


**A Case Study in Higher Education Finance:
Ball State University, 1950-2000**

Honors College Thesis (HONRS 499)

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Abstract

An inter-disciplinary look at a mid-sized public institution of higher learning, this paper combines the history and theory of higher education finance and the politics of economic decision making into a comprehensive case study of Ball State University. By examining Ball State University income and expense data from 1950-2000, as well as changes to the university structure, this paper compares and contrasts Ball State University to regional and national trends, as well as offers explanations for tuition increases of the past and present. This paper provides those interested in higher education finance a document to further fuel the debate over rising tuition costs, as well as brings together fifty years of information about Ball State University from multiple offices into one location.

Acknowledgements

This paper has not been easy for me, and I have a number of people to thank:

- First and foremost, I have to thank my thesis advisor, Dr. Cecil Bohanon, for both opening my eyes to the joys that economics can bring, as well as consistently encouraging me to expand upon my work in higher education finance in a previous class.
- John Straw and the entire staff of Bracken Library's Archives and Special Collections, for helping me locate fifty years of financial reports, whether they were in the general collection or with Board of Trustees minutes.
- Patty Martinez, James Mitchell, and other Housing and Residence Life professionals who taught me the importance of higher education, directing me towards a career in student affairs and higher education.
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- Last but not least, the 40 residents of 4th floor Tichenor Hall for understanding that their Resident Assistant is a student first, and for giving me the ability to work in my room during the course of the year.

The price of financing higher education has been an issue for many years, with every tuition increase bringing cries of “College is too expensive!” and “What are they doing with all of our money?” Many times these comments are based on one statistic: tuition alone. Critics take little time to look at price increases compared to inflation, household income, or a myriad of changes within a university’s structure. By studying the finances of Ball State University, a mid-sized public university located in Muncie, Indiana, from 1950-2000, I hope to provide a case study for the debate over the future of higher education finance by comparing university tuition to state and national trends, examining changes over time to a university that causes tuition to rise. With this information, one can determine what an unchanged 1950 university would look like fifty years later, as well as the ramifications of such decision-making.

College education is like no other good in our economy. A common complaint from those outside higher education to academics is, “How the heck do you manage to get away with it? You seem to be able to charge anything you want, do what you want, and get away with it. In my business, I’d never be able to do what you do.”¹ What the average person doesn’t realize, however, are the intrinsic complexities of higher education. College tuition is not the true measure of price or the value of a public institution, but simply fills in the gap left behind by state legislatures to pay for higher education. College administrators look to maximize value for the tuition paid, but the fact that tuition is not based solely on supply and demand makes judging today’s tuition increases difficult. D. Bruce Johnstone adds, “Higher education in any society is a costly enterprise. It is labor intensive, and the labor...is expensive relative to the work force generally.”² When faculty and staff dictate a change in the nature of compensation, state legislatures or college administrators must raise revenue to offset increasing expenses. When legislatures cannot fully compensate for a system shock, tuition is increased to compensate.

Another misperception about higher education finance is the extent people focus on tuition, often in surprise at the rate of increase, commonly referred to as “sticker shock.”³ But tuition is only a portion of the total cost of higher education, with state legislatures paying much of the bill through tax revenue. It can be expected, then, that as fluctuations occur within appropriations at the state level, tuition will be inversely affected.

All of this aside, the public’s perception of the value of higher education has changed. Although more students are attending institutions of higher learning than ever before, a survey conducted in 1997 showed that 75 percent of Americans believed higher education was necessary to get ahead in life, but 40 percent said that the cost of a college education is not justified by what people get out of it.⁴ Nationally, calls for investigation and reform began in mid-1980s, when Congress ordered studies of education costs. Blame circulated from the federal government that states were giving up on education, and the ensuing whirlwind continues today in the halls of state legislatures and on Capitol Hill.⁵ The purpose of the Ball State case study is to quantify arguments for why higher education has changed over the last 50 years by detailing the university located in Middletown, USA.

Bringing the Numbers Together: BSU Tuition, Regional and State Data, CPI

The following table (Table 1) provides tuition data from Ball State University, a vital statistic that will be incorporated into many comparisons throughout this study.

Table 1: Ball State Tuition, 1950-2000

Year	Tuition	Year	Tuition	Year	Tuition	Year	Tuition	Year	Tuition
1950	\$69	1960	\$180	1970	\$540	1980	\$975	1990	\$2,110
1951	\$69	1961	\$225	1971	\$540	1981	\$1,116	1991	\$2,280
1952	\$69	1962	\$225	1972	\$630	1982	\$1,275	1992	\$2,464
1953	\$96	1963	\$225	1973	\$630	1983	\$1,362	1993	\$2,656
1954	\$96	1964	\$225	1974	\$720	1984	\$1,464	1994	\$2,864
1955	\$111	1965	\$285	1975	\$720	1985	\$1,554	1995	\$3,048
1956	\$111	1966	\$300	1976	\$720	1986	\$1,662	1996	\$3,188
1957	\$156	1967	\$300	1977	\$795	1987	\$1,767	1997	\$3,316
1958	\$156	1968	\$390	1978	\$840	1988	\$1,876	1998	\$3,454
1959	\$180	1969	\$390	1979	\$900	1989	\$1,992	1999	\$3,536
								2000	\$3,720

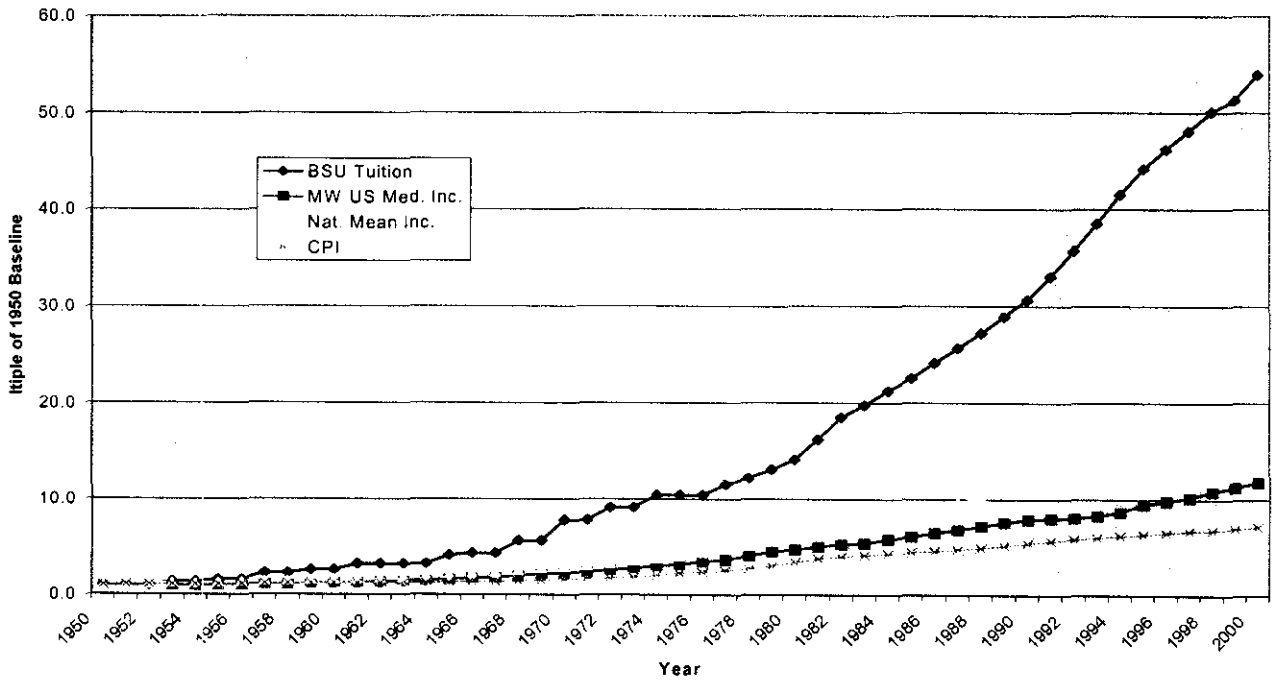
In order to understand these increases relative to national and regional statistics, Table 2 provides Midwest median income, national mean income, and the consumer price index (CPI) over the same time period, followed by Chart 1, which compares Ball State tuition to these national and regional figures.

Table 2: Midwest Median Income, National Mean Income, and the CPI, 1950-2000

Year	Midwest U.S. Median Inc.	National Mean Income	CPI	Year	Midwest U.S. Median Inc.	National Mean Income	CPI	Year	Midwest U.S. Median Inc.	National Mean Income	CPI
1950	DATA	\$3,815	24.1	1967	\$8,255	\$8,801	33.4	1984	\$26,753	\$31,052	103.9
1951	NOT	\$4,194	26.0	1968	\$9,103	\$9,670	34.8	1985	\$27,930	\$32,944	107.6
1952	AVAILABLE	\$4,457	26.5	1969	\$10,020	\$10,577	36.7	1986	\$29,584	\$34,924	109.6
1953	\$4,584	\$4,706	26.7	1970	\$10,327	\$11,106	38.8	1987	\$31,089	\$36,884	113.6
1954	\$4,361	\$4,684	26.9	1971	\$10,785	\$11,583	40.5	1988	\$32,887	\$38,608	118.3
1955	\$4,753	\$4,962	26.8	1972	\$11,724	\$12,625	41.8	1989	\$34,613	\$41,506	124.0
1956	\$5,111	\$5,341	27.2	1973	\$12,831	\$13,622	44.4	1990	\$36,188	\$42,652	130.7
1957	\$5,135	\$5,443	28.1	1974	\$13,732	\$14,711	49.3	1991	\$36,759	\$43,237	136.2
1958	\$5,154	\$5,565	28.9	1975	\$14,541	\$15,546	53.8	1992	\$37,063	\$44,221	140.3
1959	\$5,524	\$5,976	29.1	1976	\$15,942	\$16,870	56.9	1993	\$37,942	\$47,221	144.5
1960	\$5,779	\$6,227	29.6	1977	\$16,845	\$18,264	60.6	1994	\$39,760	\$49,340	148.2
1961	\$5,838	\$6,471	29.9	1978	\$18,599	\$20,091	65.2	1995	\$43,470	\$51,353	152.4
1962	\$6,250	\$6,670	30.2	1979	\$20,571	\$22,316	72.6	1996	\$44,957	\$53,676	156.9
1963	\$6,575	\$6,998	30.6	1980	\$21,736	\$23,974	82.4	1997	\$46,734	\$56,902	160.5
1964	\$6,845	\$7,336	31.0	1981	\$23,118	\$25,838	90.9	1998	\$49,552	\$59,589	163.0
1965	\$7,267	\$7,704	31.5	1982	\$24,219	\$27,391	96.5	1999	\$51,767	\$62,636	166.6
1966	\$7,893	\$8,395	32.4	1983	\$24,730	\$28,638	99.6	2000	\$54,096	\$65,574	172.2

Sources: U.S. Census Bureau, Bureau of Labor Statistics

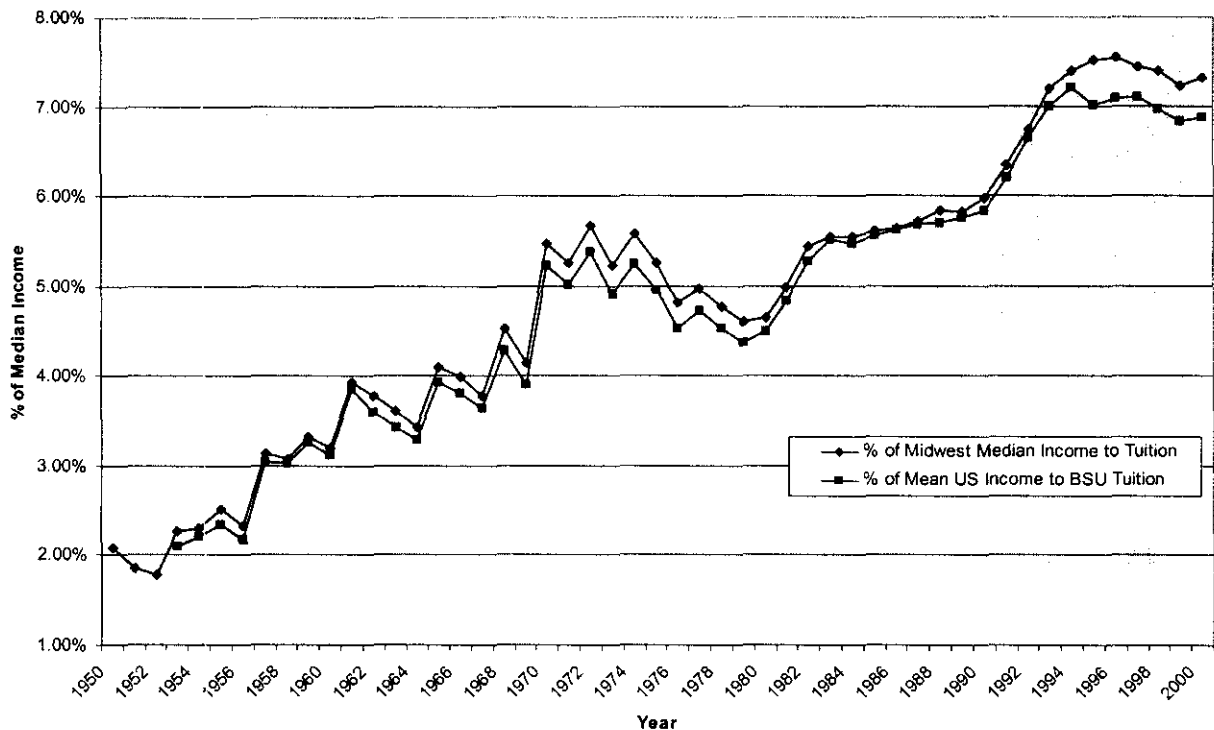
Chart 1: BSU Tuition Compared to Regional, National Income



