# **Supplementary Document 3**

Shift-Share Analysis: Kentucky, 2005 - 2018

# Prepared for the Appalachian Regional Commission by the West Virginia University Regional Research Institute

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#### **Chapter 1. Adair County, Kentucky**

Employment in Adair County, Kentucky, declined from 4,678 in 2005 to 4,510 in 2018, for a change of -168, or -3.59%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Adair County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	530	-694	-67	-627
vs. Appalachia	13	-184	-56	-128
vs. Neighbors	-14	-152	213	-365

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Adair County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Adair County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
13	Machinery	FIIIci	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
31	General merchandise 	FIIIci	no	yes	yes	yes
45	Federal Reserve banks,	F III c iii	no	yes	yes	yes
47	Insurance carriers and	Flci	no	yes	yes	yes
53	Miscellaneous profession	Blaii	yes	yes	yes	yes
55	Administrative and	AVbii	yes	no	yes	yes
57	Educational services	FIIIai	no	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Adair County, Kentucky vs. the United States

Groups a, b, and c are from Adair County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Adair County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Adair County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Adair County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Adair County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Adair County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

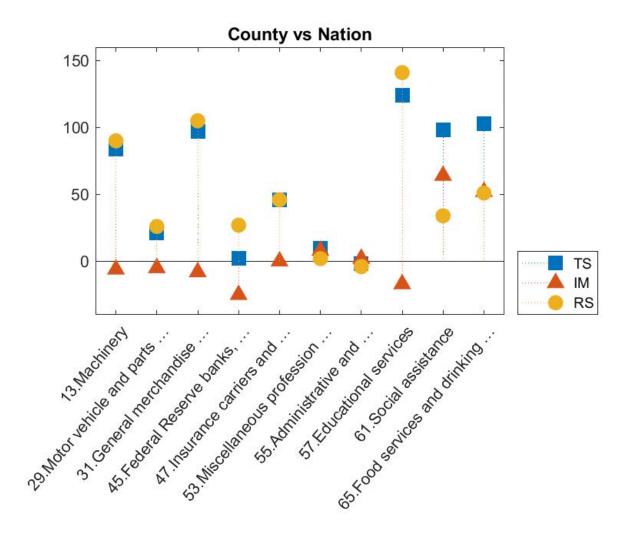
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Adair County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Adair County, Kentucky vs the U.S.



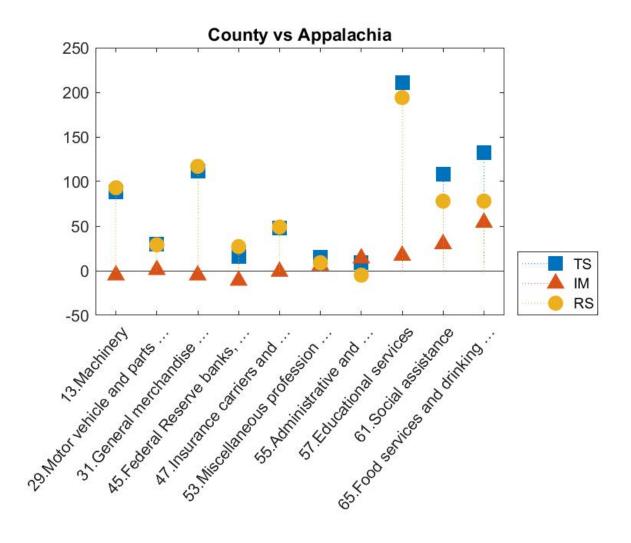
**Chapter 1. Adair County, Kentucky** 

# Adair County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	4	84	-6	90	126
29	Motor vehicle and parts	9	21	-5	26	108
31	General merchandise 	16	97	-8	105	253
45	Federal Reserve banks,	15	2	-25	27	145
47	Insurance carriers and 	3	46	-0	46	73
53	Miscellaneous profession	5	10	8	2	63
55	Administrative and	11	-2	2	-4	109
57	Educational services	90	124	-17	141	1,010
61	Social assistance	11	98	64	34	205
65	Food services and drinking	31	103	52	51	404

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# Selected SSA Components for Adair County, Kentucky vs the Appalachian Region

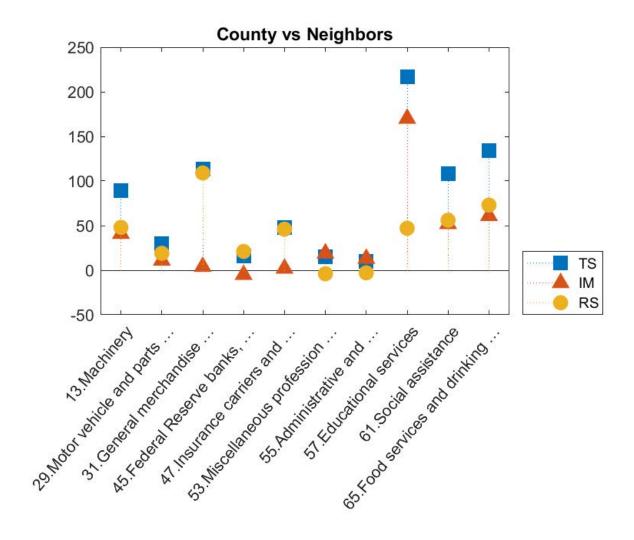


# Selected SSA Components for Adair County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	0	88	-5	93	126
29	Motor vehicle and parts	0	30	1	29	108
31	General merchandise 	0	112	-5	117	253
45	Federal Reserve banks,	0	16	-11	27	145
47	Insurance carriers and 	0	48	-1	49	73
53	Miscellaneous profession	0	15	6	9	63
55	Administrative and	0	9	14	-5	109
57	Educational services	3	211	17	194	1,010
61	Social assistance	0	108	30	78	205
65	Food services and drinking	1	132	54	78	404

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### Selected SSA Components for Adair County, Kentucky vs Neighbors



# Selected SSA Components for Adair County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	-0	89	41	48	126
29	Motor vehicle and parts	-0	30	11	19	108
31	General merchandise 	-1	113	4	109	253
45	Federal Reserve banks,	-0	16	-5	21	145
47	Insurance carriers and 	-0	48	2	46	73
53	Miscellaneous profession	-0	15	19	-4	63
55	Administrative and	-0	10	13	-3	109
57	Educational services	-3	217	170	47	1,010
61	Social assistance	-0	108	52	56	205
65	Food services and drinking	-1	134	61	73	404

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#### Chapter 2. Bath County, Kentucky

Employment in Bath County, Kentucky, declined from 2,351 in 2005 to 1,873 in 2018, for a change of 478, or -20.33%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Bath County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	264	-742	-92	-650
vs. Appalachia	6	-482	-119	-363
vs. Neighbors	-125	-353	-327	-26

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Bath County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Bath County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
10	Nonmetallic mineral prod 	Flai	no	yes	yes	yes
13	Machinery	Flai	no	yes	yes	yes
28	Wholesale trade	FIIIci	no	yes	yes	yes
53	Miscellaneous profession	Blaiii	yes	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
65	Food services and drinking	BIIaii	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Bath County, Kentucky vs. the United States

Groups a, b, and c are from Bath County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Bath County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Bath County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Bath County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Bath County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Bath County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

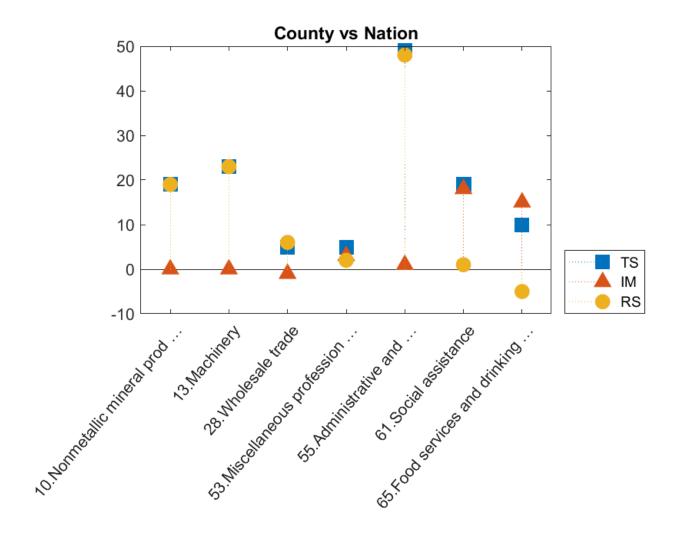
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Bath County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Bath County, Kentucky vs the U.S.



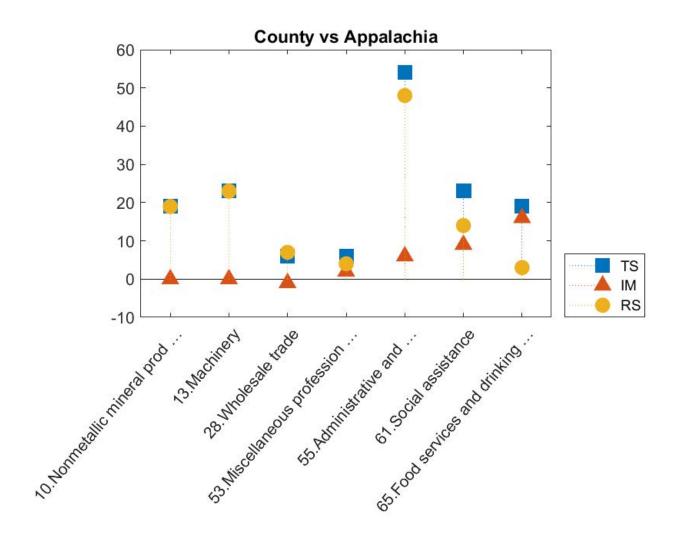
#### **Chapter 2. Bath County, Kentucky**

# Bath County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	0	19	0	19	19
13	Machinery	0	23	0	23	23
28	Wholesale trade	2	5	-1	6	20
53	Miscellaneous profession	2	5	3	2	24
55	Administrative and	5	49	1	48	96
61	Social assistance	3	19	18	1	50
65	Food services and drinking	9	10	15	-5	98

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# Selected SSA Components for Bath County, Kentucky vs the Appalachian Region

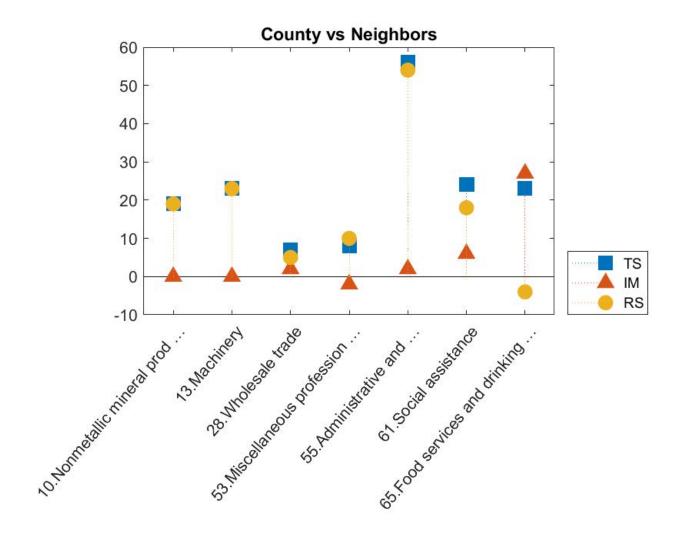


# Selected SSA Components for Bath County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	0	19	0	19	19
13	Machinery	0	23	0	23	23
28	Wholesale trade	0	6	-1	7	20
53	Miscellaneous profession	0	6	2	4	24
55	Administrative and	0	54	6	48	96
61	Social assistance	0	23	9	14	50
65	Food services and drinking	0	19	16	3	98

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### **Selected SSA Components for Bath County, Kentucky vs Neighbors**



# Selected SSA Components for Bath County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	-0	19	0	19	19
13	Machinery	-0	23	0	23	23
28	Wholesale trade	-1	7	2	5	20
53	Miscellaneous profession	-1	8	-2	10	24
55	Administrative and	-2	56	2	54	96
61	Social assistance	-1	24	6	18	50
65	Food services and drinking	-4	23	27	-4	98

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#### **Chapter 3. Bell County, Kentucky**

Employment in Bell County, Kentucky, declined from 10,173 in 2005 to 8,147 in 2018, for a change of -2,026, or -19.92%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Bell County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	1,146	-3,177	-248	-2,929
vs. Appalachia	34	-2,062	-103	-1,959
vs. Neighbors	-1,512	-512	212	-724

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Bell County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Bell County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
07	Utilities	FIIIci	no	yes	yes	yes
20	Food and beverage	Elci	no	yes	yes	yes
61	Social assistance	BIIbii	yes	yes	yes	yes
65	Food services and drinking	BVbii	yes	no	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Bell County, Kentucky vs. the United States

Groups a, b, and c are from Bell County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Bell County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Bell County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Bell County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Bell County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Bell County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

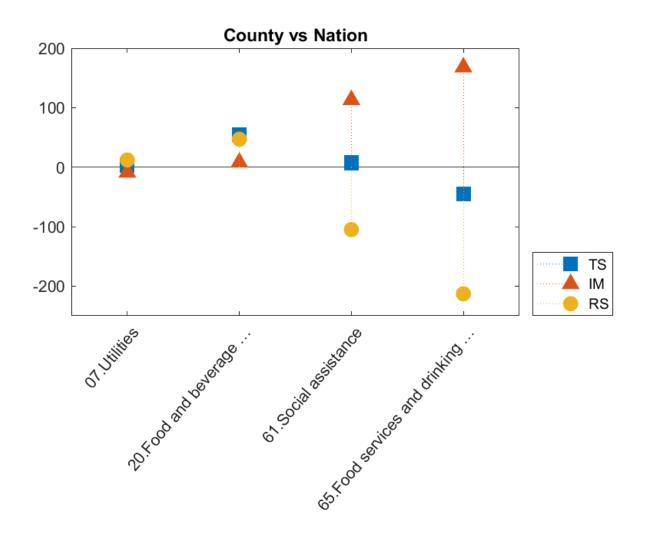
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Bell County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

# Selected SSA Components for Bell County, Kentucky vs the U.S.

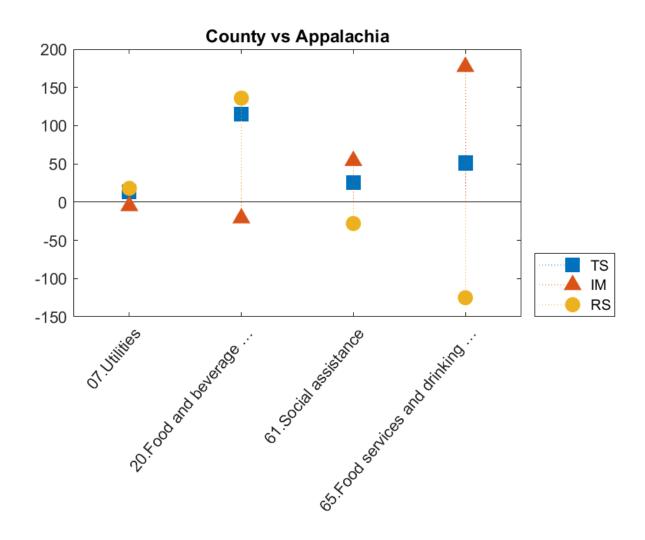


#### **Chapter 3. Bell County, Kentucky**

# Bell County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	10	3	-9	12	101
20	Food and beverage	61	55	8	47	655
61	Social assistance	19	8	113	-105	199
65	Food services and drinking	100	-45	168	-213	938

# Selected SSA Components for Bell County, Kentucky vs the Appalachian Region

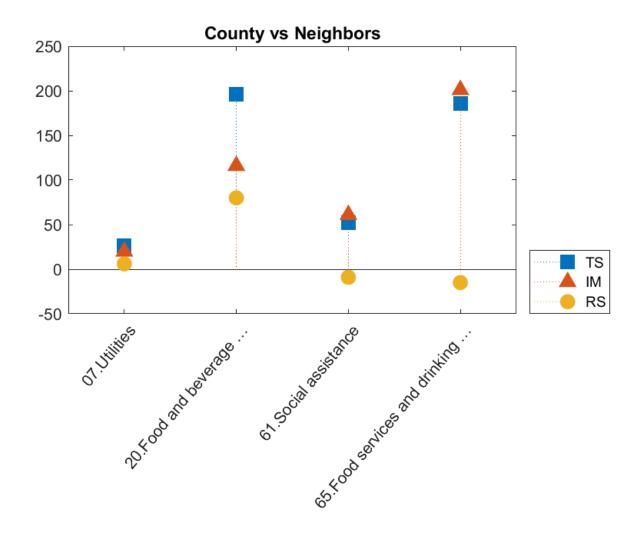


#### **Chapter 3. Bell County, Kentucky**

# Selected SSA Components for Bell County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	0	13	-5	18	101
20	Food and beverage	2	115	-21	136	655
61	Social assistance	1	26	54	-28	199
65	Food services and drinking	3	52	177	-125	938

# Selected SSA Components for Bell County, Kentucky vs Neighbors



#### **Chapter 3. Bell County, Kentucky**

# Selected SSA Components for Bell County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	-13	26	20	6	101
20	Food and beverage	-80	196	116	80	655
61	Social assistance	-26	52	61	-9	199
65	Food services and drinking	-131	186	201	-15	938

#### **Chapter 4. Boyd County, Kentucky**

Employment in Boyd County, Kentucky, declined from 29,044 in 2005 to 24,309 in 2018, for a change of -4,735, or -16.3%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Boyd County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	3,273	-8,017	228	-8,245
vs. Appalachia	93	-4,836	440	-5,276
vs. Neighbors	-3,559	-1,168	244	-1,412

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Boyd County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Boyd County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
25	Petroleum and coal prod	FIIIci	no	yes	yes	yes
38	Pipeline transportation	Elci	no	yes	yes	yes
53	Miscellaneous profession	Bllai	yes	yes	yes	yes
58	Ambulatory health care	B V e ii	yes	no	no	yes
61	Social assistance	Blai	yes	yes	yes	yes
65	Food services and drinking	BIIbi	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Boyd County, Kentucky vs. the United States

Groups a, b, and c are from Boyd County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Boyd County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Boyd County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Boyd County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Boyd County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Boyd County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

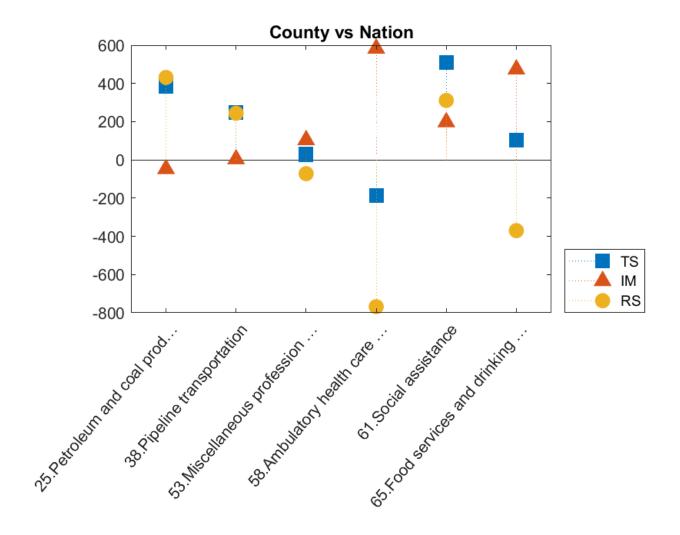
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Boyd County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Boyd County, Kentucky vs the U.S.

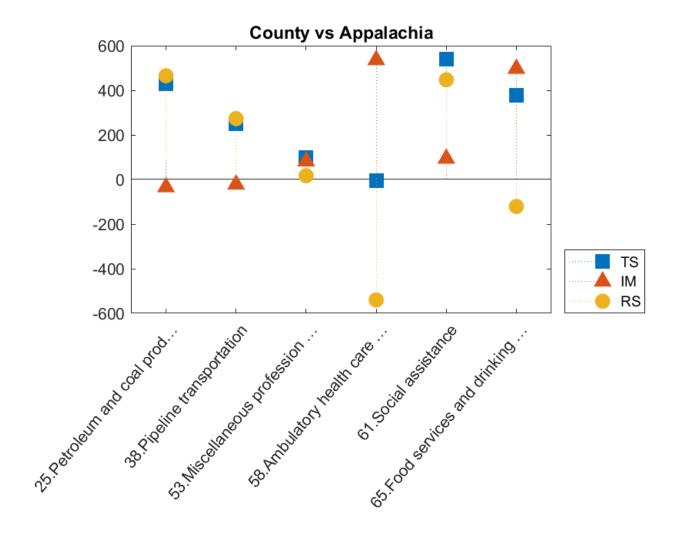


# **Boyd County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
25	Petroleum and coal prod…	48	384	-47	431	860
38	Pipeline transportation	3	248	4	244	277
53	Miscellaneous profession	70	32	104	-72	718
58	Ambulatory health care	187	-185	583	-768	1,663
61	Social assistance	34	509	198	311	844
65	Food services and drinking	281	104	474	-370	2,873

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# Selected SSA Components for Boyd County, Kentucky vs the Appalachian Region

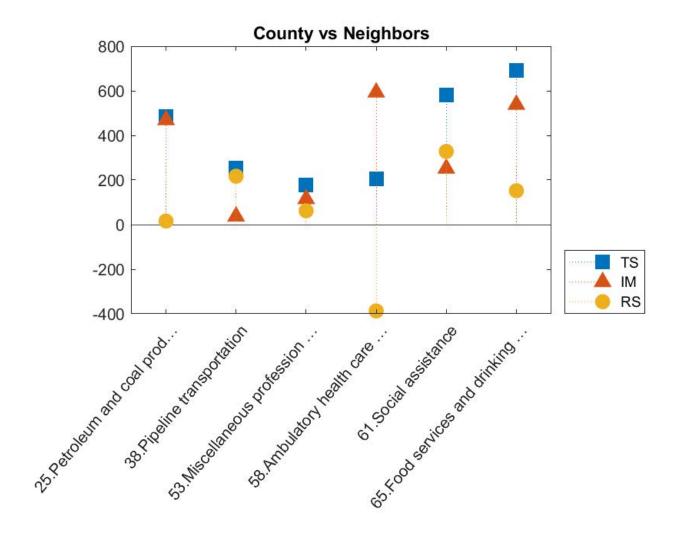


# Selected SSA Components for Boyd County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
25	Petroleum and coal prod…	1	431	-34	465	860
38	Pipeline transportation	0	251	-22	273	277
53	Miscellaneous profession	2	99	82	17	718
58	Ambulatory health care	6	-4	536	-540	1,663
61	Social assistance	1	541	94	447	844
65	Food services and drinking	8	376	497	-121	2,873

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### Selected SSA Components for Boyd County, Kentucky vs Neighbors



Selected SSA Components for Boyd County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
25	Petroleum and coal prod…	-52	485	469	16	860
38	Pipeline transportation	-3	254	37	217	277
53	Miscellaneous profession	-76	177	115	62	718
58	Ambulatory health care	-204	206	593	-387	1,663
61	Social assistance	-37	580	252	328	844
65	Food services and drinking	-305	690	538	152	2,873

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#### **Chapter 5. Breathitt County, Kentucky**

Employment in Breathitt County, Kentucky, declined from 3,565 in 2005 to 3,003 in 2018, for a change of -562, or -15.76%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Breathitt County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	404	-961	99	-1,060
vs. Appalachia	9	-571	146	-717
vs. Neighbors	-804	245	297	-52

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Breathitt County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Breathitt County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
55	Administrative and	AVbi	yes	no	yes	yes
58	Ambulatory health care	Blai	yes	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
65	Food services and drinking	BIIbi	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Breathitt County, Kentucky vs. the United States

Groups a, b, and c are from Breathitt County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Breathitt County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Breathitt County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Breathitt County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Breathitt County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Breathitt County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

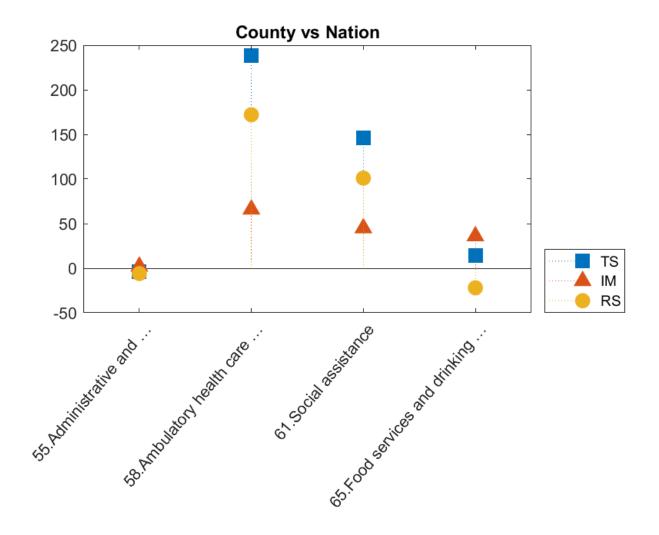
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Breathitt County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Breathitt County, Kentucky vs the U.S.

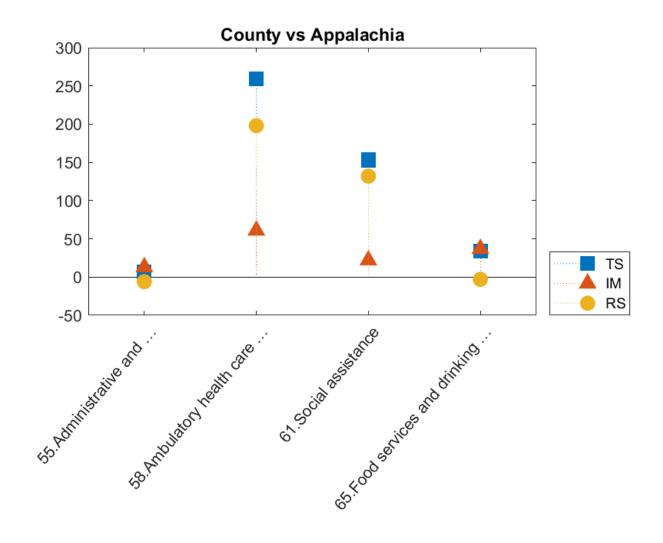


## Breathitt County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
55	Administrative and	10	-4	2	-6	99
58	Ambulatory health care	21	238	66	172	447
61	Social assistance	8	146	45	101	223
65	Food services and drinking	21	14	36	-22	222

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# Selected SSA Components for Breathitt County, Kentucky vs the Appalachian Region

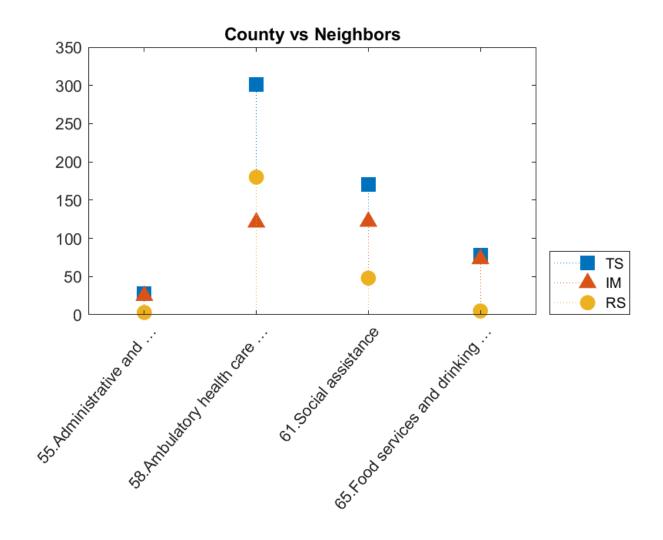


# Selected SSA Components for Breathitt County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
55	Administrative and	0	7	13	-6	99
58	Ambulatory health care	1	259	61	198	447
61	Social assistance	0	154	22	132	223
65	Food services and drinking	1	34	37	-3	222

. . .

### **Selected SSA Components for Breathitt County, Kentucky vs Neighbors**



# Selected SSA Components for Breathitt County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
55	Administrative and	-21	28	25	3	99
58	Ambulatory health care	-42	301	121	180	447
61	Social assistance	-16	170	122	48	223
65	Food services and drinking	-42	78	73	5	222

. . .

#### **Chapter 6. Carter County, Kentucky**

Employment in Carter County, Kentucky, declined from 7,097 in 2005 to 5,445 in 2018, for a change of 1,652, or -23.28%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Carter County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	800	-2,446	-199	-2,247
vs. Appalachia	22	-1,680	-111	-1,569
vs. Neighbors	-774	-878	-457	-421

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Carter County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Carter County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
25	Petroleum and coal prod	Flai	no	yes	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
65	Food services and drinking	BVeii	yes	no	no	yes
66	Other services, exc. gov	F III c iii	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Carter County, Kentucky vs. the United States

Groups a, b, and c are from Carter County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Carter County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Carter County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Carter County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Carter County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Carter County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

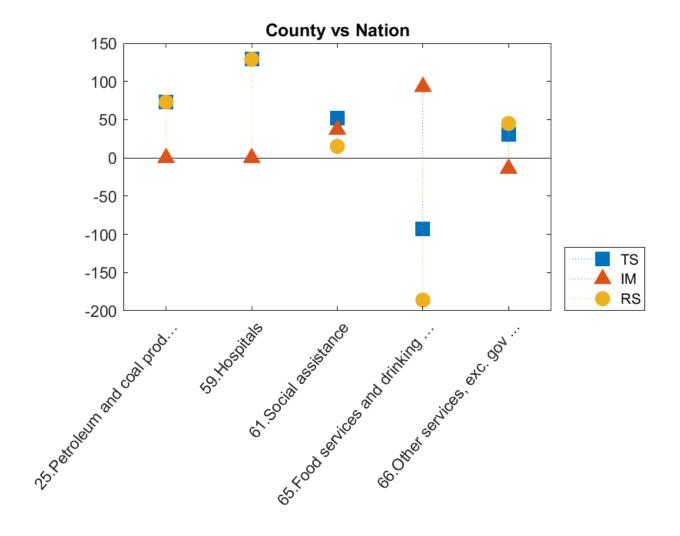
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Carter County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Carter County, Kentucky vs the U.S.

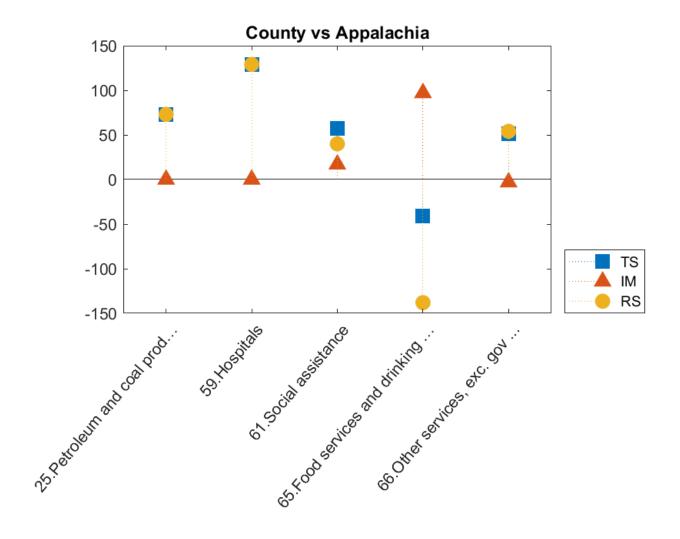


#### **Chapter 6. Carter County, Kentucky**

## Carter County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
25	Petroleum and coal prod…	0	73	0	73	73
59	Hospitals	0	129	0	129	129
61	Social assistance	6	52	37	15	113
65	Food services and drinking	55	-93	93	-186	447
66	Other services, exc. gov	20	31	-14	45	226

# Selected SSA Components for Carter County, Kentucky vs the Appalachian Region

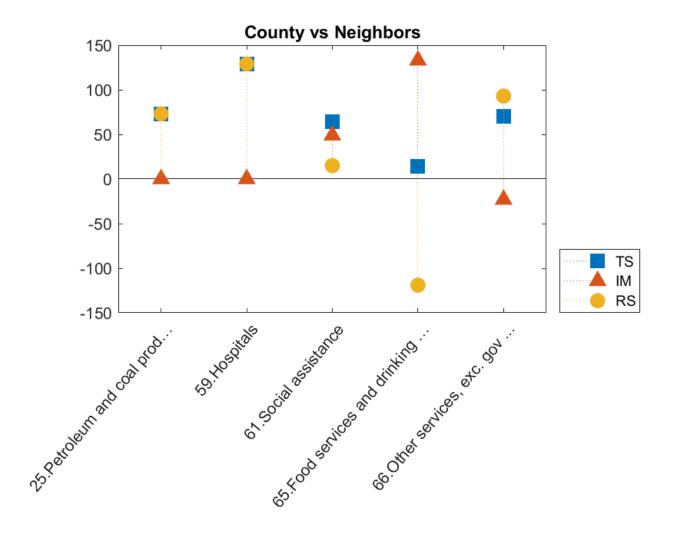


#### **Chapter 6. Carter County, Kentucky**

# Selected SSA Components for Carter County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
25	Petroleum and coal prod…	0	73	0	73	73
59	Hospitals	0	129	0	129	129
61	Social assistance	0	57	17	40	113
65	Food services and drinking	2	-41	97	-138	447
66	Other services, exc. gov	1	51	-3	54	226

### **Selected SSA Components for Carter County, Kentucky vs Neighbors**



#### **Chapter 6. Carter County, Kentucky**

# Selected SSA Components for Carter County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
25	Petroleum and coal prod…	-0	73	0	73	73
59	Hospitals	-0	129	0	129	129
61	Social assistance	-6	64	49	15	113
65	Food services and drinking	-53	14	133	-119	447
66	Other services, exc. gov	-19	70	-23	93	226

#### **Chapter 7. Casey County, Kentucky**

Employment in Casey County, Kentucky, grew from 3,693 in 2005 to 3,888 in 2018, for a change of 195, or 5.28%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Casey County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	417	-222	-21	-201
vs. Appalachia	8	181	-125	306
vs. Neighbors	-38	240	-14	254

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Casey County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Casey County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
08	Construction	FIIIciii	no	yes	yes	yes
09	Wood products	F III c iii	no	yes	yes	yes
13	Machinery	FIIIci	no	yes	yes	yes
28	Wholesale trade	FIIIci	no	yes	yes	yes
30	Food and beverage stores	FIIIci	no	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
66	Other services, exc. gov	FIIIci	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Casey County, Kentucky vs. the United States

Groups a, b, and c are from Casey County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Casey County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Casey County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Casey County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Casey County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Casey County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

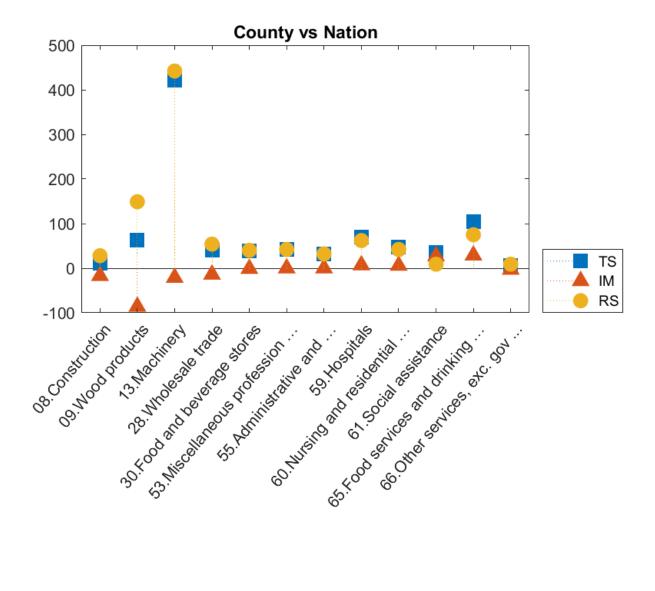
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Casey County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Casey County, Kentucky vs the U.S.

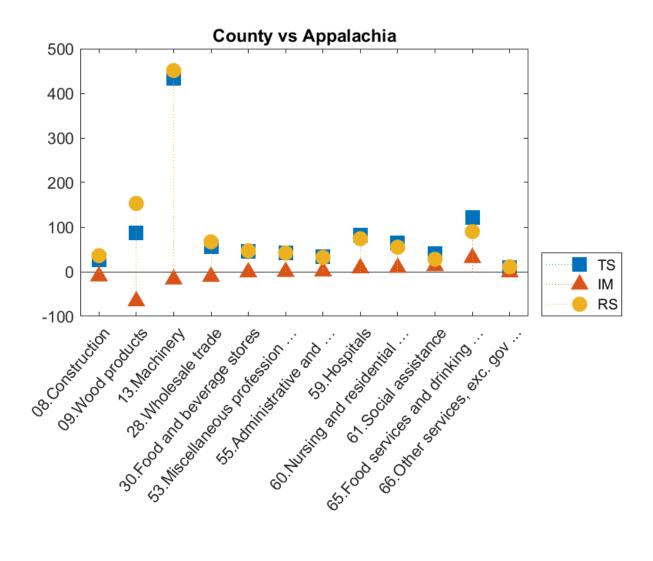


#### **Chapter 7. Casey County, Kentucky**

## Casey County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	16	11	-17	28	168
09	Wood products	25	63	-86	149	309
13	Machinery	14	421	-21	442	562
28	Wholesale trade	17	40	-14	54	203
30	Food and beverage stores	7	39	-1	40	108
53	Miscellaneous profession	0	42	0	42	43
55	Administrative and	1	32	0	32	42
59	Hospitals	14	69	7	62	202
60	Nursing and residential	16	48	6	42	209
61	Social assistance	5	36	27	9	82
65	Food services and drinking	17	104	29	75	276
66	Other services, exc. gov	4	6	-3	9	48

## Selected SSA Components for Casey County, Kentucky vs the Appalachian Region

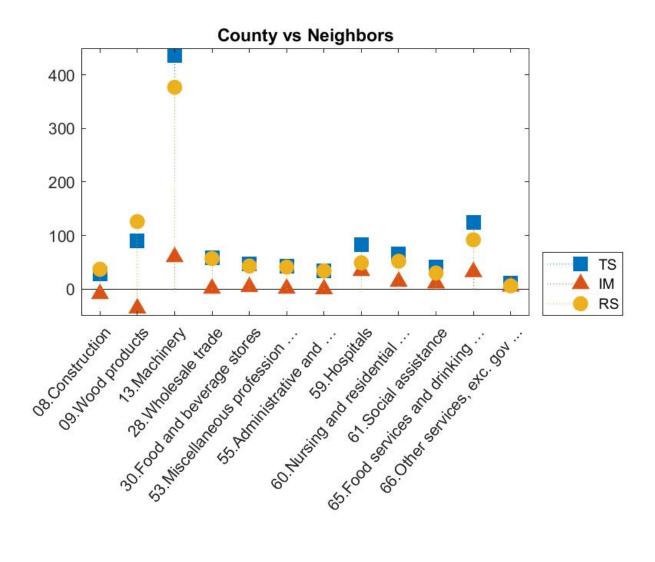


#### **Chapter 7. Casey County, Kentucky**

# Selected SSA Components for Casey County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	0	26	-10	36	168
09	Wood products	1	87	-66	153	309
13	Machinery	0	434	-17	451	562
28	Wholesale trade	0	56	-11	67	203
30	Food and beverage stores	0	46	-1	47	108
53	Miscellaneous profession	0	42	0	42	43
55	Administrative and	0	33	1	32	42
59	Hospitals	0	82	8	74	202
60	Nursing and residential	0	64	9	55	209
61	Social assistance	0	41	13	28	82
65	Food services and drinking	1	121	31	90	276
66	Other services, exc. gov	0	10	-1	11	48

### **Selected SSA Components for Casey County, Kentucky vs Neighbors**



#### **Chapter 7. Casey County, Kentucky**

# Selected SSA Components for Casey County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	-2	28	-9	37	168
09	Wood products	-2	90	-36	126	309
13	Machinery	-1	437	60	377	562
28	Wholesale trade	-2	58	1	57	203
30	Food and beverage stores	-1	47	4	43	108
53	Miscellaneous profession	-0	42	1	41	43
55	Administrative and	-0	34	-0	34	42
59	Hospitals	-1	83	34	49	202
60	Nursing and residential	-2	66	14	52	209
61	Social assistance	-0	41	11	30	82
65	Food services and drinking	-2	124	32	92	276
66	Other services, exc. gov	-0	11	5	6	48

#### **Chapter 8. Clark County, Kentucky**

Employment in Clark County, Kentucky, grew from 14,276 in 2005 to 14,751 in 2018, for a change of 475, or 3.33%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Clark County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	1,605	-1,136	-484	-652
vs. Appalachia	48	425	-15	440
vs. Neighbors	1,541	-1,071	-714	-357

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Clark County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Clark County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
10	Nonmetallic mineral prod 	F III c iii	no	yes	yes	yes
12	Fabricated metal products	F III c iii	no	yes	yes	yes
20	Food and beverage	Elciii	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
30	Food and beverage stores	FIIIci	no	yes	yes	yes
52	Computer systems design	Blai	yes	yes	yes	yes
53	Miscellaneous profession	Blaii	yes	yes	yes	yes
54	Management of companies	Albi	yes	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
58	Ambulatory health care	BIIbi	yes	yes	yes	yes
60	Nursing and residential	Ellaii	no	yes	yes	yes
61	Social assistance	BIIaii	yes	yes	yes	yes
65	Food services and drinking	BIIaii	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Clark County, Kentucky vs. the United States

Groups a, b, and c are from Clark County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Clark County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Clark County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Clark County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Clark County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Clark County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

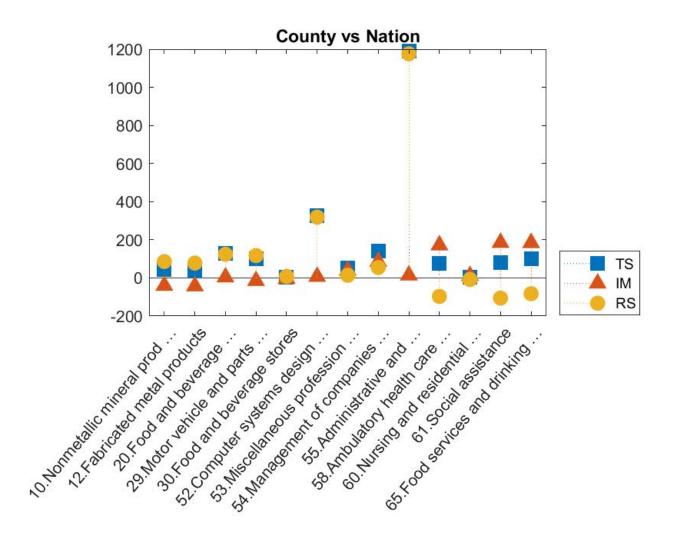
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Clark County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Clark County, Kentucky vs the U.S.

