

**ANALYSIS OF RECENT CHANGES IN ARKANSAS
PERSONAL INCOME BEFORE AND AFTER THE
ECONOMIC CRISIS OF 2008-2009**

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Abstract

This paper examines structural changes in the Arkansas economy that occurred as a result of the economic crisis of 2008-2009. The Arkansas economy will be compared with the economy of the United States. The measure of economic activity is personal income, and two periods (2000-2007 and 2007-2011) will be examined. The shift-share decomposition approach will be used in order to obtain detailed sector-by-sector analysis.

Analysis of Recent Changes in Arkansas Personal Income Before and After the Economic Crisis of 2008-2009

Introduction

The purpose of this paper is to examine Arkansas personal income before and after the economic crisis of 2008-2009. The paper will utilize and update earlier research and analysis for the period 2000-2007 (Rice and Horton 2008) and present results for the later period, 2007-2011. The focus is on personal income, which was recently noted as a comprehensive measure of economic activity. (Smith, 2012) It includes current income received by residents from all sources including government transfer payments.

The shift-share technique is particularly useful as it allows for a direct comparison between two entities: the whole and the part. In this case, the whole is the United States, and the part is Arkansas. The early development of shift-share focused primarily on regional analysis (Brown 1969; Buck 1970; later Esteban 2000); and the technique is easily adapted to analyzing changes in personal income as in Rice and Horton (2009).

The shift-share technique partitions the aggregate change into three distinct components: (1) overall-growth share (OGS), (2) the differential-compositional component (DCS), and (3) the sector-competitive share (SCS). The overall-growth share (OGS) reflects the percentage change in personal income for the whole (the United States). This percentage change is used to calculate the amount of increase/decrease in each personal income-originating sector of the part (Arkansas). Thus, this change in each originating sector of the part is the increase/decrease in personal income that would have occurred if each sector of the part grew at the exact same overall rate as the whole.

The differential-compositional share (DCS), which is sometimes referred to as “the industry mix effect,” represents the change in the personal income of each originating sector of the part when the growth rate of the part is compared to the overall growth rate of the whole. If the growth rate of an individual sector of the whole is greater than the overall growth rate, then the DCS component is positive, and the sector is considered a fast-growth sector. Conversely, if the growth rate of an individual sector of the whole is less than the overall growth rate, the DCS component is negative and the sector is considered a slow-growth sector.

The sector-competitive share (SCS) is the amount of change in personal income when each originating sector of the part is compared to each originating sector of the whole. If the sector growth rate of the part exceeds the growth rate of the corresponding sector of the whole, the SCS component is positive, indicating that this sector of the part is performing better than the same sector of the whole. A negative SCS indicates that the sector of the part is underperforming when compared to the corresponding sector of the whole. The result is:

$$\text{Total change (sector)} = \text{OGS} + \text{DCS} + \text{SCS}$$

$$\text{Total change (part)} = \Sigma (\text{OGS}) + \Sigma (\text{DCS}) + \Sigma (\text{SCS})$$

Analysis

Overall Change

The overall comparison focuses on the percentage-changes by sector and rates of change in total personal income for the two periods 2000-2007 and 2007-2011. Table 1 presents the personal income amounts for the United States and Arkansas as well as overall percentage changes for the United States and Arkansas over the two periods, 2000-2007 and 2007-2011. In both periods, the Arkansas percentages (47.70 and 11.89) exceeded the United States' percentages (39.11 and 9.09) respectively. Concurrently, the annual rates of change were greater for Arkansas (5.73 and 2.85) than for the United States (4.83 and 2.20) in both periods. The result of Arkansas percentages being higher in both periods suggests the structure of Arkansas' economy, as measured by personal income, has certain differences from the structure of the United States economy.

Table 1
Percentage and Annual Rates of Change in Personal Income

Entity	Personal Income (millions of dollars)			Percentage Change (Rates of Change)	
	2000	2007	2011	2000-2007	2007-2011
United States	8,554,866	11,900,562	12,981,741	39.11 (4.83)	9.09 (2.20)
Arkansas	60,468	89,312	99,933	47.70 (5.73)	11.89 (2.85)

Source: Personal income data for Tables 1, 2, and 3 obtained from "Regional Economic Accounts," Bureau of Economic Analysis. <http://www.bea.gov/regional>. All computations are the authors'.

