

**MISSOURI STATE AUDITOR'S OFFICE  
FISCAL NOTE (16-112)**

**Subject**

Initiative petition from Edward Greim regarding a proposed amendment to Chapters 149, 196, and 210 of the Revised Statutes of Missouri. (Received September 17, 2015)

**Date**

October 7, 2015

**Description**

This proposal would amend Chapters 149, 196, and 210 of the Revised Statutes of Missouri.

The amendment is to be voted on in November 2016.

**Public comments and other input**

The State Auditor's office requested input from the **Attorney General's office**, the **Department of Agriculture**, the **Department of Economic Development**, the **Department of Elementary and Secondary Education**, the **Department of Higher Education**, the **Department of Health and Senior Services**, the **Department of Insurance, Financial Institutions and Professional Registration**, the **Department of Mental Health**, the **Department of Natural Resources**, the **Department of Corrections**, the **Department of Labor and Industrial Relations**, the **Department of Revenue**, the **Department of Public Safety**, the **Department of Social Services**, the **Governor's office**, the **Missouri House of Representatives**, the **Department of Conservation**, the **Department of Transportation**, the **Office of Administration**, the **Office of State Courts Administrator**, the **Missouri Senate**, the **Secretary of State's office**, the **Office of the State Public Defender**, the **State Treasurer's office**, **Adair County**, **Boone County**, **Callaway County**, **Cass County**, **Clay County**, **Cole County**, **Greene County**, **Jackson County Legislators**, **Jasper County**, **St. Charles County**, **St. Louis County**, **Taney County**, the **City of Cape Girardeau**, the **City of Columbia**, the **City of Jefferson**, the **City of Joplin**, the **City of Kansas City**, the **City of Kirksville**, the **City of Mexico**, the **City of Raymore**, the **City of St. Joseph**, the **City of St. Louis**, the **City of Springfield**, the **City of Union**, the **City of Wentzville**, the **City of West Plains**, **Cape Girardeau 63 School District**, **Hannibal 60 School District**, **State Technical College of Missouri**, **Metropolitan Community College**, **University of Missouri**, and **St. Louis Community College**.

**Edward Greim** provided information as a proponent of the proposal to the State Auditor's office.

## Assumptions

Officials from the **Attorney General's office** indicated they assume that any potential costs arising from the adoption of this proposal can be absorbed with existing resources.

Officials from the **Department of Agriculture** indicated no fiscal impact on their department.

Officials from the **Department of Economic Development** indicated no impact for their department.

Officials from the **Department of Higher Education** indicated this initiative petition would have no fiscal impact on their department.

Officials from the **Department of Health and Senior Services** indicated the petition provides funds for a comprehensive tobacco control program, which is already administered by the Department. However the current funding appropriated is only 3 percent of the total funding the Centers for Disease Control and Prevention (CDC) recommends for the state of Missouri to have a fully funded comprehensive tobacco control program. The additional funds in this proposal would be used to enhance and expand the existing program and would bring the total funding available to 32 percent of CDC's recommendation (CDC recommendation is \$73 million). While Missouri currently has one of the lowest tax rates for tobacco products, it has one of the highest tobacco use rates.

Rental space for five staff located in Jefferson City, one staff in Kansas City, and one staff in St. Louis would be required: 7 full-time employees (FTE) x 230 sq ft/FTE x \$16.75/sq ft = \$26,967.50.

There is a potential to affect small businesses that sell cigarettes and other tobacco products. Research has shown that interventions that increase the price of tobacco products reduce consumption.

The petition requires that 5 percent of the net proceeds collected by the tax increases be allocated to the Missouri Department of Health and Senior Services for the purpose of establishing, maintaining, and enhancing activities, programs, and initiatives to promote tobacco use quit assistance and prevention, including a comprehensive statewide tobacco control program, and public health for tobacco-related diseases. The comprehensive statewide tobacco control program shall be consistent with the United States Centers for Disease Control and Prevention's (CDC) guidelines for tobacco control programs, and shall be designed to be effective to prevent and reduce tobacco use, reduce the public's exposure to secondhand smoke, and identify and eliminate disparities related to tobacco use and its effects among different population groups. The components of the comprehensive statewide tobacco control program shall include, but not be limited to: state and community based interventions, health communication interventions, cessation interventions, surveillance and evaluation, and administration and management.

**Revenue:**

Section 149.017, raises the tax on cigarettes to 50 mills per cigarette beginning January 1, 2017. The Office of Administration Budget and Planning estimates the total cigarette tax revenue as a result of this increase to be \$397,500,000.

Section 149.061 levies an additional 5 percent tax on the first sales of tobacco products other than cigarettes beginning January 1, 2017. The Office of Administration Budget and Planning estimates the total additional tax collected on other tobacco products to be \$7,900,000.

