

The Upper Valley – OnTheMap

A profile of the Lebanon-Hanover NH-VT Micropolitan NECTA



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State of New Hampshire
John H. Lynch, *Governor*

New Hampshire Employment Security
George N. Copadis, *Commissioner*

Economic and Labor Market Information Bureau
Bruce R. DeMay, *Director*

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We also express our thanks to the U.S. Census Bureau for developing the Longitudinal Employer-Household Dynamics program and supporting the federal-state Local Employment Dynamics (LED) Partnership. New time series data created under the LED Partnership provide information about America's jobs, workers, and local economies and communities. OnTheMap is a mapping and reporting application that displays workplace and residential distributions by user defined geographies with companion reports on worker and firm characteristics, employment and residential comparisons, worker flows, and commuting patterns.

The following New Hampshire Employment Security staff members were instrumental in producing this publication:

Economic and Labor Market Information Bureau

Amy Finamore, *Labor Market Analyst*

Annette Nielsen, *Economist*

Elisabeth Richardson, *Informational/Web Site Representative*

For further information contact:

Amy Finamore at (603) 228-4063, Amy.M.Finamore@nhes.nh.gov

Economic and Labor Market Information Bureau
New Hampshire Employment Security
32 South Main Street
Concord, New Hampshire 03301

The Upper Valley - OnTheMap

The Upper Valley area of New Hampshire and Vermont is a dynamic, scenic and prosperous place to live and work. It is a center of innovation for both New Hampshire and Vermont and hosts healthcare and educational facilities that are among the best in both the region and the country. The Upper Valley area of New Hampshire and Vermont being examined is also defined as the Lebanon NH-VT MicroNECTA. ¹ At the edge of the southern border is Cornish, New Hampshire and Windsor, Vermont; Piermont, New Hampshire is at the northern border. Major cities and towns in the area include Lebanon and Hanover, in New Hampshire, as well as Hartford, Vermont. ² The area is well served by major roadways; Interstate Highways 89 and 91 merge in White River Junction and provide access to the area. The Upper Valley area straddles the Connecticut River, and is connected by several bridges, which integrate New Hampshire and Vermont.

Upper Valley by the Numbers

Upper Valley Population: 78,152

Median Age: 43.3 years

Median Age in New Hampshire: 41.1 years

Median Age in Vermont: 41.5 years

October 2012 (Not Seasonally Adjusted)

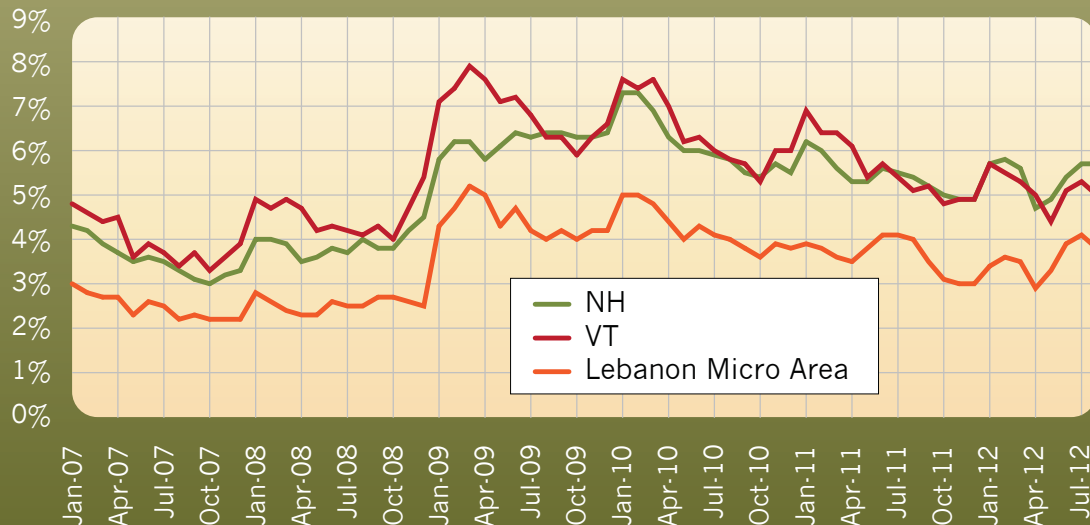
Upper Valley Unemployment Rate: 3.3%

New Hampshire Unemployment Rate: 5.2%

Vermont Unemployment Rate: 4.6%

The median age is reported by the 2010 Census. In this instance, the "Upper Valley" refers to the Lebanon, NH-VT Micropolitan Statistical Area, an area that is county based and includes areas that extend beyond the area being examined in this paper, which is the Lebanon NH-VT MicroNECTA.

Unemployment Rate Over Time



1. The Upper Valley area described in this paper is the same as the Lebanon NH-VT MicroNECTA. New England City and Town Areas (NECTA) are an Office of Management and Budget standard classification are based on economic integration and commuting patterns. MetroNECTAs have a core urban area of at least 50,000 while a MicroNECTA has a core urban area of at least 10,000. <www.whitehouse.gov/sites/default/files/omb/bulletins/b03-04_attach.pdf>. November 26, 2012.
2. White River Junction, a former train stop and current business center and tourist destination, is part of Hartford.



The Upper Valley – OnTheMap

The Upper Valley is home to Dartmouth College, Dartmouth-Hitchcock Medical Center, and the White River Junction Veterans Administration Medical Center. These institutions are beacons of the local economy and the community. The Upper Valley has a variety of job opportunities, low population density, plenty of recreational and shopping activities, an airport, and excellent healthcare services. In addition, wages in the area are higher than statewide rates of either state. Overall, the Upper Valley is known for being a nice place to live and work. The area's low unemployment rate reflects the

strong economy in the Upper Valley, and is consistently lower than the statewide rates of both New Hampshire and Vermont.

The Upper Valley is an excellent example of the OnTheMap capability. Industry employment, wages, education levels and worker demographics are some of the variables a user can examine using OnTheMap. For this OnTheMap analysis, both the Upper Valley and selected towns within the Upper Valley are examined.³

3. Additional factors influencing the choice of the Upper Valley include the distance from the Upper Valley to Massachusetts and the fact that the number of residents commuting into Massachusetts is limited. While OnTheMap is able to provide information about individuals working in New Hampshire and Vermont, at this time it is unable to provide information about individuals working in Massachusetts. Currently, then, individuals who live in Massachusetts and work in New Hampshire and Vermont are recognized and accounted for, but individuals who live in New Hampshire or Vermont and work in Massachusetts are not. This undercounts, for example, the number of primary jobs held by residents in the southern counties of New Hampshire, notably Hillsborough and Rockingham. By performing analysis on the Upper Valley area of New Hampshire, this issue is largely avoided. Data also do not include the self-employed.

The Upper Valley – OnTheMap

OnTheMap is an interactive product from the United States Census Bureau that offers many insights into places around the United States. It is an online tool, available on the Census Bureau's website, which allows users to analyze worker characteristics, and determine where these workers are employed and where they live. Users can look at several characteristics, including a general overview, worker age, worker earnings, NAICS industry sector, race and educational attainment. The program not only allows users to look at states, counties, cities, towns and zip codes, but also allows users to draw custom areas. One particular benefit of OnTheMap is the ability to cross state borders. The information in this article covers the entire Upper Valley area, which can not be done solely using statistics from individual states. OnTheMap is available online at: <http://lehd.did.census.gov/led/datatools/onthemap.html>.