Analyzing the data, a disparity between Ball State tuition increases and regional and national statistics becomes apparent. From 1950 to 2000, tuition at Ball State multiplied 52.91 times its 1950 level, while Midwest median income multiplied only 11.8 times. Similar observations can be made about U.S. mean income (multiplied 17.1 times) and the CPI (multiplied 7.14 times).⁶

From this data, the percentage of various incomes that would be needed to pay tuition at Ball State is shown in Chart 2 (Annual data for charts not in text can be found in the appendix):

Chart 2: Percentage of Median Income to BSU Tuition



A general upward trend has occurred with tuition and median income over the past fifty years, with people paying a higher percentage of their income to attain higher education. The first large rise happened from 1956-61, when the percentage of median income devoted to tuition rose from 2.32 percent to 3.92 percent. Larger tuition hikes occurring every two to three years,

as opposed to smaller annual increases created the jagged patterns of the 1960s. The percentage of Midwestern median income spiked at 5.47 percent in 1970 and 5.67 percent in 1972 before beginning to decline in 1974, which continued through the rest of the decade. This decline, however, was most likely due to inflation affecting income more than Ball State tuition. Nonetheless, levels would not reach the 1972 peak for fifteen years, then held relatively steady until 1990, when a second spike occurred, reaching its peak in 1996 at 7.54 percent of median income. The trend has since gone down, but this time without high inflation accompanying it. What this trend means for the future of Ball State tuition is still to be seen.

Ball State University, 1950 to 2000: A Campus in Transition

Ball State University (then called Ball State Teachers College) in 1950 was a bustling campus of 3,144 students. The university had 193 instructional staff, and offered fourteen academic departments, all related to teaching. Courses were scheduled with paper and pencil, with course descriptions posted on a wall for students to peruse. In 2000, Ball State University had 17,490 students, chose from 61 academic departments in seven academic colleges, and learned from 1,431 faculty members. Course signups occurred almost entirely through the Internet, and nearly every classroom had a computer. The fifty years in between, as noted in Table 3, were not years of consistency, with fluctuating enrollment leaving administrators little chance to dependably prepare for university growth.

Table 3: Ball State Undergraduate Enrollment, 1950-2000

Year	Enrollment	Year	Enrollment	Year	Enrollment	Year	Enrollment	Year	Enrollment
1950	3,144	1961	7,838	1971	17,933	1981	18,451	1991	20,488
1951	2,925	1962	8,371	1972	17,788	1982	18,244	1992	20,333
1952	2,914	1963	8,814	1973	17,214	1983	18,359	1993	20,717
1953	3,337	1964	10,066	1974	16,392	1984	17,376	1994	19,515
1954	3,623	1965	11,226	1975	17,057	1985	17,039	1995	19,115
1955	4,135	1966	12,683	1976	17,267	1986	17,513	1996	18,594
1956	4,796	1967	13,524	1977	16,977	1987	18,034	1997	18,528
1957	5,027	1968	14,919	1978	17,012	1988	18,156	1998	17,930
1958	5,707	1969	15,824	1979	17,557	1989	18,993	1999	17,459
1959	6,243	1970	16,748	1980	18,490	1990	19,344	2000	17,490
1960	7,036								

Source: Ball State University Enrollment Management

What does all of this mean? A number of things occurred simultaneously on the Ball State campus, some of which coincided with upward trends in tuition paid by Ball State students. That does not mean, however, that one message is provided about rising tuition. In order to examine the changes, one must first examine the spending behind them: the Ball State budget.

Where's it coming from? A Look at Ball State's Income

As mentioned earlier, tuition is only a portion of the payment made for higher education. Table 4 below shows annual dollar amounts and percentages of income derived from both tuition payments and appropriations from the Indiana General Assembly:

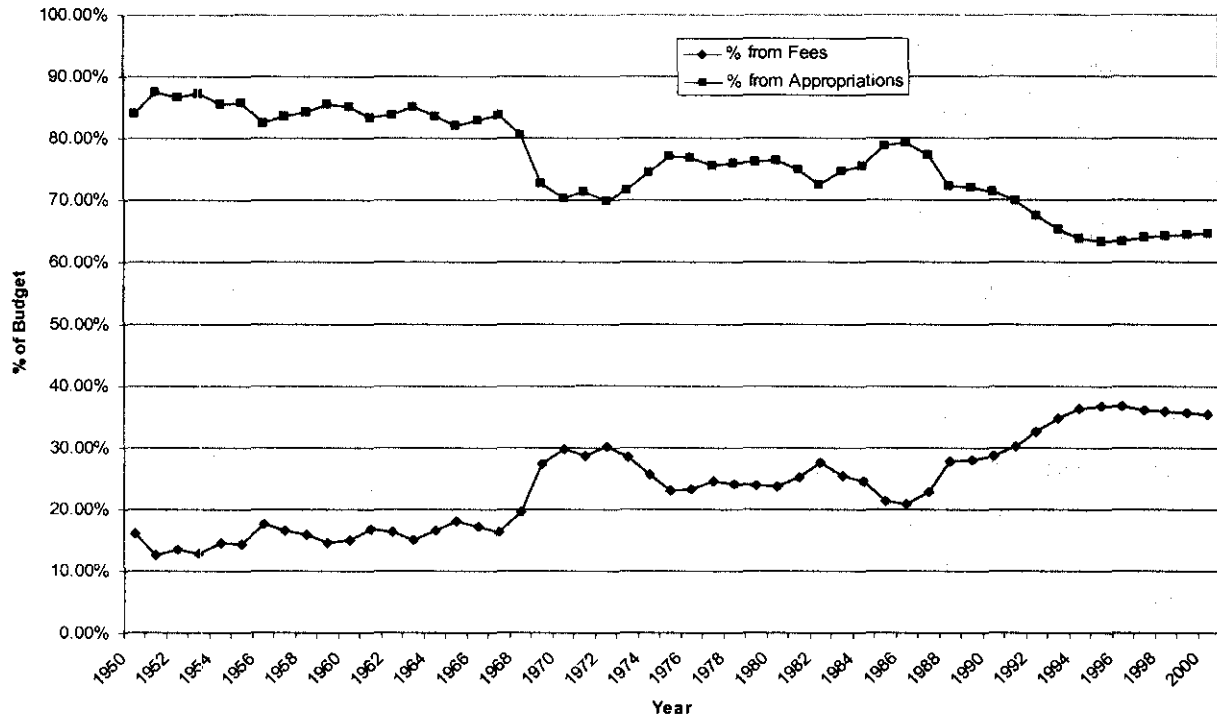
Table 4: Total Income from Student Fees and Appropriations, 1950-2000

Year	Student Fees	%	State Approp.	%	Year	Student Fees	%	State Approp.	%
1950	\$215,428	16.0%	\$1,133,631	84.0%	1976	\$10,399,412	23.2%	\$34,415,196	76.8%
1951	\$211,900	12.7%	\$1,459,950	87.3%	1977	\$11,779,276	24.6%	\$36,104,141	75.4%
1952	\$224,902	13.3%	\$1,459,950	86.7%	1978	\$12,491,767	24.0%	\$39,497,373	76.0%
1953	\$249,799	12.7%	\$1,717,291	87.3%	1979	\$13,329,227	23.9%	\$42,530,208	76.1%
1954	\$291,213	14.5%	\$1,717,291	85.5%	1980	\$14,572,260	23.7%	\$46,937,084	76.3%
1955	\$357,143	14.4%	\$2,123,018	85.6%	1981	\$16,554,250	25.1%	\$49,465,382	74.9%
1956	\$472,738	17.5%	\$2,225,221	82.5%	1982	\$19,139,400	27.5%	\$50,511,597	72.5%
1957	\$562,656	16.4%	\$2,860,161	83.6%	1983	\$20,655,400	25.4%	\$60,629,046	74.6%
1958	\$619,475	15.8%	\$3,308,698	84.2%	1984	\$21,723,000	24.6%	\$66,670,862	75.4%
1959	\$661,683	14.5%	\$3,887,974	85.5%	1985	\$20,102,000	21.3%	\$74,155,016	78.7%
1960	\$748,782	14.9%	\$4,284,225	85.1%	1986	\$21,169,000	20.9%	\$80,157,527	79.1%
1961	\$969,083	16.8%	\$4,801,964	83.2%	1987	\$24,868,446	22.8%	\$84,354,094	77.2%
1962	\$1,077,329	16.2%	\$5,573,001	83.8%	1988	\$34,799,938	27.8%	\$90,296,860	72.2%
1963	\$1,157,283	15.0%	\$6,577,056	85.0%	1989	\$38,285,000	27.9%	\$98,986,177	72.1%
1964	\$1,527,505	16.6%	\$7,683,266	83.4%	1990	\$42,097,000	28.6%	\$105,106,865	71.4%
1965	\$1,914,801	18.0%	\$8,724,072	82.0%	1991	\$46,030,000	30.1%	\$107,125,901	69.9%
1966	\$2,161,148	17.1%	\$10,460,663	82.9%	1992	\$51,035,000	32.6%	\$105,739,373	67.4%
1967	\$2,661,969	16.2%	\$13,769,124	83.8%	1993	\$56,357,000	34.6%	\$106,502,340	65.4%
1968	\$3,645,484	19.4%	\$15,128,526	80.6%	1994	\$60,790,300	36.3%	\$106,620,969	63.7%
1969	\$6,105,478	27.3%	\$16,284,000	72.7%	1995	\$63,785,000	36.7%	\$110,207,614	63.3%
1970	\$8,168,071	29.7%	\$19,297,586	70.3%	1996	\$66,416,000	36.6%	\$115,093,743	63.4%
1971	\$8,782,960	28.7%	\$21,851,298	71.3%	1997	\$66,572,000	36.0%	\$118,373,534	64.0%
1972	\$10,044,872	30.1%	\$23,329,686	69.9%	1998	\$68,429,500	35.7%	\$123,199,516	64.3%
1973	\$9,740,944	28.4%	\$24,545,000	71.6%	1999	\$70,909,500	35.7%	\$127,874,780	64.3%
1974	\$9,161,662	25.7%	\$26,514,957	74.3%	2000	\$72,053,000	35.4%	\$131,336,511	64.6%
1975	\$9,501,755	23.1%	\$31,692,129	76.9%					

Source: Ball State Financial Summaries, 1950-2000

Income earned from tuition since 1950 has increased over 334 fold from its 1950 level, while the income from appropriations has only increased by approximately 116 times. When compared to one another as percentages of total income, the picture becomes clearer.

Chart 3: Percentage of Budget Derived from Fees v. Appropriations



A general downward trend has occurred over fifty years, but not without inconsistencies. The percentage of tuition jumped sharply in 1969, peaking in 1972 before leveling and decreasing to a steady 23 percent in 1975. This period of instability coincided with the increases in percentage of median income outlined in Chart 2. Since tuition jumped nearly 85 percent in that six-year period, the highest six-year jump in the fifty years of the study, it should be safe to say that financial instability was a factor in that period's large tuition increases. After leveling in 1975, seventeen years passed before the 1975 percentage was eclipsed. The percentage of income from the state legislature then actually rose from 72.5 percent in 1982 to 79.1 percent in 1986 before returning to 72 percent in 1988 and falling to 63.7 percent in 1994. Appropriation levels have since remained steady.

It is important to note that financing higher education at the state level is not an easy task. Because states contribute much of the funding for higher education, they are the major factor in

setting tuition prices, either through direct limits or through their own contributions. State philosophy often attempts to achieve access and quality by keeping tuition as low as possible. Halstead points out a past flaw of legislatures, however. “In the past...government funding of higher education...was set by incremental adjustment of the previous year’s budget.”⁷

When appropriations are increased by set amounts, system shocks such as inflation, large enrollment increases, and space constraints can hit universities, leaving administrators with less money than needed for the cost of living adjustments for faculty, instruction, and other services. With appropriations set, universities are left with the decision to either cut services or raise tuition. Whether blame is placed on the system shock itself, the university’s ability to prepare for the shock in other ways, or the legislature’s ability to appropriate more funds, tuition increases are often the quickest way to offset it.

