To Be Used in Locating Individual Occupations in the Employment and Openings Table

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE
407	Counter Attendants, Lunchroom	521	Elec Home Appliance & Power Tool Rprs	467	Farm Equipment Operators
310	Court Clerks	520	Elec Home Entertainment Equip Rprs	459	Farm Occupations
309	Court, Municipal, License Clerks	528	Electric & Electronic Equip Mechs, NEC	450	Farm Operators & Managers
808	Crane & Tower Operators	517	Electric & Electronic Equipment Mechanics	473	Farm Workers, Farm & Ranch Animals
294	Credit Checkers	533	Electric Meter Installers & Repairers	472	Farm Workers, Food & Fiber Crops
398	Crossing Guards	522	Electric Motor, Transformer Repairers	583	Fence Erectors
733	Crushing/Grinding/Mixg Machn Oprs/Tndrs	525	Electric Powerline Intallers & Repairers	334	File Clerks
612	Custom Tailors & Sewers	748	Electrical & Electronic Assemblers	626	Film Strippers, Printing
339	Customer Service Representatives	74	Electrical & Electronic Techns/Technols	113	Financial Analysts, Statistical
755	Cutters & Trimmers, Hand	60	Electrical & Electronics Engineers	4	Financial Managers
726	Cutting & Slicing Machine Oprs/Tndrs	554	Electrical Workers	34	Financial Specialists, NEC
725	Cutting & Slicing Machine Setters/Oprs	744	Electrical/Electronic Equip Assmblrs, Prec	389	Fire Fighters
351	Data Entry Keyers, Composing	675	Electrolytic Plate/Coat Machn Oprs, M/P	379	Fire Fighting & Prevention Supervisors
350	Data Entry Keyers, Ex Composing	674	Electrolytic Plate/Coat Machn Sttrs/Oprs, M/P	452	First Line Supervisors: Ag, Forest, Fish
519	Data Processing Equipment Repairers	743	Electromechanical Equipment Assmblrs	478	First Line Supervisors: Constrctn, Extrctn
102	Database Administrators	344	Electronic Data Procsssng & Offc Machn Wkrs	481	First Line Supervisors: Helpers, Laborers
283	Demonstrators/Product Promoters	523	Electronics Rprs, Commrcl & Indstrl Eqp	477	First Line Supervisors: Mechanics & Rprs
418	Dental Assistants	538	Elevator Installers & Repairers	479	First Line Supervisors: Productn/Operatg
223	Dental Hygienists	259	Embalmers	480	First Line Supervisors: Transportation
640	Dental Lab Technicians, Precision	213	Emergency Medical Techns & Paramedics	742	Fitters, Structural Metal, Precision
197	Dentists	41	Employment Interviewers	442	Flight Attendants
247	Designers, Ex Interior Designers	156	Engineering Teachers, Postsecondary	569	Floor Layers, Ex Carpet
623	Desktop Publishing Specialists	72	Engineering Techns/Technols	567	Floor Related Workers
396	Detectives, Except Public	80	Engineering Techns/Technols, NEC	401	Food & Beverage Preparation
219	Dietetic Technicians	9	Engineering/Math/Computer/Ntrl Sci Mgrs	633	Food Batchmakers
218	Dietitians & Nutritionists	53	Engineers	416	Food Prep & Service Workers, NEC
406	Dining Room & Cafeteria Helpers	52	Engineers & Related Occupations	414	Food Preparation Workers
356	Directory Assistance Operators	66	Engineers, NEC	405	Food Servers
366	Dispatchers, Ex Police, Fire & Ambulance	153	English Lang/Lit Teachers, Pstscndry	19	Food Service & Lodging Mgrs
365	Dispatchers: Police, Fire, & Ambulance	762	Engraving & Printing Wkrs, Hand	630	Food Workers, Precision
77	Drafters	803	Excavation & Loading Machine Operators	154	Foreign Lang/Lit Teachers, Pstscndry
647	Drilling & Boring Machn Setters/Oprs, M/P	2	Executive, Administrative & Managerial Occs	462	Forest & Conservation Workers
782	Drivers & Sales Workers	585	Extractive & Related Workers	454	Forest & Logging Occupations
551	Drywall Installers	735	Extrud/Form/Press Machine Oprs/Tndrs	89	Foresters, Conservation Scientists
346	Duplicating Machine Operators	734	Extrud/Form/Press Machine Setters/Oprs	657	Forging Machine Setters/Oprs, M/P
617	Dyers, Precision	655	Extruding & Drawing Setters/Oprs, M/P	827	Freight, Stock & Material Movers, Hand
586	Earth Drillers, Ex Oil & Gas	704	Extruding & Forming Machine Oprs/Tndrs	830	Freight, Stock & Mtrl Mvrs, Hand, NEC
162	Economics Teachers, Postsecondary	455	Fallers & Buckers	447	Funeral Attendants
117	Economists	451	Farm Managers	258	Funeral Directors & Morticians
12	Education Administrators	184	Farm & Home Management Advisors	719	Furnace, Kiln, Oven, Drier or Kettle Oprs
170	Education Teachers, Postsecondary	507	Farm Equipment Mechanics	608	Furniture Finishers

ALPHABETICAL INDEX OF OCCUPATIONS

To Be Used in Locating Individual Occupations in the Employment and Openings Table

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE
461	Gardening, Nursery, Lawn Occs	574	Highway Maintenance Workers	132	Lawyers & Judicial Workers
23	General Managers & Top Executives	163	History Teachers, Postsecondary	143	Lecturers
323	General Office & Secretarial Workers	421	Home Health Aides	135	Legal Assistants & Technicians
343	General Office Clerks	402	Hosts & Hostesses:Restaurant, Lounge	325	Legal Secretaries
328	General Office Occupations	316	Hotel/Motel/Resort Desk Clerks	690	Letterpress Operators
86	Geologists, Geophysicists, Oceanogrphrs	42	Human Res, Training, Labor Rltns Specs	187	Librarians
581	Glaziers	332	Human Resources Clerks, Ex Payroll/Time	186	Librarians, Archivists, Curators
22	Government Chief Executives & Legislators	5	Human Resources Managers	318	Library Assistants & Bookmobile Drivers
806	Grader, Dozer & Scraper Operators	75	Industrial Engineering Techns/Technols	188	Library Technicians
464	Graders & Sorters, Ag Products	62	Industrial Engineers, Ex Safety	312	License Clerks
145	Graduate Assistants, Teaching	490	Industrial Machinery Mechanics	212	Licensed Practical/Vocational Nurses
763	Grinders & Polishers, Hand	15	Industrial Production Managers	146	Life Sciences Teachers, Postsecondary
649	Grinding Mach Setters/Oprs, M/P	809	Industrial Truck & Tractor Operators	88	Life Scientists
399	Guards	287	Industry Specific Support Occs	93	Life Scientists, NEC
439	Guides	317	Industry Specific Workers, NEC	10	Line & Middle Management
435	Hairdressers & Hairstylists	483	Inspectors	295	Loan & Credit Clerks
815	Hand Labor & Material Moving Helpers	47	Inspectors & Compliance Officers	30	Loan Officers & Counselors
832	Hand Packers & Packagers	484	Inspectors, Testers, Graders, Precision	535	Locksmiths & Safe Repairers
765	Hand Workers, NEC	487	Inspectors, Testers, NEC	786	Locomotive Engineers
739	Handworking Occupations, Incl Assemblers	381	Institutional Cleaning Supervisors	313	Lodging & Travel Workers
578	Hazardous Materials Removal Wkrs	192	Instructional Coordinators	463	Log Graders & Scalers
683	Head Sawyer	183	Instructors & Coaches, Sports	456	Log Handling Equipment Operators
210	Health Assessment & Treatment Occptns	182	Instructors, Adult (Non-VocEd)	457	Logging Tractor Operators
195	Health Diagnosing Occs	577	Insulation Workers	747	Machine Assemblers
150	Health Diagnostics Teachers, Pstscndry	300	Insurance Adjusters/Examiners/Invstgtrs	741	Machine Builder Assemblers, Precision
194	Health Practitioners/Techns/Technols	303	Insurance Claims Clerks	651	Machine Cut/Form Setters/Oprs, M/P
234	Health Prof, Paraprof, & Techns, NEC	304	Insurance Policy Processing Clerks	826	Machine Feeders & Offbearers
417	Health Service Occupations	264	Insurance Sales Workers	658	Machine Forming Operators, M/P
427	Health Service Workers, NEC	248	Interior Designers	738	Machine Operators/Tenders, NEC
151	Health Specialties Teachers, Pstscndry	338	Interview Clerks, Except Personnel	643	Machine Setters, Set-Up Opr/Tndrs
220	Health Technicians & Technologists	305	Investigative & Related Workers	737	Machine Setters/Setup Oprs, NEC
530	Heat, A/C, Refrig Mechanics	430	Janitors & Cleaners	650	Machine Tool Cutting Oprs, M/P
834	Helpers, Laborers & Movers, NEC	621	Job Printers	498	Machinery Maintenance Workers
818	Helpers: Brick & Stone Masons	470	Laborers, Landscapers, & Groundskprs	496	Machinery Mechanics, NEC
819	Helpers: Carpenters & Related	646	Lathe & Turning Machn Setters/Oprs, M/P	492	Machinery Mechanics: Sewing
817	Helpers: Construction Trades	709	Laundry & Drycleaning Machine Oprs	491	Machinery Mechanics: Textile
820	Helpers: Electricians & Related	131	Law & Related Occupations	495	Machinery Mechanics: Water & Power
816	Helpers: Mechanics & Repairers	136	Law Clerks	489	Machinery: Mechanic, Installer, Repairer
821	Helpers: Painters & Paperhangers	168	Law Teachers, Postsecondary	596	Machinists
822	Helpers: Plumbers & Related	20	Lawn Service Managers	429	Maids & Housekeeping Cleaners
823	Helpers: Roofers	134	Lawyers	359	Mail & Message Distribution Workers

ALPHABETICAL INDEX OF OCCUPATIONS

To Be Used in Locating Individual Occupations in the Employment and Openings Table