Section 149.017.2 requires the additional tax on cigarettes to be stamped in accordance with the provisions of existing sections 149.015 and 149.021. This creates an allowance of 3 percent of the cigarette taxes to the wholesaler for the compensation for the time required to affix the stamps.

Section 149.017.5 allows for up to 1.5 percent of the total funds collected to be appropriated from the fund to the state for the purposes of collecting and enforcing the taxes of this section. This estimate assumes that 1.5 percent will be appropriated for this use.

Section 210.102.16 allocates 5 percent of the net proceeds of money collected as provided in sections 149.017 and 149.161 to the Missouri Department of Health and Senior Services for the purpose of funding a comprehensive tobacco control program.

The estimated revenues for calendar year 2017 are calculated as follows:

Cigarette tax	\$397,500,000
Other tobacco products tax	\$7,900,000
Less 3% of cigarette tax for stamps	(\$11,925,000)
Total tax collected	\$393,475,000
Less 1.5% administrative fee	(5,902,125)
Net Proceeds	\$387,572,875
<b>5% of net proceeds for DHSS</b>	<b>\$19,378,644</b>

Since the additional tax would not start until January 1, 2017, it is assumed the first appropriation of funds for the expanded comprehensive tobacco control program would start in the 2018 fiscal year.

**Costs**

The assumptions used for calculating the cost to the Department are as follows:

**Personnel needs:**

One Planner III (Range A48, Step B):	\$45,156
Two Health Educator III (Range A25, Step B):	\$80,760
One Health Program Representative III (Range A24, Step B):	\$38,928

One Health Program Representative I/II (Range A18, Step B):	\$30,984
One Sr. Off. Support Assistant, Keyboard (Range A09, Step F):	\$25,824
One Public Health Epidemiologist (Range A32, Step A)	\$55,416

The Planner III would work with multiple partners across the state to identify, plan, and implement evidence-based programs in comprehensive tobacco control. Duties would include preparing, reviewing and approving applications for funding; supervising assigned staff; and assuring an evaluation plan consistent with Department goals for comprehensive tobacco control and chronic disease prevention is executed.

The two Health Educator IIIs would be stationed in Kansas City and St. Louis to work directly with contractors in the major metropolitan areas and surrounding counties providing technical assistance on implementing community based interventions. Duties would include technical assistance, training and education in comprehensive tobacco control issues.

The Health Program Representative III would work with the Program Coordinator, the Planner III, and the Office of Public Information to assure a media plan consistent with Department goals for comprehensive tobacco control and chronic disease prevention is executed.

The Health Program Representative I/II would be responsible for contract management, contract monitoring, invoice tracking, etc.

The Senior Office Support Assistant (Keyboard) would provide support to the staff located in field offices, including the four employees currently in the field. Duties would include such activities as making arrangements for training and travel, preparing expense reports, assembling training packets, routing and tracking program documents, and answering the phone for the program.

The Public Health Epidemiologist will oversee the surveillance and evaluation activities of the program, developing evaluation plans, assuring all interventions are appropriately evaluated, preparing evaluation reports, and coordinating collection of data on tobacco control measures.

Standards costs for equipment and expenses of staff are included in the cost estimation.

### **Program Services Costs**

Remaining funds of \$18,752,455 would be allocated in contracts for Quitline assistance, media, and local community evidence-based initiatives.

A well-funded Quitline is needed to provide on-going support in quitting tobacco use to any Missourian. The Quitline would provide cessation coaching, texting support, on-line support, and quitting medications – over-the counter and prescription to those without prescription drug benefits – as approved by the U.S. Food and Drug Administration.

A comprehensive tobacco control program must include paid media to promote health messages to adults, youth and communities on issues of not using tobacco and eliminating exposure to secondhand smoke.

Finally, contracts would be offered to local entities to implement evidence-based, community-based interventions in cessation, youth initiation, and secondhand smoke exposure. Contractors would include local public health agencies, faith-based organizations, non-profit organizations, educational institutions. These would be sought through requests for proposals (to be developed by the Planner III).

Evidence-based interventions conducted by contractors would include those supporting the goals of comprehensive tobacco control:

- Reducing tobacco use through local tobacco cessation – for example, one-on-one interventions with individuals needing face-to-face coaching or in culturally sensitive settings for those with a disproportionate burden of tobacco use.
- Reducing youth initiation through prevention – for example, youth leadership in educating their communities on why tobacco use and secondhand smoke are harmful to health, developing local-focused media.
- Exposure to secondhand smoke – for example, local coalitions educating their communities on why tobacco use and secondhand smoke are harmful to health, developing local-focused media.

Contracts could also be funded to support state and local surveillance and evaluation efforts to demonstrate the effectiveness of the funded interventions.

Officials from the **Department of Insurance, Financial Institutions and Professional Registration** indicated this petition, if passed, will have no cost or savings to their department.

Officials from the **Department of Mental Health** indicated this proposal creates no direct obligations or requirements to their department that would result in a fiscal impact.