Examining the bottom line (Total row) of Tables 4 and 6 provides the shift-share detail for aggregated Arkansas personal income which is summarized in Table 2. During the period 2000-2007 (Table 3), Arkansas' total personal income growth of \$28,845 million (\$89,312 million - \$60,468 million) is composed of (1) the overall-growth factor (\$23,648), (2) the differential-compositional factor (\$183 million), and (3) the sector-competitive factor (\$5,014 million).

Table 2
Aggregate Shift-Share Results for Arkansas
(millions of dollars)

Component	2000-2007	2007-2011
Overall-Growth	23,648	8,114
Differential-Compositional	183	1,807

Sector-Competitive	5,014	700
Total	28,845	10,621

Table 3

Personal Income (millions of dollars) for United States and Arkansas, 2000 and 2007

Sector	US		AR	
	2000	2007	2000	2007
Farm earnings	52,468	67,955	1,699	1,927
Forestry, fishing	19,684	24,640	380	485
Mining	54,197	99,282	318	622
Utilities	50,555	68,876	449	643
Construction	427,205	601,663	2,580	3,534
Durable goods manufacturing	618,741	636,587	4,906	4,993
Nondurable goods manufacturing	312,824	348,332	3,722	4,160
Wholesale trade	354,756	476,766	2,055	3,142
Retail trade	457,144	572,609	3,236	4,224
Transportation and warehousing	233,523	302,323	2,609	3,523
Information	263,635	301,994	1,045	2,250
Finance and insurance	463,966	682,759	1,646	2,385
Real estate and rental and leasing	153,724	161,404	711	778
Professional and technical services	591,055	847,193	1,780	2,995
Management of companies/enterprises	142,436	217,605	1,509	2,208
Administrative and waste services	241,871	351,325	1,171	1,723
Educational services	76,984	126,679	228	402
Health care and social assistance	556,376	873,326	4,290	6,624
Arts, entertainment, and recreation	70,685	100,147	273	290
Accommodation and food svcs	193,659	274,316	1,093	1,560
Other services, except pub admin	259,167	329,398	1,792	2,345
Government and govt enterprises	1,005,978	1,475,326	7,393	11,455
plus: Adjustment for residence	1,122	537	-362	-360
plus: Dividends, interest, and rent	1,574,990	2,199,709	10,574	16,492
plus: Personal current transfer receipts	1,082,982	1,717,908	10,693	18,086
less: Contributions for govt soc ins	704,861	958,097	5,321	7,175
Total	8,554,866	11,900,562	60,468	89,312

Table 4

Shift-Share Results: United States versus Arkansas, 2000-2007
Personal Income (percentages for columns 1 and 2, millions of dollars for columns 3-6)

	%	%				
Sector	US	AR	Growth	Composition	Competitive	Totals
Farm earnings	1.2952	1.1347	664	-163	-272	229
Forestry, fishing	1.2518	1.2755	149	-53	9	105
Mining	1.8319	1.9554	124	140	39	304
Utilities	1.3624	1.4325	176	-13	31	194
Construction	1.4084	1.3696	1,009	45	-100	954
Durable goods mfg	1.0288	1.0177	1,919	-1,777	-54	87
Nondurable goods mfg	1.1135	1.1177	1,456	-1,033	16	438
Wholesale trade	1.3439	1.5291	804	-97	380	1,087
Retail trade	1.2526	1.3052	1,266	-448	170	988
Transportation/warehousing	1.2946	1.3504	1,020	-252	146	914
Information	1.1455	2.1545	409	-257	1,054	1,206
Finance and insurance	1.4716	1.4491	644	132	-37	739
Real estate, rental and leasing	1.0500	1.0941	278	-242	31	67
Professional and tech services	1.4334	1.6821	696	75	443	1,214
Mgt of companies/enterprises	1.5277	1.4632	590	206	-97	699
Admin and waste services	1.4525	1.4714	458	72	22	552
Educational services	1.6455	1.7644	89	58	27	174
Healthcare and social assist	1.5697	1.5443	1,678	766	-109	2,335
Arts, entertainment, rec	1.4168	1.0595	107	7	-98	16
Accommodation and food svcs	1.4165	1.4271	428	28	12	467
Other services, exc pub admin	1.2710	1.3090	701	-215	68	554
Government and govt enterps	1.4666	1.5495	2,891	558	613	4,062
plus: Adjustment for residence	0.4786	0.9939	-142	330	-187	2
plus: Dividends, interest, rent	1.3966	1.5597	4,135	59	1,724	5,918
plus: Personal current transfer receipts	1.5863	1.6914	4,182	2,087	1,124	7,393
less: Contributions for govt soc ins	1.3593	1.3484	2,081	-169	-58	1,854
Total	1.3911	1.4770	23,648	183	5,014	28,845