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE
360	Mail Clerks, Ex Mail Machine	671	Metal Mold/Core/Cast Machine Sttrs/Oprs	635	Other Precision Workers
347	Mail Machine Operators	594	Metal Workers, Precision	255	Other Prof, Paraprof, Techns
499	Maintenance Repairers, General Utility	369	Meter Readers, Utilities	273	Other Sales Workers
45	Management Analysts	648	Milling Machine Setters/Oprs, M/P	797	Other Transportation Workers
26	Management Support Occs	497	Millwrights	736	Packaging & Filling Machine Oprs/Tndrs
51	Management Support Workers, NEC	505	Mobile Heavy Equipment Mechanics	562	Painters, Paperhangers & Related Workers
24	Managers & Administrators, NEC	540	Mobile Home Repairers	727	Painters, Transportation Equipment
436	Manicurists	760	Molders & Casters, Hand	761	Painting, Coating & Decoratg Wkrs, Hand
261	Marketing & Sales Occupations	637	Molders & Shapers, Ex Jewelry/Foundry	716	Paper Goods Machine Setters/Oprs
262	Marketing & Sales Supervisors	776	Motor Vehicle Operators	137	Paralegals & Legal Assistants
263	Marketing & Sales, Service	783	Motor Vehicle Operators, NEC	799	Parking Lot Attendants
7	Marketing, Advertising, Public Rltns Mgrs	503	Motorcycle Repairers	172	Parks/Rec/Leisure/Fitns Stds Teachers
371	Marking Clerks	251	Musicians, Instrumental	605	Pattern & Model Makers, Wood
555	Masonry Workers	81	Natural Scientists & Related Occs	611	Patternmakers & Layout Wkrs, Fbrc/Aprl
801	Material Moving Equipment Operators	290	New Accounts Clerks, Banking	573	Paving, Surfacing, & Tamping Operators
813	Material Moving Equipment Oprs, NEC	659	Numerical & Combination Machn Sttrs/Oprs	341	Payroll & Timekeeping Clerks
364	Material Recordg/Schedulg/Distributg Occs	660	Numerical Control Machn Operators, M/P	349	Peripheral EDP Equipment Operators
375	Material Recording Workers, NEC	420	Nursing Aides & Orderlies	445	Personal & Home Care Aides
158	Math & Science Teachers, Pstscndry	144	Nursing Instructors	39	Personnel Specialists, Related
110	Mathematical Scientists	205	Occupational Therapists	431	Pest Controllers & Assistants
758	Meat, Poultry & Fish Cutters, Hand	424	Occupational Therapy Assistants	216	Pharmacists
537	Mechanical Control Installers & Repairers	536	Office Machine & Cash Register Servicers	426	Pharmacy Assistants
76	Mechanical Engineering Techns/Technols	352	Office Machine Operators, NEC	217	Pharmacy Technicians
64	Mechanical Engineers	689	Offset Lithographic Press Oprs	171	Philosophy/Religion Teachers, Pstscndry
488	Mechanics, Installers, & Repairers	812	Operating Engineers	242	Photographers
546	Mechanics, Installers, & Repairers, NEC	109	Operations Research Analysts	714	Photographic Process Machine Oprs
222	Medical & Clinical Lab Technicians	642	Operators, Fabricators, & Laborers	638	Photographic Process Wkrs, Precision
221	Medical & Clinical Lab Technologists	639	Ophthalmic Laboratory Technicians	98	Physical & Life Science Tchns/Tchnls, NEC
13	Medical & Health Service Mgrs	215	Opticians, Dispensing & Measuring	94	Physical & Life Science Techns/Technols
419	Medical Assistants	198	Optometrists	149	Physical Science Teachers, Pstscndry, NEC
224	Medical Records & Health Info Techns	335	Order Clerks: Materials, Service	82	Physical Scientists
326	Medical Secretaries	373	Order Fillers, Wholesale/Retail	87	Physical Scientists, NEC
545	Menders, Garments & Linens	460	Other Agriculture & Forestry Occupations	206	Physical Therapists
249	Merchandise Displayers & Windw Drssrs	576	Other Construction Trades Workerrs	423	Physical, Corrective Therapy Assistants
363	Messengers	746	Other Hand Workers & Assemblers	214	Physician Assistants
680	Metal & Plastic Oprs/Tndrs, NEC	831	Other Helpers, Laborers & Movers	196	Physicians
668	Metal & Plastic Process Machine Sttrs/Oprs	711	Other Machine Setters/Oprs,Tndrs	148	Physics Teachers, Postsecondary
679	Metal & Plastic Setters/Oprs, NEC	43	Other Management Support Workers	796	Pilot, Flight Engineer Occs
663	Metal Fabricating Machn Setters/Oprs, M/P	21	Other Managers & Administrators	566	Pipelayers
667	Metal Fabricators, Structural Metal	529	Other Mechanics, Installers & Repairers	766	Plant & System Occupations
672	Metal Mold/Core/Cast Machine Oprs/Tndrs	678	Other Metal & Plastic Setters/Oprs/Tndrs	774	Plant & System Oprs, NEC

ALPHABETICAL INDEX OF OCCUPATIONS

To Be Used in Locating Individual Occupations in the Employment and Openings Table

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE
561	Plasterers & Stucco Masons	260	Prof, Paraprof, Techns, NEC	269	Sales Agents, Business
670	Plastic Molding/Casting Machn Oprs/Tndrs	25	Professional Specialty Occs	266	Sales Agents, Real Estate
669	Plastic Molding/Casting Machn Sttrs/Oprs	321	Proofreaders & Copy Markers	274	Sales Engineers
627	Platemakers	14	Property & Real Estate Mgrs	276	Sales Representatives, Mfg & Wholesale
563	Plumbers & Related Workers	388	Protective Service Occupations	275	Sales Representatives, Science
564	Plumbers, Pipefitters, & Steamfitters	400	Protective Service Workers, NEC	272	Sales Reps, Services, NEC
380	Police & Detective Supervisors	468	Pruners	278	Salespersons, Parts
390	Police Detectives	422	Psychiatric Aides	277	Salespersons, Retail
391	Police Patrol Officers	232	Psychiatric Technicians	684	Sawing Machine Operators/Tenders
164	Political Science Teachers, Postsecondary	165	Psychology Teachers, Postsecondary	682	Sawing Machine Setters/Set-Up Oprs
756	Portable Machine Cutters	119	Psychologists	645	Sawing Machine Tool Setters/Oprs, M/P
361	Postal Mail Carriers	238	Public Relations Specialists	693	Screen Printing Machine Setters/Oprs
362	Postal Service Clerks	652	Punching Machine Setters/Oprs, M/P	327	Secretaries, Except Legal or Medical
11	Postmasters, Mail Superintendents	35	Purchasing Agents & Buyers	324	Secretaries, Total
174	Postsecondary Teachers, NEC	37	Purchasing Agts & Buyers, Farm	268	Securities/Commodities/Financial Svcs, SIs
524	Power & Substation, Electricians	38	Purchasing Agts, Ex Who/Ret/Farm	299	Selected Insurance Workers
772	Power Distributors & Dispatchers	6	Purchasing Managers	644	Selected Machn Sttrs, Set-Up Oprs/Tndrs
770	Power Generating Plant Oprs	227	Radiologic Technologists & Technicians	433	Selected Personal Service Occs
745	Precision Assemblers, Metral, NEC	784	Rail Transportation Workers	732	Separating & Still Machn Sttrs/Oprs/Tndrs
531	Precision Instrument Repairers	575	Rail-Track Laying & Maint Equip Oprs	377	Service Occupations
603	Precision Metal Workers, NEC	789	Railroad Brake, Signal & Switch Oprs	448	Service Occupations, NEC
593	Precision Production Occupations	785	Railroad Conductors & Yardmasters	798	Service Station Attendants
475	Precision Production, Craft & Repair Occs	267	Real Estate Appraisers	382	Service Supervisors, NEC
618	Precision Textile Workers, NEC	322	Real Estate Clerks	378	Service Workers Supervisors
609	Precision Woodworkers, NEC	330	Receptionists & Information Clerks	707	Sewing Machine Oprs, Garment
641	Precision Workers, NEC	126	Recreation Workers	708	Sewing Machine Oprs, Non-Garment
653	Press Machine Setters/Oprs, M/P	208	Recreational Therapists	437	Shampoos
616	Pressers, Delicate Fabric	829	Refuse/Recyclable Material Collectors	654	Shear Machine Setters/Oprs, M/P
710	Pressing Machine Oprs/Tndrs, Textiles	211	Registered Nurses	579	Sheet Metal Duct Installers
688	Print Press Machine Setters	127	Religious Workers	601	Sheet Metal Workers
697	Printing Press Machine Oprs/Tndrs	239	Reporters & Correspondents	395	Sheriffs & Deputy Sheriffs
691	Printing Press Setters/Oprs, NEC	315	Reservation & Transportation Tckt Agnts	631	Slaughterers & Meat Packers
619	Printing Workers, Precision	124	Residential Counselors	509	Small Engine Specialists
687	Printing, Binding, & Related Occs	204	Respiratory Therapists	121	Social & Recreation Wkrs
700	Printing, Binding, & Related Workers, NEC	571	Road, Rail, Construction & Maintenance	166	Social Sciences, Teachers, Pstscndry, NEC
383	Private Household Workers	718	Roasting & Drying Oprs/Tndrs, Fd/Tbcco	116	Social Scientists
336	Procurement Clerks	656	Rolling Machine Setters/Oprs, M/P	120	Social Scientists, NEC
253	Producers, Directors, Actors	580	Roofers	115	Social Scientists, Recreation & Relig Occs
485	Production Inspectors, Graders	63	Safety Engineers, Ex Mining	123	Social Workers, Ex Med, Psych
367	Production, Planning & Expediting Clerks	284	Sales & Related Workers, NEC	122	Social Workers, Med & Psych
476	Production/Construction/Maintenance Sprvs	271	Sales Agents, Advertising	125	Social/Human Service Assistants

ALPHABETICAL INDEX OF OCCUPATIONS

To Be Used in Locating Individual Occupations in the Employment and Openings Table

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE	LINE	OCCUPATIONAL TITLE
752	Solderers & Brazers	178	Teachers, Elementary	777	Truck Drivers, Heavy
692	Specialty Material Printing Machine Sttrs	177	Teachers, Kindergarten, Educ Srvcs	778	Truck Drivers, Light
207	Speech Pathologists, Audiologists	176	Teachers, Preschool, Educ Srvcs	696	Typesetting & Composing Machine Oprs
469	Sprayers & Applicators	179	Teachers, Secondary School	331	Typists, Incl Word Processing
526	Station Installers & Repairers, Telephone	180	Teachers, Special Education	28	Underwriters
773	Stationary Engineers	237	Technical Writers	613	Upholsterers
337	Statistical Clerks	282	Telemarketers, Door-To-Door Sales	118	Urban & Regional Planners
329	Stenographers	518	Telephone & Cable TV Installers, Rprs	440	Ushers, Lobby Attendants, & Ticket Tkrs
280	Stock Clerks, Sales Floor	354	Telephone Operators	500	Vehicle & Mobile Equipment Mechanics
372	Stock Clerks:Stockroom/Warehouse/Yard	701	Textile & Related Setters/Oprs/Wkrs	201	Veterinarians & Vet Inspectors
557	Stone Masons	706	Textile Bleach & Dye Machine Oprs/Tndrs	471	Veterinary Assistants
582	Structural Metal Workers	705	Textile Draw -Out Machine Oprs/Tndrs	233	Veterinary Technols/Techns
453	Supervisors, Farm Workers	703	Textile Machine Oprs/Tndrs	404	Waiters & Waitresses
231	Surgical Technologists	702	Textile Machine Setters/Oprs	767	Water & Waste Treatment Plant Oprs
79	Surveying & Mapping Techns	610	Textile, Apparel, Furnish Wkrs, Precision	790	Water Transportation Occs
71	Surveyors, Cartogrphrs & Photogramtrsts	203	Therapists	370	Weighers, Measurers, Checkers
355	Switchboard Operators	209	Therapists, NEC	751	Welders & Cutters
101	Systems Analysts	458	Timber Cutting Workers, NEC	665	Welding Machine Operators/Tenders
552	Tapers	544	Tire Repairers & Changers	664	Welding Machine Setters/Set-Up Oprs
48	Tax Examiners, Collectors, Revenue Agts	595	Tool & Die Makers	306	Welfare Eligibility Workers
31	Tax Preparers	597	Tool Grinders, Filers, & Sharpeners	36	Wholesale/Retail Buyers, Ex Farm
781	Taxi Drivers & Chauffeurs	1	Total, All Occupations	606	Wood Machinists
319	Teacher Aides & Educational Assts	374	Traffic, Shipping & Receiving Clerks	604	Woodworkers, Precision
193	Teacher Aides, Paraprofessional	775	Transportation & Material Mvng Machn Oprs	681	Woodworking Machine Setters/Oprs/Tndrs
185	Teachers & Instructors, NEC	814	Transportation & Mtrl Mvng Eqp Oprs, NEC	685	Woodworking Machn Setters, Ex Sawing
175	Teachers & Instructors, Sec & Elem	443	Transportation Attendants	686	Woodwrkng Machn Oprs/Tndrs, Ex Sawing
181	Teachers & Instructors, VocED	800	Transportation Workers, NEC	236	Writers & Editors
141	Teachers Librarians & Counselors	270	Travel Agents	235	Writers, Editors, Artists, Entertainers, Athlts