Officials from the **Department of Natural Resources** indicated it does not appear that this proposal would have a direct fiscal impact on their department.

Officials from the **Department of Corrections** indicated no impact.

Officials from the **Department of Labor and Industrial Relations** indicated no fiscal impact on their department.

Officials from the **Department of Revenue (DOR)** indicated this petition will have a fiscal impact of \$75,006 for fiscal year (FY) 2017 on their department, creating additional expense for IT consultants, and will increase revenues for the Early Childhood Health and Education Trust Fund by \$492,700,000 annually.

If approved by voters, this petition increases the revenue stream for the Early Childhood Health and Education Trust Fund, but creates a negative impact to general revenue.

**Section 149.017**

Beginning January 1, 2017, the legislation increases the tax on cigarettes to 50 mills per cigarette (\$1.00 per pack of 20).

Stamped cigarettes in inventory prior to the effective dates of the increase and in possession of a retailer are not subject to the additional tax before retail sale. The petition also allows for up to one and one-half percent collection fee of the total moneys collected in a fiscal year.

The legislation requires the Department, in consultation with the Department of Health and Senior Services (DHSS), to annually determine if the taxes result in a decrease in consumption of tobacco products. The Departments must further determine if there are reductions in moneys collected and deposited into the fair share fund, health initiatives fund, or the state school moneys fund or local tobacco taxes.

With the additional assessed tax, the Department estimates an increase of \$459.9 million per year to the Early Childhood Health and Education Trust Fund.

**Section 149.161**

Beginning on January 1, 2017, this section, in addition to the tax levied on the first sales of tobacco products other than cigarettes in section 149.160, levies a five percent tax upon the first sale of tobacco products other than cigarettes within this state. The legislation bases the five percent increase on the manufacturer's invoice price before discounts and deals. The person making the first sale within the state pays the tax.

With the additional assessed tax, the Department estimates an increase of \$8.2 million per year to the Early Childhood Health and Education Trust Fund.

**Section 196.1003**

The amount of the excess escrow released must be for units sold during all years ending on or after December 31, 2017, zero percent.

**Section 210.102**

The section creates the Early Childhood Health and Education Act. Beginning in 2017, the Coordinating Board for Early Childhood becomes a body corporate and politic under the purview of the Department of Elementary & Secondary Education (DESE). Subsection 11 creates the Early Childhood Health and Education Trust Fund. The legislation deposits all moneys collected under sections 149.017 and 149.161, less any reductions allowed in section 149.021, into the trust fund. The legislation authorizes the collection of five percent annually of the net proceeds from the moneys collected under sections 149.017 and 149.161 to be additional funding for the Missouri Department of Health and Senior Services.

The Department estimates \$24.6 million of additional funding for the Missouri Department of Health and Senior Services as a result of this section.

**Administrative Impact:**

**Excise Tax:**

The Early Childhood Health and Education Trust Fund requires changes to SAGE 50 accounting system and cashiering records. The legislation also creates the requirement for a new form.

Officials from the **Department of Public Safety** indicated their department sees no fiscal impact due to this initiative petition.

Officials from the **Department of Social Services** indicated no fiscal impact on their department.

Officials from the **Governor's office** indicated there should be no fiscal impact to their office.

Officials from the **Missouri House of Representatives** indicated no fiscal impact to their office.

Officials from the **Department of Conservation** indicated that no adverse fiscal impact to their department would be expected as a result of this initiative petition.

Officials from the **Department of Transportation** indicated no fiscal impact to their department.

Officials from the **Office of Administration** (OA) indicated the proposal amends Sections 210.102 and 196.1003, RSMo, and adds Sections 149.017 and 149.161, RSMo.

Section 210.102, RSMo, moves the Coordinating Board for Early Childhood from the Children's Services Commission to DESE, effective January 1, 2017, changes the board membership and provides further guidance on funding and operations for the Board. Five percent of the new revenue collected is to be used by the MO Department of Health and Senior Services to establish, maintain and enhance activities, programs and initiatives to promote tobacco use quit assistance and prevention, including a comprehensive statewide tobacco control program, and public health for tobacco-related diseases. No more than 15% of these moneys may be used by DHSS to promote public health for tobacco-related diseases, such as student loan forgiveness or scholarships for medical professionals.

Section 149.017, RSMo, increases cigarette tax by 50 mills per cigarette on 1/1/2017. Section 149.161, RSMo, levies an additional 5% tax on other tobacco products beginning 1/1/2017. These monies will go to the Early Childhood Health and Education Trust (ECHET) Fund established in Section 210.102, RSMo. DOR and DHSS must annually determine whether the new taxes have caused a reduction in consumption and therefore a reduction in the amount of money collected for the Fair Share Fund, the Health Initiatives

Fund or the State School Moneys Fund and for local sales and tobacco taxes. If a reduction in consumption is found, then up to 4% of the new revenue collected is to be distributed to the various funds and political subdivisions from the ECHET Fund to hold them harmless.

