

A REPORT FROM

---

# POLICY MATTERS OHIO

---

---

## COLLEGE BOUND: TAXES AND TUITION IN OHIO

---

WENDY A. PATTON  
KIEL ALBRECHT

AUGUST, 2005

## AUTHORS

Wendy Patton is a Policy Liaison for Policy Matters Ohio. Wendy has a BA from Kent State University and a Masters of City Planning from the University of California at Berkeley. Prior to working for Policy Matters Ohio, she worked for The Ohio State University, Kent State University, and the Ohio Department of Development, where she served as a deputy director. She has twenty years experience in economic development and policy and has published on workforce development and other topics in *Economic Development Quarterly*, *Built Environment*, *Annals of the Association of American Geographers*, *Journal of Black Political Science*

Kiel Albrecht is a research intern at Policy Matters Ohio. He studies economics and math at Washington University in St. Louis. He has previously researched the use of tax incentives for the St. Louis RCGA.

## ACKNOWLEDGEMENTS

Many people helped to provide information and direction that helped prepare this report, though its conclusions are solely the responsibility of the author. Special thanks are extended to Amy Hanauer for substantial assistance in substance and form.

**POLICY MATTERS OHIO**, the publisher of this study, is a nonprofit, nonpartisan statewide research institute dedicated to bridging the gap between research and policy in Ohio. Policy Matters seeks to broaden the debate about economic policy in Ohio, by providing quantitative and qualitative analysis of important issues facing working people in the state. Other areas of inquiry for Policy Matters have included unemployment compensation, workforce policy, wages, education, housing, tax policy and economic development. Funding for the institute comes from the Joyce, George Gund, Cleveland, St. Ann and Nord Family Foundations.

## TABLE OF CONTENTS

---

|  |    |
|--|----|
| Executive Summary                                      | 1  |
| I. Report Introduction                                 | 3  |
| II. Trends in Funding Higher Education                 | 4  |
| III. Direct Impact of Tax Changes on Two Ohio Families | 10 |
| IV. Conclusion   | 12 |

---

## TABLE OF FIGURES AND TABLES

---

|   |    |
|---|----|
| Figure 1: Higher Education Spending as a Percent of Ohio Budget, 1975-2005  | 5  |
| Figure 2: Ohio Higher Education Spending Per Capita, 1975-2005  | 6  |
| Figure 3: Percent Change in Spending Versus Ohio Tuition, 2000-2004   | 8  |
| Table 1: Average Weighted Tuition at an Ohio Public University Projected for Academic Years 2004-05 Through 2009-10 | 9  |
| Table 2: Annual and Cumulative Costs of Personal Income Tax Cuts Enacted in 2006-07 Biennial Budget                 | 9  |
| Table 3: Tax Savings for an Ohio Family Earning the Median Income for a Four-Person Household                       | 10 |
| Table 4: Tax Savings Table for an Ohio Family of Three Earning the Median Household Income for All Households       | 11 |

---

## EXECUTIVE SUMMARY

Higher education can improve individual and collective well-being. Workers with a bachelor's degree have much higher wages, lower rates of unemployment, higher labor force participation and higher lifelong earnings than those without such degrees. Yet Ohio ranks 49<sup>th</sup> in affordability of college, 46<sup>th</sup> in state operating appropriations per student for higher education, 37<sup>th</sup> in level of increase in higher education spending among the states between 2000 and 2005, and 40<sup>th</sup> in the nation in terms of percent of people over age 25 with a four-year bachelor's degree.

The income tax cuts enacted as part of Ohio's biennial budget for 2006-07 will cost the state billions of dollars - \$3.645 billion by 2009 and \$5.670 billion by 2010 - some of which could have been used to make college education more affordable. For middle-income Ohio families, modest income tax reductions may not compensate for increased costs incurred because public funding for critical services declines. **College Bound** examines trends in higher education spending and compares tax savings to costs for families with college-age children. The report finds:

- ◆ By 2010, an Ohio family of four with 2003 median four-person family earnings of \$69,478 and one child in college will have reaped about \$247 annually from income tax cuts, for a total of \$1,237, but will have faced tuition hikes totaling \$1,975. The income tax savings defray 63 percent of the increase in tuition, 3 percent of total tuition.
- ◆ By 2010, a family of three with one child in college and 2003 median all-household income of \$45,768 will see \$502 in total income tax reduction and \$1,975 in increased tuition; the savings will cover 25 percent of projected tuition increases.
- ◆ Since the year 2000, per capita higher education spending has dropped steeply each year and is now lower than at any point since 1984.
- ◆ As a percent of the Ohio budget, higher education spending peaked in 1978 at 17.7 percent. The percentage of the budget devoted to higher education has fallen each year since 1996, to 11.9 percent in 2004 and an allotted 11.7 percent in 2005, \$2,470,800,000.
- ◆ Despite declines in state investment, from fall 1998 to fall 2003, total higher education enrollment grew 11 percent, from 544,991 to 604,826, while population grew only 1.8 percent.
- ◆ Although higher education spending is declining, other parts of the budget are growing. For example, between 1990 and 2005, adjusting for population and inflation, corrections spending skyrocketed by more than 100 percent. Since 2000, corrections spending has fallen by about three percent so perhaps that upward trend has leveled off.
- ◆ On average, it cost an Ohio family 35 percent of total income to send a student to a public university in 2004; this is 25 percent higher than the U.S. average. For an Ohio family in the lowest quartile, with an average income of \$12,826, tuition at the least expensive public

institution would have consumed a staggering 22 percent of income, 58 percent more than the national average for this category.