Table 5**Personal Income (millions of dollars) for United States and Arkansas, 2007 and 2011**

Sector	US		AR	
	2007	2011	2007	2011
Farm earnings	67,955	90,089	1,927	1,319
Forestry, fishing	24,640	23,143	485	426
Mining	99,282	104,147	622	838
Utilities	68,876	75,541	643	765
Construction	601,663	485,250	3,534	3,357
Durable goods manufacturing	636,587	593,939	4,993	4,401
Nondurable goods manufacturing	348,332	339,188	4,160	4,109
Wholesale trade	476,766	485,779	3,142	3,432
Retail trade	572,609	575,414	4,224	4,642
Transportation and warehousing	302,323	309,813	3,523	3,471
Information	301,994	308,725	2,250	1,112
Finance and insurance	682,759	679,031	2,385	2,585
Real estate and rental and leasing	161,404	161,942	778	1,489
Professional and technical services	847,193	949,558	2,995	3,447
Management of companies/enterprises	217,605	238,662	2,208	2,796
Administrative and waste services	351,325	375,450	1,723	2,086
Educational services	126,679	153,906	402	518
Health care and social assistance	873,326	1,041,808	6,624	7,779
Arts, entertainment, and recreation	100,147	106,386	290	302
Accommodation and food svcs	274,316	294,719	1,560	1,766
Other services, except pub admin	329,398	341,787	2,345	2,449
Government and govt enterprises	1,475,326	1,643,691	11,455	12,782
plus: Adjustment for residence	537	736	-360	-296
plus: Dividends, interest, and rent	2,199,709	2,192,735	16,492	17,478
plus: Personal current transfer receipts	1,717,908	2,335,253	18,086	24,054
less: Contributions for govt soc ins	958,097	924,951	7,175	7,174
Total	11,900,562	12,981,741	89,312	99,933

Table 6

Shift-Share Results: United States versus Arkansas, 2007-2011
Personal Income (percentages for columns 1 and 2, millions of dollars for columns 3-6)

	%	%				
Sector	US	AR	Growth	Composition	Competitive	Totals
Farm earnings	1.3257	0.6841	175	453	-1,237	-609
Forestry, fishing	0.9393	0.8792	44	-74	-29	-59
Mining	1.0490	1.3478	57	-26	186	216
Utilities	1.0968	1.1887	58	4	59	121
Construction	0.8065	0.9500	321	-1,005	507	-177
Durable goods mfg	0.9330	0.8814	454	-788	-258	-592
Nondurable goods mfg	0.9738	0.9878	378	-487	59	-51
Wholesale trade	1.0189	1.0925	285	-226	231	291
Retail trade	1.0049	1.0991	384	-363	398	418
Transportation/warehousing	1.0248	0.9852	320	-233	-139	-52
Information	1.0223	0.4940	204	-154	-1,189	-1,139
Finance and insurance	0.9945	1.0838	217	-230	213	200
Real estate, rental and leasing	1.0033	1.9144	71	-68	708	711
Professional and tech services	1.1208	1.1511	272	90	91	453
Mgt of companies/enterprises	1.0968	1.2664	201	13	374	588
Admin and waste services	1.0687	1.2105	157	-38	244	363
Educational services	1.2149	1.2873	37	50	29	116
Healthcare and social assist	1.1929	1.1742	602	676	-124	1,154
Arts, entertainment, rec	1.0623	1.0421	26	-8	-6	12
Accommodation and food svcs	1.0744	1.1320	142	-26	90	206
Other services, exc pub admin	1.0376	1.0440	213	-125	15	103
Government and govt enterps	1.1141	1.1159	1,041	267	20	1,327
plus: Adjustment for residence	1.3698	0.8220	-33	-100	197	64
plus: Dividends, interest, rent	0.9968	1.0598	1,498	-1,551	1,038	986
plus: Personal current transfer receipts	1.3594	1.3300	1,643	4,856	-531	5,969
less: Contributions for govt soc ins	0.9654	0.9999	652	-900	248	-1
Total	1.0909	1.1189	8,114	1,807	700	10,621

The overall-growth component represents the personal income increase if the Arkansas rate of increase was identical to that of the United States.