Section 196.1003, RSMo, changes escrow requirements for the tobacco Master Settlement Agreement, with provisions to direct potential civil penalties to the ECHET Fund. Because this language changes what was previously approved as a “qualifying statute”, it could adversely impact future Nonparticipating Manufacturer (NPM) adjustment arbitrations.

### FISCAL IMPACT:

#### Cigarette Tax

In FY15, there was \$81.7 million in cigarette excise taxes collected. OA assumes that the average pack of cigarettes retails for \$4.50, translating to roughly 480.9 million packs sold in Missouri. OA further assumes that cigarette sales have a (0.8) elasticity. Therefore, OA estimates a tax increase of 50 mills per cigarette in January 2017 will increase the “Early Childhood Health and Education Fund” by \$198.6 million in FY17 and \$397.5 million once fully implemented in FY18.

There is no way to truly know what impact these tax increases will have on demand due to smoking cessation efforts, other state and federal regulations, and the increase in sales of e-cigarettes. However, OA estimates that the tax increase will decrease the Fair Share Fund by \$1.4 million in FY17 and \$2.8 million in FY18 and thereafter, the Health Initiatives fund by \$1.4 million in FY17 and \$2.8 million in FY18 and thereafter, and the State School Moneys Fund by \$3.2 million in FY17 and \$6.4 million in FY18 and thereafter.

Further, since cigarette sales will decrease slightly, General Revenue will be reduced by \$9.3 million, the School District Trust Fund will be reduced by \$3.1 million, and local sales tax will be reduced by \$13 million once fully implemented in FY18, from the loss of sales tax.

#### Other Tobacco Products

In FY15, there was \$17.7 million in other tobacco product excise taxes collected. OA assumes that the average unit retails for \$4.09, translating to roughly \$176.9 million in wholesales in Missouri. OA further assumes that other tobacco product sales have a (0.8) elasticity. Therefore, OA estimates this proposal will increase the “Early Childhood Health and Education Fund” by \$4.0 million in FY17 and \$7.9 million once fully implemented in FY18.

There is no way to truly know what impact this tax increase will have on demand due to cessation efforts, other state, federal, and local regulations, and the introduction of alternative products. However, OA estimates that this tax increase will decrease the



Health Initiatives Fund by \$0.3 million in FY17 and \$0.6 million once fully implemented in FY18.

Further, since other tobacco product sales will decrease slightly, General Revenue will be reduced by \$190,000, the School District Trust Fund will be reduced by \$62,000, and local sales tax will be reduced by \$260,000 once fully implemented in FY18, from the loss of sales tax.

#### Master Settlement Agreement

The escrow changes should not impact state revenues. When civil penalties are redirected to the ECHET Fund, it would be an unknown loss of potential general revenue to the state.

#### Total Impact

This proposal will increase the “Early Childhood Health and Education Fund” by \$405.4 million once fully implemented in FY18. This proposal will also decrease the Fair Share Fund by \$2.8 million, the Health Initiatives fund by \$3.1 million, and the State School Moneys Fund by \$6.4 million once fully implemented in FY18.

In addition, due to lost sales tax revenue General Revenue will be reduced by \$9.5 million, the School District Trust Fund will be reduced by \$3.2 million, and local sales tax will be reduced by \$13.3 million once fully implemented in FY18.

Officials from the **Office of State Courts Administrator** indicated there is no fiscal impact on the courts.

Officials from the **Missouri Senate** indicated no fiscal impact on their office.

Officials from the **Secretary of State's office** indicated their office is required to pay for publishing in local newspapers the full text of each statewide ballot measure as directed by Article XII, Section 2(b) of the Missouri Constitution and Section 116.230-116.290, RSMo. Their office is provided with core funding to handle a certain amount of normal activity resulting from each year's legislative session. Funding for this item is adjusted each year depending upon the election cycle with \$1.3 million historically appropriated in odd numbered fiscal years and \$100,000 appropriated in even numbered fiscal years to meet these requirements. Through FY (fiscal year) 2013, the appropriation had historically been an estimated appropriation because the final cost is dependent upon the number of ballot measures approved by the General Assembly and the initiative petitions certified for the ballot. In FY 2013, at the August and November elections, there were 5 statewide Constitutional Amendments or ballot propositions that cost \$2.17 million to publish (an average of \$434,000 per issue). In FY 2015, the General Assembly changed the appropriation so that it was no longer an estimated appropriation and their office was appropriated \$1.19 million to publish the full text of the measures. Due to this reduced funding, their office reduced the scope of the publication of these measures. In FY 2015, at the August and November elections, there were 9 statewide Constitutional Amendments or ballot propositions that cost \$1.1 million to publish (an average of

\$122,000 per issue). Despite the FY 2015 reduction, their office will continue to assume, for the purposes of this fiscal note, that it should have the full appropriation authority it needs to meet the publishing requirements. Because these requirements are mandatory, they reserve the right to request funding to meet the cost of their publishing requirements if the Governor and the General Assembly again change the amount or continue to not designate it as an estimated appropriation.