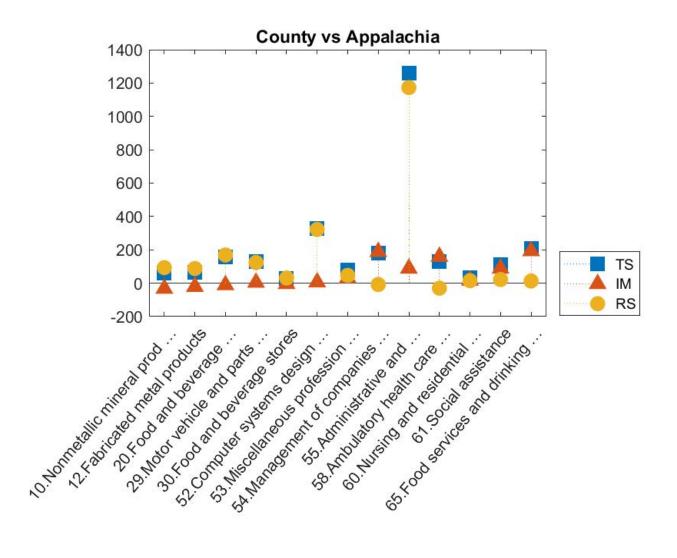


## **Clark County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	16	46	-40	86	201
12	Fabricated metal products	33	35	-43	78	362
20	Food and beverage	31	128	4	124	431
29	Motor vehicle and parts	27	102	-15	117	368
30	Food and beverage stores	23	4	-4	8	231
52	Computer systems design	1	326	7	319	339
53	Miscellaneous profession	26	53	39	14	307
54	Management of companies	41	141	86	55	549
55	Administrative and	73	1,190	14	1,176	1,909
58	Ambulatory health care	55	75	172	-97	622
60	Nursing and residential	28	3	11	-8	279
61	Social assistance	32	79	185	-106	394
65	Food services and drinking	109	101	184	-83	1,177

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## Selected SSA Components for Clark County, Kentucky vs the Appalachian Region

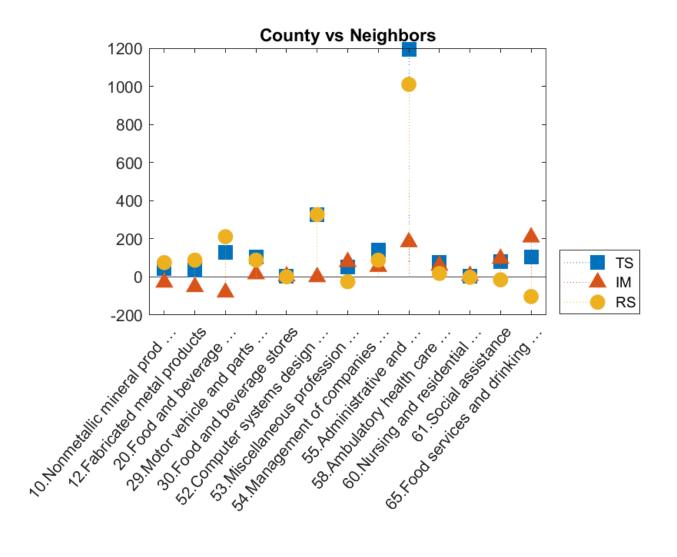


Selected SSA Components for Clark County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	0	61	-32	93	201
12	Fabricated metal products	1	67	-21	88	362
20	Food and beverage	1	158	-11	169	431
29	Motor vehicle and parts	1	128	4	124	368
30	Food and beverage stores	1	27	-4	31	231
52	Computer systems design	0	328	6	322	339
53	Miscellaneous profession	1	78	31	47	307
54	Management of companies	1	180	188	-8	549
55	Administrative and	2	1,261	88	1,173	1,909
58	Ambulatory health care	2	129	159	-30	622
60	Nursing and residential	1	31	16	15	279
61	Social assistance	1	110	88	22	394
65	Food services and drinking	3	206	193	13	1,177

. . .

# Selected SSA Components for Clark County, Kentucky vs Neighbors



# Selected SSA Components for Clark County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	15	46	-29	75	201
12	Fabricated metal products	32	36	-52	88	362
20	Food and beverage	29	130	-81	211	431
29	Motor vehicle and parts	26	103	15	88	368
30	Food and beverage stores	22	5	4	1	231
52	Computer systems design	1	327	-0	327	339
53	Miscellaneous profession	25	54	79	-25	307
54	Management of companies	40	142	54	88	549
55	Administrative and	70	1,193	183	1,010	1,909
58	Ambulatory health care	53	78	60	18	622
60	Nursing and residential	27	4	6	-2	279
61	Social assistance	31	81	96	-15	394
65	Food services and drinking	104	105	208	-103	1,177

. . .

### **Chapter 9. Clay County, Kentucky**

Employment in Clay County, Kentucky, declined from 4,604 in 2005 to 3,969 in 2018, for a change of -635, or -13.79%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Clay County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	516	-1,152	54	-1,206
vs. Appalachia	11	-651	22	-673
vs. Neighbors	-382	-260	-104	-156

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Clay County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Clay County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
12	Fabricated metal products	F III c iii	no	yes	yes	yes
14	Computer and electronic	F III c iii	no	yes	yes	yes
16	Motor vehicles, bodies	Clai	yes	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
61	Social assistance	BIIai	yes	yes	yes	yes
64	Accommodation	Alai	yes	yes	yes	yes
65	Food services and drinking	BVbii	yes	no	yes	yes
66	Other services, exc. gov	F III c iii	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Clay County, Kentucky vs. the United States

Groups a, b, and c are from Clay County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Clay County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Clay County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Clay County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Clay County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Clay County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

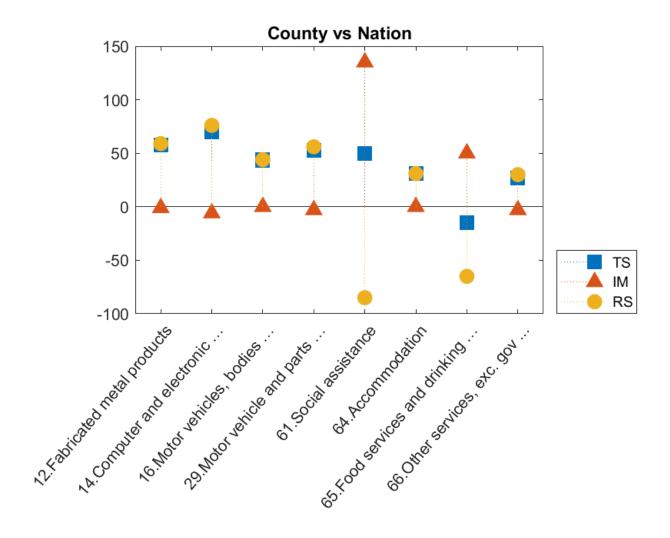
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Clay County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

# Selected SSA Components for Clay County, Kentucky vs the U.S.

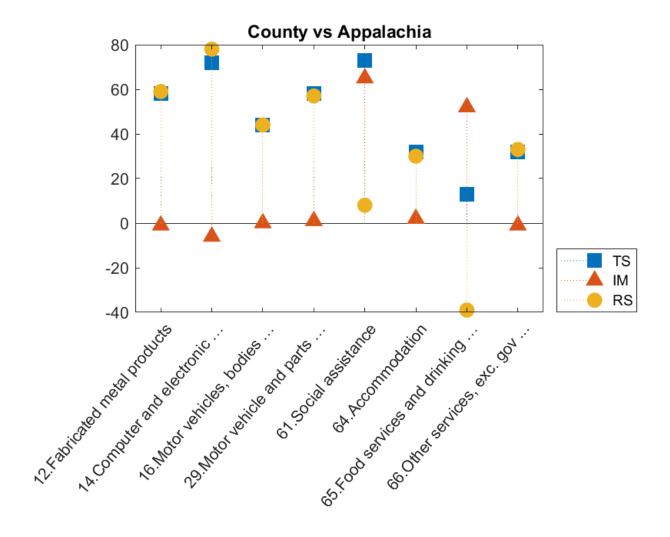


### **Chapter 9. Clay County, Kentucky**

# Clay County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	1	58	-1	59	68
14	Computer and electronic	2	70	-6	76	93
16	Motor vehicles, bodies	0	44	0	44	44
29	Motor vehicle and parts	5	53	-3	56	101
61	Social assistance	23	50	135	-85	280
64	Accommodation	1	31	0	31	45
65	Food services and drinking	29	-15	50	-65	274
66	Other services, exc. gov	5	27	-3	30	77

# Selected SSA Components for Clay County, Kentucky vs the Appalachian Region

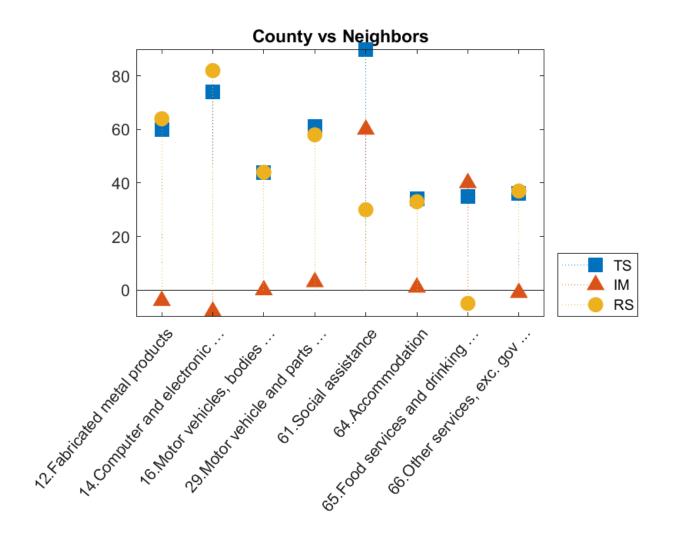


### **Chapter 9. Clay County, Kentucky**

# Selected SSA Components for Clay County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	0	58	-1	59	68
14	Computer and electronic	0	72	-6	78	93
16	Motor vehicles, bodies	0	44	0	44	44
29	Motor vehicle and parts	0	58	1	57	101
61	Social assistance	1	73	65	8	280
64	Accommodation	0	32	2	30	45
65	Food services and drinking	1	13	52	-39	274
66	Other services, exc. gov	0	32	-1	33	77

# **Selected SSA Components for Clay County, Kentucky vs Neighbors**



### **Chapter 9. Clay County, Kentucky**

# Selected SSA Components for Clay County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	-1	60	-4	64	68
14	Computer and electronic	-2	74	-8	82	93
16	Motor vehicles, bodies	-0	44	0	44	44
29	Motor vehicle and parts	-4	61	3	58	101
61	Social assistance	-17	90	60	30	280
64	Accommodation	-1	34	1	33	45
65	Food services and drinking	-21	35	40	-5	274
66	Other services, exc. gov	-4	36	-1	37	77

### **Chapter 10. Clinton County, Kentucky**

Employment in Clinton County, Kentucky, declined from 3,977 in 2005 to 3,851 in 2018, for a change of -126, or -3.17%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Clinton County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	449	-573	82	-655
vs. Appalachia	10	-142	24	-166
vs. Neighbors	-357	228	82	146

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Clinton County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Clinton County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
13	Machinery	Flai	no	yes	yes	yes
26	Chemical products	FIIIcii	no	yes	yes	yes
28	Wholesale trade	FIIIci	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
31	General merchandise 	FIIIci	no	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
63	Amusements, gambling,	Blai	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Clinton County, Kentucky vs. the United States

Groups a, b, and c are from Clinton County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Clinton County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Clinton County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Clinton County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Clinton County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Clinton County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

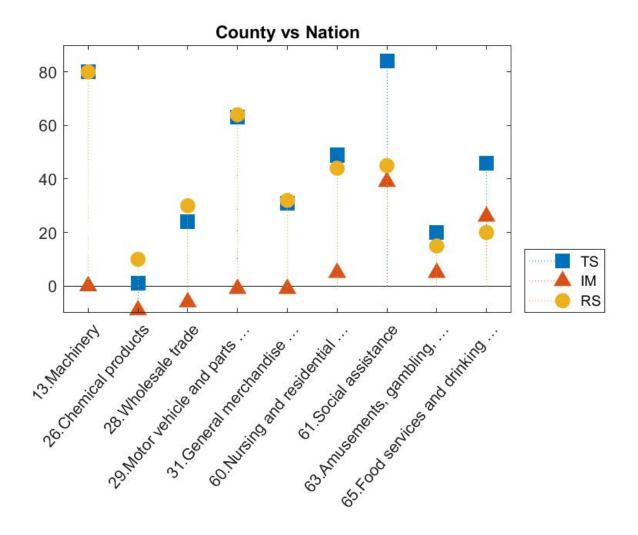
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Clinton County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

# Selected SSA Components for Clinton County, Kentucky vs the U.S.

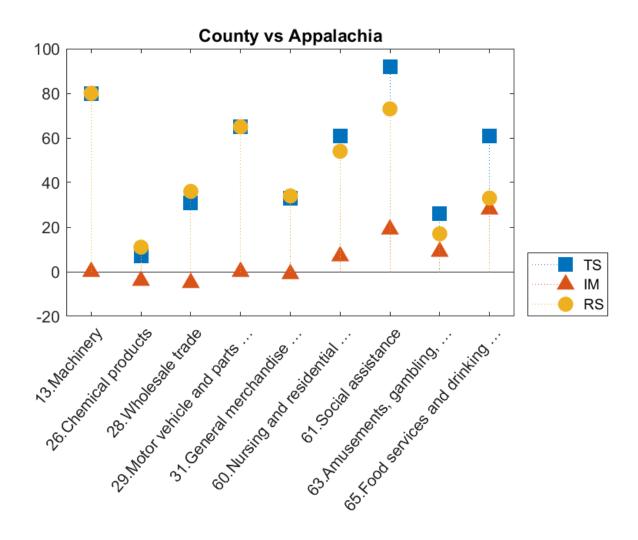


### **Chapter 10. Clinton County, Kentucky**

# **Clinton County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	0	80	0	80	80
26	Chemical products	7	1	-9	10	65
28	Wholesale trade	8	24	-6	30	99
29	Motor vehicle and parts	2	63	-1	64	83
31	General merchandise 	2	31	-1	32	53
60	Nursing and residential	13	49	5	44	178
61	Social assistance	7	84	39	45	151
63	Amusements, gambling,	7	20	5	15	88
65	Food services and drinking	16	46	26	20	199

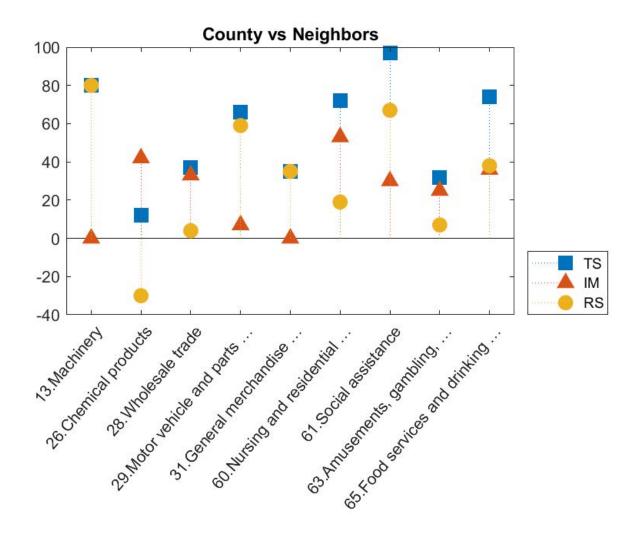
# Selected SSA Components for Clinton County, Kentucky vs the Appalachian Region



# Selected SSA Components for Clinton County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	0	80	0	80	80
26	Chemical products	0	7	-4	11	65
28	Wholesale trade	0	31	-5	36	99
29	Motor vehicle and parts	0	65	0	65	83
31	General merchandise 	0	33	-1	34	53
60	Nursing and residential	0	61	7	54	178
61	Social assistance	0	92	19	73	151
63	Amusements, gambling,	0	26	9	17	88
65	Food services and drinking	0	61	28	33	199

# Selected SSA Components for Clinton County, Kentucky vs Neighbors



### **Chapter 10. Clinton County, Kentucky**

# Selected SSA Components for Clinton County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	-0	80	0	80	80
26	Chemical products	-5	12	42	-30	65
28	Wholesale trade	-6	37	33	4	99
29	Motor vehicle and parts	-2	66	7	59	83
31	General merchandise 	-2	35	-0	35	53
60	Nursing and residential	-10	72	53	19	178
61	Social assistance	-5	97	30	67	151
63	Amusements, gambling,	-5	32	25	7	88
65	Food services and drinking	-12	74	36	38	199

### **Chapter 11. Cumberland County, Kentucky**

Employment in Cumberland County, Kentucky, grew from 1,705 in 2005 to 1,865 in 2018, for a change of 160, or 9.38%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Cumberland County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	190	-29	-6	-23
vs. Appalachia	1	153	21	132
vs. Neighbors	-110	268	-57	325

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Cumberland County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Cumberland County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
09	Wood products	F III c iii	no	yes	yes	yes
16	Motor vehicles, bodies	C III a iii	yes	yes	yes	yes
18	Furniture and related	Flai	no	yes	yes	yes
36	Truck transportation	Flciii	no	yes	yes	yes
39	Other transportation	Elai	no	yes	yes	yes
58	Ambulatory health care 	Blai	yes	yes	yes	yes
59	Hospitals	Elaiii	no	yes	yes	yes
60	Nursing and residential	Elaii	no	yes	yes	yes
61	Social assistance	BIIbii	yes	yes	yes	yes
63	Amusements, gambling,	Blai	yes	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Cumberland County, Kentucky vs. the United States

Groups a, b, and c are from Cumberland County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Cumberland County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Cumberland County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Cumberland County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Cumberland County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Cumberland County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

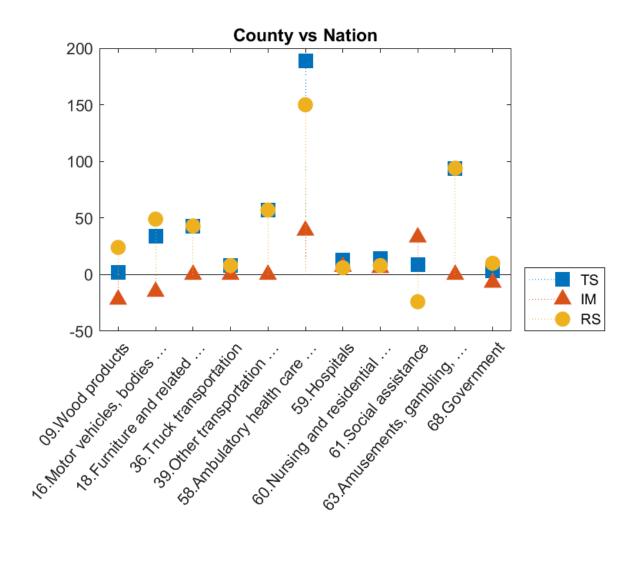
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Cumberland County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

# Selected SSA Components for Cumberland County, Kentucky vs the U.S.

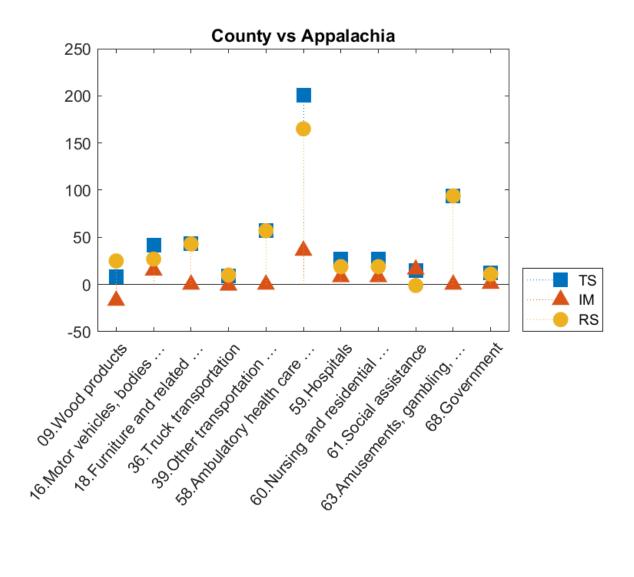


### **Chapter 11. Cumberland County, Kentucky**

# **Cumberland County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	6	2	-22	24	64
16	Motor vehicles, bodies	9	34	-15	49	118
18	Furniture and related	0	43	0	43	43
36	Truck transportation	1	8	-0	8	22
39	Other transportation 	0	57	0	57	57
58	Ambulatory health care 	13	189	39	150	313
59	Hospitals	14	13	7	6	152
60	Nursing and residential	14	14	6	8	152
61	Social assistance	6	9	33	-24	64
63	Amusements, gambling,	0	94	0	94	94
68	Government	10	3	-7	10	103

# Selected SSA Components for Cumberland County, Kentucky vs the Appalachian Region

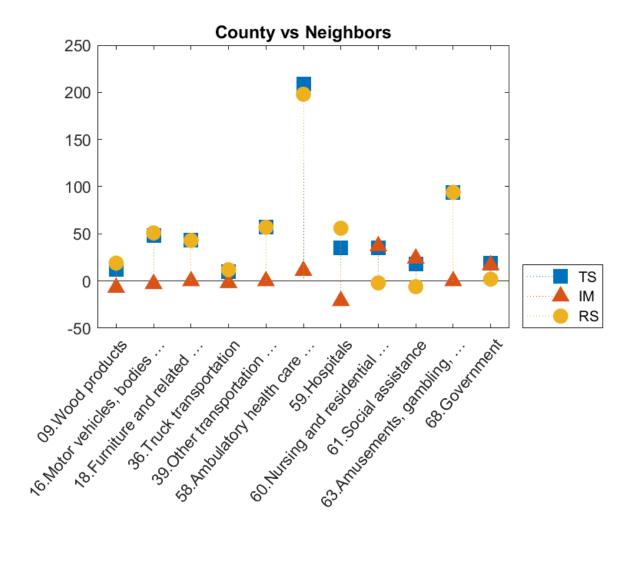


### **Chapter 11. Cumberland County, Kentucky**

# Selected SSA Components for Cumberland County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	0	8	-17	25	64
16	Motor vehicles, bodies	0	42	15	27	118
18	Furniture and related	0	43	0	43	43
36	Truck transportation	0	9	-1	10	22
39	Other transportation 	0	57	0	57	57
58	Ambulatory health care 	0	201	36	165	313
59	Hospitals	0	27	8	19	152
60	Nursing and residential	0	27	8	19	152
61	Social assistance	0	15	16	-1	64
63	Amusements, gambling,	0	94	0	94	94
68	Government	0	12	1	11	103

# Selected SSA Components for Cumberland County, Kentucky vs Neighbors



### **Chapter 11. Cumberland County, Kentucky**

# Selected SSA Components for Cumberland County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	-4	12	-7	19	64
16	Motor vehicles, bodies	-5	48	-3	51	118
18	Furniture and related	-0	43	0	43	43
36	Truck transportation	-1	10	-2	12	22
39	Other transportation	-0	57	0	57	57
58	Ambulatory health care 	-7	209	11	198	313
59	Hospitals	-8	35	-21	56	152
60	Nursing and residential	-8	35	37	-2	152
61	Social assistance	-3	18	24	-6	64
63	Amusements, gambling,	-0	94	0	94	94
68	Government	-6	19	17	2	103

### **Chapter 12. Edmonson County, Kentucky**

Employment in Edmonson County, Kentucky, declined from 1,631 in 2005 to 1,588 in 2018, for a change of -43, or -2.64%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Edmonson County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	181	-221	110	-331
vs. Appalachia	3	-49	105	-154
vs. Neighbors	135	-180	-22	-158

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Edmonson County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Edmonson County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
07	Utilities	FIIIci	no	yes	yes	yes
08	Construction	F III c iii	no	yes	yes	yes
16	Motor vehicles, bodies	CIII a i	yes	yes	yes	yes
26	Chemical products	Flai	no	yes	yes	yes
28	Wholesale trade	FIIIci	no	yes	yes	yes
32	Other retail	F III c iii	no	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
63	Amusements, gambling,	Blai	yes	yes	yes	yes
64	Accommodation	Alai	yes	yes	yes	yes
66	Other services, exc. gov	FIIIai	no	yes	yes	yes
68	Government	F III a iii	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Edmonson County, Kentucky vs. the United States

Groups a, b, and c are from Edmonson County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Edmonson County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Edmonson County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Edmonson County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Edmonson County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Edmonson County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

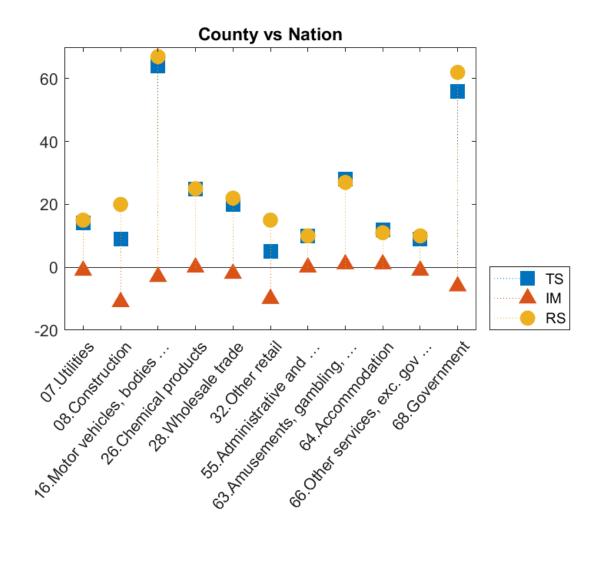
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Edmonson County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

# Selected SSA Components for Edmonson County, Kentucky vs the U.S.

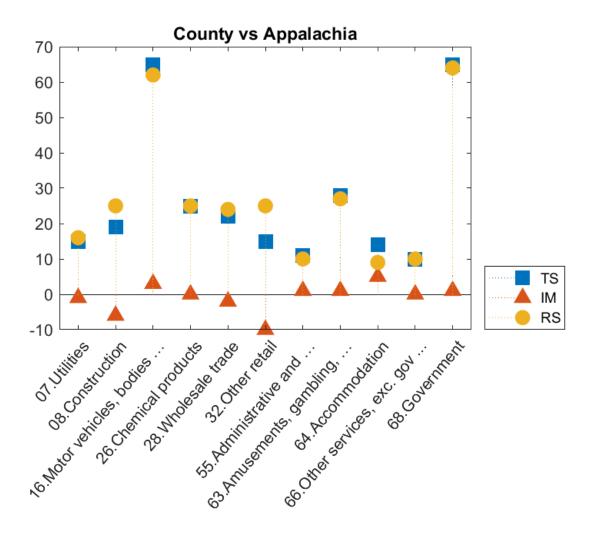


### Chapter 12. Edmonson County, Kentucky

# **Edmonson County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	1	14	-1	15	27
80	Construction	10	9	-11	20	106
16	Motor vehicles, bodies	2	64	-3	67	82
26	Chemical products	0	25	0	25	25
28	Wholesale trade	3	20	-2	22	46
32	Other retail	10	5	-10	15	105
55	Administrative and	1	10	0	10	21
63	Amusements, gambling,	1	28	1	27	35
64	Accommodation	3	12	1	11	42
66	Other services, exc. gov	2	9	-1	10	28
68	Government	9	56	-6	62	145

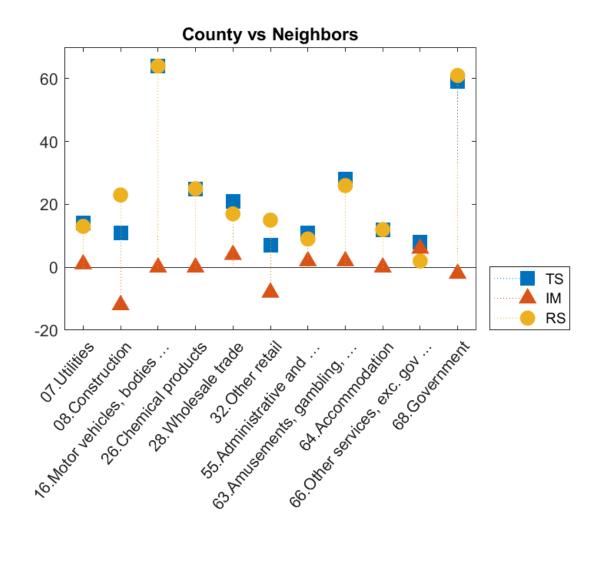
# Selected SSA Components for Edmonson County, Kentucky vs the Appalachian Region



# Selected SSA Components for Edmonson County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	0	15	-1	16	27
80	Construction	0	19	-6	25	106
16	Motor vehicles, bodies	0	65	3	62	82
26	Chemical products	0	25	0	25	25
28	Wholesale trade	0	22	-2	24	46
32	Other retail	0	15	-10	25	105
55	Administrative and	0	11	1	10	21
63	Amusements, gambling,	0	28	1	27	35
64	Accommodation	0	14	5	9	42
66	Other services, exc. gov	0	10	-0	10	28
68	Government	0	65	1	64	145

### Selected SSA Components for Edmonson County, Kentucky vs Neighbors



#### **Chapter 12. Edmonson County, Kentucky**

## Selected SSA Components for Edmonson County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	1	14	1	13	27
08	Construction	7	11	-12	23	106
16	Motor vehicles, bodies	1	64	0	64	82
26	Chemical products	0	25	0	25	25
28	Wholesale trade	2	21	4	17	46
32	Other retail	8	7	-8	15	105
55	Administrative and	1	11	2	9	21
63	Amusements, gambling,	1	28	2	26	35
64	Accommodation	2	12	0	12	42
66	Other services, exc. gov	1	8	6	2	28
68	Government	7	59	-2	61	145

#### **Chapter 13. Elliott County, Kentucky**

Employment in Elliott County, Kentucky, grew from 824 in 2005 to 916 in 2018, for a change of 92, or 11.17%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Elliott County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	91	2	17	-15
vs. Appalachia	2	92	36	56
vs. Neighbors	-40	133	36	97

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Elliott County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Elliott County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
31	General merchandise 	FIIIai	no	yes	yes	yes
54	Management of companies	Alai	yes	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
61	Social assistance	BVbii	yes	no	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Elliott County, Kentucky vs. the United States

Groups a, b, and c are from Elliott County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Elliott County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Elliott County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Elliott County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Elliott County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Elliott County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

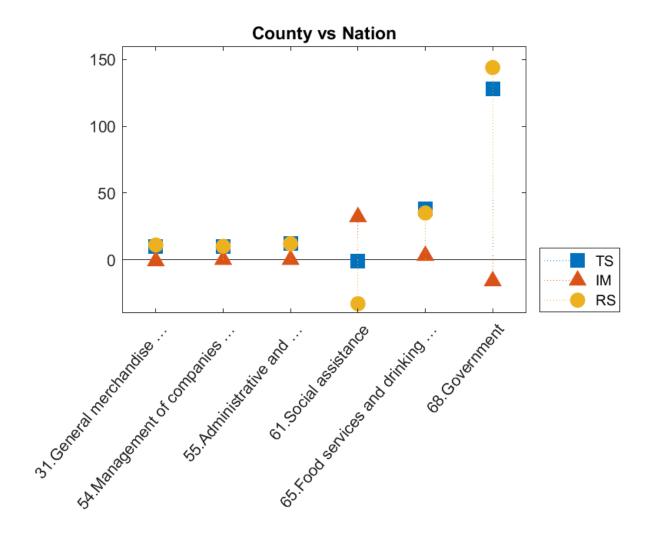
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Elliott County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Elliott County, Kentucky vs the U.S.

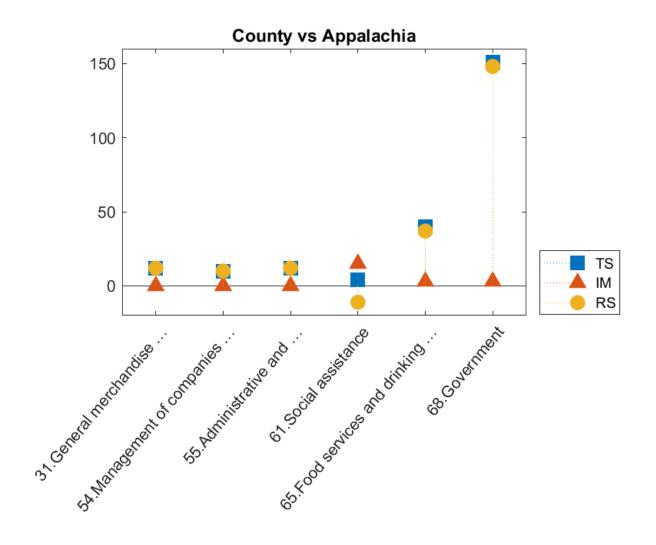


#### **Chapter 13. Elliott County, Kentucky**

## Elliott County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
31	General merchandise 	1	10	-1	11	25
54	Management of companies	0	10	0	10	10
55	Administrative and	0	12	0	12	12
61	Social assistance	5	-1	32	-33	52
65	Food services and drinking	2	38	3	35	57
68	Government	23	128	-16	144	356

## Selected SSA Components for Elliott County, Kentucky vs the Appalachian Region

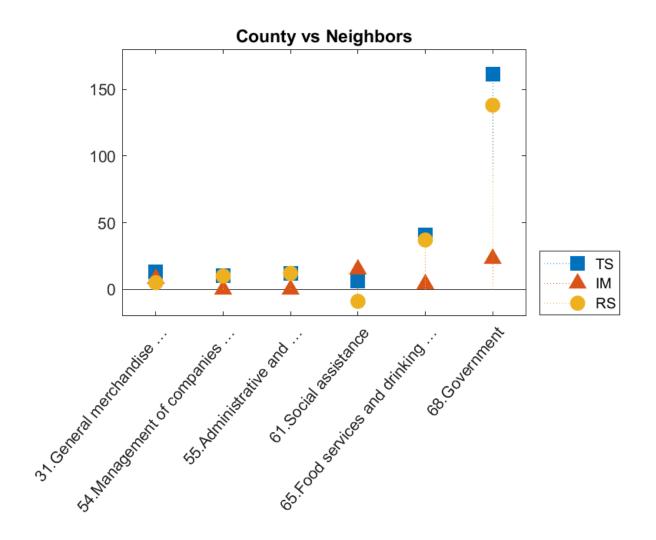


### **Chapter 13. Elliott County, Kentucky**

# Selected SSA Components for Elliott County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
31	General merchandise 	0	12	-0	12	25
54	Management of companies	0	10	0	10	10
55	Administrative and	0	12	0	12	12
61	Social assistance	0	4	15	-11	52
65	Food services and drinking	0	40	3	37	57
68	Government	1	151	3	148	356

### **Selected SSA Components for Elliott County, Kentucky vs Neighbors**



#### **Chapter 13. Elliott County, Kentucky**

## Selected SSA Components for Elliott County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
31	General merchandise 	-1	13	8	5	25
54	Management of companies	-0	10	0	10	10
55	Administrative and	-0	12	0	12	12
61	Social assistance	-2	6	15	-9	52
65	Food services and drinking	-1	41	4	37	57
68	Government	-10	161	23	138	356

#### **Chapter 14. Estill County, Kentucky**

Employment in Estill County, Kentucky, declined from 2,458 in 2005 to 2,346 in 2018, for a change of -112, or -4.56%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Estill County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	275	-391	-81	-310
vs. Appalachia	5	-121	-72	-49
vs. Neighbors	132	-248	-89	-159

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Estill County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Estill County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
53	Miscellaneous profession	Blaii	yes	yes	yes	yes
56	Waste management and	Alai	yes	yes	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
63	Amusements, gambling,	Blaiii	yes	yes	yes	yes
65	Food services and drinking	BIIbii	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Estill County, Kentucky vs. the United States

Groups a, b, and c are from Estill County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Estill County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Estill County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Estill County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Estill County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Estill County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

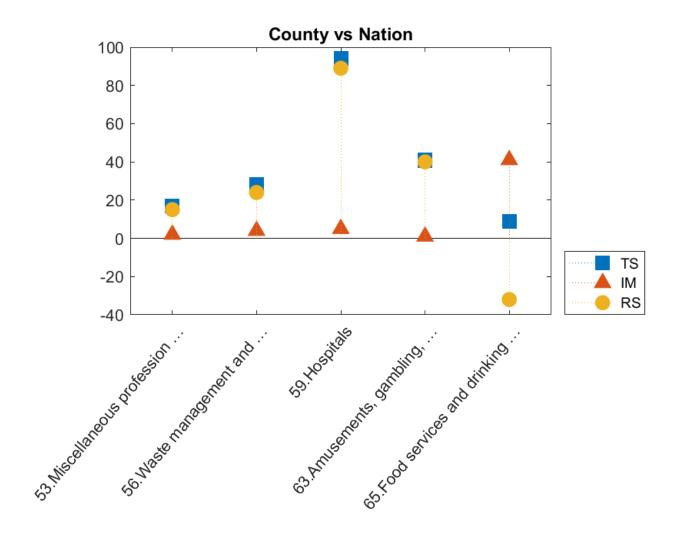
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Estill County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Estill County, Kentucky vs the U.S.



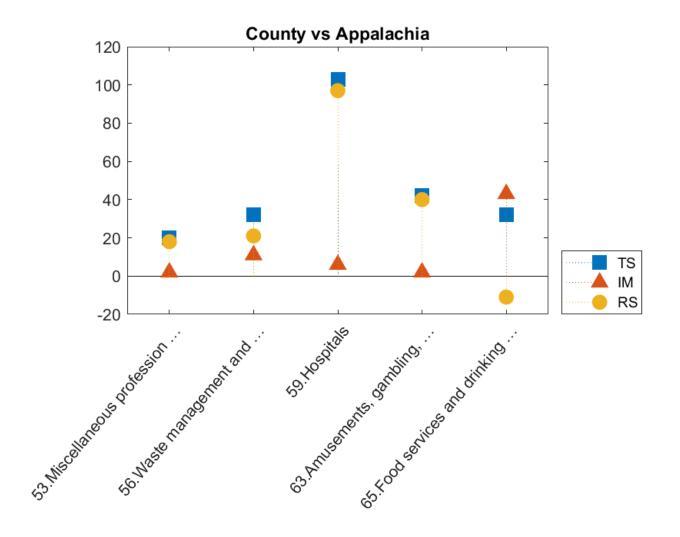
#### Chapter 14. Estill County, Kentucky

## Estill County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
53	Miscellaneous profession	2	17	2	15	34
56	Waste management and	4	28	4	24	71
59	Hospitals	10	94	5	89	194
63	Amusements, gambling,	1	41	1	40	54
65	Food services and drinking	24	9	41	-32	247

. . .