The small, positive, differential-compositional component (\$183 million) identifies the aggregate industry mix as a fast-growth combination of sectors. The sector-competitive component (\$5,014 million) indicates that several sectors in Arkansas increased at a faster rate than the corresponding United States sector.

A similar situation exists for Arkansas personal income total growth of \$10,661 million (\$99,993 million - \$89,312 million) from 2007 to 2011. All three of the shift-share components are positive: (1) overall-growth component of \$8,114 million, (2) differential-compositional component of \$1,807 million, and (3) sector-competitive component of \$700 million.

Comparison of the periods shows that the period of 2000-2007 had a much more moderate (although still positive at \$183 million) differential-compositional component than the 2007-2011 differential-compositional component (\$1,807 million). So, during the recession/recovery period of 2007-2011, the Arkansas sectors in the aggregate moved to a stronger position with fast-growth sectors and still maintained a favorable sector-competitive component.

When the sector-competitive components of the two periods are compared, a reverse situation exists. That is, the sector-competitive value of \$5,014 million is a more significant contribution to the 2000-2007 personal income total than is the \$700 million sector-competitive component of 2007-2011.

So, in the aggregate, Arkansas personal income growth composition has changed from the 2000-2007 period to the 2007-2011 period. The aggregate has changed from a composition of slow-growth, highly-competitive structure to a fast-growth but less competitive structure.

Sector Analysis

Tables 7, 8, and 9 will be used in the sector analysis. Table 7 provides the percentage contribution to personal income for each sector in the United States and Arkansas. Table 8 provides a summary of the most significant personal income producing sectors of Arkansas in 2007 and 2011. These eleven sectors are considered as the most significant since they contributed eighty-nine percent of Arkansas personal income in 2011. In Table 8, a comparison of 2007 and 2011 is made. The arrows in the 2011 indicate whether the 2011 sector percentage was above (↑) or below (↓) the 2007 percentage. Table 9 provides a selected summary of the shift-share results.

Table 7
Percentage of Personal Income by Sector

Sector	AR		US	
	2007	2011	2007	2011
Farm	2.16%	1.32%	0.57%	0.69%
Forestry/Fishing	0.54%	0.43%	0.21%	0.18%
Mining	0.70%	0.84%	0.83%	0.80%
Utilities	0.72%	0.77%	0.58%	0.58%
Construction	3.96%	3.36%	5.06%	3.74%
Durable Goods	5.59%	4.40%	5.35%	4.58%
Nondurables Goods	4.66%	4.11%	2.93%	2.61%
Wholesale Trade	3.52%	3.43%	4.01%	3.74%
Retail Trade	4.73%	4.65%	4.81%	4.43%
Transportation	3.94%	3.47%	2.54%	2.39%
Information	2.52%	1.11%	2.54%	2.38%
Finance/ Insurance	2.67%	2.59%	5.74%	5.23%
Real Estate	0.87%	1.49%	1.36%	1.25%
Professional Services	3.35%	3.45%	7.12%	7.31%
Management	2.47%	2.80%	1.83%	1.84%
Administrative	1.93%	2.09%	2.95%	2.89%
Education	0.45%	0.52%	1.06%	1.19%
Healthcare	7.42%	7.78%	7.34%	8.03%
Arts/ Entertainment	0.32%	0.30%	0.84%	0.82%
Accommodations	1.75%	1.77%	2.31%	2.27%
Other Services	2.63%	2.45%	2.77%	2.63%
Governments	12.83%	12.79%	12.40%	12.66%
Adjustment for residence	-0.40%	-0.30%	0.00%	0.01%
Dividends, Interest, Rent	18.47%	17.49%	18.48%	16.89%
Transfer Receipts	20.25%	24.07%	14.44%	17.99%
less Social Security Contributions	8.03%	7.18%	8.05%	7.13%
Total	100.00%	100.00%	100.00%	100.00%

Table 8

Highest Producers of Arkansas Personal Income

SECTOR	2007	2011
Transfer Receipts	20.25%	24.07% ↑
Dividends, Interest, Rent	18.47%	17.49% ↓
Government and Government Enterprises	12.83%	12.79% ↓
Healthcare and Social Assistance	7.42%	7.78% ↑
Retail Trade	4.73%	4.65% ↓
Durable Goods Manufacturing	5.59%	4.40% ↓
Nondurable Goods Manufacturing	4.66%	4.11% ↓
Transportation	3.94%	3.47% ↓
Professional Services	3.35%	3.45% ↑
Wholesale Trade	3.52%	3.43% ↓
Construction	3.96%	3.36% ↓
TOTAL	88.72%	89.00%