- ◆ It has been getting more expensive over time in Ohio to get a college education. In 1991, Ohio families paid for 39.5 percent of the cost of a college education; by 2004, they paid for 49.4 percent.
- ◆ Ohio colleges and universities have increased tuition rates. State operating assistance per full-time equivalent student has fallen while average weighted tuition has risen in the past few years. Average tuition (weighted by enrollment) for a four-year public university in Ohio was \$7,478 in 2004-05 and will increase by between \$450 and \$500 a year for each of the next five years, to an estimated \$9,902 by the 2009-10 school year.

In **College Bound**, we illustrate that Ohioans get very tangible benefits from public spending. When public spending is slashed, families will often find that their own expenditures increase at levels that exceed any tax savings they might realize. There are other reasons to support government spending beyond parochial individual calculations – we all benefit when children in our communities are helped out of poverty, when parks are maintained, and when pollution laws are enforced. But we also benefit in very individual, calculable ways, and lower tuition is one of the most salient examples.

## INTRODUCTION

Across Ohio's political spectrum, analysts value the role of higher education in improving individual and collective well-being. Many of the manufacturing jobs that once provided solid compensation to those with limited education have left the state. Real wages for those without education beyond high school have fallen dramatically in the past two decades. Workers with a bachelor's degree have much higher wages, lower rates of unemployment, higher labor force participation and higher lifelong earnings than those without such degrees.<sup>1</sup>

The Governor's Council on Higher Education and the Economy concluded that Ohio has fallen behind in the attainment of bachelor degrees and that increasing the education level of Ohioans is essential to economic growth. Yet the income tax cuts enacted as part of Ohio's biennial budget for 2006-07 will cost the state billions of dollars, some of which could have been used to better prepare students for college and to make college education more affordable. For middle-income Ohio families, the direct impact of income tax reduction is modest, while the long-term effect of inadequate funding of critical services such as education is onerous.

By 2010, when the phase-in of income tax changes will have lowered state revenue collections by \$5.670 billion,<sup>2</sup> an Ohio family of four making \$69,478, with one child starting college in academic year 2006-07 and finishing in 2009-10, will have reaped about \$1,237 in tax savings. Tuition, however, will increase by \$1,975 in the same four years, according to our projections. The income tax savings cover 63 percent of the increase in tuition for the first child (3 percent of total tuition); if the second child is ready to enter within the same time frame, there are no tax savings left over to defray the rising cost of that student's tuition. A family of three making \$45,768, with a student in college during the same four years, will see just \$502 in total income tax reduction between now and 2010, which pays for 25 percent of projected tuition increase and 1 percent of total tuition. These are middle income, two-parent families; neither one qualifies for the newly expanded program of financial aid.

Even before this year's income tax changes, Ohio's system of education was underfunded by the state. Ohio ranks 30<sup>th</sup> in the percentage of revenue devoted to K-12 education from state government,<sup>3</sup> 49<sup>th</sup> in affordability of college,<sup>4</sup> and 37<sup>th</sup> in state operating

---

<sup>1</sup> All of these variables come from analysis of Current Population Survey data as reported in *State of Working Ohio 2004*. (Hanauer, Amy, *State of Working Ohio, 2004*, Policy Matters Ohio, at: [http://www.policymattersohio.org/pdf/sowo\\_04.pdf](http://www.policymattersohio.org/pdf/sowo_04.pdf)) To provide one more detailed example, those with a bachelor's degree earned 60 percent more per hour than even those with some college in 2003 in Ohio.

<sup>2</sup> For personal income tax cuts alone, net of changes to tuition deduction and trust tax changes. Included in the testimony of Deputy Tax Commissioner Frederick Church before the Senate Ways & Means and Economic Development Committee, Ohio 126<sup>th</sup> General Assembly, February 22, 2005; confirmed by Ohio Department of Taxation July, 2005.

<sup>3</sup> National Education Association, *Rankings of the States 2004 and Estimates of School Statistics, 2005*, June, 2005, "Percentage of Revenue for Public K-12 Education From State Governments, 2003-04," Table F-10, p.42.

<sup>4</sup> National Center for Public Policy and Higher Education, "Measuring Up: The National Report Card on Higher Education, cited in National Center for Higher Education Management Systems Information Center (hereinafter referred to as NCHEMS Info Center), 2004, at: <http://www.higheredinfo.org/dbrowser/index.php?submeasure=75&year=2004&level=nation&mode=graph&state=0> (accessed July 2005).

appropriations per capita for higher education.<sup>5</sup> Perhaps partly as a result, in 2004, Ohio ranked 40<sup>th</sup> in the nation in terms of percentage of people over 25 years of age with a four-year bachelor's degree.<sup>6</sup>

The quality, accessibility and affordability of public services have a major impact on families of middle and lower incomes. Most working Ohio families are dependent on public schools and, because of favorable rates for in-state students, are also dependent on public colleges and universities within the state. The precipitous drop in revenues incurred by this year's income tax cuts limits the ability of the state to adequately provide for this critical service, and tuition costs may be expected to continue to climb. As incomes for working families stagnate or lag, access to higher education may be moving beyond their reach. For many Ohio families, this year's income tax cuts don't begin to address that dilemma.