Ball State Expenditures: Budget Categories and Descriptions

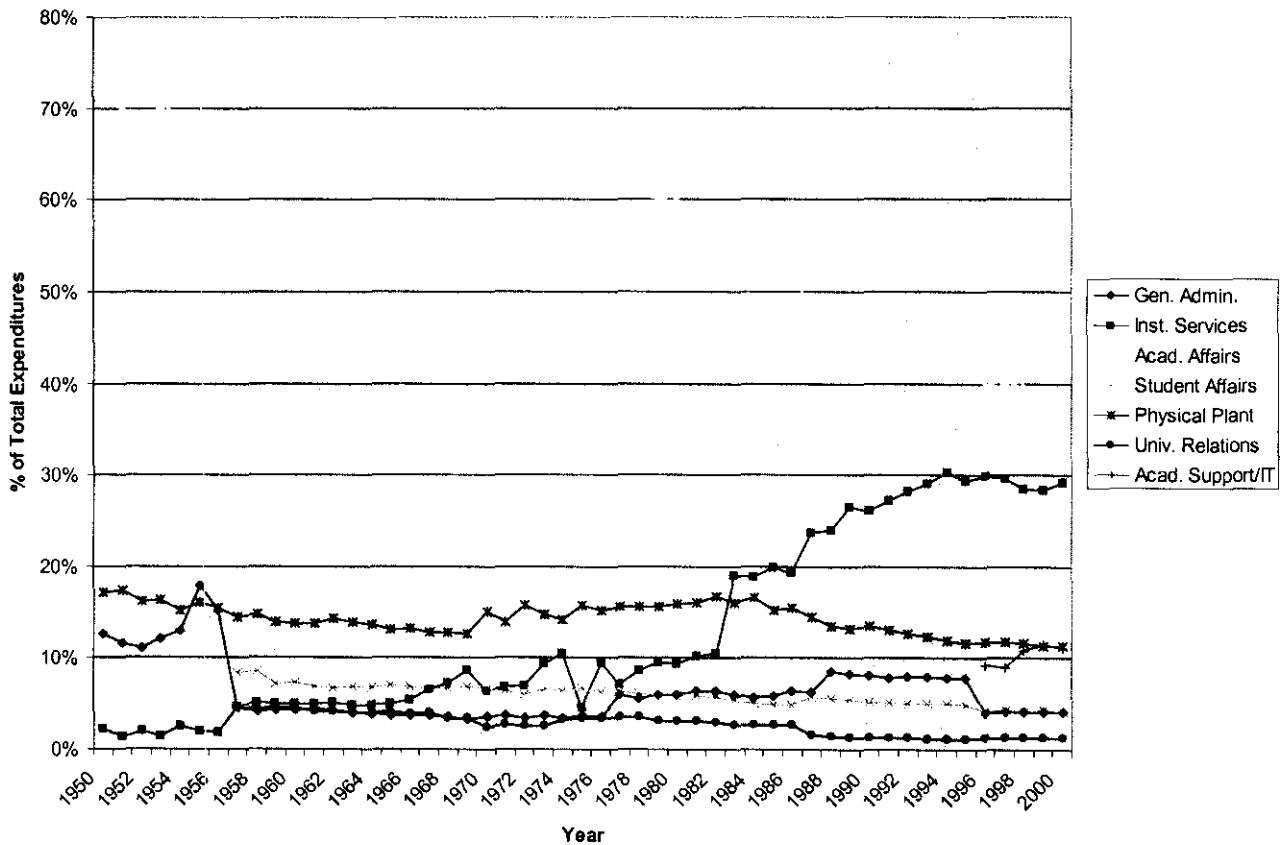
Since 1957, there have been six major categories of expenditures, although their names have changed over the years. **General Administration** refers to the administrative costs (including administrative technology) that Ball State spends annually. **Institutional Services and Benefits** contains the non-monetary compensation packages for faculty and staff, as well as any remitted fees, with the former being the vast majority of the category. **Academic Affairs**, as the name implies, is the cost of teaching students, including faculty salaries, costs of research, and costs associated with instructional development, including curriculum and technology.

Student Affairs, included with general administration until 1957, is “funds expended for activities contributing to students’ emotional, physical, cultural, and social development outside the classroom.”⁸ **Physical Plant** refers to the maintenance and operations of Ball State’s buildings, grounds, and coal plant. **University Relations** consists of Ball State’s campus radio

and television stations, as well as other spending that allows Ball State to reach out into outlying communities. Technology became such a large portion of the budget (with additional appropriations coming from the Indiana General Assembly specifically for technology) that **Academic Support/Information Technology** was created as a budget category in 1996. Most technology funding previously came from general administration and academic affairs.

With the categories now described, below is a chart of Ball State University's expenditures from 1950-2000. A detailed look and description by presidency will follow (actual budget numbers can be found in the appendix).

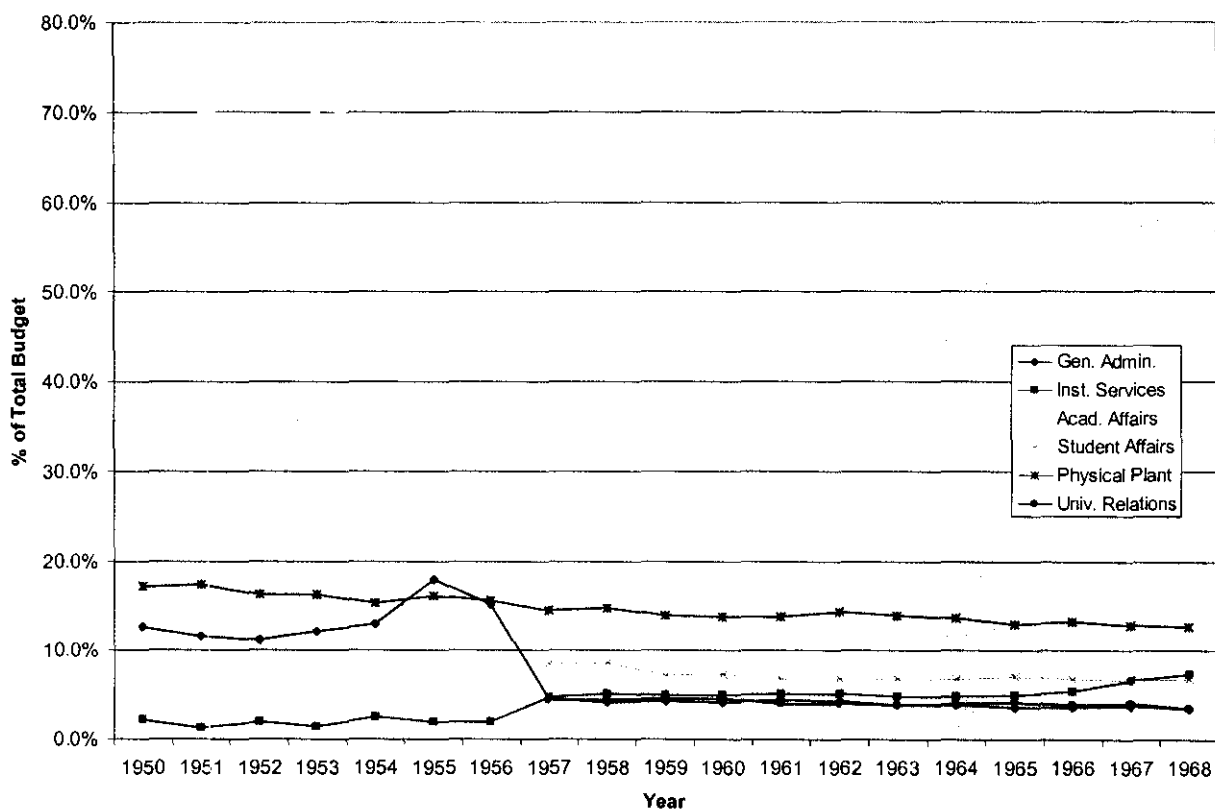
Chart 4: BSU Expenditures, 1950-2000



The Emens Years, 1950-1968

The university changed immensely yet remained financially stable during the years John R. Emens was president of Ball State University. Campus enrollment grew from 3,144 to 14,919 students, and building space on campus grew from over 950,000 to nearly 2,000,000 square feet to compensate. Fourteen academic departments in the Teachers College expanded to 19 departments in five academic colleges, with faculty members tripling from 193 to 582. Financially, the Ball State budget multiplied over 11 times its 1950 level, from \$1.75 million to \$19.48 million, with tuition multiplying 5.65 times, from \$69 to \$390 annually. Below is a look at how all of these changes affected allocations within the Ball State budget.

Chart 5: BSU Expenditures- The Emens Years (1950-68)



For the most part, the allocation of the Ball State budget remained relatively steady. The enrollment boom of Emens' tenure allowed the budget to grow exponentially, without equally large increases in tuition, allowing the university to hire faculty and build new buildings without taking away from other services. The lone year in Emens' tenure where a large increase in one category (general administration) occurred at the expense of another category (academic affairs) was 1955. The addition of student affairs and university relations as budget categories in 1957 provides a shock to the graph, but the apparent decrease in administrative funding was due to student affairs and university relations previous classification as general administration expenses. Little money was reallocated, just reclassified.

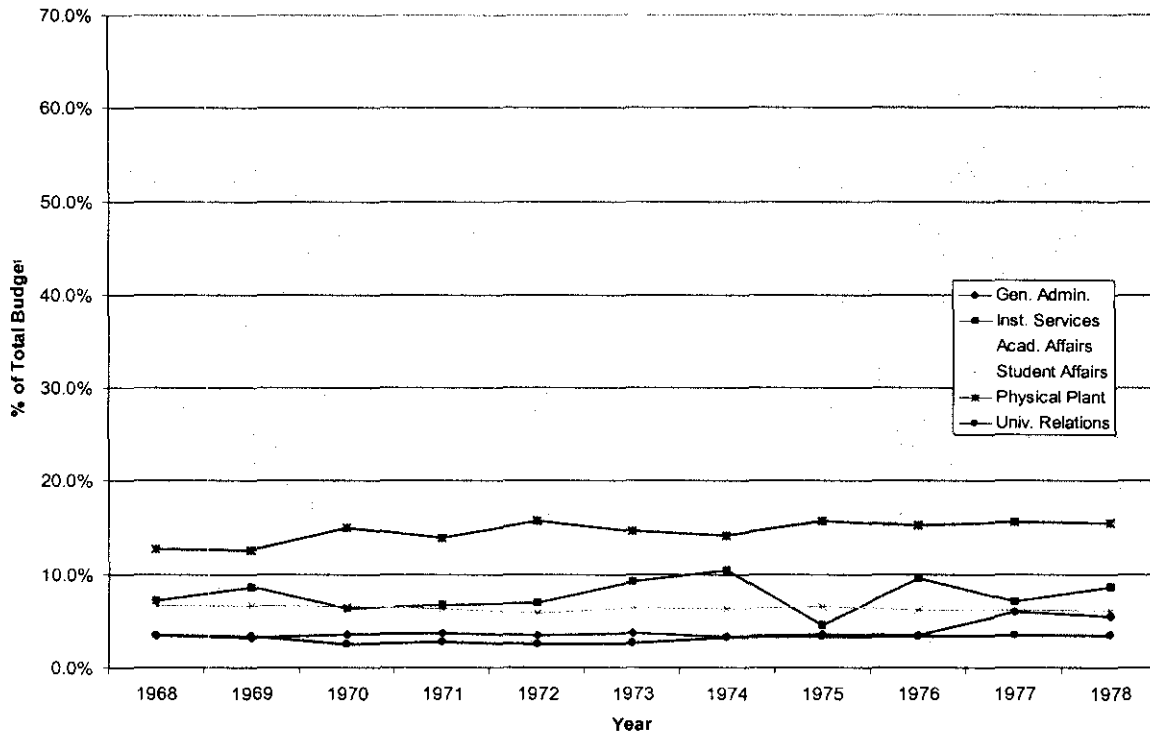
From 1958 to 1968, spending levels for academic affairs generally increased, rising from 63.2 to 66.5 percent of the total budget. Although a 3.2 percent increase over ten years seems statistically inconsequential, academic affairs spending would not see the 1968 levels after 1971. The Emens years also saw the only time where institutional benefits grew without significantly lowering academic affairs spending. During 1965-1969, institutional benefits nearly doubled, growing from 4.9 to 8.6 percent of the budget, while academic affairs spending remained relatively steady, lowering from 67.4 to 65.4 percent of the budget. Although two percent of the budget is slightly over half of the change and changes generally result in a zero sum game, later increases were taken from academic affairs at rates from 75 to 90 percent of the total.