## Selected SSA Components for Estill County, Kentucky vs the Appalachian Region

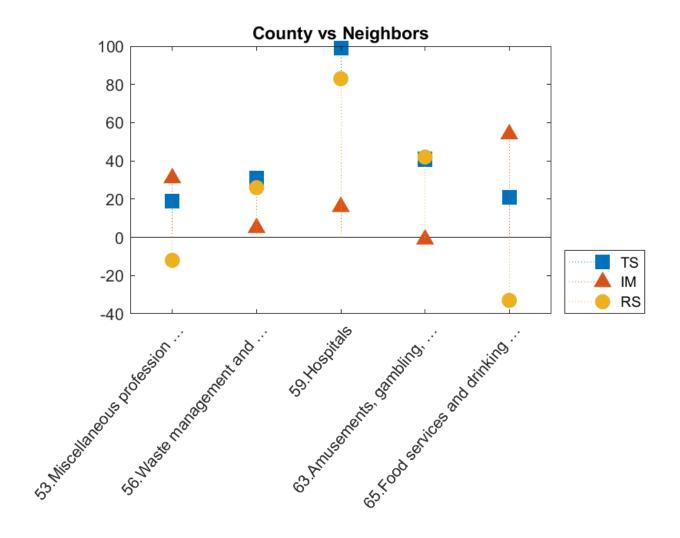


# Selected SSA Components for Estill County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
53	Miscellaneous profession	0	20	2	18	34
56	Waste management and	0	32	11	21	71
59	Hospitals	0	103	6	97	194
63	Amusements, gambling,	0	42	2	40	54
65	Food services and drinking	1	32	43	-11	247

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### Selected SSA Components for Estill County, Kentucky vs Neighbors



## Selected SSA Components for Estill County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
53	Miscellaneous profession	1	19	31	-12	34
56	Waste management and	2	31	5	26	71
59	Hospitals	5	99	16	83	194
63	Amusements, gambling,	1	41	-1	42	54
65	Food services and drinking	12	21	54	-33	247

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#### **Chapter 15. Fleming County, Kentucky**

Employment in Fleming County, Kentucky, declined from 3,651 in 2005 to 3,011 in 2018, for a change of -640, or -17.53%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Fleming County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	408	-1,048	-80	-968
vs. Appalachia	11	-651	37	-688
vs. Neighbors	-255	-391	-70	-321

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Fleming County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Fleming County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
11	Primary metals	Flai	no	yes	yes	yes
12	Fabricated metal products	Flai	no	yes	yes	yes
20	Food and beverage	Elciii	no	yes	yes	yes
31	General merchandise 	FIIIci	no	yes	yes	yes
45	Federal Reserve banks,	FIIIci	no	yes	yes	yes
58	Ambulatory health care 	Bllbi	yes	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
61	Social assistance	B V e ii	yes	no	no	yes
65	Food services and drinking	Blai	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Fleming County, Kentucky vs. the United States

Groups a, b, and c are from Fleming County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Fleming County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Fleming County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Fleming County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Fleming County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Fleming County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

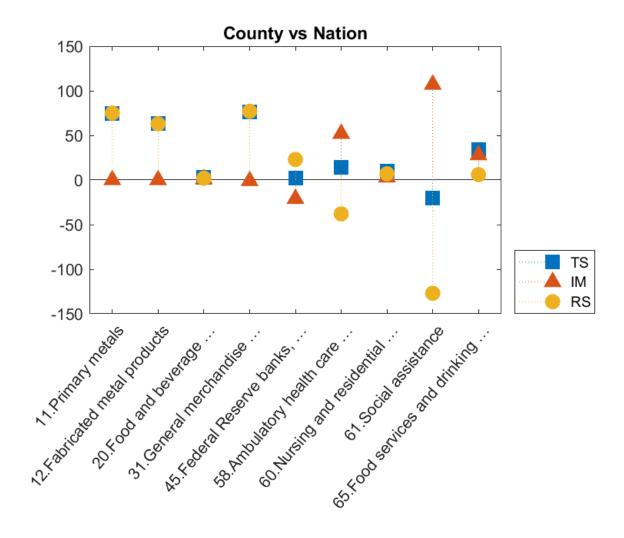
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Fleming County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Fleming County, Kentucky vs the U.S.

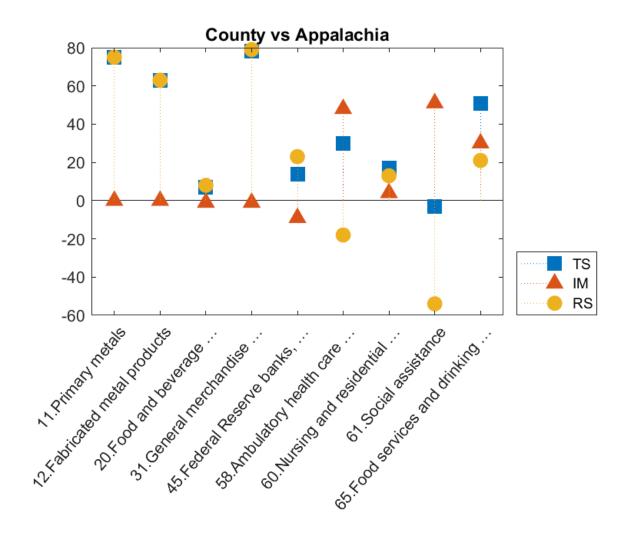


#### **Chapter 15. Fleming County, Kentucky**

## Fleming County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	0	75	0	75	75
12	Fabricated metal products	0	63	0	63	63
20	Food and beverage	4	3	1	2	40
31	General merchandise 	2	76	-1	77	98
45	Federal Reserve banks,	12	2	-21	23	120
58	Ambulatory health care 	17	14	52	-38	178
60	Nursing and residential	7	10	3	7	79
61	Social assistance	18	-20	107	-127	161
65	Food services and drinking	17	34	28	6	200

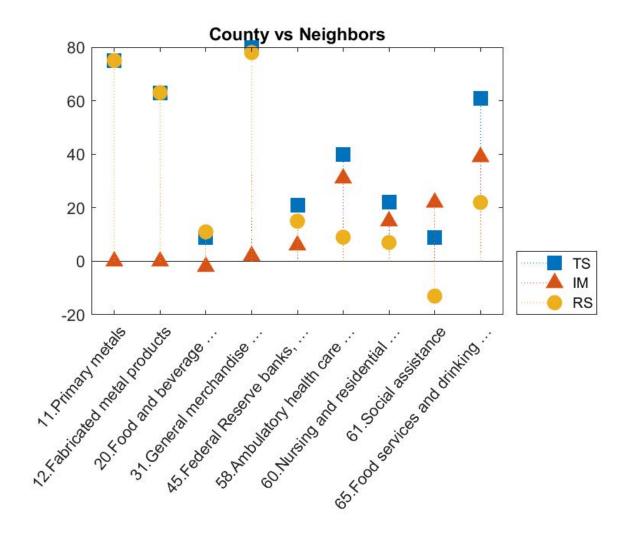
## Selected SSA Components for Fleming County, Kentucky vs the Appalachian Region



# Selected SSA Components for Fleming County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	0	75	0	75	75
12	Fabricated metal products	0	63	0	63	63
20	Food and beverage	0	7	-1	8	40
31	General merchandise 	0	78	-1	79	98
45	Federal Reserve banks,	0	14	-9	23	120
58	Ambulatory health care 	1	30	48	-18	178
60	Nursing and residential	0	17	4	13	79
61	Social assistance	1	-3	51	-54	161
65	Food services and drinking	1	51	30	21	200

### **Selected SSA Components for Fleming County, Kentucky vs Neighbors**



#### **Chapter 15. Fleming County, Kentucky**

## Selected SSA Components for Fleming County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	-0	75	0	75	75
12	Fabricated metal products	-0	63	0	63	63
20	Food and beverage	-2	9	-2	11	40
31	General merchandise 	-1	80	2	78	98
45	Federal Reserve banks,	-7	21	6	15	120
58	Ambulatory health care 	-10	40	31	9	178
60	Nursing and residential	-4	22	15	7	79
61	Social assistance	-11	9	22	-13	161
65	Food services and drinking	-10	61	39	22	200

#### **Chapter 16. Floyd County, Kentucky**

Employment in Floyd County, Kentucky, declined from 12,739 in 2005 to 10,414 in 2018, for a change of -2,325, or -18.25%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Floyd County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	1,439	-3,763	-28	-3,735
vs. Appalachia	40	-2,368	180	-2,548
vs. Neighbors	-2,753	430	934	-504

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Floyd County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Floyd County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
43	Broadcasting and telecom	FIIIci	no	yes	yes	yes
55	Administrative and	Alaiii	yes	yes	yes	yes
58	Ambulatory health care	BIIbi	yes	yes	yes	yes
61	Social assistance	BIIbii	yes	yes	yes	yes
65	Food services and drinking	BVbii	yes	no	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Floyd County, Kentucky vs. the United States

Groups a, b, and c are from Floyd County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Floyd County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Floyd County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Floyd County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Floyd County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Floyd County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

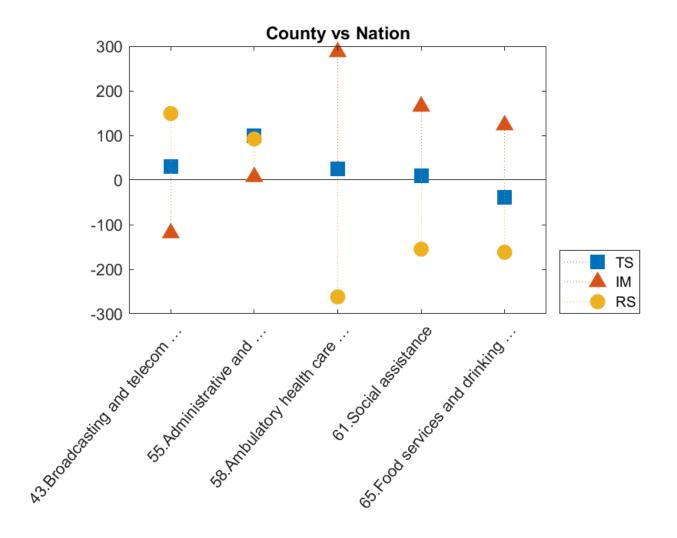
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Floyd County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Floyd County, Kentucky vs the U.S.

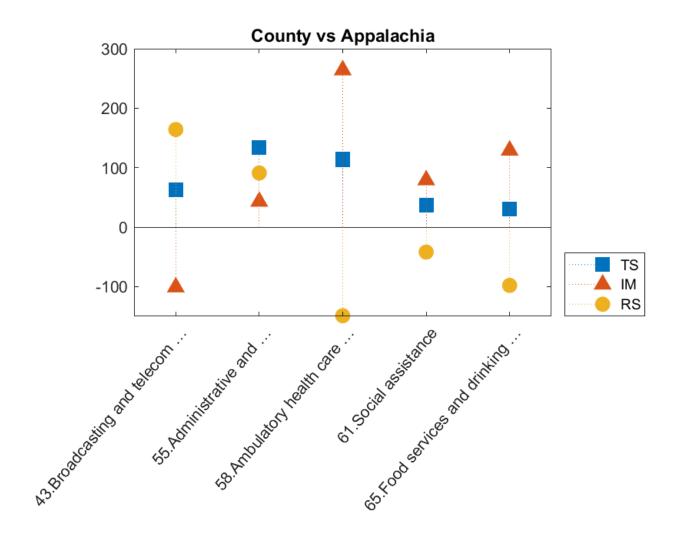


## Floyd County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
43	Broadcasting and telecom	34	30	-119	149	366
55	Administrative and	36	99	7	92	453
58	Ambulatory health care	92	25	287	-262	937
61	Social assistance	28	10	165	-155	289
65	Food services and drinking	73	-39	123	-162	677

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## Selected SSA Components for Floyd County, Kentucky vs the Appalachian Region

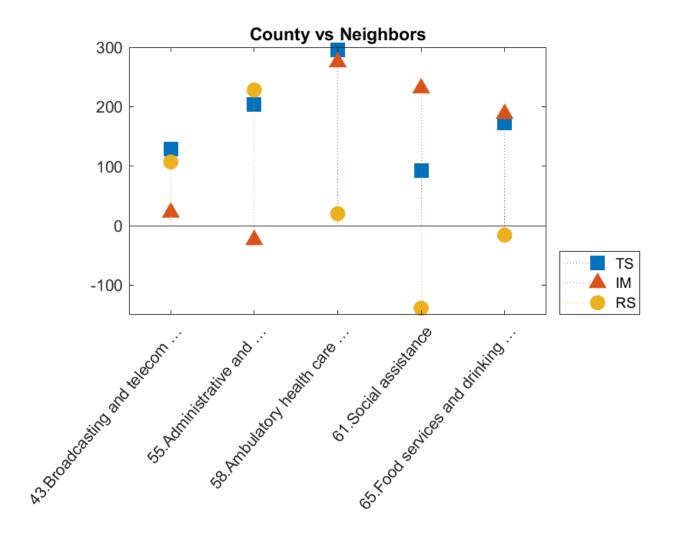


# Selected SSA Components for Floyd County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
43	Broadcasting and telecom	1	63	-101	164	366
55	Administrative and	1	134	43	91	453
58	Ambulatory health care	3	115	264	-149	937
61	Social assistance	1	37	79	-42	289
65	Food services and drinking	2	31	129	-98	677

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## Selected SSA Components for Floyd County, Kentucky vs Neighbors



## Selected SSA Components for Floyd County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
43	Broadcasting and telecom	-65	129	22	107	366
55	Administrative and	-69	204	-24	228	453
58	Ambulatory health care	-177	295	275	20	937
61	Social assistance	-54	92	231	-139	289
65	Food services and drinking	-139	172	188	-16	677

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### **Chapter 17. Garrard County, Kentucky**

Employment in Garrard County, Kentucky, declined from 2,240 in 2005 to 2,162 in 2018, for a change of -78, or -3.48%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Garrard County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	252	-328	-29	-299
vs. Appalachia	4	-87	-29	-58
vs. Neighbors	69	-152	-122	-30

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Garrard County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Garrard County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
16	Motor vehicles, bodies	Clai	yes	yes	yes	yes
30	Food and beverage stores	FIIIci	no	yes	yes	yes
44	Data processing, internet	Elai	no	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
55	Administrative and	Alaiii	yes	yes	yes	yes
58	Ambulatory health care	BIIbii	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
66	Other services, exc. gov	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Garrard County, Kentucky vs. the United States

Groups a, b, and c are from Garrard County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Garrard County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Garrard County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Garrard County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Garrard County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Garrard County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

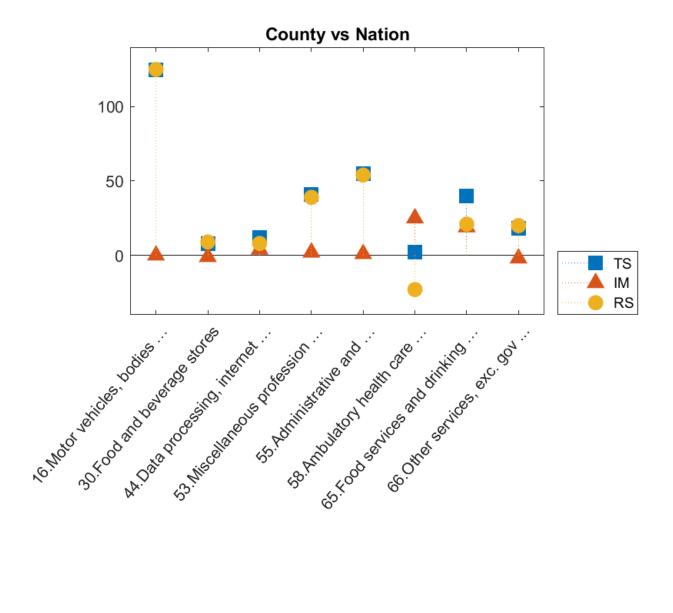
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Garrard County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Garrard County, Kentucky vs the U.S.

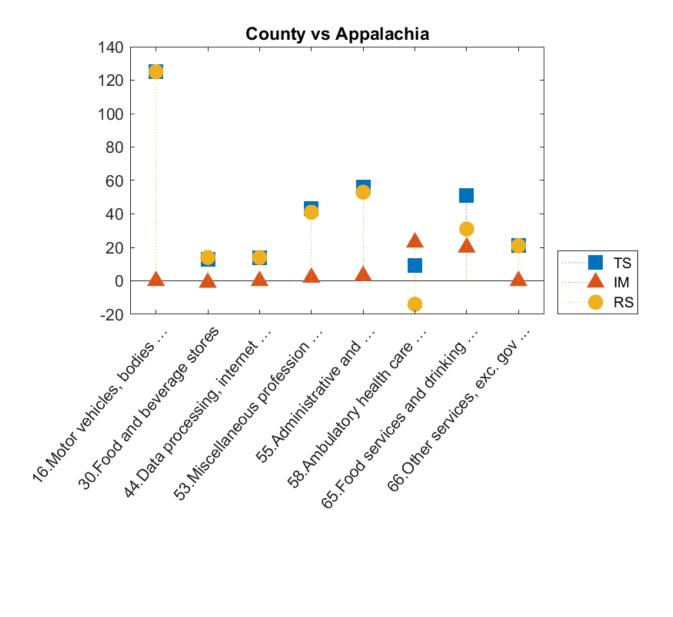


### **Chapter 17. Garrard County, Kentucky**

# **Garrard County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	тѕ	IM	RS	Employment 2018
16	Motor vehicles, bodies	0	125	0	125	125
30	Food and beverage stores	4	8	-1	9	51
44	Data processing, internet	1	12	4	8	23
53	Miscellaneous profession	1	41	2	39	54
55	Administrative and	3	55	1	54	82
58	Ambulatory health care	8	2	25	-23	79
65	Food services and drinking	11	40	19	21	150
66	Other services, exc. gov	3	18	-2	20	45

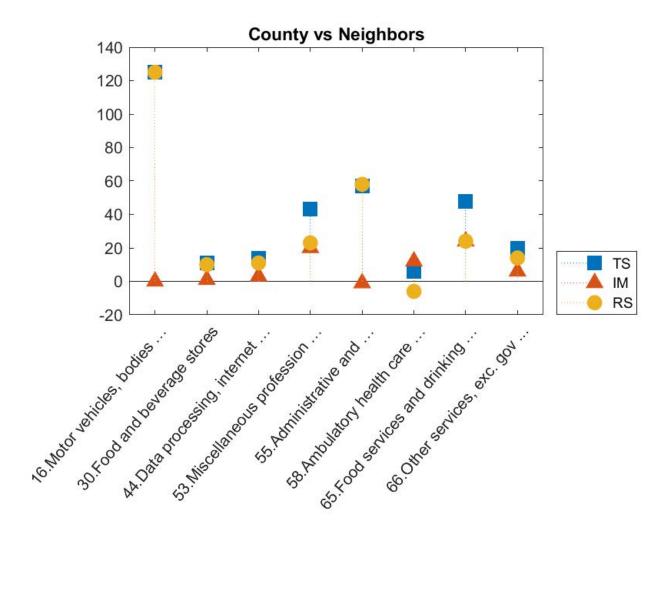
# Selected SSA Components for Garrard County, Kentucky vs the Appalachian Region



# Selected SSA Components for Garrard County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies	0	125	0	125	125
30	Food and beverage stores	0	13	-1	14	51
44	Data processing, internet	0	14	-0	14	23
53	Miscellaneous profession	0	43	2	41	54
55	Administrative and	0	56	3	53	82
58	Ambulatory health care	0	9	23	-14	79
65	Food services and drinking	0	51	20	31	150
66	Other services, exc. gov	0	21	-0	21	45

## **Selected SSA Components for Garrard County, Kentucky vs Neighbors**



### **Chapter 17. Garrard County, Kentucky**

# Selected SSA Components for Garrard County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies	0	125	0	125	125
30	Food and beverage stores	1	11	1	10	51
44	Data processing, internet	0	14	3	11	23
53	Miscellaneous profession	0	43	20	23	54
55	Administrative and	1	57	-1	58	82
58	Ambulatory health care	2	6	12	-6	79
65	Food services and drinking	3	48	24	24	150
66	Other services, exc. gov	1	20	6	14	45

### **Chapter 18. Green County, Kentucky**

Employment in Green County, Kentucky, declined from 2,026 in 2005 to 1,699 in 2018, for a change of 327, or -16.14%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Green County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	228	-552	5	-557
vs. Appalachia	4	-334	33	-367
vs. Neighbors	37	-371	55	-426

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Green County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Green County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
80	Construction	FIIIci	no	yes	yes	yes
12	Fabricated metal products	F III c iii	no	yes	yes	yes
28	Wholesale trade	FIIIci	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
65	Food services and drinking	BVbii	yes	no	yes	yes

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#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Green County, Kentucky vs. the United States

Groups a, b, and c are from Green County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Green County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Green County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Green County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Green County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Green County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

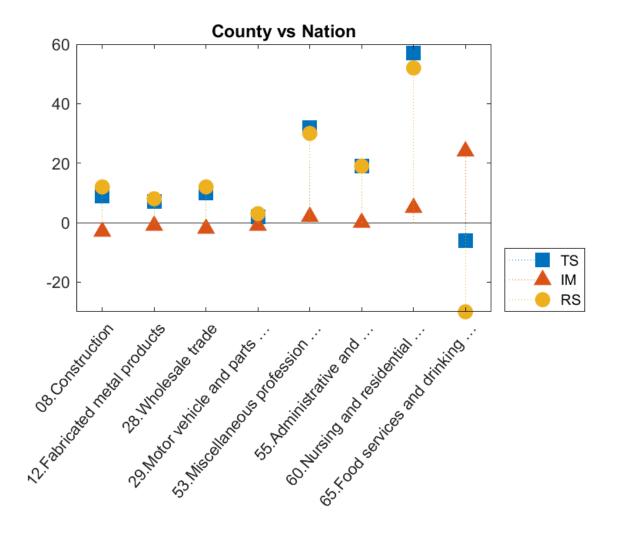
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Green County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Green County, Kentucky vs the U.S.

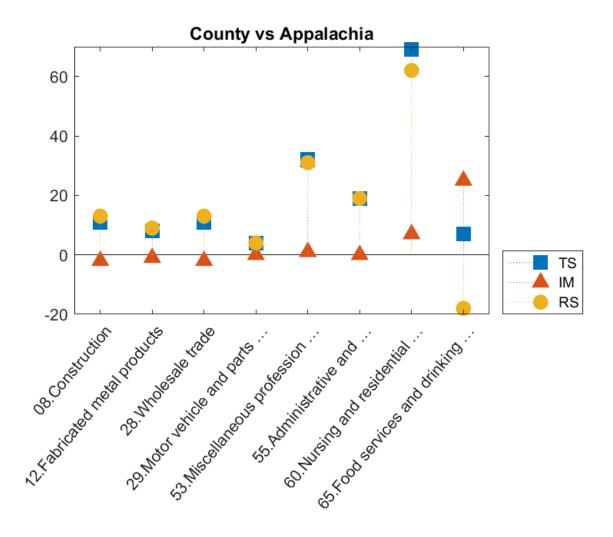


# **Green County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	3	9	-3	12	37
12	Fabricated metal products	1	7	-1	8	18
28	Wholesale trade	2	10	-2	12	33
29	Motor vehicle and parts	1	2	-1	3	17
53	Miscellaneous profession	1	32	2	30	41
55	Administrative and	0	19	0	19	22
60	Nursing and residential	13	57	5	52	186
65	Food services and drinking	14	-6	24	-30	132

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# Selected SSA Components for Green County, Kentucky vs the Appalachian Region

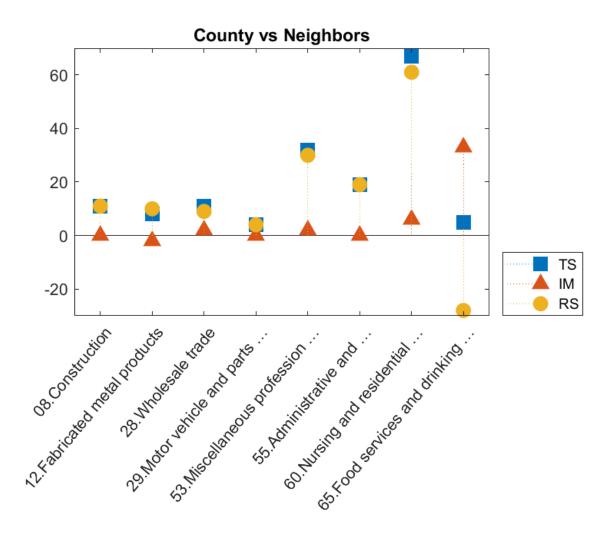


Selected SSA Components for Green County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	0	11	-2	13	37
12	Fabricated metal products	0	8	-1	9	18
28	Wholesale trade	0	11	-2	13	33
29	Motor vehicle and parts	0	4	0	4	17
53	Miscellaneous profession	0	32	1	31	41
55	Administrative and	0	19	0	19	22
60	Nursing and residential	0	69	7	62	186
65	Food services and drinking	0	7	25	-18	132

. . .

### Selected SSA Components for Green County, Kentucky vs Neighbors



# Selected SSA Components for Green County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
80	Construction	1	11	-0	11	37
12	Fabricated metal products	0	8	-2	10	18
28	Wholesale trade	0	11	2	9	33
29	Motor vehicle and parts	0	4	-0	4	17
53	Miscellaneous profession	0	32	2	30	41
55	Administrative and	0	19	-0	19	22
60	Nursing and residential	2	67	6	61	186
65	Food services and drinking	2	5	33	-28	132

. . .

### **Chapter 19. Greenup County, Kentucky**

Employment in Greenup County, Kentucky, declined from 8,377 in 2005 to 7,756 in 2018, for a change of -621, or -7.41%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Greenup County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	945	-1,567	121	-1,688
vs. Appalachia	24	-648	237	-885
vs. Neighbors	-933	317	139	178

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Greenup County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Greenup County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
09	Wood products	F III c iii	no	yes	yes	yes
30	Food and beverage stores	F III c iii	no	yes	yes	yes
31	General merchandise 	FIIIci	no	yes	yes	yes
36	Truck transportation	F III c iii	no	yes	yes	yes
39	Other transportation	Elciii	no	yes	yes	yes
53	Miscellaneous profession	BVbii	yes	no	yes	yes
58	Ambulatory health care	BVbii	yes	no	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
61	Social assistance	BIIai	yes	yes	yes	yes
63	Amusements, gambling,	Blaiii	yes	yes	yes	yes
65	Food services and drinking	Bllai	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Greenup County, Kentucky vs. the United States

Groups a, b, and c are from Greenup County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Greenup County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Greenup County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Greenup County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Greenup County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Greenup County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

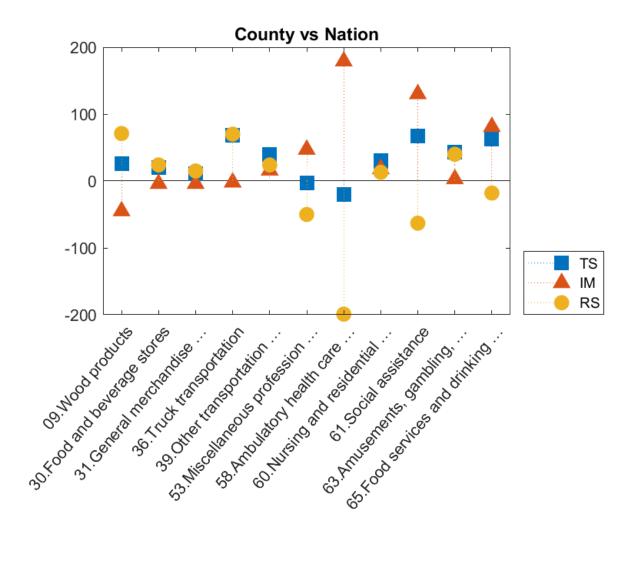
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Greenup County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Greenup County, Kentucky vs the U.S.



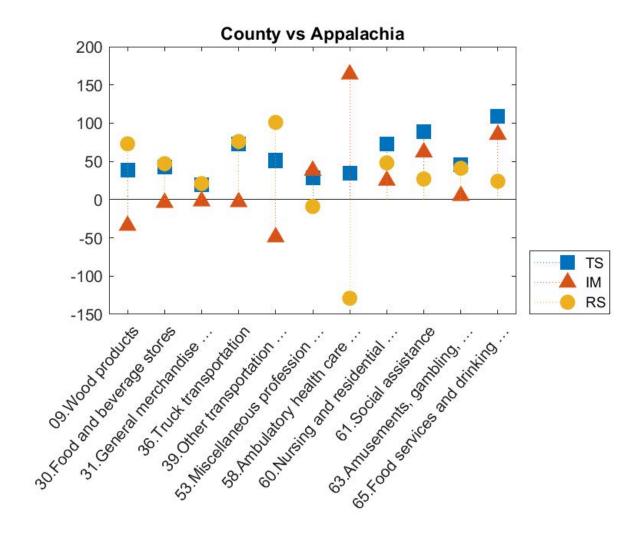
### **Chapter 19. Greenup County, Kentucky**

# **Greenup County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	13	26	-45	71	154
30	Food and beverage stores	23	20	-4	24	243
31	General merchandise 	7	11	-4	15	83
36	Truck transportation	5	68	-2	70	114
39	Other transportation 	13	40	16	24	165
53	Miscellaneous profession	32	-3	47	-50	310
58	Ambulatory health care	57	-20	179	-199	546
60	Nursing and residential	45	31	18	13	471
61	Social assistance	22	67	130	-63	288
63	Amusements, gambling,	4	43	3	40	78
65	Food services and drinking	48	63	81	-18	535

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# Selected SSA Components for Greenup County, Kentucky vs the Appalachian Region

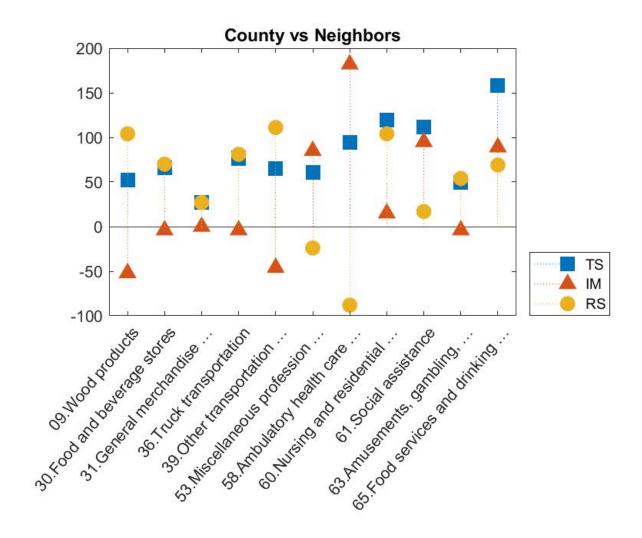


# Selected SSA Components for Greenup County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	0	39	-34	73	154
30	Food and beverage stores	1	43	-4	47	243
31	General merchandise 	0	19	-2	21	83
36	Truck transportation	0	73	-3	76	114
39	Other transportation 	0	52	-49	101	165
53	Miscellaneous profession	1	29	38	-9	310
58	Ambulatory health care	2	35	164	-129	546
60	Nursing and residential	1	73	25	48	471
61	Social assistance	1	89	62	27	288
63	Amusements, gambling,	0	46	5	41	78
65	Food services and drinking	1	109	85	24	535

. . .

## Selected SSA Components for Greenup County, Kentucky vs Neighbors



# Selected SSA Components for Greenup County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	-13	52	-52	104	154
30	Food and beverage stores	-22	66	-4	70	243
31	General merchandise 	-7	27	-0	27	83
36	Truck transportation	-5	77	-4	81	114
39	Other transportation 	-13	65	-46	111	165
53	Miscellaneous profession	-31	61	85	-24	310
58	Ambulatory health care	-57	94	182	-88	546
60	Nursing and residential	-44	119	15	104	471
61	Social assistance	-22	112	95	17	288
63	Amusements, gambling,	-4	50	-4	54	78
65	Food services and drinking	-47	158	89	69	535

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### Chapter 20. Harlan County, Kentucky

Employment in Harlan County, Kentucky, declined from 8,625 in 2005 to 6,115 in 2018, for a change of 2,510, or -29.1%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Harlan County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	968	-3,484	-249	-3,235
vs. Appalachia	25	-2,538	-273	-2,265
vs. Neighbors	-2,014	-497	-55	-442

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Harlan County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Harlan County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
53	Miscellaneous profession	BIIai	yes	yes	yes	yes
58	Ambulatory health care	B V e ii	yes	no	no	yes
61	Social assistance	BVbii	yes	no	yes	yes
65	Food services and drinking	B V e ii	yes	no	no	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Harlan County, Kentucky vs. the United States

Groups a, b, and c are from Harlan County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Harlan County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Harlan County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Harlan County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Harlan County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Harlan County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

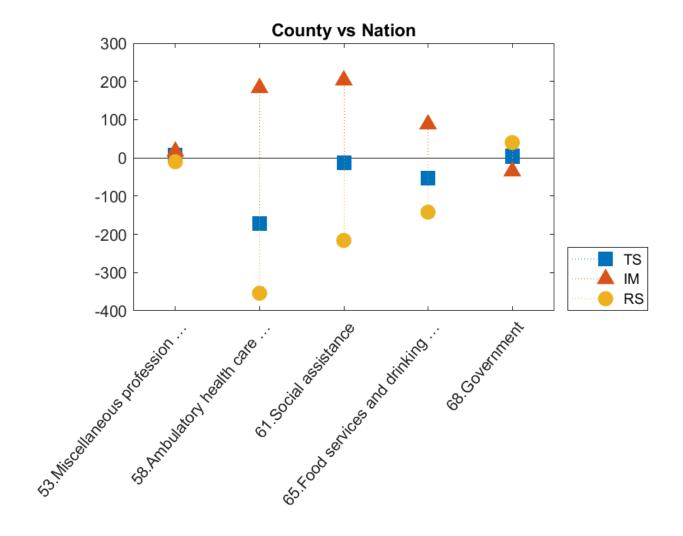
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Harlan County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Harlan County, Kentucky vs the U.S.

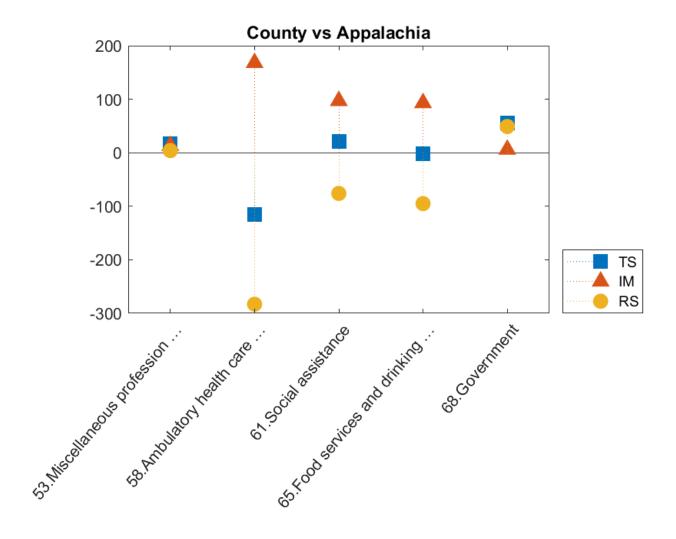


### Chapter 20. Harlan County, Kentucky

# Harlan County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
53	Miscellaneous profession	11	7	17	-10	117
58	Ambulatory health care	59	-171	183	-354	407
61	Social assistance	35	-13	203	-216	332
65	Food services and drinking	52	-54	88	-142	463
68	Government	52	5	-35	40	515

# Selected SSA Components for Harlan County, Kentucky vs the Appalachian Region

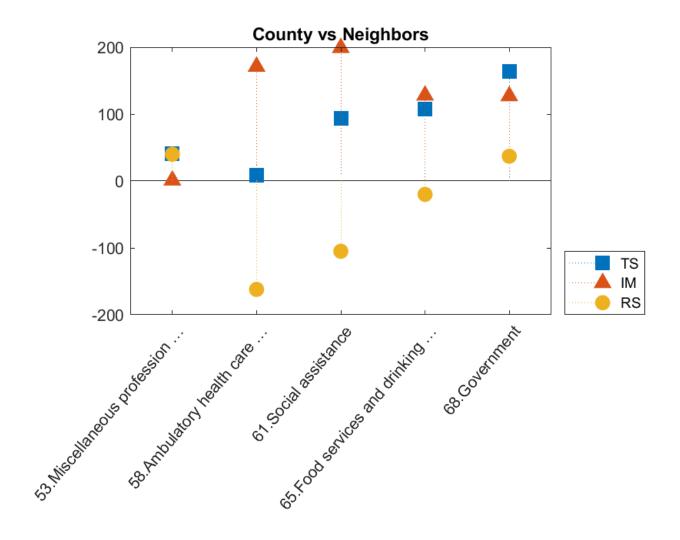


### Chapter 20. Harlan County, Kentucky

# Selected SSA Components for Harlan County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
53	Miscellaneous profession	0	17	13	4	117
58	Ambulatory health care	2	-115	168	-283	407
61	Social assistance	1	21	97	-76	332
65	Food services and drinking	2	-2	93	-95	463
68	Government	2	55	6	49	515

## Selected SSA Components for Harlan County, Kentucky vs Neighbors



#### **Chapter 20. Harlan County, Kentucky**

# Selected SSA Components for Harlan County, Kentucky vs Neighbors for Selected Industries

	Industry	Name	NS	TS	IM	RS	Employment 2018
	53	Miscellaneous profession	-23	41	1	40	117
_	58	Ambulatory health care	-121	9	171	-162	407
	61	Social assistance	-72	94	199	-105	332
	65	Food services and drinking	-108	108	128	-20	463
_	68	Government	-107	164	127	37	515

#### **Chapter 21. Hart County, Kentucky**

Employment in Hart County, Kentucky, grew from 4,398 in 2005 to 5,222 in 2018, for a change of 824, or 18.74%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Hart County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	495	329	-362	691
vs. Appalachia	12	803	-111	914
vs. Neighbors	158	658	180	478

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Hart County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Hart County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
80	Construction	FIIIciii	no	yes	yes	yes
09	Wood products	F III c iii	no	yes	yes	yes
12	Fabricated metal products	F III c iii	no	yes	yes	yes
20	Food and beverage	Elci	no	yes	yes	yes
27	Plastics and rubber prod	DIIIai	no	yes	yes	yes
31	General merchandise 	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c iii	no	yes	yes	yes
61	Social assistance	BIIai	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
66	Other services, exc. gov	FIIIci	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Hart County, Kentucky vs. the United States

Groups a, b, and c are from Hart County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Hart County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Hart County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Hart County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Hart County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Hart County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

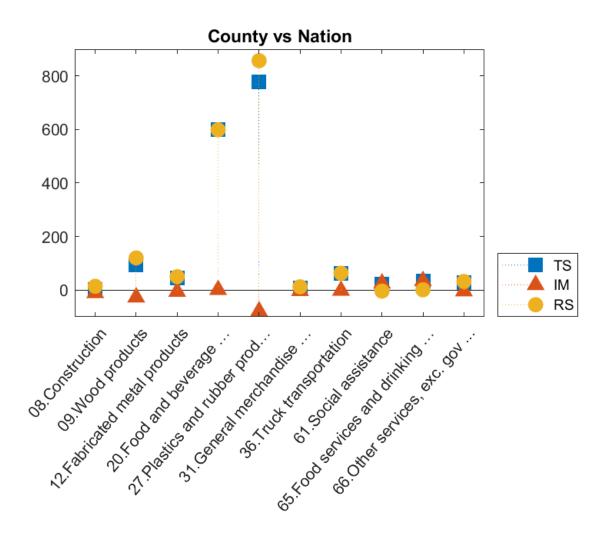
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Hart County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Hart County, Kentucky vs the U.S.

