

## Section One: Why Postsecondary Education? A Look at the Data

***Vermont citizens need expanded access to education and training to be prepared for the fastest growing and/or highest paying occupational opportunities in the state.***

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- Based on Vermont Department of Labor projections from 2006 to 2016, 13 of Vermont’s fastest growing occupations offer the promise of high annual growth rates and annual salaries above the state’s median salary. Of these 13, nearly half have marginally available to no educational/training options in the state (see Table A).
- Of the 25 highest paying occupations projected for Vermont through 2016, 15 have educational requirements with marginally available to no availability in the state (see Table B).

***The most promising career opportunities for Vermont’s youth span a range of industries and require various levels of training and education. Students can expect to make a good living in Vermont if they take the time to identify and then move into one of these promising fields.***

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- The *most promising* occupations for Vermonters – those occupations with excellent in-state education options, median annual wages listed above the state’s median wage, and a projected number of annual openings greater than ten – include five within the field of health, two within the field of education, two within the field of technology, and two that require a two-year degree (see Table C).
- Ten of Vermont’s top 20 occupations with high projected growth over the next ten years and excellent in-state education options are in the technology and mental health fields (see Table D).
- Only three of the top 25 highest paying jobs have 25 or more annual openings (see Table B). The training and education costs for most of these fields are very high.
- There are a growing number of occupations in Vermont that require vocational training or an associate degree (see Table E).

## The Following Keys Explain the Coding Used in Tables A, B, D, & E

### Key 1: Training and Education Available in Vermont

Grade Assigned	Availability of Education and Training In-State	Number of Institutions Offering Education and/or Training Statewide
A	Very Widely Available	6 or more
B	Widely Available	3-5
C	Available	2
D	Marginally Available	1
F	Not Available	0
OTJ	On-the-Job Training	

### Key 2: Training & Education Requirements

Level Assigned	Examples of Occupations	Education Requirements	Training/Experience Required
5	Surgeon, Engineering Manager	Bachelor's Degree is a minimum; many also require a Masters, some PhD, M.D. or J.D.	Up to five years of specialized training
4	Computer Software Engineers/Systems software	Most require a Bachelor's Degree	Several years of work-related experience; On-the-job training or vocational training
3	Nurse, Electrician	Most require vocational training or an associate's degree	On-the-job training or 1-2 years training
2	Retail Salespeople	High School Diploma and maybe some vocational training	Up to one year working with experienced employees
1	Cashiers	May require H.S. diploma or GED,	Up to a few months of training

**Table A: Vermont's Projected Fastest Growing Occupations**

Vermont's Fastest Growing Occupations	Total Ten Year Increase in Jobs (2006-2016)	Median Annual Salary	Minimum Education Costs	Education & Training Available*	Training & Education Requirements**
Personal and Home Care Aides	3,308	\$21,110	OTJ	OTJ	2
Home Health Aides	1,039	\$21,670	OTJ	A	2
Computer Software Engineers, Applications	503	\$63,310	\$34,687	A	4
Social and Human Service Assistants	493	\$29,120	OTJ	C	3
Pharmacy Technicians	226	\$26,420	\$12,000	D	2
Medical Assistants	169	\$29,400	\$12,000	A	3
Pharmacists	167	\$105,080	\$156,711	D	5
Dental Hygienists	163	\$57,930	\$19,968	D	3
Mental Health and Substance Abuse Social Workers	142	\$36,020	\$34,687	A	5
Medical and Public Health Social Workers	140	\$41,920	\$41,920	A	5
Network Systems and Data Communications Analysts	128	\$64,200	\$34,687	A	3
Dental Assistants	126	\$33,330	\$12,000	D	2
Veterinary Technologists and Technicians	125	\$28,170	\$12,000+	A	3
Mental Health Counselors	102	\$46,240	\$34,687	A	5
Substance Abuse and Behavioral Disorder Counselors	101	\$40,950	\$34,687	A	5
Veterinarians	91	\$72,290	34,687+	C (pre-vet only)	5
Occupational Therapists	69	\$59,860	\$32,800	F	4
Respiratory Therapists	48	\$50,320	\$12,000	C	3
Interpreters and Translators	46	\$34,600	\$12,000	C	3
Community and Social Service Specialists, All Other	39	\$28,470	No Info	Data not available	Data not available
Eligibility Interviewers, Government Programs	33	\$38,350	OTJ	D	2
Physical Therapist Assistants	27	\$42,200	\$34,687	D	3
Environmental Science and Protection Technicians, Including Health	23	\$32,810	\$34,687	A	4
Surgical Technologists	20	\$37,170	\$12,000	F	3
Cardiovascular Technologists and Technicians	18	\$46,990	\$12,000	F	3
*See Key 1 for explanation ** See Key 2 for explanation					

13 of the top 25 fastest growing occupations (projected for 2006 to 2016) have median annual salaries above the state median salary, which was \$38,060 in 2007 (as reported by the U.S. Census). Almost half of these occupations have marginally available to no educational/training options in state (highlighted in red). While many occupations are considered health-related, the salary range within that category is broad and should be considered carefully when selecting a career.