### TRENDS IN FUNDING HIGHER EDUCATION

Ohio spent 11.73 percent of its state operating budget on higher education in 2005, providing \$2,470,800,000 in support of administration, operation and instruction of colleges and universities. When adjusted for inflation and population this represents a decrease in spending, in both the short- and medium-term. While higher education spending has dropped, other parts of the budget have grown, sometimes sharply. For example, since 1990, higher education per capita has decreased slightly in real terms, while corrections spending per capita has more than doubled. More recently, since 2000, the state has reduced spending in both areas when adjusted for inflation, but the overall reductions – 10.4 percent for higher education and 1.9 percent for corrections – were not comparable. Although we still spend more as a state on higher education than on corrections, we have dramatically shifted resources toward our prison system.<sup>7</sup>

As Figure 1 below shows, higher education spending has fallen steeply as a percent of the Ohio budget, both in the past few years and in the past three decades, despite initial increases in these expenditures in the late 1970s. Higher education constituted 15.7 percent of the state budget in 1975. The level peaked in 1978 at 17.7 percent of the state budget. The allotment dropped, but remained above 14 percent throughout the 1970s, 1980s and early 1990s, often well above. Since 1996, when it rose again to 14.6 percent, the percentage of the budget devoted to higher education has fallen each year, to a low of 11.9 percent in 2004. The 2004 budget allotted 11.7 percent of state GRF to higher education, lower than at any point over this entire period.

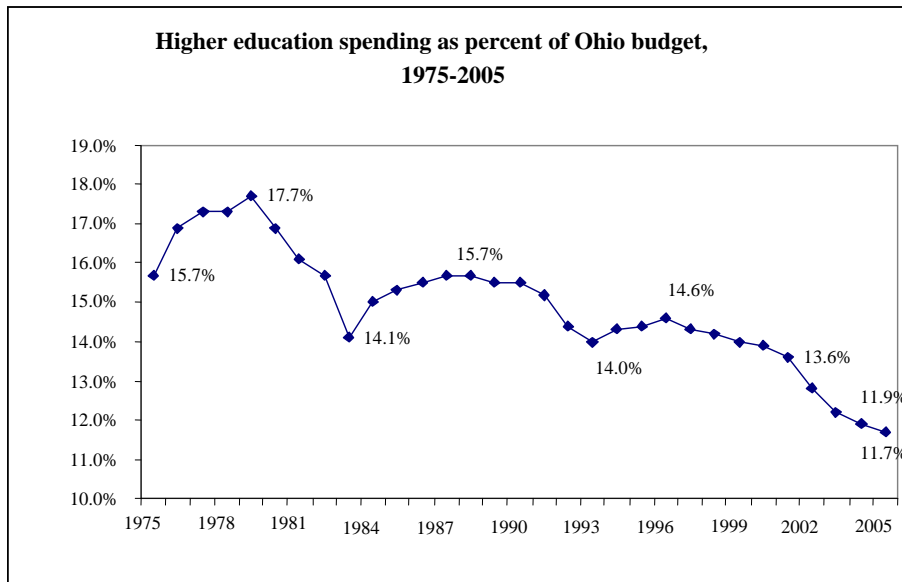
---

<sup>5</sup> Center for the Study of Education Policy., State rankings on FY05 state tax appropriations for higher education per capita and per \$1000 of personal income (Grapevine Table 5), (Revised 12/27/04 to reflect July 2004 population estimates released by the Bureau of the Census on 12/22/04) , [http://www.coe.ilstu.edu/grapevine/table5\\_05.htm](http://www.coe.ilstu.edu/grapevine/table5_05.htm)

<sup>6</sup> US Bureau of the Census, American Community Survey, Percent of People 25 and Over who have Completed a Bachelors Degree, Population 25 and Over, for 2003, at: <http://www.census.gov/acs/www/Products/Ranking/2003/R02T040.htm>

<sup>7</sup> Legislative Services Commission, Budget Documents, [Table 2 - GRF, LPEF, and LGF Expenditure History FY 1975 - 2005](#). For consistency we used CPI-U-RS for both corrections and higher education spending, not the HEPI used elsewhere in the paper.

Figure 1.



Source: Ohio Legislative Budget Office, historical expenditures table

On a per capita basis, higher education spending by the state of Ohio rose sharply in the late 1970s, fell in the early 1980s, then rose sharply again through about 1987. After that point, it remained relatively stable, dropping in the early 1990s and rebounding slightly in the late 1990s. Since the year 2000, however, per capita higher education spending has dropped steeply each year and is now lower than at any point since 1984.