OnTheMap displays information about an area using two different vantage points. There is information about the people who live in the area, and there is information about the people who work in the area. All jobs discussed are primary jobs – allocating one job to each job holder. In cases where an individual holds more than one job, the job with the highest earnings is considered to be the primary job.



Lebanon NH-VT Micro NECTA

OnTheMap: Upper Valley Area / Lebanon Micro Area

Living and Working in the Upper Valley

Lebanon, Hanover and Hartford are the three largest towns in the Upper Valley by population. Two of these towns, Lebanon and Hanover, are also the employment centers of the region, meaning that more workers commute in than commute out of the towns. All towns have residents who live in the town and travel elsewhere for work, and populations of workers who commute in to work in the town. There are also persons who both live and work in the same town. Worker earnings, education levels and worker's industries can vary depending on where the worker lives or works. The towns of Lebanon and Hanover, being the employment centers of the region, are highlighted.

Residents living in the Upper Valley hold 33,035 primary jobs⁴. The area covers several towns and cities in both New Hampshire and Vermont, including Lebanon and Hanover, NH and Hartford, VT. The Lebanon MicroNECTA itself contains 42,856 primary jobs. There are about 10,000 more jobs in the area than there are residents holding jobs.

There are 14,249 working residents living on the Vermont side of the border, and 18,786 working residents living on the New Hampshire side. Of residents both living and working in the Upper Valley, 9,681 live on the Vermont side of the Upper Valley, and 12,917 live on the New Hampshire side. Nearly one-half of job holders living on the Vermont side commute into New Hampshire (48.1 percent), while only 9.8 percent of job holders living on the New Hampshire side commute into Vermont. Nearly 90 percent of job holders living on the New Hampshire side of the Upper Valley area remain in New Hampshire for work. While the Upper Valley is well integrated in its housing, recreation, healthcare

and other amenities, the area's employment is primarily based on the New Hampshire side of the border. The transportation infrastructure linking the two sides of the river allows for easy commuting between the two states and provides the skilled workers living in Vermont the ability to travel into New Hampshire for work.

	Census 2010 Population	Working Residents*	Total Jobs Located in Town	Ratio of Number of Jobs in Town to Town Population
Upper Valley	78,152	33,035	42,856	0.55
Lebanon	13,151	6,291	17,231	1.31
Hanover	11,260	3,330	9,302	0.83
Enfield	4,582	2,215	554	0.12
Canaan	3,909	1,757	604	0.15
Grantham	2,985	883	324	0.11
Plainfield	2,364	924	404	0.17
Lyme	1,716	365	687	0.40
Cornish	1,640	667	67	0.04
Grafton	1,340	601	46	0.03
Springfield	1,311	383	212	0.16
Orford	1,237	547	235	0.19
Piermont	790	351	34	0.04
Orange	331	150	3	0.01
New Hampshire	1,316,470	501,960	552,533	0.42
Hartford**	9,952	4,442	n/a	n/a
Windsor	3,553	1,758	1,347	0.38
Norwich	3,414	1,677	767	0.22
Hartland	3,393	1,561	365	0.11
Royalton	2,773	1,136	941	0.34
Thetford	2,588	1,263	507	0.20
Sharon	1,502	559	123	0.08
Strafford	1,098	443	73	0.07
Fairlee	977	418	375	0.38
Pomfret	904	420	219	0.24
Vershire	730	273	74	0.10
West Fairlee	652	299	30	0.05
Vermont	625,741	261,418	263,595	0.42

* New Hampshire and Vermont working residents may be underestimated due to the exclusion of any state resident who works in Massachusetts

** There is a discrepancy between the *Health care and social services* jobs in OnTheMap and the data maintained by the State of Vermont's Covered Employment. As a result, the number of jobs will not be reported.

4. Primary jobs allocate one job to each job holder. In cases where an individual holds more than one job, the job with the highest earnings is considered to be the primary job.

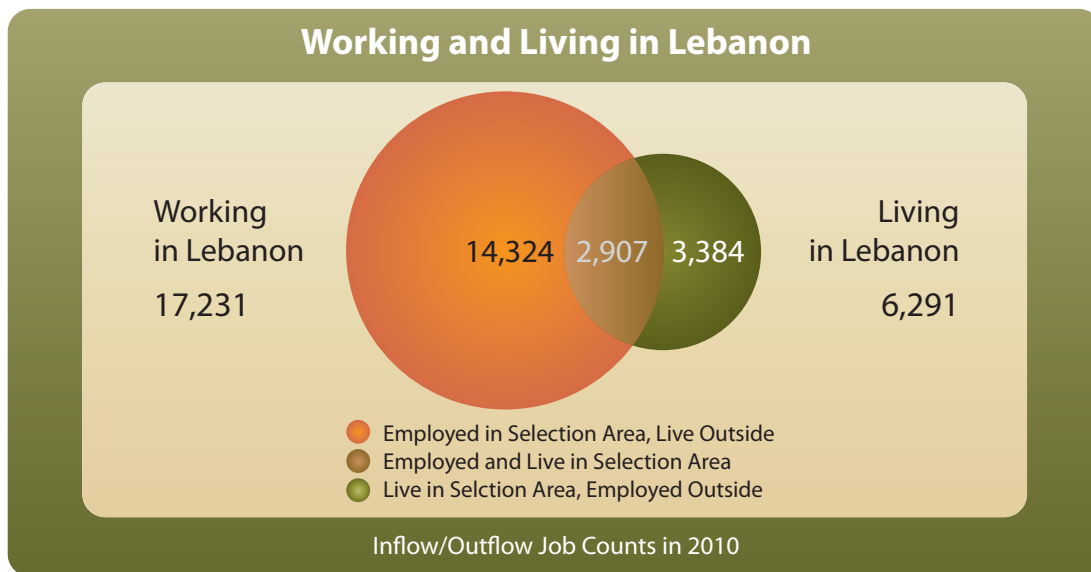
Lebanon

Living in Lebanon

- There are 6,291 residents of Lebanon who work.⁵
- Residents travel to the following work locations:
 - In town (2,907 Lebanon residents, 46.2 percent)
 - Hanover (1,365 Lebanon residents, 21.7 percent)
 - Hartford, Vermont (350 Lebanon residents, 5.6 percent)
- Earnings are most concentrated in the \$3,333 or more monthly bracket, with 50.1 percent of all residents earning this amount. Statewide, only 42.0 percent of New Hampshire residents have earnings in that range.⁶
- Within different industry sectors, worker earnings vary greatly. Over two-thirds of workers in the *Educational services* sector earn wages of \$3,333 or more monthly, while only 19.8 percent of workers in *Retail trade* do.
- Residents most commonly work in the following industry sectors:
 - *Healthcare and social assistance* (1,725 residents, 27.4 percent)
 - *Educational services* (1,213 residents, 19.2 percent)⁷
 - *Retail trade* (715 residents, 11.3 percent)



- Among the working residents of Lebanon, 28.7 percent hold a Bachelor's degree or higher. This represents 1,804 residents. An additional 22.9 percent, or 1,442 residents, hold an Associate's degree or have completed some college.



