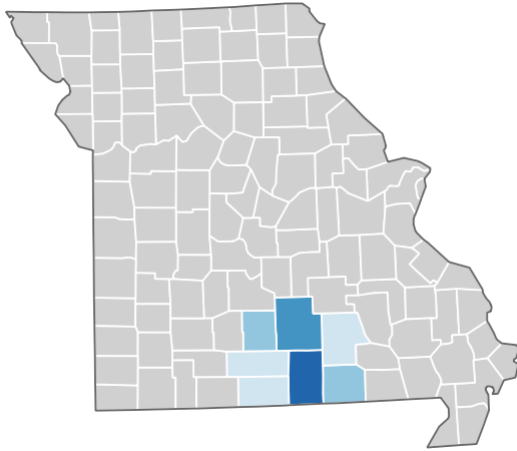


Ozark Heritage Region: Cluster Analysis



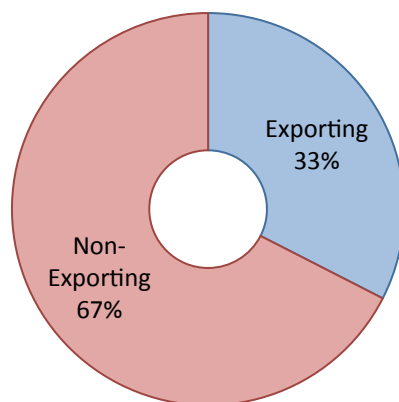
The Ozark Heritage Region is a seven county area in southern Missouri. It consists of the following counties: Douglas, Ozark, Wright, Howell, Oregon, Shannon, and Texas. The region is bisected by US Route 63 north-south, and served east-west by US Route 60 and US Route 160. In 2013 the region had a population of around 126,800. Its largest city, West Plains, had a population of 12,600. In 2011 this region had total cluster employment close to 32,597 persons, and average private wages close to \$18,800.

County	Douglas	Howell	Oregon	Ozark	Shannon	Texas	Wright
Population 2013	13,515	40,393	10,996	9,560	8,297	25,636	18,473

For the entire region there are around 9,200 people living outside the region that are employed within it, 17,400 people living in the region that are employed outside it, and 21,750 people that are both living and employed in the region. The top external counties of employment for residents of the area are Greene County (3,700 persons), Taney County (2,180), and Laclede County (1,140). The top external

counties of residence for employees of the area are Greene County (600 persons), Christian County (540), and Fulton County, AR (370).

Ozark Heritage Region Cluster Breakdown 2011



Cluster employment does not include direct government employment, and will be lower than overall employment. Exporting clusters (also known as Traded clusters) are those related industries whose products are not intended to be sold to other industries or consumers within the domestic area. These are industries whose products are ultimately traded with other regions in exchange for products not produced in the domestic area. Automobiles are generally produced with a

wider market in mind than the local one. Non-exporting clusters (also known as Local clusters) do not export their products outside the domestic area. Auto mechanics generally serve the domestic market. We generally observe that employment is larger in Non-exporting clusters than in Exporting clusters.

There are fifty one Exporting clusters and sixteen Non-exporting clusters. No NAICS industry can be in more than one cluster. Seemingly similar NAICS industries can appear in different clusters, particularly when considering Exporting vs. Non-Exporting dynamics. Differentiations and separations are made so that data collection and analysis can be made coherent. Be aware that firms can be involved in more than one NAICS industry, and may straddle clusters in some cases.

The breakdown of Exporting and Non-exporting clusters in Lincoln County is not different than the national average. Nationally we observe that Exporting employment makes up around 36%, while Non-exporting employment makes up around 64%. This area has slightly more emphasis on the non-exporting cluster, with 67%.

The following data is for 2011.

Exporting Clusters

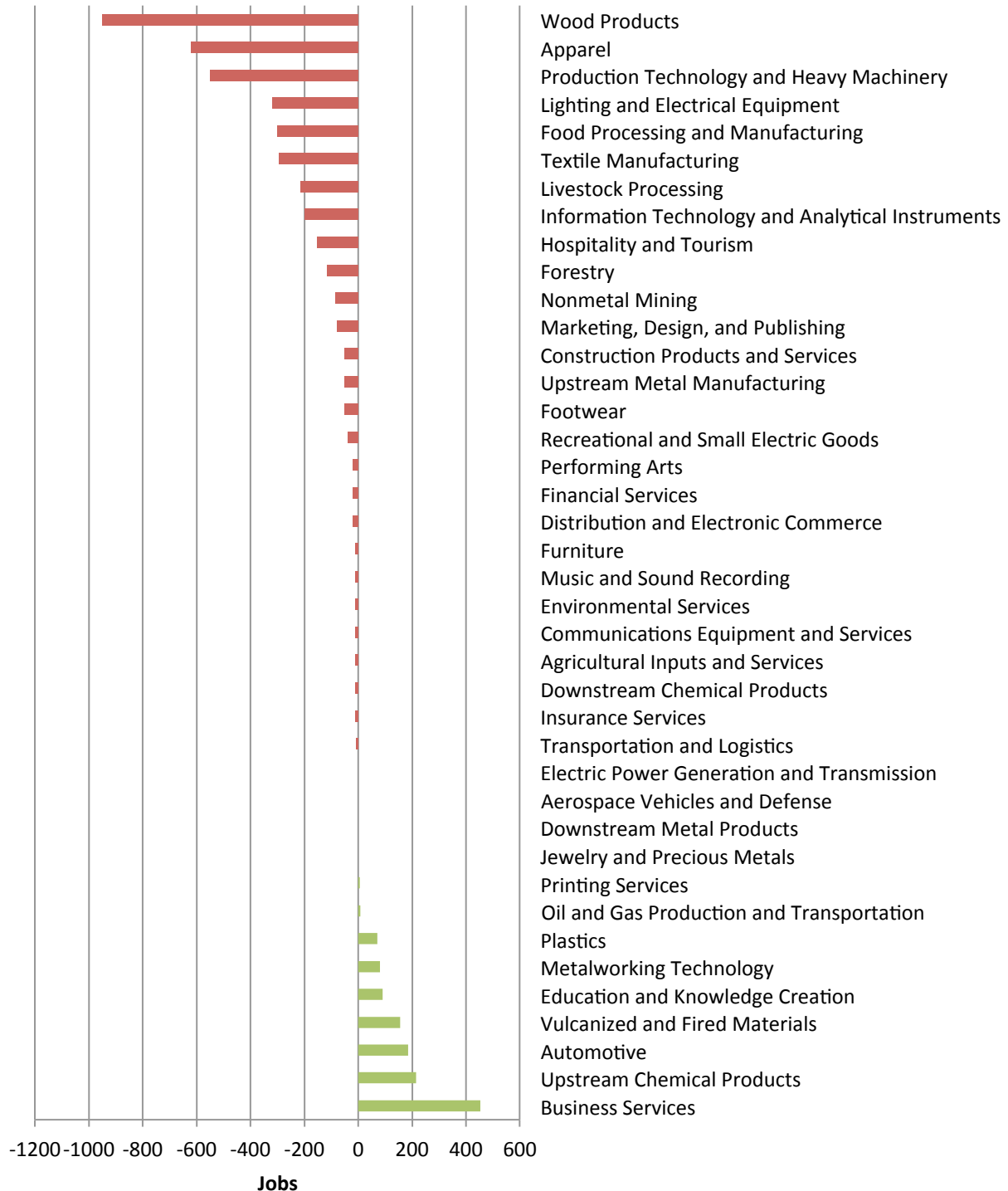
The Ozark Heritage region has thirty nine Exporting clusters. The five largest clusters (Wood Products, Production Technology & Heavy Machinery, Distribution & Electronic Commerce, Business Services, and Automotive) make up 51% of the Exporting cluster employment, and 16% of total cluster employment.

From 2001 to 2011 the Ozark area experienced a decrease in total Exporting cluster employment, from 13,538 to 10,589. The decrease was led by Wood Products, decreasing from 2,561 to 1,611 jobs. Other big decreases were found in Apparel (620 jobs declined) and Production Technology & Heavy Machinery (550 jobs). The biggest increase was found in the Business Services cluster, which increased from 281 jobs to 735. Other clusters that increased by more than 100 jobs were Upstream Chemical Products (215 jobs), Automotive (185 jobs), and Vulcanized & Fired Materials (155).