In 2011, only three sectors, Transfer Receipts (24.07%), Healthcare and Social Assistance (7.78%), and Professional Services (3.45%), had percentage contributions greater than the 2007 values. On the other hand, five sectors experienced noticeable percentage declines from 2007 to 2011. These five sectors were: (1) Dividends, Interest, and Rents (18.47% to 17.49%), (2) Durable Goods Manufacturing (5.59% to 4.40%), (3) Nondurable Goods Manufacturing (4.66% to 4.11%), (4) Transportation (3.94% to 3.47%), and (5) Construction (3.96% to 3.36%). In total, these three sectors of personal income production decreased by 3.79%. This decrease was offset by Transfer Receipts (20.25% to 24.07%) which increased by 3.82 percentage points. Finally, three sectors, Government (12.83% to 12.79%), Retail Trade (4.73% to 4.65%), and Wholesale Trade (3.52% to 3.43%) experienced the smallest (almost no) change.

The following discussion will continue to use Tables 7, 8, 9, and 10 to present some additional detail on selected sectors.

- (1) Transfer Receipts produced 24.07% of Arkansas personal income. This percentage is noticeably larger than the United States corresponding sector (17.99%; see Table 7). From Table 9, it is noted that the shift-share results for 2007-2011 are (1) differential-

compositional contribution of \$4,856 million and (2) sector-competitive contribution of negative \$531 million. Thus, this is an Arkansas sector that is growing faster than the national average but slower than the U.S. sector. Additional examination of this sector, using a detailed breakout of Transfer Receipts from the BEA website, indicated that in 2010 the Social Security component of Transfer Receipts was 5.59% in the U.S. and 8.06% in Arkansas. Finally, it is noted that the Arkansas “65 and over” population (as a percentage of total population), was greater than the U.S. in the last three census years (see Table 10).

- (2) Dividends, Interest, and Rents produced 17.49% of Arkansas personal income. This percentage is less than the U.S. percentage of 18.47%. The differential-compositional value of -\$1,551 million indicates a slow-growth sector which is consistent with the current climate of slow economic growth. On the other hand, the positive sector-competitive value of \$1,038 million suggests that this is a healthy sector when compared to the U.S. even though the sector is still a slow-growth sector.

Table 9

**Selected Summary of Shift-Share Results
United States versus Arkansas
2007-2011
(millions of dollars)**

SECTOR	Differential-Compositional Component	Sector-Competitive Component
Transfer Receipts	4,856	-531
Dividends, Interest, Rent	-1,551	1,038
Government and Government Enterprises	267	20
Healthcare and Social Assistance	676	-124
Durable Goods Manufacturing	-788	-258
Retail Trade	-363	398
Nondurable Goods Manufacturing	-487	59
Transportation	-233	-139
Professional Services	90	91
Wholesale Trade	-226	231
Construction	-1,005	507

Table 10

**As Arkansans Retire
Comparison of US and AR populations
aged 65 and over**

	US	AR
1990	12.6%	14.9%
2000	12.4%	14.0%
2010	13.0%	14.4%

Source: U.S. Census, 1990, 2000, 2010
<http://www.census.gov>

- (3) Government and Government Enterprises was relatively stable over the period 2007-2011. The percentage contribution to Arkansas personal income was 12.83% in 2007 and 12.79% in 2011. Maintaining a steady percentage of Arkansas' personal income suggests governments (both statewide and local) have kept expenditures within budgets as evidenced by the fact that nationally this is a fast-growth sector (a differential-compositional component of \$20 billion). Also, it is important to note that Arkansas is one of the few states that is not incurring a budget deficit.
- (4) Healthcare and Social Assistance continues to increase as a source of personal income. In Arkansas, the 2007 percentage was 7.42% and in 2011 the percentage was 7.78%. A similar situation exists for the United States with 2007 (7.34%) and 2011 (8.03%). Nationally, this is a fast-growth sector, but the Arkansas sector is not increasing as fast as the corresponding United States sector.
- (5) The remaining seven sectors: (1) Retail Trade (4.65%), (2) Durable Goods Manufacturing (4.40%), (3) Nondurable Goods Manufacturing (4.11%), Transportation (3.47%), (4) Professional Services (3.45%), (5) Wholesale Trade (3.43%), and (6) Construction (3.36%), as a group accounted for 26.87% of Arkansas personal income in 2011. All of these sectors except Professional Services had negative differential-compositional components meaning that these sectors are not fast-growth and should not be expected to lead an economic recovery in the near future. In particular, it is important to note that three sectors, Durable Goods Manufacturing, Nondurable Goods Manufacturing, and Construction, normally associated with an economic recovery, are