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
1	Total, All Occupations	219,984	257,017	90,680	16.83%	5,358	3,710	9,068
2	Executive, Administrative & Managerial Occs	13,425	15,622	4,580	16.36%	240	218	458
3	Administrative Specialty Mgrs	2,802	3,295	980	17.59%	49	49	98
4	Financial Managers	840	945	240	12.50%	13	11	24
5	Human Resources Managers	325	379	130	16.62%	8	5	13
6	Purchasing Managers	248	271	80	9.27%	6	2	8
7	Marketing, Advertising, Public Rltns Mgrs	588	698	190	18.71%	8	11	19
8	Administrative Services Mgrs	402	482	150	19.90%	7	8	15
9	Engineering/Math/Computer/Ntrl Sci Mgrs	399	520	190	30.33%	7	12	19
10	Line & Middle Management	3,280	3,928	1,250	19.76%	62	63	125
11	Postmasters, Mail Superintendents	31	32	10	3.23%	1	0	1
12	Education Administrators	710	933	400	31.41%	18	22	40
13	Medical & Health Service Mgrs	245	327	120	33.47%	4	8	12
14	Property & Real Estate Mgrs	212	251	70	18.40%	3	4	7
15	Industrial Production Managers	569	581	110	2.11%	10	1	11
16	Construction Managers	552	625	170	13.22%	10	7	17
18	Communication/Transportation/Utilities Mgrs	211	243	70	15.17%	4	3	7
19	Food Service & Lodging Mgrs	706	880	290	24.65%	12	17	29
20	Lawn Service Managers	28	41	10	46.43%	0	1	1
21	Other Managers & Administrators	7,343	8,399	2,350	14.38%	129	106	235
22	Government Chief Executives & Legislators	128	133	40	3.91%	3	1	4
23	General Managers & Top Executives	5,506	6,416	1,870	16.53%	96	91	187
24	Managers & Administrators, NEC	1,709	1,850	440	8.25%	30	14	44
25	Professional Specialty Occs	38,008	49,573	19,210	30.43%	758	1,163	1,921
26	Management Support Occs	4,754	5,549	1,720	16.72%	93	79	172
27	Accountants, Auditors, Financial Specialists	1,784	2,052	600	15.02%	33	27	60
28	Underwriters	56	53	20	-5.36%	2	0	2
30	Loan Officers & Counselors	175	208	70	18.86%	4	3	7
31	Tax Preparers	47	56	20	19.15%	1	1	2

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
32	Accountants & Auditors	1,035	1,197	320	15.65%	16	16	32
33	Budget Analysts	74	80	30	8.11%	2	1	3
34	Financial Specialists, NEC	379	439	140	15.83%	8	6	14
35	Purchasing Agents & Buyers	506	544	170	7.51%	13	4	17
36	Wholesale/Retail Buyers, Ex Farm	147	153	50	4.08%	4	1	5
37	Purchasing Agts & Buyers, Farm	38	39	10	2.63%	1	0	1
38	Purchasing Agts, Ex Who/Ret/Farm	321	352	110	9.66%	8	3	11
39	Personnel Specialists, Related	555	700	290	26.13%	15	14	29
41	Employment Interviewers	106	166	90	56.60%	3	6	9
42	Human Res, Training, Labor Rltns Specs	432	516	200	19.44%	12	8	20
43	Other Management Support Workers	1,909	2,253	660	18.02%	32	34	66
44	Cost Estimators	268	302	60	12.69%	3	3	6
45	Management Analysts	169	219	60	29.59%	1	5	6
46	Construction, Bldg Inspectors	129	149	50	15.50%	3	2	5
47	Inspectors & Compliance Officers	233	256	60	9.87%	4	2	6
48	Tax Examiners, Collectors, Revenue Agts	66	73	20	10.61%	1	1	2
49	Assessors	38	43	20	13.16%	1	1	2
50	Claims Examiners, Insurance	22	25	0	13.64%	0	0	0
51	Management Support Workers, NEC	984	1,186	390	20.53%	19	20	39
52	Engineers & Related Occupations	3,348	3,934	1,290	17.50%	69	60	129
53	Engineers	2,057	2,505	850	21.78%	40	45	85
57	Chemical Engineers	76	83	30	9.21%	2	1	3
59	Civil Engineers, Incl Traffic	193	226	70	17.10%	4	3	7
60	Electrical & Electronics Engineers	305	353	120	15.74%	7	5	12
61	Computer Engineers	361	603	260	67.04%	2	24	26
62	Industrial Engineers, Ex Safety	190	201	40	5.79%	3	1	4
63	Safety Engineers, Ex Mining	28	28	0	0.00%	0	0	0
64	Mechanical Engineers	296	327	90	10.47%	6	3	9
66	Engineers, NEC	576	652	240	13.19%	16	8	24

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
67	Architects & Surveyors	104	121	40	16.35%	2	2	4
68	Architects, Ex Landscape & Naval	55	67	20	21.82%	1	1	2
71	Surveyors, Cartogrphrs & Photogramtrsts	31	31	10	0.00%	1	0	1
72	Engineering Techns/Technols	1,187	1,308	400	10.19%	27	13	40
73	Civil Engineering Techns/Technols	54	64	20	18.52%	1	1	2
74	Electrical & Electronic Techns/Technols	279	306	90	9.68%	6	3	9
75	Industrial Engineering Techns/Technols	63	68	20	7.94%	1	1	2
76	Mechanical Engineering Techns/Technols	106	114	30	7.55%	2	1	3
77	Drafters	288	297	80	3.13%	7	1	8
79	Surveying & Mapping Techns	48	60	20	25.00%	1	1	2
80	Engineering Techns/Technols, NEC	334	388	140	16.17%	9	5	14
81	Natural Scientists & Related Occs	831	927	280	11.55%	18	10	28
82	Physical Scientists	213	239	80	12.21%	5	3	8
84	Chemists	118	125	40	5.93%	3	1	4
86	Geologists, Geophysicists, Oceanogrphrs	19	26	10	36.84%	0	1	1
87	Physical Scientists, NEC	72	83	30	15.28%	2	1	3
88	Life Scientists	202	246	80	21.78%	4	4	8
89	Foresters, Conservation Scientists	43	47	10	9.30%	1	0	1
91	Biological Scientists	75	96	40	28.00%	2	2	4
93	Life Scientists, NEC	62	79	30	27.42%	1	2	3
94	Physical & Life Science Techns/Technols	416	442	120	6.25%	9	3	12
95	Biological, Agriculture & Food Techns	98	95	20	-3.06%	2	0	2
96	Chemical Techns/Technols, Ex Health	162	158	40	-2.47%	4	0	4
98	Physical & Life Science Tchns/Tchnls, NEC	150	183	60	22.00%	3	3	6
99	Computer & Math Occupations	1,666	2,940	1,520	76.47%	23	129	152
100	Computer Systems Anlsts/Engnrs/Scientists	1,556	2,814	1,490	80.85%	22	127	149
101	Systems Analysts	523	1,038	550	98.47%	3	52	55
102	Database Administrators	74	120	60	62.16%	1	5	6
103	Computer Support Specialists	426	843	450	97.89%	3	42	45

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
104	Computer Programmers	412	603	320	46.36%	13	19	32
105	Computer Programmer Aides	51	69	40	35.29%	2	2	4
107	Computer Scientists, NEC	62	133	70	114.52%	0	7	7
108	Computer/Math Scientists & Rsrch Anlsts	110	126	30	14.55%	1	2	3
109	Operations Research Analysts	35	40	20	14.29%	1	1	2
110	Mathematical Scientists	33	38	10	15.15%	0	1	1
113	Financial Analysts, Statistical	25	29	0	16.00%	0	0	0
115	Social Scientists, Recreation & Relig Occs	2,195	2,893	1,110	31.80%	41	70	111
116	Social Scientists	372	446	140	19.89%	7	7	14
117	Economists	44	51	20	15.91%	1	1	2
118	Urban & Regional Planners	122	146	40	19.67%	2	2	4
119	Psychologists	120	153	50	27.50%	2	3	5
120	Social Scientists, NEC	86	96	30	11.63%	2	1	3
121	Social & Recreation Wkrs	1,781	2,396	960	34.53%	34	62	96
122	Social Workers, Med & Psych	350	468	170	33.71%	5	12	17
123	Social Workers, Ex Med, Psych	532	712	250	33.83%	7	18	25
124	Residential Counselors	236	352	170	49.15%	5	12	17
125	Social/Human Service Assistants	391	523	230	33.76%	10	13	23
126	Recreation Workers	272	341	140	25.37%	7	7	14
127	Religious Workers	42	51	10	21.43%	0	1	1
128	Clergy	20	25	10	25.00%	0	1	1
131	Law & Related Occupations	619	762	210	23.10%	7	14	21
132	Lawyers & Judicial Workers	408	485	130	18.87%	5	8	13
133	Adjudicators, Hearing Officers	33	31	10	-6.06%	1	0	1
134	Lawyers	375	454	120	21.07%	4	8	12
135	Legal Assistants & Technicians	211	277	80	31.28%	2	6	8
136	Law Clerks	47	41	10	-12.77%	1	-1	1
137	Paralegals & Legal Assistants	122	193	80	58.20%	1	7	8
141	Teachers Librarians & Counselors	12,847	17,865	7,830	39.06%	279	504	783