1968-1978, the Pruis Years

The decade under the presidency of John H. Pruis continued the same growth seen under Emens. Enrollment only grew by slightly over 2,000 students, but saw a peak at 17,933 students in 1971 before enrollment fell for the first time since 1951, decreasing to 16,392 in 1974 before breaking 17,000 in 1975 and holding steady through 1978. The real growth at the university

came in academic diversification, with the university expanding from 19 to 49 academic departments in just ten years.

Chart 6: BSU Expenditures- The Pruis Years (1968-78)

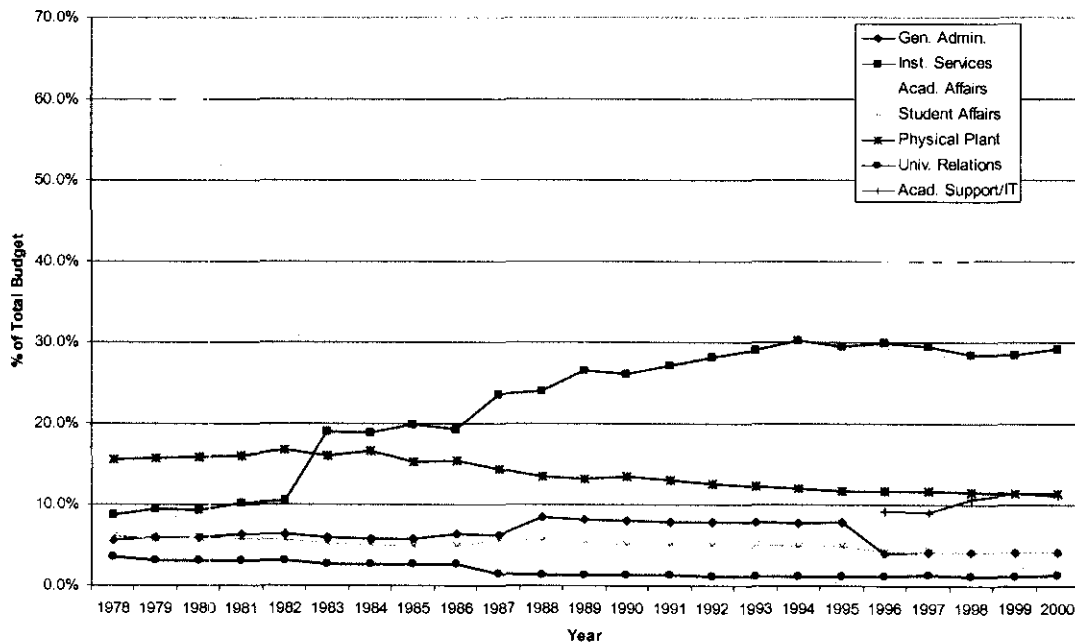


The major financial issue for the university during Pruis' tenure was the need for a variety of excellent professors to teach in the newly created departments. The pay scale for faculty was based on a wage salary schedule, where pay increases were based only on number of years of service and job title. John Worthen, Ball State president from 1984-2000 said of the pay system, "We were hiring people as full professors who had been assistant professors at other colleges. We had to do something to attract people from places where salaries were higher."⁹ Pruis introduced the issue of changing the schedule soon after his inauguration, saying later that "Ball State would not be the place it is today [2000] if we couldn't keep and attract the best people to teach. I broached the issue in 1968 and it was a lightning rod."¹⁰

Although described as a lightning rod, it was not instituted with lightning speed, with budget expenditures showing the lack of change. Budget levels from 1968 to 1972 remained constant until 1972, when institutional benefits nearly doubled from 6.9 percent of the total budget to 10.5 percent, as the university attempted to attract professors to 18 departments created from 1970 to 1972. No tuition increase in 1974 sent a shock into the system, however, and administrators responded by cutting institutional services by sixty percent in 1975. The lack of reaction to inflation, along with the still-standing pay scale scared potential faculty away, and the university adopted a new pay scale. Starting in 1975, institutional services would never receive less than seven percent of the total budget.

1978-2000: Burkhardt, Anderson, Bell, and Worthen

Chart 7: BSU Expenditures, 1978-2000



From 1978 to 1984, Ball State University saw three presidents before stabilizing with the hiring of John Worthen: Richard Burkhardt, Jerry Anderson, and Robert Bell. The same years also saw budget instability due to rises in inflation. Tuition reacted first, but concerns to

continue to hire top-notch faculty led to a cut in academic affairs spending in 1983 to increase institutional services. Under the leadership of John Worthen, the university continued to expand, peaking for the first time above 20,000 (20,488 in 1991), adding nine academic departments (raising the total to 61), and expanding faculty by nearly 600 to 1,431.

Due to more hiring and a more competitive job market, as well as increases in the cost of insurance, rises in institutional benefits continued, rising from 18.8 to 29.1 percent of the total budget. Technology also played a larger role under Worthen, with the university gaining additional appropriations starting in 1996 specifically for technology. This added revenue led to the creation of academic support/information technology line in the budget, which previously was a part of general administration and academic affairs, explaining away the decreases to category names and not actual spending.

University Statistical Analysis

The previous pages have shown Ball State's growth over fifty years through budgetary spending. There are, however, a number of other measures to show changes (and therefore explanations for spending) since 1950. These statistical analyses can offer evidence for both sides of the "Is College Too Expensive?" debate.

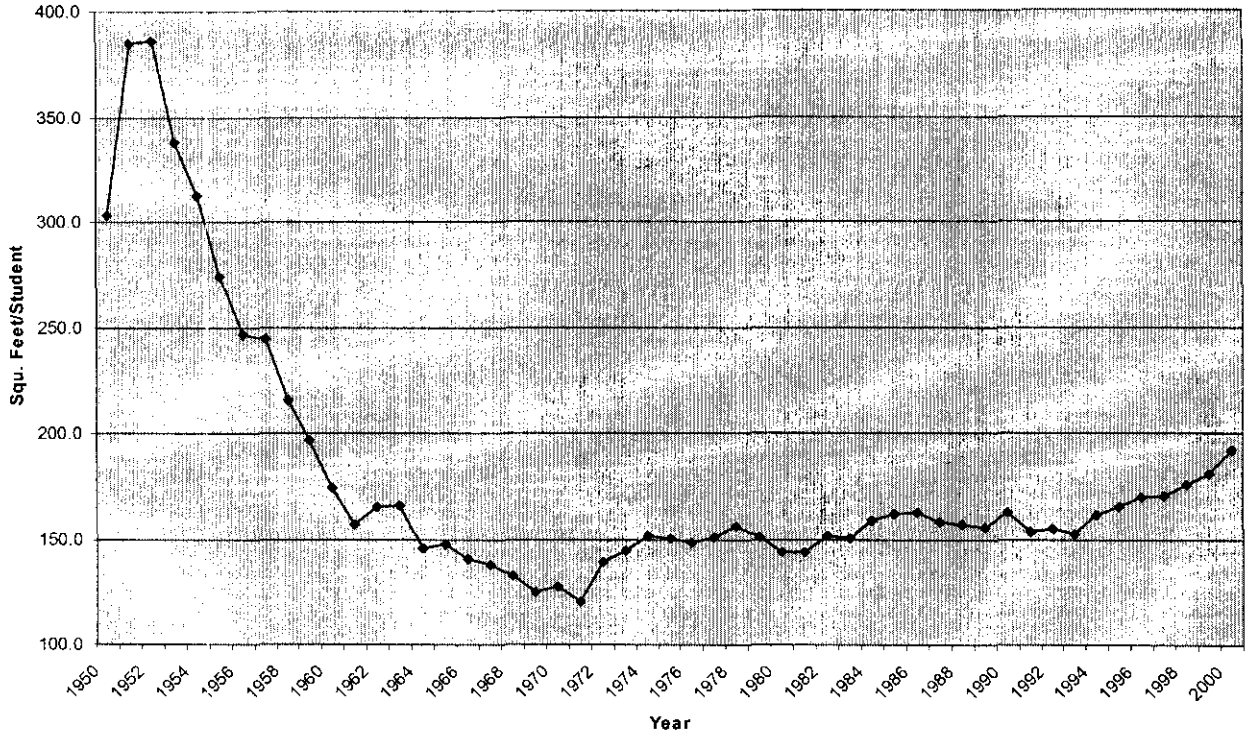
Capital Outlay: Ball State Construction Over Fifty Years

Capital outlay, or the construction and maintenance of buildings on campus, is a very expensive undertaking. If an institution's enrollment is going to multiply six times, then there is often no choice but to expand, sometimes at the cost of students.

In 1950, Ball State University owned and maintained 952,885 square feet of space in academic and athletic facilities.¹¹ As enrollment grew, buildings expanded as well, with

3,362,616 feet of space at students' disposal in 2000. Below is a chart of that expansion compared to enrollment, measured in square feet of space per student at Ball State:

Chart 8: Square Feet/Student at BSU, 1950-2000

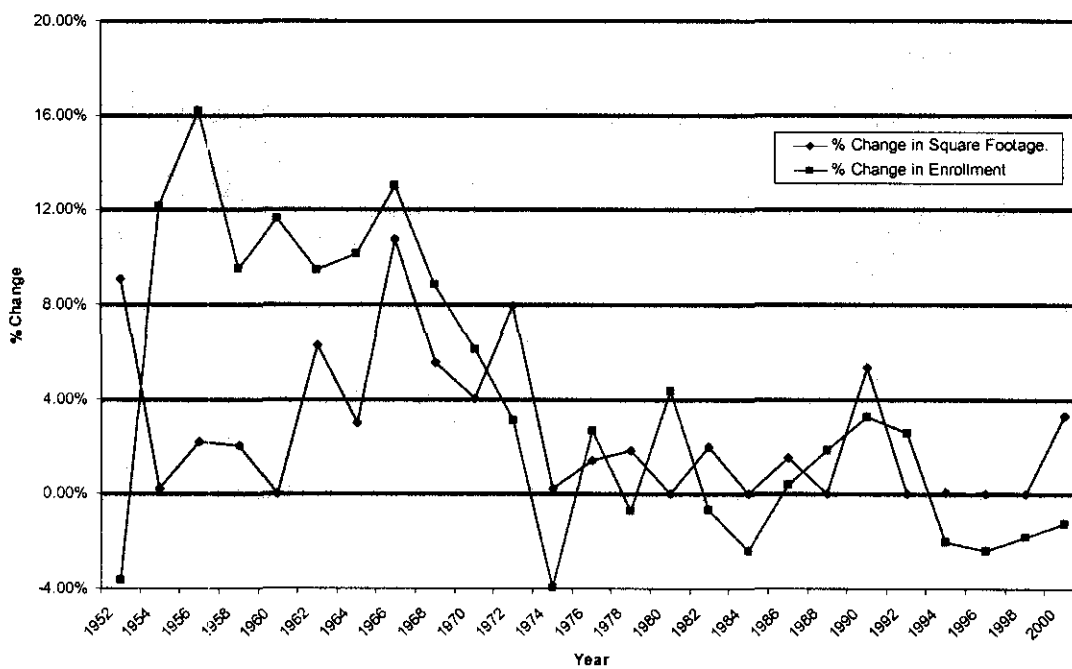


The number of square feet per student on campus went down quickly from its 1952 level of 386.5 square feet per student. The downward trend starting in 1953 continued to 1971, with upward exceptions occurring in 1962 (Irving Gym facility built), 1963 (Emens Auditorium built), and 1965 (Cooper Science building built). In 1971, square feet per student bottomed at 120.3. With the completion of Bracken Library in 1972, however, the trend reversed, rising to 151.9 in 1974 before maintaining stability for nearly twenty years. The current upward trend began in 1994 and continues today, due to both a decrease in enrollment and the completion of the Arts and Journalism Building in 2000.

But arguing that the university has not attempted to return to the levels of the early 1950s based from this data is not a complete argument. The above chart does not show annual

percentage increases in both square footage and enrollment, in essence not explaining whether or not changes in square feet per student are based on changes in enrollment, campus square footage, or both. The chart below gives a more detailed account of building construction and enrollment. To compensate for the time it takes to construct buildings, as well as large percentage changes with the addition of one building, the data is broken down by biennium.