Source: Vermont Department of Labor, Labor Information Bureau, 2007

**Table B: Highest Paying Jobs in Vermont (Through 2016)**

Rank	Occupational Title	Median Annual Salary (as of 5/2007)	Education & Training Required*	Education & Training Available**	Net Annual Job Openings Projected
1.	Anesthesiologist	\$145,600+	5	D	4
2.	Surgeons	\$145,600+	5	D	8
3.	Obstetricians/Gynecologists	\$145,600+	5	D	4
4.	Optometrists	\$145,600+	5	F	3
5.	Dentists, General	\$145,600+	5	D	11
6.	Physicians/Surgeons	\$145,600+	5	D	18
7.	Chief Executives	\$141,480	5	A	18
8.	Psychiatrists	\$134,920	5	D	6
9.	Family/General Practitioners	\$128,610	5	D	10
10.	Engineering Managers	\$127,480	5	A	7
11.	Pediatricians	\$110,220	5	D	6
12.	Pharmacists	\$105,080	5	D	25
13.	Medical Scientist	\$111,230	5	D	13
14.	Internists	\$96,330	5	D	6
15.	Operations Research Analysts	\$95,700	5	F	Data not available
16.	Computer/Info Systems Managers	\$91,100	5	A	6
17.	Financial Managers	\$89,420	4	A	15
18.	Sales Managers	\$88,780	4	A	16
19.	Natural Sciences Managers	\$87,640	5	D	1
20.	Electronics Engineers	\$87,520	4	B	10
21.	Lawyers	\$86,410	5	D	47
22.	Human Resource Managers	\$86,290	Data not available	B	1
23.	General/Operations Managers	\$84,750	4	A	50
24.	Med/Health Services Managers	\$83,700	5	A	20
25.	Computer Software Engineers, Systems Software	\$82,110	4	A	14
*See Key 1 for explanation ** See Key 2 for explanation					

Of the 25 highest paying occupations in Vermont, 15 require education with marginally available to no availability in the state (highlighted in red), and in most cases these specialized occupations have limited projected job openings. Only three of the top 25 highest paying jobs have 25 or more annual openings. The training and education costs for most of these fields are very high.

**Source: Vermont Department of Labor, Labor Information Bureau, 2007**

**Table C: Vermont's Most Promising Occupations**

Occupations with Multiple In-State Educational Opportunities	Projected Annual Job Openings	Median Annual Salary	Minimum Public Education Costs	Payout Ratio*	Categories			
					Most Openings	Highest Wages	Fastest Growing**	Largest Growth ***
Registered Nurses	235	\$57,770	\$19,968	2.90	✓	✓	✓	✓
Elementary School Teachers, except Special Ed	116	\$45,470	\$34,687	1.31	✓			✓
Executive Secretaries/Administrative Assistants	111	\$38,150	\$12,000	3.18	✓			✓
Accountants and Auditors	94	\$54,940	\$34,687	1.58	✓			✓
Secondary School Teachers, Except Special and vocational	84	\$47,260	\$34,687	1.36	✓			
Computer Software Engineers, Applications	66	\$63,310	\$34,687	1.82	✓			✓
Medical and Public Health Social Workers	23	\$41,920	\$34,687	1.21		✓	✓	
Network Systems and Data Communications Analysts	20	\$64,200	\$34,687	1.85		✓	✓	
<b>Occupations with Limited In-State Educational Opportunities</b>								
Dental Hygienists	27	\$57,930	\$19,968	2.90		✓	✓	
Pharmacists	25	\$105,080	\$156,711	0.67		✓	✓	
Physical Therapists	24	\$58,650	\$34,687	1.69		✓	✓	
* Median Annual Salary divided by the minimum public education costs					** As a percent		*** Total number of openings	

The *most promising* occupations for Vermonters were defined as those occupations with excellent in-state education options, projected annual openings greater than ten positions, and median annual wages listed above the 2007 state median salary of \$38,060 (as reported by the U.S. Census). The occupations that met these criteria represent a diverse set of industries: five are in the field of health, two are in the field of education, two are in the field of technology, and two require a two-year degree.