Ozark Heritage Region Exporting Clusters

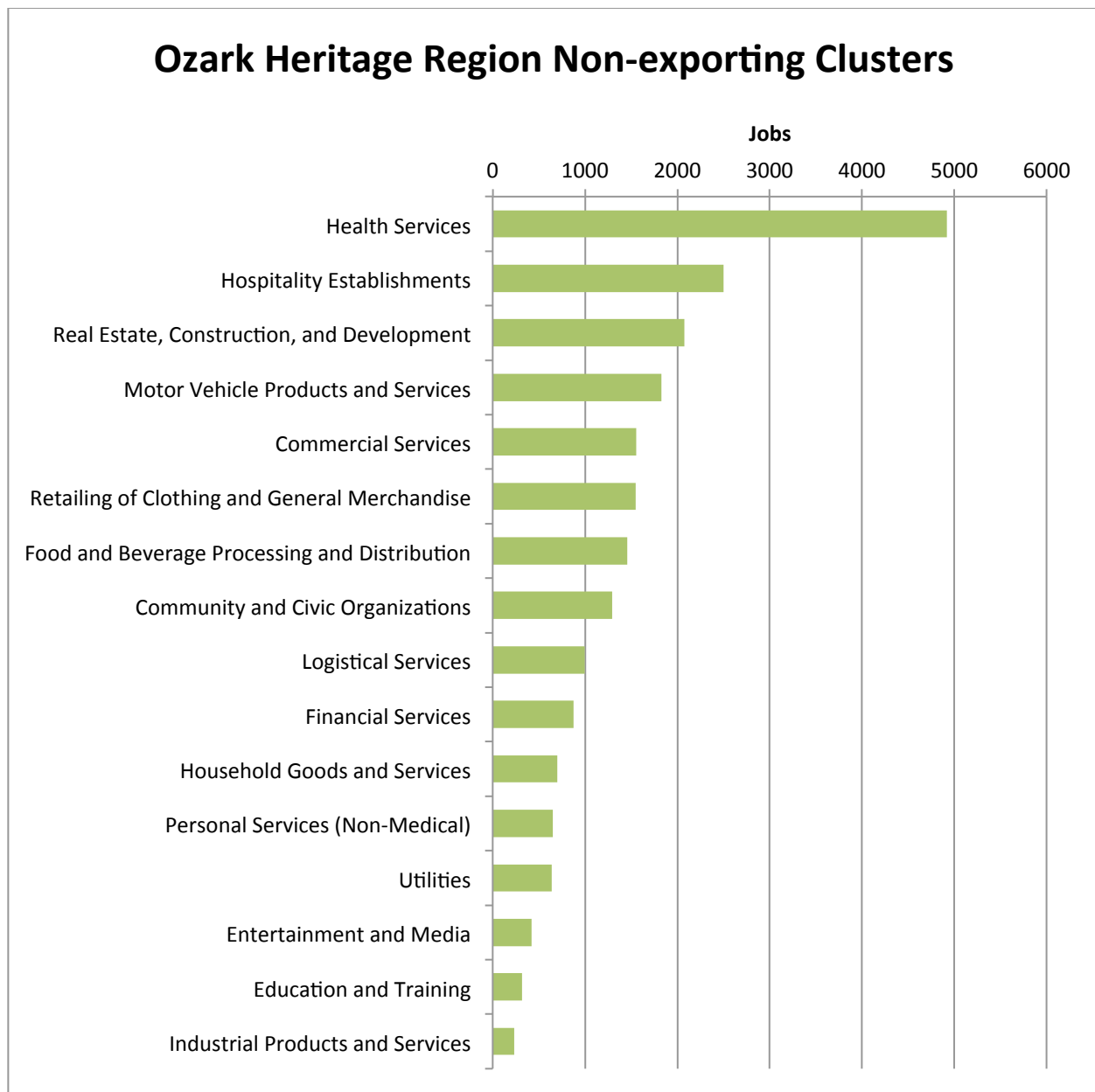


Ozark Heritage Region Exporting Employment Change 2001-2011



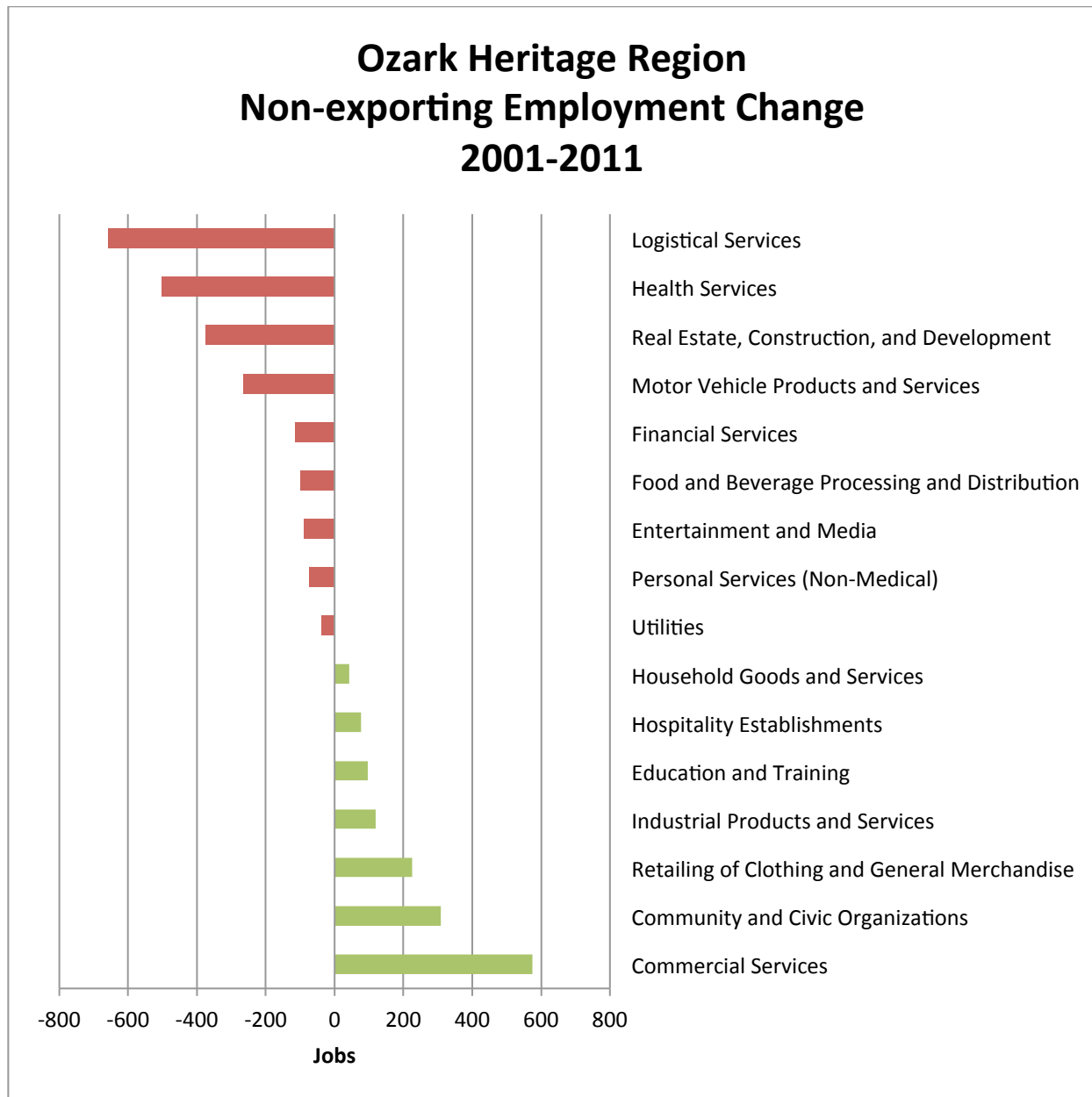
Non-Exporting Clusters

The Ozark area has all sixteen Non-exporting clusters. The four largest (Health Services, Hospitality Establishments, Real Estate, Construction, & Development, and Motor Vehicle Products & Services) make up 51% of the Non-exporting cluster employment, and 35% of total cluster employment.



From 2001 to 2011 the Ozark area decreased Non-exporting cluster employment from 22,769 to 21,998. Large decreases occurred in Logistical Services (657 jobs decline), Health Services (503 jobs decline), and Real Estate, Construction, & Development (374 jobs decline). Four Non-exporting clusters increased by

more than 100 jobs: Commercial Services (574 jobs), Community & Civic Organizations (308 jobs), Retailing of Clothing & General Merchandise (226), and Industrial Products & Services (120 jobs).