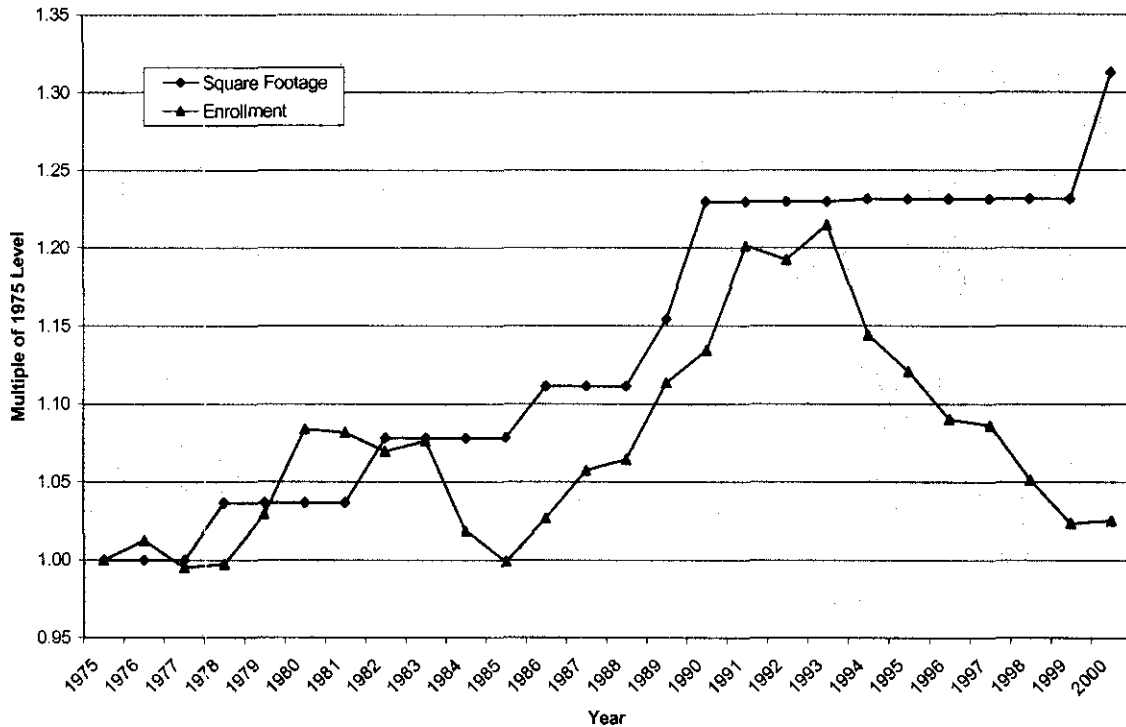
Chart 9: Percentage Biannual Change in BSU Enrollment, Square Footage, 1950-2000



The graph shows a pattern of increases in construction coinciding or occurring the biennium after a large enrollment increase. The chart above shows that although square footage per student decreased in the 1950s and 1960s, the university increased construction, but could not keep up at nearly the same rate as the post World War II enrollment boom. Construction did not increase at the same rate as enrollment until the late 1960s. University construction grows at a slower rate in the 1970s than the 1960s, but enrollment decreases in the 1970s and early 1980s allow for an increase in square feet per student. The rate lowered with the enrollment boom of the late 1980s, but recovered with the enrollment decreases that followed.

Examining constant increases shows, like the chart above, that overall expansion did not keep up with enrollment. But examining just the past 25 years shows a different story.

Chart 10: Square Footage v. Enrollment, 1975-2000



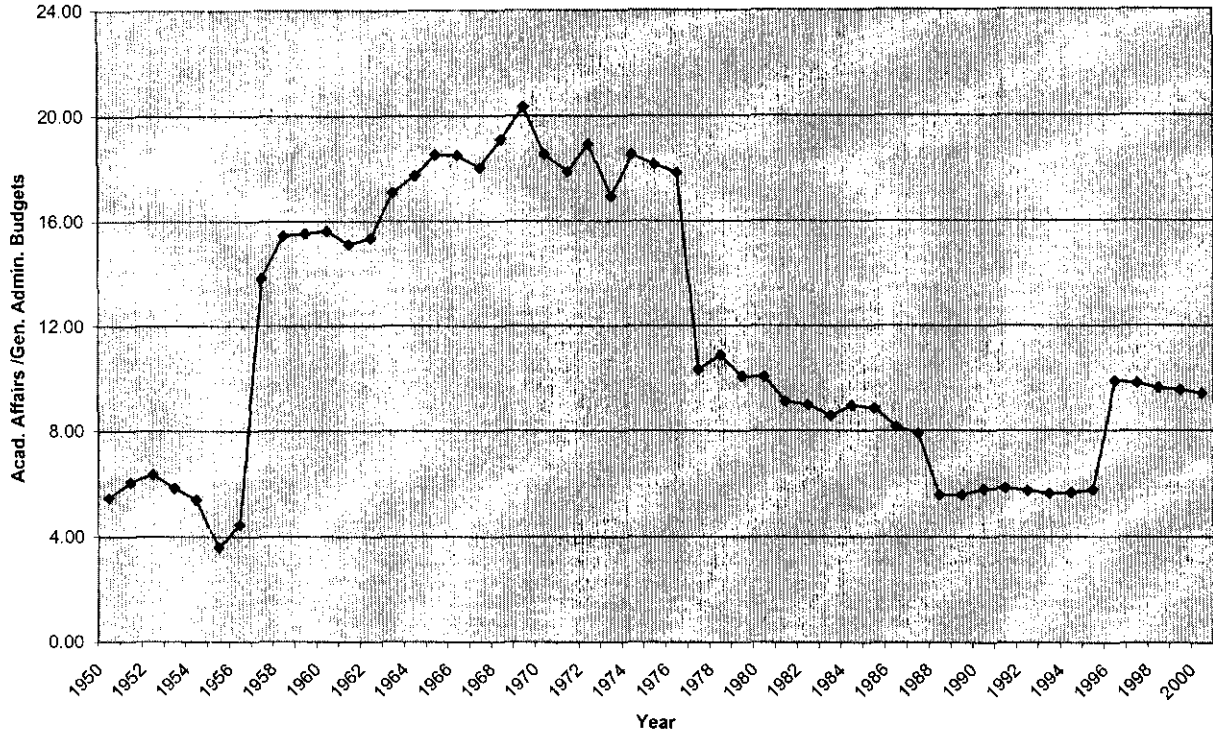
Construction exceeded enrollment increases every year since 1982 (Robert Bell building completed), including the enrollment boom of 1988-1993 (Health and Physical Fitness Complex, including Worthen Arena completed). Tuition from 1975-2000 increased 416 percent (from \$720 to \$3,720 annually), while tuition from 1950-1974 increased 943 percent (from \$69 to \$720 annually). I will return to this distinction later in the paper.

Faculty v. Administration: Whom Do We Need More?

The debate over the increase of administrators on campuses in recent years is nothing new. Many people have said that students lose out in the classroom because there are more

administrators hired, taking away the ability to keep the best professors. By examining the budgets for each, the ratio of academic affairs to general administration spending was derived:

Chart 11: Ratio of Academic Affairs and General Administration Spending



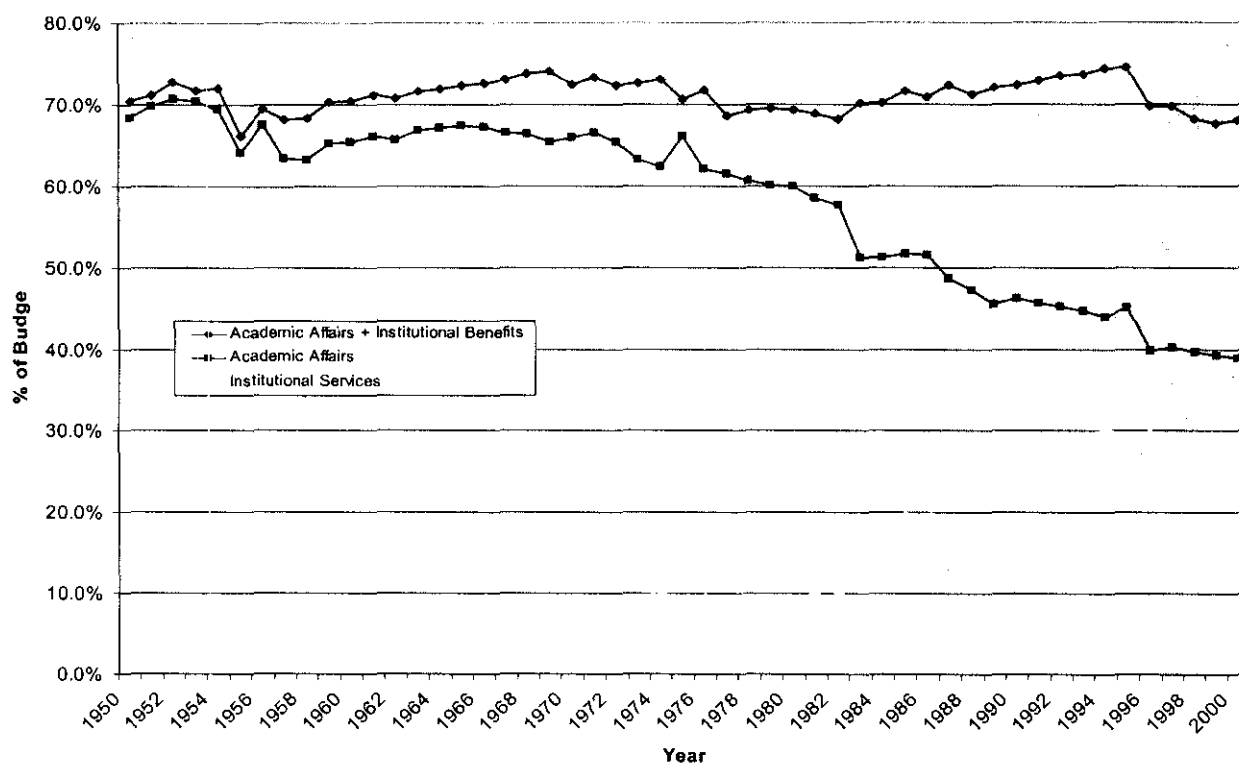
The ratio as shown is unfortunately not consistent due to category restructuring in 1957 and 1996. The other two large jumps, however, cannot be explained away to restructuring. In 1977 the ratio of academic to administrative spending fell from 17.8 to 10.3, and fell again in 1988 from 7.9 to 5.6. The two long-term trends are from 1957 to 1976, rising from 13.8 to 17.8, and from 1977 to 1995, falling from 10.3 to 5.8. Although this ratio does not single-handedly tip the scales to one side of the debate, a lowering ratio between academic affairs and general administration spending could mean the former is suffering due to the latter.

So Students Are Getting Less in the Classroom?

An increase in administrative spending over academic spending does not necessarily mean that students are receiving less academically overall. The 1950 budget has expanded exponentially in all areas, so to say students are receiving less academically is incomplete.

The nature of a professor's compensation has changed dramatically over the past fifty years. In 1950, very little was offered in non-salary compensation. What were once a minor Blue Cross/Blue Shield benefit and a small pension for faculty are now full medical insurance and a matching-contribution program, skyrocketing institutional service benefits. When adding institutional services into academic affairs since 1950, a more indicative number describing professors' compensation develops.

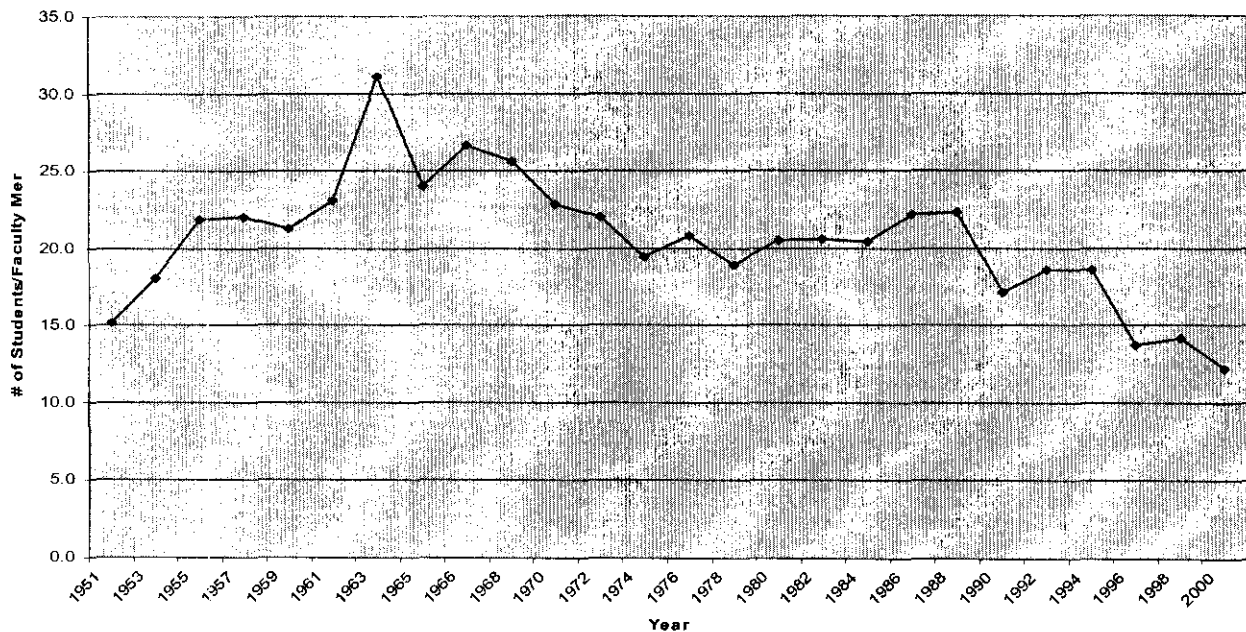
Chart 12: Combined Academic Affairs and Institutional Benefits Spending, 1950-2000



The combined number varied from a minimum of 66.1 percent in 1955 to a maximum of 74.5 percent in 1995. The new percentage also argues that professors are receiving more than they did fifty years ago, although the increased percentage is nominal.