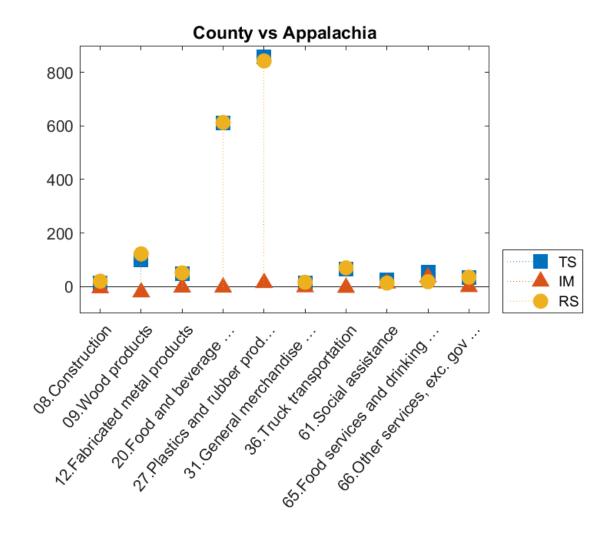


#### **Chapter 21. Hart County, Kentucky**

## Hart County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	10	3	-11	14	102
09	Wood products	8	93	-27	120	170
12	Fabricated metal products	4	44	-6	50	87
20	Food and beverage	10	600	1	599	694
27	Plastics and rubber prod	81	778	-79	857	1,577
31	General merchandise 	5	9	-3	12	62
36	Truck transportation	6	61	-2	63	122
61	Social assistance	4	21	25	-4	64
65	Food services and drinking	20	35	34	1	230
66	Other services, exc. gov	5	28	-4	32	80

# Selected SSA Components for Hart County, Kentucky vs the Appalachian Region

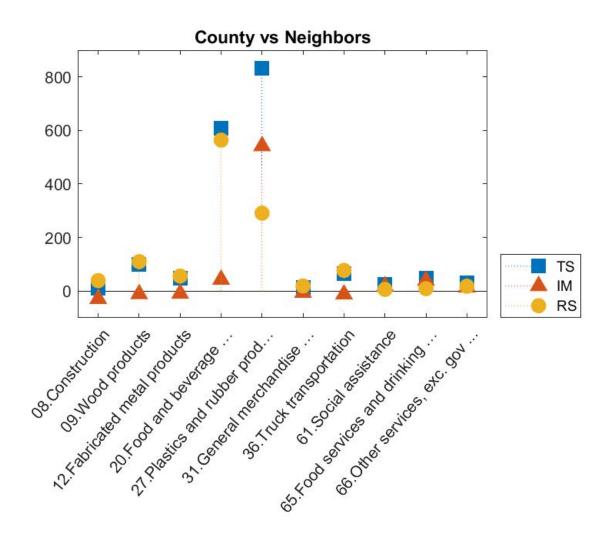


#### **Chapter 21. Hart County, Kentucky**

# Selected SSA Components for Hart County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	0	14	-6	20	102
09	Wood products	0	101	-21	122	170
12	Fabricated metal products	0	48	-3	51	87
20	Food and beverage	0	610	-3	613	694
27	Plastics and rubber prod	2	857	14	843	1,577
31	General merchandise 	0	14	-2	16	62
36	Truck transportation	0	66	-4	70	122
61	Social assistance	0	25	12	13	64
65	Food services and drinking	1	53	35	18	230
66	Other services, exc. gov	0	34	-1	35	80

### **Selected SSA Components for Hart County, Kentucky vs Neighbors**



#### **Chapter 21. Hart County, Kentucky**

# Selected SSA Components for Hart County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
80	Construction	3	10	-29	39	102
09	Wood products	2	99	-11	110	170
12	Fabricated metal products	1	47	-9	56	87
20	Food and beverage	3	607	43	564	694
27	Plastics and rubber prod	26	833	542	291	1,577
31	General merchandise 	2	13	-6	19	62
36	Truck transportation	2	65	-12	77	122
61	Social assistance	1	24	18	6	64
65	Food services and drinking	6	48	39	9	230
66	Other services, exc. gov	2	32	14	18	80

#### **Chapter 22. Jackson County, Kentucky**

Employment in Jackson County, Kentucky, declined from 2,876 in 2005 to 1,606 in 2018, for a change of -1,270, or -44.16%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Jackson County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	325	-1,595	-166	-1,429
vs. Appalachia	6	-1,278	-57	-1,221
vs. Neighbors	199	-1,471	-728	-743

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Jackson County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Jackson County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
17	Other transportation	Flai	no	yes	yes	yes
31	General merchandise 	FIIIci	no	yes	yes	yes
43	Broadcasting and telecom	F III c iii	no	yes	yes	yes
61	Social assistance	BIIbi	yes	yes	yes	yes
66	Other services, exc. gov	FIIIai	no	yes	yes	yes
68	Government	FIII a i	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Jackson County, Kentucky vs. the United States

Groups a, b, and c are from Jackson County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Jackson County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Jackson County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Jackson County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Jackson County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Jackson County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

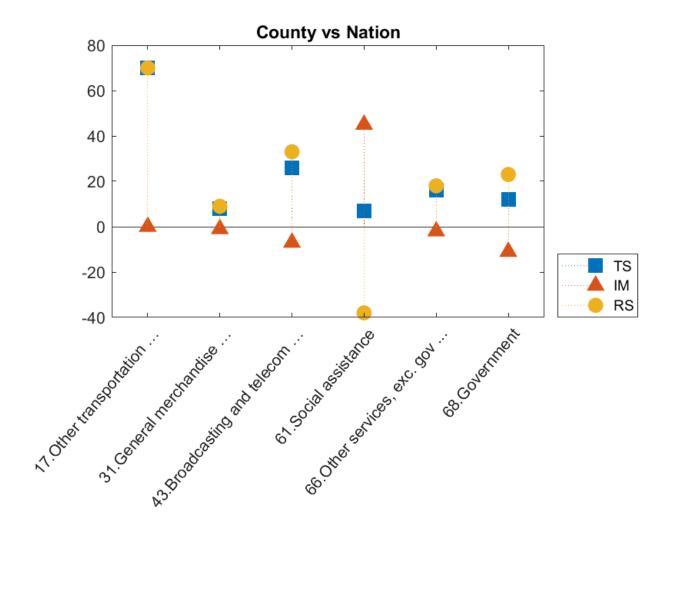
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Jackson County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Jackson County, Kentucky vs the U.S.

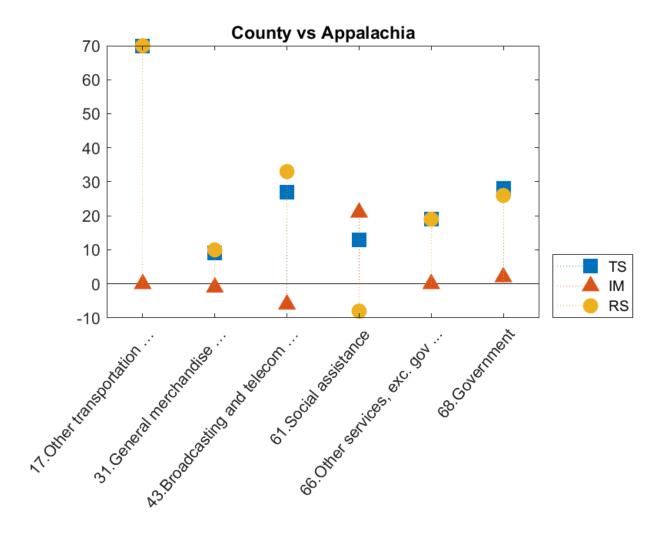


### **Chapter 22. Jackson County, Kentucky**

## Jackson County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
17	Other transportation 	0	70	0	70	70
31	General merchandise 	2	8	-1	9	26
43	Broadcasting and telecom	2	26	-7	33	45
61	Social assistance	8	7	45	-38	82
66	Other services, exc. gov	3	16	-2	18	42
68	Government	16	12	-11	23	172

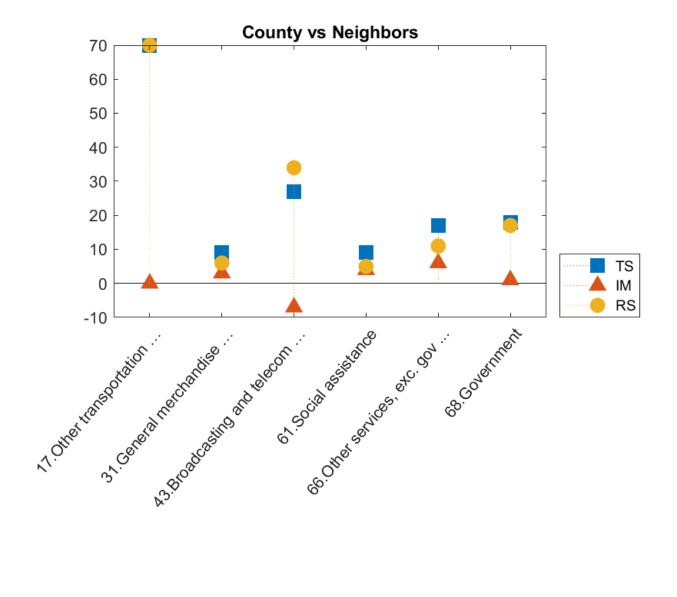
# Selected SSA Components for Jackson County, Kentucky vs the Appalachian Region



# Selected SSA Components for Jackson County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
17	Other transportation 	0	70	0	70	70
31	General merchandise 	0	9	-1	10	26
43	Broadcasting and telecom	0	27	-6	33	45
61	Social assistance	0	13	21	-8	82
 66	Other services, exc. gov	0	19	-0	19	42
68	Government	0	28	2	26	172

### **Selected SSA Components for Jackson County, Kentucky vs Neighbors**



#### **Chapter 22. Jackson County, Kentucky**

# Selected SSA Components for Jackson County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
17	Other transportation 	0	70	0	70	70
31	General merchandise 	1	9	3	6	26
43	Broadcasting and telecom	1	27	-7	34	45
61	Social assistance	5	9	4	5	82
66	Other services, exc. gov	2	17	6	11	42
68	Government	10	18	1	17	172

#### **Chapter 23. Johnson County, Kentucky**

Employment in Johnson County, Kentucky, declined from 6,926 in 2005 to 5,181 in 2018, for a change of -1,745, or -25.19%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Johnson County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	785	-2,526	-151	-2,375
vs. Appalachia	21	-1,767	-77	-1,690
vs. Neighbors	-1,324	-418	-116	-302

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Johnson County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Johnson County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
58	Ambulatory health care	Blai	yes	yes	yes	yes
61	Social assistance	Bllai	yes	yes	yes	yes
65	Food services and drinking	B V e ii	yes	no	no	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Johnson County, Kentucky vs. the United States

Groups a, b, and c are from Johnson County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Johnson County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Johnson County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Johnson County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Johnson County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Johnson County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

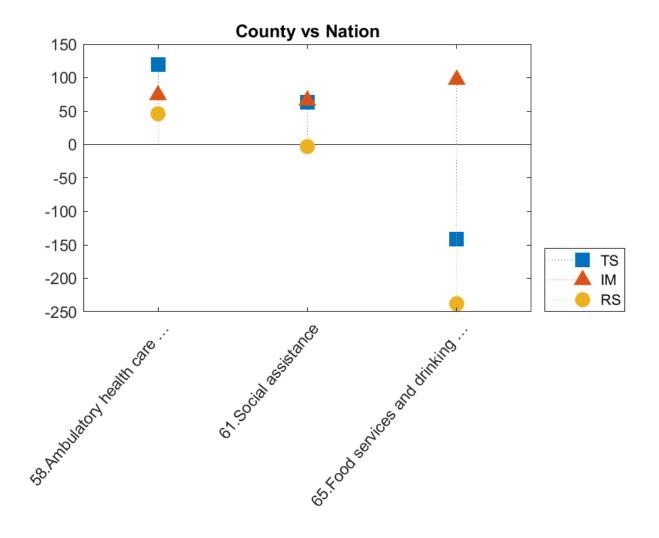
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Johnson County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Johnson County, Kentucky vs the U.S.

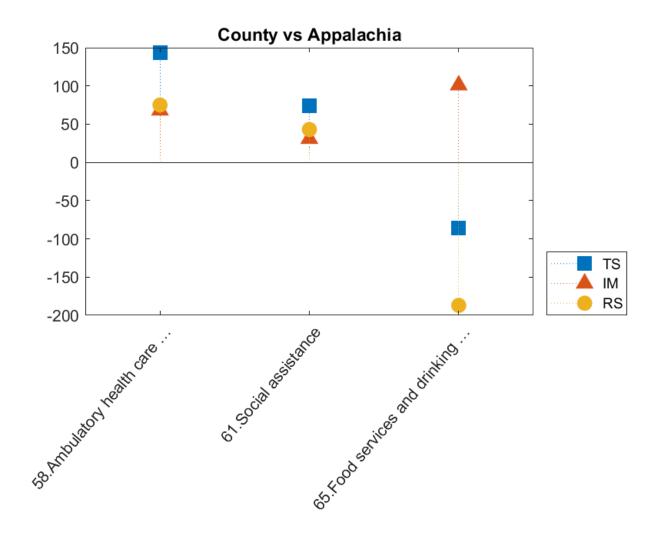


### **Chapter 23. Johnson County, Kentucky**

## Johnson County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
58	Ambulatory health care 	24	120	74	46	356
61	Social assistance	11	63	66	-3	175
65	Food services and drinking	57	-141	97	-238	423

# Selected SSA Components for Johnson County, Kentucky vs the Appalachian Region

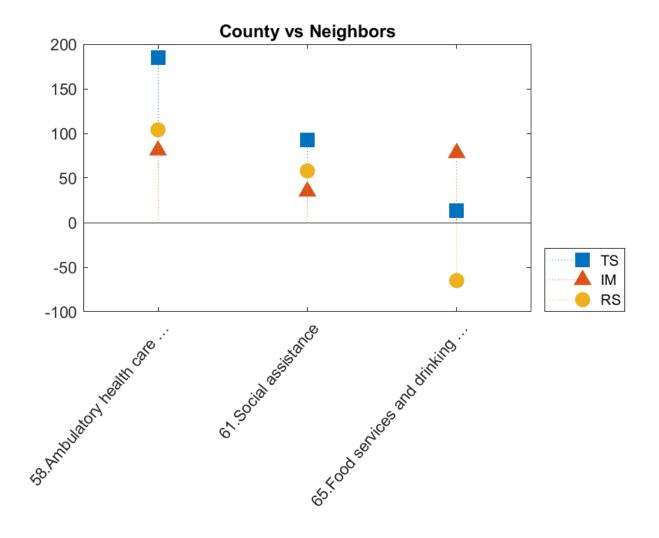


#### **Chapter 23. Johnson County, Kentucky**

# Selected SSA Components for Johnson County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
58	Ambulatory health care 	1	143	68	75	356
61	Social assistance	0	74	31	43	175
65	Food services and drinking	2	-86	101	-187	423

## Selected SSA Components for Johnson County, Kentucky vs Neighbors



#### **Chapter 23. Johnson County, Kentucky**

# Selected SSA Components for Johnson County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
58	Ambulatory health care 	-41	185	81	104	356
61	Social assistance	-19	93	35	58	175
65	Food services and drinking	-97	13	78	-65	423

#### **Chapter 24. Knott County, Kentucky**

Employment in Knott County, Kentucky, declined from 4,195 in 2005 to 2,254 in 2018, for a change of 1,941, or -46.27%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Knott County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	473	-2,416	-584	-1,832
vs. Appalachia	13	-1,957	-615	-1,342
vs. Neighbors	-881	-1,056	-756	-300

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Knott County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Knott County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
80	Construction	F III c iii	no	yes	yes	yes
28	Wholesale trade	FIIIai	no	yes	yes	yes
31	General merchandise 	FIIIci	no	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
66	Other services, exc. gov	FIIIci	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Knott County, Kentucky vs. the United States

Groups a, b, and c are from Knott County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Knott County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Knott County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Knott County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Knott County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Knott County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

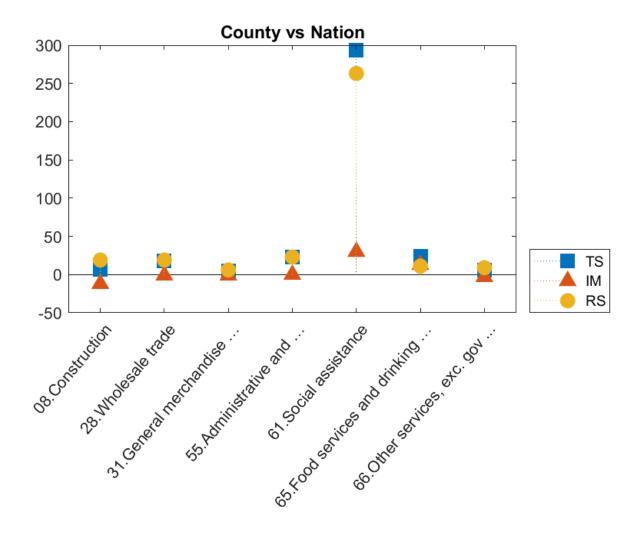
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Knott County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Knott County, Kentucky vs the U.S.

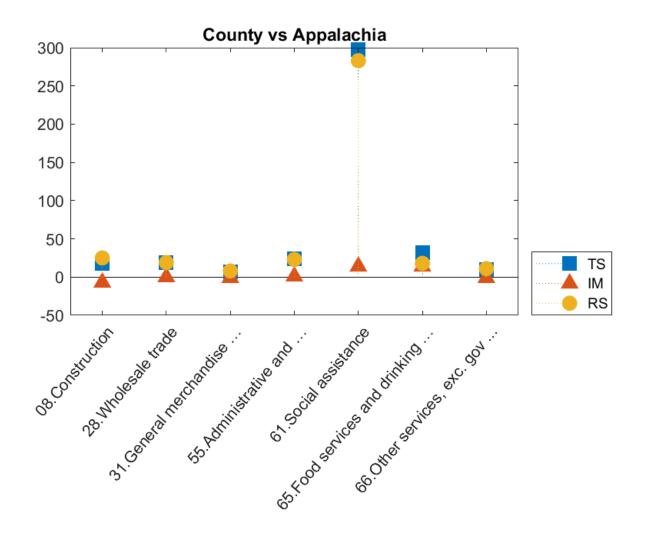


### **Chapter 24. Knott County, Kentucky**

## **Knott County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	11	7	-12	19	119
28	Wholesale trade	1	18	-1	19	25
31	General merchandise 	3	5	-1	6	31
55	Administrative and	1	23	0	23	30
61	Social assistance	5	293	30	263	343
65	Food services and drinking	8	24	13	11	103
66	Other services, exc. gov	4	6	-3	9	45

# Selected SSA Components for Knott County, Kentucky vs the Appalachian Region

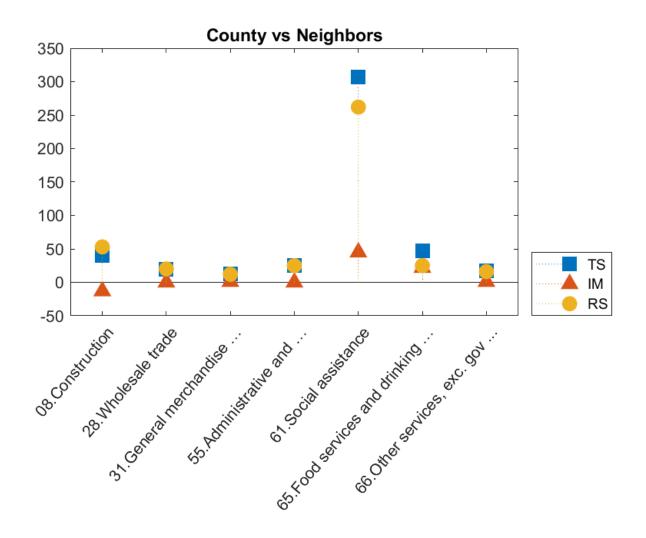


### **Chapter 24. Knott County, Kentucky**

# Selected SSA Components for Knott County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	0	18	-7	25	119
28	Wholesale trade	0	19	-0	19	25
31	General merchandise 	0	7	-1	8	31
55	Administrative and	0	24	1	23	30
61	Social assistance	0	297	14	283	343
65	Food services and drinking	0	32	14	18	103
66	Other services, exc. gov	0	10	-1	11	45

# **Selected SSA Components for Knott County, Kentucky vs Neighbors**



### **Chapter 24. Knott County, Kentucky**

# Selected SSA Components for Knott County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
80	Construction	-21	40	-13	53	119
28	Wholesale trade	-1	20	0	20	25
31	General merchandise 	-5	13	1	12	31
55	Administrative and	-1	25	0	25	30
61	Social assistance	-10	307	45	262	343
65	Food services and drinking	-15	47	22	25	103
66	Other services, exc. gov	-7	17	1	16	45

### **Chapter 25. Knox County, Kentucky**

Employment in Knox County, Kentucky, declined from 8,906 in 2005 to 7,909 in 2018, for a change of 997, or -11.19%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Knox County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	1,001	-1,997	122	-2,119
vs. Appalachia	26	-1,026	320	-1,346
vs. Neighbors	-243	-752	594	-1,346

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Knox County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Knox County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
10	Nonmetallic mineral prod 	FIIIci	no	yes	yes	yes
16	Motor vehicles, bodies	C N b ii	yes	no	yes	yes
30	Food and beverage stores	FIIIci	no	yes	yes	yes
31	General merchandise 	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c iii	no	yes	yes	yes
52	Computer systems design	Blai	yes	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
58	Ambulatory health care	Blai	yes	yes	yes	yes
60	Nursing and residential	Elaiii	no	yes	yes	yes
65	Food services and drinking	BVbii	yes	no	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Knox County, Kentucky vs. the United States

Groups a, b, and c are from Knox County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Knox County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Knox County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Knox County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Knox County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Knox County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

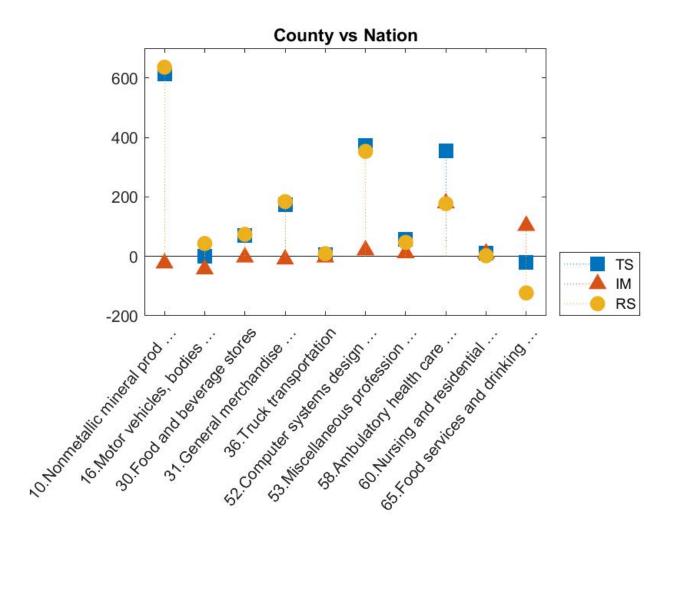
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Knox County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

# Selected SSA Components for Knox County, Kentucky vs the U.S.



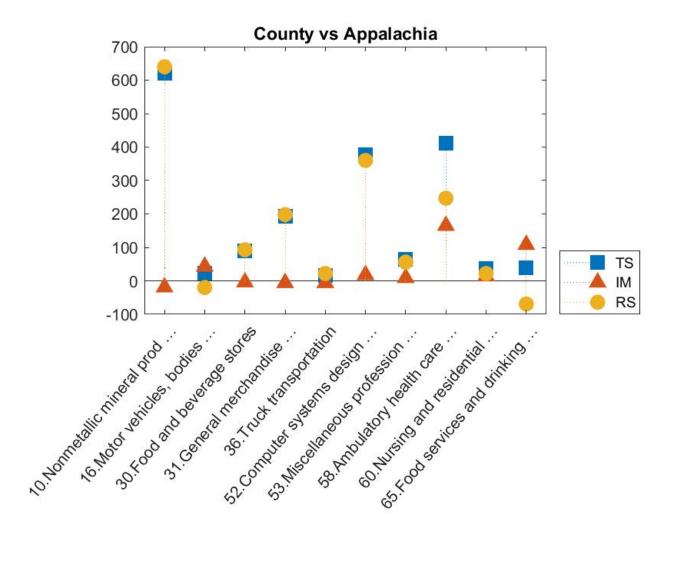
### **Chapter 25. Knox County, Kentucky**

# **Knox County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	9	613	-23	636	703
16	Motor vehicles, bodies	24	0	-43	43	236
30	Food and beverage stores	20	71	-3	74	263
31	General merchandise 	19	174	-10	184	359
36	Truck transportation	10	6	-3	9	107
52	Computer systems design	4	374	21	353	410
53	Miscellaneous profession	7	58	11	47	131
58	Ambulatory health care	58	356	179	177	925
60	Nursing and residential	25	12	10	2	257
65	Food services and drinking	61	-20	103	-123	582

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# Selected SSA Components for Knox County, Kentucky vs the Appalachian Region

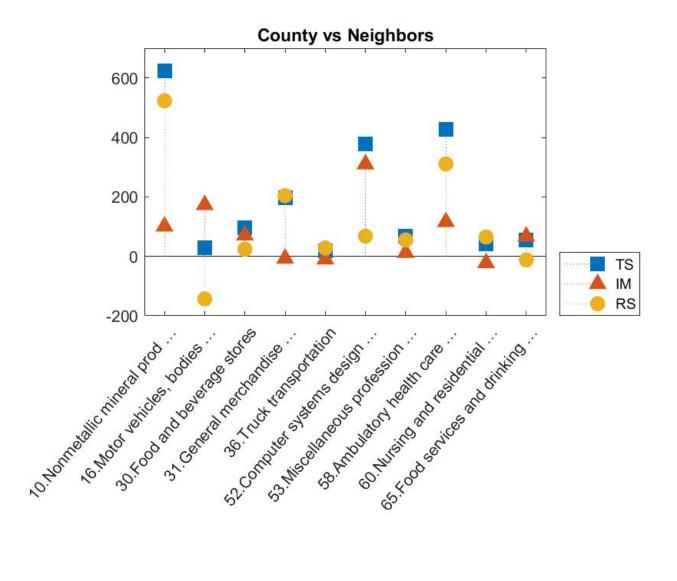


# Selected SSA Components for Knox County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	0	621	-19	640	703
16	Motor vehicles, bodies	1	23	43	-20	236
30	Food and beverage stores	1	89	-4	93	263
31	General merchandise 	1	192	-6	198	359
36	Truck transportation	0	16	-6	22	107
52	Computer systems design	0	378	18	360	410
53	Miscellaneous profession	0	65	9	56	131
58	Ambulatory health care	2	412	165	247	925
60	Nursing and residential	1	36	14	22	257
65	Food services and drinking	2	39	108	-69	582

. . .

# **Selected SSA Components for Knox County, Kentucky vs Neighbors**



Selected SSA Components for Knox County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	-2	624	101	523	703
16	Motor vehicles, bodies	-6	30	173	-143	236
30	Food and beverage stores	-5	95	71	24	263
31	General merchandise 	-4	197	-7	204	359
36	Truck transportation	-2	18	-10	28	107
52	Computer systems design	-1	378	310	68	410
53	Miscellaneous profession	-2	67	12	55	131
58	Ambulatory health care	-14	427	116	311	925
60	Nursing and residential	-6	43	-22	65	257
65	Food services and drinking	-15	55	67	-12	582

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### **Chapter 26. Laurel County, Kentucky**

Employment in Laurel County, Kentucky, grew from 24,113 in 2005 to 26,723 in 2018, for a change of 2,610, or 10.82%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Laurel County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	2,716	-106	996	-1,102
vs. Appalachia	77	2,529	218	2,311
vs. Neighbors	-495	3,108	-527	3,635

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties – i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Laurel County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Laurel County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
16	Motor vehicles, bodies	CIII a i	yes	yes	yes	yes
27	Plastics and rubber prod	D III a iii	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
30	Food and beverage stores	FIIIci	no	yes	yes	yes
31	General merchandise 	F III c iii	no	yes	yes	yes
32	Other retail	F III c iii	no	yes	yes	yes
39	Other transportation	Elciii	no	yes	yes	yes
40	Warehousing and storage	Elai	no	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
58	Ambulatory health care	Blai	yes	yes	yes	yes
61	Social assistance	BVbii	yes	no	yes	yes
65	Food services and drinking	BVbii	yes	no	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Laurel County, Kentucky vs. the United States

Groups a, b, and c are from Laurel County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Laurel County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Laurel County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Laurel County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Laurel County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Laurel County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

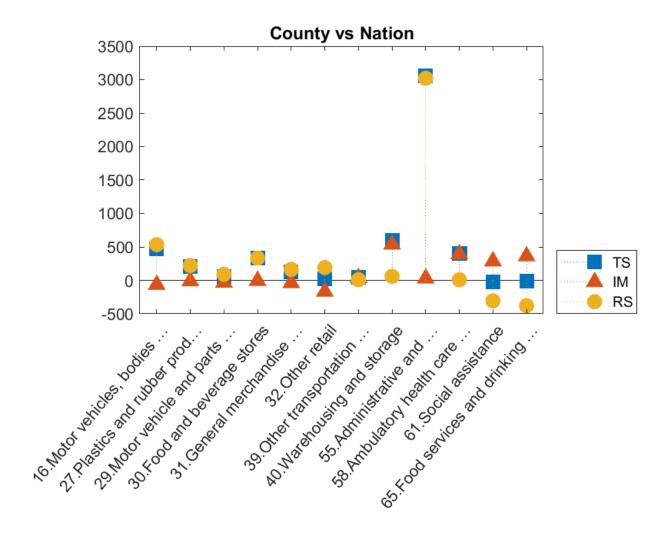
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Laurel County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Laurel County, Kentucky vs the U.S.



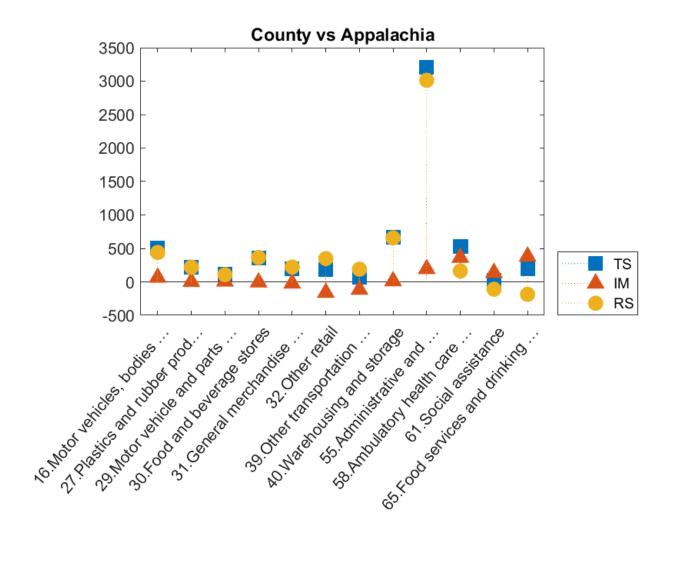
### **Chapter 26. Laurel County, Kentucky**

# Laurel County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies	36	469	-64	533	823
27	Plastics and rubber prod	11	212	-10	222	316
29	Motor vehicle and parts	58	58	-32	90	635
30	Food and beverage stores	30	329	-5	334	629
31	General merchandise 	76	124	-39	163	870
32	Other retail	166	25	-166	191	1,668
39	Other transportation 	30	46	37	9	339
40	Warehousing and storage	73	598	538	60	1,315
55	Administrative and	161	3,052	31	3,021	4,641
58	Ambulatory health care	127	403	394	9	1,654
61	Social assistance	49	-21	286	-307	465
65	Food services and drinking	214	-15	362	-377	2,098

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# Selected SSA Components for Laurel County, Kentucky vs the Appalachian Region

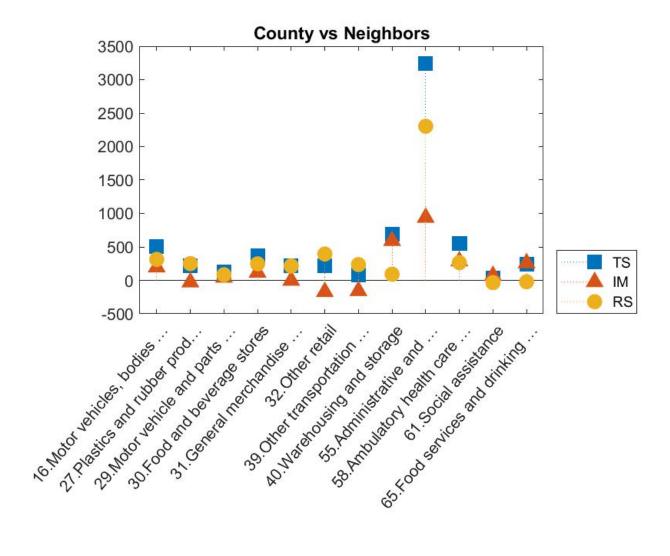


Selected SSA Components for Laurel County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies	1	504	65	439	823
27	Plastics and rubber prod	0	222	2	220	316
29	Motor vehicle and parts	2	115	8	107	635
30	Food and beverage stores	1	358	-6	364	629
31	General merchandise 	2	198	-23	221	870
32	Other retail	5	187	-161	348	1,668
39	Other transportation 	1	74	-115	189	339
40	Warehousing and storage	2	669	12	657	1,315
55	Administrative and	5	3,207	194	3,013	4,641
58	Ambulatory health care	4	526	363	163	1,654
61	Social assistance	1	26	136	-110	465
65	Food services and drinking	6	193	380	-187	2,098

. . .

# **Selected SSA Components for Laurel County, Kentucky vs Neighbors**



# Selected SSA Components for Laurel County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies	-7	511	197	314	823
27	Plastics and rubber prod	-2	224	-27	251	316
29	Motor vehicle and parts	-11	128	44	84	635
30	Food and beverage stores	-6	365	118	247	629
31	General merchandise 	-14	214	-2	216	870
32	Other retail	-30	223	-171	394	1,668
39	Other transportation	-5	80	-156	236	339
40	Warehousing and storage	-13	684	592	92	1,315
55	Administrative and	-29	3,242	939	2,303	4,641
58	Ambulatory health care	-23	553	287	266	1,654
61	Social assistance	-9	37	70	-33	465
65	Food services and drinking	-39	238	259	-21	2,098

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### **Chapter 27. Lawrence County, Kentucky**

Employment in Lawrence County, Kentucky, grew from 3,249 in 2005 to 3,330 in 2018, for a change of 81, or 2.49%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Lawrence County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	363	-285	35	-320
vs. Appalachia	8	67	57	10
vs. Neighbors	-550	633	120	513

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Lawrence County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Lawrence County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
04	Coal Mining	F III c iii	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
31	General merchandise	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c iii	no	yes	yes	yes
53	Miscellaneous profession	B V e ii	yes	no	no	yes
55	Administrative and	Alai	yes	yes	yes	yes
58	Ambulatory health care	Bllai	yes	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
61	Social assistance	B V e ii	yes	no	no	yes
64	Accommodation	Alai	yes	yes	yes	yes
65	Food services and drinking	BVbii	yes	no	yes	yes
66	Other services, exc. gov	F III c iii	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Lawrence County, Kentucky vs. the United States

Groups a, b, and c are from Lawrence County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Lawrence County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Lawrence County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Lawrence County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Lawrence County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Lawrence County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

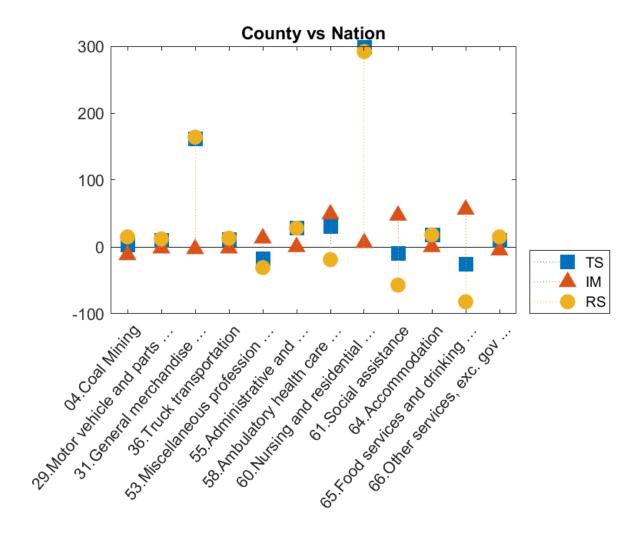
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Lawrence County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Lawrence County, Kentucky vs the U.S.

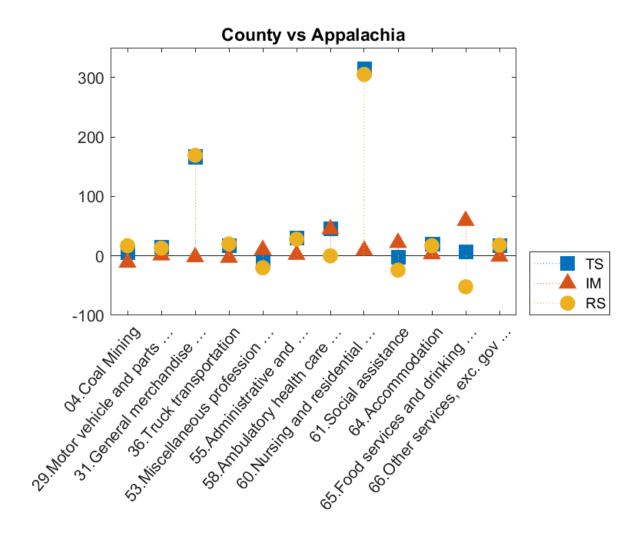


### **Chapter 27. Lawrence County, Kentucky**

# Lawrence County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
04	Coal Mining	3	3	-12	15	35
29	Motor vehicle and parts	4	10	-2	12	50
31	General merchandise	6	161	-3	164	221
36	Truck transportation	6	11	-2	13	68
53	Miscellaneous profession	9	-18	13	-31	67
55	Administrative and	2	28	0	28	46
58	Ambulatory health care	16	30	49	-19	186
60	Nursing and residential	16	298	6	292	458
61	Social assistance	8	-10	47	-57	70
64	Accommodation	2	18	0	18	37
65	Food services and drinking	33	-26	56	-82	304
66	Other services, exc. gov	7	10	-5	15	80

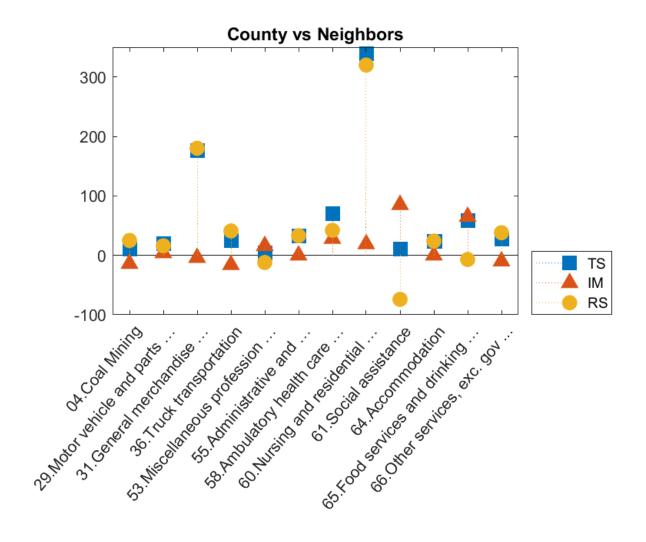
# Selected SSA Components for Lawrence County, Kentucky vs the Appalachian Region



# Selected SSA Components for Lawrence County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
04	Coal Mining	0	6	-11	17	35
29	Motor vehicle and parts	0	14	1	13	50
31	General merchandise	0	167	-2	169	221
36	Truck transportation	0	17	-3	20	68
53	Miscellaneous profession	0	-10	10	-20	67
55	Administrative and	0	30	2	28	46
58	Ambulatory health care	0	45	45	0	186
60	Nursing and residential	0	314	9	305	458
61	Social assistance	0	-2	22	-24	70
64	Accommodation	0	20	3	17	37
65	Food services and drinking	1	7	59	-52	304
66	Other services, exc. gov	0	17	-1	18	80

# **Selected SSA Components for Lawrence County, Kentucky vs Neighbors**



### **Chapter 27. Lawrence County, Kentucky**

# Selected SSA Components for Lawrence County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
04	Coal Mining	-5	11	-14	25	35
29	Motor vehicle and parts	-6	20	4	16	50
31	General merchandise	-9	176	-4	180	221
36	Truck transportation	-9	25	-16	41	68
53	Miscellaneous profession	-13	4	16	-12	67
55	Administrative and	-3	33	-0	33	46
58	Ambulatory health care	-24	70	28	42	186
60	Nursing and residential	-24	339	19	320	458
61	Social assistance	-12	11	85	-74	70
64	Accommodation	-3	24	-0	24	37
65	Food services and drinking	-50	58	65	-7	304
66	Other services, exc. gov	-11	28	-10	38	80

### Chapter 28. Lee County, Kentucky

Employment in Lee County, Kentucky, declined from 1,955 in 2005 to 1,668 in 2018, for a change of 287, or -14.68%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Lee County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	219	-510	23	-533
vs. Appalachia	3	-291	56	-347
vs. Neighbors	-308	20	-17	37

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Lee County, Kentucky, in comparison to at least one of the three referent regions.