Cluster Employment Projections

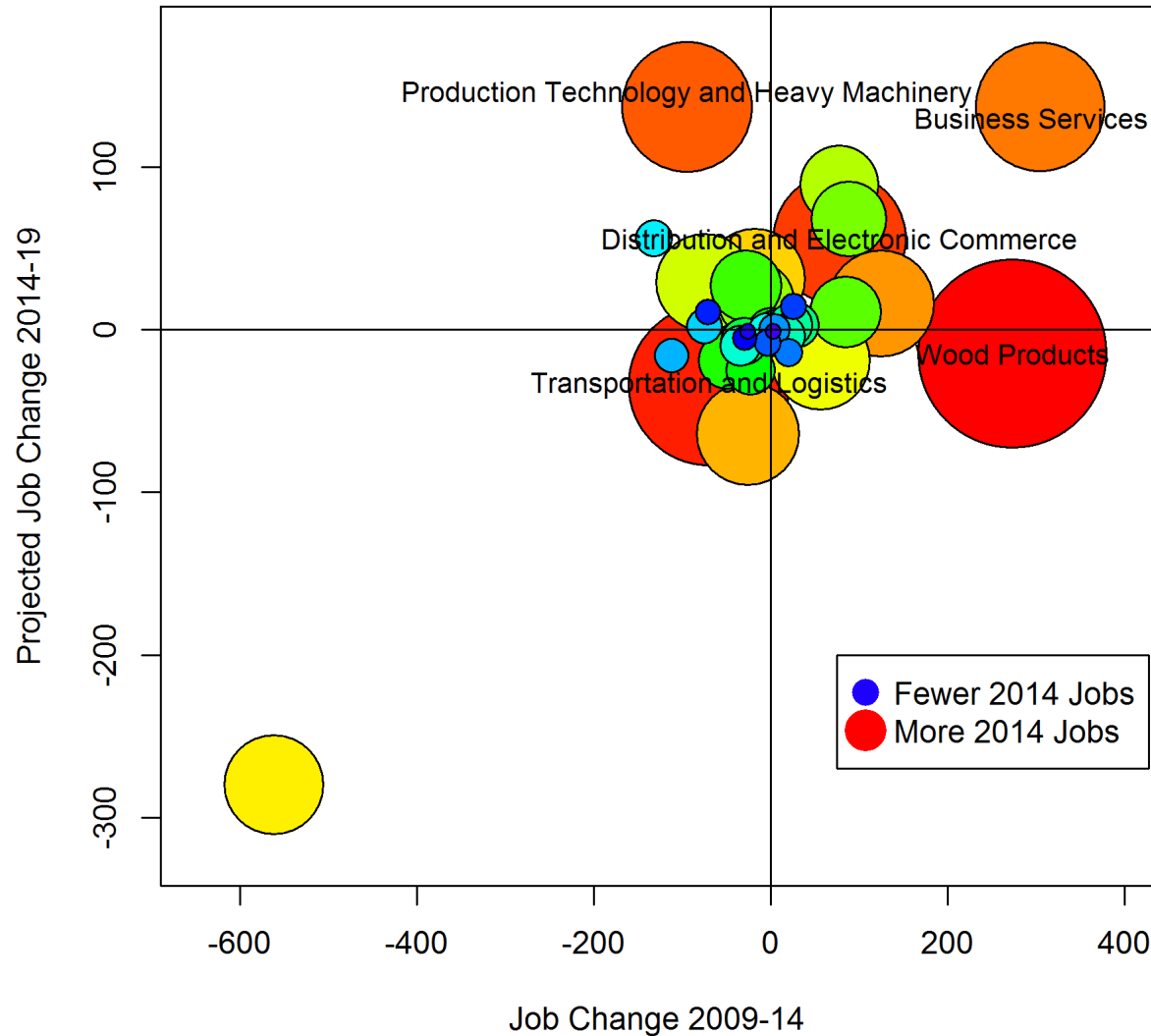
We are able to model near term employment projections based on data from the Bureau of Economic Analysis, the US Census Bureau, and the Bureau of Labor Statistics. These projections are very broad, and are best viewed as a measure of overall trends. We are unable to model unanticipated positive or negative surprises. Recall that the US has not historically gone more than 10 years without an economic recession, nor has the US historically gone more than 10 years without an economic boom. Also recall that we are not modeling individual establishments or employees. Firms and individuals have found success going with or against trends.

In the Ozark area the biggest projected increases are in Business Services, Production Technology & Heavy Machinery, and Vulcanized & Fired Materials. Business Services and Vulcanized & Fired Materials increased in 2009 to 2014, Production Technology & Heavy Machinery declined from 2009 to 2014. The biggest projected decrease is in Lighting & Electrical Equipment, a cluster that already declined heavily in 2009 to 2014. All other projected declines are by fewer than 100 jobs in any given declining cluster.

The biggest projected increases in Non-exporting clusters are in Commercial Services (416 jobs) and Health Services (405 jobs). One other Non-exporting cluster is expected to increase by more than 100 jobs (Logistical Services), but most other gains will be modest. No Non-exporting cluster is projected to decline by more than 100 jobs.

On net the Ozark Heritage Region is projected to add around 1,200 jobs from 2014 to 2019. This is around 100 fewer jobs than if the area follows a simple national trend, but around 450 more jobs than if the area follows a simple state trend.

Exporting Cluster Dynamics 2009 - 19

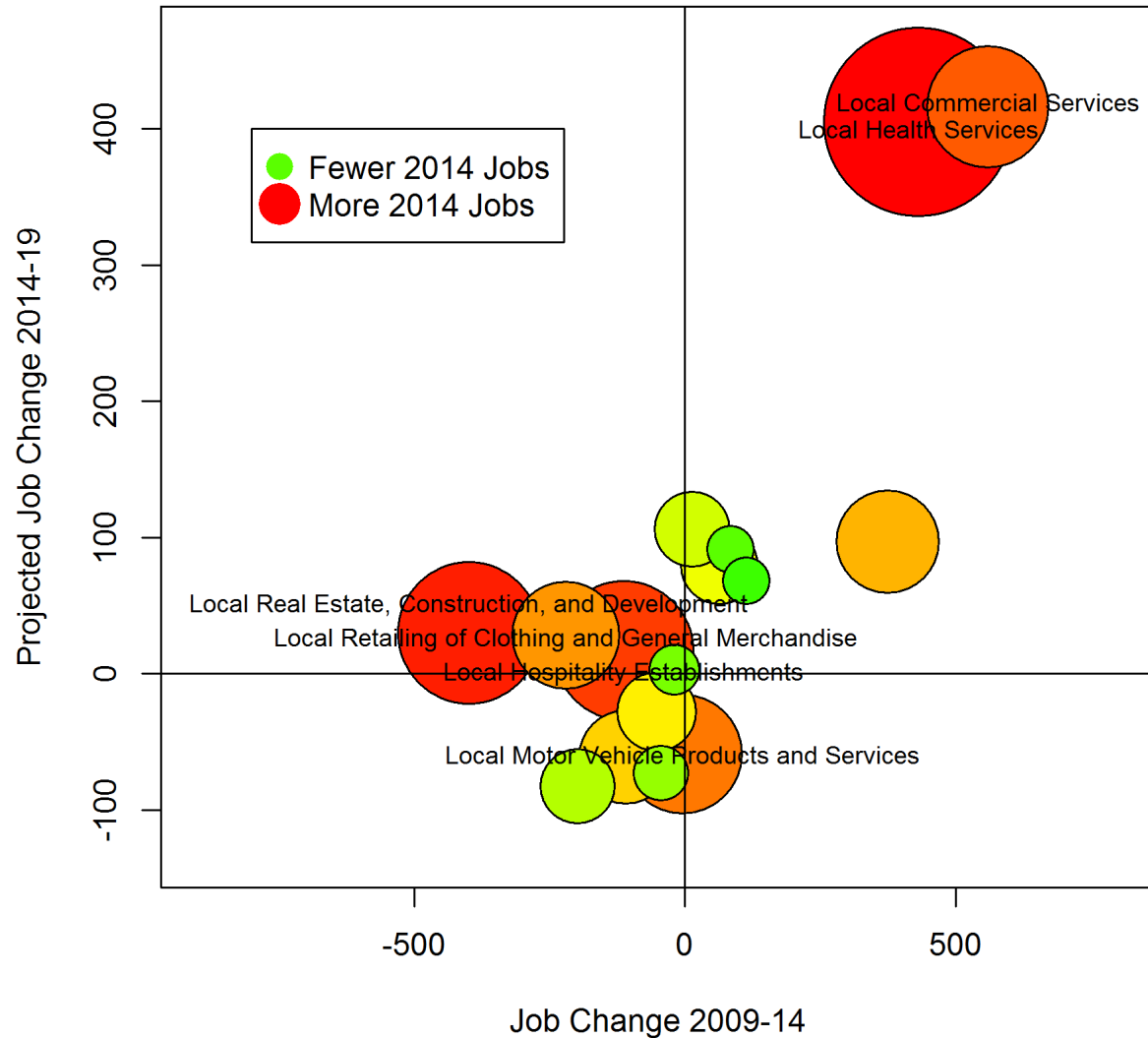


Clusters are sized and color coded based on employment in 2014. Clusters with more jobs will be larger and redder; clusters with fewer jobs will be smaller and bluer. Historical changes are measured along the bottom axis, and projected changes are measured on the vertical axis. Clusters in the upper right quadrant increased in both periods, while clusters in the lower left quadrant declined in both periods. The circles are too dense to label coherently, so only the largest are labeled. Labels and more data can be found in the table provided.