Another important statistic to evaluate when comparing the resources devoted to academic endeavors is the number of faculty members on campus, especially the number of students enrolled for every faculty member. That ratio is shown below:

Chart 13: Students/Faculty Member, 1950-2000



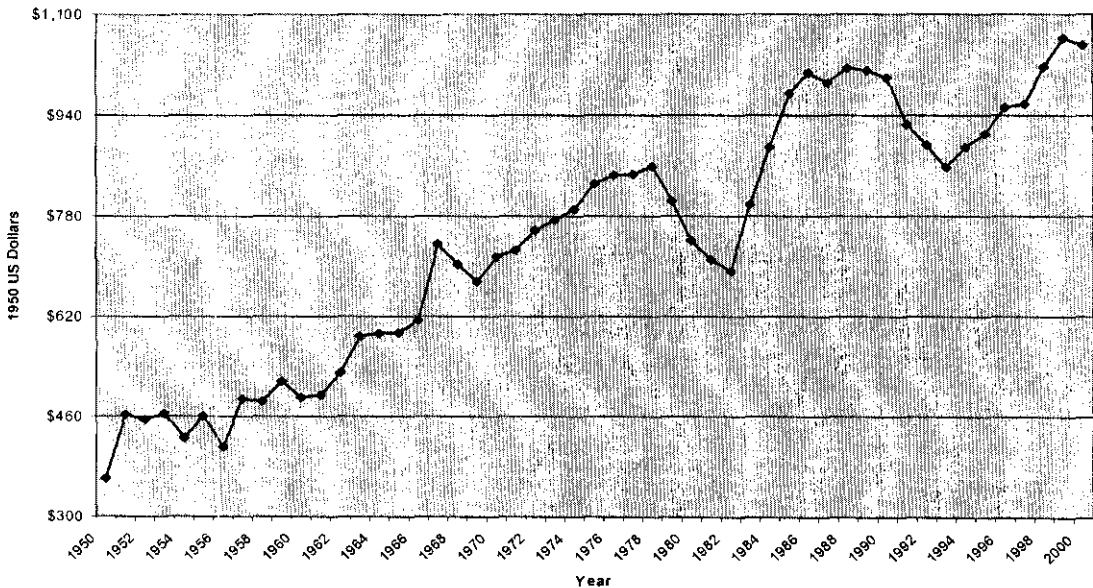
The enrollment boom of the 1950s is evident in the number of students on campus for every faculty member, as the number jumped from 15 to 31 from 1951 to 1963, despite the number of faculty on campus growing by over 30 percent. The number of students per faculty member gradually declined to just fewer than 20 by 1974, then stayed fairly steady, even dropping during the enrollment boom of the late 1980s. Rates continued to drop, and in 1996 dropped below the 1951 rate, where it has since stayed, despite nearly six times the enrollment.

Someone has to be to Blame: How About the Government?

Going back to Chart 3, the percentage of the Ball State University budget from state appropriations has fallen from a high of 87.3 percent in 1951 to the 2000 level of 64.6 percent. Why did the percentage of appropriations fall? The point has already been made against the incremental adjustment of budgets for its inability to react to sudden changes, but what else is shifting the burden from the state to the student?

A recent trend in state government is the view that higher education can be used to balance budgets, because it is neither a state nor a federally mandated program like K-12 education and Medicaid are respectively. Therefore, state legislators sometimes view higher education as a discretionary expense, and the cost cutting begins.¹² This does not mean, however, that states have not consistently increased the amount of revenue to higher education. The state of Indiana, much like Ball State University, has changed substantially since 1950, making it difficult to draw a direct comparison over time. The closest comparison available, state appropriations per student, is shown in the chart below, in 1950 dollars:

Chart 14: Appropriations/Student (Adjusted to 1950 US Dollar)



The trend in appropriations is generally upward, but with some notable exceptions, especially when enrollment is considered. Appropriations per student only went up 28 percent (\$463 to \$594) from 1951 to 1965, although enrollment went up 284 percent in the same period (2,925 to 11,226 students). The state legislature was able to increase appropriations per student more efficiently once enrollment stabilized in the 1970s, but actually appropriated less per student from 1978-1982 (the annual inflation rate was above ten percent). The system was again strained during the enrollment boom of the late 1980s, but surpassed pre-boom appropriations by 1998. State legislatures attempted to keep up with enrollment and economic conditions, but often reacted two to four years late, forcing administrators to look for other sources of revenue.

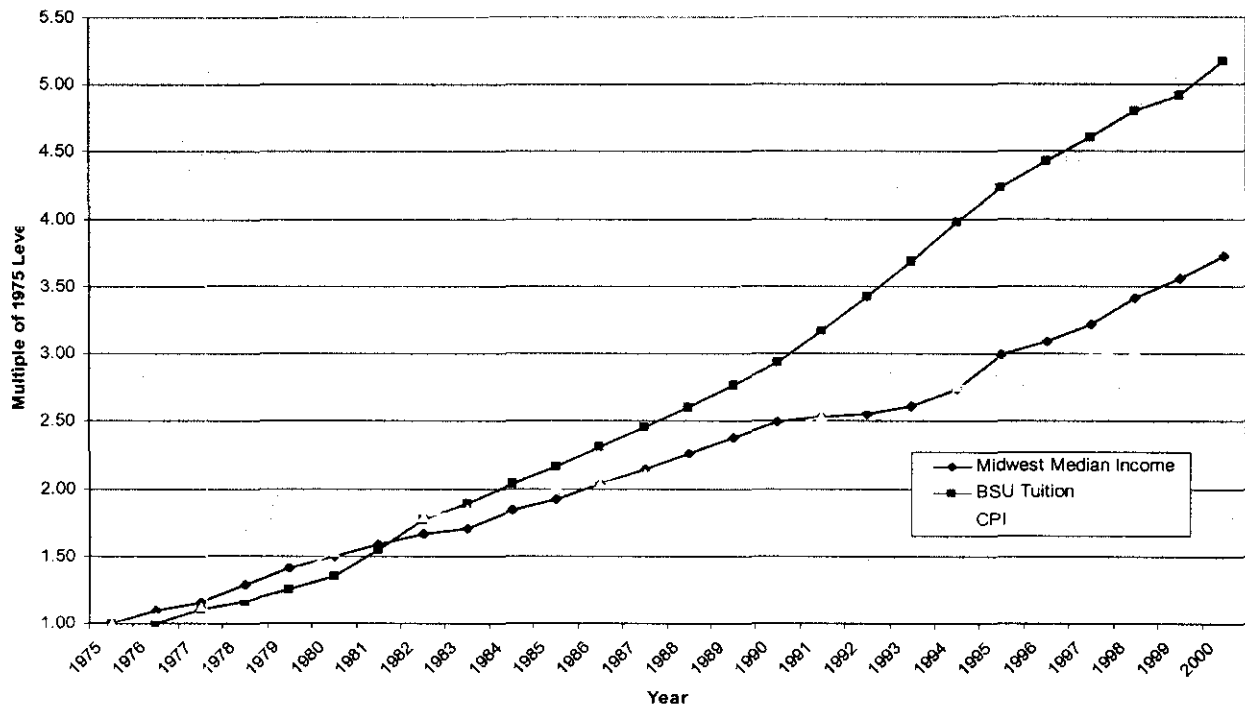
Should We Have Raised Concerns Decades Ago?

As mentioned earlier, national concerns about higher education were raised in the 1980s and have persisted through today. However, a number of the charts examined so far raise the possibility that the concerns should have been raised about Ball State University much earlier, and have in comparison already been solved.

First, let's return to the percent of median income spent on tuition at Ball State. As discussed earlier, the percent spent on tuition increased from 2.09 percent in 1953 to 7.30 percent in 1994 before falling to 6.88 percent in 2000. But splitting that rise into two, from 1953-1975, and 1976-2000 shows that 60 percent of the increase (2.09 to 4.95 percent) occurred by 1975. Of that 60 percent, more than half occurred in seven years (1967-1974).

Adding to the argument is the comparison of Ball State tuition increases versus median income and the CPI. Overall, Ball State tuition has multiplied nearly 54 times its 1950 level, compared to income multiplying less than 12 times and the CPI only 7.1 times. But splitting the increases into two periods provides interesting results.

Chart 15: Changes in BSU Tuition v. Income and CPI, 1975-2000



Since 1975, tuition has only risen 5.17 times, while income has risen 3.72 times and the CPI 3.2 times. In fact, it took Ball State tuition until 1983 to rise above income and CPI increases in the same period. From 1950 to 1974, Ball State tuition rose over ten times, while income merely tripled and the CPI doubled (see Chart 1). During this time period, nearly 60 percent of the change occurred from 1967-1974.

Another point covered earlier was that of the student receiving a higher portion from tuition compared to state appropriations (see chart 3). Data shows that some of the burden has been shifted from the taxpayer to the student, with students paying roughly 20 percent more of the cost than they did in 1950. The burden added to students through tuition was split evenly 1950-1974 and 1975-2000, but over 70 percent of the total increase occurred in only six years, from 1967-1972, when tuition grew from \$300 to \$690 annually, while enrollment grew only 31.5 percent in the same period.

Even though the debate was raised in the 1980s about rising higher education costs, for Ball State University, the problem seems to have existed over a decade earlier, and the university reacted to it. The university's reaction in the 1970s opens the door to the possibility that a correction is again in Ball State's future.

Creating the Utopian University: How the 1950 College Would Stand Up Today

A final way to examine the changes occurring at Ball State University is to take the Ball State Teacher's College of 1950 and transplant it into the year 2000. The table below takes characteristics and ratios of the 1950 college, extrapolates them to 2000, and then compares them to current rates. Because enrollment grew 5.56 times in that time period and the consumer price index grew 7.14 times, each of the budget numbers will be multiplied 39.69 times to compensate.

Table 5: Components of the Utopian University v. Actual BSU Statistics

	1950	2000	Actual	Difference
Enrollment	3,144	17,490	17,490	
Faculty	193	1073	1431	-358
Academic Departments	14	14	61	-47
Tuition	\$69	\$2,739	\$3,720	-\$981
% Of Budget from Tuition	16%	16%	35%	-19%
% Of Budget from Appropriations	84%	84%	65%	19%
Total Budget	\$1,754,956	\$69,654,214	\$208,811,913	-\$139,157,699
Total Budget from Tuition	\$280,244	\$11,122,900	\$72,053,000	-\$38,643,094
Total Budget from Appropriations	\$1,474,712	\$58,531,314	\$131,336,511	\$44,065,496
Square Footage on Campus	952,885	5,298,041	3,362,616	1,935,425
Square Feet per Student	303.1	303.1	192.3	110.8

Several positives exist when placing the 1950 Ball State Teachers College in the year 2000, if only all of the above things could occur simultaneously. Students would have less of a burden to pay for their higher education, and the academic affairs budget would receive nearly 30 percent more of the budget. Capital outlay would have also grown fully with enrollment, adding nearly 2,000,000 square feet, providing students 303 feet of academic space. Tuition under these circumstances would be nearly \$1,000 less per student at \$2,739 annually. Negative aspects of this university would be fewer faculty, only the 14 academic departments of the Teachers College, and a budget only 1/3 the size.

Some of these positives simply cannot exist at the same time. Square footage on campus cannot grow at the rate of enrollment and have other budget categories stay the same when the budget is only 1/3 the size. The 1950 university does not take into account expansion into more than a normal school, technology in the university setting, higher education finance policy making at the state level, or changes in the role of faculty compensation. Simply put, the 1950 university could not exist under in the year 2000.

Conclusion/Implications

As long as college tuition prices continue to rise, there will continue to be cries for higher education finance reform. Universities, however, have experienced changes not only in academic programs, but the nature of compensation, expanses in technology, the necessity of more administration, the need for academic space, and changes in state legislative funding. Ball State University faced changes in each of these areas, as well as the decision to evolve from a specialty school to a multi-faceted institution of higher learning. All of these decisions impact the budget, and as much as people won't admit it, can lead to increases in tuition.

People have also only concerned themselves with the here and now, not looking back to the past as justification for current situations. Ball State University is probably not the only university in the country that had to work through the post-World War II enrollment boom and the ramifications of having to react to instead of prepare for students. This reaction led to unprecedented tuition increases to keep up with the influx of students just as large if not larger than the increases of the last decade. Ball State University does not necessarily serve as a benchmark for all, but the story of one mid-sized public university will hopefully open speculation and fuel the higher education finance debate for years to come.