Other states spend more money per-capita on higher education. Ohio ranked 37<sup>th</sup> in the nation in fiscal year 2005 in terms of appropriations on a per-capita basis.<sup>8</sup> Moreover, other states are increasing their support for higher education to a greater extent. Ohio's support for higher education grew by an average of 2 percent in non-adjusted dollars between 2000 and 2005, placing it 37<sup>th</sup> among the fifty states.<sup>9</sup>

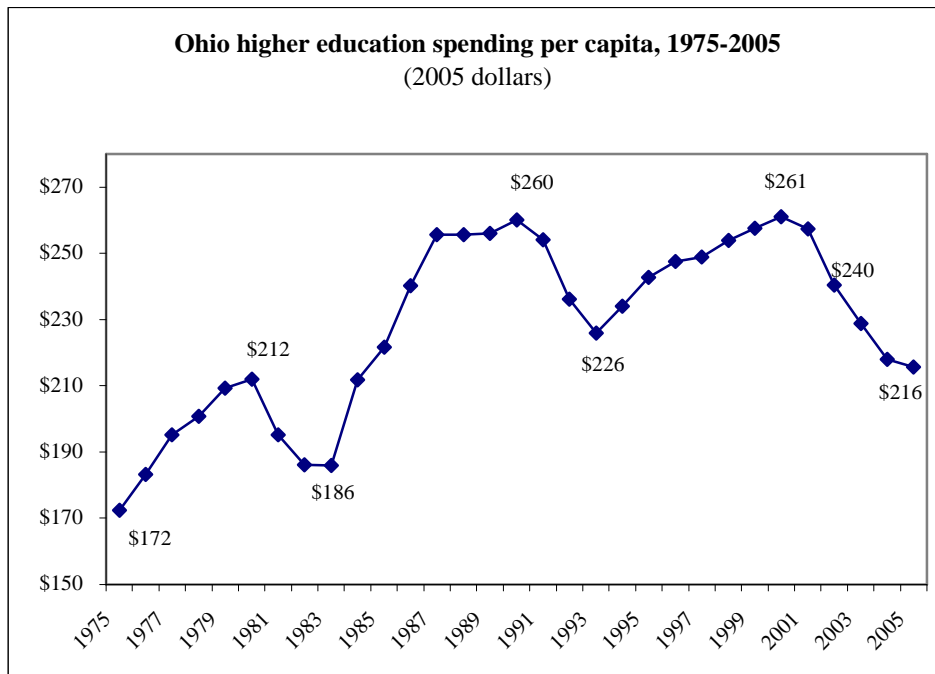
Higher education spending should be growing in both absolute and relative terms, because we are increasingly demanding that workers have high levels of education. In 1975, when we spent less per capita on education (though more as a percent of our budget), there was not an assumption that workers needed a college degree in order to attain middle class status.

<sup>8</sup> Center for the Study of Education Policy., State rankings on FY05 state tax appropriations for higher education per capita and per \$1000 of personal income (Grapevine Table 5), (Revised 12/27/04 to reflect July 2004 population estimates released by the Bureau of the Census on 12/22/04) , [http://www.coe.ilstu.edu/grapevine/table5\\_05.htm](http://www.coe.ilstu.edu/grapevine/table5_05.htm)

<sup>9</sup> Center for the Study of Education Policy, Tax appropriations for higher education, by state, FY95, FY00, FY01, FY02, FY03, FY04, and FY 05, and average annual percent changes in state tax appropriations for higher education, by state, FY00 through FY05, Grapevine Table 4, at: <http://www.coe.ilstu.edu/grapevine/50state.htm>



Figure 2.



Source: Ohio Legislative Budget Office historical expenditures table, adjusted for inflation using higher education price index.

Now, education beyond high school is seen as essential for many jobs, particularly those that have a rising standard of living. It makes sense, then, that as a state we would be increasing our education expenditures, to ensure that more people can be sent to Ohio universities. Indeed, young people are enrolling in college in greater numbers, but they are bearing more of that cost themselves.

Each year that funding for higher education lags inflation and enrollment, it puts the state further behind for the following year, resulting in a cumulative shortfall. Institutions look to tuition to make up the gap, leading to problems in affordability.

It is already expensive to get a college education in Ohio. Ohio was 49<sup>th</sup> in the nation in affordability of four-year, public institutions in 2004 according to the National Center for Higher Education Management Systems Information Center.<sup>10</sup> On average, it cost an Ohio family 35 percent of its total income in 2004 to put a student through a four-year, public university, which is 25 percent higher than the national average. For a family in the lowest quartile, with an average income of \$12,826, tuition at the least expensive public institution in Ohio would have consumed 22 percent of income, 58 percent more than in the nation as a whole.

<sup>10</sup>All statistics in this paragraph come from the NCHEMS Info Center, at: <http://www.higheredinfo.org/dbrowser/index.php?submeasure=75&year=2004&level=nation&mode=graph&state=0> (accessed July 2005)

It has been getting more expensive over time in Ohio to get a college education. In 1991, Ohio ranked 42<sup>nd</sup> in educational support per student, at \$5683 per non-medical FTE in constant, 2004 dollars; by 2004 Ohio ranked 46<sup>th</sup>, and total educational support had fallen to \$4680 per student, a decline in real dollars of \$1003 or 17.6 percent.<sup>11</sup> In 1991, Ohio families paid for 39.5 percent of the cost of a college education; by 2004, they paid for 49.4 percent.<sup>12</sup>