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
142	College & University Faculty	2,250	3,433	1,830	52.58%	63	120	183
143	Lecturers	43	54	20	25.58%	1	1	2
144	Nursing Instructors	64	90	40	40.63%	1	3	4
145	Graduate Assistants, Teaching	163	243	130	49.08%	5	8	13
146	Life Sciences Teachers, Postsecondary	66	107	60	62.12%	2	4	6
147	Chemistry Teachers, Postsecondary	33	49	30	48.48%	1	2	3
148	Physics Teachers, Postsecondary	22	32	20	45.45%	1	1	2
149	Physical Science Teachers, Pstscndry, NEC	36	53	30	47.22%	1	2	3
150	Health Diagnostics Teachers, Pstscndry	201	351	210	74.63%	6	15	21
151	Health Specialties Teachers, Pstscndry	38	66	40	73.68%	1	3	4
152	Communications Teachers, Pstscndry	19	32	20	68.42%	1	1	2
153	English Lang/Lit Teachers, Pstscndry	128	191	100	49.22%	4	6	10
154	Foreign Lang/Lit Teachers, Pstscndry	54	80	40	48.15%	1	3	4
155	Art, Drama & Music Teachers, Pstscndry	95	141	80	48.42%	3	5	8
156	Engineering Teachers, Postsecondary	72	108	60	50.00%	2	4	6
158	Math & Science Teachers, Pstscndry	99	148	80	49.49%	3	5	8
159	Computer Science Teachers, Pstscndry	70	127	80	81.43%	2	6	8
160	Anthropology/Sociology Tchrs, Pstscndry	40	60	30	50.00%	1	2	3
162	Economics Teachers, Postsecondary	34	51	30	50.00%	1	2	3
163	History Teachers, Postsecondary	62	93	50	50.00%	2	3	5
164	Political Science Teachers, Postsecondary	34	51	30	50.00%	1	2	3
165	Psycholgy Teachers, Postsecondary	59	89	50	50.85%	2	3	5
166	Social Sciences, Teachers, Pstscndry, NEC	25	38	20	52.00%	1	1	2
167	Business Teachers, Postsecondary	150	223	110	48.67%	4	7	11
168	Law Teachers, Postsecondary	34	50	30	47.06%	1	2	3
170	Education Teachers, Postsecondary	69	103	50	49.28%	2	3	5
171	Philosphy/Religion Teachers, Pstscndry	35	52	30	48.57%	1	2	3
172	Parks/Rec/Leisure/Fitns Stds Teachers	16	30	10	87.50%	0	1	1
174	Postsecondary Teachers, NEC	420	624	320	48.57%	12	20	32

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
175	Teachers & Instructors, Sec & Elem	8,638	11,646	4,860	34.82%	184	302	486
176	Teachers, Preschool, Educ Srvcs	349	465	190	33.24%	7	12	19
177	Teachers, Kindergarten, Educ Srvcs	249	325	130	30.52%	5	8	13
178	Teachers, Elementary	2,755	3,598	1,480	30.60%	64	84	148
179	Teachers, Secondary School	2,509	3,604	1,900	43.64%	80	110	190
180	Teachers, Special Education	635	995	410	56.69%	5	36	41
181	Teachers & Instructors, VocED	294	362	100	23.13%	3	7	10
182	Instructors, Adult (Non-VocEd)	58	82	30	41.38%	1	2	3
183	Instructors & Coaches, Sports	546	726	240	32.97%	6	18	24
184	Farm & Home Management Advisors	76	56	10	-26.32%	1	-2	1
185	Teachers & Instructors, NEC	1,167	1,433	390	22.79%	12	27	39
186	Librarians, Archivists, Curators	1,959	2,786	1,140	42.22%	32	82	114
187	Librarians	331	380	130	14.80%	8	5	13
188	Library Technicians	150	192	80	28.00%	4	4	8
189	Audio-Visual Specialists	25	29	0	16.00%	0	0	0
191	Counselors, Vocational Education	297	417	190	40.40%	7	12	19
192	Instructional Coordinators	157	209	70	33.12%	2	5	7
193	Teacher Aides, Paraprofessional	982	1,539	670	56.72%	11	56	67
194	Health Practitioners/Techns/Technols	8,898	11,315	4,060	27.16%	164	242	406
195	Health Diagnosing Occs	932	1,275	510	36.80%	16	35	51
196	Physicians	676	934	370	38.17%	11	26	37
197	Dentists	115	152	60	32.17%	2	4	6
198	Optometrists	28	32	10	14.29%	1	0	1
201	Veterinarians & Vet Inspectors	87	117	50	34.48%	2	3	5
203	Therapists	617	873	350	41.49%	10	25	35
204	Respiratory Therapists	128	181	70	41.41%	2	5	7
205	Occupational Therapists	102	139	60	36.27%	2	4	6
206	Physical Therapists	164	224	80	36.59%	2	6	8
207	Speech Pathologists, Audiologists	147	238	110	61.90%	2	9	11

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
208	Recreational Therapists	39	42	10	7.69%	1	0	1
209	Therapists, NEC	36	48	20	33.33%	1	1	2
210	Health Assessment & Treatment Occpntns	5,300	6,504	2,180	22.72%	98	120	218
211	Registered Nurses	3,170	3,856	1,210	21.64%	52	69	121
212	Licensed Practical/Vocational Nurses	1,227	1,550	580	26.32%	26	32	58
213	Emergency Medical Techns & Paramedics	81	102	40	25.93%	2	2	4
214	Physician Assistants	62	114	60	83.87%	1	5	6
215	Opticians, Dispensing & Measuring	102	123	30	20.59%	1	2	3
216	Pharmacists	326	357	120	9.51%	9	3	12
217	Pharmacy Technicians	220	267	100	21.36%	5	5	10
218	Dietitians & Nutritionists	69	81	20	17.39%	1	1	2
219	Dietetic Technicians	43	54	20	25.58%	1	1	2
220	Health Technicians & Technologists	2,049	2,663	1,020	29.97%	40	62	102
221	Medical & Clinical Lab Technologists	195	211	40	8.21%	2	2	4
222	Medical & Clinical Lab Technicians	154	180	50	16.88%	2	3	5
223	Dental Hygienists	168	271	140	61.31%	4	10	14
224	Medical Records & Health Info Techns	85	127	60	49.41%	2	4	6
227	Radiologic Technologists & Technicians	278	323	90	16.19%	4	5	9
229	Cardiology Technols/Techns	50	72	30	44.00%	1	2	3
231	Surgical Technologists	66	91	50	37.88%	2	3	5
232	Psychiatric Technicians	158	147	20	-6.96%	2	-1	2
233	Veterinary Technols/Techns	76	88	30	15.79%	2	1	3
234	Health Prof, Paraprof, & Techns, NEC	743	1,077	510	44.95%	18	33	51
235	Writers, Editors, Artists, Entertainers, Athlts	1,438	1,698	580	18.08%	31	27	58
236	Writers & Editors	225	264	100	17.33%	6	4	10
237	Technical Writers	36	52	30	44.44%	1	2	3
238	Public Relations Specialists	115	140	60	21.74%	3	3	6
239	Reporters & Correspondents	92	91	30	-1.09%	3	0	3
241	Announcers, Radio & TV	93	87	20	-6.45%	2	-1	2

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
242	Photographers	69	76	20	10.14%	1	1	2
244	Broadcast & Sound Technicians	54	53	10	-1.85%	1	0	1
246	Artists & Commercial Artists	162	205	70	26.54%	3	4	7
247	Designers, Ex Interior Designers	267	329	100	23.22%	4	6	10
248	Interior Designers	42	64	30	52.38%	1	2	3
249	Merchandise Displayers & Window Dressers	47	53	20	12.77%	1	1	2
251	Musicians, Instrumental	41	48	20	17.07%	1	1	2
253	Producers, Directors, Actors	88	111	40	26.14%	2	2	4
254	Athletes, Coaches, Umpires	43	54	30	25.58%	2	1	3
255	Other Prof, Paraprof, Techns	1,412	1,690	610	19.69%	33	28	61
258	Funeral Directors & Morticians	82	87	20	6.10%	1	1	2
259	Embalmers	24	25	10	4.17%	1	0	1
260	Prof, Paraprof, Techns, NEC	1,280	1,552	580	21.25%	31	27	58
261	Marketing & Sales Occupations	24,410	30,147	13,310	23.50%	757	574	1,331
262	Marketing & Sales Supervisors	2,716	3,366	1,000	23.93%	35	65	100
263	Marketing & Sales, Service	1,238	1,733	790	39.98%	29	50	79
264	Insurance Sales Workers	219	255	90	16.44%	5	4	9
265	Brokers, Real Estate	28	30	10	7.14%	1	0	1
266	Sales Agents, Real Estate	155	172	50	10.97%	3	2	5
267	Real Estate Appraisers	36	40	10	11.11%	1	0	1
268	Securities/Commodities/Financial Svcs, SIs	106	151	60	42.45%	1	5	6
269	Sales Agents, Business	291	498	270	71.13%	6	21	27
270	Travel Agents	95	118	40	24.21%	2	2	4
271	Sales Agents, Advertising	171	208	90	21.64%	5	4	9
272	Sales Reps, Services, NEC	137	261	170	90.51%	5	12	17
273	Other Sales Workers	20,456	25,048	11,520	22.45%	693	459	1,152
274	Sales Engineers	189	215	70	13.76%	4	3	7
275	Sales Representatives, Science	471	524	160	11.25%	11	5	16
276	Sales Representatives, Mfg & Wholesale	1,634	1,778	540	8.81%	40	14	54

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
277	Salespersons, Retail	7,336	8,912	4,070	21.48%	249	158	407
278	Salespersons, Parts	467	496	160	6.21%	13	3	16
279	Counter & Rental Clerks	633	781	420	23.38%	27	15	42
280	Stock Clerks, Sales Floor	1,877	1,969	370	4.90%	28	9	37
281	Cashiers	6,541	8,291	4,600	26.75%	285	175	460
282	Telemarketers, Door-To-Door Sales	554	1,182	770	113.36%	14	63	77
283	Demonstrators/Product Promoters	53	94	50	77.36%	1	4	5
284	Sales & Related Workers, NEC	696	799	310	14.80%	21	10	31
285	Administrative Support Occs, Clerical	28,481	32,737	10,220	14.94%	597	425	1,022
286	Administrative Support Supervisors	2,098	2,598	970	23.83%	47	50	97
287	Industry Specific Support Occs	4,350	5,177	1,900	19.01%	107	83	190
288	Bank, Security, Finance, Credit Workers	1,799	2,075	670	15.34%	40	27	67
289	Bank Tellers	751	706	320	-5.99%	32	-5	32
290	New Accounts Clerks, Banking	108	124	50	14.81%	3	2	5
294	Credit Checkers	39	44	10	12.82%	0	1	1
295	Loan & Credit Clerks	130	144	20	10.77%	1	1	2
296	Adjustment Clerks	676	959	320	41.86%	4	28	32
298	Brokerage Clerks	34	44	10	29.41%	0	1	1
299	Selected Insurance Workers	321	383	100	19.31%	4	6	10
300	Insurance Adjusters/Examiners/Invstgtrs	79	100	30	26.58%	1	2	3
303	Insurance Claims Clerks	122	150	50	22.95%	2	3	5
304	Insurance Policy Processing Clerks	113	125	20	10.62%	1	1	2
305	Investigative & Related Workers	353	410	130	16.15%	8	5	13
306	Welfare Eligibility Workers	154	145	30	-5.84%	3	-1	3
308	Bill & Account Collectors	193	255	110	32.12%	5	6	11
309	Court, Municipal, License Clerks	135	149	40	10.37%	2	2	4
310	Court Clerks	49	55	20	12.24%	1	1	2
312	License Clerks	70	76	20	8.57%	1	1	2
313	Lodging & Travel Workers	740	841	370	13.65%	27	10	37

