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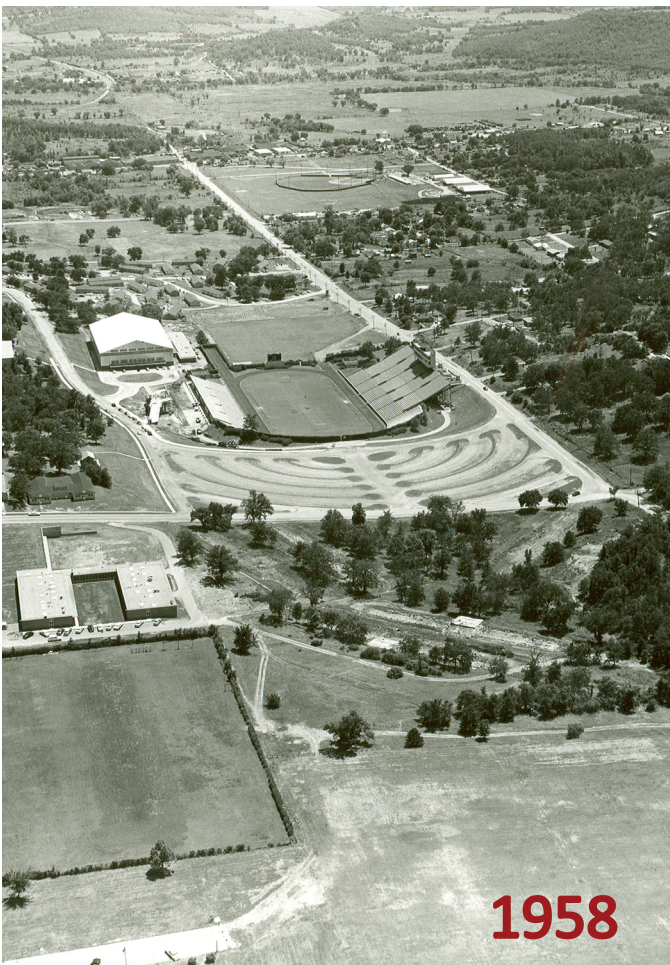
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The Economic Impact of the 50-Year Career of Frank Broyles at the University of Arkansas

Produced by
the Center for Business and Economic Research
Sam M. Walton College of Business
University of Arkansas

Commissioned by
the Fayetteville Economic Development Council



Executive Summary

Frank Broyles retired from the University of Arkansas on December 31, 2007, after a career in the athletic department of the school that lasted 50 years. First as coach and later as men's athletic director, Frank Broyles had a profound impact on the state of Arkansas. His leadership skills led to tremendous unquantifiable benefits like personal mentorship of players and staff, notoriety, and philanthropy. His five decade long tenure at the University of Arkansas also led to demonstrable economic impact. The purpose of this study is to quantify and celebrate the economic benefits that have accrued to Arkansas because of the career of Frank Broyles.

Two types of economic impact are evident from the coaching and directing of Frank Broyles. Those effects come from construction and renovation of athletic facilities, and attendance at Razorback sporting events. Both kinds of activities affect direct employment and payroll in the men's athletic department at the University of Arkansas, but have much broader impacts on the state's economy through indirect and induced effects. While many of the economic effects are a result of growth in the University and in the industry of college athletics, these dollars and jobs were generated under the leadership of Frank Broyles and are at least indirectly attributable to his efforts. These effects are summarized below:

- ❖ From 1957 to 2007, \$260.0 million dollars were directly expended on athletic facility construction and renovation. Adjusted for inflation, this equates to \$375.6 million in 2007 dollars.
- ❖ Construction and renovation of athletic facilities generated \$578.5 million in total economic output and an average of 143.6 jobs per year from 1957 to 2007.
- ❖ From 1957 to 2007, total attendance at Razorback football games was 16.2 million people. Using an average expenditure multiplier, these fans spent a total of \$1.4 billion and generated an average of 1,298.2 jobs per year.
- ❖ Adding attendance from basketball since 1978 and baseball since 1999, Razorback fans spent a total of \$2.4 billion and generated an average of 2,141.6 jobs per year.

Over his lifetime of achievement, Frank Broyles was in large part responsible for the generation of **\$2,952,882,273** in economic output. This equated to the generation of an average of **2,285.2 jobs** per year during the 50 year career of Frank Broyles. Few other Arkansans deserve credit for economic development of this magnitude.

