In 2010, 5.3% of county sales and 11.1% of county jobs were attributable to the retail sector.

The retail sector comprises businesses engaged in selling merchandise to the general public—the final step in the distribution of these goods and services. Examples include grocery, department and specialty stores, gas stations, and restaurants, among others.

<table>
<thead>
<tr>
<th>Percent change between 2002-2010</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Sector Jobs</td>
<td>10.8%</td>
</tr>
<tr>
<td>Retail Sector Sales</td>
<td>24.6%</td>
</tr>
</tbody>
</table>

Source: Woods & Poole, 2010

The retail sector comprises businesses engaged in selling merchandise to the general public—the final step in the distribution of these goods and services. Examples include grocery, department and specialty stores, gas stations, and restaurants, among others.

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Percent of County Establishments Classified as Retail in 2012

- 8% - 14%
- 14% - 17%
- 17% - 20%
- 20% - 26%

Source: ESRI/Community Analyst, 2012; US Census, 2010

### 2010 Retail Sector Employment Characteristics*

<table>
<thead>
<tr>
<th></th>
<th>KY State</th>
<th>Northern Kentucky Area Development District</th>
<th>Boone County</th>
<th>Age Breakdown within County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment in the Retail Sector in 2010</td>
<td>205,562</td>
<td>20,294</td>
<td>8,640</td>
<td>2,539  4,641  1,460</td>
</tr>
<tr>
<td>Retail Share of Employment across All Sectors in 2010</td>
<td>10.7%</td>
<td>9.9%</td>
<td>11.1%</td>
<td>23.0%  9.4%  12.7%</td>
</tr>
<tr>
<td>New Hires in the Retail Sector in 2010</td>
<td>134,835</td>
<td>11,296</td>
<td>6,564</td>
<td>3,568  2,640  108</td>
</tr>
<tr>
<td>Retail Share of New Hires across All Sectors in 2010</td>
<td>13.9%</td>
<td>12.1%</td>
<td>13.8%</td>
<td>19.9%  9.9%  3.8%</td>
</tr>
<tr>
<td>Change in Retail Employment in 2010</td>
<td>286</td>
<td>-206</td>
<td>-177</td>
<td>n/a    n/a    n/a</td>
</tr>
<tr>
<td>Average Annual Earnings per Employee</td>
<td>$26,124</td>
<td>$23,726</td>
<td>$26,766</td>
<td>$11,609  $33,046  $35,643</td>
</tr>
</tbody>
</table>

*For detailed descriptions of data in this table visit [http://www2.ca.uky.edu/CEDIK/data_profiles/retail_sector](http://www2.ca.uky.edu/CEDIK/data_profiles/retail_sector)

Source: US Census Longitudinal Employer-Household Dynamics, 2010

### Retail Sector Employment Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Boone County</th>
<th>State Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail sector establishments</td>
<td>643</td>
<td>208</td>
</tr>
<tr>
<td>Retail sector establishments per 1,000 people</td>
<td>5.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Percent of establishments classified as retail</td>
<td>14.9%</td>
<td>16.8%</td>
</tr>
</tbody>
</table>

Source: ESRI/Community Analyst, 2012; US Census, 2010
Trade Area Capture: This measure estimates the number of retail shoppers drawn to a county per year. Not surprisingly, urban counties have more shoppers, and thus, higher trade area captures.

State sales tax for KY is 6%, with no local tax. Except for VA and WV, the other neighboring states have a higher combined average sales tax rate (state + local).

<table>
<thead>
<tr>
<th>State sales tax</th>
<th>Local sales tax range</th>
<th>IL 6.25%</th>
<th>0.00% - 4.25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN 7.00%</td>
<td>0.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KY 6.00%</td>
<td>0.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MO 4.225%</td>
<td>0.50% - 6.625%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OH 5.50%</td>
<td>0.00% - 2.25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TN 7.00%</td>
<td>1.50% - 2.75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VA 4.00%</td>
<td>1.00% - 1.50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WV 6.00%</td>
<td>0.00% - 1.00%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Woods & Poole, 2010

Pull Factor Analysis: By dividing a county’s trade area capture by its population, a pull factor measures a county’s ability to attract shoppers in the retail sector. If the pull factor is less than 1, its own residents are shopping in other counties. If greater than 1, the county is pulling in retail shoppers from other counties.