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
315	Reservation & Transportation Tckt Agnts	86	93	30	8.14%	2	1	3
316	Hotel/Motel/Resort Desk Clerks	641	732	340	14.20%	25	9	34
317	Industry Specific Workers, NEC	1,002	1,319	590	31.64%	26	33	59
318	Library Assistants & Bookmobile Drivers	288	353	210	22.57%	14	7	21
319	Teacher Aides & Educational Assts	490	719	290	46.73%	6	23	29
321	Proofreaders & Copy Markers	50	46	20	-8.00%	2	0	2
322	Real Estate Clerks	157	185	70	17.83%	4	3	7
323	General Office & Secretarial Workers	15,054	17,163	5,300	14.01%	320	210	530
324	Secretaries, Total	4,043	4,337	960	7.27%	66	30	96
325	Legal Secretaries	196	214	50	9.18%	3	2	5
326	Medical Secretaries	256	303	90	18.36%	4	5	9
327	Secretaries, Except Legal or Medical	3,591	3,820	820	6.38%	59	23	82
328	General Office Occupations	11,011	12,826	4,340	16.48%	254	180	434
329	Stenographers	108	137	50	26.85%	2	3	5
330	Receptionists & Information Clerks	1,760	2,332	910	32.50%	34	57	91
331	Typists, Incl Word Processing	279	272	50	-2.51%	5	-1	5
332	Human Resources Clerks, Ex Payroll/Time	172	180	40	4.65%	3	1	4
334	File Clerks	227	283	140	24.67%	8	6	14
335	Order Clerks: Materials, Service	549	612	190	11.48%	13	6	19
336	Procurement Clerks	100	94	20	-6.00%	2	-1	2
337	Statistical Clerks	65	67	10	3.08%	1	0	1
338	Interview Clerks, Except Personnel	129	166	80	28.68%	4	4	8
339	Customer Service Representatives	280	310	100	10.71%	7	3	10
340	Bookkeeping, Accounting, Audit Clerks	2,433	2,435	450	0.08%	45	0	45
341	Payroll & Timekeeping Clerks	258	252	50	-2.33%	5	-1	5
342	Billing, Cost & Rate Clerks	480	581	200	21.04%	10	10	20
343	General Office Clerks	4,155	5,087	2,080	22.43%	115	93	208
344	Electronic Data Procsssng & Offc Machn Wkrs	970	1,136	300	17.11%	14	16	30
345	Billing, Posting & Calculating Machn Oprs	120	133	30	10.83%	2	1	3

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
346	Duplicating Machine Operators	59	69	30	16.95%	2	1	3
347	Mail Machine Operators	45	50	20	11.11%	1	1	2
348	Computer Operators, Ex Peripheral	235	234	30	-0.43%	3	0	3
349	Peripheral EDP Equipment Operators	27	20	0	-25.93%	0	-1	0
350	Data Entry Keyers, Ex Composing	350	501	180	43.14%	3	15	18
351	Data Entry Keyers, Composing	32	27	0	-15.63%	0	-1	0
352	Office Machine Operators, NEC	102	102	30	0.00%	3	0	3
353	Communication Equip Oprs, Mail Wrkrs	922	1,027	320	11.39%	22	10	32
354	Telephone Operators	311	325	80	4.50%	7	1	8
355	Switchboard Operators	258	282	80	9.30%	6	2	8
356	Directory Assistance Operators	26	16	10	-38.46%	1	-1	1
359	Mail & Message Distribution Workers	611	702	240	14.89%	15	9	24
360	Mail Clerks, Ex Mail Machine	99	122	40	23.23%	2	2	4
361	Postal Mail Carriers	359	390	130	8.64%	10	3	13
362	Postal Service Clerks	80	88	20	10.00%	1	1	2
363	Messengers	73	102	50	39.73%	2	3	5
364	Material Recordg/Schedulg/Distributg Occs	4,283	4,624	1,090	7.96%	74	35	109
365	Dispatchers: Police, Fire, & Ambulance	102	108	30	5.88%	2	1	3
366	Dispatchers, Ex Police, Fire & Ambulance	227	268	80	18.06%	4	4	8
367	Production, Planning & Expediting Clerks	379	379	40	0.00%	4	0	4
369	Meter Readers, Utilities	96	95	20	-1.04%	2	0	2
370	Weighers, Measurers, Checkers	150	141	40	-6.00%	4	-1	4
371	Marking Clerks	47	42	10	-10.64%	1	-1	1
372	Stock Clerks:Stockroom/Warehouse/Yard	1,221	1,376	340	12.69%	18	16	34
373	Order Fillers, Wholesale/Retail	231	287	120	24.24%	6	6	12
374	Traffic, Shipping & Receiving Clerks	1,534	1,616	340	5.35%	26	8	34
375	Material Recording Workers, NEC	291	308	90	5.84%	7	2	9
376	Clerical Occupations, NEC	804	1,012	340	25.87%	13	21	34
377	Service Occupations	30,866	38,740	17,900	25.51%	997	793	1,790

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
378	Service Workers Supervisors	1,475	1,869	760	26.71%	36	40	76
379	Fire Fighting & Prevention Supervisors	94	106	40	12.77%	3	1	4
380	Police & Detective Supervisors	166	191	80	15.06%	5	3	8
381	Institutional Cleaning Supervisors	183	204	60	11.48%	4	2	6
382	Service Supervisors, NEC	1,032	1,368	580	32.56%	24	34	58
383	Private Household Workers	527	423	150	-19.73%	15	-10	15
386	Child Care Workers, Private	157	105	70	-33.12%	7	-5	7
387	Cleaners & Servants, Private	338	301	70	-10.95%	7	-4	7
388	Protective Service Occupations	3,227	4,783	2,510	48.22%	95	156	251
389	Fire Fighters	151	159	50	5.30%	4	1	5
390	Police Detectives	55	70	30	27.27%	1	2	3
391	Police Patrol Officers	467	614	270	31.48%	12	15	27
392	Correctional Officers	653	871	400	33.38%	18	22	40
395	Sheriffs & Deputy Sheriffs	164	221	80	34.76%	2	6	8
396	Detectives, Except Public	24	28	10	16.67%	1	0	1
398	Crossing Guards	41	43	10	4.88%	1	0	1
399	Guards	1,276	2,267	1,310	77.66%	32	99	131
400	Protective Service Workers, NEC	352	462	350	31.25%	24	11	35
401	Food & Beverage Preparation	13,657	16,475	9,030	20.63%	619	284	903
402	Hosts & Hostesses:Restaurant, Lounge	396	503	230	27.02%	12	11	23
403	Bartenders	375	400	190	6.67%	16	3	19
404	Waiters & Waitresses	3,281	3,984	2,510	21.43%	181	70	251
405	Food Servers	181	234	200	29.28%	15	5	20
406	Dining Room & Cafeteria Helpers	653	750	300	14.85%	20	10	30
407	Counter Attendants, Lunchroom	302	368	320	21.85%	25	7	32
408	Bakers, Bread & Pastry	193	245	100	26.94%	5	5	10
409	Butchers & Meatcutters, Retail	198	189	50	-4.55%	5	-1	5
410	Cooks, Restaurant	1,256	1,581	660	25.88%	33	33	66
411	Cooks, Institution or Cafeteria	489	572	210	16.97%	13	8	21

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
412	Cooks, Fast Food	1,231	1,567	660	27.29%	32	34	66
413	Cooks, Short Order	303	379	160	25.08%	8	8	16
414	Food Preparation Workers	1,911	2,296	1,440	20.15%	105	39	144
415	Combined Food Prep & Serv Workers	2,271	2,747	1,730	20.96%	125	48	173
416	Food Prep & Service Workers, NEC	617	660	280	6.97%	24	4	28
417	Health Service Occupations	4,111	5,883	2,470	43.10%	69	178	247
418	Dental Assistants	308	497	240	61.36%	5	19	24
419	Medical Assistants	348	561	300	61.21%	9	21	30
420	Nursing Aides & Orderlies	2,199	3,071	1,180	39.65%	31	87	118
421	Home Health Aides	567	927	440	63.49%	8	36	44
422	Psychiatric Aides	129	117	20	-9.30%	2	-1	2
423	Physical, Corrective Therapy Assistants	113	164	80	45.13%	3	5	8
424	Occupational Therapy Assistants	32	47	30	46.88%	1	2	3
425	Ambulance Drivers & Attendants, Ex EMT	29	36	20	24.14%	1	1	2
426	Pharmacy Assistants	117	143	60	22.22%	3	3	6
427	Health Service Workers, NEC	269	320	110	18.96%	6	5	11
428	Cleaning & Building Service Occupations	5,545	6,413	2,000	15.65%	113	87	200
429	Maids & Housekeeping Cleaners	2,190	2,600	820	18.72%	41	41	82
430	Janitors & Cleaners	2,920	3,347	1,060	14.62%	63	43	106
431	Pest Controllers & Assistants	64	83	30	29.69%	1	2	3
432	Cleaning/Bldg Serv Wrks, NEC	371	383	90	3.23%	8	1	9
433	Selected Personal Service Occs	1,891	2,382	880	25.97%	38	50	88
435	Hairdressers & Hairstylists	499	557	190	11.62%	13	6	19
436	Manicurists	28	36	20	28.57%	1	1	2
437	Shampooers	56	64	20	14.29%	1	1	2
438	Amusement & Recreation Attendants	280	373	140	33.21%	5	9	14
439	Guides	52	72	30	38.46%	1	2	3
440	Ushers, Lobby Attendants, & Ticket Tkrs	124	152	50	22.58%	2	3	5
441	Baggage Porters & Bellhops	68	79	20	16.18%	1	1	2

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
442	Flight Attendants	30	40	20	33.33%	1	1	2
443	Transportation Attendants	29	20	10	-31.03%	1	-1	1
445	Personal & Home Care Aides	183	280	150	53.01%	5	10	15
446	Child Care Workers	424	581	200	37.03%	4	16	20
447	Funeral Attendants	98	108	40	10.20%	3	1	4
448	Service Occupations, NEC	433	512	200	18.24%	12	8	20
449	Agriculture, Forestry, & Fishing Occupations	12,875	12,202	3,590	-5.23%	359	-67	359
450	Farm Operators & Managers	1,522	1,487	230	-2.30%	23	-4	23
451	Farm Managers	1,157	1,131	190	-2.25%	19	-3	19
452	First Line Supervisors: Ag, Forest, Fish	145	171	50	17.93%	2	3	5
453	Supervisors, Farm Workers	219	184	20	-15.98%	2	-4	2
454	Forest & Logging Occupations	268	264	60	-1.49%	6	0	6
455	Fallers & Buckers	36	33	10	-8.33%	1	0	1
456	Log Handling Equipment Operators	113	114	30	0.88%	3	0	3
457	Logging Tractor Operators	82	84	10	2.44%	1	0	1
458	Timber Cutting Workers, NEC	29	26	10	-10.34%	1	0	1
459	Farm Occupations	2,889	2,416	890	-16.37%	89	-47	89
460	Other Agriculture & Forestry Occupations	8,193	8,032	2,410	-1.97%	241	-16	241
461	Gardening, Nursery, Lawn Occs	150	129	30	-14.00%	3	-2	3
462	Forest & Conservation Workers	28	29	10	3.57%	1	0	1
463	Log Graders & Scalers	33	30	10	-9.09%	1	0	1
464	Graders & Sorters, Ag Products	131	139	40	6.11%	3	1	4
466	Animal Caretakers, Ex Farm	214	257	70	20.09%	3	4	7
467	Farm Equipment Operators	2,899	2,579	890	-11.04%	89	-32	89
468	Pruners	45	57	20	26.67%	1	1	2
469	Sprayers & Applicators	26	32	20	23.08%	1	1	2
470	Laborers, Landscapers, & Groundskpr	1,406	1,755	770	24.82%	42	35	77
471	Veterinary Assistants	102	132	40	29.41%	1	3	4
472	Farm Workers, Food & Fiber Crops	37	49	20	32.43%	1	1	2