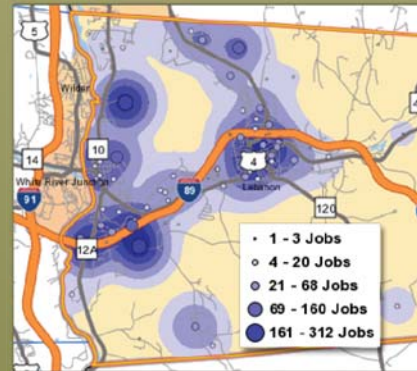
5. All data of working residents exclude the self-employed.
6. Excluding earnings from jobs located in Massachusetts.
7. All job counts of Educational services include both public and private employment.

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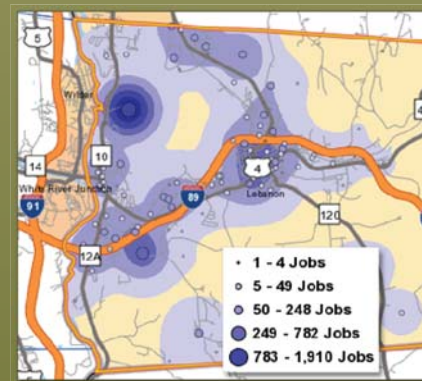
Working in Lebanon

- There are 17,231 primary jobs located in Lebanon.
- Workers commute in from the following locations:
 - In town (2,907 workers, 16.9 percent)
 - Hartford, VT (1,109 Hartford residents working in Lebanon, 6.4 percent)
 - Enfield, NH (943 Enfield residents working in Lebanon, 5.5 percent)
- Workers come from as far as Manchester, Dover, Merrimack, and Salem, NH.
- Half the workers in Lebanon earn \$3,333 or more monthly (49.6 percent).
- The *Educational services* sector does not fall into the top three industries in this location. Instead, workers are employed in the following industries:
 - *Healthcare and social assistance* (7,631 workers, 44.3 percent)
 - *Retail trade* (2,259 workers, 13.1 percent)
 - *Manufacturing* (1,665 workers, 9.7 percent)
- Although 14.4 percent of all workers in Lebanon earn less than \$1,250 monthly, more than one-third of workers in the *Retail trade* sector have earnings in this range.
- Lebanon houses Dartmouth-Hitchcock Medical Center, a well-respected hospital and large area employer. Jobs in the *Healthcare and social assistance* sector are about three times more concentrated in Lebanon (44.3 percent) than they are statewide; they constitute 15.3 percent of all jobs in the state.
- Persons working in the *Healthcare and social assistance* sector comprise the largest group of workers in each of the following three wage categories; below \$1,250 monthly, between \$1,251 and \$3,333 monthly, and \$3,333 or more monthly. This not only reflects the many types of jobs available within this sector but may also reflect variation in the number of hours worked by individuals.
- Of persons working in Lebanon, 27.2 percent hold a Bachelor's or higher. This represents 4,686 workers. An additional 25.5 percent, or 4,397 workers, hold an Associate's degree or have completed some college.

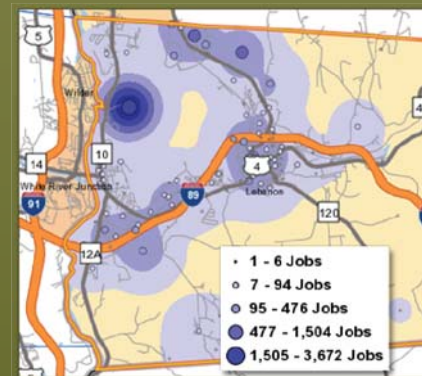
Wages of Jobs in Lebanon



Less than \$1,250/month



\$1,251-\$3,333/month

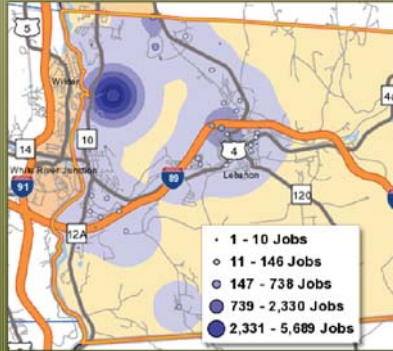


More than \$3,333/month

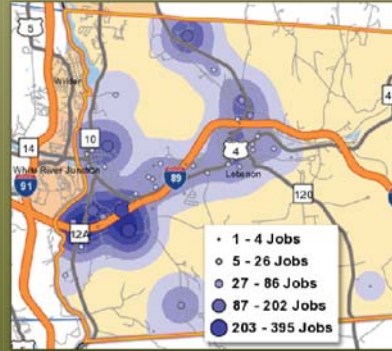
Job with lower earnings are concentrated in several pockets throughout Lebanon, mid-level jobs are concentrated in fewer areas, and jobs providing higher earnings are most concentrated in one area. Readers should note the difference in map legends, with darker colors indicating a higher concentration and lighter colors a lower concentration.

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Employment Concentration by Industry in Lebanon



Healthcare and Social Assistance Jobs



Retail Trade Jobs

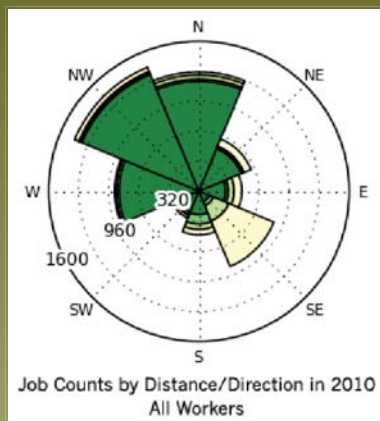
From the above maps it is evident that workers in *Healthcare and social assistance* are concentrated in the northwestern corner of Lebanon. Conversely, there are several concentrated pockets of workers in the *Retail trade* sector, largely located along the Vermont border and towards the center of Lebanon, along I-89. Readers should note the difference in map legends.

Distance / Direction to and from Work in Lebanon

The vast majority of workers living in Lebanon have short commutes – 75 percent of workers commute less than ten miles from their home to their place of employment. However, among those working in Lebanon, only 37.5 percent of workers have such a short

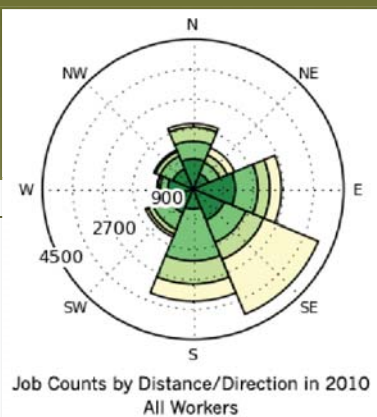
commute. This difference not only reflects the fact that there are more workers commuting into Lebanon than there are workers living there, but also reflects the wide commuting shed of workers who commute into Lebanon.