Exporting Cluster	2009 Jobs	2014 Jobs	2019 Jobs	Jobs Change 09-14	Jobs Change 14-19
Business Services	428	732	869	304	137
Production Technology and Heavy Machinery	846	751	888	-95	137
Vulcanized and Fired Materials	194	272	361	78	89
Education and Knowledge Creation	163	251	319	88	68
Distribution and Electronic Commerce	700	778	834	78	56
Trailers, Motor Homes, and Appliances	191	59	115	-132	56
Hospitality and Tourism	465	447	478	-18	31
Information Technology and Analytical Instruments	497	422	451	-75	29
Financial Services	253	225	252	-28	27
Automotive	274	257	275	-17	18
Apparel	378	502	518	124	16
Aerospace Vehicles and Defense	4	30	44	26	14
Agricultural Inputs and Services	141	225	236	84	11
Textile Manufacturing	100	29	40	-71	11
Marketing, Design, and Publishing	62	84	87	22	3
Metalworking Technology	62	91	94	29	3
Plastics	130	55	57	-75	2
Performing Arts	39	43	43	4	0
Downstream Chemical Products	37	11	10	-26	-1
Insurance Services	67	62	61	-5	-1
Leather and Related Products	8	11	10	3	-1
Livestock Processing	102	102	101	0	-1
Electric Power Generation and Transmission	89	95	93	6	-2
Nonmetal Mining	68	83	79	15	-4
Communications Equipment and Services	56	26	21	-30	-5
Construction Products and Services	129	99	92	-30	-7
Printing Services	36	32	24	-4	-8
Upstream Chemical Products	107	73	63	-34	-10
Recreational and Small Electric Goods	15	35	21	20	-14
Wood Products	1294	1567	1552	273	-15
Biopharmaceuticals	163	51	35	-112	-16
Food Processing and Manufacturing	374	430	411	56	-19
Furniture	192	142	123	-50	-19
Downstream Metal Products	128	105	80	-23	-25

Exporting Cluster	2009 Jobs	2014 Jobs	2019 Jobs	Jobs Change 09-14	Jobs Change 14-19
Transportation and Logistics	1216	1146	1112	-70	-34
Forestry	490	464	400	-26	-64
Lighting and Electrical Equipment	998	436	156	-562	-280

Non-exporting Cluster Dynamics 2009 - 19



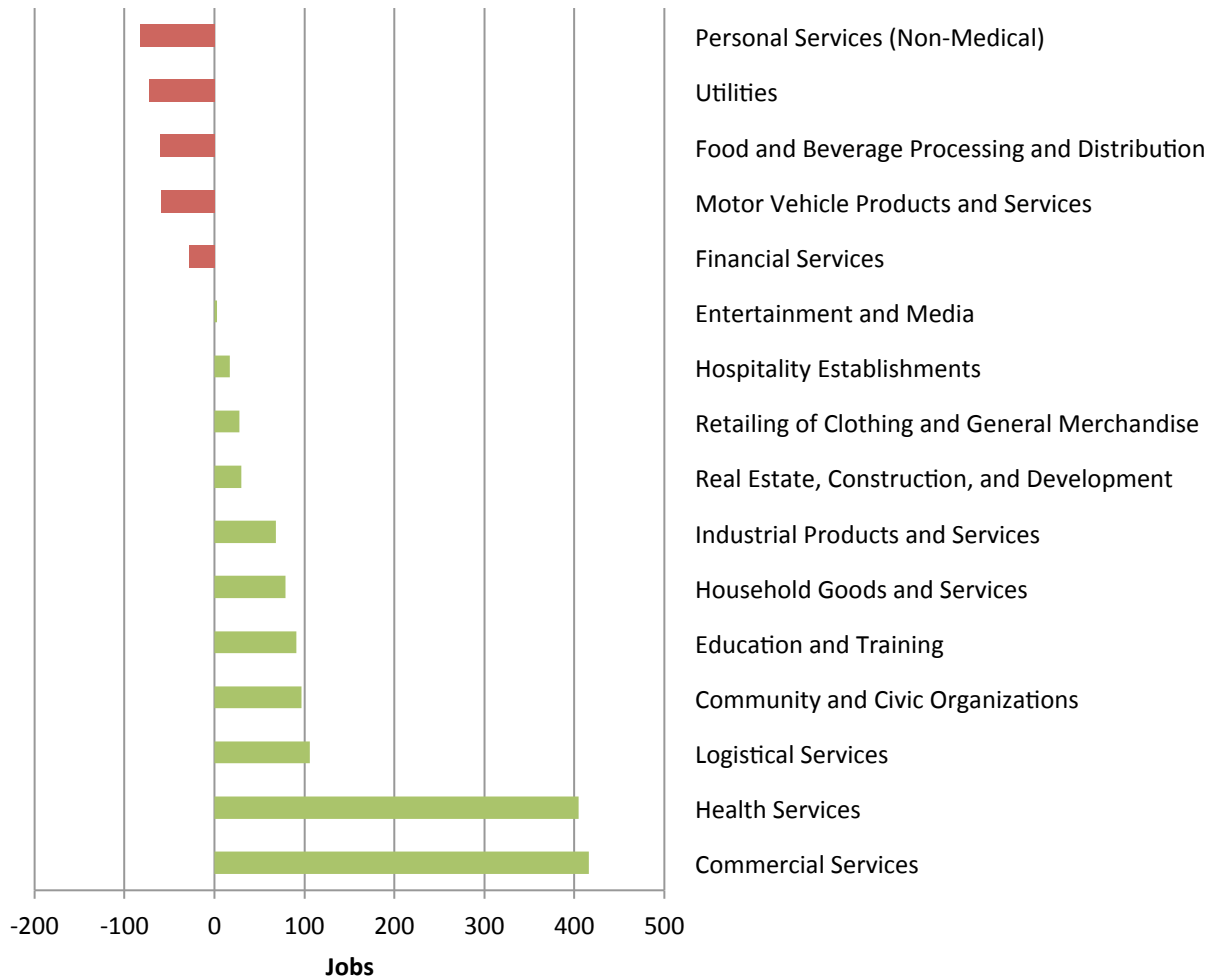
Clusters are sized and color coded based on employment in 2014. Clusters with more jobs will be larger and redder; clusters with fewer jobs will be smaller and bluer. Historical changes are measured along the bottom axis, and projected changes are measured on the vertical axis. Clusters in the upper right quadrant increased in both periods, while clusters in the lower left quadrant declined in both periods. The circles are too dense to label coherently, so only the largest are labeled. Labels and more data can be found in the table provided.

Non-exporting Cluster	2009 Jobs	2014 Jobs	2019 Jobs	Jobs Change 09-14	Jobs Change 14-19
Local Commercial Services	1318	1877	2293	559	416
Local Health Services	4079	4510	4915	431	405
Local Logistical Services	710	723	829	13	106
Local Community and Civic Organizations	960	1334	1431	374	97
Local Education and Training	198	283	374	85	91
Local Household Goods and Services	693	757	836	64	79
Local Industrial Products and Services	170	283	351	113	68
Local Real Estate, Construction, and Development	2963	2564	2594	-399	30
Local Retailing of Clothing and General Merchandise	1691	1471	1499	-220	28
Local Hospitality Establishments	2577	2464	2481	-113	17
Local Entertainment and Media	344	324	327	-20	3
Local Financial Services	846	793	765	-53	-28
Local Motor Vehicle Products and Services	1805	1801	1742	-4	-59
Local Food and Beverage Processing and Distribution	1219	1109	1048	-110	-61
Local Utilities	429	385	312	-44	-73
Local Personal Services (Non-Medical)	909	711	628	-198	-83

Ozark Heritage Region Exporting Employment Projections 2014 - 2019



Ozark Heritage Region Non-exporting Employment Projections 2014 - 2019



Cluster Employment Dynamics

Visualizing the dynamics of cluster employment can be useful. See the charts below for details.