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
473	Farm Workers, Farm & Ranch Animals	46	60	20	30.43%	1	1	2
474	Agriculture, Forestry, Fishing Wkrs, NEC	3,064	2,771	940	-9.56%	94	-29	94
475	Precision Production, Craft & Repair Occs	25,355	27,472	8,000	8.35%	592	208	800
476	Production/Construction/Maintenance Sprvs	4,522	4,883	1,610	7.98%	125	36	161
477	First Line Supervisors: Mechanics & Rprs	903	1,012	380	12.07%	27	11	38
478	First Line Supervisors: Constrctn, Extrctn	836	957	340	14.47%	22	12	34
479	First Line Supervisors: Productn/Operatg	1,811	1,855	550	2.43%	51	4	55
480	First Line Supervisors: Transportation	286	307	90	7.34%	7	2	9
481	First Line Supervisors: Helpers, Laborers	332	361	120	8.73%	9	3	12
482	Construction & Rltd Supervisors, NEC	354	391	130	10.45%	9	4	13
483	Inspectors	1,520	1,404	340	-7.63%	34	-11	34
484	Inspectors, Testers, Graders, Precision	291	273	60	-6.19%	6	-2	6
485	Production Inspectors, Graders	1,145	1,031	260	-9.96%	26	-11	26
487	Inspectors, Testers, NEC	68	86	40	26.47%	2	2	4
488	Mechanics, Installers, & Repairers	8,932	9,864	2,990	10.43%	209	90	299
489	Machinery: Mechanic, Installer, Repairer	3,885	4,107	1,080	5.71%	87	21	108
490	Industrial Machinery Mechanics	920	961	250	4.46%	21	4	25
491	Machinery Mechanics: Textile	154	166	40	7.79%	3	1	4
492	Machinery Mechanics: Sewing	44	38	10	-13.64%	1	-1	1
495	Machinery Mechanics: Water & Power	131	131	30	0.00%	3	0	3
496	Machinery Mechanics, NEC	155	147	30	-5.16%	3	-1	3
497	Millwrights	245	248	70	1.22%	7	0	7
498	Machinery Maintenance Workers	244	254	60	4.10%	5	1	6
499	Maintenance Repairers, General Utility	1,987	2,157	610	8.56%	44	17	61
500	Vehicle & Mobile Equipment Mechanics	2,451	2,829	1,020	15.42%	64	38	102
501	Automotive Mechanics	1,309	1,542	560	17.80%	33	23	56
502	Automotive Body Repairers	341	412	170	20.82%	10	7	17
503	Motorcycle Repairers	30	36	20	20.00%	1	1	2
504	Bus, Truck, Diesel Engine Mechanics	445	489	140	9.89%	10	4	14

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
505	Mobile Heavy Equipment Mechanics	152	168	60	10.53%	4	2	6
507	Farm Equipment Mechanics	64	61	20	-4.69%	2	0	2
508	Aircraft Mechanics	27	29	10	7.41%	1	0	1
509	Small Engine Specialists	63	74	30	17.46%	2	1	3
510	Communications Equipment Mechanics	134	160	50	19.40%	3	2	5
511	Central Office & PBX Installers, Rprs	70	94	40	34.29%	2	2	4
516	Communications Equipmt Mechns, NEC	29	33	10	13.79%	1	0	1
517	Electric & Electronic Equipment Mechanics	803	876	250	9.09%	20	5	25
518	Telephone & Cable TV Installers, Rprs	192	243	110	26.56%	6	5	11
519	Data Processing Equipment Repairers	42	56	20	33.33%	1	1	2
520	Elec Home Entertainment Equip Rprs	39	40	10	2.56%	1	0	1
521	Elec Home Appliance & Power Tool Rprs	43	53	20	23.26%	1	1	2
522	Electric Motor, Transformer Repairers	34	29	10	-14.71%	1	-1	1
523	Electronics Rprs, Commrci & Indstrl Eqp	47	61	20	29.79%	1	1	2
524	Power & Substation, Electricians	37	30	10	-18.92%	1	-1	1
525	Electric Powerline Intallers & Repairers	271	256	60	-5.54%	6	-2	6
526	Station Installers & Repairers, Telephone	31	20	10	-35.48%	1	-1	1
528	Electric & Electronic Equip Mechs, NEC	52	73	30	40.38%	1	2	3
529	Other Mechanics, Installers & Repairers	1,659	1,892	590	14.04%	35	24	59
530	Heat, A/C, Refrig Mechanics	478	580	190	21.34%	9	10	19
531	Precision Instrument Repairers	38	35	10	-7.89%	1	0	1
533	Electric Meter Installers & Repairers	36	32	10	-11.11%	1	0	1
535	Locksmiths & Safe Repairers	46	53	20	15.22%	1	1	2
536	Office Machine & Cash Register Servicrs	30	38	20	26.67%	1	1	2
537	Mechanical Control Installers & Repairers	25	25	10	0.00%	1	0	1
538	Elevator Installers & Repairers	54	61	20	12.96%	1	1	2
540	Mobile Home Repairers	82	98	40	19.51%	2	2	4
542	Coin & Vending Machine Servicrs	39	42	10	7.69%	1	0	1
544	Tire Repairers & Changers	148	172	80	16.22%	6	2	8

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
545	Menders, Garments & Linens	29	29	10	0.00%	1	0	1
546	Mechanics, Installers, & Repairers, NEC	587	654	170	11.41%	10	7	17
547	Construction Trades & Extractive Occs	6,110	6,752	2,040	10.51%	138	66	204
548	Construction Trades Workers	1,558	1,684	510	8.09%	39	12	51
549	Carpenters	1,352	1,461	470	8.06%	36	11	47
550	Ceiling Tile Installers & Acoust Carptrs	25	27	10	8.00%	1	0	1
551	Drywall Installers	143	156	30	9.09%	2	1	3
552	Tapers	24	26	0	8.33%	0	0	0
554	Electrical Workers	978	1,094	320	11.86%	20	12	32
555	Masonry Workers	623	706	200	13.32%	12	8	20
556	Brick Masons	272	319	110	17.28%	6	5	11
557	Stone Masons	46	54	20	17.39%	1	1	2
559	Concrete Fnshr/Cement Msn/Terrazzo Wkr	207	221	30	6.76%	2	1	3
561	Plasterers & Stucco Masons	61	74	30	21.31%	2	1	3
562	Painters, Paperhangers & Related Workers	448	519	180	15.85%	11	7	18
563	Plumbers & Related Workers	761	812	150	6.70%	10	5	15
564	Plumbers, Pipefitters, & Steamfitters	654	701	130	7.19%	8	5	13
566	Pipelayers	97	101	20	4.12%	2	0	2
567	Floor Related Workers	62	70	20	12.90%	2	0	2
568	Carpet Installers	24	27	10	12.50%	1	0	1
569	Floor Layers, Ex Carpet	30	34	10	13.33%	1	0	1
571	Road, Rail, Construction & Maintenance	421	441	120	4.75%	10	2	12
573	Paving, Surfacing, & Tamping Operators	117	128	40	9.40%	3	1	4
574	Highway Maintenance Workers	260	277	80	6.54%	6	2	8
575	Rail-Track Laying & Maint Equip Oprs	33	24	10	-27.27%	1	-1	1
576	Other Construction Trades Workerrs	1,014	1,130	420	11.44%	28	14	42
577	Insulation Workers	182	207	90	13.74%	6	3	9
578	Hazardous Materials Removal Wkrs	86	97	30	12.79%	2	1	3
579	Sheet Metal Duct Installers	87	113	50	29.89%	2	3	5

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
580	Roofers	183	199	80	8.74%	6	2	8
581	Glaziers	62	63	20	1.61%	2	0	2
582	Structural Metal Workers	126	133	40	5.56%	3	1	4
583	Fence Erectors	29	34	20	17.24%	1	1	2
584	Construction Trades Workers, NEC	259	284	90	9.65%	6	3	9
585	Extractive & Related Workers	245	296	120	20.82%	6	6	12
586	Earth Drillers, Ex Oil & Gas	44	49	20	11.36%	1	1	2
592	Construction & Extractive Workers, NEC	156	202	90	29.49%	4	5	9
593	Precision Production Occupations	4,271	4,569	1,130	6.98%	86	27	113
594	Metal Workers, Precision	1,486	1,615	420	8.68%	30	12	42
595	Tool & Die Makers	222	234	50	5.41%	4	1	5
596	Machinists	696	766	210	10.06%	14	7	21
597	Tool Grinders, Filers, & Sharpeners	90	90	20	0.00%	2	0	2
601	Sheet Metal Workers	333	376	120	12.91%	8	4	12
602	Boilermakers	30	30	10	0.00%	1	0	1
603	Precision Metal Workers, NEC	52	53	10	1.92%	1	0	1
604	Woodworkers, Precision	583	604	110	3.60%	9	2	11
605	Pattern & Model Makers, Wood	29	28	10	-3.45%	1	0	1
606	Wood Machinists	85	85	10	0.00%	1	0	1
607	Cabinetmakers & Bench Carpenters	328	348	60	6.10%	4	2	6
608	Furniture Finishers	60	61	10	1.67%	1	0	1
609	Precision Woodworkers, NEC	72	73	20	1.39%	2	0	2
610	Textile, Apparel, Furnish Wkrs, Precision	285	290	70	1.75%	7	-1	7
611	Patternmakers & Layout Wkrs, Fbrc/Aprl	33	33	10	0.00%	1	0	1
612	Custom Tailors & Sewers	27	22	10	-18.52%	1	-1	1
613	Upholsterers	90	92	20	2.22%	2	0	2
616	Pressers, Delicate Fabric	31	33	10	6.45%	1	0	1
617	Dyers, Precision	30	33	10	10.00%	1	0	1
618	Precision Textile Workers, NEC	48	49	10	2.08%	1	0	1