Living in Lebanon



Living in Lebanon	Count	Share
Total Primary Jobs	6,291	100.0%
Less than 10 miles	4,759	75.6%
10 to 24 miles	288	4.6%
25 to 50 miles	384	6.1%
Greater than 50 miles	860	13.7%

Working in Lebanon



Working in Lebanon	Count	Share
Total Primary Jobs	17,231	100.0%
Less than 10 miles	6,457	37.5%
10 to 24 miles	4,978	28.9%
25 to 50 miles	2,667	15.5%
Greater than 50 miles	3,129	18.2%

Though only 37.5 percent of persons working in Lebanon have a commute of less than ten miles, that percent represents 6,457 persons who work in Lebanon, which includes Lebanon residents. Among all Lebanon working residents, 75 percent, or 4,759 persons, commute no more than ten miles.

- Workers living in Lebanon primarily commute north/northwest, the area of Lebanon where *Healthcare and social assistance* jobs are located. Workers living in Lebanon can travel northward and still remain in Lebanon.
- Among all working residents of Lebanon, 13.7 percent, or 860 persons, travel more than 50 miles for work. While the number of working residents who travel more than 50 miles is low, those that do, travel southeast. Concord, Manchester and Nashua, NH are all located in that direction.
- Of persons working in Lebanon, 18.2 percent travel more than 50 miles to arrive at work. This represents 3,129 workers.

Some who work in Lebanon commute in from long distances. Employees in the *Healthcare and social assistance* industry sector sometimes work non-standard hours, including doctors, nurses and other professionals who may only work two to three days a week. This can increase the commuting shed area because workers may be willing to drive a longer distance when they commute fewer days per week.

Overall

The primary jobs located in Lebanon outnumber Lebanon's working residents. Close to half of all Lebanon's working residents also work there. However, Lebanon's residents only comprise 16.9 percent of all the city's workers. There are close to three times the number of primary jobs located in Lebanon than there are Lebanon residents working in Lebanon, leading to a net import of workers.

Nearly 45 percent of the jobs located in Lebanon are in the *Healthcare and social assistance* sector. That is three times the concentration of these jobs statewide, resulting in a population of workers highly trained and specialized in a specific industry field. This industry sector also has workers earning wages in all wage categories.

Education levels among those living in or working in Lebanon are fairly equal to state averages. Lebanon is a large area with a large resident population and, unlike many other areas, has more jobs located in the city than it has residents. It also has a higher volume of retail trade and other industries. Because of the large population of Lebanon, it is not unexpected that the education of workers and residents is closer to the statewide average, even though the Lebanon MicroNECTA is a high wage, high education area. Earnings increase with levels of educational attainment. Among persons working in Lebanon earning \$1,250 or less monthly, only 12.5 percent hold a Bachelor's or higher. For workers earning between \$1,251 and \$3,333 monthly this increases to 16.4 percent, and for workers who earn \$3,333 or more monthly the share holding a Bachelor's degree or higher increases dramatically to 39.3 percent. Similarly, statewide, among workers earning \$1,250 or less monthly only 12.5 percent hold a Bachelor's degree or higher. This rises to 16.8 percent of workers earning between \$1,251 and \$3,333 monthly, and to 40.5 percent among those workers earning \$3,333 or more monthly.

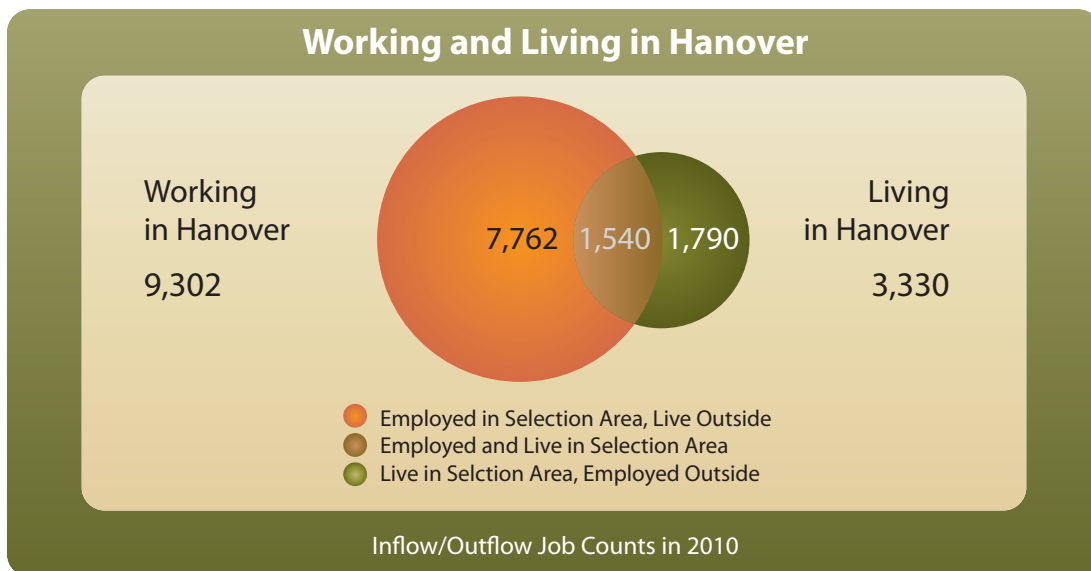
Hanover

Living in Hanover

- There are 3,330 residents of Hanover who work.
- While some job holders who live in Hanover travel a good distance for work, workplace locations are mostly concentrated close to home. The top three work destinations for residents are:
 - In town (1,540 Hanover residents, 46.2 percent)
 - Lebanon (646 Hanover residents, 19.4 percent)
 - Hartford (116 Hanover residents, 3.5 percent)
- Residents work in well paying jobs, with 63.8 percent of Hanover residents earning \$3,333 or more monthly.
- As was observed in Lebanon, wages vary widely by industry. Within *Educational services*, 79.7 percent of workers earn wages of \$3,333 or more monthly, a significantly higher concentration than the average Hanover resident, while only 11.6 percent of residents working in *Accommodation and food services* earn that amount.



- Residents most commonly work in the following industries:
 - *Educational services* (1,282 residents, 38.5 percent)
 - *Healthcare and social assistance* (645 residents, 19.4 percent)
 - *Retail trade* (255 residents, 7.7 percent)
- Hanover has highly educated residents, which correlates with their high earnings; 38.3 percent of residents hold a Bachelor's degree or higher, compared to 25.8 percent for working residents statewide in New Hampshire.

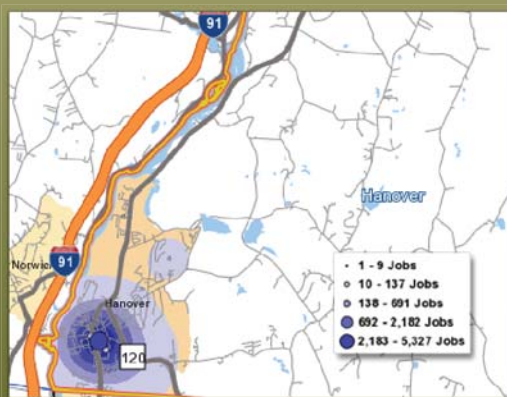


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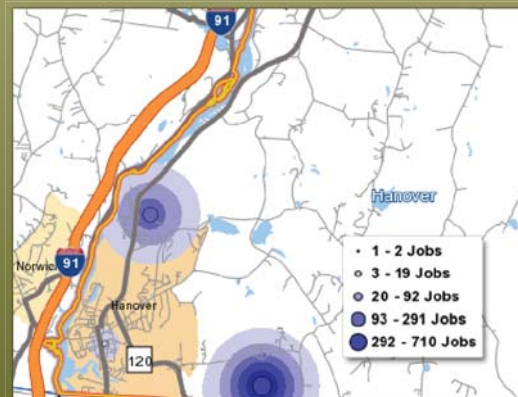
Working in Hanover