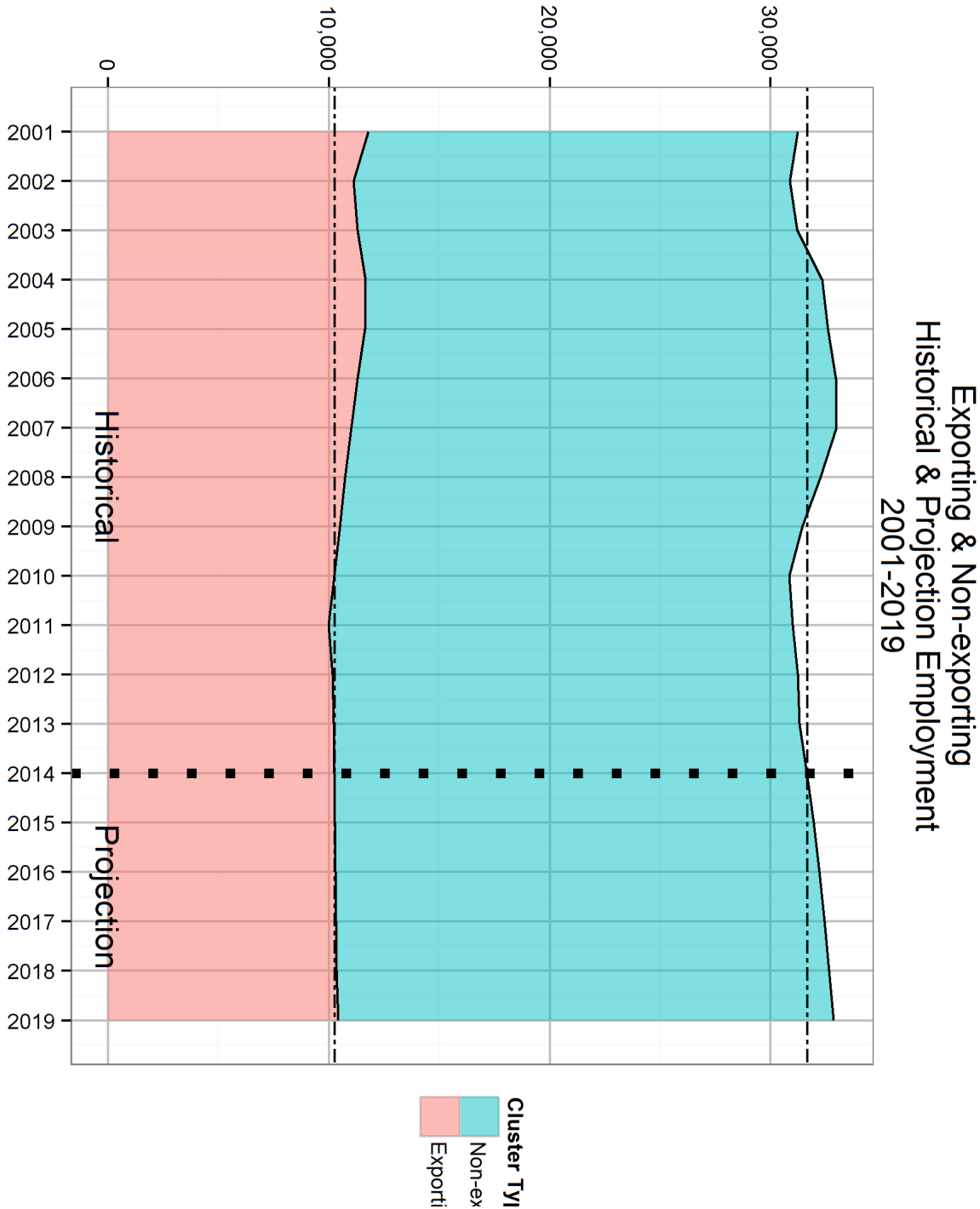
Overall cluster employment increased from 2003 to 2007, and then declined to 2002 levels by 2010. Overall cluster employment is currently slightly higher than it was in 2001, but still lower than any period from 2004 to 2008. It is projected to increase slowly through 2019. This increase is expected to come primarily from Non-exporting clusters; Exporting clusters are expected to be flat as a group, and remain lower than their 2001 levels.

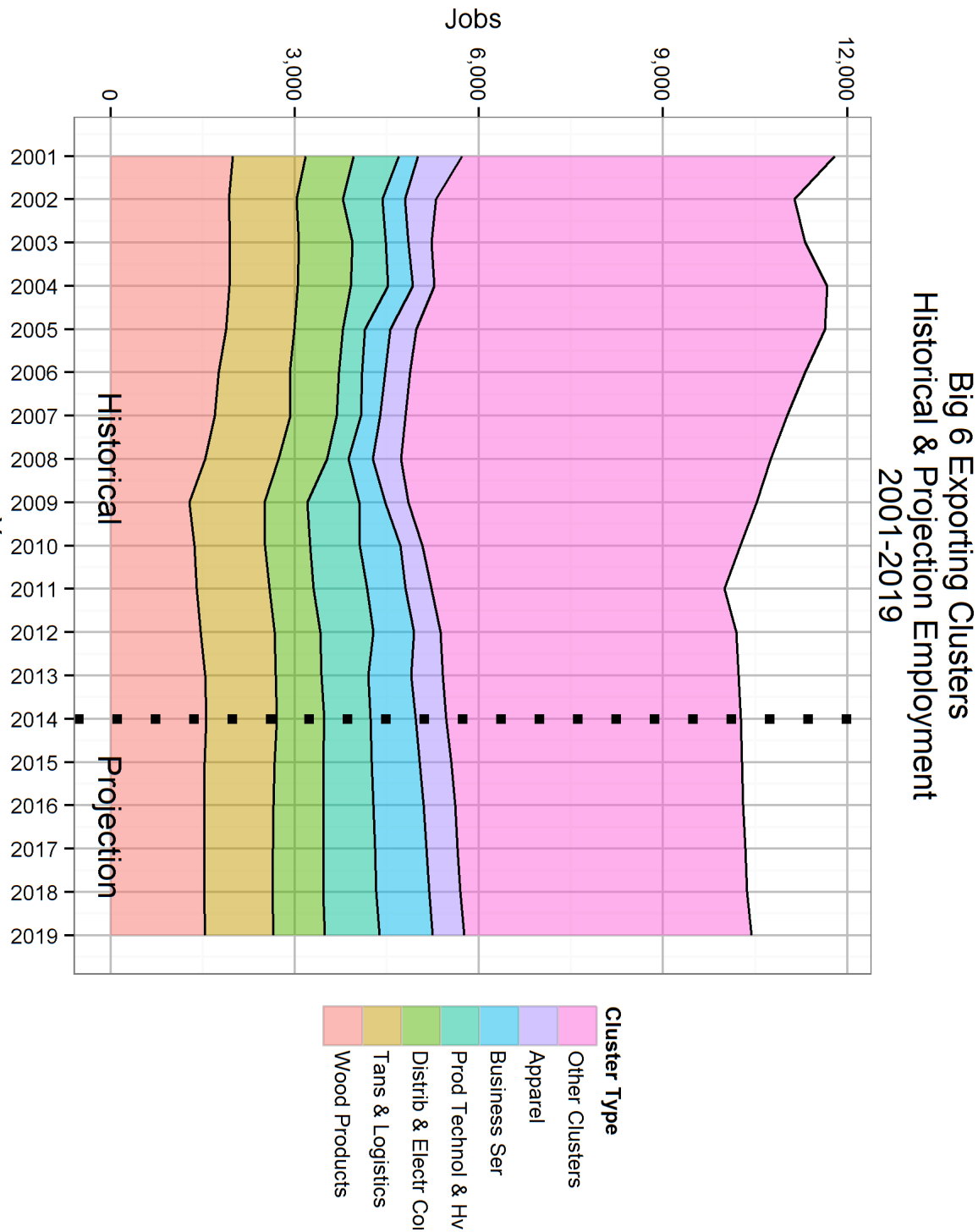
The biggest six Exporting clusters in 2014 did not fluctuate as drastically as the changes in all Exporting cluster employment would imply. Wood Products had a steady decline from 2001 to 2009, shedding around a fourth of its 2001 employment levels. Overall there was a steady decline in Exporting cluster employment from 2005 to 2011. There were some fluctuations in Apparel, Business Services, and Production Technology & Heavy Machinery, but not as drastic in currently smaller clusters. Lighting & Electrical Equipment, Recreational & Small Electric Goods, Textile Manufacturing, and Trailers, Motor Homes, & Appliances all experienced various booms and busts through this period.