Pull Factors by Retail Subsector

<table>
<thead>
<tr>
<th>Retail Subsector</th>
<th>Rank</th>
<th>Share of total Retail</th>
<th>Change in Sales 2002 - 2010</th>
<th>KY Pull Factor</th>
<th>Northern Kentucky ADD* Pull Factor</th>
<th>2010 County Pull Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>All subsectors</td>
<td>-</td>
<td>100%</td>
<td>24.6%</td>
<td>1.00</td>
<td>1.13</td>
<td>2.02</td>
</tr>
<tr>
<td>Food and beverages</td>
<td>1</td>
<td>20.8%</td>
<td>5.9%</td>
<td>1.01</td>
<td>1.22</td>
<td>0.85</td>
</tr>
<tr>
<td>Motor vehicles &amp; parts dealers</td>
<td>2</td>
<td>16.0%</td>
<td>-25.8%</td>
<td>0.99</td>
<td>1.06</td>
<td>0.52</td>
</tr>
<tr>
<td>General merchandise stores</td>
<td>3</td>
<td>14.3%</td>
<td>11.9%</td>
<td>1.42</td>
<td>1.12</td>
<td>0.40</td>
</tr>
<tr>
<td>Gasoline stations</td>
<td>4</td>
<td>13.5%</td>
<td>36.4%</td>
<td>1.53</td>
<td>1.20</td>
<td>0.51</td>
</tr>
<tr>
<td>Eating &amp; dining</td>
<td>5</td>
<td>10.7%</td>
<td>14.5%</td>
<td>1.07</td>
<td>1.17</td>
<td>0.54</td>
</tr>
<tr>
<td>Building materials &amp; gardening stores</td>
<td>6</td>
<td>10.0%</td>
<td>6.0%</td>
<td>1.23</td>
<td>0.99</td>
<td>0.61</td>
</tr>
<tr>
<td>Health &amp; personal care stores</td>
<td>7</td>
<td>5.2%</td>
<td>18.6%</td>
<td>1.25</td>
<td>0.99</td>
<td>0.40</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>8</td>
<td>2.9%</td>
<td>-8.2%</td>
<td>1.29</td>
<td>1.23</td>
<td>0.52</td>
</tr>
<tr>
<td>Non-store retail</td>
<td>9</td>
<td>2.8%</td>
<td>25.9%</td>
<td>0.53</td>
<td>0.87</td>
<td>0.48</td>
</tr>
<tr>
<td>Clothing stores</td>
<td>10</td>
<td>1.2%</td>
<td>2.4%</td>
<td>0.79</td>
<td>1.08</td>
<td>0.17</td>
</tr>
<tr>
<td>Furniture stores</td>
<td>11</td>
<td>1.2%</td>
<td>-11.2%</td>
<td>0.90</td>
<td>1.19</td>
<td>0.3</td>
</tr>
<tr>
<td>Electronics &amp; appliances stores</td>
<td>12</td>
<td>1.2%</td>
<td>6.1%</td>
<td>0.73</td>
<td>1.56</td>
<td>0.34</td>
</tr>
<tr>
<td>Sporting goods</td>
<td>13</td>
<td>0.3%</td>
<td>-6.9%</td>
<td>0.79</td>
<td>1.61</td>
<td>0.1</td>
</tr>
</tbody>
</table>

**The highest 2010 PF for a Retail Subsector in KY was estimated at 7.19**
*ADD = Area Development District

Source: Woods & Poole, 2010

The data for this Profile was prepared by the Community and Economic Development Initiative of Kentucky (CEDIK) at the University of Kentucky. For questions on the data contained in this profile, contact James E. Allen IV, Research Director, at 859.257.7272 x253 or james.allen4@uky.edu.

Special thanks to Simona Balazs, CEDIK Research Assistant, for her work on this profile.
Kentucky County Retail Sector Profiles
Insights for Data Interpretation

Prepared by: James Allen, CEDIK Research Director

CEDIK’s Retail Sector Profile is comprised of four sections. Page one is a description of “Retail Sector Trends,” “2010 Retail Sector Employment Characteristics,” and “Retail Establishments.” Page two showcases “Trade Area Capture and Pull Factors” for the retail sector. In an effort to provide as much data as possible on two pages, precise definitions of some measures were not included. Thus, questions may arise including: What does this number represent exactly? How can I interpret this? This short overview provides additional clarification to the meaning of the selected measures in the profile.