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
619	Printing Workers, Precision	351	354	40	0.85%	4	0	4
621	Job Printers	55	58	10	5.45%	1	0	1
623	Desktop Publishing Specialists	63	109	60	73.02%	1	5	6
626	Film Strippers, Printing	73	50	10	-31.51%	1	-2	1
627	Platemakers	41	41	10	0.00%	1	0	1
630	Food Workers, Precision	1,255	1,317	360	4.94%	29	7	36
631	Slaughterers & Meat Packers	887	902	230	1.69%	21	2	23
632	Bakers, Manufacturing	205	233	60	13.66%	3	3	6
633	Food Batchmakers	143	158	60	10.49%	4	2	6
635	Other Precision Workers	311	389	140	25.08%	7	7	14
637	Molders & Shapers, Ex Jewelry/Foundry	28	31	10	10.71%	1	0	1
638	Photographic Process Wkrs, Precision	26	46	30	76.92%	1	2	3
639	Ophthalmic Laboratory Technicians	25	27	0	8.00%	0	0	0
640	Dental Lab Technicians, Precision	33	33	10	0.00%	1	0	1
641	Precision Workers, NEC	161	210	90	30.43%	4	5	9
642	Operators, Fabricators, & Laborers	46,564	50,524	14,540	8.50%	1,058	396	1,454
643	Machine Setters, Set-Up Opr/Tndrs	15,995	15,931	3,280	-0.40%	328	-8	328
644	Selected Machn Sttrs, Set-Up Oprs/Tndrs	430	381	100	-11.40%	10	-6	10
645	Sawing Machine Tool Setters/Oprs, M/P	32	34	10	6.25%	1	0	1
646	Lathe & Turning Machn Setters/Oprs, M/P	91	86	20	-5.49%	2	-1	2
647	Drilling & Boring Machn Setters/Oprs, M/P	63	52	10	-17.46%	1	-1	1
648	Milling Machine Setters/Oprs, M/P	39	36	10	-7.69%	1	0	1
649	Grinding Mach Setters/Oprs, M/P	74	67	20	-9.46%	2	-1	2
650	Machine Tool Cutting Oprs, M/P	131	106	30	-19.08%	3	-3	3
651	Machine Cut/Form Setters/Oprs, M/P	986	997	240	1.12%	23	1	24
652	Punching Machine Setters/Oprs, M/P	100	92	20	-8.00%	2	-1	2
653	Press Machine Setters/Oprs, M/P	130	144	40	10.77%	3	1	4
654	Shear Machine Setters/Oprs, M/P	61	67	20	9.84%	1	1	2
655	Extruding & Drawing Setters/Oprs, M/P	233	264	90	13.30%	6	3	9

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
656	Rolling Machine Setters/Oprs, M/P	61	65	10	6.56%	1	0	1
657	Forging Machine Setters/Oprs, M/P	27	25	10	-7.41%	1	0	1
658	Machine Forming Operators, M/P	374	340	90	-9.09%	9	-3	9
659	Numerical & Combination Machn Sttrs/Oprs	365	439	150	20.27%	8	7	15
660	Numerical Control Machn Operators, M/P	131	163	60	24.43%	3	3	6
661	Combination Machine Tool Setters, M/P	135	163	60	20.74%	3	3	6
662	Combination Machn Tool Oprs/Tndrs, M/P	99	113	30	14.14%	2	1	3
663	Metal Fabricating Machn Setters/Oprs, M/P	298	311	70	4.36%	6	1	7
664	Welding Machine Setters/Set-Up Oprs	58	58	10	0.00%	1	0	1
665	Welding Machine Operators/Tenders	133	135	30	1.50%	3	0	3
667	Metal Fabricators, Structural Metal	83	92	30	10.84%	2	1	3
668	Metal & Plastic Process Machine Sttrs/Oprs	1,528	1,772	620	15.97%	37	25	62
669	Plastic Molding/Casting Machn Sttrs/Oprs	254	299	110	17.72%	6	5	11
670	Plastic Molding/Casting Machn Oprs/Tndrs	1,022	1,210	440	18.40%	25	19	44
671	Metal Mold/Core/Cast Machine Sttrs/Oprs	36	40	10	11.11%	1	0	1
672	Metal Mold/Core/Cast Machine Oprs/Tndrs	61	68	30	11.48%	2	1	3
674	Electrolytic Plate/Coat Machn Sttrs/Oprs, M/P	26	29	10	11.54%	1	0	1
675	Electrolytic Plate/Coat Machn Oprs, M/P	58	56	10	-3.45%	1	0	1
678	Other Metal & Plastic Setters/Oprs/Tndrs	573	642	210	12.04%	14	7	21
679	Metal & Plastic Setters/Oprs, NEC	282	299	90	6.03%	7	2	9
680	Metal & Plastic Oprs/Tndrs, NEC	291	343	120	17.87%	7	5	12
681	Woodworking Machine Setters/Oprs/Tndrs	727	693	190	-4.68%	19	-3	19
682	Sawing Machine Setters/Set-Up Oprs	47	44	10	-6.38%	1	0	1
683	Head Sawyer	65	64	20	-1.54%	2	0	2
684	Sawing Machine Operators/Tenders	349	345	100	-1.15%	10	0	10
685	Woodworking Machn Setters, Ex Sawing	103	96	20	-6.80%	2	-1	2
686	Woodwrkng Machn Oprs/Tndrs, Ex Sawing	163	144	40	-11.66%	4	-2	4
687	Printing, Binding, & Related Occs	1,135	1,140	230	0.44%	23	-1	23
688	Print Press Machine Setters	52	55	10	5.77%	1	0	1

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
689	Offset Lithographic Press Oprs	186	168	40	-9.68%	4	-2	4
690	Letterpress Operators	27	22	10	-18.52%	1	-1	1
691	Printing Press Setters/Oprs, NEC	43	43	10	0.00%	1	0	1
692	Specialty Material Printing Machine Sttrs	28	31	10	10.71%	1	0	1
693	Screen Printing Machine Setters/Oprs	63	54	10	-14.29%	1	-1	1
694	Bindery Machine Setters/Oprs	89	100	30	12.36%	2	1	3
696	Typesetting & Composing Machine Oprs	32	13	10	-59.38%	1	-2	1
697	Printing Press Machine Oprs/Tndrs	343	368	100	7.29%	7	3	10
699	Bindery Machine Operators	157	180	50	14.65%	3	2	5
700	Printing, Binding, & Related Workers, NEC	83	75	10	-9.64%	1	-1	1
701	Textile & Related Setters/Oprs/Wkrs	4,165	3,425	660	-17.77%	66	-74	66
702	Textile Machine Setters/Oprs	196	237	70	20.92%	3	4	7
703	Textile Machine Oprs/Tndrs	1,232	964	210	-21.75%	21	-27	21
704	Extruding & Forming Machine Oprs/Tndrs	244	271	70	11.07%	4	3	7
705	Textile Draw-Out Machine Oprs/Tndrs	54	38	10	-29.63%	1	-2	1
706	Textile Bleach & Dye Machine Oprs/Tndrs	136	155	40	13.97%	2	2	4
707	Sewing Machine Oprs, Garment	1,548	986	210	-36.30%	21	-56	21
708	Sewing Machine Oprs, Non-Garment	247	255	40	3.24%	3	1	4
709	Laundry & Drycleaning Machine Oprs	326	379	130	16.26%	8	5	13
710	Pressing Machine Oprs/Tndrs, Textiles	179	137	30	-23.46%	3	-4	3
711	Other Machine Setters/Oprs,Tndrs	5,788	6,131	1,570	5.93%	122	35	157
714	Photographic Process Machine Oprs	35	48	20	37.14%	1	1	2
716	Paper Goods Machine Setters/Oprs	174	164	40	-5.75%	4	-1	4
717	Cooking Machine Oprs, Food & Tobacco	104	101	20	-2.88%	2	0	2
718	Roasting & Drying Oprs/Tndrs, Fd/Tbcco	53	50	10	-5.66%	1	0	1
719	Furnace, Kiln, Oven, Drier or Kettle Oprs	56	59	10	5.36%	1	0	1
720	Boiler Operators & Tenders, Low Pressure	90	78	20	-13.33%	2	-1	2
721	Cooling & Freezing Equipment Oprs/Tndrs	40	43	10	7.50%	1	0	1
723	Chemical Equipment Controllers/Oprs	240	271	90	12.92%	6	3	9

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
724	Chemical Equipment Tenders	36	41	20	13.89%	1	1	2
725	Cutting & Slicing Machine Setters/Oprs	116	121	40	4.31%	3	1	4
726	Cutting & Slicing Machine Oprs/Tndrs	308	377	140	22.40%	7	7	14
727	Painters, Transportation Equipment	56	63	20	12.50%	1	1	2
728	Coat/Paint/Spray Machine Setters/Oprs	103	107	20	3.88%	2	0	2
729	Coat/Paint/Spray Machine Oprs/Tndrs	201	222	60	10.45%	4	2	6
730	Cement & Gluing Machine Oprs/Tndrs	70	62	20	-11.43%	2	-1	2
731	Cleaning/Washing/Pickling Eq Oprs/Tndrs	104	111	30	6.73%	2	1	3
732	Separating & Still Machn Sttrs/Oprs/Tndrs	89	82	20	-7.87%	2	-1	2
733	Crushing/Grinding/Mixg Machn Oprs/Tndrs	474	507	140	6.96%	11	3	14
734	Extrud/Form/Press Machine Setters/Oprs	92	105	30	14.13%	2	1	3
735	Extrud/Form/Press Machine Oprs/Tndrs	347	394	130	13.54%	8	5	13
736	Packaging & Filling Machine Oprs/Tndrs	1,387	1,445	420	4.18%	36	6	42
737	Machine Setters/Setup Oprs, NEC	337	336	50	-0.30%	5	0	5
738	Machine Operators/Tenders, NEC	1,247	1,318	250	5.69%	18	7	25
739	Handworking Occupations, Incl Assemblers	8,494	9,622	2,950	13.28%	182	113	295
740	Assemblers, Precision	656	651	150	-0.76%	15	-1	15
741	Machine Builder Assemblers, Precision	159	161	40	1.26%	4	0	4
742	Fitters, Structural Metal, Precision	29	26	10	-10.34%	1	0	1
743	Electromechanical Equipment Assmblrs	60	62	10	3.33%	1	0	1
744	Electrical/Electronic Equip Assmblrs, Prec	265	255	60	-3.77%	6	-1	6
745	Precision Assemblers, Metral, NEC	141	145	30	2.84%	3	0	3
746	Other Hand Workers & Assemblers	7,838	8,971	2,810	14.46%	167	114	281
747	Machine Assemblers	163	178	50	9.20%	3	2	5
748	Electrical & Electronic Assemblers	296	297	50	0.34%	5	0	5
751	Welders & Cutters	633	687	210	8.53%	16	5	21
752	Solderers & Brazers	46	68	30	47.83%	1	2	3
755	Cutters & Trimmers, Hand	113	112	30	-0.88%	3	0	3
756	Portable Machine Cutters	75	86	30	14.67%	2	1	3