currently slow-growth sectors. However, it is somewhat encouraging that Retail Trade, Nondurable Goods Manufacturing, Professional Services, Wholesale Trade, and Construction had positive sector-competitive components.

Summary and Conclusions

Arkansas' overall economic activity, as measured by personal income, was analyzed and compared to the United States over two periods of time, 2000-2007 and 2007-2011. The first period preceded the recession, and the second period is the recovery period. During the first period, Arkansas' percentage increase (47.70) and annual rate of change (5.73) exceeded the corresponding United States numbers (39.11 and 4.83, respectively). During the second period, again Arkansas' percentage increase (11.89) and annual rate of change (2.85) exceeded the United States' numbers (9.09 and 2.20, respectively). It is particularly important to note that for both Arkansas and the United States, the annual rates of increase decreased significantly and highlight the slow pace of economic recovery.

The more detailed sector analysis utilized the shift-share approach that partitions the aggregate change of each sector into three components: (1) the overall-growth rate, (2) the differential-compositional component that identifies which sectors are fast-growth or slow-growth in the United States, and (3) the sector-competitive component which indicates whether each Arkansas sector is producing personal income faster or slower than the corresponding sector in the United States.

The sector analysis focused on sectors that produced 89 percent of Arkansas personal income in 2011. There were eleven of these sectors, and only three [(1) Transfer Receipts (20.25% in 2007 and 24.07% in 2011), (2) Healthcare and Social Assistance (7.42% in 2007 and 7.78% in 2011), and (3) Professional Services (3.35% in 2007 and 3.45% in 2011)] sectors produced a higher percentage of personal income in 2011 than in 2007. Additionally, all three sectors had positive differential-compositional components, which identifies them as fast-growth sectors. In fact, the Transfer Receipts change (20.25% to 24.07%) corresponds directly to demographic shifts in the United States as the "baby boomers" enter retirement age. This is particularly important in Arkansas, with its higher percentage of persons aged 65 and over, coupled with the fact that in 2010 the Social Security component of Transfer Receipts was 8.06% in Arkansas which is noticeably greater than the U.S. percentage of 5.59%. At the same time, the increasing Healthcare and Social Assistance sector increase reflects the same demographic shift.

The other eight sectors included three [Government and Government Enterprises (12.83% to 12.79%), Retail Trade (4.73% to 4.65%), and Wholesale Trade (3.52% to 3.43%)] that remained at essentially the same percentage in 2011 as in 2007. The final five sectors [Dividends, Interest, and Rents (18.47% to 17.49%), Durable Goods Manufacturing (5.59% to 4.40%), Nondurable Goods Manufacturing (4.66% to 4.11%), Transportation (3.84% to 3.47%), and Construction (3.96% to 3.36%)] all declined as personal income producing sectors. Additionally, seven sectors (Dividends, Interest, and Rents, Durable Goods Manufacturing, Retail Trade, Nondurable Goods Manufacturing, Transportation, Wholesale Trade, and Construction) had negative differential-compositional components indicating slow-growth sectors that continue to drag

down the overall growth. On a brighter note, five of these sectors (Dividends, Interest, and Rents, Retail Trade, Nondurable Goods Manufacturing, Wholesale Trade, and Construction) had positive sector-competitive components.

As we look to the future, certain sectors (Dividends, Interest, and Rents, Retail Trade, Durable Goods Manufacturing, Nondurable Goods Manufacturing, Transportation, and Construction) need to improve in order to have an increasing average annual rate of change in Arkansas personal income. However, during the period 2007-2011, all six of these sectors had negative differential-compositional components (slow-growth). Consequently, they still require more time in order to make a better contribution to the economic recovery.

In conclusion, although Arkansas' annual growth rate declined significantly (5.73% from 2000-2007 to 2.85% from 2007-2011), Arkansas has been relatively stable compared to many states which have higher levels of unemployment and therefore Arkansas is only one of four or five states that has ended the most recent year with a surplus.

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