1. Retail Sector Trends

Both a table and a figure make up the profile’s first section regarding trends in the retail sector, and each uses different data to describe how the retail sector has changed in your county over time. The table on the left showcases two numbers: the percent change in number of retail jobs and the percent change in amount of retail sales, covering the years 2002 to 2010. This measure is meant to suggest an overall decline or increase in the actual number of retail jobs or annual retail sales in your county. However, what is not shown was whether this change was gradual, sudden, significant, or inconclusive. For example, was this change the result of a clear increase or decline in retail or nothing more than one might expect from normal year-to-year volatility? This table does not answer that question, but it helps identify the overall trend.

The Retail Sector profile figure on the right side of the page charts out retail’s share of total jobs and sales in the county over time. In other words, of all the jobs held or sales generated in the county, what percentage is attributable to the retail sector? This measure is meant to highlight the relative importance of the retail sector to your county’s economy and how that has changed over time. If the retail share has increased over time, this implies that the retail sector is either growing faster than the rest of the economy or shrinking slower than the rest. Using the percentage change given in the left table and the overall trend of the retail share in the figure, the chart below may help to interpret how together these two measures can explain recent trends in your county’s retail sector relative to rest of the economy (described in the table as simply “economy”).

2. 2010 Retail Sector Employment Characteristics

Data represented in the table comes from the Quarterly Workforce Indicators compiled and published by the U.S. Census, which takes a snapshot of employment across various sectors and demographic distributions. The Census reports these snapshots quarterly, though CEDIK wanted to present data that represent the entirety of the calendar year 2010. Thus, to utilize this table, one must understand how Census defines these measures and how CEDIK aggregated them across all quarters.

Census defines employment as the sum of workers per business who were employed at the beginning of a quarter and received wages in the previous quarter. Employment is defined by the receipt of wages, so it can be full-time, part-time, long-term, or temporary. Further, because employment is recounted quarterly, someone employed all year with one employer will be counted four times. For this reason, CEDIK took the average of retail employment across the four quarters of 2010; this is the number reported in the table. However, one limitation is that those working with more than one retail employer in a given quarter are counted twice—once for each position. The retail share of employment is simply the 2010 quarterly average of employment in the retail sector (just defined above) divided by 2010 quarterly average of employment across all sectors.

Next, Census defines new hires as the total number of workers who starting receiving wages in a given quarter from an employer whom they had not worked for in the past year. Again, because hiring is defined by a receipt of wages, the hire could be fired either twenty years or two days later and be counted equally. Every quarter begins anew, so CEDIK calculated the total number of new hires for 2010 as the sum of quarterly new hires. This measure should NOT be interpreted as the number of new jobs created because many jobs, especially in retail, have relatively quick turnover rates.

How measures of employment and new hires are defined may produce results that seem counterintuitive, such as if the table reports more new hires than workers employed. To understand how this may happen, consider the following example. First, Chloe graduated from the University of Kentucky over the summer of 2010 and looked for a job to launch her career in the 3rd quarter. After an unsuccessful month, she started work as a grocer clerk to pay the bills. Two weeks later, and still in the same quarter, she landed a morning manager position at a retail outlet and quickly quit her grocer position. Thus, when employment was calculated for the 4th quarter, she was counted. Since employment is averaged across all four quarters, Chloe only adds .25 to county employment, but she will add 2 to new hires since she received wages from two new employers in

<table>
<thead>
<tr>
<th>Change in Retail Share</th>
<th>Positive</th>
<th>Zero</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage Change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>Retail has grown faster than economy</td>
<td>Retail has grown at the same speed as economy</td>
<td>Retail has grown but economy grew faster</td>
</tr>
<tr>
<td>Zero</td>
<td>No change in retail but economy has declined</td>
<td>No change in retail or in rest of the economy</td>
<td>No change in retail but economy has grown</td>
</tr>
<tr>
<td>Negative</td>
<td>Retail has declined but economy declined faster</td>
<td>Retail has declined at the same speed as economy</td>
<td>Retail has declined faster than the economy</td>
</tr>
</tbody>
</table>
2010. If many county residents face similar circumstances—
which are feasible among younger age groups—this may result in
new hires outnumbering workers employed.