Officials from the **Office of the State Public Defender** indicated the initiative petition will not have any substantial direct impact on their office.

Officials from the **State Treasurer's office** indicated this proposal would have no fiscal impact on their office.

Officials from **Greene County** indicated that there are no estimated costs or savings to report from their county for this initiative petition.

Officials from the **City of Kansas City** indicated no fiscal impact is anticipated if this proposal is adopted.

Officials from the **City of Raymore** indicated no fiscal impact.

Officials from the **University of Missouri** indicated this initiative petition will have an undetermined fiscal impact on the university, to the extent the petition would affect any general revenue allocated to their university.

**Edward Greim** provided the following information as a proponent of this initiative petition.



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September 28, 2015

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Re: *Fiscal Note in Initiative Petitions 16-108 & 16-112*

To Whom It May Concern:

Based on the information contained in this letter and the attached letter from Tom Kruckemeyer, we propose the following fiscal note summary:

Estimated additional revenue to state government is \$395 million annually with limited estimated implementation costs or savings. The revenue will fund only programs and services allowed by the proposal. The proposal is estimated to result in no net costs or savings to local governmental entities.

### **Introduction**

The initiative allows 460,000 children to receive the early health screenings they need to grow and thrive and the early childhood development experiences that will prepare them for long-term educational success. These programs have important trickle-down effects that result in increased revenue and decreased costs at the state and local level. The initiative is accomplished by funding grants across the state to improve early childhood health and education. Funding for grants is provided by a tobacco tax, conservatively resulting in \$395 million in direct state revenue, while yielding important public health benefits.

### **Early Childhood Delivers Big Benefits**

Missouri enrolls fewer children in its state preschool program than any neighboring state, and funding for programs like Parents as Teachers has been slashed in half. All Missourians benefit



from investments in early childhood education: children start school ready to succeed; parents are able to keep good jobs and earn higher incomes; and taxpayers save money because early childhood education lowers drop-out rates, reduces crime and cuts the cost of social services. Despite clear evidence showing investing in early learning is one of the smartest investments we can make, year after year we battle with the Missouri General Assembly to fund quality early childhood education. Missouri is the 38th worst state for public pre-K funding. In 2012, the General Assembly cut \$13.2 million from early childhood programs, and Parents as Teachers remains \$19 million behind its 2009 funding.

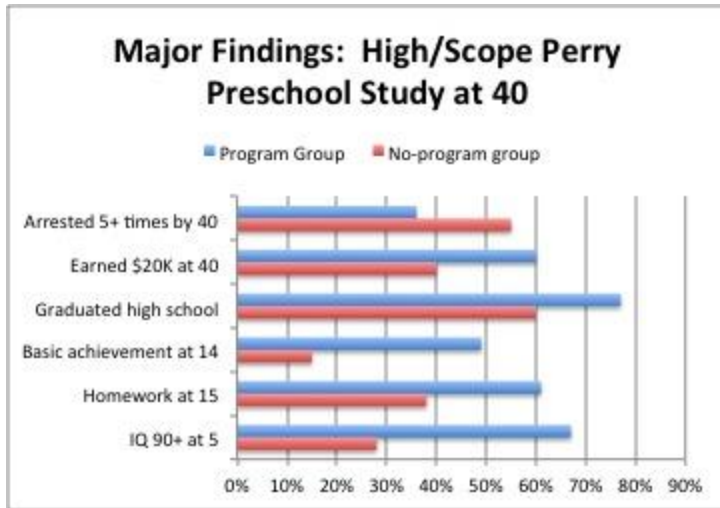
Traditional thought has long emphasized the relationship between early childhood education and academic success, but researchers now are finding that preschool does not have a substantial effect on increasing IQs but rather develops a child's "soft skills" and can have a profound effect on adult earning potential especially for disadvantaged kids.

Evidence shows that non-cognitive skills matter. Through activities like finger painting, playing with blocks, and interacting with other students, children learn how to control impulses, keep anger in check, stay on task, listen and follow curiosity. These soft skills are basic, but important tools needed to learn, find and keep a job and just manage everyday life. Most children gain these skills at home from their parents, but disadvantaged kids often miss the window of opportunity, which are the critical years before Kindergarten.

A literature of empirical evidence shows strong outcome effects for kids who attend pre-school. Using cost-benefit analyses, researchers have found a link between preschool attendance and reduced crime, fewer teen pregnancies, higher rates of college attendance and less need for public assistance. Cost-benefit studies show that pre-school provides the best value and produces more net benefits to society than increased classroom time or job training programs.