Contents

Executive Summary.....	1
Tables.....	2
Acknowledgements.....	2
Introduction	3
History and Perspective	3
Coaching.....	3
Athletic Director.....	4
Methodology.....	4
Construction Impacts.....	5
Attendance Impacts.....	9
Generational Impact	13
Conclusions	13
References	14

Tables

Table 1: Athletic Facilities Construction Impacts by Year	6
Table 2: Attendance, Economic Impact, and Employment Impact for University of Arkansas Men's Athletics	10

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Introduction

Shortly after Frank Broyles announced that his retirement from his position as Men’s Athletic Director at the University of Arkansas would be effective on December 31, 2007, the board members of the Fayetteville Economic Development Council (FEDC) started thinking of a way to honor Coach Broyles for the positive economic impact that his career has meant for the state of Arkansas. The FEDC board decided to commission a study that would quantify that economic impact on the state from a 50 year career at the University of Arkansas. No study could possibly capture some of the most important effects of Frank Broyles’ time at the University. Qualities like leadership, personal mentorship, philanthropy, and name recognition do not lend themselves to numerical description. There are important metrics that can be quantified—economic output and employment are two of those. During the past 50 years, tremendous improvements were made in athletic facilities at the University of Arkansas and mammoth gains were made in attendance at University of Arkansas sporting events leading to significant growth in the employment and payroll of the athletic department itself. While some of these changes were undoubtedly due to the way that college athletics have evolved as an industry, it is still fair to note that the quantified effects did occur during the tenure of this particular leader.

History and Perspective

During the University of Arkansas career of Frank Broyles, the university’s enrollment has increased from 5,201 in 1957 to 17,926 in 2006¹ (an increase of 245 percent) and attendance at football has increased from 160,712 in 1957 to 528,260 in 2007² (an increase of 229 percent). Broyles has overseen construction of new athletic facilities and renovation of athletic facilities for every men’s sport at the University of Arkansas: football, basketball, baseball, indoor and outdoor track, tennis, and golf.

Coaching

Frank Broyles began his coaching career as an assistant coach under Bob Woodruff at Baylor University in 1947. Broyles followed Woodruff to Florida in 1950 when the latter took the head coaching job. In 1951, Broyles would return to his alma mater Georgia Tech to work as an offensive coordinator under Bobby Dodd.

In 1957, Broyles received an opportunity to become head coach at the University of Missouri and coached for one year before receiving an offer to take the head coaching position at the University of Arkansas. Broyles remained as the Arkansas head coach from 1958-1976. During his coaching career at the University of Arkansas, Broyles accumulated the largest win total in Arkansas history, with seven Southwest Conference championships, two Cotton Bowls, and a National Championship in 1964.

¹ Student Data—Enrollment: Historical Enrollments from 1872. UA Institutional Research. University of Arkansas.

² University of Arkansas Razorbacks 2007 Media Guide. Hogwired. University of Arkansas Men’s Athletics.

Athletic Director

In 1974, Frank Broyles was offered the position of men's athletic director in addition to his duties as head coach at the University of Arkansas. He remained head coach for three years before retiring and assuming the position of athletic director full-time.

Methodology

To analyze the economic impact of Frank Broyles's tenure at the University of Arkansas, researchers at the Center for Business and Economic Research reviewed the sports economics literature to determine the areas of operations an athletic director or coach could have influence over in the economic decisions of consumers and tourists. After reviewing such literature, it was determined that athletic directors and coaches have significant influence in the areas of facilities construction and event attendance. Athletic department payroll is a direct function of the event attendance, and as such, the effects are captured within the estimates for attendance.

Data were then collected in these areas to help ascertain the cumulative changes that have taken place during Frank Broyles's tenure. For construction impacts, data were collected from the University of Arkansas Athletics Facilities Department about actual construction costs for facilities in each year. The construction costs for each project completed were then adjusted for inflation to 2007 dollars and run through the IMPLAN³ regional impact model to determine the number of jobs and total dollar amount of economic injections to the economy that were due to athletic facility construction and renovation.

³ IMPLAN is a regional impact model that enables the evaluation of the economic impact of specific activities such as construction or operation of public works projects, as well as retail, wholesale, manufacturing, and service sales within an economy. IMPLAN was originally developed by the U.S. Department of Agriculture, the Forest Service in cooperation with the Federal Emergency Management Agency (FEMA), the U.S. Department of Interior Bureau of Land Management, and the University of Minnesota to assist the Forest Service in land and resource management planning.