- There are 9,302 primary jobs located in Hanover.
- Workers commute into Hanover from a variety of locations. Some travel in from Keene and Concord, NH. The three towns with the most residents working in Hanover are:
 - In town (1,540 residents working in Hanover, 16.6 percent)
 - Lebanon (1,365 Lebanon residents working in Hanover, 14.7 percent)
 - Hartford, VT (635 Hartford residents working in Hanover, 6.8 percent)
- Jobs located in Hanover differ from the largest industries in both the Upper Valley and the state. The largest industries are:
 - *Educational services* (5,725 workers, 61.5 percent)
 - *Manufacturing* (893 workers, 9.6 percent)
 - *Accommodation and food services* (460 workers, 4.9 percent)
- Hanover has a very high concentration of jobs in *Educational services*. Statewide, only 11.1 percent of all jobs in New Hampshire are in this sector, but in Hanover, 61.5 percent are in this sector.
- A majority of jobs located in Hanover are high paying, with 66.0 percent of workers earning \$3,333 or more monthly. Statewide, only 42.3 percent of people working in New Hampshire have earnings in that range.
- Hanover has a high concentration of employment in *Educational services* and the highest concentration of workers in each wage category are employed in the *Educational services* sector. The overwhelming majority of workers in this sector earn high wages – 80.2 percent earn wages of \$3,333 or more monthly.
- Among job holders working in Hanover, 36.4 percent hold a Bachelor's degree or higher compared to 25.9 percent of job holders working in New Hampshire overall. The high level of education among Hanover's workers reflects the type of jobs that are available.

Employment Concentration by Industry in Hanover



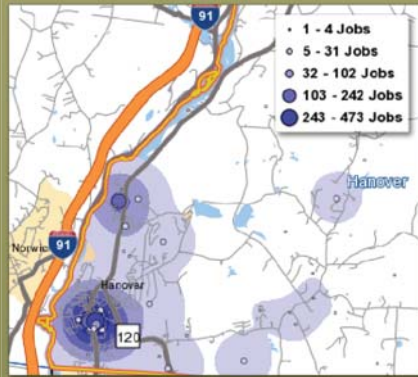
Educational Services Jobs



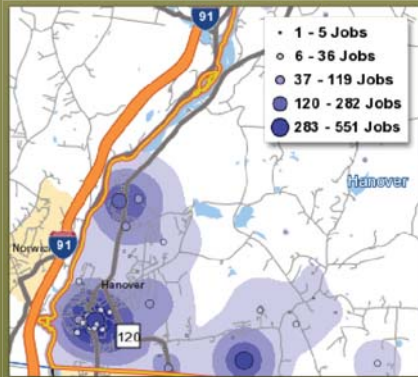
Manufacturing Jobs

This map graphic indicates the two most prevalent industries supplying jobs in this area – *Educational services* and *Manufacturing*, which together account for over 70 percent of all jobs located in Hanover. Jobs in *Educational services* are concentrated in the southwestern corner of Hanover, while jobs in *Manufacturing* are located in two areas within Hanover. Readers should note the difference in map legends.

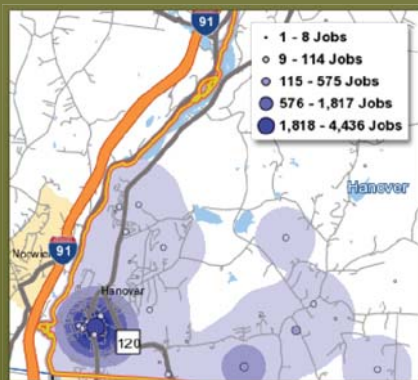
Wages of Jobs in Hanover



Less than \$1,250/month



\$1,251-\$3,333/month



More than \$3,333/month

The vast majority of jobs located in Hanover are in the southwestern corner of the town limits. This area is not only where Dartmouth College is located, but is also near the major highways, allowing for easy transportation and commuting. The overlap of high and low paying jobs is a result of the southwestern area of Hanover being the primary location of all jobs in Hanover – it reflects the varying wage levels in the town.

Readers should note the difference in map legends. The dark purple shade in the southwestern corner of Hanover appears to be fairly constant in size among each wage category, however in the wage category “\$1,250 and below” the scale represents 243 to 473 jobs, while the scale for the wage category of “\$3,333 or more monthly” represents 1,818 to 4,316 jobs. The concentration of workers with higher wages is much higher than for workers earning lower wages.

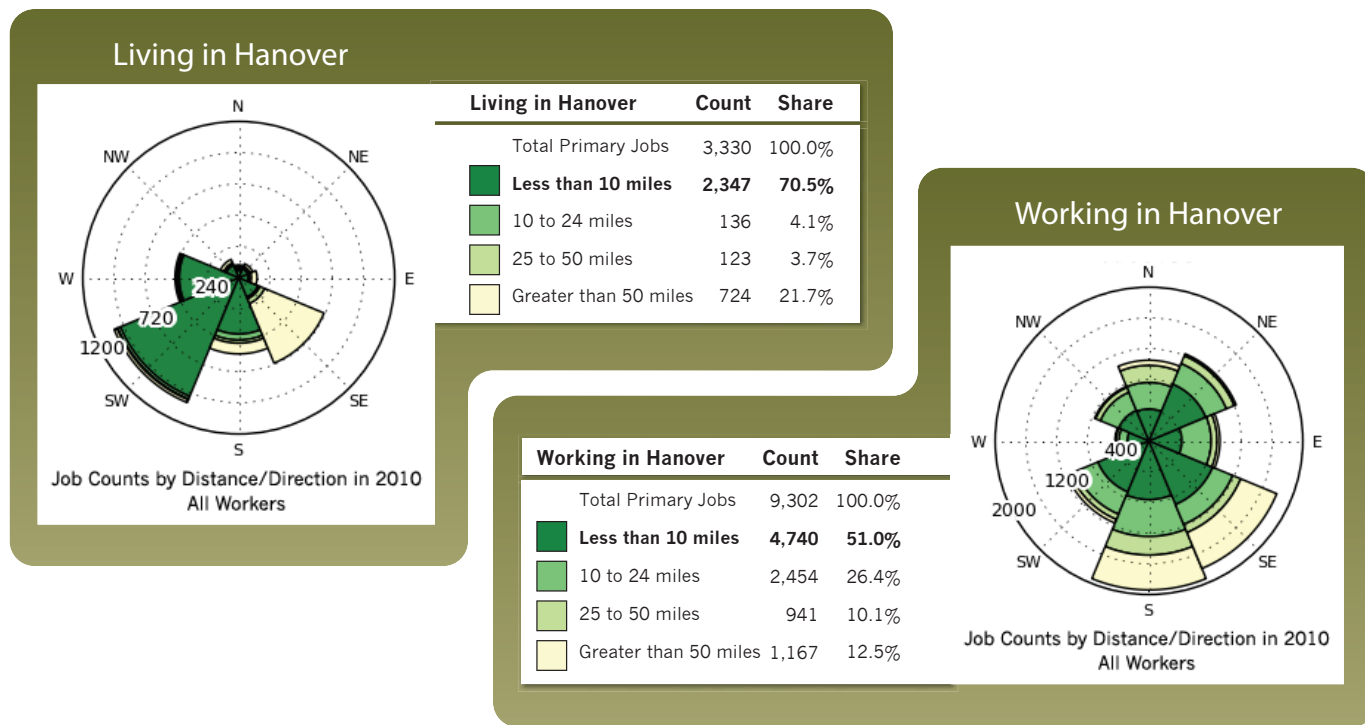
- Several factors can influence the amount a worker earns. These include the number of hours worked, the worker’s education level, and years of experience.
- The inclination to correlate monthly earnings with an hourly wage can be tempting, however overtime hours, which in certain sectors can be very common, directly affect a worker’s earnings even if the hourly rate of pay is not particularly high. Also, many primary jobs are part-time and can limit total monthly earnings.