¹ Charles W. Smith, Market Values in Higher Education: The Pitfalls and Promises (Oxford: Rowman and Littlefield, 2000) p. 3

² D. Bruce Johnstone, The Costs of Higher Education: An Essay on the Comparative Financing of Universities (Buffalo, NY: Comparative Education Center, 1989) p. 1

³ Joseph Losco and Brian L. Fife, "Higher Education Spending: Assessing Policy Priorities," in Higher Education in Transition: The Challenges of the New Millennium (Westport, CT: Bergin and Garvey, 2000) p. 51.

⁴ *Ibid.*, p. 52.

⁵ Edward P. St. John, Prices, Productivity, and Investment: Assessing Financial Strategies in Higher Education (Washington: George Washington School of Education and Human Development, 1994) p. iii-vi.

⁶ Believing that the market basket in the consumer price index was not indicative of the goods involved in education, the Higher Education: Price Index (HEPI) was developed, examining utilities, facilities, personnel costs, and campus services. Although the curve is closer to tuition nationally (assuming Ball State following national trends), college tuition outgrew HEPI by an average of one percent per year. From Losco and Fife, p. 53.

⁷ Kent Halstead, Higher Education Tuition (Washington: Research Associates of Washington, 1989) p. 30.

⁸ Losco and Fife, p. 71.

⁹ Marc Ransford, "Former Ball State Presidents Review Tough Decisions, <http://www.bsu.edu/news/article/0,1299,1480~,00.html>; accessed 14 November 2002.

¹⁰ *Ibid.*

¹¹ Note: Residence halls are not included in the square footage maintained by the university, as their construction was not paid for by tuition, but by room and board fees.

¹² Cheryl D. Lovell, "Past and Future Pressures and Issues of Higher Education: State Perspectives," in Higher Education in Transition: The Challenges of the New Millennium (Westport, CT: Bergin and Garvey, 2000) p. 112.

Data Appendix

Table 1a: Multiples of BSU Tuition, Midwest Median Income, National Mean Income, CPI, 1950-2000 (benchmark=1950 figures)

Year	BSU Tuition	Midwest Med. Inc.	National Mean Inc.	CPI	Year	BSU Tuition	Midwest Med. Inc.	National Mean Inc.	CPI	Year	BSU Tuition	Midwest Med. Inc.	National Mean Inc.	CPI
1950	1.00	N/A	1.00	1.00	1967	4.35	1.80	2.31	1.39	1984	21.22	5.84	8.14	4.31
1951	1.00	N/A	1.10	1.08	1968	5.65	1.99	2.53	1.44	1985	22.52	6.09	8.64	4.46
1952	1.00	N/A	1.17	1.10	1969	5.65	2.19	2.77	1.52	1986	24.09	6.45	9.15	4.55
1953	1.39	1.00	1.23	1.11	1970	7.83	2.25	2.91	1.61	1987	25.61	6.78	9.67	4.71
1954	1.39	0.95	1.23	1.12	1971	7.83	2.35	3.04	1.68	1988	27.19	7.17	10.12	4.91
1955	1.61	1.04	1.30	1.11	1972	9.13	2.56	3.31	1.73	1989	28.87	7.55	10.88	5.15
1956	1.61	1.11	1.40	1.13	1973	9.13	2.80	3.57	1.84	1990	30.58	7.89	11.18	5.42
1957	2.26	1.12	1.43	1.17	1974	10.43	3.00	3.86	2.05	1991	33.04	8.02	11.33	5.65
1958	2.26	1.12	1.46	1.20	1975	10.43	3.17	4.07	2.23	1992	35.71	8.09	11.59	5.82
1959	2.61	1.21	1.57	1.21	1976	10.43	3.48	4.42	2.36	1993	38.49	8.28	12.38	6.00
1960	2.61	1.26	1.63	1.23	1977	11.52	3.67	4.79	2.51	1994	41.51	8.67	12.93	6.15
1961	3.26	1.27	1.70	1.24	1978	12.17	4.06	5.27	2.71	1995	44.17	9.48	13.46	6.32
1962	3.26	1.36	1.75	1.25	1979	13.04	4.49	5.85	3.01	1996	46.20	9.81	14.07	6.51
1963	3.26	1.43	1.83	1.27	1980	14.13	4.74	6.28	3.42	1997	48.06	10.20	14.92	6.66
1964	3.26	1.49	1.92	1.29	1981	16.17	5.04	6.77	3.77	1998	50.06	10.81	15.62	6.76
1965	4.13	1.59	2.02	1.31	1982	18.48	5.28	7.18	4.00	1999	51.25	11.29	16.42	6.91
1966	4.35	1.72	2.20	1.34	1983	19.74	5.39	7.51	4.13	2000	53.91	11.80	17.19	7.15

Table 2a: Percentage of Midwest Median Income, National Mean Income to BSU Tuition, 1950-2000

Year	% of MW Med. Inc. to Tuition	% of Mean US Inc. to Tuition	Year	% of MW Med. Inc. to Tuition	% of Mean US Inc. to Tuition	Year	% of MW Med. Inc. to Tuition	% of Mean US Inc. to Tuition	Year	% of MW Med. Inc. to Tuition	% of Mean US Inc. to Tuition
1950	2.08%	DATA	1963	3.60%	3.42%	1976	4.81%	4.52%	1989	5.82%	5.76%
1951	1.86%	NOT	1964	3.43%	3.29%	1977	4.97%	4.72%	1990	5.97%	5.83%
1952	1.77%	AVAILAB_E	1965	4.10%	3.92%	1978	4.76%	4.52%	1991	6.34%	6.20%
1953	2.26%	2.09%	1966	3.98%	3.80%	1979	4.59%	4.38%	1992	6.74%	6.65%
1954	2.30%	2.20%	1967	3.78%	3.63%	1980	4.64%	4.49%	1993	7.19%	7.00%
1955	2.51%	2.34%	1968	4.52%	4.28%	1981	4.98%	4.83%	1994	7.38%	7.20%
1956	2.32%	2.17%	1969	4.13%	3.89%	1982	5.44%	5.26%	1995	7.51%	7.01%
1957	3.14%	3.04%	1970	5.47%	5.23%	1983	5.54%	5.51%	1996	7.54%	7.09%
1958	3.07%	3.03%	1971	5.25%	5.01%	1984	5.54%	5.47%	1997	7.44%	7.10%
1959	3.32%	3.26%	1972	5.67%	5.37%	1985	5.60%	5.56%	1998	7.39%	6.97%
1960	3.20%	3.11%	1973	5.23%	4.91%	1986	5.64%	5.62%	1999	7.22%	6.83%
1961	3.92%	3.85%	1974	5.58%	5.24%	1987	5.71%	5.68%	2000	7.31%	6.88%
1962	3.78%	3.60%	1975	5.25%	4.95%	1988	5.83%	5.70%			

Table 3a: Ball State University Summary of Income from Student Fees, State Appropriations, 1950-2000

Year	Student Fees	%	State Approp.	%	Year	Student Fees	%	State Approp.	%
1950	\$215,428	16.0%	\$1,133,631	84.0%	1976	\$10,399,412	23.2%	\$34,415,196	76.8%
1951	\$211,900	12.7%	\$1,459,950	87.3%	1977	\$11,779,276	24.6%	\$36,104,141	75.4%
1952	\$224,902	13.3%	\$1,459,950	86.7%	1978	\$12,491,767	24.0%	\$39,497,373	76.0%
1953	\$249,799	12.7%	\$1,717,291	87.3%	1979	\$13,329,227	23.9%	\$42,530,208	76.1%
1954	\$291,213	14.5%	\$1,717,291	85.5%	1980	\$14,572,260	23.7%	\$46,937,084	76.3%
1955	\$357,143	14.4%	\$2,123,018	85.6%	1981	\$16,554,250	25.1%	\$49,465,382	74.9%
1956	\$472,738	17.5%	\$2,225,221	82.5%	1982	\$19,139,400	27.5%	\$50,511,597	72.5%
1957	\$562,656	16.4%	\$2,860,161	83.6%	1983	\$20,655,400	25.4%	\$60,629,046	74.6%
1958	\$619,475	15.8%	\$3,308,698	84.2%	1984	\$21,723,000	24.6%	\$66,670,862	75.4%
1959	\$661,683	14.5%	\$3,887,974	85.5%	1985	\$20,102,000	21.3%	\$74,155,016	78.7%
1960	\$748,782	14.9%	\$4,284,225	85.1%	1986	\$21,169,000	20.9%	\$80,157,527	79.1%
1961	\$969,083	16.8%	\$4,801,964	83.2%	1987	\$24,868,446	22.8%	\$84,354,094	77.2%
1962	\$1,077,329	16.2%	\$5,573,001	83.8%	1988	\$34,799,938	27.8%	\$90,296,860	72.2%
1963	\$1,157,283	15.0%	\$6,577,056	85.0%	1989	\$38,285,000	27.9%	\$98,986,177	72.1%
1964	\$1,527,505	16.6%	\$7,683,266	83.4%	1990	\$42,097,000	28.6%	\$105,106,865	71.4%
1965	\$1,914,801	18.0%	\$8,724,072	82.0%	1991	\$46,030,000	30.1%	\$107,125,901	69.9%
1966	\$2,167,148	17.1%	\$10,460,663	82.9%	1992	\$51,035,000	32.6%	\$105,739,373	67.4%
1967	\$2,667,969	16.2%	\$13,769,124	83.8%	1993	\$56,357,000	34.6%	\$106,502,340	65.4%
1968	\$3,645,484	19.4%	\$15,128,526	80.6%	1994	\$60,790,300	36.3%	\$106,620,969	63.7%
1969	\$6,105,478	27.3%	\$16,284,000	72.7%	1995	\$63,785,000	36.7%	\$110,207,614	63.3%
1970	\$8,168,071	29.7%	\$19,297,586	70.3%	1996	\$66,416,000	36.6%	\$115,093,743	63.4%
1971	\$8,782,960	28.7%	\$21,851,298	71.3%	1997	\$66,572,000	36.0%	\$118,373,534	64.0%
1972	\$10,044,872	30.1%	\$23,329,686	69.9%	1998	\$68,429,500	35.7%	\$123,199,516	64.3%
1973	\$9,740,944	28.4%	\$24,545,000	71.6%	1999	\$70,909,500	35.7%	\$127,874,780	64.3%
1974	\$9,161,662	25.7%	\$26,514,957	74.3%	2000	\$72,053,000	35.4%	\$131,336,511	64.6%
1975	\$9,501,755	23.1%	\$31,692,129	76.9%					