The basic data sources for the current edition of the IMPLAN database and the models used in this study are the Input-Output Accounts of the United States, developed by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA), and county income and employment data published by BEA and the Bureau of Labor Statistics (BLS). The model will reflect 2003 industrial structure and technology, and 2003 prices, with adjustments made for the introduction of the natural gas industry. Trade flows and the results of this analysis were adjusted to reflect prices of the respective years from 2005 to 2008.

IMPLAN uses a 525-sector input-output model to measure the effects of three types of impacts: direct, indirect, and induced. Direct impacts consist of employment and purchases of goods and services in the region resulting from the activity being evaluated. Indirect (inter-industry) impacts consist of goods and services purchased by the firms, which supply inputs consumed in the direct activity. Induced impacts consist of increased household purchases of goods and services in the region by employees of direct and indirect employers. The model generates multipliers, which summarize the magnitude of the indirect and induced effects generated by a given direct change, to estimate changes in output, income, and employment. In other words, the multiplier is the ratio of total impact to direct impact.

To estimate athletic event attendance impacts, data were collected from the University of Arkansas Sports Information Department and the NCAA regarding attendance figures for football, basketball, and baseball. The annual attendance figures were multiplied by sports event multipliers to determine the total dollar amount generated in the community and state from the attendance at the University of Arkansas sporting events during Frank Broyles' tenure. The NCAA reports attendance numbers for various men's athletic sports. Attendance numbers in football have been offered from 1957 to 2007 while attendance numbers in basketball have only been offered from 1978 to 2007 and baseball from 1999 to 2007. A combined total of over 23 million fans have attended these three types of sporting events in the time frames given and their effects on the state and the local community area have been profound. According to the National Association of Sports Commissions (as referenced in The Sport Journal), the average person spent \$146.89 per day when attending a sporting event in 2001. The inflation-adjusted 1957 and 2007 equivalents are \$23.31 and \$171.21, respectively.

By combining these areas of impact, one can determine a general estimate of the total economic impact of Frank Broyles's tenure at the University of Arkansas. The estimates for these areas and the results will be discussed further in the following sections.

Construction Impacts

At the University of Arkansas, the oldest men's sports facility in current use on campus is Bud Walton Arena, which was constructed in 1993 and renovated prior to the 2007-2008 basketball season.⁴ Since 1993, every men's sport has found a new home at a new complex. This feat of Frank Broyles becomes more pronounced when you consider that he was 69 at the time of the construction of Bud Walton Arena. Despite his age, Broyles led a complete change in the landscape at the University of Arkansas by being a conscientious steward of the money he was given and inviting competitive bidding for the athletic facilities.

Perhaps the largest accomplishment of Frank Broyles's tenure is not that he was able to build outstanding athletic facilities, but rather that he was able to pay for them. Despite paying hundreds of millions of dollars in construction costs, the athletic department only currently holds \$40,015,000 in outstanding debt. His ability jointly to finance and pay out of pocket has allowed for construction projects such as Baum Stadium and its renovations to be paid for when built. Though Coach Broyles maintained a fiscally responsible organization, he was by no means cheap, and worked hard to make sure that each dollar donated to the athletic department went as far as possible while still maintaining quality. He, along with his staff, worked hard to develop innovative layouts, which encouraged fan attendance and have acted as models for other universities' athletic facilities.

⁴ Pufall, Jerry. Personal Interview. January 10, 2007.

Table 1, below, shows the nominal and inflation-adjusted dollars that were spent on construction and renovation of University of Arkansas athletic facilities each year from 1957 to 2007. The table also shows the total economic impact of those direct expenditures, as estimated using the IMPLAN input-output model. Finally, the total employment impact of the direct construction expenditures is displayed. Construction expenditures during the 50 year career of Frank Broyles accounted for total economic impact of \$578.5 million and average annual employment of 143.6.