#### *Evidence from the Perry Preschool Program*

The most widely cited early childhood intervention occurred in Ypsilanti, Michigan during the 60s. Children with low IQ scores and a low socioeconomic index were invited to participate in the Perry Preschool Program. Using a coin toss, researchers divided students into two groups, a treatment group and a control group. Starting at age three the "treatment" kids got 2.5 hours of preschool a day and weekly home visits for two years. The "control" kids did not participate in either of the services. Researchers interviewed both groups at ages 15, 19, 27 and 40 and asked them questions about life events like school, work, marriage, parenting and incarceration. The following chart shows the major findings of the study.



Source: Lifetime Effects: The HighScope Perry Preschool Study Through Age 40 (2005)

The pre-school girls went farther in school, earned higher GPAs, and received less special education than girls from the control group. Boys benefitted as well, but the boys who did not receive the preschool intervention were 2.3 times more likely to get arrested. The cost-savings alone from just the crime reduction demonstrated success.

With increased scrutiny over government spending, cost-benefit analysis gives policy analysts a tool to separate productive programs from ones that yield no social gains. A recent cost-benefit study that used a wider variety of assumptions and applied more rigorous accounting rules, estimated a return rate of about 7-10%. By monetizing social crime, the researchers were able to estimate that for every dollar invested in preschool, society earned back \$30 to \$300 dollars over the course of a lifetime (Heckman, Moon, Pinto, Savelyev, & Yavitz, 2010).

#### *Abecedarian and Chicago Studies*

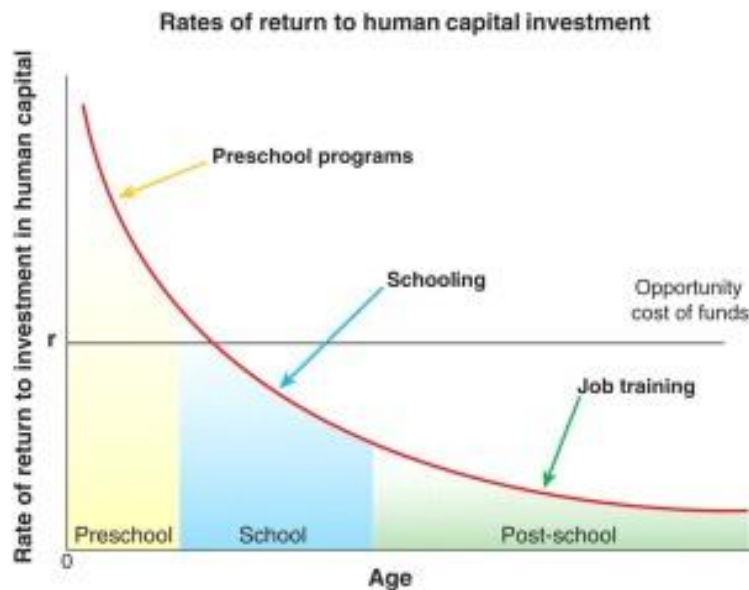
Other studies confirmed the results of the Perry Preschool Project. The Carolina Abecedarian project in the 70s randomly assigned infants into intervention and control groups. The intervention group received full-day childcare from birth through Kindergarten. Intervention kids scored higher in reading and math, completed more education, were older when their first child was born and the mothers of intervention kids progressed farther in school and made more money than the control mothers. Intervention kids even smoked less.

A full-day five-year Pre-K program, while effective, would likely be cost-prohibitive for any state budget; however, the findings proved that early intervention does make a difference. And evidence suggests that a less expensive program could produce similar outcomes (Barnett & Masse, 2007).



Just as Abecedarian kids earned higher wages than the control group, researchers found similar results from participants of the Chicago Child-Parent Program. The Chicago program targeted disadvantaged kids and provided a Headstart type intervention from ages three to nine. A cost-benefit analysis indicated for every dollar invested, the program produced seven in return. The largest impact was earning capacity, but Chicago kids were also less likely to need special education and less likely to commit crimes (Temple & Reynolds, 2007).

Much like with the Perry Program, the Chicago program demonstrated the relationship between early education, higher wages and crime reduction. Again it was the non-cognitive soft-skill development that made the difference. Second chance efforts like GED and job training provide fewer benefits and struggle to lift people out of poverty (Heckman & Masterov, 2007).



Source: Heckman, *The Review of Agricultural Economics* (2007)

What the Perry, Abecedarian and Chicago programs show is that pre-school helps kids develop soft-skills that make it easier to gain cognitive skills later and can lead to better jobs and a better quality of life. This in turn lessens the burden on government resources for remedial education, criminal justice and job-training programs.

Investing in human capital through access to finger-paints and story time may appear far-reaching, but multiple studies now point to early intervention as the cheapest, most effective way to prepare kids for the workforce and reduce crime. As labor force growth wanes and the demand for skilled workers increases, these studies suggest that a pipeline that begins at pre-school has great potential to produce big benefits to society in the long run.