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Distance / Direction To and From Work in Hanover

- Similar to those living in Hanover, the majority of people working in Hanover drive less than ten miles to work. However, 70 percent of workers living in Hanover drive less than ten miles to their workplace and only 51 percent of those working in Hanover have a commute of less than ten miles.
- Differences become apparent when the counts of workers are considered. Among persons working in Hanover, 4,740 commute to Hanover, driving less than ten miles. An additional 1,167, or 12.5 percent of all persons working in Hanover, drive more than 50 miles.
- Of the 3,330 workers living in Hanover, 2,347 commute within ten miles of their home, while 724, or 21.7 percent, drive more than 50 miles to work.
- Hanover is a job center, as evidenced by the fact that at any given distance more workers commute in to Hanover than commute out.

It is useful to note that statewide, the median home price in 2011 was \$207,000. The 2011 median home price in Hanover was \$440,000.⁸ The high median price essentially precludes many workers from owning homes in the town. It may help explain why the vast majority of those living in Hanover have short commutes – these workers can afford to live near their workplace.



The left side of the chart highlights the commutes of workers who live in Hanover. Though it appears that workers living in Hanover are commuting southwest away from Hanover, the major concentration of jobs is in the most southwestern corner of town, with residential areas to the northeast. The chart includes residents of Hanover who are commuting within Hanover.

8. New Hampshire Housing Finance Authority. New Hampshire Housing Data. Purchase Price Data: Median Purchase Price 2011. <nhhousingdata.nhhfa.org/diveport#page=a0036>. Accessed November 26, 2012.



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Overall

As one of the employment centers in the Upper Valley, the number of jobs located in Hanover greatly outnumbers the working residents of Hanover. This leads to a net import of workers. There are 3,330 working residents in Hanover, 1,540 of whom work in town, and 7,762 workers living elsewhere who commute to Hanover for work.

Hanover is notable because of its low proportion of residents who hold jobs. Statewide, 38 percent of residents hold jobs. In neighboring Lebanon, nearly half (47 percent) of all residents hold jobs. In Hanover, only 29.6 percent of residents work. The residence of college students in the town greatly impacts the composition of the worker population. Hanover residents aged 29 and younger account for 58.1 percent of the town's population; however they only account for 16.5 percent of its job holders. Even though residents aged 30-54 make

up less than 20 percent of the town's total population, they constitute a majority of job holders. The age group 29 and below constitutes a lower percentage of job holders in Hanover than they do statewide. Additionally, while the median age statewide in New Hampshire is 41.1 years, in Hanover the median age is 23 years, indicating a very young population. It should, however, be noted that students who are employed in a work-study program are not included in job counts.

A large share of jobs located in Hanover require high educational experience. The *Educational services* industry sector is well known for education and skill requirements. The *Manufacturing* sector, the second largest industry in Hanover, not only has high wages but high skills, and has strong educational requirements. Additionally, the fact that home prices in Hanover are more than twice that of the median home price statewide can affect the makeup of its town residents.

Hartford and Norwich, Vermont

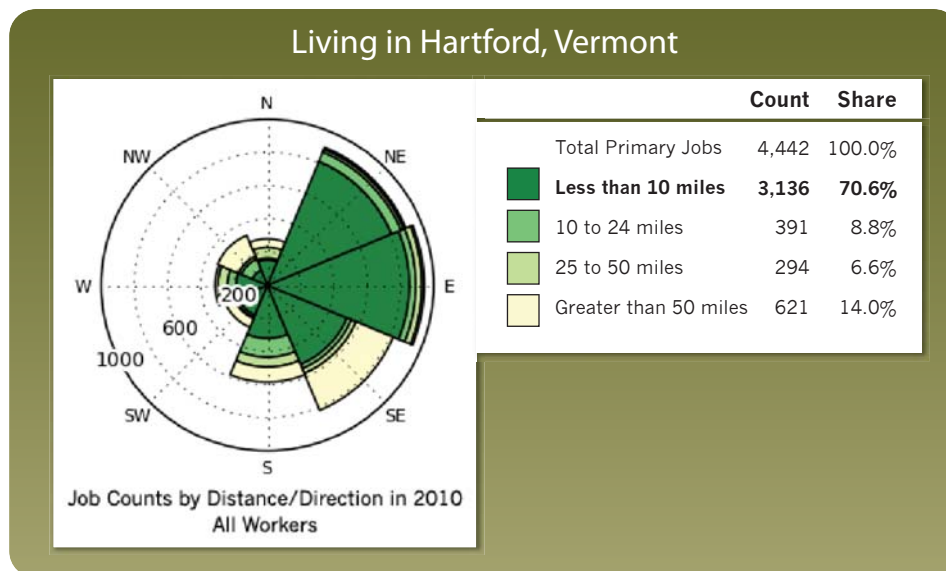
An indication of the strong economy of the Upper Valley is that a large percentage of workers on the Vermont side of the Upper Valley commute into Lebanon and Hanover for work. A large percentage of Hartford and Norwich, Vermont residents also work in the *Healthcare and social assistance* and the *Educational services* sectors. Conversely, a significantly smaller percentage of New Hampshire residents living in the Upper Valley cross the border into Vermont for work.

Living in Hartford

- There are 4,442 residents of Hartford who work.
- Job holders work in the following locations:
 - In town (1,199 Hartford residents, 27.0 percent)
 - Lebanon (1,109 Hartford residents, 25.0 percent)
 - Hanover (635 Hartford residents, 14.3 percent)
- Job holders travel as far as Montpelier and Burlington, VT and Hooksett, NH.
- The town of Hartford, Vermont includes White River Junction, an area with intersecting highways that was once an important location for railroads. Today the town attracts both businesses and tourists.

It is important to remember that even though OnTheMap creates a map showing where workers work by industry, it does not provide workplace names. This is notable because, while it may be easy to notice the number of residents working in *Healthcare and social services* is almost the same as the number of residents who work in Lebanon, it must not be assumed that those residents are working in that particular industry. This applies for all data sourced from OnTheMap.

- Residents most commonly work in the following industries:
 - *Healthcare and social assistance* (1,154 Hartford residents, 26.0 percent)
 - *Educational services* (796 Hartford residents, 17.9 percent)
 - *Retail trade* (567 Hartford residents, 12.8 percent)
- Earnings among working residents living in Hartford (regardless of where they work) are most concentrated in the \$3,333 or more monthly, with 42.3 percent of residents earning wages in this range monthly.
- Residents working in the *Educational services* sector earn high wages – 59.1 percent of residents earn more than \$3,333 monthly.