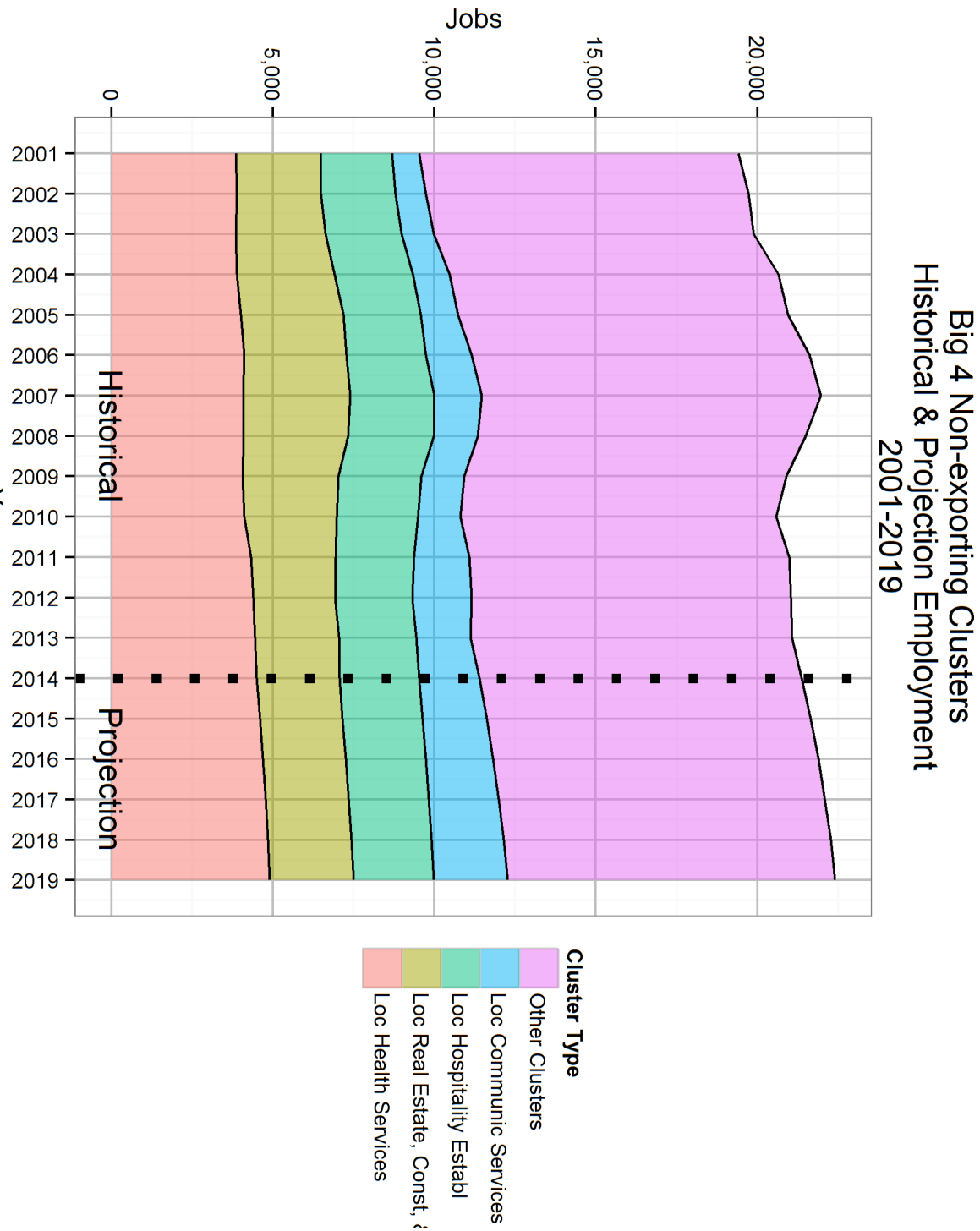
The biggest four non-exporting clusters, along with Non-exporting clusters in general, increased from 2001 to 2007, declined until 2010, and have increased since through 2014. They are projected to continue increasing.

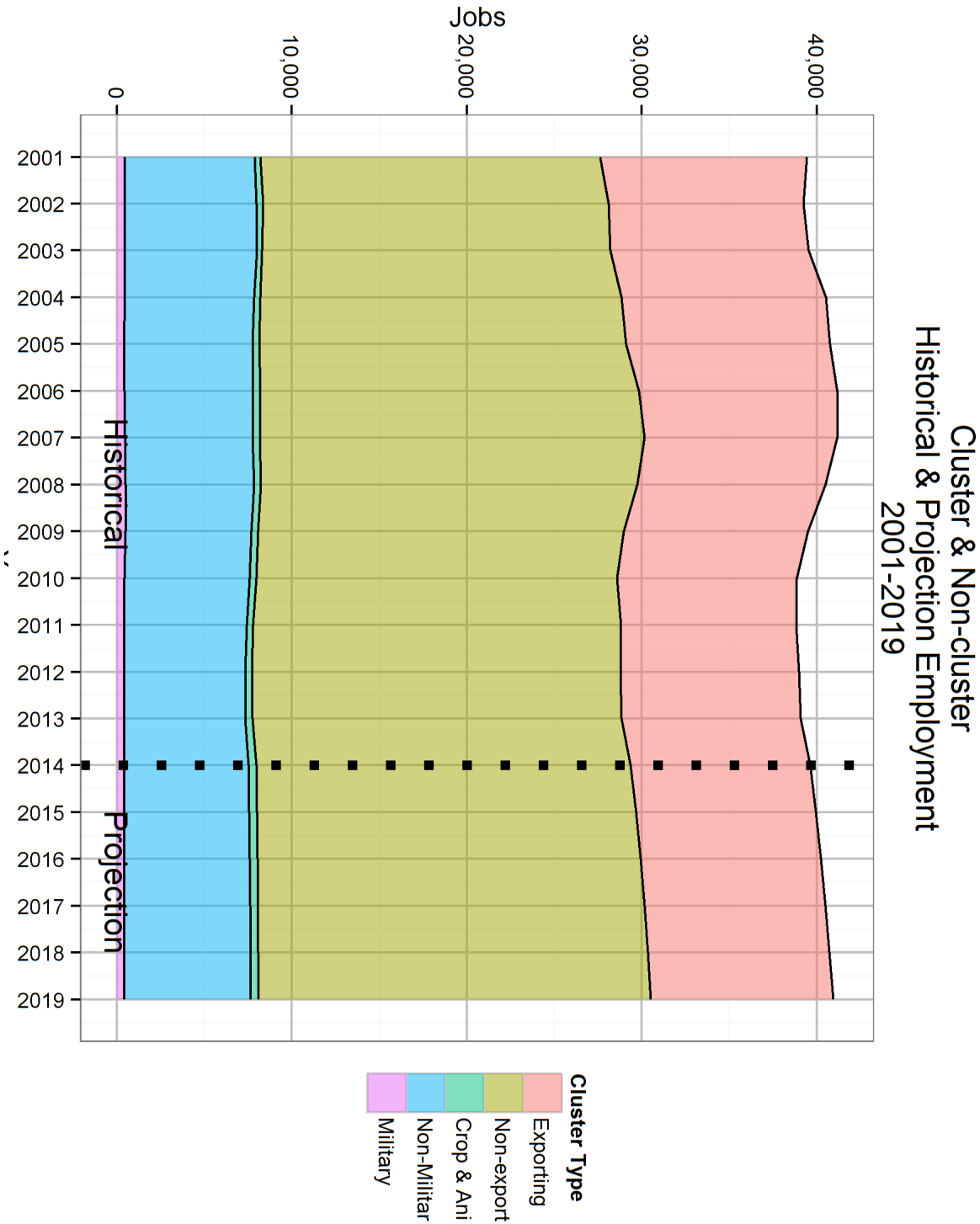
Non-cluster employment consists of Crop & Animal Production, Non-military government, and Military employees. These three sectors stayed relatively flat throughout this period.