Demand for educational services at Ohio's public system of colleges and universities has been strong. According to the most recent Performance Report published for Ohio's Colleges and Universities annually by the Ohio Board of Regents, from fall 1998 to fall 2003, higher education enrollment grew 11 percent, from 544,991 to 604,826. This increase in enrollment is significantly larger than the 1.8 percent increase in Ohio's overall population that occurred over the same period.<sup>13</sup> The Commission on Higher Education and the Economy has established a goal of increasing enrollment at Ohio's public universities and colleges by 180,000 students (30 percent) by 2015 to increase income and enable the state to become economically competitive.<sup>14</sup> Yet state support per student has dropped by \$1600 since 2000.<sup>15</sup>

In response to growing demand and flat state operating support, Ohio colleges and universities have increased tuition rates. Figure 3, below, shows a downward trend in state operating assistance through general revenue funding per full-time equivalent student and a corresponding increase in average weighted tuition; the spike in tuition in 2002 reflects the effort to catch up to escalating costs and enrollment when the 5.5 percent cap on tuition hikes was eliminated.

Ohio is not alone in experiencing struggles around paying for public higher education. The *Wall Street Journal* cites Travis Reindl, Director of State Policy Analysis at the American Association of State Colleges and Universities, as estimating that on average, public-college tuitions will increase 8 percent this year, a figure well below increases of 10.5 percent and 13 percent in the two previous academic years.<sup>16</sup>

Nationally, state financing of higher education has declined as a share of personal income from an average of roughly \$8.50 per \$1,000 in 1977 to an average of about \$7.00 per \$1,000 in 2002, according to the Brookings Institution.<sup>17</sup> On a national basis, the same study found that tuition increases have only partially offset the decline in public funding. As a result, educational

---

<sup>11</sup> NCEHMS Info Center, at: [http://www.higheredinfo.org/analyses/State\\_and\\_Local\\_Support\\_Per\\_Full-Time\\_Student.xls](http://www.higheredinfo.org/analyses/State_and_Local_Support_Per_Full-Time_Student.xls) (accessed July 2005)

<sup>12</sup> NCEHMS Info Center, at: [http://www.higheredinfo.org/analyses/Family\\_Share\\_of\\_Public\\_Higher\\_Education\\_Operating\\_Revenues.xls](http://www.higheredinfo.org/analyses/Family_Share_of_Public_Higher_Education_Operating_Revenues.xls) (accessed July 2005)

<sup>13</sup> Ohio Board of Regents, *Performance Report for Ohio Colleges and Universities*, 2004, 1/27/05, p.11

<sup>14</sup> Governor's Commission on Education and the Economy, "Building on Knowledge, Investing in People: Higher Education and the Future of Ohio's Economy," April 29, 2004, p.21.

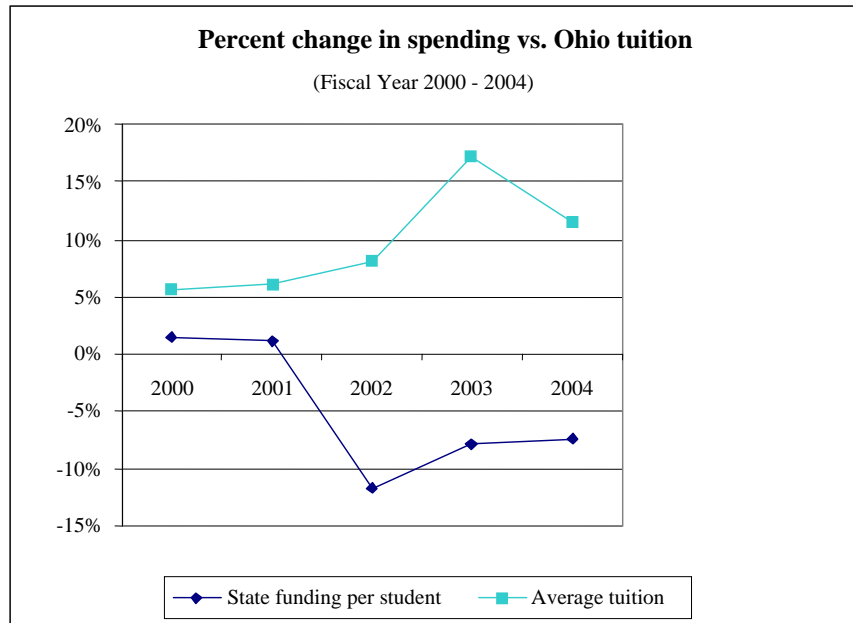
<sup>15</sup> Dayton Daily News, "Ohio Needs its Colleges To Do Well," 6/21/05  
at: <http://www.daytondailynews.com/opinion/content/opinion/daily/0621college.html>

<sup>16</sup> Chaker, Ann Marie, "Tuition Increases Start to Flow," *The Wall Street Journal*, July 19, 2004, at: [http://online.wsj.com/article\\_email/0,,SB112172973201988846-IVjfoNolah4op2vZHQIaKWCm4,00.html](http://online.wsj.com/article_email/0,,SB112172973201988846-IVjfoNolah4op2vZHQIaKWCm4,00.html)

<sup>17</sup> Kane, Thomas J. and Peter R. Orszag, *Funding Restrictions at Public Universities: Effects and Policy Implications*, Brookings Institution, September 10, 2003.

spending per full-time equivalent student has declined at public institutions relative to private institutions, from about 70 percent in 1977 to about 58 percent in 1996.