# **Industry Group Membership for Lee County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
05	Mining, except coal, oil	FIIIci	no	yes	yes	yes
06	Support activities for	Alaiii	yes	yes	yes	yes
08	Construction	FIIIci	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
31	General merchandise 	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c iii	no	yes	yes	yes
55	Administrative and	AVei	yes	no	no	yes
58	Ambulatory health care	Blai	yes	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Lee County, Kentucky vs. the United States

Groups a, b, and c are from Lee County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Lee County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Lee County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Lee County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Lee County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Lee County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

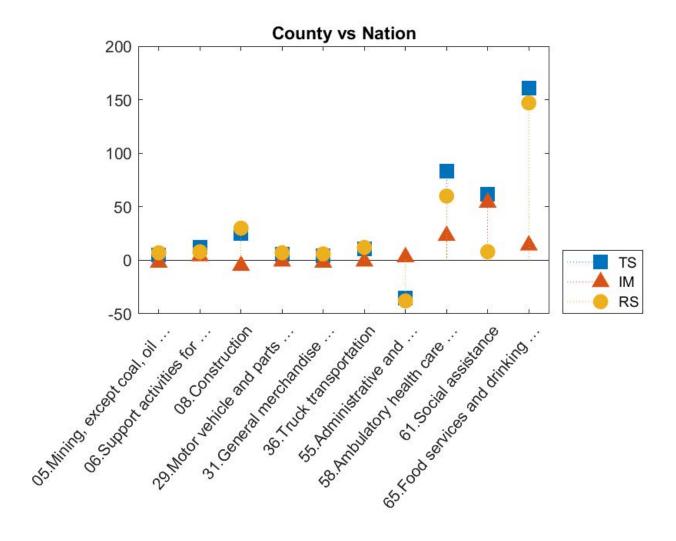
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Lee County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

# Selected SSA Components for Lee County, Kentucky vs the U.S.

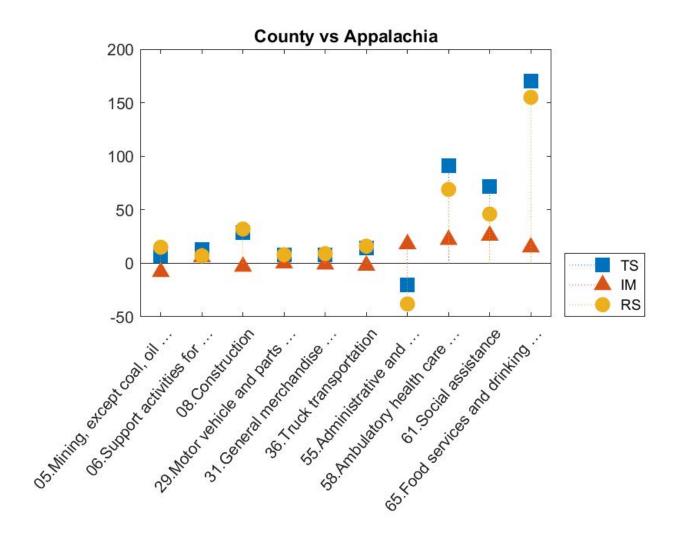


# Lee County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil	2	5	-2	7	26
06	Support activities for 	1	12	4	8	23
08	Construction	4	25	-5	30	67
29	Motor vehicle and parts	2	6	-1	7	26
31	General merchandise 	3	4	-2	6	37
36	Truck transportation	3	11	-1	12	41
55	Administrative and	15	-35	3	-38	114
58	Ambulatory health care	8	83	23	60	158
61	Social assistance	9	62	54	8	154
65	Food services and drinking	8	161	14	147	245

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# **Selected SSA Components for Lee County, Kentucky vs the Appalachian Region**

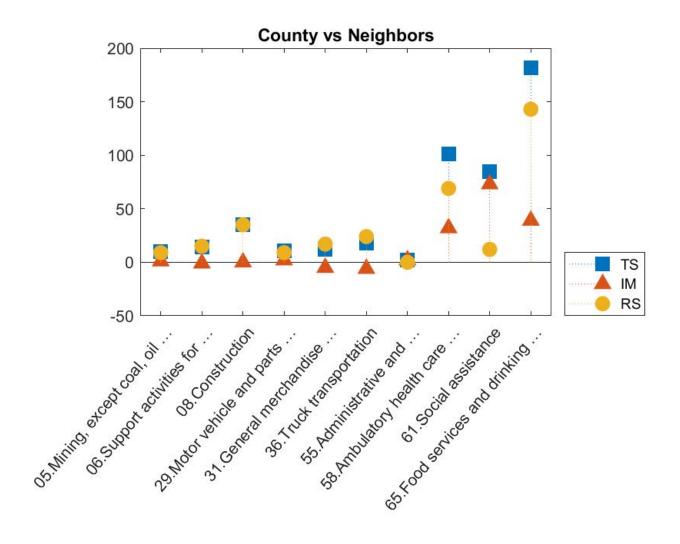


Selected SSA Components for Lee County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil	0	7	-8	15	26
06	Support activities for 	0	13	6	7	23
08	Construction	0	29	-3	32	67
29	Motor vehicle and parts	0	8	0	8	26
31	General merchandise 	0	8	-1	9	37
36	Truck transportation	0	14	-2	16	41
55	Administrative and	0	-20	18	-38	114
58	Ambulatory health care	0	91	22	69	158
61	Social assistance	0	72	26	46	154
65	Food services and drinking	0	170	15	155	245

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## **Selected SSA Components for Lee County, Kentucky vs Neighbors**



Selected SSA Components for Lee County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil	-3	10	1	9	26
06	Support activities for 	-2	14	-1	15	23
08	Construction	-6	35	-0	35	67
29	Motor vehicle and parts	-3	11	2	9	26
31	General merchandise 	-5	12	-5	17	37
36	Truck transportation	-4	18	-6	24	41
55	Administrative and	-21	2	2	-0	114
58	Ambulatory health care	-11	101	32	69	158
61	Social assistance	-13	85	73	12	154
65	Food services and drinking	-12	182	39	143	245

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### Chapter 29. Leslie County, Kentucky

Employment in Leslie County, Kentucky, declined from 2,270 in 2005 to 1,602 in 2018, for a change of -668, or -29.43%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Leslie County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	253	-924	-182	-742
vs. Appalachia	5	-678	-163	-515
vs. Neighbors	-481	-186	-133	-53

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Leslie County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Leslie County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
28	Wholesale trade	Flai	no	yes	yes	yes
51	Legal services	F III c iii	no	yes	yes	yes
61	Social assistance	BIIbii	yes	yes	yes	yes
65	Food services and drinking	BVbi	yes	no	yes	yes
66	Other services, exc. gov	FIIIai	no	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Leslie County, Kentucky vs. the United States

Groups a, b, and c are from Leslie County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Leslie County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Leslie County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Leslie County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Leslie County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Leslie County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

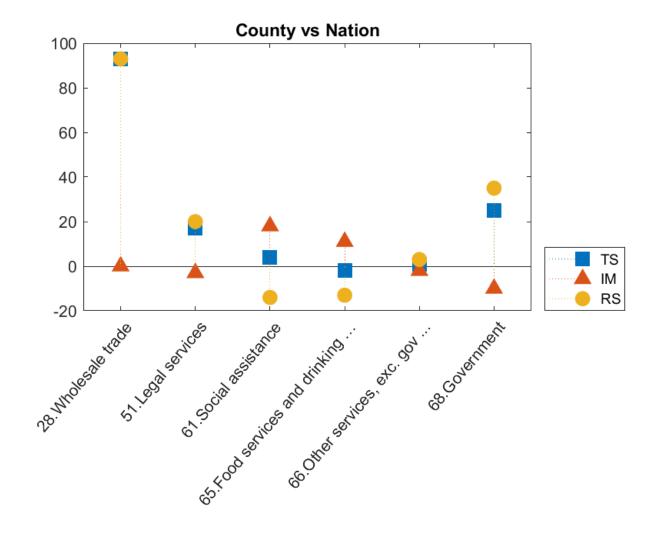
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Leslie County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Leslie County, Kentucky vs the U.S.

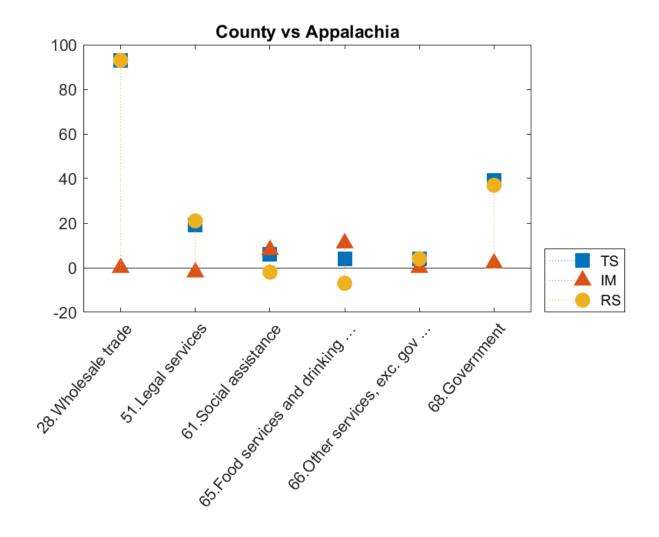


### Chapter 29. Leslie County, Kentucky

# Leslie County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
28	Wholesale trade	0	93	-0	93	94
51	Legal services	3	17	-3	20	44
61	Social assistance	3	4	18	-14	34
65	Food services and drinking	6	-2	11	-13	60
66	Other services, exc. gov	3	1	-2	3	28
68	Government	14	25	-10	35	166

# Selected SSA Components for Leslie County, Kentucky vs the Appalachian Region

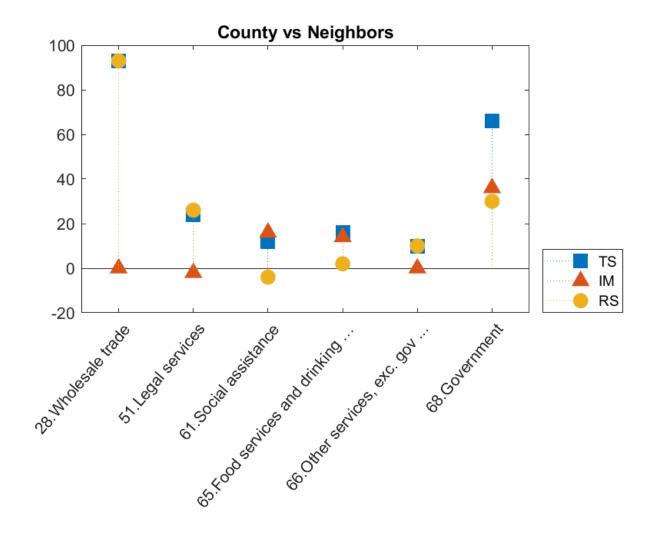


### Chapter 29. Leslie County, Kentucky

# Selected SSA Components for Leslie County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
28	Wholesale trade	0	93	-0	93	94
51	Legal services	0	19	-2	21	44
61	Social assistance	0	6	8	-2	34
65	Food services and drinking	0	4	11	-7	60
66	Other services, exc. gov	0	4	-0	4	28
68	Government	0	39	2	37	166

## Selected SSA Components for Leslie County, Kentucky vs Neighbors



### **Chapter 29. Leslie County, Kentucky**

# Selected SSA Components for Leslie County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
28	Wholesale trade	-0	93	0	93	94
51	Legal services	-5	24	-2	26	44
61	Social assistance	-6	12	16	-4	34
65	Food services and drinking	-12	16	14	2	60
66	Other services, exc. gov	-5	10	-0	10	28
68	Government	-27	66	36	30	166

### Chapter 30. Letcher County, Kentucky

Employment in Letcher County, Kentucky, declined from 6,769 in 2005 to 4,467 in 2018, for a change of -2,302, or -34.01%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Letcher County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	764	-3,067	-71	-2,996
vs. Appalachia	22	-2,326	-96	-2,230
vs. Neighbors	-1,522	-779	-113	-666

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Letcher County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Letcher County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
09	Wood products	F III c iii	no	yes	yes	yes
54	Management of companies	A V e ii	yes	no	no	yes
58	Ambulatory health care 	BIIbi	yes	yes	yes	yes
61	Social assistance	B V e ii	yes	no	no	yes
65	Food services and drinking	BVbii	yes	no	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Letcher County, Kentucky vs. the United States

Groups a, b, and c are from Letcher County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Letcher County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Letcher County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Letcher County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Letcher County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Letcher County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

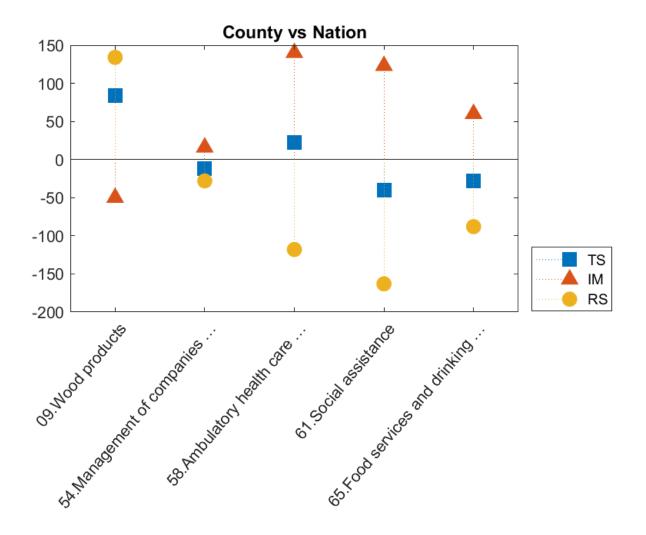
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Letcher County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Letcher County, Kentucky vs the U.S.

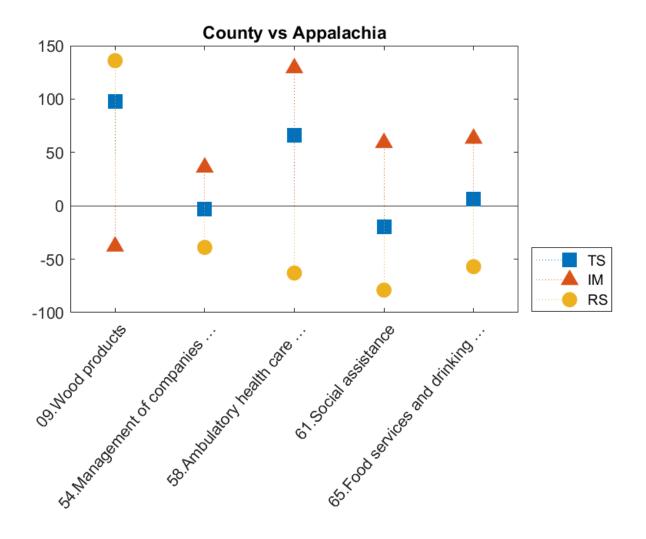


### Chapter 30. Letcher County, Kentucky

# Letcher County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	14	84	-50	134	226
54	Management of companies	8	-12	16	-28	67
58	Ambulatory health care 	45	22	140	-118	466
61	Social assistance	21	-40	123	-163	168
65	Food services and drinking	35	-28	60	-88	320

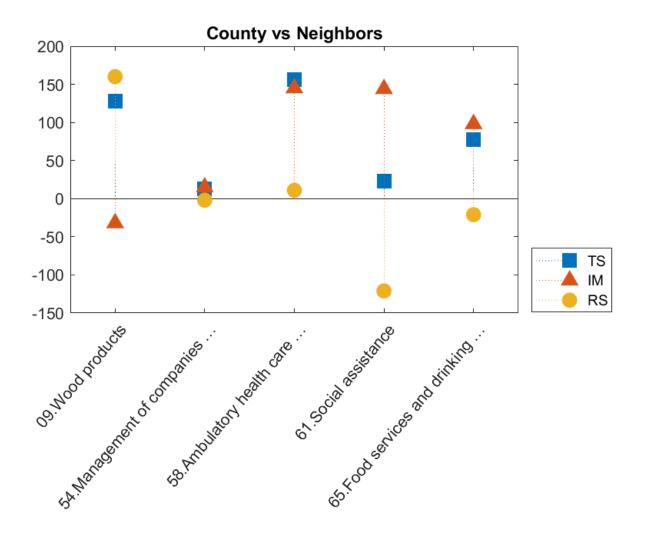
# Selected SSA Components for Letcher County, Kentucky vs the Appalachian Region



# Selected SSA Components for Letcher County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	0	98	-38	136	226
54	Management of companies	0	-3	36	-39	67
58	Ambulatory health care 	1	66	129	-63	466
61	Social assistance	1	-20	59	-79	168
65	Food services and drinking	1	6	63	-57	320

## Selected SSA Components for Letcher County, Kentucky vs Neighbors



### **Chapter 30. Letcher County, Kentucky**

# Selected SSA Components for Letcher County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	-29	128	-32	160	226
54	Management of companies	-16	13	15	-2	67
58	Ambulatory health care 	-90	156	145	11	466
61	Social assistance	-42	23	144	-121	168
65	Food services and drinking	-70	77	98	-21	320

### **Chapter 31. Lewis County, Kentucky**

Employment in Lewis County, Kentucky, declined from 2,227 in 2005 to 1,924 in 2018, for a change of -303, or -13.61%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Lewis County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	252	-553	-129	-424
vs. Appalachia	4	-310	-55	-255
vs. Neighbors	-199	-107	-63	-44

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Lewis County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Lewis County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
10	Nonmetallic mineral prod 	F III c iii	no	yes	yes	yes
14	Computer and electronic	Flai	no	yes	yes	yes
28	Wholesale trade	F III c iii	no	yes	yes	yes
36	Truck transportation	FIIIci	no	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
58	Ambulatory health care	BIIbi	yes	yes	yes	yes
61	Social assistance	BIIbi	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Lewis County, Kentucky vs. the United States

Groups a, b, and c are from Lewis County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Lewis County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Lewis County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Lewis County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Lewis County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Lewis County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

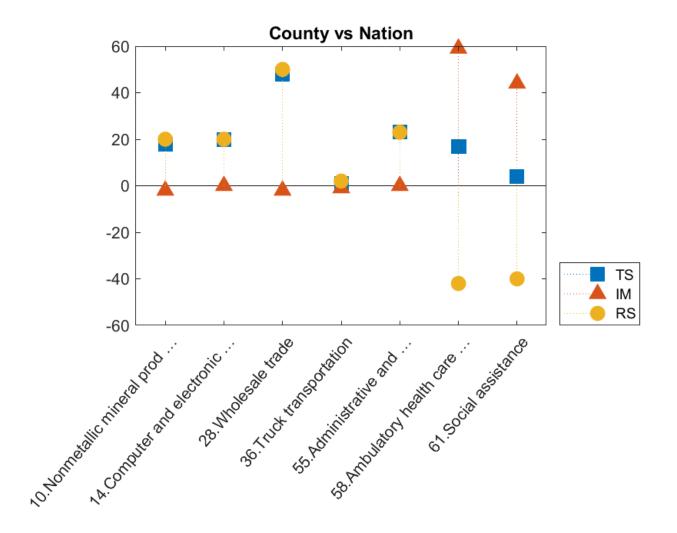
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Lewis County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Lewis County, Kentucky vs the U.S.

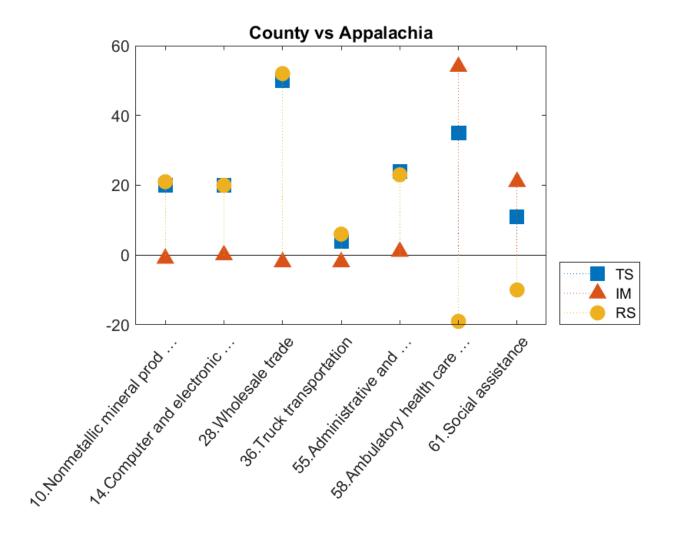


### Chapter 31. Lewis County, Kentucky

# Lewis County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	1	18	-2	20	25
14	Computer and electronic	0	20	0	20	20
28	Wholesale trade	3	48	-2	50	76
36	Truck transportation	3	1	-1	2	35
55	Administrative and	1	23	0	23	34
58	Ambulatory health care	19	17	59	-42	204
61	Social assistance	8	4	44	-40	78

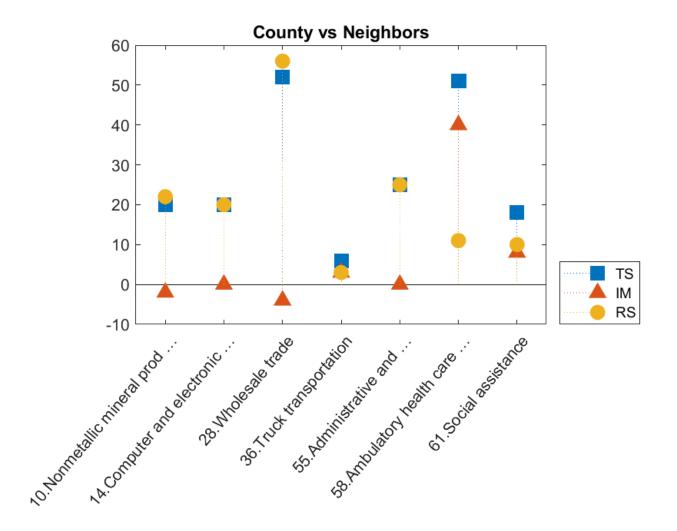
# Selected SSA Components for Lewis County, Kentucky vs the Appalachian Region



# Selected SSA Components for Lewis County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	0	20	-1	21	25
14	Computer and electronic 	0	20	0	20	20
28	Wholesale trade	0	50	-2	52	76
36	Truck transportation	0	4	-2	6	35
55	Administrative and	0	24	1	23	34
58	Ambulatory health care	1	35	54	-19	204
61	Social assistance	0	11	21	-10	78

### Selected SSA Components for Lewis County, Kentucky vs Neighbors



### **Chapter 31. Lewis County, Kentucky**

# Selected SSA Components for Lewis County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod 	-1	20	-2	22	25
14	Computer and electronic 	-0	20	0	20	20
28	Wholesale trade	-2	52	-4	56	76
36	Truck transportation	-3	6	3	3	35
55	Administrative and	-1	25	0	25	34
58	Ambulatory health care	-15	51	40	11	204
61	Social assistance	-6	18	8	10	78

### **Chapter 32. Lincoln County, Kentucky**

Employment in Lincoln County, Kentucky, declined from 4,280 in 2005 to 3,984 in 2018, for a change of -296, or -6.92%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Lincoln County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	481	-778	-65	-713
vs. Appalachia	10	-314	108	-422
vs. Neighbors	-213	-77	364	-441

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Lincoln County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Lincoln County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
14	Computer and electronic	Flai	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
54	Management of companies	Alai	yes	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
56	Waste management and	Alai	yes	yes	yes	yes
58	Ambulatory health care	BIIbi	yes	yes	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
60	Nursing and residential	Ellai	no	yes	yes	yes
65	Food services and drinking	BIIbi	yes	yes	yes	yes
66	Other services, exc. gov	FIIIci	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Lincoln County, Kentucky vs. the United States

Groups a, b, and c are from Lincoln County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Lincoln County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Lincoln County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Lincoln County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Lincoln County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Lincoln County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

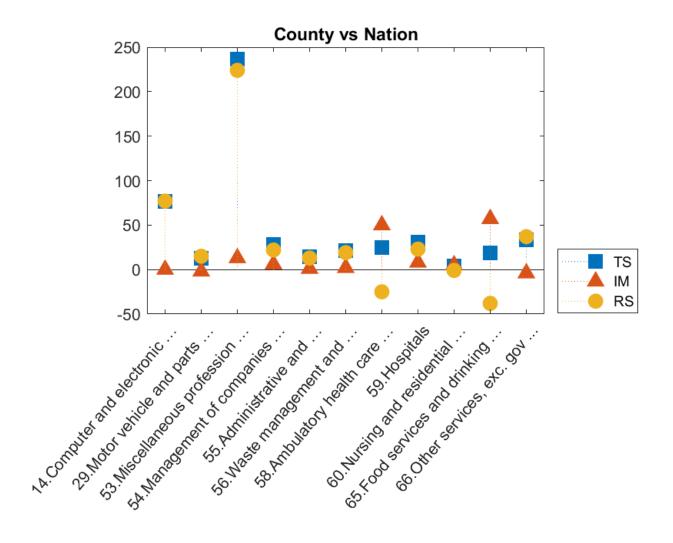
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Lincoln County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Lincoln County, Kentucky vs the U.S.

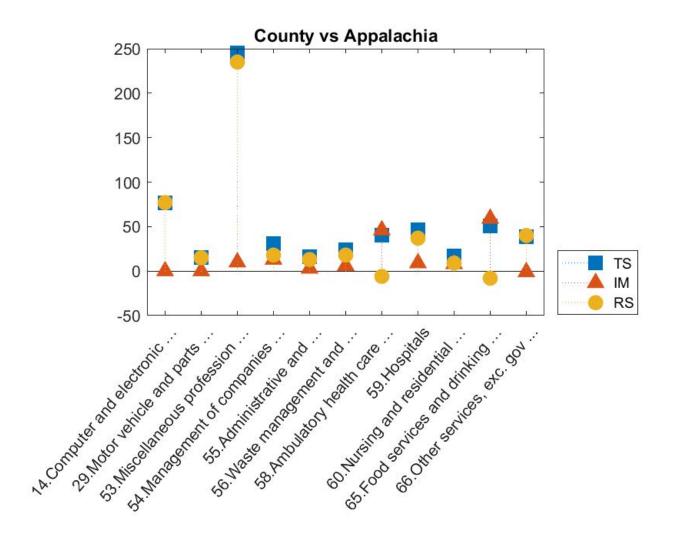


### **Chapter 32. Lincoln County, Kentucky**

# Lincoln County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
14	Computer and electronic	0	77	0	77	77
29	Motor vehicle and parts	3	13	-2	15	45
53	Miscellaneous profession	8	237	13	224	319
54	Management of companies	3	28	6	22	56
55	Administrative and	3	14	1	13	40
56	Waste management and	2	21	2	19	45
58	Ambulatory health care	16	25	50	-25	184
59	Hospitals	16	31	8	23	187
60	Nursing and residential	13	4	5	-1	137
65	Food services and drinking	33	19	57	-38	349
66	Other services, exc. gov	6	33	-4	37	88

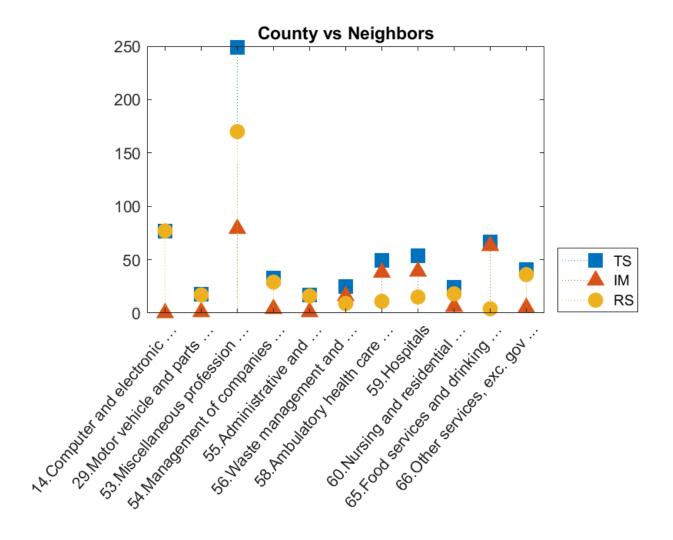
# Selected SSA Components for Lincoln County, Kentucky vs the Appalachian Region



# Selected SSA Components for Lincoln County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
14	Computer and electronic	0	77	0	77	77
29	Motor vehicle and parts	0	15	0	15	45
53	Miscellaneous profession	0	245	10	235	319
54	Management of companies	0	31	13	18	56
55	Administrative and	0	16	3	13	40
56	Waste management and	0	24	6	18	45
58	Ambulatory health care	0	40	46	-6	184
59	Hospitals	0	46	9	37	187
60	Nursing and residential	0	17	8	9	137
65	Food services and drinking	1	51	59	-8	349
66	Other services, exc. gov	0	39	-1	40	88

### Selected SSA Components for Lincoln County, Kentucky vs Neighbors



# Selected SSA Components for Lincoln County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
14	Computer and electronic	-0	77	0	77	77
29	Motor vehicle and parts	-1	18	1	17	45
53	Miscellaneous profession	-4	249	79	170	319
54	Management of companies	-1	33	4	29	56
55	Administrative and	-1	17	1	16	40
56	Waste management and	-1	25	16	9	45
58	Ambulatory health care	-7	49	38	11	184
59	Hospitals	-7	54	39	15	187
60	Nursing and residential	-6	24	6	18	137
65	Food services and drinking	-15	67	63	4	349
66	Other services, exc. gov	-2	41	5	36	88

#### **Chapter 33. McCreary County, Kentucky**

Employment in McCreary County, Kentucky, declined from 3,286 in 2005 to 2,597 in 2018, for a change of -689, or -20.97%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for McCreary County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	371	-1,058	-37	-1,021
vs. Appalachia	8	-700	-2	-698
vs. Neighbors	-63	-621	198	-819

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to McCreary County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for McCreary County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
07	Utilities	F III c iii	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
31	General merchandise 	F III c iii	no	yes	yes	yes
37	Transit and ground	Elciii	no	yes	yes	yes
61	Social assistance	BIIbii	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
66	Other services, exc. gov	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from McCreary County, Kentucky vs. the United States

Groups a, b, and c are from McCreary County, Kentucky vs. Appalachia

Groups i, ii, and iii are from McCreary County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing McCreary County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by McCreary County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in McCreary County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that McCreary County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

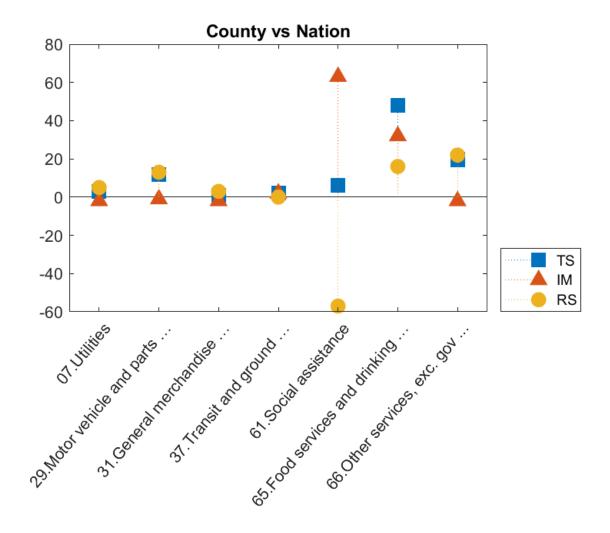
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in McCreary County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for McCreary County, Kentucky vs the U.S.

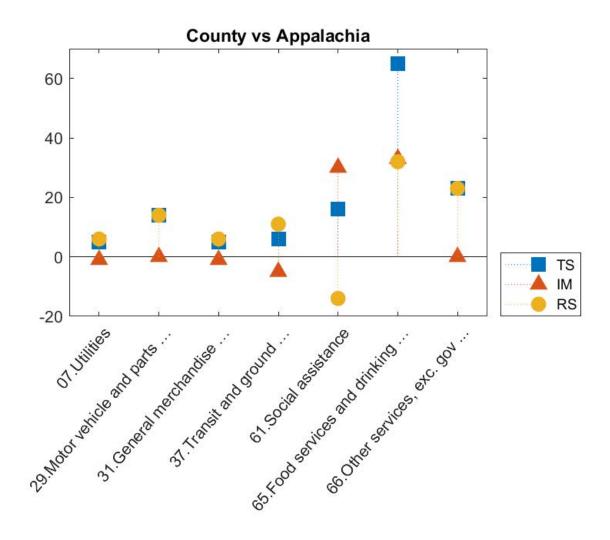


#### **Chapter 33. McCreary County, Kentucky**

## McCreary County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	2	3	-2	5	26
29	Motor vehicle and parts	1	12	-1	13	27
31	General merchandise 	4	1	-2	3	39
37	Transit and ground	3	2	2	0	31
61	Social assistance	11	6	63	-57	113
65	Food services and drinking	19	48	32	16	232
66	Other services, exc. gov	2	20	-2	22	43

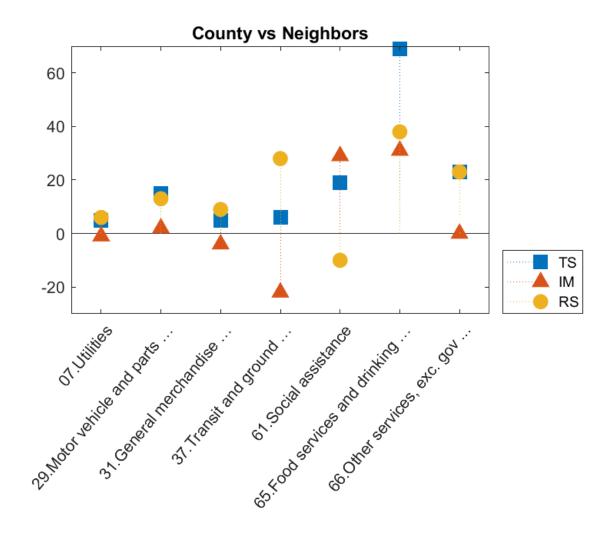
# Selected SSA Components for McCreary County, Kentucky vs the Appalachian Region



# Selected SSA Components for McCreary County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	0	5	-1	6	26
29	Motor vehicle and parts	0	14	0	14	27
31	General merchandise 	0	5	-1	6	39
37	Transit and ground	0	6	-5	11	31
61	Social assistance	0	16	30	-14	113
65	Food services and drinking	1	65	33	32	232
66	Other services, exc. gov	0	23	-0	23	43

### **Selected SSA Components for McCreary County, Kentucky vs Neighbors**



#### **Chapter 33. McCreary County, Kentucky**

# Selected SSA Components for McCreary County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	-0	5	-1	6	26
29	Motor vehicle and parts	-0	15	2	13	27
31	General merchandise 	-1	5	-4	9	39
37	Transit and ground	-1	6	-22	28	31
61	Social assistance	-2	19	29	-10	113
65	Food services and drinking	-3	69	31	38	232
66	Other services, exc. gov	-0	23	0	23	43

#### **Chapter 34. Madison County, Kentucky**

Employment in Madison County, Kentucky, grew from 29,809 in 2005 to 34,110 in 2018, for a change of 4,301, or 14.43%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Madison County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	3,363	941	-324	1,265
vs. Appalachia	100	4,202	930	3,272
vs. Neighbors	3,392	916	148	768

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Madison County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Madison County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
08	Construction	FIIIciii	no	yes	yes	yes
11	Primary metals	F III c iii	no	yes	yes	yes
12	Fabricated metal products	F III c iii	no	yes	yes	yes
16	Motor vehicles, bodies	C III a iii	yes	yes	yes	yes
29	Motor vehicle and parts	F III a iii	no	yes	yes	yes
31	General merchandise	FIIIciii	no	yes	yes	yes
32	Other retail	F III c iii	no	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
55	Administrative and	Allbii	yes	yes	yes	yes
58	Ambulatory health care	BIIbi	yes	yes	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
60	Nursing and residential	Elaii	no	yes	yes	yes
61	Social assistance	BVbv	yes	no	yes	no
64	Accommodation	Alaiii	yes	yes	yes	yes
65	Food services and drinking	BIIaii	yes	yes	yes	yes
66	Other services, exc. gov	FIIIci	no	yes	yes	yes
68	Government	F III a iii	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Madison County, Kentucky vs. the United States

Groups a, b, and c are from Madison County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Madison County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Madison County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Madison County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Madison County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Madison County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

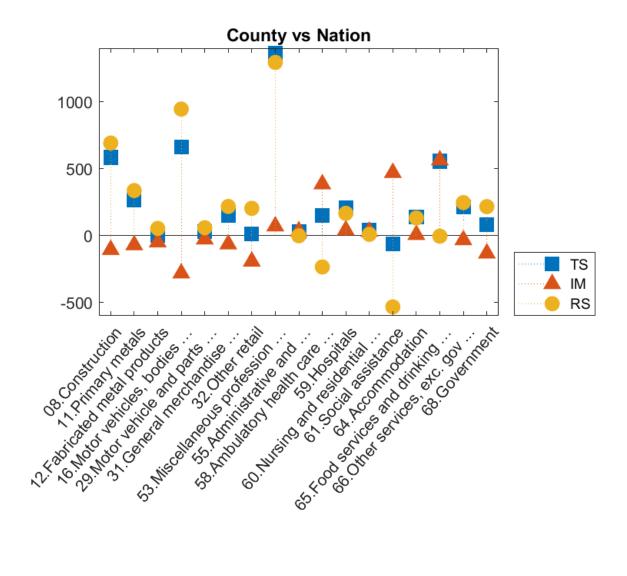
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Madison County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

#### Selected SSA Components for Madison County, Kentucky vs the U.S.

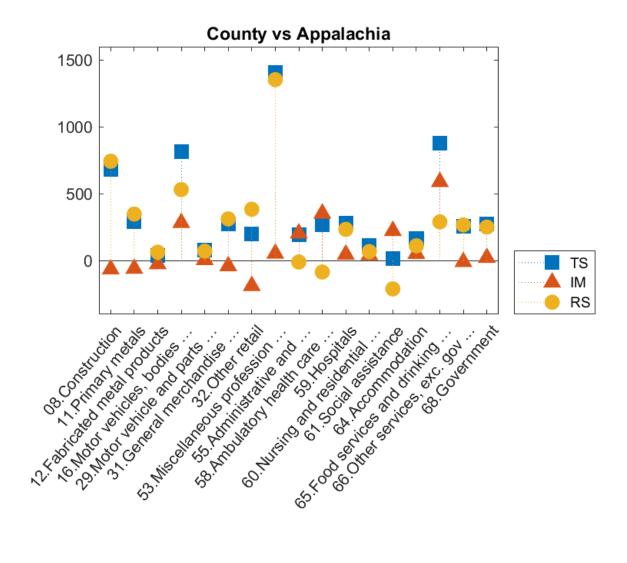


### **Chapter 34. Madison County, Kentucky**

## Madison County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
80	Construction	99	585	-106	691	1,561
11	Primary metals	27	265	-71	336	532
12	Fabricated metal products	38	3	-50	53	381
16	Motor vehicles, bodies	157	663	-282	945	2,215
29	Motor vehicle and parts	51	30	-28	58	532
31	General merchandise	126	152	-65	217	1,399
32	Other retail	194	10	-193	203	1,922
53	Miscellaneous profession	46	1,364	70	1,294	1,822
55	Administrative and	171	31	33	-2	1,715
58	Ambulatory health care	124	149	384	-235	1,369
59	Hospitals	80	206	40	166	997
60	Nursing and residential	75	39	30	9	784
61	Social assistance	81	-64	469	-533	732
64	Accommodation	29	137	6	131	427
65	Food services and drinking	333	558	563	-5	3,843
66	Other services, exc. gov	48	213	-33	246	687
68	Government	198	83	-133	216	2,040

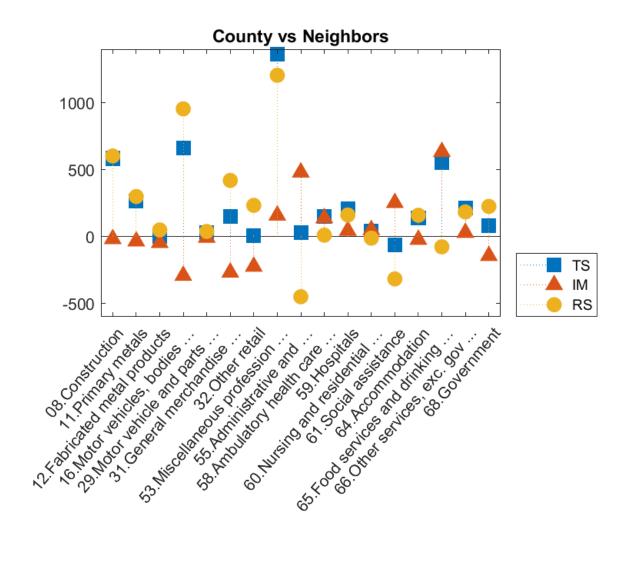
# Selected SSA Components for Madison County, Kentucky vs the Appalachian Region



# Selected SSA Components for Madison County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	3	681	-63	744	1,561
11	Primary metals	1	291	-58	349	532
12	Fabricated metal products	1	40	-24	64	381
16	Motor vehicles, bodies	5	816	284	532	2,215
29	Motor vehicle and parts	2	79	7	72	532
31	General merchandise	4	274	-39	313	1,399
32	Other retail	6	198	-187	385	1,922
53	Miscellaneous profession	1	1,409	55	1,354	1,822
55	Administrative and	5	197	206	-9	1,715
58	Ambulatory health care	4	270	354	-84	1,369
59	Hospitals	2	283	48	235	997
60	Nursing and residential	2	112	43	69	784
61	Social assistance	2	14	224	-210	732
64	Accommodation	1	165	53	112	427
65	Food services and drinking	10	881	590	291	3,843
66	Other services, exc. gov	1	260	-8	268	687
68	Government	6	275	23	252	2,040

### **Selected SSA Components for Madison County, Kentucky vs Neighbors**



#### **Chapter 34. Madison County, Kentucky**

# Selected SSA Components for Madison County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
80	Construction	100	584	-18	602	1,561
11	Primary metals	27	264	-35	299	532
12	Fabricated metal products	39	2	-47	49	381
16	Motor vehicles, bodies	159	662	-292	954	2,215
29	Motor vehicle and parts	51	30	-8	38	532
31	General merchandise	127	151	-268	419	1,399
32	Other retail	195	9	-224	233	1,922
53	Miscellaneous profession	47	1,363	158	1,205	1,822
55	Administrative and	172	30	480	-450	1,715
58	Ambulatory health care	125	148	138	10	1,369
59	Hospitals	81	205	44	161	997
60	Nursing and residential	76	38	50	-12	784
61	Social assistance	81	-65	252	-317	732
64	Accommodation	30	136	-23	159	427
65	Food services and drinking	336	556	633	-77	3,843
66	Other services, exc. gov	48	213	29	184	687
68	Government	200	81	-144	225	2,040

#### **Chapter 35. Magoffin County, Kentucky**

Employment in Magoffin County, Kentucky, declined from 2,485 in 2005 to 1,572 in 2018, for a change of -913, or -36.74%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Magoffin County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	279	-1,199	48	-1,247
vs. Appalachia	4	-922	94	-1,016
vs. Neighbors	-562	-353	137	-490

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Magoffin County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Magoffin County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
45	Federal Reserve banks,	FIIIci	no	yes	yes	yes
51	Legal services	FIIIci	no	yes	yes	yes
58	Ambulatory health care 	BIIbii	yes	yes	yes	yes
60	Nursing and residential	Ellai	no	yes	yes	yes
61	Social assistance	B V e ii	yes	no	no	yes
65	Food services and drinking	B V e ii	yes	no	no	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Magoffin County, Kentucky vs. the United States

Groups a, b, and c are from Magoffin County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Magoffin County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Magoffin County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Magoffin County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Magoffin County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Magoffin County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

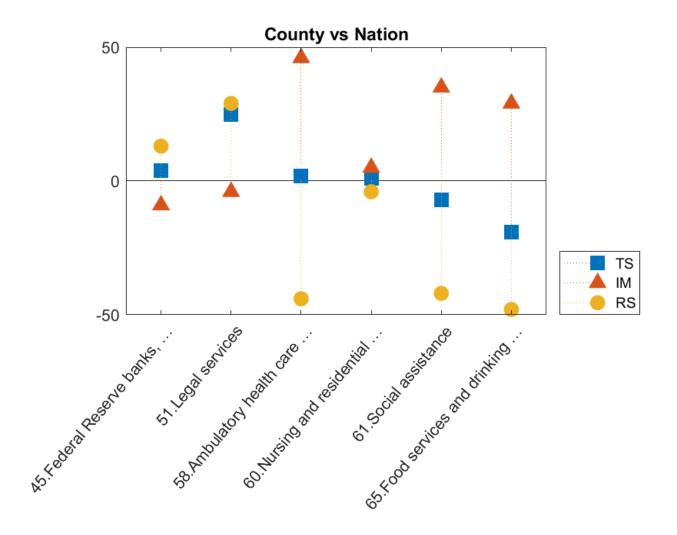
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Magoffin County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Magoffin County, Kentucky vs the U.S.