Jobs







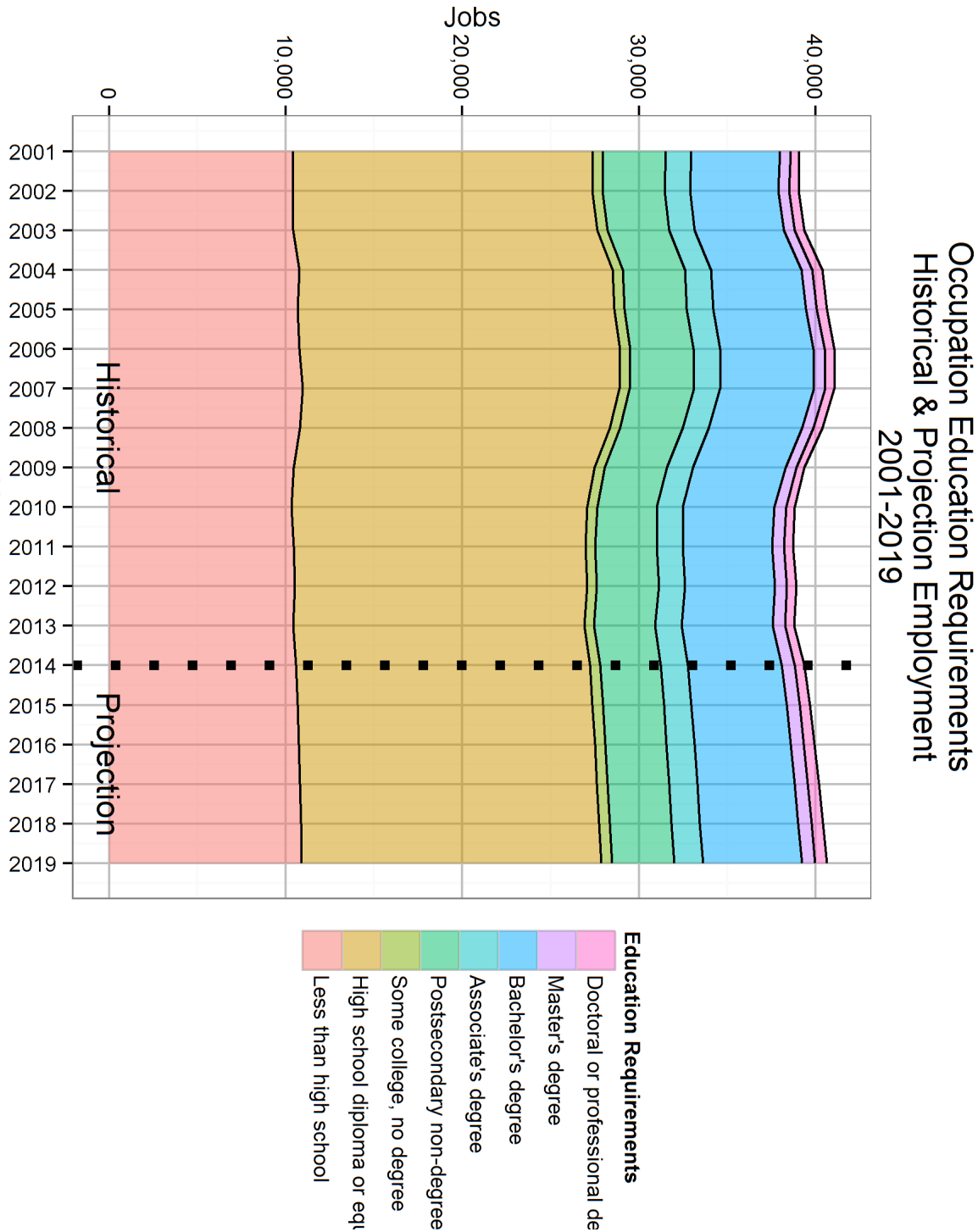


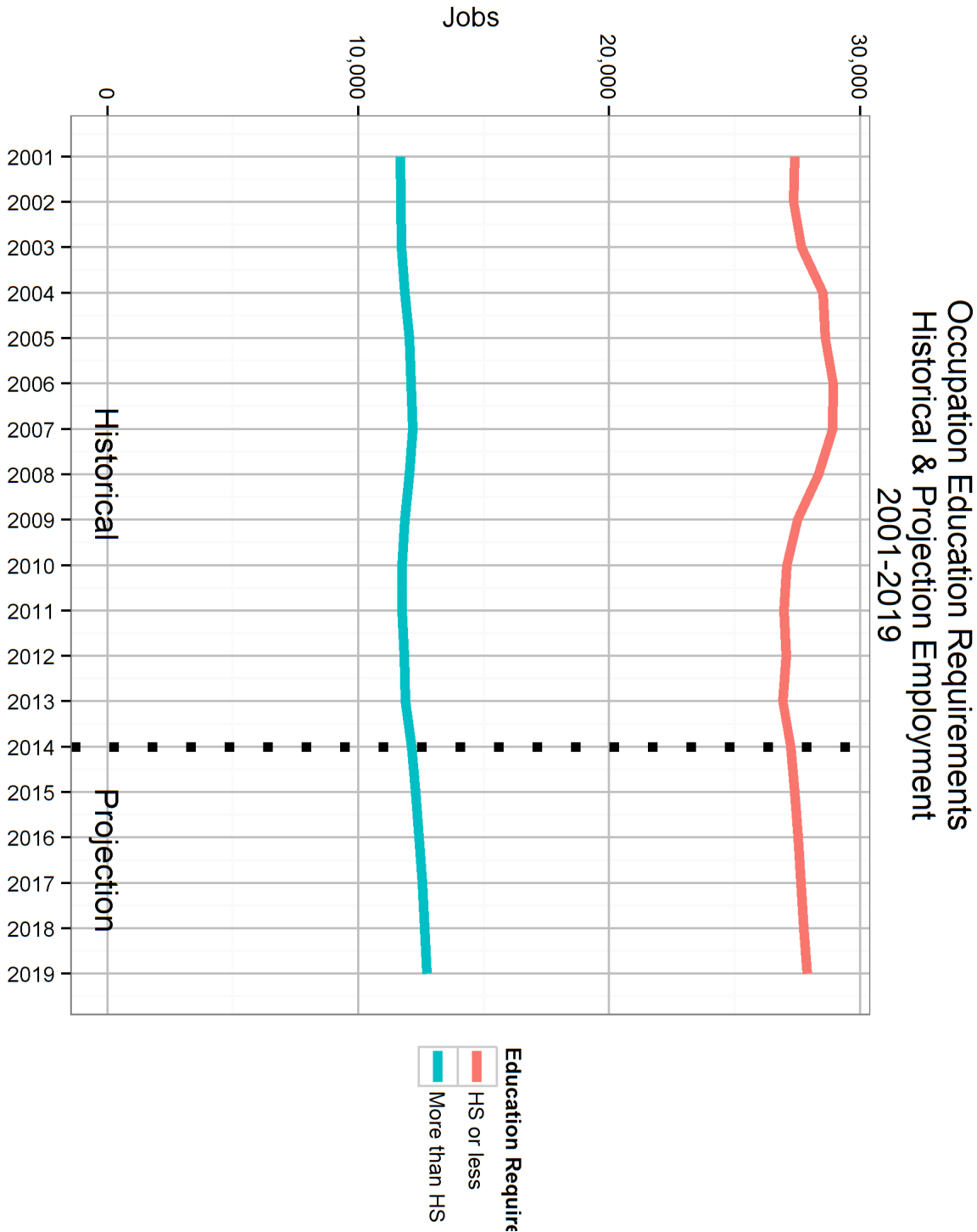
Occupation Educational Requirements

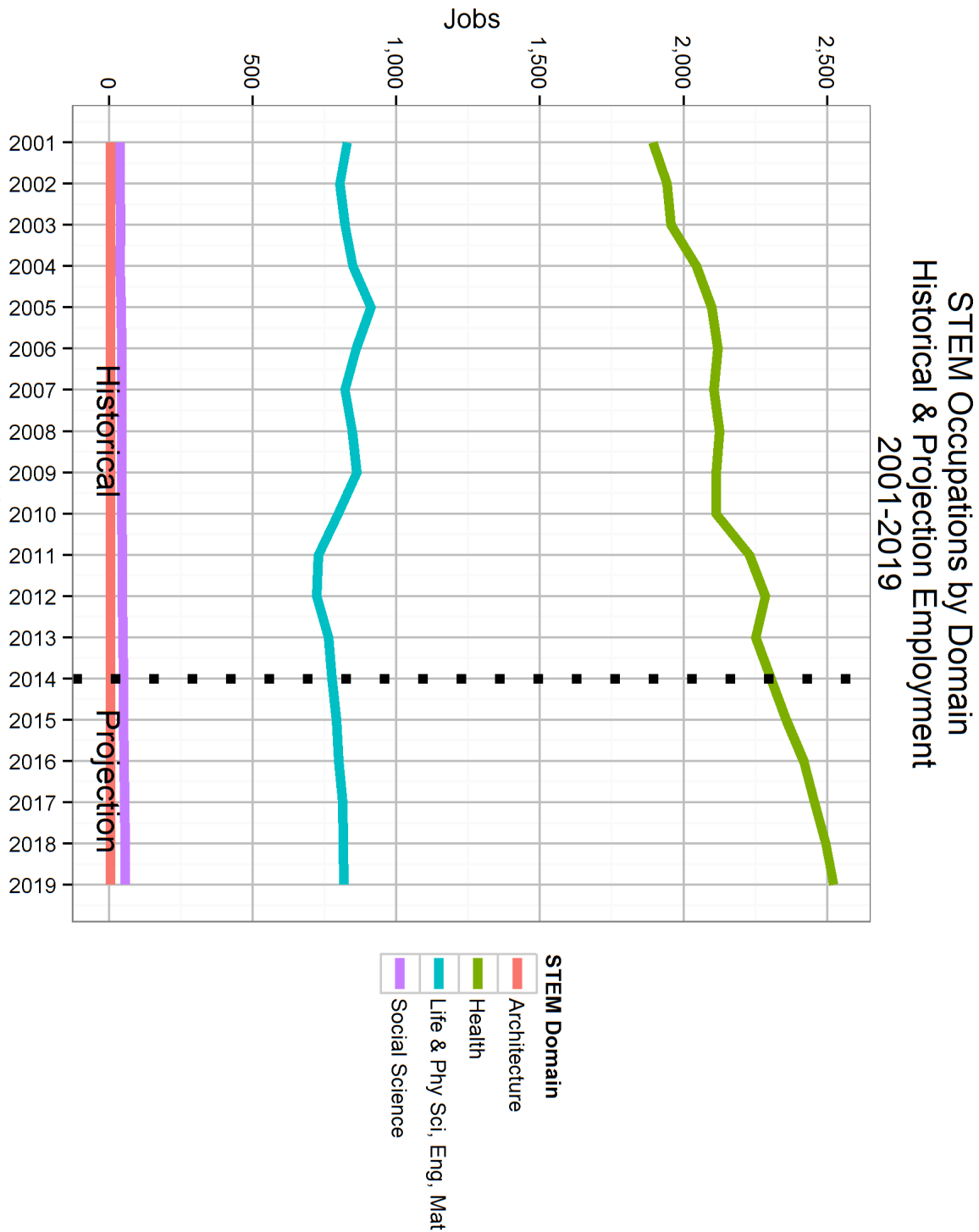
While not directly related to cluster industries, it is worth noticing the educational requirements of occupations in the Branson area. First, these educational requirements reflect the generally accepted requirements for SOC occupations, and may not reflect the education levels of individual employees. These patterns should not be interpreted as the educational attainment of the area, but as the educational level of jobs being performed. Second, note that these are figures for occupations in *all industries*, not just those in cluster industries. This includes government employees. We include the broader base here because it is more straightforward to model.