To calculate the change in retail employment for 2010, CEDIK
took the difference between retail employment from the
beginning of quarter one in 2011 and the beginning of quarter
one in 2010. A positive number represents the total number of
additional workers who are considered employed one year later,
and vice versa. In principle, this number should be equal to the
total number of hires in 2010 (new hires plus any rehired by the
same employer within a year) minus total separations.

Therefore, this measure helps to provide some perspective to
the reported number of new hires in 2010.

Average annual earnings are the sum of the Census’s average
quarterly earnings, which are only estimated for full-quarter
employees. Thus, reported average earnings may include part-
time wages, but not those who were hired or separated in that
quarter. This measure provides some indication of the quality of
retail jobs and how this might differ across age groups.

Finally, CEDIK has manipulated the Census data to breakdown
each measure into three age groups within the county: those 24
and under, those 55 and older, and those in between. The
measures are defined in the same way for the age breakdown,
except that the result only applies to those within a particular
age group. Unfortunately, data was not available for spaces
marked “n/a”.

References:
Longitudinal Employer-Household Dynamics, U.S. Census Bureau

3. Retail Establishments
Retail establishments are featured in the profile’s third section,
which maps an interesting pattern in the percentage of county
establishments classified as retail across Kentucky. This
percentage could vary for many reasons, including economic
diversification, prevalence of tourism, strong interest in retail
entrepreneurship, or a smaller manufacturing/industrial
economy. Below the map, county-specific information is
provided, including the number of retail sector establishments,
the number of establishments per 1,000 people, and state
averages. In many counties, retail establishments and their
accessibility to local residents is a good portion of what
characterizes the community.

4. Trade Area Capture (TAC) and Pull Factors
Trade Area Capture (TAC) is used to estimate the number of
customers who have shopped in a given area (e.g., county or
state) within a one-year period. Specifically, it is calculated by
dividing annual retail sales for that area by the state average of
annual per capita spending on retail goods and services, which is
further adjusted by a ratio of local-to-state per capita income
(where applicable) to account for differences in average incomes.
In other words, TAC is the ratio of total retail sales to the
average amount of money that a retail shopper spends—
adjusting for income differences—and thus estimates the number
of shoppers for that area. Therefore, it is not surprising that
Kentucky’s more urban counties, which have higher populations,
also have higher TACs (see map). One caveat is that the TAC
assumes that local residents purchase goods and services at the
same rate as the average state resident, though it allows for their
average incomes to vary.

Pull Factors take retail analysis to the next level by dividing TAC
by the local population. Thus, if the estimated number of
shoppers for that area (i.e., TAC) is greater than the local
population, the Pull Factor will be greater than one, and vice
versa. In the Pull Factor table, CEDIK has calculated the Pull
Factors for each retail subsector at the county-, Area
Development District-, and state-level. Subsectors are also
ranked by the greatest percentage of total retail sales in the
county.

How can these figures be interpreted? A Pull Factor may be
greater than a value of one for two reasons: 1) most often, the
local area is attracting retail customers from outside its
boundaries, and/or 2) local residents are spending more on retail
than the average state resident. Conversely, if a Pull Factor is
less than one then the reverse is true; the local area is losing
retail shoppers to outside business, the residents are spending
less than the state average, or both. Finally, a Pull Factor equal to
a value of one indicates a balance of trade where purchases by
local residents outside local boundaries are matched by sales
made to non-local shoppers.

In addition to thinking about your county’s retail subsectors
when interpreting this table, it is also important to remember
county commuting patterns and tourism. Both have a high
potential for bringing in or sending out significant numbers of
people for reasons completely unrelated to retail shopping.
However, while working or travelling in a county other than
where they reside, people are likely to purchase gas, eat at
restaurants, buy gifts or clothes, etc. In other words, Pull Factors
are not merely an indication of the strength or potential of the
retail sector, but also how much the county is relied upon by its
residents and outsiders for their retail shopping needs.

References:
Hustedde, Shaffer, and Pulver. “Community Economic Analysis:
greenkit/pdfs/howto.pdf

Still have questions?
If you have further questions regarding the data in this profile,
please contact CEDIK Research Director James Allen at
(859) 257-7272 x253.