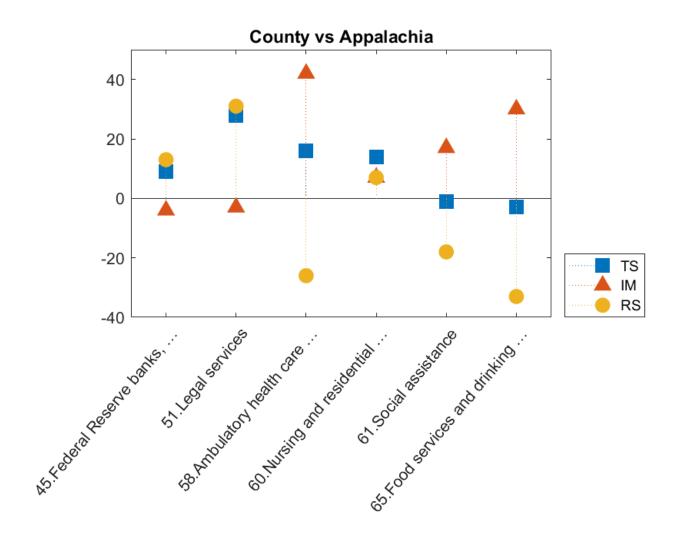


#### **Chapter 35. Magoffin County, Kentucky**

## Magoffin County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
45	Federal Reserve banks,	5	4	-9	13	53
51	Legal services	3	25	-4	29	59
58	Ambulatory health care 	15	2	46	-44	148
60	Nursing and residential	13	1	5	-4	131
61	Social assistance	6	-7	35	-42	52
65	Food services and drinking	17	-19	29	-48	150

# Selected SSA Components for Magoffin County, Kentucky vs the Appalachian Region

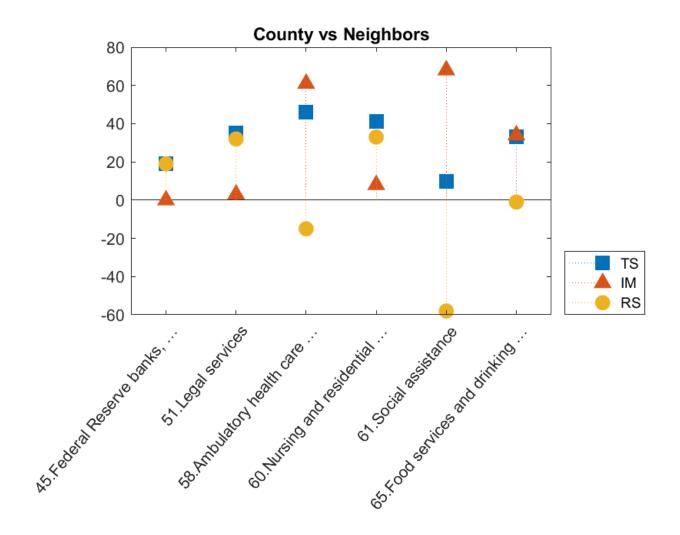


#### **Chapter 35. Magoffin County, Kentucky**

# Selected SSA Components for Magoffin County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
_	Federal					_
45	Reserve	0	9	-4	13	53
	banks,					
51	Legal	0	28	-3	31	59
	services		20		<u> </u>	
	Ambulatory					
58	health care	0	16	42	-26	148
60	Nursing and	0	14	7	7	131
	residential	0		•	•	101
61	Social	0	-1	17	-18	52
	assistance	U	-1	17	-10	JZ
	Food					
65	services and	1	-3	30	-33	150
	drinking					

### Selected SSA Components for Magoffin County, Kentucky vs Neighbors



#### **Chapter 35. Magoffin County, Kentucky**

# Selected SSA Components for Magoffin County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
45	Federal Reserve banks,	-10	19	0	19	53
51	Legal services	-7	35	3	32	59
58	Ambulatory health care 	-30	46	61	-15	148
60	Nursing and residential	-26	41	8	33	131
61	Social assistance	-12	10	68	-58	52
65	Food services and drinking	-34	33	34	-1	150

#### **Chapter 36. Martin County, Kentucky**

Employment in Martin County, Kentucky, declined from 3,222 in 2005 to 2,280 in 2018, for a change of 942, or -29.24%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Martin County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	363	-1,305	-173	-1,132
vs. Appalachia	9	-948	-126	-822
vs. Neighbors	-624	-313	-142	-171

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Martin County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Martin County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
03	Oil and gas extraction	Alai	yes	yes	yes	yes
08	Construction	F III c iii	no	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
55	Administrative and	A N b iii	yes	no	yes	yes
58	Ambulatory health care	BVbii	yes	no	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
65	Food services and drinking	B V e ii	yes	no	no	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Martin County, Kentucky vs. the United States

Groups a, b, and c are from Martin County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Martin County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Martin County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Martin County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Martin County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Martin County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

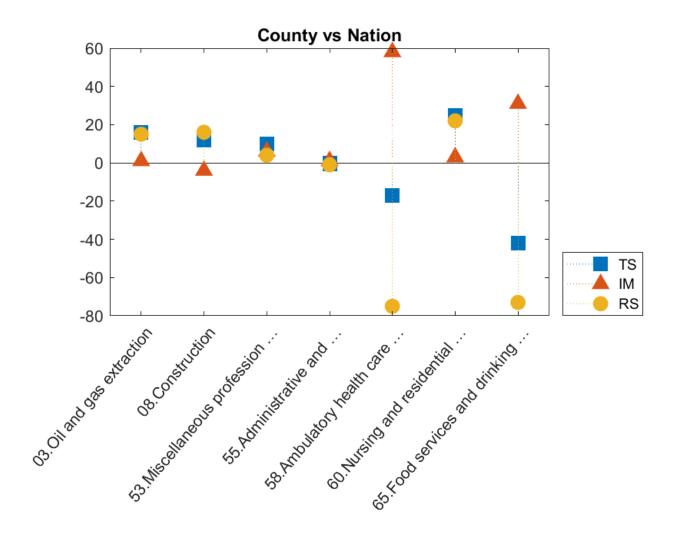
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Martin County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Martin County, Kentucky vs the U.S.

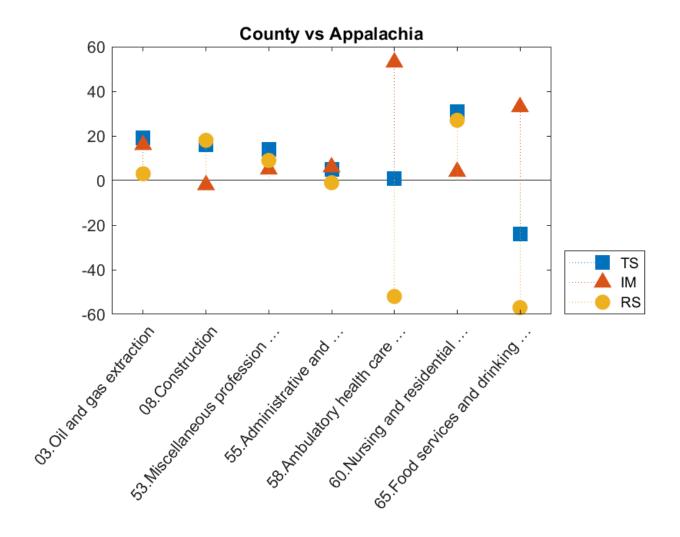


## Martin County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
03	Oil and gas extraction	3	16	1	15	45
08	Construction	4	12	-4	16	48
53	Miscellaneous profession	4	10	6	4	47
55	Administrative and	5	0	1	-1	51
58	Ambulatory health care	19	-17	58	-75	168
60	Nursing and residential	7	25	3	22	90
65	Food services and drinking	18	-42	31	-73	140

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# Selected SSA Components for Martin County, Kentucky vs the Appalachian Region

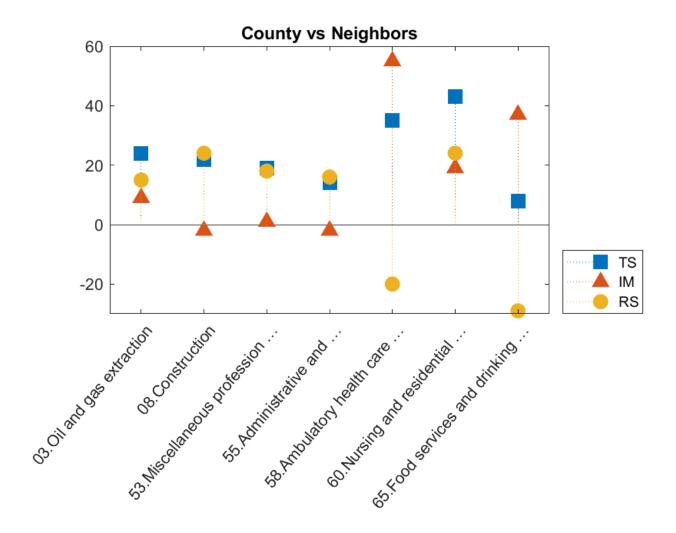


# Selected SSA Components for Martin County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
03	Oil and gas extraction	0	19	16	3	45
08	Construction	0	16	-2	18	48
53	Miscellaneous profession	0	14	5	9	47
55	Administrative and	0	5	6	-1	51
58	Ambulatory health care	1	1	53	-52	168
60	Nursing and residential	0	31	4	27	90
65	Food services and drinking	1	-24	33	-57	140

...

## **Selected SSA Components for Martin County, Kentucky vs Neighbors**



# Selected SSA Components for Martin County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
03	Oil and gas extraction	-5	24	9	15	45
08	Construction	-6	22	-2	24	48
53	Miscellaneous profession	-7	19	1	18	47
55	Administrative and	-9	14	-2	16	51
58	Ambulatory health care	-32	35	55	-20	168
60	Nursing and residential	-11	43	19	24	90
65	Food services and drinking	-32	8	37	-29	140

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#### **Chapter 37. Menifee County, Kentucky**

Employment in Menifee County, Kentucky, declined from 1,072 in 2005 to 933 in 2018, for a change of -139, or -12.97%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Menifee County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	120	-264	-15	-249
vs. Appalachia	3	-140	-15	-125
vs. Neighbors	-36	-104	-64	-40

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Menifee County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Menifee County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
02	Forestry, fishing, and	Elai	no	yes	yes	yes
08	Construction	F III c iii	no	yes	yes	yes
09	Wood products	FIIIci	no	yes	yes	yes
13	Machinery	FIIIci	no	yes	yes	yes
28	Wholesale trade	FIIIci	no	yes	yes	yes
58	Ambulatory health care 	Blai	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
66	Other services, exc. gov	F III a iii	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Menifee County, Kentucky vs. the United States

Groups a, b, and c are from Menifee County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Menifee County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Menifee County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Menifee County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Menifee County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Menifee County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

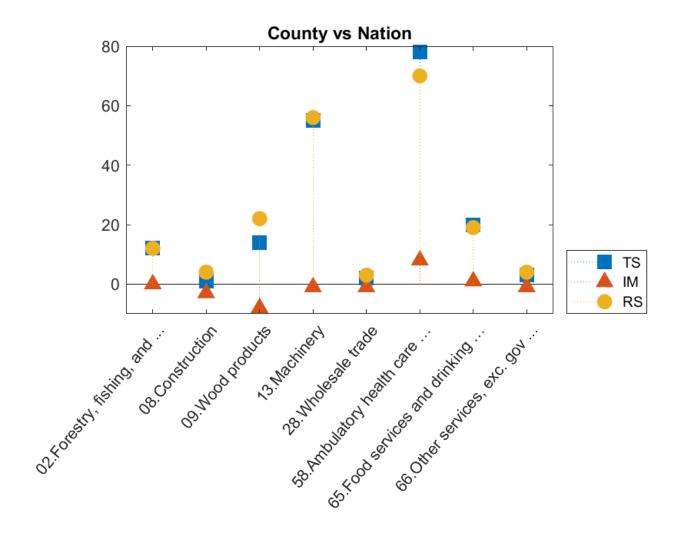
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Menifee County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Menifee County, Kentucky vs the U.S.

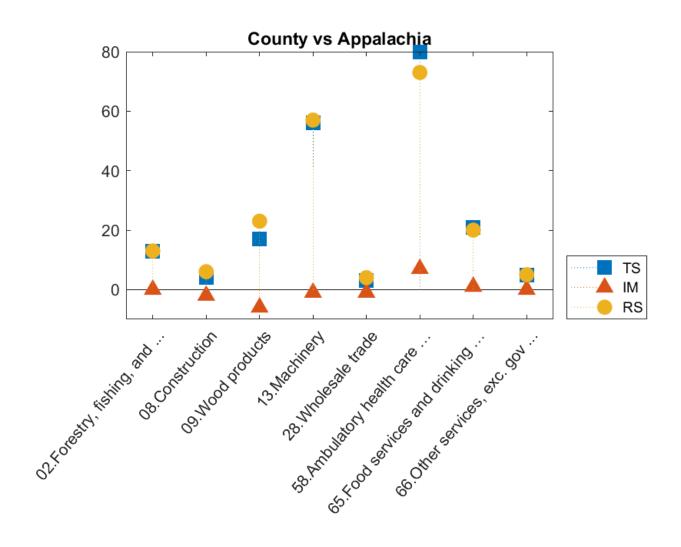


### **Chapter 37. Menifee County, Kentucky**

# Menifee County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
02	Forestry, fishing, and	0	12	0	12	14
08	Construction	2	1	-3	4	25
09	Wood products	2	14	-8	22	37
13	Machinery	0	55	-1	56	60
28	Wholesale trade	1	2	-1	3	11
58	Ambulatory health care 	3	78	8	70	102
65	Food services and drinking	1	20	1	19	26
66	Other services, exc. gov	2	3	-1	4	22

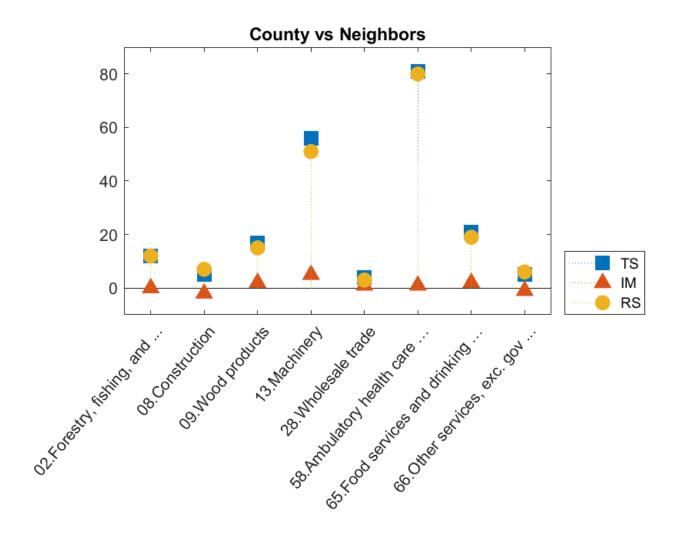
# Selected SSA Components for Menifee County, Kentucky vs the Appalachian Region



# Selected SSA Components for Menifee County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
02	Forestry, fishing, and	0	13	-0	13	14
80	Construction	0	4	-2	6	25
09	Wood products	0	17	-6	23	37
13	Machinery	0	56	-1	57	60
28	Wholesale trade	0	3	-1	4	11
58	Ambulatory health care 	0	80	7	73	102
65	Food services and drinking	0	21	1	20	26
66	Other services, exc. gov	0	5	-0	5	22

### **Selected SSA Components for Menifee County, Kentucky vs Neighbors**



### **Chapter 37. Menifee County, Kentucky**

# Selected SSA Components for Menifee County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
02	Forestry, fishing, and	-0	12	0	12	14
80	Construction	-1	5	-2	7	25
09	Wood products	-1	17	2	15	37
13	Machinery	-0	56	5	51	60
28	Wholesale trade	-0	4	1	3	11
58	Ambulatory health care 	-1	81	1	80	102
65	Food services and drinking	-0	21	2	19	26
66	Other services, exc. gov	-1	5	-1	6	22

#### **Chapter 38. Metcalfe County, Kentucky**

Employment in Metcalfe County, Kentucky, declined from 2,370 in 2005 to 1,841 in 2018, for a change of -529, or -22.32%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Metcalfe County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	268	-792	-245	-547
vs. Appalachia	5	-541	-91	-450
vs. Neighbors	-122	-406	-331	-75

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Metcalfe County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Metcalfe County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
80	Construction	F III c iii	no	yes	yes	yes
20	Food and beverage	Elai	no	yes	yes	yes
31	General merchandise 	FIIIci	no	yes	yes	yes
37	Transit and ground	Elai	no	yes	yes	yes
47	Insurance carriers and	Flci	no	yes	yes	yes
54	Management of companies	Alai	yes	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
66	Other services, exc. gov	FIIIai	no	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Metcalfe County, Kentucky vs. the United States

Groups a, b, and c are from Metcalfe County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Metcalfe County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Metcalfe County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Metcalfe County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Metcalfe County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Metcalfe County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

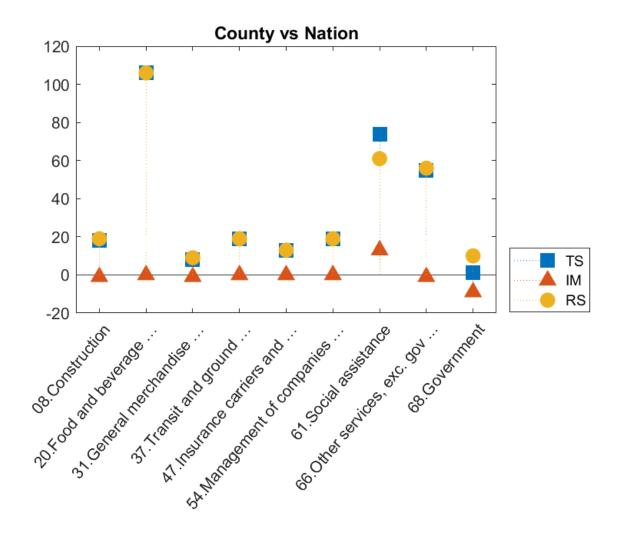
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Metcalfe County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Metcalfe County, Kentucky vs the U.S.

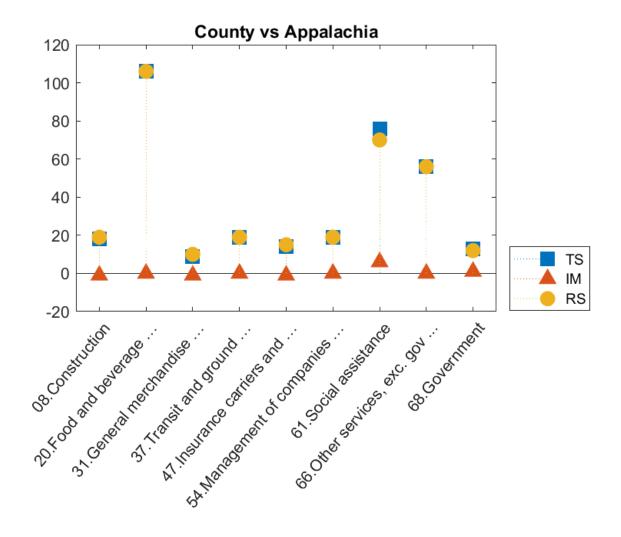


### **Chapter 38. Metcalfe County, Kentucky**

# Metcalfe County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	1	18	-1	19	30
20	Food and beverage	0	106	0	106	106
31	General merchandise 	2	8	-1	9	25
37	Transit and ground	0	19	0	19	19
47	Insurance carriers and 	1	13	-0	13	25
54	Management of companies	0	19	0	19	19
61	Social assistance	2	74	13	61	96
66	Other services, exc. gov	1	55	-1	56	68
68	Government	13	1	-9	10	127

# Selected SSA Components for Metcalfe County, Kentucky vs the Appalachian Region

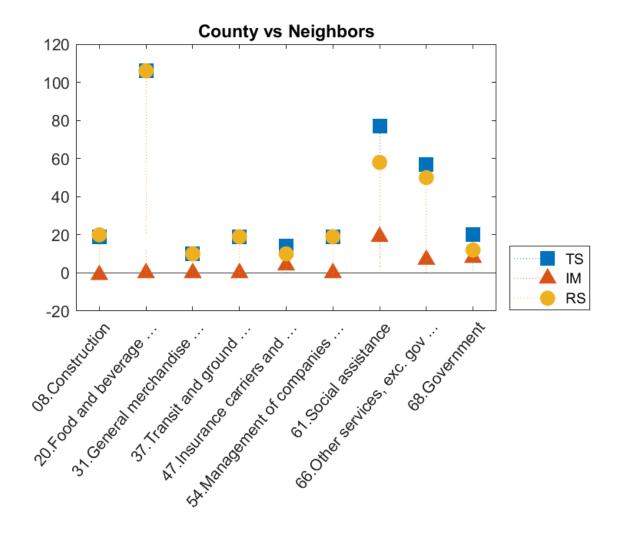


### **Chapter 38. Metcalfe County, Kentucky**

# Selected SSA Components for Metcalfe County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	0	18	-1	19	30
20	Food and beverage	0	106	0	106	106
31	General merchandise 	0	9	-1	10	25
37	Transit and ground	0	19	0	19	19
47	Insurance carriers and 	0	14	-1	15	25
54	Management of companies	0	19	0	19	19
61	Social assistance	0	76	6	70	96
66	Other services, exc. gov	0	56	-0	56	68
68	Government	0	13	1	12	127

### **Selected SSA Components for Metcalfe County, Kentucky vs Neighbors**



### **Chapter 38. Metcalfe County, Kentucky**

# Selected SSA Components for Metcalfe County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	-1	19	-1	20	30
20	Food and beverage	-0	106	0	106	106
31	General merchandise 	-1	10	-0	10	25
37	Transit and ground	-0	19	0	19	19
47	Insurance carriers and 	-1	14	4	10	25
54	Management of companies	-0	19	0	19	19
61	Social assistance	-1	77	19	58	96
66	Other services, exc. gov	-1	57	7	50	68
68	Government	-6	20	8	12	127

#### **Chapter 39. Monroe County, Kentucky**

Employment in Monroe County, Kentucky, declined from 3,446 in 2005 to 3,190 in 2018, for a change of -256, or -7.43%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Monroe County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	388	-639	-268	-371
vs. Appalachia	8	-269	-162	-107
vs. Neighbors	-239	-14	157	-171

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Monroe County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Monroe County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
01	Farms	Flai	no	yes	yes	yes
07	Utilities	F III c iii	no	yes	yes	yes
08	Construction	F III c iii	no	yes	yes	yes
18	Furniture and related	FIIIci	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
30	Food and beverage stores	F III c iii	no	yes	yes	yes
36	Truck transportation	FIIIci	no	yes	yes	yes
45	Federal Reserve banks,	FIIIci	no	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
57	Educational services	FIIIai	no	yes	yes	yes
58	Ambulatory health care	BVbi	yes	no	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
61	Social assistance	B V e iii	yes	no	no	yes
65	Food services and drinking	BIIaii	yes	yes	yes	yes
66	Other services, exc. gov	FIIIcii	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Monroe County, Kentucky vs. the United States

Groups a, b, and c are from Monroe County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Monroe County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Monroe County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Monroe County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Monroe County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Monroe County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

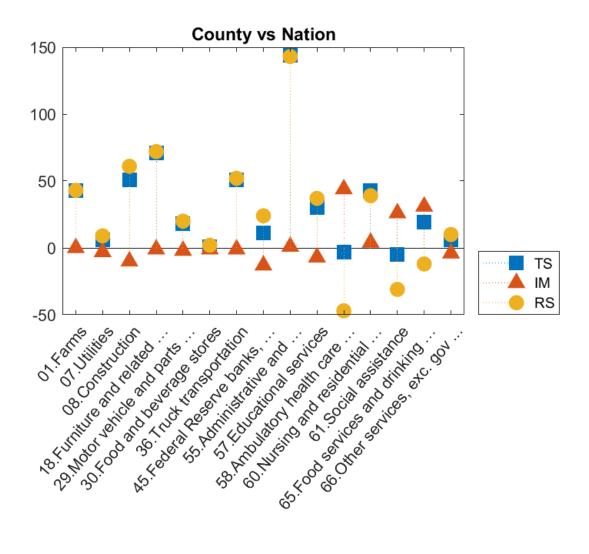
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Monroe County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

#### Selected SSA Components for Monroe County, Kentucky vs the U.S.

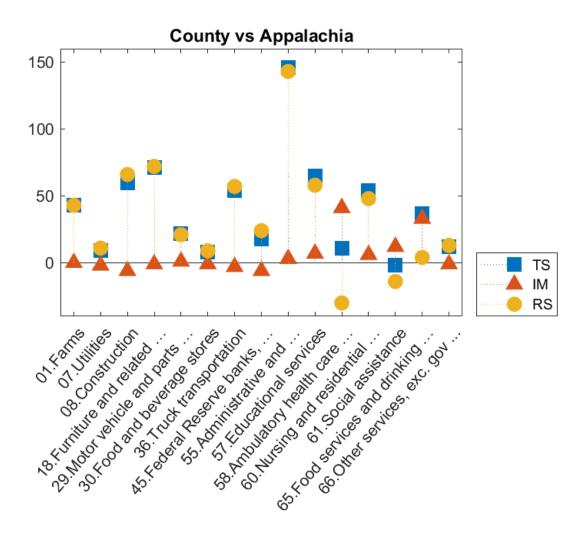


### **Chapter 39. Monroe County, Kentucky**

# Monroe County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
01	Farms	0	43	-0	43	46
07	Utilities	3	6	-3	9	36
08	Construction	9	51	-10	61	142
18	Furniture and related	0	71	-1	72	73
29	Motor vehicle and parts	4	18	-2	20	60
30	Food and beverage stores	7	1	-1	2	68
36	Truck transportation	5	51	-1	52	95
45	Federal Reserve banks,	8	11	-13	24	87
55	Administrative and	3	144	1	143	171
57	Educational services	36	30	-7	37	384
58	Ambulatory health care	14	-3	44	-47	138
60	Nursing and residential	11	43	4	39	153
61	Social assistance	4	-5	26	-31	38
65	Food services and drinking	19	19	31	-12	203
66	Other services, exc. gov	5	6	-4	10	60

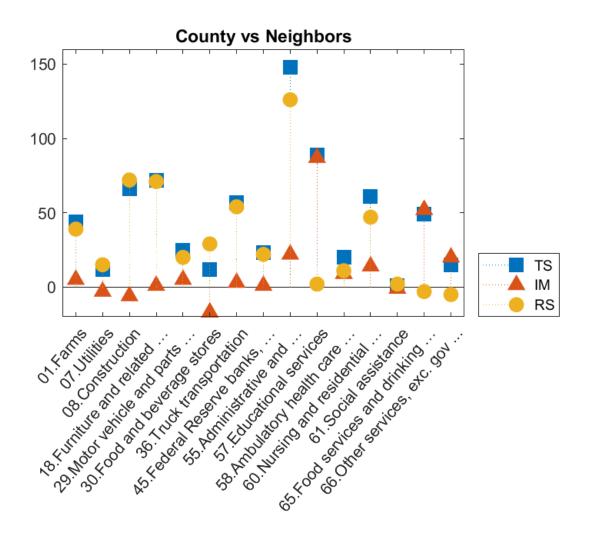
# Selected SSA Components for Monroe County, Kentucky vs the Appalachian Region



# Selected SSA Components for Monroe County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
01	Farms	0	43	0	43	46
07	Utilities	0	9	-2	11	36
08	Construction	0	60	-6	66	142
18	Furniture and related	0	71	-1	72	73
29	Motor vehicle and parts	0	22	1	21	60
30	Food and beverage stores	0	8	-1	9	68
36	Truck transportation	0	54	-3	57	95
45	Federal Reserve banks,	0	18	-6	24	87
55	Administrative and	0	146	3	143	171
57	Educational services	1	65	7	58	384
58	Ambulatory health care	0	11	41	-30	138
60	Nursing and residential	0	54	6	48	153
61	Social assistance	0	-2	12	-14	38
65	Food services and drinking	1	37	33	4	203
66	Other services, exc. gov	0	12	-1	13	60

#### **Selected SSA Components for Monroe County, Kentucky vs Neighbors**



# Selected SSA Components for Monroe County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
01	Farms	-0	44	5	39	46
07	Utilities	-2	12	-3	15	36
80	Construction	-6	66	-6	72	142
18	Furniture and related	-0	72	1	71	73
29	Motor vehicle and parts	-3	25	5	20	60
30	Food and beverage stores	-4	12	-17	29	68
36	Truck transportation	-3	57	3	54	95
45	Federal Reserve banks,	-5	23	1	22	87
55	Administrative and	-2	148	22	126	171
57	Educational services	-22	89	87	2	384
58	Ambulatory health care	-9	20	9	11	138
60	Nursing and residential	-7	61	14	47	153
61	Social assistance	-3	1	-1	2	38
65	Food services and drinking	-12	49	52	-3	203
66	Other services, exc. gov	-3	15	20	-5	60

#### **Chapter 40. Montgomery County, Kentucky**

Employment in Montgomery County, Kentucky, declined from 10,949 in 2005 to 10,347 in 2018, for a change of -602, or -5.5%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Montgomery County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	1,234	-1,833	-447	-1,386
vs. Appalachia	32	-642	-69	-573
vs. Neighbors	-415	-190	-104	-86

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Montgomery County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Montgomery County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
11	Primary metals	Flai	no	yes	yes	yes
15	Electrical equipment,	DIIIci	no	yes	yes	yes
16	Motor vehicles, bodies	C III a i	yes	yes	yes	yes
39	Other transportation	Elci	no	yes	yes	yes
57	Educational services	FIIIai	no	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
61	Social assistance	BIIbii	yes	yes	yes	yes
65	Food services and drinking	Bllai	yes	yes	yes	yes
66	Other services, exc. gov	FIIIci	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Montgomery County, Kentucky vs. the United States

Groups a, b, and c are from Montgomery County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Montgomery County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Montgomery County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Montgomery County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Montgomery County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Montgomery County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

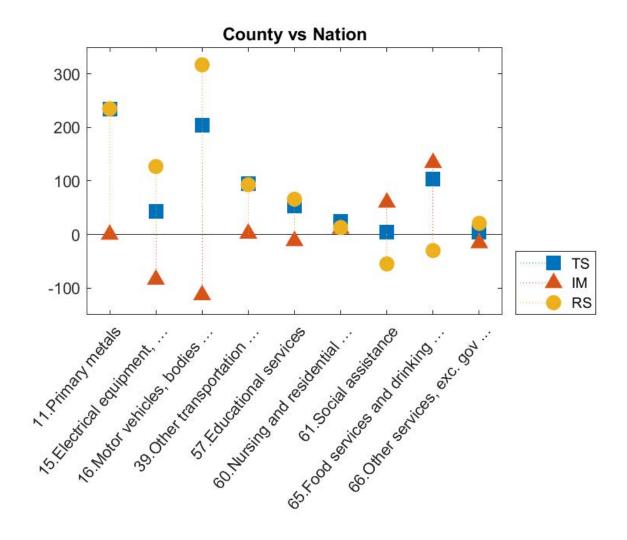
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Montgomery County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

#### Selected SSA Components for Montgomery County, Kentucky vs the U.S.

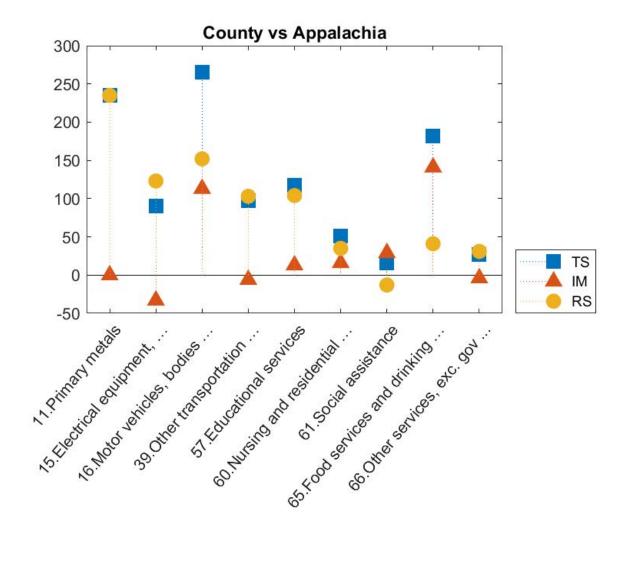


### **Chapter 40. Montgomery County, Kentucky**

# **Montgomery County, Kentucky vs U.S. for Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	0	235	0	235	235
15	Electrical equipment,	48	43	-84	127	518
16	Motor vehicles, bodies	63	204	-113	317	824
39	Other transportation 	2	95	2	93	111
57	Educational services	65	54	-12	66	693
60	Nursing and residential	28	24	11	13	304
61	Social assistance	10	5	60	-55	108
65	Food services and drinking	80	104	134	-30	889
66	Other services, exc. gov	24	5	-16	21	239

## Selected SSA Components for Montgomery County, Kentucky vs the Appalachian Region

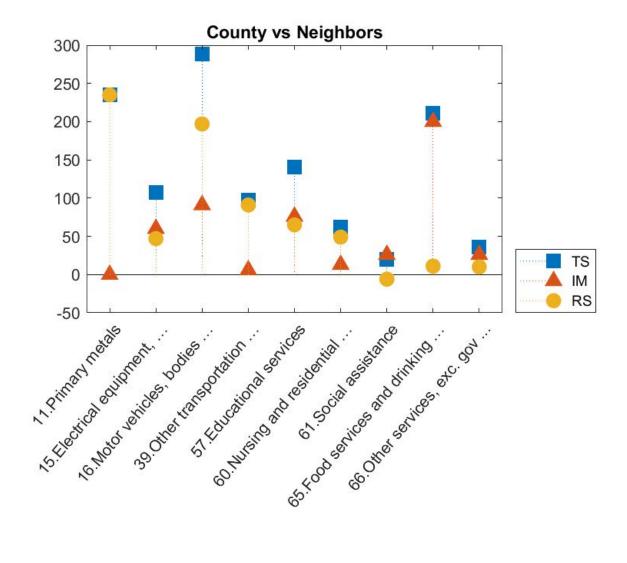


### **Chapter 40. Montgomery County, Kentucky**

## Selected SSA Components for Montgomery County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	0	235	0	235	235
15	Electrical equipment, 	1	90	-33	123	518
16	Motor vehicles, bodies	2	265	113	152	824
39	Other transportation 	0	97	-6	103	111
57	Educational services	2	117	13	104	693
60	Nursing and residential	1	51	16	35	304
61	Social assistance	0	16	29	-13	108
65	Food services and drinking	2	182	141	41	889
66	Other services, exc. gov	1	27	-4	31	239

### **Selected SSA Components for Montgomery County, Kentucky vs Neighbors**



### **Chapter 40. Montgomery County, Kentucky**

# Selected SSA Components for Montgomery County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	-0	235	0	235	235
15	Electrical equipment, 	-16	107	60	47	518
16	Motor vehicles, bodies	-21	288	91	197	824
39	Other transportation 	-1	97	6	91	111
57	Educational services	-22	141	76	65	693
60	Nursing and residential	-10	62	13	49	304
61	Social assistance	-3	20	26	-6	108
65	Food services and drinking	-27	211	200	11	889
66	Other services, exc. gov	-8	36	26	10	239

### **Chapter 41. Morgan County, Kentucky**

Employment in Morgan County, Kentucky, declined from 3,115 in 2005 to 2,887 in 2018, for a change of -228, or -7.32%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Morgan County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	353	-581	-143	-438
vs. Appalachia	5	-236	-56	-180
vs. Neighbors	-255	26	42	-16

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Morgan County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Morgan County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
13	Machinery	Flai	no	yes	yes	yes
19	Miscellaneous manufac	FIIIci	no	yes	yes	yes
47	Insurance carriers and	Flciii	no	yes	yes	yes
53	Miscellaneous profession	Blaiii	yes	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
61	Social assistance	BVnii	yes	no	no	yes
65	Food services and drinking	B V e ii	yes	no	no	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Morgan County, Kentucky vs. the United States

Groups a, b, and c are from Morgan County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Morgan County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Morgan County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Morgan County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Morgan County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Morgan County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

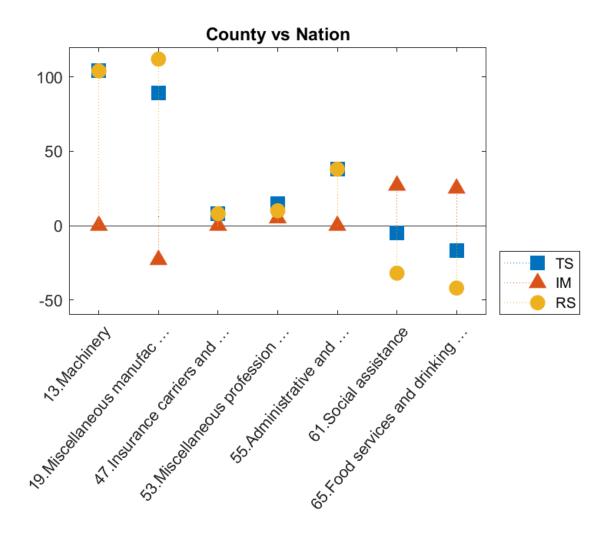
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Morgan County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Morgan County, Kentucky vs the U.S.



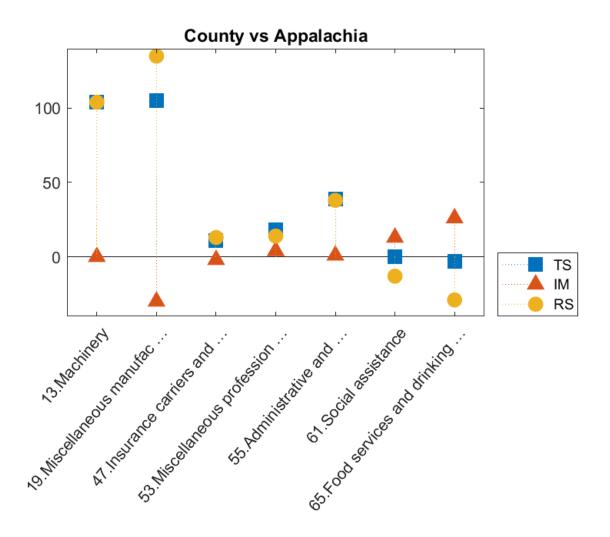
**Chapter 41. Morgan County, Kentucky** 

## Morgan County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	0	104	0	104	104
19	Miscellaneous manufac	16	89	-23	112	247
47	Insurance carriers and 	4	8	-0	8	44
53	Miscellaneous profession	3	15	5	10	50
55	Administrative and	0	38	0	38	43
61	Social assistance	5	-5	27	-32	41
65	Food services and drinking	15	-17	25	-42	128

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## Selected SSA Components for Morgan County, Kentucky vs the Appalachian Region

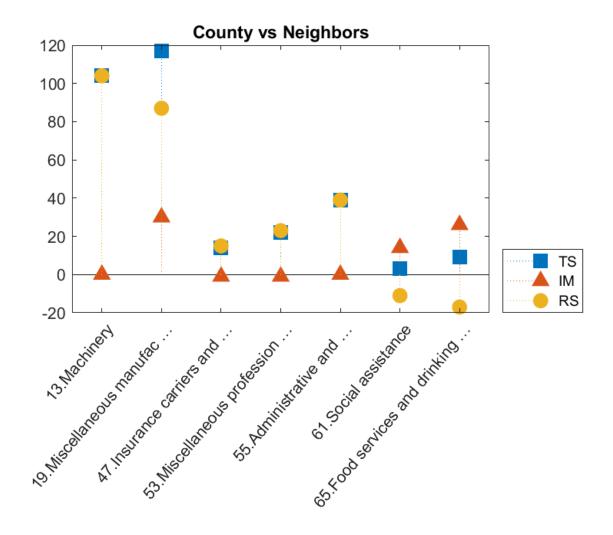


Selected SSA Components for Morgan County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	0	104	0	104	104
19	Miscellaneous manufac	0	105	-30	135	247
47	Insurance carriers and 	0	11	-2	13	44
53	Miscellaneous profession	0	18	4	14	50
55	Administrative and	0	39	1	38	43
61	Social assistance	0	0	13	-13	41
65	Food services and drinking	0	-3	26	-29	128

. . .

## Selected SSA Components for Morgan County, Kentucky vs Neighbors



# Selected SSA Components for Morgan County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	-0	104	0	104	104
19	Miscellaneous manufac	-12	117	30	87	247
47	Insurance carriers and 	-3	14	-1	15	44
53	Miscellaneous profession	-3	22	-1	23	50
55	Administrative and	-0	39	-0	39	43
61	Social assistance	-3	3	14	-11	41
65	Food services and drinking	-11	9	26	-17	128

. . .