Figure 3.



Source: Policy Matters Ohio calculations from OH Legislative Budget Office historical Tables and Ohio Board of Regents, adjusted using Higher Education Price Index<sup>18</sup>

Recent tuition hikes give sticker shock to an Ohio family with a student about to enter college. Average tuition for students entering the main campus of a four-year public university in Ohio is shown as the base year (2004-05) in Table 1, below: this figure, averaged on a weighted basis from the Ohio Board of Regents database, is net of room and board and does not include summer session fees.<sup>19</sup> According to the Ohio Tuition Trust Authority, the cost of a four-year college education in Ohio will continue to appreciate into the foreseeable future.<sup>20</sup> The rate of increase allowed in annual tuition charges has been limited in the 2006-07 budget to the lesser of 6 percent annually or \$500. Table 1 provides an illustration of average actual tuition and increases that may be expected, based on historical trends and the new tuition caps, over the next five years.

<sup>18</sup> Weighted tuition numbers calculated from tuition and FTE on Ohio Board of Regents website; both are adjusted using Higher Education Price Index at: <http://www.commonfund.org/>

<sup>19</sup> Ohio Board of Regents enrollment ([http://qry.regents.state.oh.us/cgi-pub/site\\_map?name=bds\\_sid&jsflag=yes](http://qry.regents.state.oh.us/cgi-pub/site_map?name=bds_sid&jsflag=yes)) and student fees ([http://www.regents.state.oh.us/financial/Tuition\\_05.pdf](http://www.regents.state.oh.us/financial/Tuition_05.pdf)).

These figures differ from those presented by the Ohio Tuition Trust Authority for 2004-05 because they are weighted by enrollment. Enrollment figures for 2004-05 have not yet been released, so the weighted actual for 2003 is increased by the historical rate of 10 percent (averaged between 1998 and 2003) to obtain the estimated base year figure in 2004-05. Projections for academic years 2005-06 and beyond are averaged using the tuition caps imposed in the 2006-07 biennial budget.

<sup>20</sup> Ohio Tuition Trust Authority at <https://www.collegeadvantage.com/Default.aspx?tabid=35>; this table predicts a 10 percent annual increase in tuition at 4-year public universities, based on historical trends.

Table 1.

| <b>Average weighted tuition at an Ohio public university,<br/>Projected for academic years 2004-05 through 2009-10</b> |                      |          |          |          |          |          |
|--|----------------------|----------|----------|----------|----------|----------|
| School Year  | Base Year<br>2004-05 | 2005-06  | 2006-07  | 2007-08  | 2008-09  | 2009-10  |
| Average Tuition  | \$ 7,478             | \$ 7,927 | \$ 8,402 | \$ 8,902 | \$ 9,402 | \$ 9,902 |
| Increase   |                      | \$ 449   | \$ 476   | \$ 500   | \$ 500   | \$ 500   |

Source: Policy Matters Ohio. Based Ohio Board of Regents student fee data and weighted by FTE enrollment figures per institution.

Recent publicity about Ohio's economic decline masks the size and vigor of what remains. We have tremendous resources in this state and a growing body of literature supports the notion that higher education is one valuable outlet for those resources.<sup>21</sup> Without the income tax cuts enacted as part of this year's biennial budget, the state would have, by graduation day 2010, an additional \$5,670 billion to invest in education and support the state's people and economy, as Table 2, below, shows.

Table 2

| <b>Annual and cumulative cost of personal income tax cuts enacted in<br/>2006-07 biennial budget (in millions of dollars)</b> |              |              |              |              |              |
|---|--------------|--------------|--------------|--------------|--------------|
|   | <b>FY 06</b> | <b>FY 07</b> | <b>FY 08</b> | <b>FY 09</b> | <b>FY 10</b> |
| Annual loss   | -\$325.0     | -\$690.0     | -\$1,095.0   | -\$1,535.0   | -\$2,025.0   |
| Cumulative loss   |              | -\$1,015.0   | -\$2,110.0   | -\$3,645.0   | -\$5,670.0   |

Source: Ohio Department of Taxation, July, 2005. These figures do not reflect the elimination of the college tuition deduction.

Legislators could have made different choices in the last budget. Resources could have been devoted to state services like education. Instead, they chose to cut income taxes. Supporters justified this choice by arguing that it will make the state more attractive to companies looking to relocate or expand, thereby stimulating job creation. Indeed, taxes may decline appreciably for companies and managers: since the Ohio income tax is progressive, those at the top end of the income scale get significant benefits from the tax cuts.<sup>22</sup> The direct impact on most Ohio families is much more modest. In the next section, we look at the impact of the income tax cuts on middle-income families in the state.