Year	Gen. Admin.	%	Inst. Services	%	Acad. Aff.	%	Student Aff.	%	Physical Plant	%	Univ. Relations	%	Acad. Supp./IT	%	Total Budget
1950	\$219,900	12.5%	\$36,240	2.1%	\$1,200,295	68.4%			\$298,520	17.0%			WITH		\$1,754,958
1951	\$213,984	11.5%	\$24,100	1.3%	\$1,296,659	69.9%			\$320,777	17.3%			GENERAL		\$1,855,520
1952	\$220,216	11.1%	\$39,169	2.0%	\$1,400,850	70.7%			\$321,059	16.2%			ADMIN. AND		\$1,981,294
1953	\$254,287	12.0%	\$29,375	1.4%	\$1,486,491	70.3%			\$343,038	16.2%			ACADEMIC		\$2,113,191
1954	\$302,727	12.9%	\$58,774	2.5%	\$1,634,153	69.4%			\$357,884	15.2%			AFFAIRS		\$2,353,537
1955	\$455,376	17.8%	\$50,422	2.0%	\$1,637,698	64.2%			\$409,057	16.0%			BUDGETS		\$2,552,553
1956	\$454,217	15.1%	\$56,641	1.9%	\$2,025,773	67.5%			\$464,348	15.5%					\$3,000,979
1957	\$169,441	4.6%	\$172,229	4.7%	\$2,339,720	63.4%	\$307,999	8.4%	\$534,065	14.5%	\$164,520	4.5%			\$3,687,974
1958	\$175,643	4.1%	\$215,921	5.0%	\$2,710,524	63.2%	\$365,681	8.5%	\$628,891	14.7%	\$190,600	4.4%			\$4,287,260
1959	\$203,839	4.2%	\$240,906	5.0%	\$3,162,753	65.2%	\$346,295	7.1%	\$673,806	13.9%	\$219,676	4.5%			\$4,847,276
1960	\$227,903	4.2%	\$269,047	4.9%	\$3,560,825	65.4%	\$393,062	7.2%	\$746,591	13.7%	\$243,198	4.5%			\$5,440,627
1961	\$269,283	4.4%	\$309,426	5.0%	\$4,068,509	66.1%	\$414,890	6.7%	\$848,166	13.8%	\$248,829	4.0%			\$6,159,102
1962	\$305,952	4.3%	\$362,183	5.1%	\$4,691,204	65.6%	\$479,217	6.7%	\$1,019,053	14.3%	\$289,353	4.0%			\$7,146,961
1963	\$319,132	3.9%	\$389,732	4.8%	\$5,455,449	66.8%	\$553,975	6.8%	\$1,131,029	13.8%	\$319,118	3.9%			\$8,168,435
1964	\$360,328	3.8%	\$460,909	4.8%	\$6,390,618	67.1%	\$636,637	6.7%	\$1,295,360	13.6%	\$384,414	4.0%			\$9,528,267
1965	\$399,832	3.6%	\$538,798	4.9%	\$7,412,031	67.4%	\$768,753	7.0%	\$1,425,294	13.0%	\$455,408	4.1%			\$11,000,116
1966	\$479,821	3.6%	\$704,735	5.3%	\$8,880,813	67.2%	\$898,117	6.8%	\$1,740,386	13.2%	\$511,560	3.9%			\$13,215,431
1967	\$593,827	3.7%	\$1,056,265	6.6%	\$10,702,723	66.5%	\$1,054,856	6.6%	\$2,056,482	12.8%	\$634,147	3.9%			\$16,098,300
1968	\$678,052	3.5%	\$1,411,022	7.2%	\$12,953,962	66.5%	\$1,302,505	6.7%	\$2,470,135	12.7%	\$672,450	3.5%			\$19,488,127
1969	\$792,386	3.2%	\$2,118,818	8.6%	\$16,108,672	65.4%	\$1,656,833	6.7%	\$3,116,499	12.7%	\$820,645	3.3%			\$24,613,853
1970	\$944,228	3.6%	\$1,686,916	6.4%	\$17,497,879	66.0%	\$1,740,684	6.6%	\$3,978,935	15.0%	\$655,889	2.5%			\$26,504,531
1971	\$1,090,031	3.7%	\$1,987,340	6.8%	\$19,496,672	66.5%	\$1,876,226	6.4%	\$4,079,541	13.9%	\$793,297	2.7%			\$29,323,107
1972	\$1,130,579	3.5%	\$2,257,452	6.9%	\$21,391,599	65.4%	\$1,940,644	5.9%	\$5,154,743	15.8%	\$818,691	2.5%			\$32,693,708
1973	\$1,300,710	3.7%	\$3,237,584	9.3%	\$22,039,608	63.3%	\$2,251,666	6.5%	\$5,112,949	14.7%	\$902,645	2.6%			\$34,845,162
1974	\$1,320,801	3.4%	\$4,116,364	10.5%	\$24,487,399	62.4%	\$2,478,255	6.3%	\$5,535,008	14.1%	\$1,280,459	3.3%			\$39,218,286
1975	\$1,526,167	3.6%	\$1,903,649	4.5%	\$27,724,028	66.1%	\$2,786,992	6.6%	\$6,617,037	15.8%	\$1,414,091	3.4%			\$41,971,964
1976	\$1,689,795	3.5%	\$4,638,974	9.6%	\$30,160,552	62.1%	\$3,054,093	6.3%	\$7,383,234	15.2%	\$1,638,701	3.4%			\$48,565,349
1977	\$3,031,732	6.0%	\$3,607,426	7.1%	\$31,345,252	61.5%	\$3,207,231	6.3%	\$7,970,097	15.6%	\$1,782,494	3.5%			\$50,944,232
1978	\$3,095,375	5.6%	\$4,831,914	8.7%	\$33,680,354	60.6%	\$3,397,439	6.1%	\$8,615,846	15.5%	\$1,937,792	3.5%			\$55,558,720
1979	\$3,551,911	6.0%	\$5,622,037	9.4%	\$35,802,979	60.0%	\$3,465,977	5.8%	\$9,319,418	15.6%	\$1,871,724	3.1%			\$59,634,046
1980	\$3,886,052	6.0%	\$6,101,628	9.3%	\$39,110,226	59.9%	\$3,823,756	5.9%	\$10,370,291	15.9%	\$2,007,266	3.1%			\$65,299,219
1981	\$4,512,494	6.4%	\$7,163,906	10.2%	\$41,112,240	58.6%	\$4,029,054	5.7%	\$11,243,875	16.0%	\$2,142,159	3.1%			\$70,203,728
1982	\$4,718,794	6.4%	\$7,744,146	10.5%	\$42,441,831	57.6%	\$4,168,917	5.7%	\$12,343,225	16.8%	\$2,238,818	3.0%			\$73,655,731
1983	\$5,060,839	6.0%	\$16,096,964	19.0%	\$43,417,948	51.2%	\$4,383,646	5.2%	\$13,529,673	16.0%	\$2,300,053	2.7%			\$84,789,123
1984	\$5,273,728	5.7%	\$17,303,881	18.8%	\$47,250,618	51.3%	\$4,609,292	5.0%	\$15,232,309	16.5%	\$2,456,375	2.7%			\$92,126,203
1985	\$5,743,111	5.8%	\$19,493,112	19.8%	\$50,896,311	51.7%	\$4,770,647	4.8%	\$14,947,674	15.2%	\$2,600,362	2.6%			\$98,451,217
1986	\$6,744,417	6.3%	\$20,507,963	19.2%	\$55,027,172	51.6%	\$5,157,587	4.8%	\$16,481,687	15.4%	\$2,802,534	2.6%			\$106,721,360
1987	\$7,356,721	6.2%	\$28,168,340	23.6%	\$58,151,356	48.7%	\$6,707,197	5.6%	\$17,184,545	14.4%	\$1,839,974	1.5%			\$119,408,133
1988	\$10,957,374	8.5%	\$31,019,376	23.9%	\$61,158,748	47.2%	\$7,215,451	5.6%	\$17,382,529	13.4%	\$1,794,729	1.4%			\$129,528,207
1989	\$11,487,025	8.2%	\$37,387,588	26.5%	\$64,049,838	45.4%	\$7,604,209	5.4%	\$18,539,036	13.2%	\$1,860,542	1.3%			\$140,928,238
1990	\$12,085,236	8.0%	\$39,251,598	26.0%	\$69,857,686	46.3%	\$7,644,760	5.1%	\$20,293,367	13.4%	\$1,904,682	1.3%			\$151,037,329
1991	\$12,304,182	7.8%	\$42,591,959	27.1%	\$71,720,943	45.7%	\$7,951,455	5.1%	\$20,392,952	13.0%	\$1,979,703	1.3%			\$156,941,194
1992	\$12,803,362	7.9%	\$45,658,029	28.1%	\$73,473,885	45.3%	\$8,123,039	5.0%	\$20,353,106	12.5%	\$1,959,579	1.2%			\$162,371,000
1993	\$13,179,021	7.9%	\$48,397,000	29.0%	\$74,293,691	44.6%	\$8,324,515	5.0%	\$20,469,939	12.3%	\$1,974,334	1.2%			\$166,638,500
1994	\$13,321,959	7.8%	\$51,930,505	30.2%	\$75,531,129	44.0%	\$8,412,216	4.9%	\$20,532,594	12.0%	\$1,992,297	1.2%			\$171,720,700
1995	\$13,996,293	7.8%	\$52,582,361	29.4%	\$80,703,003	45.1%	\$8,718,814	4.9%	\$20,907,208	11.7%	\$2,084,821	1.2%			\$178,992,500
1996	\$7,500,065	4.0%	\$55,754,076	29.9%	\$74,354,943	39.8%	\$7,783,841	4.2%	\$21,830,697	11.7%	\$2,288,973	1.2%	\$17,085,405	9.2%	\$186,598,000
1997	\$7,786,356	4.1%	\$56,175,665	29.5%	\$76,474,231	40.2%	\$7,971,825	4.2%	\$22,377,612	11.8%	\$2,404,833	1.3%	\$17,081,978	9.0%	\$190,272,500
1998	\$8,108,401	4.1%	\$56,093,311	28.5%	\$78,205,879	39.7%	\$8,211,134	4.2%	\$22,779,589	11.6%	\$2,466,535	1.3%	\$21,112,316	10.7%	\$196,977,165
1999	\$8,381,129	4.1%	\$57,893,841	28.4%	\$80,125,239	39.2%	\$8,608,653	4.2%	\$23,250,094	11.4%	\$2,547,536	1.2%	\$23,360,308	11.4%	\$204,166,800
2000	\$8,624,818	4.1%	\$60,762,143	29.1%	\$81,233,496	38.9%	\$8,714,017	4.2%	\$23,686,590	11.3%	\$2,672,106	1.3%	\$23,118,743	11.1%	\$208,811,913

Table 4a: Ball State University Budget Expense Summary, 1950-2000

Table 5a: Square Footage Devoted to Academic Use, 1950-2000

Year	Square Footage	Year	Square Footage	Year	Square Footage	Year	Square Footage	Year	Square Footage
1950	952,885	1961	1,229,318	1971	2,156,704	1981	2,656,127	1991	3,151,198
1951	1,126,345	1962	1,383,884	1972	2,478,504	1982	2,762,627	1992	3,151,198
1952	1,126,345	1963	1,465,985	1973	2,490,084	1983	2,762,627	1993	3,151,198
1953	1,127,806	1964	1,465,985	1974	2,490,084	1984	2,762,627	1994	3,155,475
1954	1,131,180	1965	1,655,945	1975	2,562,364	1985	2,762,627	1995	3,155,475
1955	1,132,583	1966	1,781,595	1976	2,562,364	1986	2,847,221	1996	3,155,475
1956	1,180,837	1967	1,865,773	1977	2,562,364	1987	2,847,221	1997	3,155,475
1957	1,227,847	1968	1,979,616	1978	2,656,127	1988	2,847,221	1998	3,155,475
1958	1,229,318	1969	1,979,616	1979	2,656,127	1989	2,957,931	1999	3,155,475
1959	1,229,318	1970	2,138,534	1980	2,656,127	1990	3,151,198	2000	3,362,616
1960	1,229,318								

Table 6a: Square Footage per Student, 1950-2000

Year	Square. Ft. per Student	Year	Square. Ft. per Student	Year	Square. Ft. per Student	Year	Square. Ft. per Student	Year	Square. Ft. per Student
1950	303.1	1961	156.8	1971	120.3	1981	144.0	1991	153.8
1951	385.1	1962	165.3	1972	139.3	1982	151.4	1992	155.0
1952	386.5	1963	166.3	1973	144.7	1983	150.5	1993	152.1
1953	338.0	1964	145.6	1974	151.9	1984	159.0	1994	161.7
1954	312.2	1965	147.5	1975	150.2	1985	162.1	1995	165.1
1955	273.9	1966	140.5	1976	148.4	1986	162.6	1996	169.7
1956	246.2	1967	138.0	1977	150.9	1987	157.9	1997	170.3
1957	244.3	1968	132.7	1978	156.1	1988	156.8	1998	176.0
1958	215.4	1969	125.1	1979	151.3	1989	155.7	1999	180.7
1959	196.9	1970	127.7	1980	143.7	1990	162.9	2000	192.3
1960	174.7								

Table 7a: Biennial Change in Square Footage, Enrollment, 1952-2000

Year	% Square Footage Change	% Enrollment Change	Year	% Square Footage Change	% Enrollment Change	Year	% Square Footage Change	% Enrollment Change	Year	% Square Footage Change	% Enrollment Change
1952	9.10%	-3.66%	1966	10.76%	13.00%	1978	1.83%	-0.74%	1990	5.34%	3.27%
1954	0.21%	12.17%	1968	5.56%	8.81%	1980	0.00%	4.34%	1992	0.00%	2.56%
1956	2.19%	16.19%	1970	4.01%	6.13%	1982	2.00%	-0.67%	1994	0.07%	-2.01%
1958	2.05%	9.50%	1972	7.95%	3.10%	1984	0.00%	-2.38%	1996	0.00%	-2.36%
1960	0.00%	11.64%	1974	0.23%	-3.92%	1986	1.53%	0.39%	1998	0.00%	-1.79%
1962	6.29%	9.49%	1976	1.45%	2.67%	1988	0.00%	1.84%	2000	3.28%	-1.23%
1964	2.97%	10.12%									

Table 8a: Multiples of Square Footage, Enrollment, 1975-2000 (benchmark=1975 figures)

Year	Square Footage	Enrollment	Year	Square Footage	Enrollment	Year	Square Footage	Enrollment	Year	Square Footage	Enrollment
1975	1.00	1.00	1982	1.08	1.07	1989	1.15	1.11	1995	1.23	1.12
1976	1.00	1.01	1983	1.08	1.08	1990	1.23	1.13	1996	1.23	1.09
1977	1.00	1.00	1984	1.08	1.02	1991	1.23	1.20	1997	1.23	1.09
1978	1.04	1.00	1985	1.08	1.00	1992	1.23	1.19	1998	1.23	1.05
1979	1.04	1.03	1986	1.11	1.03	1993	1.23	1.21	1999	1.23	1.02
1980	1.04	1.08	1987	1.11	1.06	1994	1.23	1.14	2000	1.31	1.03
1981	1.04	1.08	1988	1.11	1.06						

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