Table 1: Athletic Facilities Construction Impacts by Year

Year	Direct Expenditures in Nominal Dollars	Direct Expenditures in 2007 Dollars	Total Economic Impact in 2007 Dollars	Total Employment Impact in Each Year
1957	\$0	\$0	\$0	0.0
1958	\$0	\$0	\$0	0.0
1959	\$0	\$0	\$0	0.0
1960	\$0	\$0	\$0	0.0
1961	\$0	\$0	\$0	0.0
1962	\$0	\$0	\$0	0.0
1963	\$0	\$0	\$0	0.0
1964	\$0	\$0	\$0	0.0
1965	\$600,000	\$3,380,969	\$5,206,692	65.9
1966	\$0	\$0	\$0	0.0
1967	\$0	\$0	\$0	0.0
1968	\$0	\$0	\$0	0.0
1969	\$247,900	\$995,720	\$1,533,409	19.4
1970	\$0	\$0	\$0	0.0
1971	\$0	\$0	\$0	0.0
1972	\$0	\$0	\$0	0.0
1973	\$0	\$0	\$0	0.0

Year	Direct Expenditures in Nominal Dollars	Direct Expenditures in 2007 Dollars	Total Economic Impact in 2007 Dollars	Total Employment Impact in Each Year
1974	\$0	\$0	\$0	0.0
1975	\$7,600,000	\$21,335,258	\$32,856,298	416.0
1976	\$8,000,000	\$21,385,043	\$32,932,966	417.0
1977	\$0	\$0	\$0	0.0
1978	\$1,500,000	\$3,659,929	\$5,636,290	71.4
1979	\$0	\$0	\$0	0.0
1980	\$0	\$0	\$0	0.0
1981	\$0	\$0	\$0	0.0
1982	\$0	\$0	\$0	0.0
1983	\$0	\$0	\$0	0.0
1984	\$700,000	\$1,353,713	\$2,084,718	26.4
1985	\$19,035,000	\$35,581,317	\$54,795,228	693.8
1986	\$0	\$0	\$0	0.0
1987	\$0	\$0	\$0	0.0
1988	\$0	\$0	\$0	0.0
1989	\$650,000	\$1,059,218	\$1,631,195	20.7
1990	\$100,000	\$159,508	\$245,642	3.1
1991	\$700,000	\$1,102,938	\$1,698,524	21.5
1992	\$2,960,000	\$4,587,919	\$7,065,396	89.5
1993	\$400,000	\$595,986	\$917,819	11.6
1994	\$37,541,790	\$54,325,018	\$83,660,528	1,059.3
1995	\$0	\$0	\$0	0.0

Year	Direct Expenditures in Nominal Dollars	Direct Expenditures in 2007 Dollars	Total Economic Impact in 2007 Dollars	Total Employment Impact in Each Year
1996	\$4,596,170	\$6,336,613	\$9,758,384	123.6
1997	\$0	\$0	\$0	0.0
1998	\$389,812	\$528,164	\$813,373	10.3
1999	\$3,212,033	\$4,268,908	\$6,574,118	83.2
2000	\$14,973,247	\$19,498,835	\$30,028,205	380.2
2001	\$118,905,316	\$154,621,206	\$238,116,657	3,015.1
2002	\$178,181	\$233,042	\$358,885	4.5
2003	\$1,956,128	\$2,512,983	\$3,869,994	49.0
2004	\$7,898,417	\$9,411,594	\$14,493,855	183.5
2005	\$3,210,045	\$3,546,969	\$5,462,332	69.2
2006	\$15,214,609	\$15,690,115	\$24,162,777	306.0
2007	\$9,473,600	\$9,473,600	\$14,589,344	184.7
Total	\$260,042,248	\$375,644,563	\$578,492,627	
Average				143.6

Attendance Impacts

Although Frank Broyles, as the men's athletic director, rarely attended a Razorback football game after 2002,⁵ fan attendance at men's sporting events at the University of Arkansas has had a significant economic impact on both local and statewide levels. In their 2006 season, nearly 74,000 fans, on average, turned out for each home game to watch the Hogs play football. That number is slightly less than half of the total season attendance for Frank Broyles' inaugural year as head coach in 1957. In the last four years of Frank Broyles' career, Arkansas was in the top five schools with regards to average attendance in baseball,⁶ and in the top 15 schools in average attendance to basketball games.⁷ Spectator interest has been spurred by the expansion of capacity and the construction or upgrade of every men's' athletic facility. Also, fans have been drawn in by the players and the staff in the university's men's athletic programs—people who were influenced and directly affected by Frank Broyles. The allure of Frank Broyles as a celebrity has also played no small role in the visibility and general interest in the University of Arkansas programs. Coach Broyles' 9 years spent as a color analyst for ABC (1977 – 1986) were a means to publicize and promote collegiate football, especially the Razorbacks. Also, Coach Broyles' foresight to allow students to purchase game tickets at a reduced rate has provided University students an opportunity to attend games and to become lifelong fans that will fill up seats as alumni. All of these things have led to the direct result of an increase in attendance to the University of Arkansas men's sporting events.