**Source: Vermont Department of Labor, Labor Information Bureau, 2007**

**Table D: Fast Growing, High Wage Occupations in Vermont**

<b>Fast Growing, High Wage Occupations</b>	<b>Average Annual Growth Rate</b>	<b>Estimated Annual Openings from Growth</b>	<b>Median Annual Salary</b>	<b>Minimum Public Education Costs</b>	<b>Education Available*</b>
Computer Software Engineers, Applications	3.9%	66	\$63,310	\$34,687	A
Pharmacists	3.2%	25	\$105,080	\$156,711	D
Network systems and Data Communications Analysts	3.1%	20	\$64,200	\$34,687	A
Substance Abuse and Behavioral Disorder Counselors	2.9%	16	\$40,950	\$34,687	A
Medical and Public Health Social Workers	2.9%	23	\$41,920	\$34,687	A
Mental Health and Substance Abuse Social Workers	2.9%	23	\$36,020	\$34,687	A
Veterinarians	2.6%	15	\$72,290	\$34,687+	C (pre-vet only)
Mental Health Counselors	2.6%	17	\$46,240	\$34,687	A
Occupational Therapists	2.6%	11	\$59,860	\$32,800	F
Physical Therapist Assistants	2.5%	4	\$42,200	\$34,687	D
Dental Hygienists	2.5%	27	\$57,930	\$19,968	D
Cardiovascular Technologists and Technicians	2.5%	3	\$46,990	\$12,000	D
Respiratory Therapists	2.4%	8	\$50,320	\$12,000	C
Eligibility Interviewers, Government Programs	2.3%	5	\$38,350	OTJ	D
Healthcare Practitioners and Technical Workers, All Other	2.3%	11	\$36,350	\$12,000	B
Environmental Engineers	2.3%	8	\$62,800	\$32,800	D
Marriage and Family Therapists	2.2%	2	\$44,630	\$12,000	A
Registered Nurses	2.2%	235	\$57,770	\$19,968	A
Physician Assistants	2.2%	8	\$80,630	\$34,687	B
Physical Therapists	2.2%	24	\$58,650	\$34,687	C
*See Key 1 for explanation					

Ten of Vermont's top 20 occupations with high projected growth over the next ten years and excellent in-state education options are in the technology and mental health fields (highlighted in red). Of those occupations with the most annual openings (more than ten), eight have very widely to widely available education options in-state, and three have marginally available to no in-state educational options. Pharmacists and Dental Hygienists have a relatively high number of annual openings in Vermont but few in-state educational opportunities exist.

**Source: Vermont Department of Labor, Labor Information Bureau, 2007**

**Table E: Vermont Occupations with the Most Openings**

Most Openings (due to growth and replacements)	Estimated Annual Openings from Growth	Median Annual Salary	Minimum Education Costs	Education Available*	Training & Education Requirements**
Cashiers	438	\$18,330	OTJ	OTJ	1
Retail Salespersons	436	\$22,120	OTJ	OTJ	2
Personal and Home Care Aides	419	\$21,110	OTJ	OTJ	2
Waiters and Waitresses	321	\$18,470	OTJ	OTJ	1
Registered Nurses	235	\$57,770	\$19,968	A	3
Customer Service Representatives	186	\$27,380	OTJ	OTJ	2
Child Care Workers	157	\$18,720	OTJ	A	2
Bookkeeping, Accounting, and Auditing Clerks	156	\$31,200	12,000	A	3
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	134	\$22,820	OTJ	OTJ	1
Carpenters	128	\$36,760	OTJ	OTJ	2
Home Health Aides	125	\$21,670	OTJ	A	2
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	122	\$18,740	OTJ	OTJ	1
First-Line Supervisors/Managers of Retail Sales Workers	119	\$36,160	\$12,000	D	2
Elementary School Teachers, Except Special Education	116	\$45,470	\$34,687	A	4
Combined Food Preparation and Serving Workers, Including Fast Food	116	\$18,380	OTJ	D	1
Executive Secretaries and Administrative Assistants	111	\$38,150	OTJ	F	3
Teacher Assistants	108	n/a	OTJ	OTJ	3
Food Preparation Workers	104	\$19,440	OTJ	D	1
Secretaries, Except Legal, Medical, and Executive	100	\$27,570	OTJ	F	2
Receptionists and Information Clerks	98	\$24,680	OTJ	OTJ	2
Accountants and Auditors	94	\$54,940	\$34,687	A	4
Laborers and Freight, Stock, and Material Movers, Hand	86	\$22,900	OTJ	OTJ	1
Secondary School Teachers, Except Special and Vocational Education	84	\$47,260	\$34,687	A	4
Landscaping and Groundskeeping Workers	82	\$24,660	OTJ	D	1
Automotive Service Technicians and Mechanics	82	\$31,530	OTJ	D	Data not available
*See Key 1 for explanation ** See Key 2 for explanation					

Many of the Vermont occupations with the most openings (projected for 2006 to 2016) require on-the-job training in lieu of formal postsecondary education. Only 5 of the 25 occupations listed above (highlighted in red) have a median annual salary above the 2007 state median annual salary of \$38,060 (as reported by the U.S. Census). *Most Openings* can reflect occupations with high turnover associated with job dissatisfaction or displacement.

Source: Vermont Department of Labor, Labor Information Bureau, 2007