### **Chapter 42. Nicholas County, Kentucky**

Employment in Nicholas County, Kentucky, declined from 965 in 2005 to 850 in 2018, for a change of -115, or -11.92%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Nicholas County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	109	-227	3	-230
vs. Appalachia	2	-121	-12	-109
vs. Neighbors	-74	-44	15	-59

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Nicholas County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Nicholas County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
12	Fabricated metal products	F III c iii	no	yes	yes	yes
16	Motor vehicles, bodies	Clai	yes	yes	yes	yes
21	Textile mills and	Dlai	no	yes	yes	yes
39	Other transportation	Ellcii	no	yes	yes	yes
47	Insurance carriers and	Flai	no	yes	yes	yes
55	Administrative and	Alaiii	yes	yes	yes	yes
58	Ambulatory health care	BIIbi	yes	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Nicholas County, Kentucky vs. the United States

Groups a, b, and c are from Nicholas County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Nicholas County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Nicholas County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Nicholas County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Nicholas County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Nicholas County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

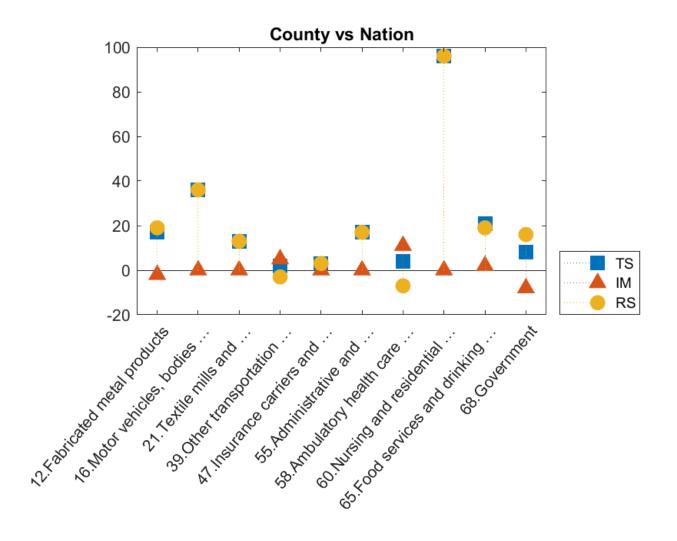
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Nicholas County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Nicholas County, Kentucky vs the U.S.

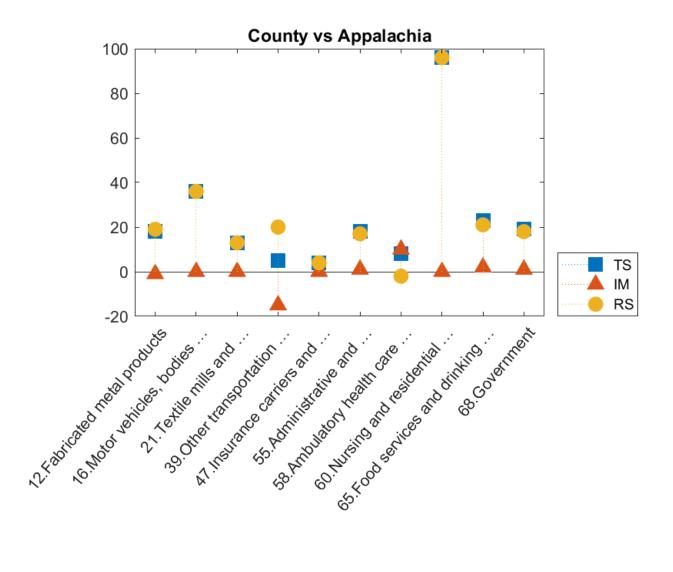


### **Chapter 42. Nicholas County, Kentucky**

## Nicholas County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	2	17	-2	19	33
16	Motor vehicles, bodies	0	36	0	36	36
21	Textile mills and	0	13	0	13	13
39	Other transportation	4	2	5	-3	39
47	Insurance carriers and 	1	3	-0	3	12
55	Administrative and	1	17	0	17	25
58	Ambulatory health care	4	4	11	-7	40
60	Nursing and residential	0	96	0	96	96
65	Food services and drinking	1	21	2	19	35
68	Government	12	8	-8	16	129

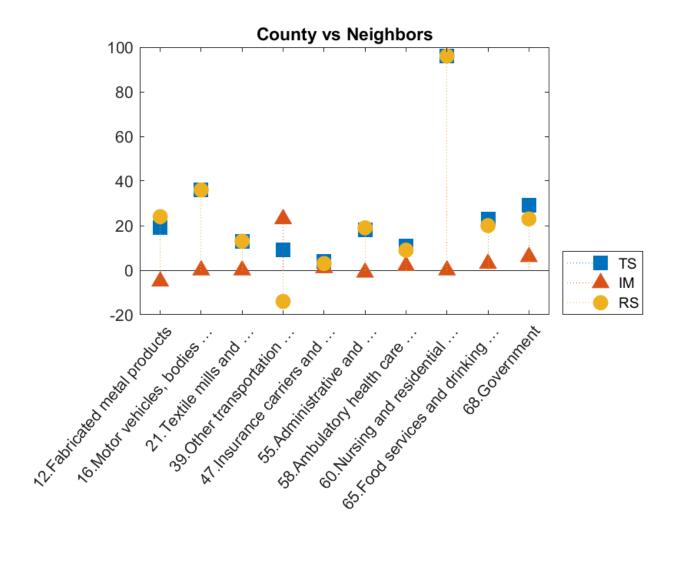
## Selected SSA Components for Nicholas County, Kentucky vs the Appalachian Region



# Selected SSA Components for Nicholas County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	0	18	-1	19	33
16	Motor vehicles, bodies	0	36	0	36	36
21	Textile mills and	0	13	0	13	13
39	Other transportation 	0	5	-15	20	39
47	Insurance carriers and 	0	4	-0	4	12
55	Administrative and	0	18	1	17	25
58	Ambulatory health care	0	8	10	-2	40
60	Nursing and residential	0	96	0	96	96
65	Food services and drinking	0	23	2	21	35
68	Government	0	19	1	18	129

## **Selected SSA Components for Nicholas County, Kentucky vs Neighbors**



# Selected SSA Components for Nicholas County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
	Fabricated					
12	metal products	-1	19	-5	24	33
16	Motor vehicles, bodies	-0	36	0	36	36
21	Textile mills and	-0	13	0	13	13
39	Other transportation 	-3	9	23	-14	39
47	Insurance carriers and 	-1	4	1	3	12
55	Administrative and	-1	18	-1	19	25
58	Ambulatory health care	-2	11	2	9	40
60	Nursing and residential	-0	96	0	96	96
65	Food services and drinking	-1	23	3	20	35
68	Government	-8	29	6	23	129

### **Chapter 43. Owsley County, Kentucky**

Employment in Owsley County, Kentucky, declined from 713 in 2005 to 664 in 2018, for a change of -49, or -6.87%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Owsley County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	81	-132	31	-163
vs. Appalachia	1	-54	34	-88
vs. Neighbors	-138	87	33	54

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Owsley County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Owsley County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
04	Coal Mining	Flai	no	yes	yes	yes
32	Other retail	F III c iii	no	yes	yes	yes
37	Transit and ground	Elciii	no	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
62	Performing arts, spectator	Blai	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Owsley County, Kentucky vs. the United States

Groups a, b, and c are from Owsley County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Owsley County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Owsley County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Owsley County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Owsley County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Owsley County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

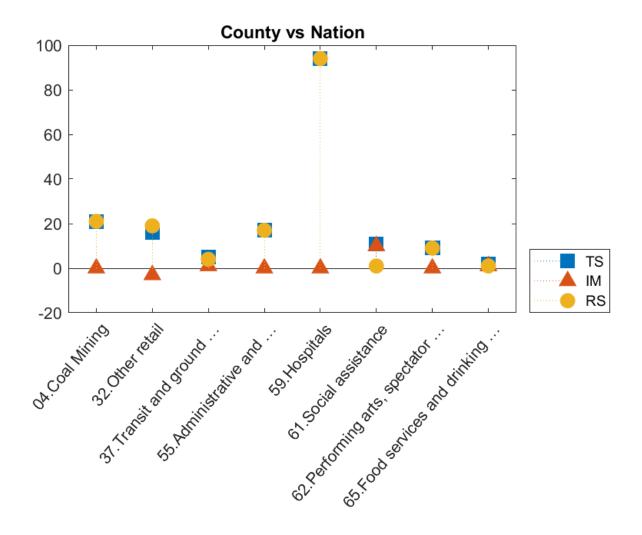
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Owsley County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Owsley County, Kentucky vs the U.S.

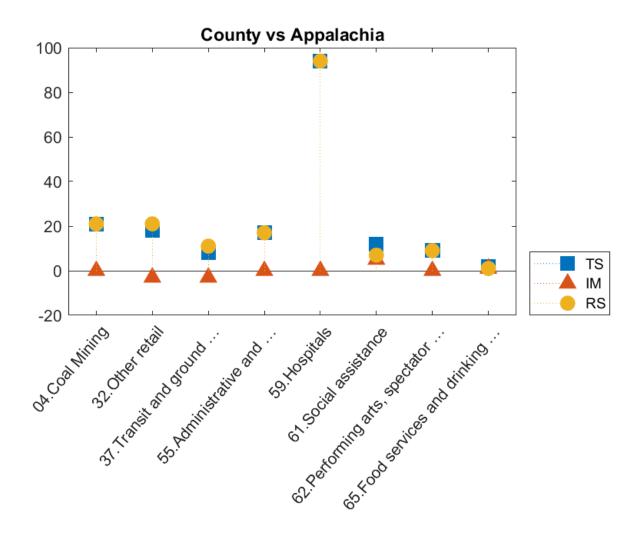


## Owsley County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
04	Coal Mining	0	21	0	21	21
32	Other retail	3	16	-3	19	43
37	Transit and ground	2	5	1	4	23
55	Administrative and	0	17	0	17	17
59	Hospitals	0	94	0	94	94
61	Social assistance	2	11	10	1	27
62	Performing arts, spectator	0	9	0	9	9
65	Food services and drinking	1	2	1	1	9

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## Selected SSA Components for Owsley County, Kentucky vs the Appalachian Region

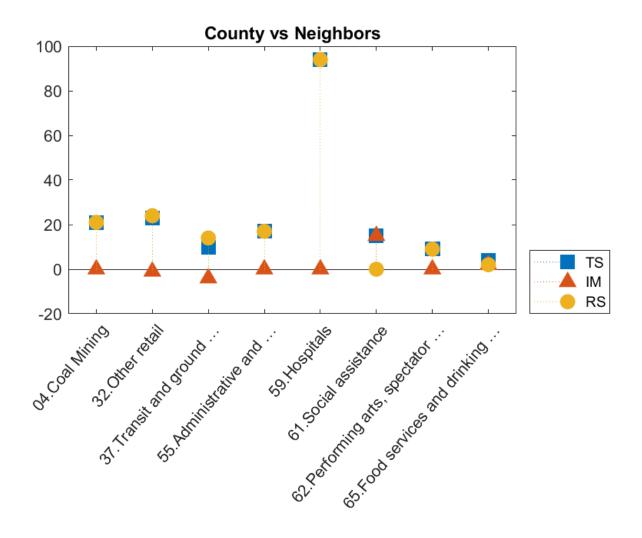


# Selected SSA Components for Owsley County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
04	Coal Mining	0	21	0	21	21
32	Other retail	0	18	-3	21	43
37	Transit and ground	0	8	-3	11	23
55	Administrative and	0	17	0	17	17
59	Hospitals	0	94	0	94	94
61	Social assistance	0	12	5	7	27
62	Performing arts, spectator	0	9	0	9	9
65	Food services and drinking	0	2	1	1	9

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## **Selected SSA Components for Owsley County, Kentucky vs Neighbors**



# Selected SSA Components for Owsley County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
04	Coal Mining	-0	21	0	21	21
32	Other retail	-5	23	-1	24	43
37	Transit and ground	-3	10	-4	14	23
55	Administrative and	-0	17	0	17	17
59	Hospitals	-0	94	0	94	94
61	Social assistance	-3	15	15	-0	27
62	Performing arts, spectator	-0	9	0	9	9
65	Food services and drinking	-1	4	2	2	9

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### **Chapter 44. Perry County, Kentucky**

Employment in Perry County, Kentucky, declined from 13,680 in 2005 to 11,177 in 2018, for a change of -2,503, or -18.3%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Perry County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	1,545	-4,043	-489	-3,554
vs. Appalachia	41	-2,548	-306	-2,242
vs. Neighbors	-3,440	938	264	674

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Perry County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Perry County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
39	Other transportation	Elci	no	yes	yes	yes
53	Miscellaneous profession	BVei	yes	no	no	yes
54	Management of companies	Alai	yes	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
58	Ambulatory health care	Blai	yes	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
65	Food services and drinking	BVbii	yes	no	yes	yes

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#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Perry County, Kentucky vs. the United States

Groups a, b, and c are from Perry County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Perry County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Perry County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Perry County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Perry County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Perry County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

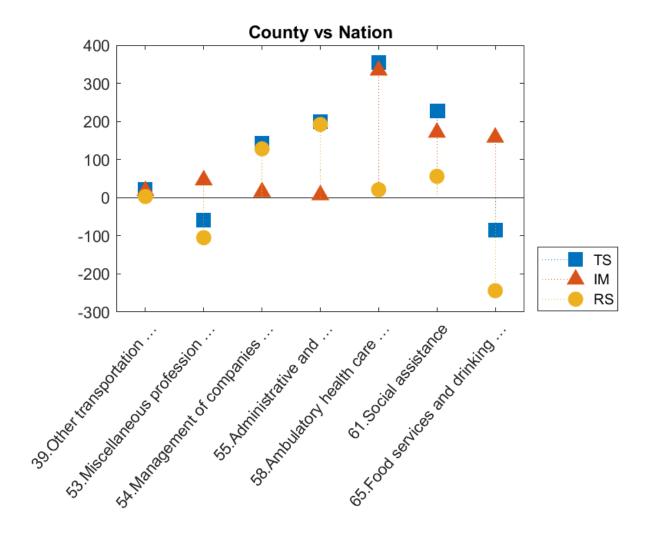
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Perry County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Perry County, Kentucky vs the U.S.



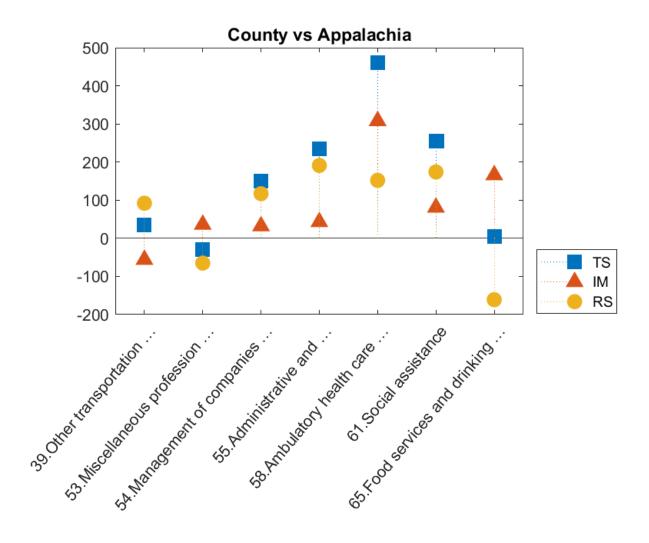
### **Chapter 44. Perry County, Kentucky**

## Perry County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
39	Other transportation 	15	21	18	3	166
53	Miscellaneous profession	30	-59	46	-105	242
54	Management of companies	7	143	15	128	211
55	Administrative and	35	199	7	192	547
58	Ambulatory health care	108	355	334	21	1,417
61	Social assistance	29	227	171	56	516
65	Food services and drinking	93	-86	158	-244	835

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## Selected SSA Components for Perry County, Kentucky vs the Appalachian Region

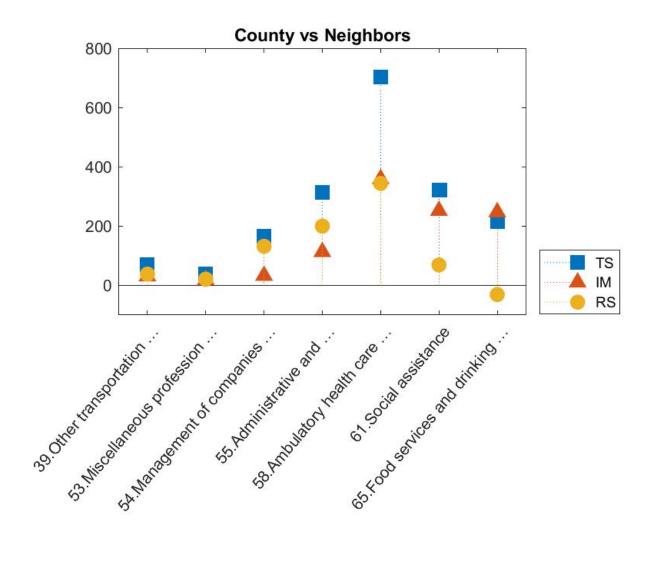


# Selected SSA Components for Perry County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
39	Other transportation 	0	36	-56	92	166
53	Miscellaneous profession	1	-29	36	-65	242
54	Management of companies	0	149	32	117	211
55	Administrative and	1	234	43	191	547
58	Ambulatory health care	3	460	308	152	1,417
61	Social assistance	1	255	81	174	516
65	Food services and drinking	3	5	166	-161	835

...

## **Selected SSA Components for Perry County, Kentucky vs Neighbors**



# Selected SSA Components for Perry County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
39	Other transportation 	-33	69	31	38	166
53	Miscellaneous profession	-68	39	18	21	242
54	Management of companies	-16	165	33	132	211
55	Administrative and	-79	313	113	200	547
58	Ambulatory health care	-240	703	359	344	1,417
61	Social assistance	-65	321	252	69	516
65	Food services and drinking	-208	216	247	-31	835

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#### **Chapter 45. Pike County, Kentucky**

Employment in Pike County, Kentucky, declined from 24,579 in 2005 to 20,745 in 2018, for a change of 3,834, or -15.6%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Pike County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	2,772	-6,600	-1,299	-5,301
vs. Appalachia	82	-3,920	-1,071	-2,849
vs. Neighbors	-5,431	1,598	158	1,440

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Pike County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Pike County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
53	Miscellaneous profession	B V e ii	yes	no	no	yes
58	Ambulatory health care	BVbi	yes	no	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
61	Social assistance	BIIai	yes	yes	yes	yes
65	Food services and drinking	BIIbi	yes	yes	yes	yes

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#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Pike County, Kentucky vs. the United States

Groups a, b, and c are from Pike County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Pike County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Pike County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Pike County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Pike County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Pike County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

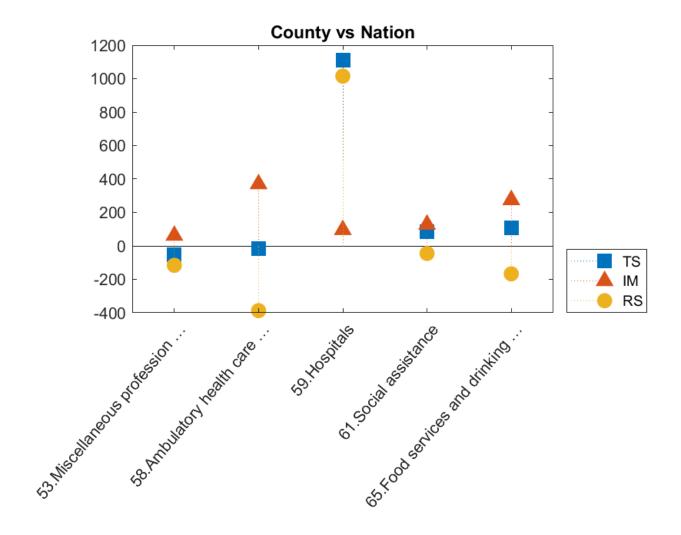
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Pike County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Pike County, Kentucky vs the U.S.

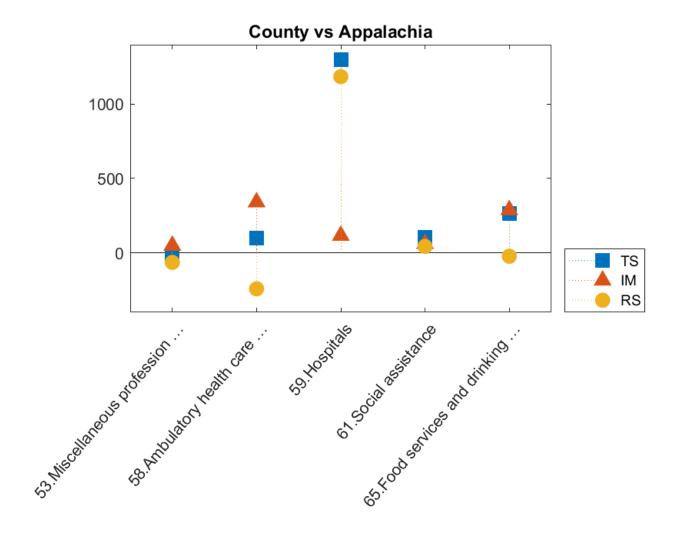


## Pike County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
53	Miscellaneous profession	41	-54	62	-116	351
58	Ambulatory health care	119	-17	370	-387	1,157
59	Hospitals	195	1,111	96	1,015	3,039
61	Social assistance	22	83	128	-45	301
65	Food services and drinking	163	108	275	-167	1,711

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# Selected SSA Components for Pike County, Kentucky vs the Appalachian Region

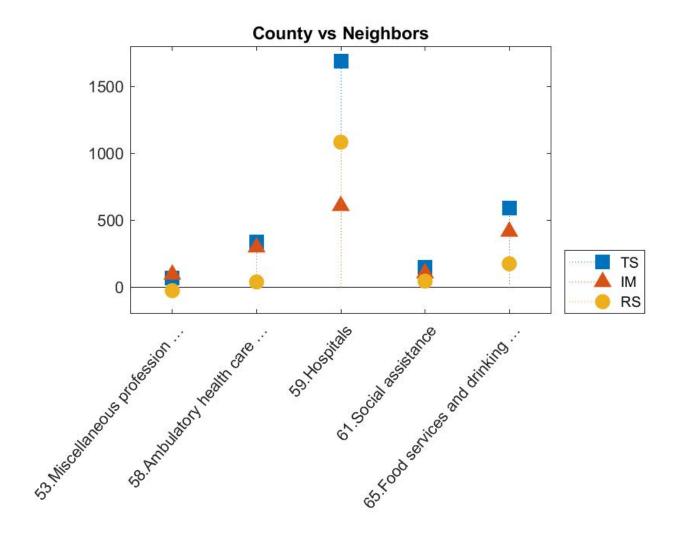


# Selected SSA Components for Pike County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
53	Miscellaneous profession	1	-15	49	-64	351
58	Ambulatory health care	4	99	341	-242	1,157
59	Hospitals	6	1,301	116	1,185	3,039
61	Social assistance	1	104	61	43	301
65	Food services and drinking	5	265	288	-23	1,711

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## Selected SSA Components for Pike County, Kentucky vs Neighbors



# Selected SSA Components for Pike County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
53	Miscellaneous profession	-81	67	94	-27	351
58	Ambulatory health care	-233	335	297	38	1,157
59	Hospitals	-383	1,690	607	1,083	3,039
61	Social assistance	-43	148	104	44	301
65	Food services and drinking	-318	589	415	174	1,711

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#### **Chapter 46. Powell County, Kentucky**

Employment in Powell County, Kentucky, declined from 2,759 in 2005 to 2,621 in 2018, for a change of 138, or -5%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Powell County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	313	-449	-135	-314
vs. Appalachia	5	-144	-171	27
vs. Neighbors	-65	-74	-125	51

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Powell County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Powell County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
05	Mining, except coal, oil	F III c iii	no	yes	yes	yes
07	Utilities	F III c iii	no	yes	yes	yes
08	Construction	F III c iii	no	yes	yes	yes
13	Machinery	FIIIci	no	yes	yes	yes
28	Wholesale trade	F III c iii	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
30	Food and beverage stores	F III c iii	no	yes	yes	yes
40	Warehousing and storage	Elai	no	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
57	Educational services	FIIIai	no	yes	yes	yes
58	Ambulatory health care	BVbii	yes	no	yes	yes
61	Social assistance	BIIbii	yes	yes	yes	yes
64	Accommodation	Alai	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Powell County, Kentucky vs. the United States

Groups a, b, and c are from Powell County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Powell County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Powell County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Powell County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Powell County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Powell County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

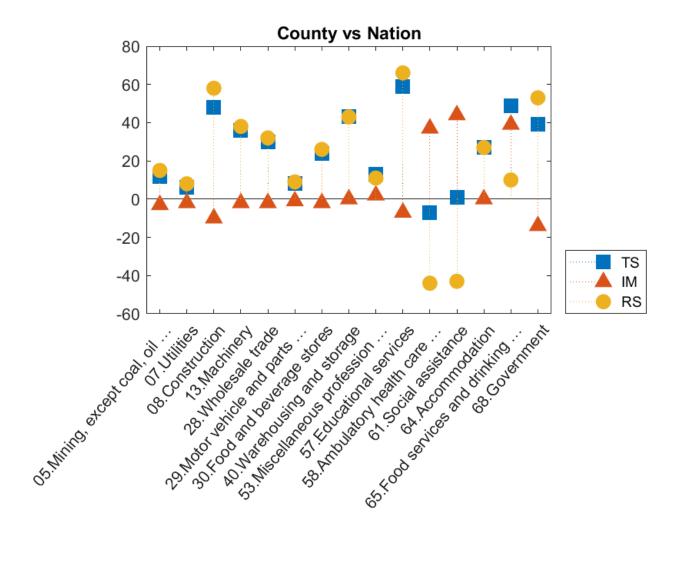
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Powell County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Powell County, Kentucky vs the U.S.

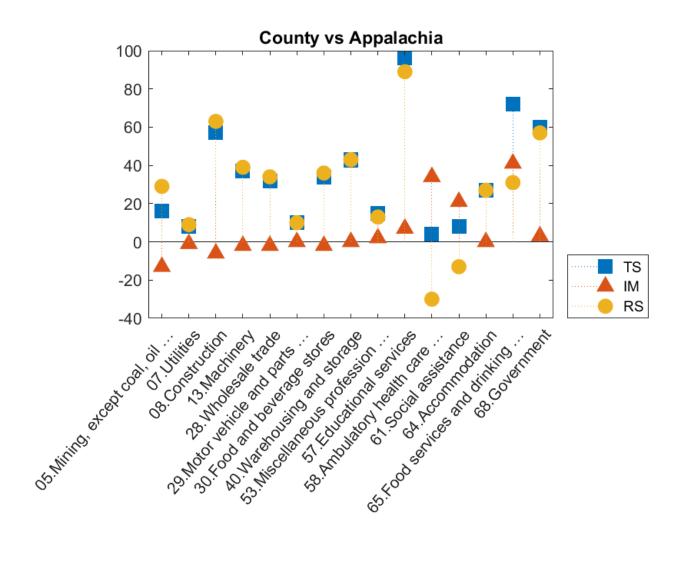


### **Chapter 46. Powell County, Kentucky**

## Powell County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil	4	12	-3	15	48
07	Utilities	2	6	-2	8	28
08	Construction	10	48	-10	58	142
13	Machinery	2	36	-2	38	51
28	Wholesale trade	3	30	-2	32	58
29	Motor vehicle and parts	2	8	-1	9	27
30	Food and beverage stores	10	24	-2	26	122
40	Warehousing and storage	0	43	0	43	43
53	Miscellaneous profession	1	13	2	11	26
57	Educational services	39	59	-7	66	441
58	Ambulatory health care	12	-7	37	-44	109
61	Social assistance	8	1	44	-43	75
64	Accommodation	0	27	0	27	29
65	Food services and drinking	23	49	39	10	278
68	Government	21	39	-14	53	249

## Selected SSA Components for Powell County, Kentucky vs the Appalachian Region

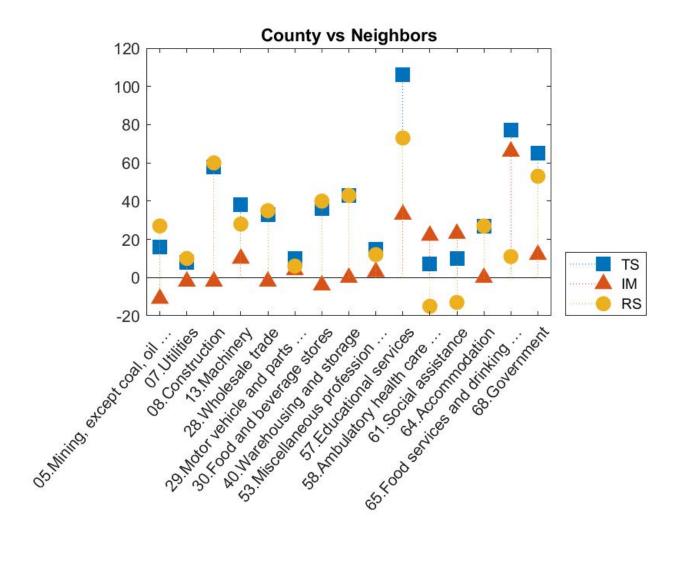


### **Chapter 46. Powell County, Kentucky**

# Selected SSA Components for Powell County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil	0	16	-13	29	48
07	Utilities	0	8	-1	9	28
80	Construction	0	57	-6	63	142
13	Machinery	0	37	-2	39	51
28	Wholesale trade	0	32	-2	34	58
29	Motor vehicle and parts	0	10	0	10	27
30	Food and beverage stores	0	34	-2	36	122
40	Warehousing and storage	0	43	0	43	43
53	Miscellaneous profession	0	15	2	13	26
57	Educational services	1	96	7	89	441
58	Ambulatory health care	0	4	34	-30	109
61	Social assistance	0	8	21	-13	75
64	Accommodation	0	27	0	27	29
65	Food services and drinking	1	72	41	31	278
68	Government	1	60	3	57	249

### **Selected SSA Components for Powell County, Kentucky vs Neighbors**



### **Chapter 46. Powell County, Kentucky**

# Selected SSA Components for Powell County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil	-1	16	-11	27	48
07	Utilities	-0	8	-2	10	28
08	Construction	-2	58	-2	60	142
13	Machinery	-0	38	10	28	51
28	Wholesale trade	-1	33	-2	35	58
29	Motor vehicle and parts	-0	10	4	6	27
30	Food and beverage stores	-2	36	-4	40	122
40	Warehousing and storage	-0	43	0	43	43
53	Miscellaneous profession	-0	15	3	12	26
57	Educational services	-8	106	33	73	441
58	Ambulatory health care	-3	7	22	-15	109
61	Social assistance	-2	10	23	-13	75
64	Accommodation	-0	27	0	27	29
65	Food services and drinking	-5	77	66	11	278
68	Government	-5	65	12	53	249

#### Chapter 47. Pulaski County, Kentucky

Employment in Pulaski County, Kentucky, declined from 26,061 in 2005 to 25,521 in 2018, for a change of -540, or -2.07%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Pulaski County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	2,940	-3,474	-248	-3,226
vs. Appalachia	86	-625	-6	-619
vs. Neighbors	201	-747	282	-1,029

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Pulaski County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Pulaski County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
16	Motor vehicles, bodies	CIII a i	yes	yes	yes	yes
30	Food and beverage stores	FIIIci	no	yes	yes	yes
52	Computer systems design	Blai	yes	yes	yes	yes
53	Miscellaneous profession	Blaii	yes	yes	yes	yes
55	Administrative and	Alaii	yes	yes	yes	yes
58	Ambulatory health care	BIIai	yes	yes	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
61	Social assistance	BVbii	yes	no	yes	yes
65	Food services and drinking	BIIbi	yes	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Pulaski County, Kentucky vs. the United States

Groups a, b, and c are from Pulaski County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Pulaski County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Pulaski County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Pulaski County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Pulaski County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Pulaski County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

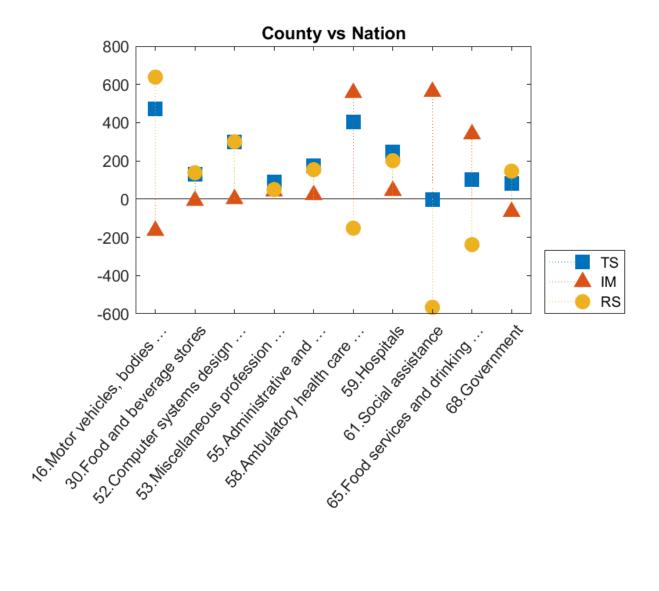
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Pulaski County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Pulaski County, Kentucky vs the U.S.

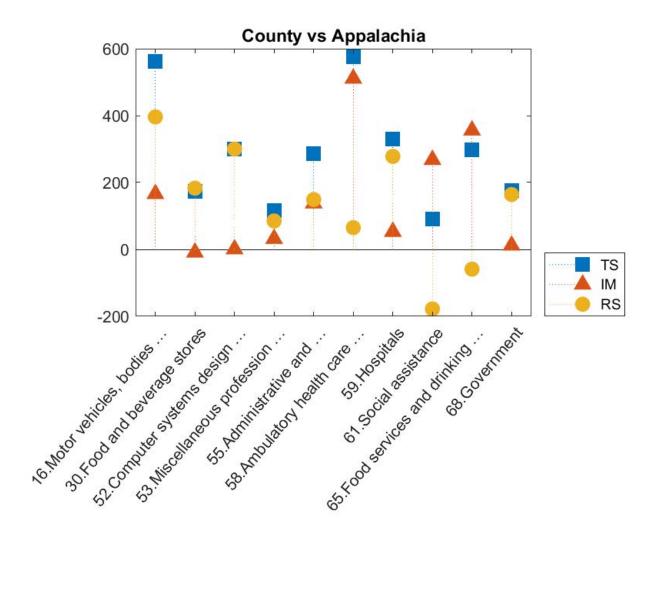


### Chapter 47. Pulaski County, Kentucky

## Pulaski County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies	92	473	-165	638	1,383
30	Food and beverage stores	47	130	-8	138	591
52	Computer systems design	0	301	1	300	303
53	Miscellaneous profession	27	91	41	50	361
55	Administrative and	114	176	22	154	1,305
58	Ambulatory health care	179	404	556	-152	2,166
59	Hospitals	89	245	44	201	1,123
61	Social assistance	97	-4	562	-566	950
65	Food services and drinking	201	102	340	-238	2,086
68	Government	98	80	-66	146	1,045

## Selected SSA Components for Pulaski County, Kentucky vs the Appalachian Region

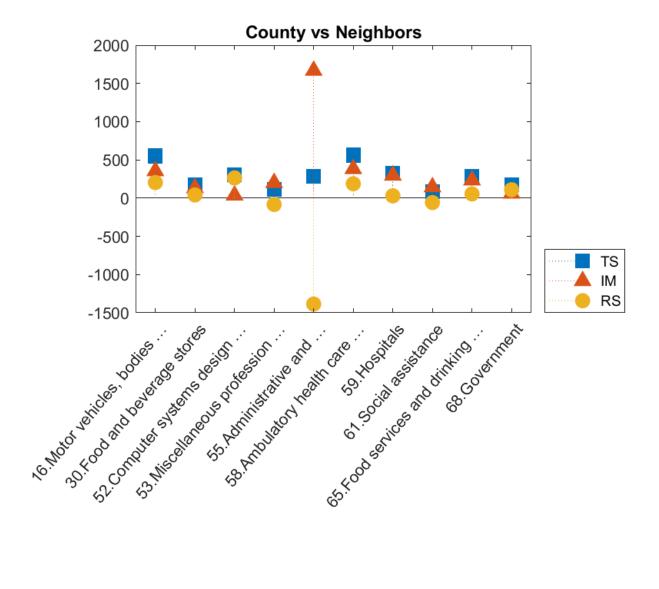


### Chapter 47. Pulaski County, Kentucky

# Selected SSA Components for Pulaski County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies	3	562	166	396	1,383
30	Food and beverage stores	1	174	-9	183	591
52	Computer systems design	0	301	1	300	303
53	Miscellaneous profession	1	117	32	85	361
55	Administrative and	3	287	138	149	1,305
58	Ambulatory health care	5	576	511	65	2,166
59	Hospitals	3	331	53	278	1,123
61	Social assistance	3	90	268	-178	950
65	Food services and drinking	6	297	356	-59	2,086
68	Government	3	176	12	164	1,045

## Selected SSA Components for Pulaski County, Kentucky vs Neighbors



#### Chapter 47. Pulaski County, Kentucky

# Selected SSA Components for Pulaski County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies	6	559	355	204	1,383
30	Food and beverage stores	3	173	132	41	591
52	Computer systems design	0	301	37	264	303
53	Miscellaneous profession	2	117	200	-83	361
55	Administrative and	8	283	1,668	-1,385	1,305
58	Ambulatory health care	12	570	382	188	2,166
59	Hospitals	6	327	297	30	1,123
61	Social assistance	7	86	144	-58	950
65	Food services and drinking	14	289	234	55	2,086
68	Government	7	171	61	110	1,045

#### **Chapter 48. Robertson County, Kentucky**

Employment in Robertson County, Kentucky, declined from 321 in 2005 to 302 in 2018, for a change of -19, or -5.92%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

#### **Summary Results for Robertson County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	32	-56	31	-87
vs. Appalachia	0	-17	23	-40
vs. Neighbors	-24	9	30	-21

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Robertson County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Robertson County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
07	Utilities	Flai	no	yes	yes	yes
08	Construction	FIIIai	no	yes	yes	yes
30	Food and beverage stores	Flaiii	no	yes	yes	yes
45	Federal Reserve banks,	FIIIai	no	yes	yes	yes
52	Computer systems design	Blai	yes	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Robertson County, Kentucky vs. the United States

Groups a, b, and c are from Robertson County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Robertson County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Robertson County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Robertson County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Robertson County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Robertson County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

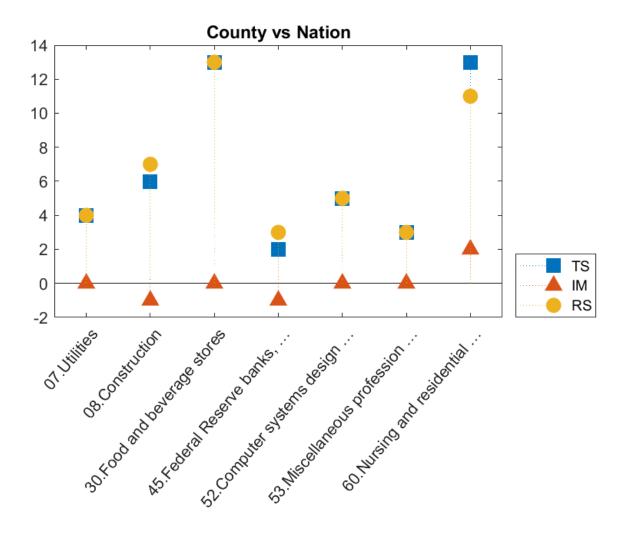
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Robertson County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Robertson County, Kentucky vs the U.S.