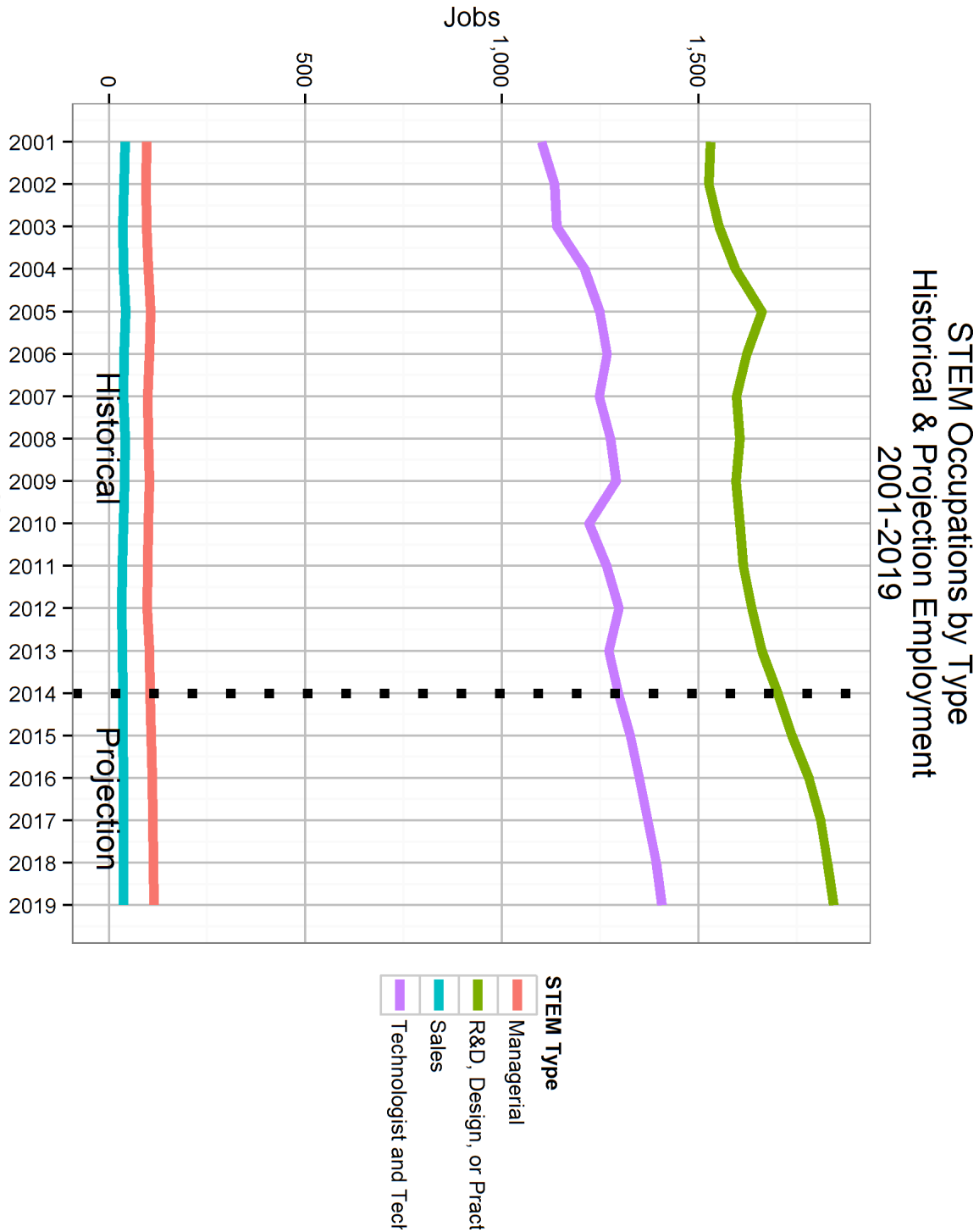
The majority of occupations in the region require a high school diploma or less. This class of occupation increased and declined the most from 2003 through 2010. It is currently close to its 2001 levels. Occupations requiring more than HS increased and declined some during that same period. They are also close to their 2001 levels.

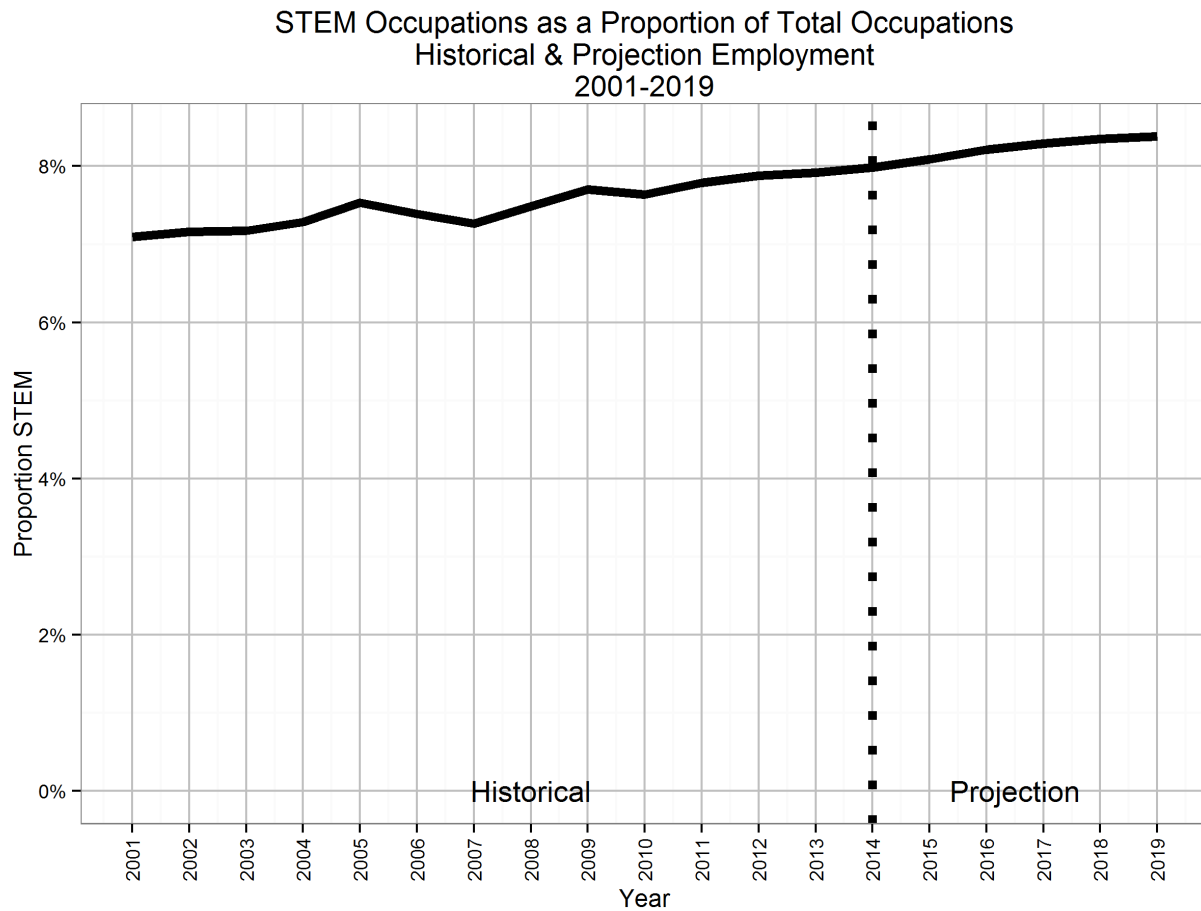
STEM occupations in the area tend to be in the Health domain or the Life & Physical Science, Engineer, Math, and IT domain. Occupations in the Health domain have experienced most growth, while the other areas have been flat. The types of jobs that are being done are primarily Research & Development, Design, or Practitioner occupations or Technologist & Technician occupations. Both are growing at about the same rate. The proportion of occupations in the STEM field has been around 7% or 8% from 2001 to 2014, increasing steadily overall. Nationally we observe a STEM occupation proportion of around 11.5%.











Nationally we observe a STEM occupation proportion of around 11.5%.

Age Demographics

We also include age demographic information for reference.

Overall population has been increasing slightly. Prime age workers, 25 to 64 years, have been increasing slowly, but have leveled off and may decline through 2019. Persons less than 25 years have been flat since 2001. Persons 65 or more years have been increasing, and are projected to continue increasing through 2019.