<sup>21</sup> See, for example, Schweke, William. *Smart Money: Education and Economic Development*. Economic Policy Institute, July 2004; Bartik, Timothy, *Increasing the Economic Development Impact on Economic Development in Michigan*, Staff Working Paper number 04-106, for the W.E. Upjohn Institute for Employment Research, September 27, 2004

<sup>22</sup> Institute for Taxation and Economic Policy and Policy Matters Ohio. *Wealthiest Ohioans Gain Most From Proposed Tax Changes; Low- and Middle-Income Families, on Average, Save Little or Nothing*, 3/2005 at: [http://www.policymattersohio.org/Wealthiest\\_Ohioans\\_Gain\\_Most.htm](http://www.policymattersohio.org/Wealthiest_Ohioans_Gain_Most.htm)

DIRECT IMPACT OF TAX CHANGES ON TWO OHIO FAMILIES

To analyze the effect of the income tax cuts for middle-income families in Ohio, we conducted a simple analysis for two Ohio families. The first income level chosen for analysis was the median household income for a family of four in Ohio in 2003, the most recent year for which such data is available (\$66,066),<sup>23</sup> adjusted for future years using the Consumer Price Index projected by the Congressional Budget Office. This family has one college student starting college in academic year 2006-07. They dedicate all tax savings to tuition.

Income tax savings over the first four years amounts to \$1,237 dollars (Table 3). Over this period of time, between academic year 2006-07 and 2009-10, tuition may be expected to increase by \$1975. Tax cuts defrayed 63 percent of the increase, or 3 percent of total tuition of \$36,608. Additionally, this family receives less of a tax cut than it otherwise would have gotten because of the elimination of the college tuition deduction.

Table 3.

| <b>Tax and tuition changes for an Ohio family earning the median income for a four-person household (inflation-adjusted)</b> |  |              |                 |              |              |
|--|--|--------------|-----------------|--------------|--------------|
| <b>Former Income Tax Structure</b>   |  |              |                 |              |              |
|  | 2005 taxes,<br>due and paid<br>in 2006 | Paid in 2007 | paid in<br>2008 | paid in 2009 | paid in 2010 |
| OH Adjusted Gross Income   | \$69,478                               | \$70,798     | \$72,214        | \$73,659     | \$75,279     |
| Exemptions   | \$ 5,294                               | \$ 5,373     | \$ 5,464        | \$ 5,563     | \$ 5,663     |
| OH taxable income  | \$64,184                               | \$65,425     | \$66,750        | \$68,096     | \$69,616     |
| Deduction for College Tuition  |  | \$ 2,500     | \$ 2,500        |              |              |
| Income after deduction   | \$64,184                               | \$62,925     | \$64,250        | \$68,096     | \$69,616     |
| Tax  | \$2,581                                | \$2,504      | \$2,561         | \$2,747      | \$2,811      |
| <b>New income tax structure</b>  |  |              |                 |              |              |
| OH Adjusted Gross Income   | \$69,478                               | \$70,798     | \$72,214        | \$73,659     | \$75,279     |
| Exemptions   | \$ 5,200                               | \$ 5,200     | \$ 5,200        | \$ 5,200     | \$ 5,294     |
| OH taxable income  | \$64,278                               | \$65,598     | \$67,014        | \$68,459     | \$69,985     |
| Tax  | \$2,491                                | \$2,444      | \$2,397         | \$2,344      | \$2,292      |
| Total Tax Savings  | \$90                                   | \$60         | \$164           | \$403        | \$519        |
| Average total tuition  | \$ 7,962                               | \$ 8,439     | \$ 8,939        | \$ 9,439     | \$ 9,939     |
| Tuition Increase   | \$ 449                                 | \$ 476       | \$ 500          | \$ 500       | \$ 500       |

Source: Policy Matters Ohio; GDP deflators and CPI taken from Congressional Budget Office economic projections for 2006-2015, Appendix E (GDP price index)

Yearly income tax reduction ranges from 90 to \$403 while the income tax reduction is being phased in; in 2010, when fully phased in, tax savings for this family reach \$519, a sum that

<sup>23</sup> Hanauer, Amy, *State of Working Ohio*, 2004, Policy Matters Ohio, p. 25, at: [http://www.policymattersohio.org/pdf/sowo\\_04.pdf](http://www.policymattersohio.org/pdf/sowo_04.pdf)

covers projected \$500 annual tuition increases for their second child on an annual basis – with little left over.

The impact of income tax reductions on a family of three earning the median household income for all families in Ohio - \$43,520 in 2003, adjusted as in the prior example for a base of \$45,768 for the base year of 2006,<sup>24</sup> is more modest, as shown in Table 4. Here again, we assume that annual earnings rise with the CPI. This family's student enters college in academic year 2006-07; all tax savings are applied to the student's tuition.

Table 4.