Table 2 shows the annual event attendance, economic impact, and employment impact for each year from 1957 to 2007. An average expenditure multiplier is used to estimate the economic impact of each attendee in each year. During the 50 year career of Frank Broyles, football game attendance alone was responsible for \$1.4 billion of economic output and average employment of almost 1,300 per year. Adding in baseball and basketball, the total economic impact from sports attendance was \$2.4 billion with average annual employment of almost 2,150.

⁵ "No BCS? Cotton Bowl just fine with Pinkel." [WFFA](#). January 2, 2008.

⁶ NCAA Men's Baseball Attendance. [NCAA](#). January 8, 2008.

⁷ NCAA Men's Basketball Attendance. [NCAA](#). January 8, 2008.

Table 2: Attendance, Economic Impact, and Employment Impact for University of Arkansas Men's Athletics

Year	Basketball	Baseball	Football	Average Expenditure Multiplier	Football Total Economic Impact	Football Total Employment Impact	All Sports Total Economic Impact	All Sports Total Employment Impact
1957	N/A	N/A	160,712	\$23.20	\$3,728,853	171.5	\$3,728,853	171.5
1958	N/A	N/A	169,452	\$23.86	\$4,043,572	186.0	\$4,043,572	186.0
1959	N/A	N/A	183,324	\$24.03	\$4,404,869	202.6	\$4,404,869	202.6
1960	N/A	N/A	207,620	\$24.44	\$5,074,363	233.4	\$5,074,363	233.4
1961	N/A	N/A	196,500	\$24.69	\$4,851,258	223.2	\$4,851,258	223.2
1962	N/A	N/A	207,000	\$24.94	\$5,161,762	237.4	\$5,161,762	237.4
1963	N/A	N/A	246,930	\$25.27	\$6,239,014	287.0	\$6,239,014	287.0
1964	N/A	N/A	210,790	\$25.60	\$5,395,508	248.2	\$5,395,508	248.2
1965	N/A	N/A	293,850	\$26.01	\$7,642,878	351.6	\$7,642,878	351.6
1966	N/A	N/A	257,950	\$26.75	\$6,900,828	317.4	\$6,900,828	317.4
1967	N/A	N/A	309,587	\$27.58	\$8,537,876	392.7	\$8,537,876	392.7
1968	N/A	N/A	275,179	\$28.73	\$7,907,063	363.7	\$7,907,063	363.7
1969	N/A	N/A	302,072	\$30.30	\$9,153,711	421.1	\$9,153,711	421.1
1970	N/A	N/A	317,000	\$32.04	\$10,155,742	467.2	\$10,155,742	467.2
1971	N/A	N/A	381,221	\$33.44	\$12,748,307	586.4	\$12,748,307	586.4
1972	N/A	N/A	329,117	\$34.51	\$11,359,187	522.5	\$11,359,187	522.5
1973	N/A	N/A	299,981	\$36.66	\$10,997,586	505.9	\$10,997,586	505.9
1974	N/A	N/A	320,809	\$40.71	\$13,059,127	600.7	\$13,059,127	600.7
1975	N/A	N/A	320,035	\$44.42	\$14,216,753	654.0	\$14,216,753	654.0
1976	N/A	N/A	316,119	\$46.98	\$14,851,952	683.2	\$14,851,952	683.2
1977	N/A	N/A	346,602	\$50.04	\$17,343,005	797.8	\$17,343,005	797.8