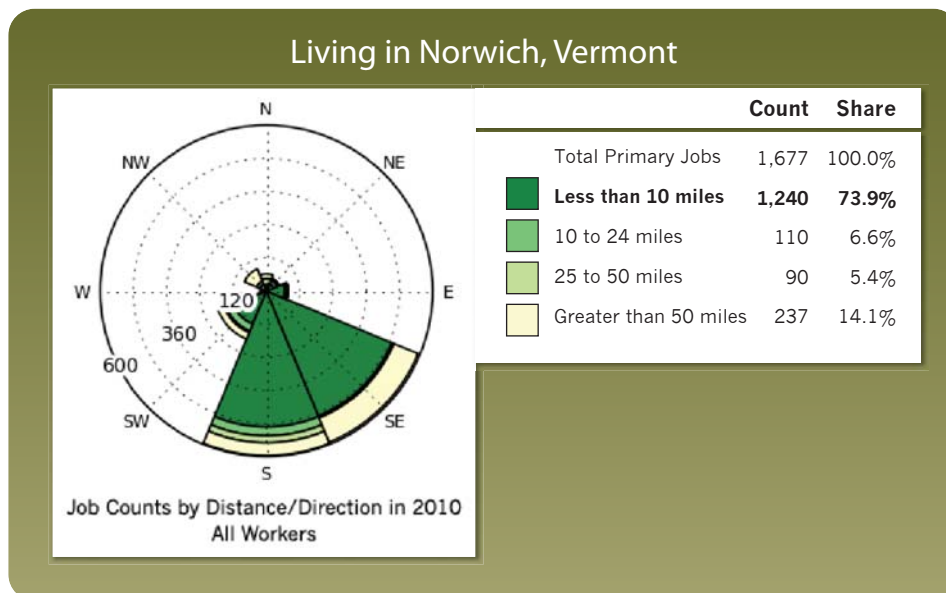
The Upper Valley – OnTheMap

Living in Norwich

- There are 1,677 residents of Norwich who work.
- Residents travel to the following locations for work:
 - Hanover (569 Norwich residents, 33.9 percent)
 - Lebanon (364 Norwich residents, 21.7 percent)
 - In town (161 Norwich residents, 9.6 percent) ⁹
- Earnings are most concentrated in the \$3,333 or more monthly bracket, with 61.5 percent of all residents earning wages in this range. In Vermont, 38.8 percent of all workers earn wages in this range or higher monthly.
- Among working residents of Norwich, 34.1 percent hold a Bachelor's degree or higher. Only 24.6 percent of Vermont's working residents hold a Bachelor's degree or higher.
- Residents most commonly work in the following industries:
 - *Educational services* (500 Norwich residents, 29.8 percent)
 - *Healthcare and social assistance* (416 Norwich residents, 24.8 percent)
 - *Retail trade* (118 Norwich residents, 7.0 percent)



- Though 61.5 percent of all working residents living in Norwich earn \$3,333 or more monthly, workers in different industries earn these wages at different rates. Within the *Professional, scientific and technical services*, 72.6 percent of workers earn wages this high, while only 13.4 percent of workers in *Accommodation and food services* earn wages of this amount or more monthly.



9. In larger towns or in towns that are employment centers, the number of residents remaining in town for work are most commonly the largest share. For Norwich, residents working in town constitute the third largest share.

The Upper Valley – OnTheMap

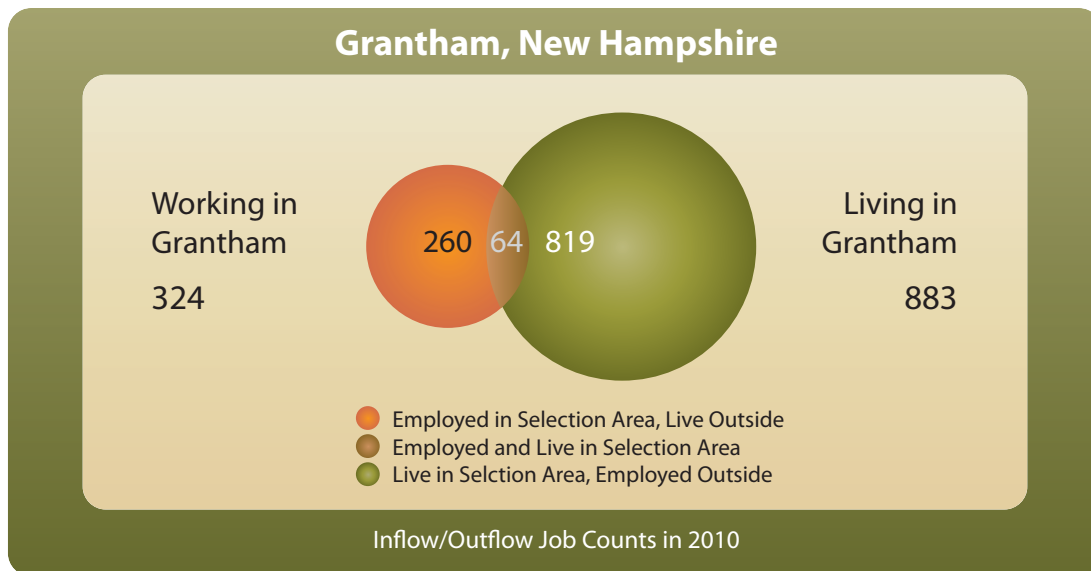
Worker inflow and outflow in a non-employment center town

Grantham, NH

Lebanon and Hanover are the employment centers of their region. Both areas have more jobs than they have working residents. Each area profiled imports workers, primarily from surrounding towns. Grantham, NH, is also located in the Upper Valley. In contrast with Lebanon and Hanover, Grantham has more working residents than it has jobs located in the town, leading to an outflow of workers. This is frequently referred to as a “bedroom community.” In other words, people live in Grantham but work someplace else.



There are a total of 883 working residents living in Grantham, and there are 324 jobs located in the town. Only 64 of those 324 are filled by residents of Grantham. The smaller circle in the chart below represents the jobs located in Grantham and the larger circle represents the working residents of Grantham. The intersecting area represents the residents who work in town.