| <b>Tax and tuition changes for an Ohio family of three,<br/>Earning median household income for all households (inflation-adjusted)</b> |   |              |                 |              |              |
|---|---|--------------|-----------------|--------------|--------------|
| <b>Former Income Tax Structure</b>  |   |              |                 |              |              |
|   | 2005 taxes,<br>due and<br>paid in<br>2006 | paid in 2007 | paid in<br>2008 | paid in 2009 | paid in 2010 |
| OH Adjusted Gross   |   |              |                 |              |              |
| Income  | \$45,768                                  | \$46,637     | \$47,617        | \$48,664     | \$49,735     |
| Exemptions  | \$3,959                                   | \$3,966      | \$3,970         | \$3,970      | \$3,900      |
| OH taxable income   | \$41,809                                  | \$42,671     | \$43,647        | \$44,694     | \$45,835     |
| Deduction for College Tuition   |   | \$ 2,500     | \$ 2,500        |              |              |
| Income after<br>deduction   | \$41,809                                  | \$40,171     | \$41,147        | \$44,694     | \$45,835     |
| Tax   | \$1,418                                   | \$1,328      | \$1,361         | \$1,519      | \$1,556      |
| <b>New income tax structure</b>   |   |              |                 |              |              |
| OH Adjusted Gross   |   |              |                 |              |              |
| Income  | \$45,768                                  | \$46,637     | \$47,617        | \$48,664     | \$49,735     |
| Exemptions  | \$3,900                                   | \$3,900      | \$3,900         | \$3,900      | \$3,967      |
| OH taxable income   | \$41,868                                  | \$42,737     | \$43,717        | \$44,764     | \$45,768     |
| Tax   | \$1,374                                   | \$1,355      | \$1,338         | \$1,319      | \$1,294      |
| Total Tax Savings   | \$44                                      | -\$27        | \$23            | \$200        | \$262        |
| Average total tuition   | \$ 7,962                                  | \$ 8,439     | \$ 8,939        | \$ 9,439     | \$ 9,939     |
| Tuition Increase  | \$ 449                                    | \$ 476       | \$ 500          | \$ 500       | \$ 500       |

Source: Policy Matters Ohio; GDP deflators and CPI taken from Congressional Budget Office Economic Projections for 2006-2015, Appendix E (GDP price index)

In the first five years of tax reductions, total tax savings for this family is \$502. For this family, facing the same tuition costs as the one making more money, tax reduction provides one quarter of total tuition hikes, roughly the average increase in just one year's tuition and just one percent of total tuition. The elimination of the college tuition deduction reduces tax savings considerably; the tax cut is wiped out entirely in one of the two years they would have been

<sup>24</sup> Hanauer, Amy, State of Working Ohio, 2004, Policy Matters Ohio, p. 24, at: [http://www.policymattersohio.org/pdf/sowo\\_04.pdf](http://www.policymattersohio.org/pdf/sowo_04.pdf)

eligible for the deduction. Average annual savings of \$100 are barely enough to buy one textbook. When income tax changes are fully implemented in 2010, this family receives \$262 annually, which would not keep up with tuition increases should their child start college in a later year.

Financial aid provisions included as part of the 2006-07 biennial budget expand aid available to students and prioritize assistance to the neediest of students. The new Ohio College Opportunity Program will be coupled to federal expected family contribution criteria, which means families of median income may now qualify for state aid, based on assets, dependents, and several other factors. While this is a step in the right direction, it helps neither of the families evaluated here. Using the federal methodology for calculating expected family contribution, the family of three analyzed here, making \$45,768 annually, qualifies for federal aid, but with an expected family contribution of about \$4,300.<sup>25</sup> Since the Ohio aid program, when fully phased in, will be reserved for families with an expected contribution of \$2,496 or less, no state aid under the new program would be available to this family. The fact remains: tuition hikes outpace tax relief for these families.

## CONCLUSION

Public services are of greater importance to families of middle and lower incomes than to families higher on the income scale, who have resources that allow choices such as the purchase of private services to replace public services. Tax changes that result in under-funding critical programs hurt most Ohio families. If declining state support for public universities puts higher education beyond the reach of increasing numbers of students, it hurts our economic future.

This year's income tax relief has a modest impact on most Ohio families, but the continuing climb in the cost of important public services – like higher education – is onerous, and should be carefully monitored. Not every family has college-bound children, and college is an extremely large, concentrated cost during college years. But this analysis demonstrates that we get very tangible benefits from public spending. When public spending is slashed, families will often find that their own expenditures increase at levels that exceed any tax savings they might realize.

There are other reasons to support government spending beyond parochial individual calculations – we all benefit when children in our communities are helped out of poverty, when parks are maintained, and when pollution laws are enforced. But we also benefit in very individual, calculable ways, and lower tuition is one of the most salient examples.

---

<sup>25</sup> Collegeboard.com, Expected Family Contribution calculator at <http://www.collegeboard.com/article/0,3868,6-30-0-409,00.html>. It is assumed here that this is a family with one earned income and a home of moderate cost; the student does not pay income tax.



**POLICY MATTERS OHIO** IS A NON-PROFIT RESEARCH INSTITUTE DEDICATED TO BRIDGING THE GAP BETWEEN RESEARCH AND POLICY IN OHIO. POLICY MATTERS SEEKS TO BROADEN DEBATE ABOUT ECONOMIC POLICY BY PROVIDING QUANTITATIVE AND QUALITATIVE ANALYSIS OF ISSUES IMPORTANT TO OHIO'S WORKING PEOPLE. OTHER AREAS OF INQUIRY FOR POLICY MATTERS INCLUDE WORK, WAGES, AND BENEFITS; EDUCATION; BASIC NEEDS; PRIVATIZATION; ECONOMIC DEVELOPMENT AND TAX POLICY. GENEROUS FUNDING HAS BEEN PROVIDED BY THE JOYCE, GEORGE GUND, CLEVELAND, ST. ANN, AND NORD FAMILY FOUNDATIONS.

2912 EUCLID AVENUE • CLEVELAND, OHIO, 44115 • 216-931-9922  
[HTTP://WWW.POLICYMATTERSOHIO.ORG/](http://www.policymattersohio.org/)