Table 1  
Present value of Abecedarian benefits and costs per child (2002 dollars)

	Discount rate (%)		
	3	5	7
Program cost (net)	\$35,864	\$34,599	\$33,421
Program benefits			
Part. earnings	37,531	16,460	6376
Earnings of future generations	5722	1586	479
Maternal earnings	68,728	48,496	35,560
K-12 education	8836	7375	6205
Smoking/health	17,781	4166	1008
Higher education costs	-8128	-5621	-3920
AFDC	196	129	85
Total benefits	\$130,666	\$72,591	\$45,793
Net present value	\$94,802	\$37,992	\$12,372

### Reducing the Harmful Effects of Tobacco

Tobacco tax increases offer a win-win-win solution for states as they work to balance budgets while preserving essential public services. Tobacco tax increases are one of the most effective ways to reduce smoking and other tobacco use, especially among kids. Every state that has significantly increased its cigarette tax has enjoyed substantial increases in revenue, even while reducing smoking. Higher tobacco taxes also save money by reducing tobacco-related health care costs, including Medicaid expenses. States can realize even greater health benefits and cost savings by allocating some of the revenue to programs that prevent children from smoking and help smokers quit.

National and state polls consistently have found overwhelming public support for tobacco tax increases. Polls also show that, when it comes to balancing budgets, voters prefer raising tobacco taxes to other tax increases or cutting crucial programs such as education and public safety.

Tobacco use causes approximately \$3.03 billion in annual health care expenditures in Missouri. Smoking specifically causes over \$500 million in annual costs for the Missouri Medicaid program. The initiative petition would increase the tax on cigarettes by \$0.72 per pack and would increase the tax on other tobacco products by 5%. By conservative estimates, those tax increases would raise approximately \$395 million in new state revenue to improve early childhood health





and education programs. New state revenue is the amount of additional new revenue over the first full year after the effective date. The state will collect less new revenue to the extent that the rate increase does not apply to all cigarettes and other tobacco products held in wholesaler and retailer inventories on the effective date. This fiscal projection was derived using a price elasticity of demand for cigarettes of -0.8, even though the weight of credible academic literature suggests a conservative estimate for the price elasticity of demand for cigarettes is -0.4.

Tax increases of less than roughly 25 cents per pack or 10% of the average state pack price do not produce significant public health benefits or cost savings because the cigarette companies can easily offset the beneficial impact of such small increases with temporary price cuts, coupons, and other promotional discounting. Splitting a tax rate increase into separate, smaller increases in successive years will similarly diminish or eliminate the public health benefits and related cost savings (as well as reduce the amount of new revenues).

In addition to raising new revenue, the tax increase would have an immediate public health benefit. Each 10% cigarette price increase reduces youth smoking by 6.5%. Each 10% cigarette price increase reduces adult smoking by 2%. The total expected reduction in smoking consumption as a result of a 10% price increase is 4%. It is conservatively estimated that the initiative petition would decrease youth smoking by 6% in Missouri.

There would also be a fiscal benefit to the citizens of the state from the improved public health. As of 2014, the CDC estimated 11,000 annual average smoking-attributable deaths in Missouri. 127,500 Missouri Youth aged 0-17 are projected to die from smoking. Approximately 22.1% of Missouri adults smoke. Approximately 14.9% of Missouri high school students smoke. The average Missouri resident's state and federal tax burden from smoking-caused government expenditures is \$588 per household. Approximately one of every six pregnant women smokes, a rate significantly higher than the national average. Smoking during pregnancy increases the risk for preterm delivery, stillbirth, low birth weight and Sudden Infant Death Syndrome.

In recent years, almost every state and the federal government have increased tobacco taxes. Missouri is a notable exception. The average state cigarette tax is currently \$1.60 per pack, but rates vary widely from 17 cents in Missouri to \$4.35 in New York. On April 1, 2009, the federal cigarette tax increased by 62 cents, to \$1.01 per pack.

As of July 1, 2015, Missouri's cigarette tax was less than one-third of any of its border states: IL - \$ 1.98; IA - \$1.36; KS - \$1.29; AR - \$1.15; OK - \$1.03; NE - \$0.64; TN - \$0.62; KY - \$0.60. Moreover, Missouri's 17-cent per pack tax on cigarettes is the lowest in the country. The real value of the cigarette tax is decreasing. As a percentage of the overall Missouri State Budget, Missouri's tobacco taxes have decreased from 1.036% in 2000 to 0.464% in 2015. See MO Executive Budget Books & MO Office of Administration.

Every day 3,000 kids try their first cigarette and another 700 kids become regular smokers. There are more than 250 thousand new underage smokers each year. One third will eventually die from their addiction. Smoking has declined in every state where the tobacco tax has been increased.