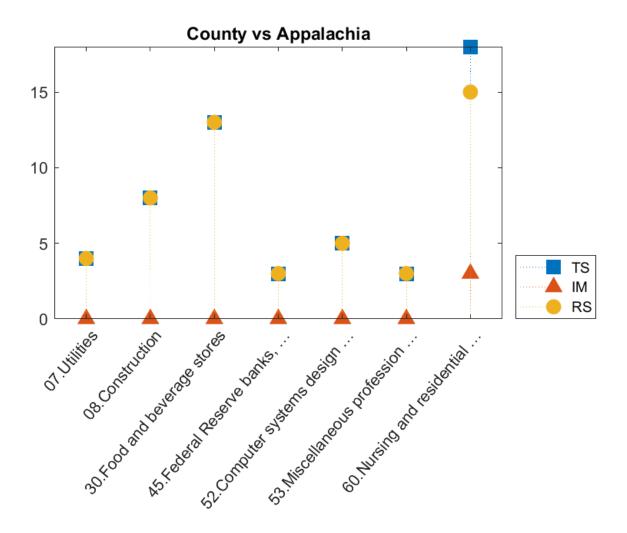


#### **Chapter 48. Robertson County, Kentucky**

## Robertson County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	0	4	-0	4	7
08	Construction	1	6	-1	7	14
30	Food and beverage stores	0	13	-0	13	16
45	Federal Reserve banks,	0	2	-1	3	6
52	Computer systems design	0	5	0	5	5
53	Miscellaneous profession	0	3	0	3	3
60	Nursing and residential	6	13	2	11	69

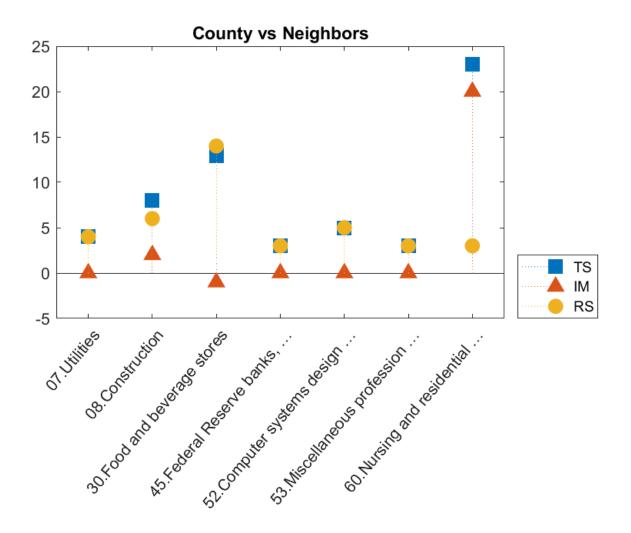
## Selected SSA Components for Robertson County, Kentucky vs the Appalachian Region



# Selected SSA Components for Robertson County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	0	4	-0	4	7
08	Construction	0	8	-0	8	14
30	Food and beverage stores	0	13	-0	13	16
45	Federal Reserve banks,	0	3	-0	3	6
52	Computer systems design	0	5	0	5	5
53	Miscellaneous profession	0	3	0	3	3
60	Nursing and residential	0	18	3	15	69

## **Selected SSA Components for Robertson County, Kentucky vs Neighbors**



### **Chapter 48. Robertson County, Kentucky**

# Selected SSA Components for Robertson County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	-0	4	0	4	7
08	Construction	-1	8	2	6	14
30	Food and beverage stores	-0	13	-1	14	16
45	Federal Reserve banks,	-0	3	-0	3	6
52	Computer systems design	-0	5	0	5	5
53	Miscellaneous profession	-0	3	0	3	3
60	Nursing and residential	-4	23	20	3	69

### Chapter 49. Rockcastle County, Kentucky

Employment in Rockcastle County, Kentucky, grew from 3,519 in 2005 to 3,842 in 2018, for a change of 323, or 9.18%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Rockcastle County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	395	-69	51	-120
vs. Appalachia	9	305	26	279
vs. Neighbors	193	132	-250	382

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Rockcastle County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Rockcastle County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
30	Food and beverage stores	FIIIci	no	yes	yes	yes
37	Transit and ground	Elciii	no	yes	yes	yes
44	Data processing, internet	Elciii	no	yes	yes	yes
53	Miscellaneous profession	Blai	yes	yes	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
61	Social assistance	B II b iii	yes	yes	yes	yes
66	Other services, exc. gov	FIIIci	no	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Rockcastle County, Kentucky vs. the United States

Groups a, b, and c are from Rockcastle County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Rockcastle County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Rockcastle County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Rockcastle County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Rockcastle County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Rockcastle County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

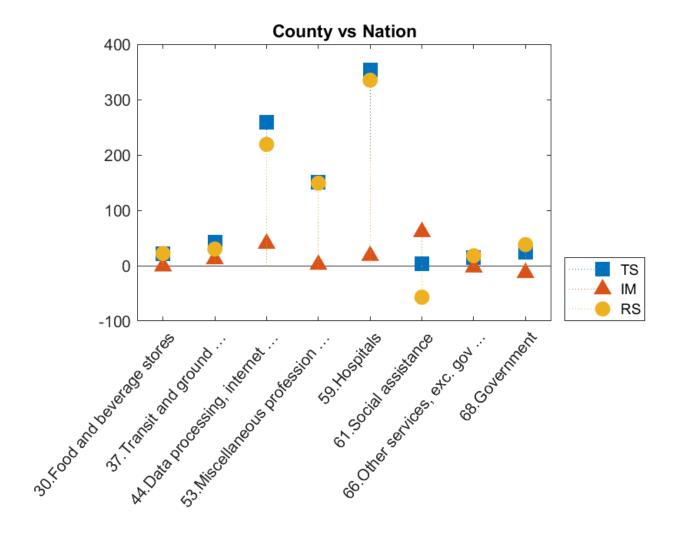
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Rockcastle County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Rockcastle County, Kentucky vs the U.S.

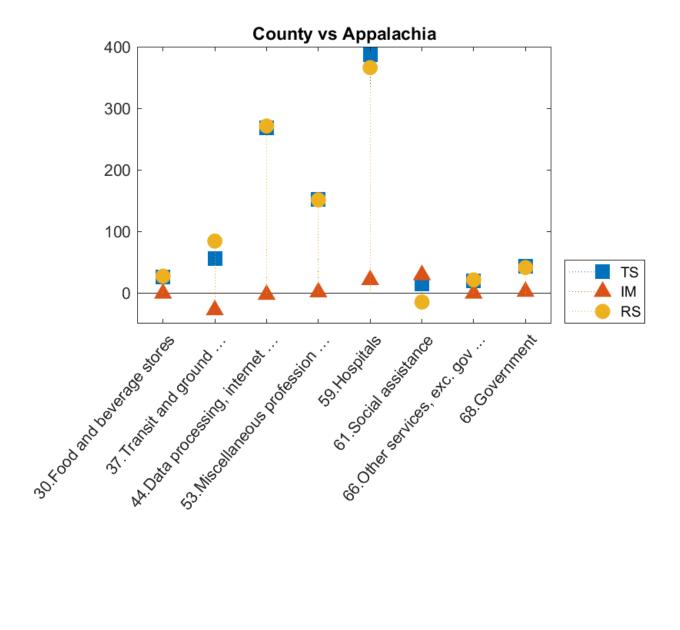


### **Chapter 49. Rockcastle County, Kentucky**

# Rockcastle County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
30	Food and beverage stores	5	21	-1	22	74
37	Transit and ground	15	42	12	30	188
44	Data processing, internet	10	259	40	219	358
53	Miscellaneous profession	1	151	2	149	162
59	Hospitals	36	353	18	335	708
61	Social assistance	10	4	61	-57	107
66	Other services, exc. gov	5	15	-3	18	64
68	Government	20	25	-13	38	221

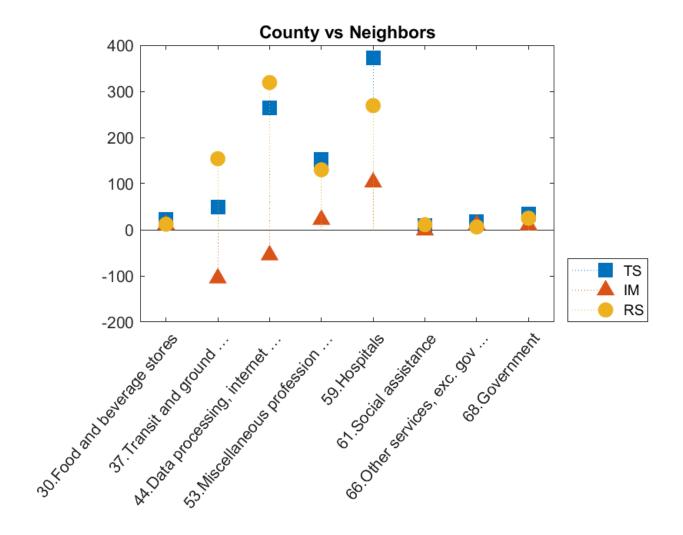
# Selected SSA Components for Rockcastle County, Kentucky vs the Appalachian Region



# Selected SSA Components for Rockcastle County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
30	Food and beverage stores	0	26	-1	27	74
37	Transit and ground	0	56	-28	84	188
44	Data processing, internet	0	268	-3	271	358
53	Miscellaneous profession	0	152	1	151	162
59	Hospitals	1	387	21	366	708
61	Social assistance	0	14	29	-15	107
66	Other services, exc. gov	0	20	-1	21	64
68	Government	1	43	2	41	221

## Selected SSA Components for Rockcastle County, Kentucky vs Neighbors



# Selected SSA Components for Rockcastle County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
_	Food and					_
30	beverage	3	23	11	12	74
	stores					
37	Transit and	7	49	-105	154	188
	ground		40	100	104	
	Data					
44	processing,	5	264	-55	319	358
	internet					
53	Miscellaneous	1	152	22	130	162
	profession	•				
59	Hospitals	17	372	103	269	708
61	Social	5	10	-1	11	107
	assistance	<u> </u>	10	<u>- 1</u>	1 1	107
	Other					
66	services, exc.	2	17	11	6	64
	gov					
68	Government	10	35	10	25	221

### **Chapter 50. Rowan County, Kentucky**

Employment in Rowan County, Kentucky, grew from 9,833 in 2005 to 10,368 in 2018, for a change of 535, or 5.44%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Rowan County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	1,107	-568	370	-938
vs. Appalachia	30	507	268	239
vs. Neighbors	-916	1,458	449	1,009

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Rowan County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Rowan County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
09	Wood products	F III c iii	no	yes	yes	yes
12	Fabricated metal products	FIIIcii	no	yes	yes	yes
16	Motor vehicles, bodies	CIIIai	yes	yes	yes	yes
28	Wholesale trade	F III c iii	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
31	General merchandise 	FIIIci	no	yes	yes	yes
45	Federal Reserve banks,	FIIIci	no	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
58	Ambulatory health care	BVbi	yes	no	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
61	Social assistance	BIIbi	yes	yes	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Rowan County, Kentucky vs. the United States

Groups a, b, and c are from Rowan County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Rowan County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Rowan County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Rowan County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Rowan County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Rowan County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

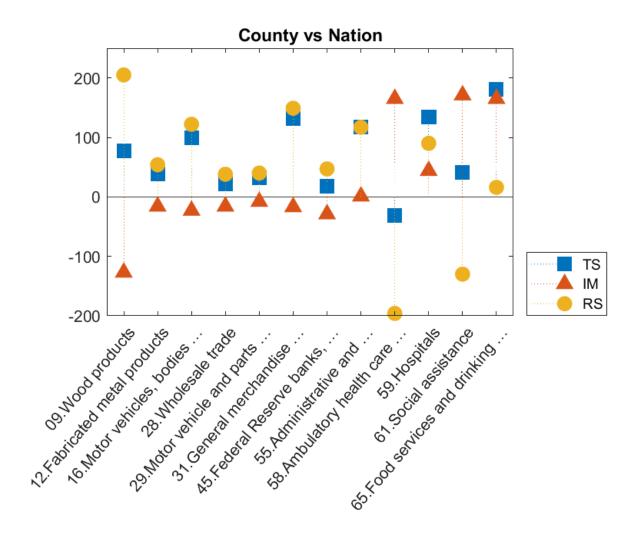
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Rowan County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Rowan County, Kentucky vs the U.S.

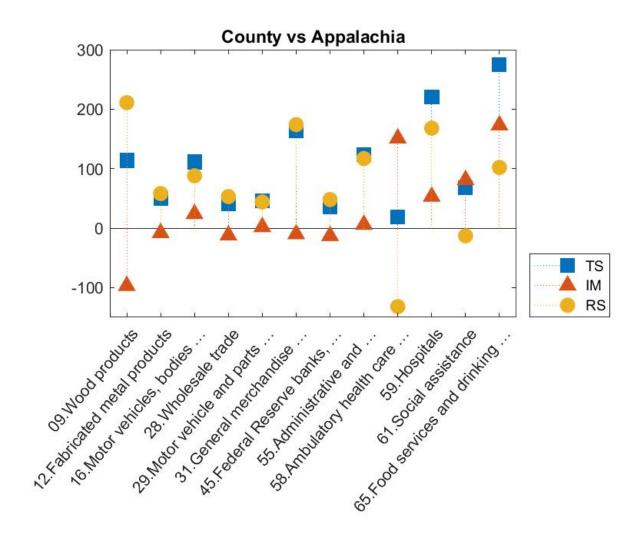


# Rowan County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	37	78	-127	205	440
12	Fabricated metal products	12	38	-16	54	161
16	Motor vehicles, bodies	13	99	-23	122	228
28	Wholesale trade	19	22	-16	38	212
29	Motor vehicle and parts	15	32	-8	40	184
31	General merchandise 	34	132	-17	149	463
45	Federal Reserve banks,	17	18	-29	47	183
55	Administrative and	5	118	1	117	166
58	Ambulatory health care	53	-31	165	-196	490
59	Hospitals	89	134	44	90	1,015
61	Social assistance	29	41	171	-130	330
65	Food services and drinking	97	181	165	16	1,142

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# Selected SSA Components for Rowan County, Kentucky vs the Appalachian Region

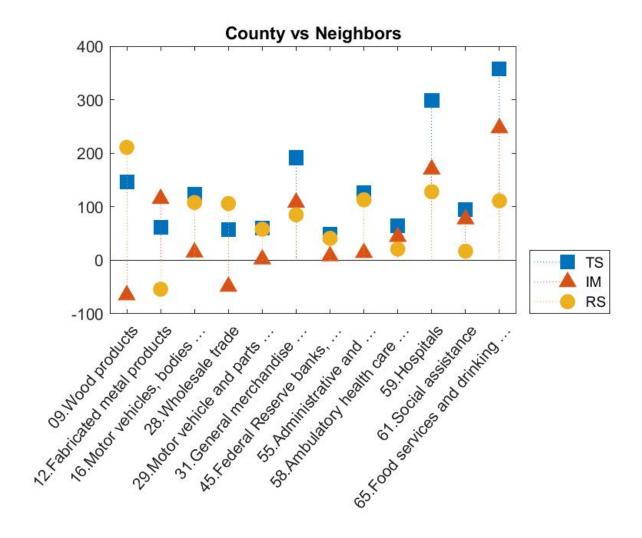


Selected SSA Components for Rowan County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	1	114	-97	211	440
12	Fabricated metal products	0	50	-8	58	161
16	Motor vehicles, bodies	0	112	24	88	228
28	Wholesale trade	1	41	-12	53	212
29	Motor vehicle and parts	0	46	2	44	184
31	General merchandise 	1	164	-10	174	463
45	Federal Reserve banks,	1	35	-13	48	183
55	Administrative and	0	123	6	117	166
58	Ambulatory health care	2	19	151	-132	490
59	Hospitals	3	221	53	168	1,015
61	Social assistance	1	68	81	-13	330
65	Food services and drinking	3	275	173	102	1,142

...

## Selected SSA Components for Rowan County, Kentucky vs Neighbors



# Selected SSA Components for Rowan County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	-30	146	-65	211	440
12	Fabricated metal products	-10	61	115	-54	161
16	Motor vehicles, bodies	-11	123	15	108	228
28	Wholesale trade	-16	57	-49	106	212
29	Motor vehicle and parts	-13	60	2	58	184
31	General merchandise 	-28	193	108	85	463
45	Federal Reserve banks,	-14	49	8	41	183
55	Administrative and	-4	127	14	113	166
58	Ambulatory health care	-44	65	44	21	490
59	Hospitals	-74	298	170	128	1,015
61	Social assistance	-24	94	77	17	330
65	Food services and drinking	-81	358	247	111	1,142

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### **Chapter 51. Russell County, Kentucky**

Employment in Russell County, Kentucky, declined from 6,130 in 2005 to 5,781 in 2018, for a change of -349, or -5.69%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Russell County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	694	-1,041	-355	-686
vs. Appalachia	18	-368	-155	-213
vs. Neighbors	-171	-177	152	-329

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Russell County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Russell County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
09	Wood products	F III c iii	no	yes	yes	yes
11	Primary metals	F III c iii	no	yes	yes	yes
12	Fabricated metal products	FIIIci	no	yes	yes	yes
16	Motor vehicles, bodies	C III a i	yes	yes	yes	yes
20	Food and beverage	Elciii	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
31	General merchandise 	FIIIci	no	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
58	Ambulatory health care	BIIai	yes	yes	yes	yes
59	Hospitals	Elaii	no	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
61	Social assistance	BIIaii	yes	yes	yes	yes
66	Other services, exc. gov	FIIIci	no	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Russell County, Kentucky vs. the United States

Groups a, b, and c are from Russell County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Russell County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Russell County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Russell County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Russell County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Russell County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

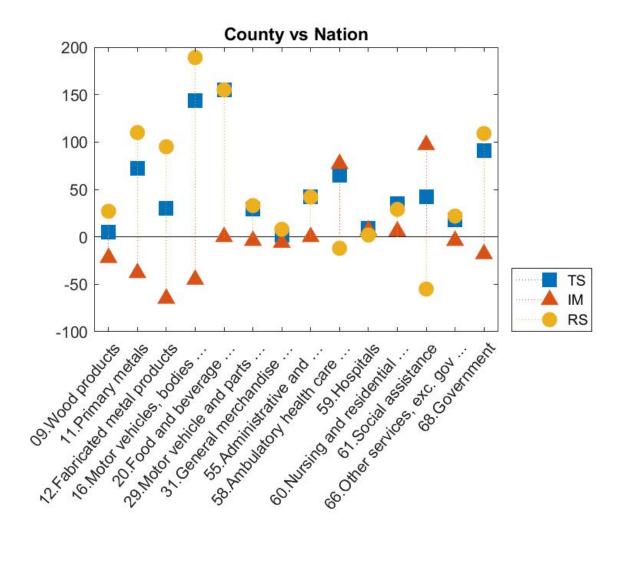
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Russell County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Russell County, Kentucky vs the U.S.

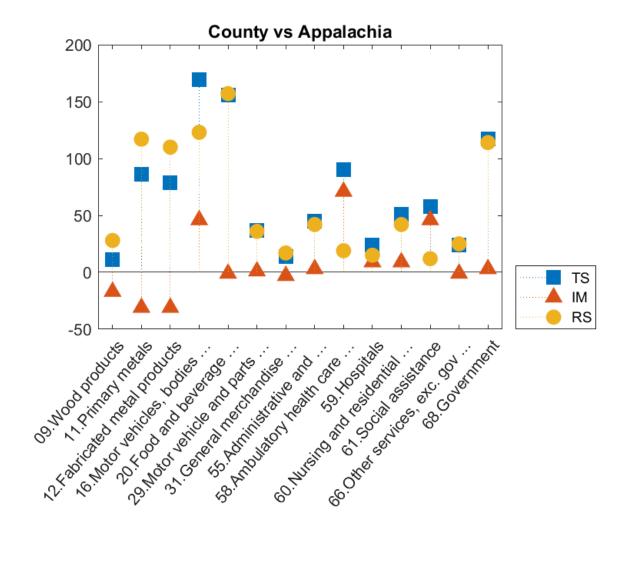


### Chapter 51. Russell County, Kentucky

# Russell County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	6	5	-22	27	68
11	Primary metals	15	72	-38	110	215
12	Fabricated metal products	50	30	-65	95	519
16	Motor vehicles, bodies	25	144	-45	189	394
20	Food and beverage	2	155	0	155	171
29	Motor vehicle and parts	8	29	-4	33	106
31	General merchandise 	11	2	-6	8	115
55	Administrative and	2	42	0	42	65
58	Ambulatory health care	25	65	77	-12	311
59	Hospitals	15	9	7	2	157
60	Nursing and residential	16	35	6	29	191
61	Social assistance	17	42	97	-55	206
66	Other services, exc. gov	6	18	-4	22	81
68	Government	26	91	-18	109	349

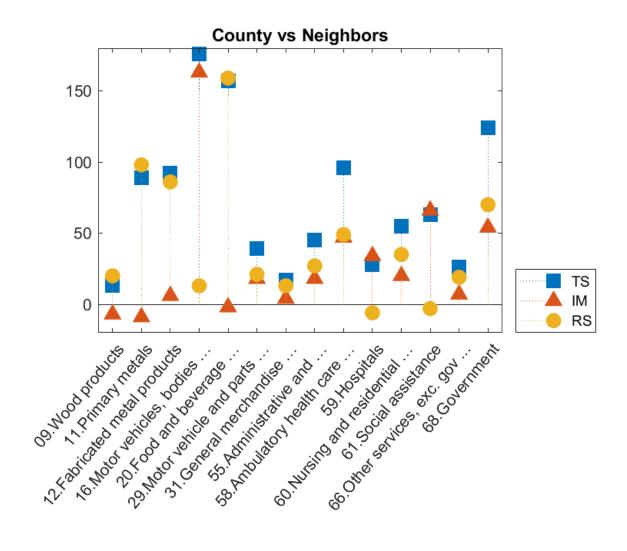
# Selected SSA Components for Russell County, Kentucky vs the Appalachian Region



# Selected SSA Components for Russell County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	0	11	-17	28	68
11	Primary metals	0	86	-31	117	215
12	Fabricated metal products	1	79	-31	110	519
16	Motor vehicles, bodies	1	169	46	123	394
20	Food and beverage	0	156	-1	157	171
29	Motor vehicle and parts	0	37	1	36	106
31	General merchandise 	0	14	-3	17	115
55	Administrative and	0	45	3	42	65
58	Ambulatory health care	1	90	71	19	311
59	Hospitals	0	24	9	15	157
60	Nursing and residential	0	51	9	42	191
61	Social assistance	1	58	46	12	206
66	Other services, exc. gov	0	24	-1	25	81
68	Government	1	117	3	114	349

### Selected SSA Components for Russell County, Kentucky vs Neighbors



# Selected SSA Components for Russell County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	-2	13	-7	20	68
11	Primary metals	-4	89	-9	98	215
12	Fabricated metal products	-12	92	6	86	519
16	Motor vehicles, bodies	-6	176	163	13	394
20	Food and beverage	-0	157	-2	159	171
29	Motor vehicle and parts	-2	39	18	21	106
31	General merchandise 	-3	17	4	13	115
55	Administrative and	-1	45	18	27	65
58	Ambulatory health care	-6	96	47	49	311
59	Hospitals	-4	28	34	-6	157
60	Nursing and residential	-4	55	20	35	191
61	Social assistance	-4	63	66	-3	206
66	Other services, exc. gov	-2	26	7	19	81
68	Government	-6	124	54	70	349

### Chapter 52. Wayne County, Kentucky

Employment in Wayne County, Kentucky, declined from 6,462 in 2005 to 5,808 in 2018, for a change of -654, or -10.12%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Wayne County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	729	-1,385	-541	-844
vs. Appalachia	16	-675	-526	-149
vs. Neighbors	-455	-203	-628	425

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Wayne County, Kentucky, in comparison to at least one of the three referent regions.

## **Industry Group Membership for Wayne County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
01	Farms	FIIIai	no	yes	yes	yes
28	Wholesale trade	F III c iii	no	yes	yes	yes
43	Broadcasting and telecom	F III c iii	no	yes	yes	yes
55	Administrative and	Alai	yes	yes	yes	yes
58	Ambulatory health care	BVbii	yes	no	yes	yes
59	Hospitals	Elai	no	yes	yes	yes
60	Nursing and residential	Elai	no	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
63	Amusements, gambling,	BVbi	yes	no	yes	yes
65	Food services and drinking	Blai	yes	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Wayne County, Kentucky vs. the United States

Groups a, b, and c are from Wayne County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Wayne County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Wayne County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Wayne County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Wayne County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Wayne County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

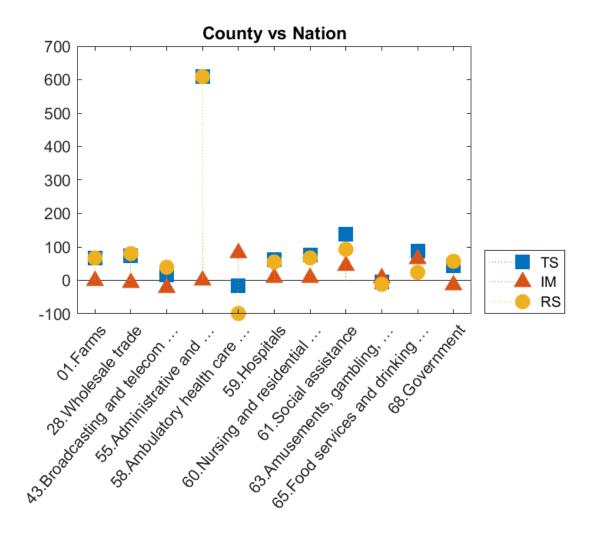
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Wayne County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

## Selected SSA Components for Wayne County, Kentucky vs the U.S.

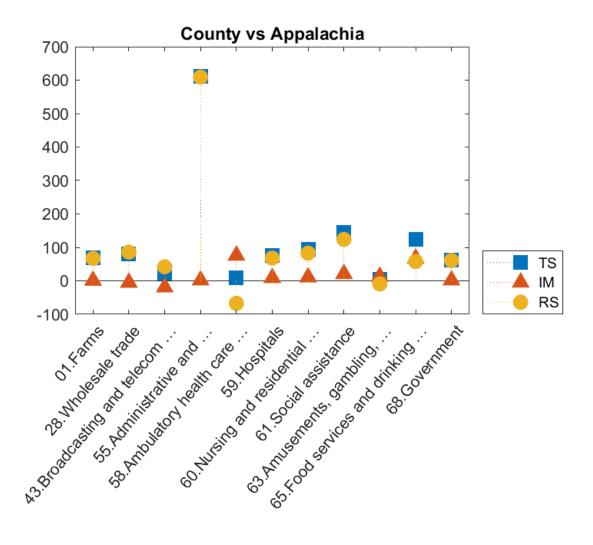


### **Chapter 52. Wayne County, Kentucky**

# Wayne County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
01	Farms	4	66	-1	67	102
28	Wholesale trade	8	73	-7	80	151
43	Broadcasting and telecom	6	17	-22	39	79
55	Administrative and	2	609	0	609	626
58	Ambulatory health care	27	-17	82	-99	245
59	Hospitals	16	63	8	55	216
60	Nursing and residential	20	75	8	67	270
61	Social assistance	8	137	44	93	212
63	Amusements, gambling,	10	-5	7	-12	91
65	Food services and drinking	38	88	64	24	460
68	Government	21	43	-14	57	250

# Selected SSA Components for Wayne County, Kentucky vs the Appalachian Region

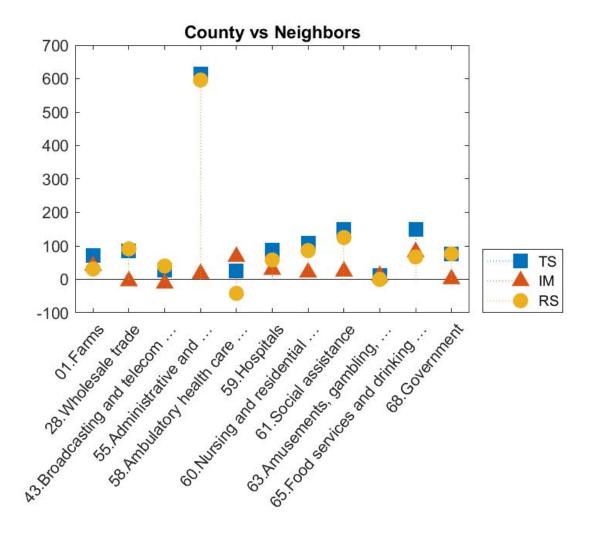


### **Chapter 52. Wayne County, Kentucky**

# Selected SSA Components for Wayne County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
01	Farms	0	68	1	67	102
28	Wholesale trade	0	81	-5	86	151
43	Broadcasting and telecom	0	23	-19	42	79
55	Administrative and	0	611	2	609	626
58	Ambulatory health care	1	9	76	-67	245
59	Hospitals	0	77	9	68	216
60	Nursing and residential	1	94	11	83	270
61	Social assistance	0	145	21	124	212
63	Amusements, gambling,	0	4	13	-9	91
65	Food services and drinking	1	125	67	58	460
68	Government	1	63	2	61	250

### **Selected SSA Components for Wayne County, Kentucky vs Neighbors**



### **Chapter 52. Wayne County, Kentucky**

## Selected SSA Components for Wayne County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
01	Farms	-2	72	41	31	102
28	Wholesale trade	-5	86	-5	91	151
43	Broadcasting and telecom	-4	28	-12	40	79
55	Administrative and	-1	613	17	596	626
58	Ambulatory health care	-17	26	68	-42	245
59	Hospitals	-10	87	29	58	216
60	Nursing and residential	-12	107	21	86	270
61	Social assistance	-5	149	24	125	212
63	Amusements, gambling,	-6	11	11	0	91
65	Food services and drinking	-24	149	82	67	460
68	Government	-13	77	1	76	250

### **Chapter 53. Whitley County, Kentucky**

Employment in Whitley County, Kentucky, declined from 12,366 in 2005 to 11,793 in 2018, for a change of -573, or -4.63%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Whitley County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	1,395	-1,972	-59	-1,913
vs. Appalachia	40	-616	217	-833
vs. Neighbors	-544	-22	808	-830

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Whitley County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Whitley County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
12	Fabricated metal products	F III c iii	no	yes	yes	yes
27	Plastics and rubber prod	D III a ii	no	yes	yes	yes
53	Miscellaneous profession	BIIbi	yes	yes	yes	yes
57	Educational services	FIIIai	no	yes	yes	yes
59	Hospitals	E II a iii	no	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
64	Accommodation	Alai	yes	yes	yes	yes
65	Food services and drinking	BIIbi	yes	yes	yes	yes
68	Government	FIIIai	no	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Whitley County, Kentucky vs. the United States

Groups a, b, and c are from Whitley County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Whitley County, Kentucky vs. its neighbors

### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Whitley County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Whitley County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Whitley County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Whitley County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

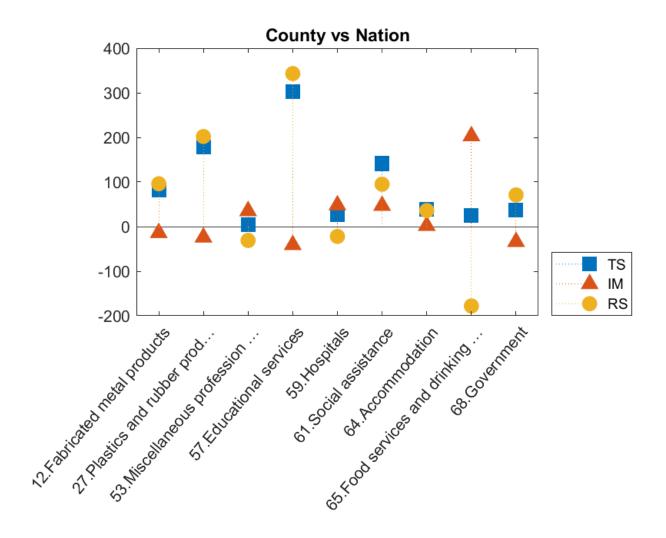
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Whitley County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Whitley County, Kentucky vs the U.S.

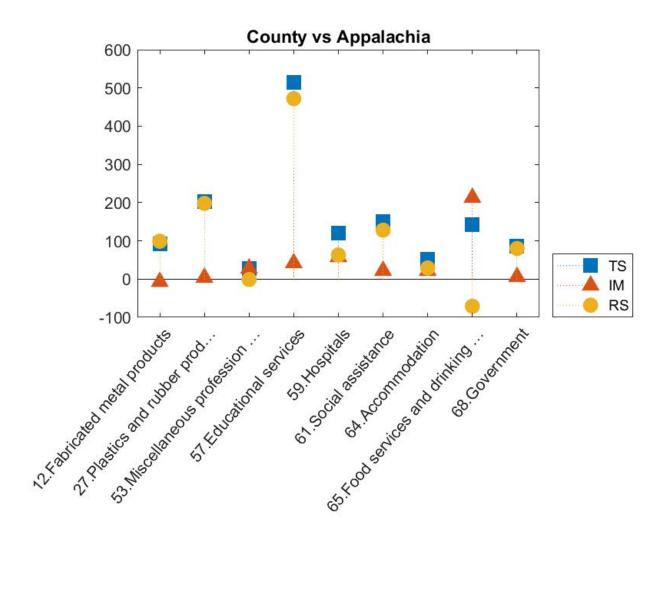


### **Chapter 53. Whitley County, Kentucky**

### Whitley County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	11	82	-14	96	189
27	Plastics and rubber prod	25	178	-24	202	423
53	Miscellaneous profession	23	4	35	-31	236
57	Educational services	219	302	-41	343	2,462
59	Hospitals	98	26	48	-22	993
61	Social assistance	8	142	47	95	222
64	Accommodation	12	38	2	36	159
65	Food services and drinking	120	25	203	-178	1,209
68	Government	51	37	-34	71	538

### Selected SSA Components for Whitley County, Kentucky vs the Appalachian Region

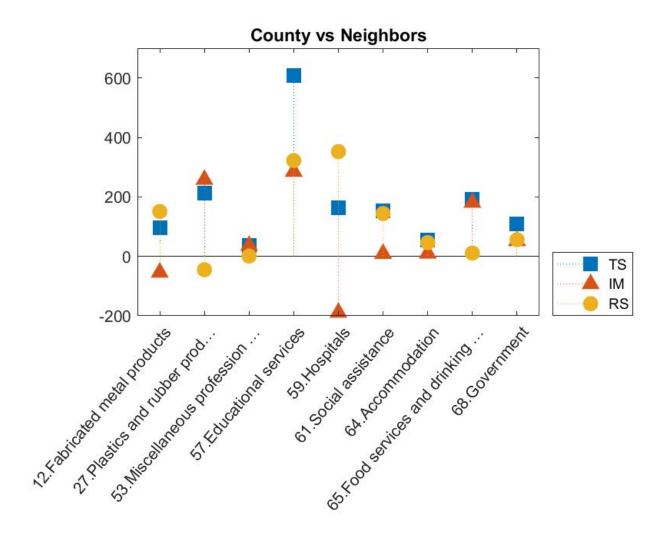


### **Chapter 53. Whitley County, Kentucky**

# Selected SSA Components for Whitley County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	0	92	-7	99	189
27	Plastics and rubber prod	1	202	4	198	423
53	Miscellaneous profession	1	27	28	-1	236
57	Educational services	7	514	42	472	2,462
59	Hospitals	3	121	58	63	993
61	Social assistance	0	150	22	128	222
64	Accommodation	0	51	22	29	159
65	Food services and drinking	4	142	213	-71	1,209
68	Government	2	86	6	80	538

### **Selected SSA Components for Whitley County, Kentucky vs Neighbors**



### **Chapter 53. Whitley County, Kentucky**

### Selected SSA Components for Whitley County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	-4	97	-54	151	189
27	Plastics and rubber prod	-10	213	258	-45	423
53	Miscellaneous profession	-9	37	36	1	236
57	Educational services	-86	607	285	322	2,462
59	Hospitals	-38	163	-189	352	993
61	Social assistance	-3	153	9	144	222
64	Accommodation	-5	56	10	46	159
65	Food services and drinking	-47	192	181	11	1,209
68	Government	-20	108	52	56	538

### Chapter 54. Wolfe County, Kentucky

Employment in Wolfe County, Kentucky, declined from 1,232 in 2005 to 1,206 in 2018, for a change of -26, or -2.11%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

### **Summary Results for Wolfe County, Kentucky**

County Summary	NS	TS	IM	RS
vs. U.S.	137	-165	1	-166
vs. Appalachia	3	-29	35	-64
vs. Neighbors	-174	149	27	122

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Wolfe County, Kentucky, in comparison to at least one of the three referent regions.

### **Industry Group Membership for Wolfe County, Kentucky**

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
22	Apparel and leather	Flai	no	yes	yes	yes
28	Wholesale trade	FIIIci	no	yes	yes	yes
29	Motor vehicle and parts	FIIIai	no	yes	yes	yes
45	Federal Reserve banks, 	F III c iii	no	yes	yes	yes
49	Real estate	Flai	no	yes	yes	yes
61	Social assistance	Blai	yes	yes	yes	yes
63	Amusements, gambling,	Blai	yes	yes	yes	yes
64	Accommodation	Alai	yes	yes	yes	yes

#### Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Wolfe County, Kentucky vs. the United States

Groups a, b, and c are from Wolfe County, Kentucky vs. Appalachia

Groups i, ii, and iii are from Wolfe County, Kentucky vs. its neighbors

#### **Industry-Specific Results**

Below we report the results for the three shift-share analyses comparing Wolfe County, Kentucky, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Wolfe County, Kentucky, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Wolfe County, Kentucky, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Wolfe County, Kentucky, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

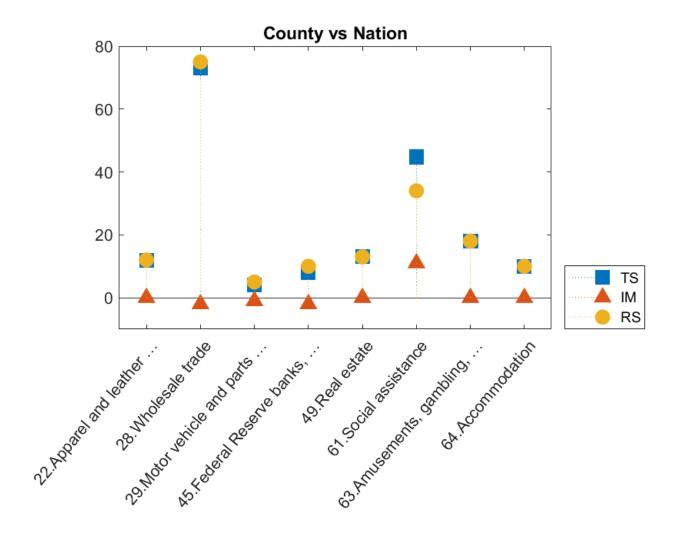
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Wolfe County, Kentucky, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

#### **Interpreting Different Referent Region Results**

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

### Selected SSA Components for Wolfe County, Kentucky vs the U.S.

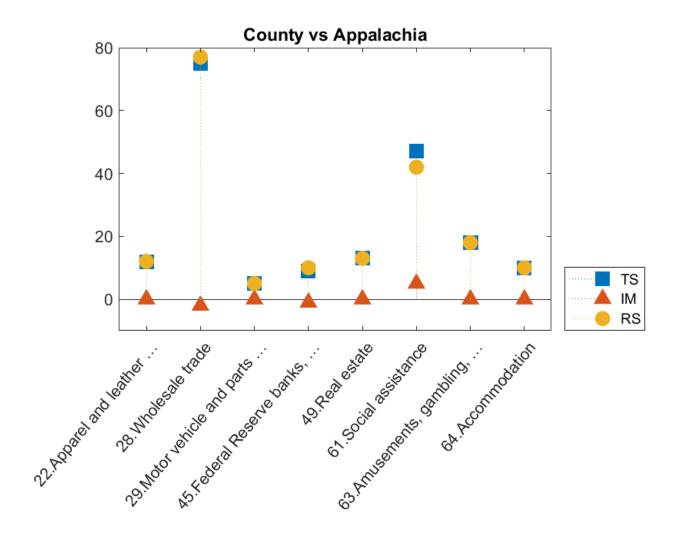


### **Chapter 54. Wolfe County, Kentucky**

### Wolfe County, Kentucky vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
22	Apparel and leather	0	12	0	12	12
28	Wholesale trade	2	73	-2	75	97
29	Motor vehicle and parts	2	4	-1	5	19
45	Federal Reserve banks, 	1	8	-2	10	19
49	Real estate	0	13	-0	13	17
61	Social assistance	2	45	11	34	65
63	Amusements, gambling,	0	18	0	18	18
64	Accommodation	0	10	0	10	12

### Selected SSA Components for Wolfe County, Kentucky vs the Appalachian Region

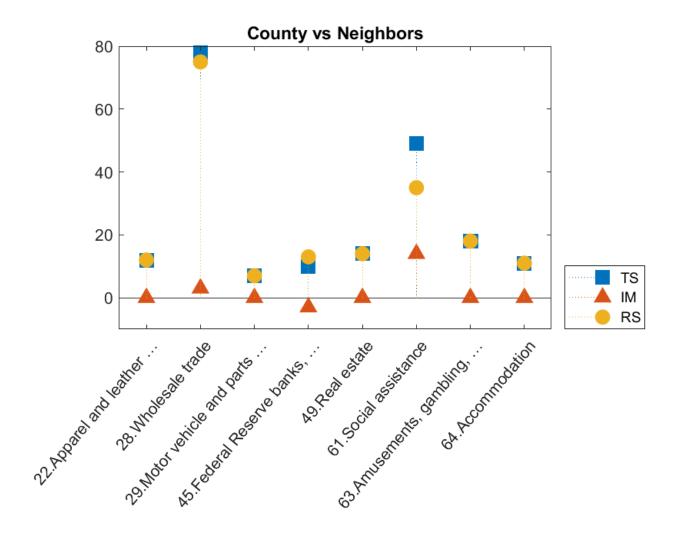


### **Chapter 54. Wolfe County, Kentucky**

# Selected SSA Components for Wolfe County, Kentucky vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
22	Apparel and leather	0	12	0	12	12
28	Wholesale trade	0	75	-2	77	97
29	Motor vehicle and parts	0	5	0	5	19
45	Federal Reserve banks, 	0	9	-1	10	19
49	Real estate	0	13	0	13	17
61	Social assistance	0	47	5	42	65
63	Amusements, gambling,	0	18	0	18	18
64	Accommodation	0	10	0	10	12

### Selected SSA Components for Wolfe County, Kentucky vs Neighbors



### **Chapter 54. Wolfe County, Kentucky**

## Selected SSA Components for Wolfe County, Kentucky vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
22	Apparel and leather	-0	12	0	12	12
28	Wholesale trade	-3	78	3	75	97
29	Motor vehicle and parts	-2	7	0	7	19
45	Federal Reserve banks, 	-1	10	-3	13	19
49	Real estate	-1	14	-0	14	17
61	Social assistance	-2	49	14	35	65
63	Amusements, gambling,	-0	18	0	18	18
64	Accommodation	-0	11	-0	11	12