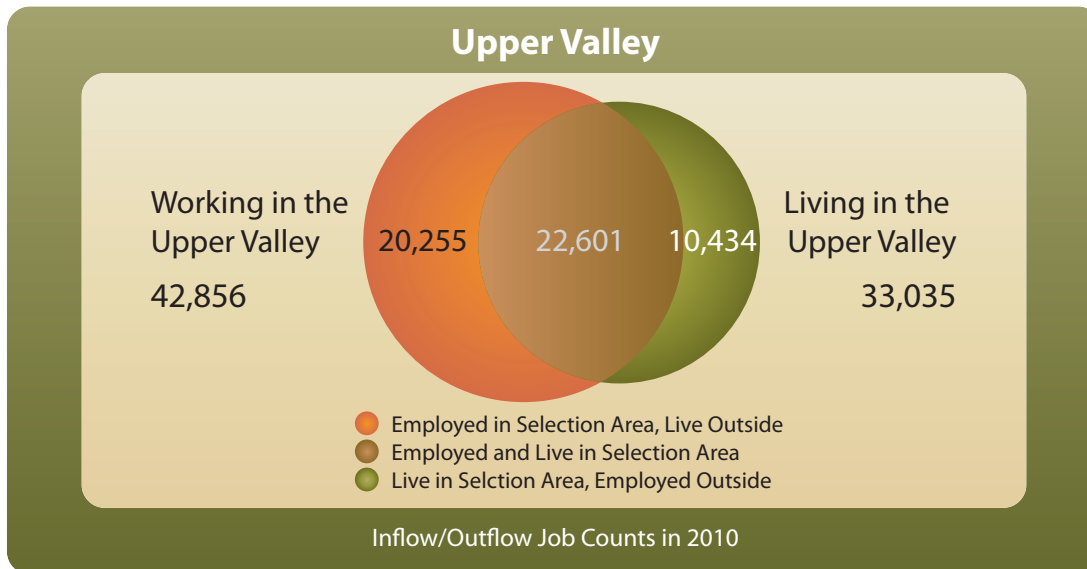
The Upper Valley

Living in the Upper Valley

- Hanover and Lebanon are the top two destinations of job holders living in the Upper Valley area, attracting 46.7 percent of all workers who live in the Upper Valley.
- Remaining job holders travel to numerous locations for work, including Concord and Manchester, NH, and Springfield and Montpelier, VT.
- Residents most commonly earn \$3,333 or more monthly, with 47.5 percent of residents falling into this bracket.

Working in the Upper Valley

- Over 50 percent of the workers employed in the Upper Valley area live within the metro area; however, they are spread widely throughout the area. Of workers working in the MicroNECTA, 11.4 percent live in Lebanon, and an additional 7.7 percent live in Hartford, VT. Workers also live in Hanover, Enfield and Canaan, NH as well as Norwich, VT.
- Workers most commonly earn \$3,333 or more monthly, with 46.3 percent falling into this bracket.



The Upper Valley – OnTheMap

Industries in the Upper Valley

When examined as a whole, the area's strengths are healthcare and education. Within the Upper Valley, the largest industries are *Healthcare and social assistance*, *Educational services* and *Retail trade*, although this does

vary by individual town. The high education levels required and variety of job opportunities contribute to Lebanon and Hanover's status as employment centers of the Upper Valley.

Top Industries within the Upper Valley Area

	Top Industry	Employment	Percent
Lebanon	Healthcare and social assistance	7,631	44.3%
	Retail Trade	2,259	13.1%
	Manufacturing	1,665	9.7%
Hanover	Educational Services	5,725	61.5%
	Manufacturing	893	9.6%
	Accommodation and Food Service	460	4.9%

Worker Ages in the Upper Valley

Worker ages vary throughout the towns in the Upper Valley. The Upper Valley has about three percent fewer workers aged 29 and younger than either New Hampshire or Vermont. Naturally then, since percentages total 100 percent, the Upper Valley subsequently has a higher concentration of workers in other age groups. The lower share of younger workers is, in fact, offset by a higher share of older workers. The percent of persons working in

the ages 30-54 age category is fairly comparable between the Upper Valley and other areas.

The higher percentage of older workers in the Upper Valley is not only a reflection of the fact that fewer young workers are in the labor market. At 43.3 years, the median age in the Upper Valley is older than the median age for both New Hampshire and Vermont.¹⁰

Working Residents Living in Town

	Percent of working residents aged 29 and younger	Percent of working residents aged 30-54	Percent of working residents aged 55+
Upper Valley	19.5%	55.8%	24.7%
New Hampshire	22.9%	56.1%	21.0%
Hanover	16.5%	56.5%	27.0%
Lebanon	23.3%	55.7%	21.0%
Vermont	21.7%	55.7%	22.7%
Hartford*	21.7%	53.8%	24.6%
Norwich	14.1%	54.5%	31.4%

Persons Working in Town

	Percent of workers under age 29	Percent of workers aged 30-54	Percent of workers aged 55+
Upper Valley	19.9%	55.9%	24.2%
New Hampshire	22.9%	56.1%	21.0%
Hanover	16.3%	59.6%	24.1%
Lebanon	20.6%	57.9%	21.5%
Vermont	22.0%	55.5%	22.5%
Hartford*	n/a	n/a	n/a
Norwich	19.9%	55.9%	24.1%

* There is a discrepancy between the *Health care and social services* jobs in OnTheMap and in the data maintained by the State of Vermont's Covered Employment. As a result, the number of jobs will not be reported.

10. The median age is reported by the 2010 Census. In this instance, the "Upper Valley" refers to the Lebanon, NH-VT Micropolitan Statistical Area, an area that is county based and includes areas that extend beyond the area being examined in this paper, which is the Lebanon NH-VT MicroNECTA.



The Upper Valley – OnTheMap

Overall

Job holders living in the Upper Valley share similarities with the job holders working there. This is primarily because there are 22,601 workers who both live and work in the Upper Valley, representing two-thirds of working residents. It is also the reason this area, the Lebanon NH-VT MicroNECTA is referred to as a labor market area – working residents may not live and work in the same town, but the working residents in all of these towns are likely to work within the area. Indeed, NECTA designations are based on local commuting patterns.

There are however, more job holders working in the Upper Valley area than there are living in the Upper Valley. This distinction is useful in understanding why nearly 47 percent of residents *living* here work in either Hanover or Lebanon, but only about 20 percent of the job holders *working* in the Upper Valley live in Hanover or Lebanon.

- Nearly half of all job holders who live in the Upper Valley work in either Lebanon or Hanover.
- Two-thirds of job holders living in the Upper Valley remain in the Upper Valley for work.
- Hanover and Lebanon are the two job centers of the Upper Valley, with more jobs located in the towns than there are working residents. This is exacerbated by considering that some of the working residents in these towns commute out to different work locations, further increasing the need to import workers.
- Within the Upper Valley, *Healthcare and social assistance*, *Educational services* and *Retail trade* are the largest sectors. *Manufacturing* is also a large industry, making its way into the top three industries in several towns within the Upper Valley.

The Upper Valley – OnTheMap





The products and services of the NHES Economic and Labor Market Information Bureau result from the cooperation and teamwork of the entire ELMI Bureau staff: Michael Argiropolis, Gail Clay, Sandy Connolly, Robert Cote, Bruce DeMay, Katrina Evans, Amy Finamore, Donna Finlay, John Gallison, Eleanor Goodbread, Debra Jodoin, Anita Josten, Donald Kelley, Annette Nielsen, Bruce Olinsky, Martin Page, Elisabeth Richardson, Anthony Scott, Peter Sgrulloni, and Jim Smith.

The following are available in hard copy from the Economic and Labor Market Information Bureau of New Hampshire Employment Security. Many of these publications are also available at our Web site: <www.nhes.nh.gov/elmi>

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Licensed, Certified, and Registered Occupations in New Hampshire
New Hampshire Job Outlook and Locator Occupations by Industry
Vital Signs: Economic and Social Indicators for New Hampshire
New Hampshire Occupational Employment and Wages
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Occupational Employment and Wage Data for the Ten Counties
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