Year	Basketball	Baseball	Football	Average Expenditure Multiplier	Football Total Economic Impact	Football Total Employment Impact	All Sports Total Economic Impact	All Sports Total Employment Impact
1978	104,408	N/A	299,550	\$53.84	\$16,126,406	741.8	\$21,747,256	1,000.4
1979	132,417	N/A	354,031	\$59.95	\$21,222,600	976.2	\$29,160,416	1,341.4
1980	139,277	N/A	336,921	\$68.04	\$22,923,238	1,054.5	\$32,399,286	1,490.4
1981	131,306	N/A	293,701	\$75.06	\$22,043,978	1,014.0	\$31,899,262	1,467.4
1982	139,000	N/A	350,390	\$79.68	\$27,918,989	1,284.3	\$38,994,474	1,793.7
1983	139,550	N/A	324,262	\$82.24	\$26,667,117	1,226.7	\$38,143,627	1,754.6
1984	127,496	N/A	343,476	\$85.79	\$29,466,775	1,355.5	\$40,404,646	1,858.6
1985	136,035	N/A	323,496	\$88.84	\$28,740,999	1,322.1	\$40,827,027	1,878.0
1986	132,714	N/A	357,128	\$90.50	\$32,318,792	1,486.7	\$44,328,929	2,039.1
1987	145,583	N/A	270,146	\$93.80	\$25,339,471	1,165.6	\$38,995,035	1,793.8
1988	140,572	N/A	343,456	\$97.68	\$33,548,764	1,543.2	\$47,279,829	2,174.9
1989	133,850	N/A	306,830	\$102.39	\$31,415,225	1,445.1	\$45,119,647	2,075.5
1990	137,311	N/A	346,492	\$107.92	\$37,392,927	1,720.1	\$52,211,337	2,401.7
1991	161,970	N/A	322,998	\$112.46	\$36,324,330	1,670.9	\$54,539,463	2,508.8
1992	133,522	N/A	268,506	\$115.85	\$31,105,152	1,430.8	\$46,573,046	2,142.4
1993	134,623	N/A	281,874	\$119.31	\$33,631,290	1,547.0	\$49,693,592	2,285.9
1994	322,146	N/A	289,176	\$122.37	\$35,385,971	1,627.8	\$74,806,424	3,441.1
1995	301,212	N/A	306,951	\$125.84	\$38,625,551	1,776.8	\$76,528,928	3,520.3
1996	346,698	N/A	311,862	\$129.55	\$40,402,298	1,858.5	\$85,317,664	3,924.6
1997	309,322	N/A	280,724	\$132.52	\$37,202,767	1,711.3	\$78,195,466	3,597.0
1998	291,089	N/A	315,597	\$134.59	\$42,475,758	1,953.9	\$81,653,018	3,756.0

Year	Basketball	Baseball	Football	Average Expenditure Multiplier	Football Total Economic Impact	Football Total Employment Impact	All Sports Total Economic Impact	All Sports Total Employment Impact
1999	292,704	113,403	321,840	\$137.56	\$44,272,667	2,036.5	\$100,137,195	4,606.3
2000	249,300	54,568	355,452	\$142.19	\$50,539,946	2,324.8	\$93,745,421	4,312.3
2001	292,057	44,196	424,934	\$146.89	\$62,418,555	2,871.3	\$111,810,758	5,143.3
2002	241,033	42,559	486,016	\$148.54	\$72,194,215	3,320.9	\$114,319,786	5,258.7
2003	236,638	60,303	445,119	\$151.93	\$67,626,144	3,110.8	\$112,739,865	5,186.0
2004	236,676	186,588	409,275	\$155.97	\$63,836,320	2,936.5	\$129,854,562	5,973.3
2005	252,608	200,378	382,070	\$161.26	\$61,612,077	2,834.2	\$134,659,969	6,194.4
2006	239,336	199,450	554,621	\$166.46	\$92,322,489	4,246.8	\$165,363,026	7,606.7
2007	267,520	250,759	528,260	\$171.20	\$90,438,112	4,160.2	\$179,167,477	8,241.7
Total	6,047,973	1,152,204	16,187,004		\$1.4 billion		\$2.4 billion	
Average						1,298.2		2,141.6

Generational Impact

Broyles was a visionary in his control of ticket prices for sporting events. While many athletic directors were turning to student fees and tax dollars to help fund the athletic department budget, Broyles refused to place such a burden on the average fan. In fact, Broyles took noticeable steps to make it even an easier on the average fan to attend games at the University of Arkansas. By intentionally keeping ticket prices low and allocating a large portion of seating to students at reduced ticket prices, Broyles has accumulated goodwill with the fans, which is difficult to measure. In turn, many of these students and fans that received relatively cheap tickets continue to become donors to the program, as well as season ticketholders, and bring family and friends to games as well as buy Razorback merchandise.

Conclusions

Broyles spent 50 years handpicking players and coaches in order to build the strongest program he could and to create a legacy in the program that he has left behind. But before the coaches and the players, Frank Broyles handpicked his fans; he chose Arkansas. His effect on this state's economy has been enormous—\$2.95 billion. More than 2,285 people have jobs each year because of the activities that Frank Broyles lead. His impact on Arkansas is a lasting one.

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