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
757	Cannery Workers	168	165	40	-1.79%	4	0	4
758	Meat, Poultry & Fish Cutters, Hand	1,952	2,446	940	25.31%	45	49	94
760	Molders & Casters, Hand	48	53	20	10.42%	1	1	2
761	Painting, Coating & Decoratg Wkrs, Hand	57	63	20	10.53%	1	1	2
762	Engraving & Printing Wkrs, Hand	11	25	10	127.27%	0	1	1
763	Grinders & Polishers, Hand	111	114	30	2.70%	3	0	3
764	Assemblers & Fabricators, NEC	3,036	3,365	870	10.84%	54	33	87
765	Hand Workers, NEC	1,067	1,256	480	17.71%	29	19	48
766	Plant & System Occupations	733	766	250	4.50%	21	4	25
767	Water & Waste Treatment Plant Oprs	238	266	90	11.76%	6	3	9
768	Chemical Plant & System Oprs	90	100	40	11.11%	3	1	4
770	Power Generating Plant Oprs	53	51	20	-3.77%	2	0	2
772	Power Distributors & Dispatchers	30	25	10	-16.67%	1	-1	1
773	Stationary Engineers	43	41	10	-4.65%	1	0	1
774	Plant & System Oprs, NEC	246	252	90	2.44%	8	1	9
775	Transportation & Material Mvng Machn Oprs	10,500	12,037	3,260	14.64%	172	154	326
776	Motor Vehicle Operators	7,598	8,987	2,560	18.28%	117	139	256
777	Truck Drivers, Heavy	3,533	4,013	990	13.59%	51	48	99
778	Truck Drivers, Light	2,145	2,652	820	23.64%	31	51	82
779	Bus Drivers, Transit/Intercity	179	195	50	8.94%	3	2	5
780	Bus Drivers, School	1,008	1,317	490	30.65%	18	31	49
781	Taxi Drivers & Chauffeurs	76	98	30	28.95%	1	2	3
782	Drivers & Sales Workers	601	655	170	8.99%	12	5	17
783	Motor Vehicle Operators, NEC	56	57	10	1.79%	1	0	1
784	Rail Transportation Workers	168	141	50	-16.07%	5	-3	5
785	Railroad Conductors & Yardmasters	54	48	20	-11.11%	2	-1	2
786	Locomotive Engineers	70	70	20	0.00%	2	0	2
789	Railroad Brake, Signal & Switch Oprs	29	14	10	-51.72%	1	-2	1
790	Water Transportation Occs	25	24	0	-4.00%	0	0	0

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
796	Pilot, Flight Engineer Occs	48	54	20	12.50%	1	1	2
797	Other Transportation Workers	514	523	190	1.75%	17	2	19
798	Service Station Attendants	288	265	130	-7.99%	13	-2	13
799	Parking Lot Attendants	20	25	10	25.00%	0	1	1
800	Transportation Workers, NEC	205	232	70	13.17%	4	3	7
801	Material Moving Equipment Operators	2,147	2,308	470	7.50%	32	15	47
803	Excavation & Loading Machine Operators	322	355	90	10.25%	6	3	9
806	Grader, Dozer & Scraper Operators	174	188	20	8.05%	1	1	2
808	Crane & Tower Operators	62	63	10	1.61%	1	0	1
809	Industrial Truck & Tractor Operators	970	1,052	190	8.45%	11	8	19
810	Conveyor Operators/Tenders	91	92	20	1.10%	2	0	2
812	Operating Engineers	164	179	50	9.15%	3	2	5
813	Material Moving Equipment Oprs, NEC	288	299	80	3.82%	7	1	8
814	Transportation & Mtrl Mvng Eqp Oprs, NEC	41	45	10	9.76%	1	0	1
815	Hand Labor & Material Moving Helpers	10,842	12,168	4,880	12.23%	355	133	488
816	Helpers: Mechanics & Repairers	348	403	220	15.80%	16	6	22
817	Helpers: Construction Trades	1,473	1,578	780	7.13%	67	11	78
818	Helpers: Brick & Stone Masons	220	240	120	9.09%	10	2	12
819	Helpers: Carpenters & Related	428	473	250	10.51%	20	5	25
820	Helpers: Electricians & Related	219	200	100	-8.68%	10	-2	10
821	Helpers: Painters & Paperhangers	52	57	30	9.62%	2	1	3
822	Helpers: Plumbers & Related	236	257	130	8.90%	11	2	13
823	Helpers: Roofers	68	82	40	20.59%	3	1	4
824	Construction Trades Helpers, NEC	229	247	120	7.86%	10	2	12
826	Machine Feeders & Offbearers	733	733	220	0.00%	22	0	22
827	Freight, Stock & Material Movers, Hand	1,632	1,647	610	0.92%	60	1	61
829	Refuse/Recyclable Material Collectors	93	97	40	4.30%	4	0	4
830	Freight, Stock & Mtrl Mvrs, Hand, NEC	1,538	1,549	570	0.72%	56	1	57
831	Other Helpers, Laborers & Movers	6,656	7,807	3,050	17.29%	190	115	305

ESTIMATED 1998 AND PROJECTED 2008 OCCUPATIONAL EMPLOYMENT AND ANNUAL AVERAGE JOB OPENINGS

Region 4 - Northwest VA 1998 – 2008

LINE	OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE		ANNUAL OPENINGS 1998-2008		
		Estimated 1998	Projected 2008	Number	Percent	Replacements	Growth	Total
832	Hand Packers & Packagers	2,697	3,331	1,300	23.51%	67	63	130
833	Cleaners of Vechicles/Equipment	366	454	210	24.04%	12	9	21
834	Helpers, Laborers & Movers, NEC	3,593	4,022	1,540	11.94%	111	43	154

**OCCUPATIONS DELETED DUE TO 1998 AND 2008 EMPLOYMENT LEVELS
OF LESS THAN 25 IN THE REGION OR 100 STATEWIDE**

Region 4 - Northwest VA 1998 – 2008

OCCUPATION	OCCUPATION	OCCUPATION
Actuaries	Credit Authorizers	Heaters, Metal & Plastic
Advertising Clerks	Criminal Investigators, Federal	Heating Equipment Setters/Oprs, M/P
Aerospace Engineers	Criminal Justice/Law Enfrcmnt Tchrs, Pstsc	Helpers: Extractive Workers
Agricultural & Food Scientists	Curators, Archivists & Museum Techns	Hoist & Winch Operators
Agricultural Sciences Teachers, Pstscndry	Dairy Processing Equipment Oprs/Setters	Home Economics Teachers, Pstscndry
Agriculture Related Occupations	Dancers & Choreographers	Housekeepers & Butlers, Private
Air Hammer Operators	Detail Design Decorators & Painters	Inspectors, Agricultural Products
Air Traffic Controllers	Directors, Religious Activities/Education	Instrument Makers, Precision
Animal Breeders	Dragline Operators	Insurance Appraisers, Auto Damage
Animal Trainers	Dredge Operators & Dipper Tenders	Insurance Examining Clerks
Architecture Teachers, Postsecondary	EKG Technicians	Investigators, Clerical
Area/Ethnic/Cultural Studies Tchrs, Pstsc	Electrical Installers & Repairers	Jewelers & Silversmiths
Atmospheric & Space Scientists	Electromedical & Biomedical Equip Rprs	Landscape Architects
Auxiliary Equipment Oprs, Power	Electroneurodiagnostic Techns	Lathers
Bailiffs	Electronic Semiconductor Processors	Layout Workers, Metal, Precision
Barbers	Estimators & Drafters, Utilities	Legal Assistants, NEC
Bicycle Repairers	Etchers & Engravers, Precision	Library Science Teachers, Postsecondary
Blasters & Explosive Workers	Extraction Workers, Ex Helpers, NEC	Lithographic & Photengrvng Workers, NEC
Bookbinders	Farmers	Loading Machine Operators, Mining
Bridge, Lock & Lighthouse Tenders	Film Editors	Loan Interviewers
Broadcast News Analysts	Fire Inspectors	Locomotive Firers
Camera & Photographic Equipment Rprs	Fish & Game Wardens	Machinery Mechanics: Marine
Camera Operators	Floor Sanding Machine Operators	Marine Architects
Camera Operators, TV/Movie/Video	Forest Fire Inspectors & Prevention	Marine Engineers
Captains, Water Vessels	Foundry Mold & Core Makers	Materials Engineers
Central Office Operators	Foundry Mold Assembly & Shakeout Wkrs	Mates: Ship, Boat & Barge
Chiropractors	Frame Wirers, Central Office	Mathematical Scientist, NEC
Choke Setters	Furnace Operators & Tenders	Medical Appliance Makers
Claims Takers, Unemployment Benefits	Gas Appliance Repairers	Medical Scientists
Coil Winders, Tapers & Finishers	Gas Compressor Operators	Metal Pourers & Casters, Basic Shape
Communication Equipment Oprs, NEC	Gas Plant Operators	Mining & Related Managers
Compositors & Typesetters, Precision	Gaugers	Mining Engineers, Incl Safety
Continuous Mining Machine Operators	Geography Teachers, Postsecondary	Mining Machine Operators, NEC
Cooks, Private Household	Glaziers, Manufacturing	Models
Corrective & Manual Arts Therapists	Hard Tile Setters	Motion Picture Projectionists
Correspondence Clerks	Health Practitioners, NEC	Municipal Clerks
Credit Analysts	Heat Treating Machine Oprs/Tndrs	Music Directors, Singers & Related Wkrs

**OCCUPATIONS DELETED DUE TO 1998 AND 2008 EMPLOYMENT LEVELS
OF LESS THAN 25 IN THE REGION OR 100 STATEWIDE
Region 4 - Northwest VA 1998 – 2008**

OCCUPATION	OCCUPATION	OCCUPATION
Musical Instrument Repairers/Tuners	Pump Operators	Soldering & Brazing Machine Setters/Oprs
Nonelectrolytic Plate/Coat Oprs, M/P	Radiation Therapists	Special Agents, Insurance
Nonelectrolytic Plate/Coat Setters, M/P	Radio Mechanics	Spotters, Dry Cleaning
Nuclear Engineers	Radio Operators	Statement Clerks
Nuclear Medicine Technologists	Rail Car Repairers	Statisticians
Nursery & Greenhouse Mgrs	Rail Transportation Operators, NEC	Stevedores, Ex Equipment Operators
Parking Enforcement Officers	Rail Yard Engineers, Dinkey Oprs	Subway & Streetcar Oprs
Paste-up Workers	Railroad & Transit Police	Supervisors, Related Agric Occs
Pattern & Model Makers, Metal	Reinforcing Metal Workers	Tank Car & Truck Loaders
Pattern Markers, Wood	Religious Workers, NEC	Telegraph & Teletype Installers, Rprs
Patternmakers & Model Makers	Riggers	Telegraph/Teletype Operators
Petroleum Refinery Operators	Rock Splitters, Quarry	Title Examiners & Abstractors
Petroleum Techns/Technols	Scanner Operators	Title Searchers
Photoengravers	Seamen, Able	Traffic Technicians
Photoengraving & Lithographic Oprs/Tndrs	Seamen, Ordinary & Maine Oilers	Transit Clerks
Physicists & Astronomers	Septic Tank Servicers, Sewer Pipe Clnrs	Transportation Agents
Pile Driving Equipment Operators	Sewers, Hand	Transportation Inspectors
Pipelaying Fitters	Ship Engineers	Travel Clerks
Podiatrists	Shipfitters	Wardrobe & Dressing Room Attendants
Precision Food & Tobacco Workers, NEC	Shoe & Leather Workers, Precision	Watch & Chlock Assemblers, Prec
Precision Printing Workers, NEC	Shoe Sewing Machine Oprs/Tndrs	Watchmakers
Pressers, Hand	Signal & Track Switch Maintainers	
Printing Setters/Oprs, NEC	Social Work Teachers, Postsecondary	
Programmers: Numerical Tool & Prcss Cntrl	Soldering & Brazing Machine Oprs/Tndrs	