Ongoing reductions in state smoking levels will, over time, gradually erode state cigarette tax revenues (in the absence of any new rate increases). But those declines are more predictable and less volatile than many other state revenue sources, such as state income tax or corporate tax revenues (which can drop sharply during recessions). In addition, the smoking declines that reduce tobacco tax revenues will simultaneously produce much larger reductions in government and private sector smoking-caused costs. See the Campaign for Tobacco-Free Kids factsheet, *Tobacco Tax Increases are a Reliable Source of Substantial New State Revenue*, <http://tobaccofreekids.org/research/factsheets/pdf/0303.pdf>.

For other ways states can increase revenues (and promote public health) other than just raising its cigarette tax, see the Campaign factsheet, *The Many Ways States Can Raise Revenue While Also Reducing Tobacco Use and Its Many Harms & Costs*, <http://tobaccofreekids.org/research/factsheets/pdf/0357.pdf>.

For more on sources and calculations, see <http://www.tobaccofreekids.org/research/factsheets/pdf/0281.pdf>

### **Additional Information on Tobacco Product Tax Increases**

*Raising State Cigarette Taxes Always Increases State Revenues and Always Reduces Smoking*, <http://tobaccofreekids.org/research/factsheets/pdf/0098.pdf>.

*Responses to Misleading and Inaccurate Cigarette Company Arguments Against State Tobacco Tax Increases*, <http://tobaccofreekids.org/research/factsheets/pdf/0227.pdf>.

*State Cigarette Excise Tax Rates & Rankings*, <http://tobaccofreekids.org/research/factsheets/pdf/0097.pdf>.

*Top Combined State-Local Cigarette Tax Rates (State plus County plus City)*, <http://tobaccofreekids.org/research/factsheets/pdf/0267.pdf>.

*State Cigarette Tax Increases Benefit Lower-Income Smokers and Families*, <http://tobaccofreekids.org/research/factsheets/pdf/0147.pdf>.

*The Best Way to Tax Smokeless Tobacco*, <http://tobaccofreekids.org/research/factsheets/pdf/0282.pdf>.

*How to Make State Cigar Tax Rates Fair and Effective*, <http://tobaccofreekids.org/research/factsheets/pdf/0335.pdf>.

*State Benefits from Increasing Smokeless Tobacco Tax Rates*, <http://tobaccofreekids.org/research/factsheets/pdf/0180.pdf>.



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*The Case for High-Tech Cigarette Tax Stamps*,  
<http://tobaccofreekids.org/research/factsheets/pdf/0310.pdf>.

*State Options to Prevent and Reduce Cigarette Smuggling and to Block Other Illegal State Tobacco Tax Evasion*, <http://tobaccofreekids.org/research/factsheets/pdf/0274.pdf>.

*The Many Ways States Can Raise Revenue While Also Reducing Tobacco Use and Its Many Harms & Costs*, <http://tobaccofreekids.org/research/factsheets/pdf/0357.pdf>.

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Sincerely,

Edward D. Greim  
Partner, Graves Garrett, LLC

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Missouri Budget Project  
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September 28, 2015

Missouri State Auditor's Office  
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To Whom It May Concern:

I currently work as the Director of Fiscal Policy and Chief Economist at the Missouri Budget Project, a nonprofit, objective, public policy analysis organization that provides independent research on complex state policy issues and how they impact the state budget. I hold a B.A. in Economics and History and an M.A. in Economics from the University of Missouri-St. Louis. I also hold an M.A. Political Science from the University of Missouri-Columbia. I worked in the Missouri Division of Budget from 1978 to 2004, where I served as the chief economist. In the course of both my positions at the Missouri Division of Budget as well as my current position, I have routinely projected the fiscal impact of tax changes.

In my experience, it is a conservative, generally accepted practice to project the revenue generated from a proposed cigarette tax by estimating an average price per cigarette (or price per pack), estimating a uniform price elasticity of demand, and to assume that the tax will result in a penny-for-penny increase in the cost of cigarettes.

Upon information and belief, the Office of Administration usually estimates the price elasticity of demand for cigarettes as -0.8. This estimate means that a 10% increase in the cost of cigarettes results in an 8% reduction in the quantity of cigarettes sold. A price elasticity of demand of -0.8 is a conservative but reasonable estimate for the price elasticity of demand of a product such as cigarettes. Notably, even with a 50 cent to one dollar increase in Missouri's cigarette tax, Missouri's cigarette tax will remain lower than many of its contiguous states, in particular the states that border major metropolitan areas, Illinois and Kansas.

Additionally, the Office of Administration's method for estimating cigarette tax revenue is conservative because it assumes a penny-for-penny price increase in the cost of cigarettes as a result of the tax. In practice, whether the entire tax increase will result in a 50 cent to one dollar increase in the prices of cigarettes is unknown because the market for cigarettes is competitive. Moreover, regardless of whether the Office of Administration estimates that the demand for cigarettes will remain flat or decrease due to societal trends, the overall fiscal impact is largely the same. An estimate of the decrease in future tax collections due to decreased smoking from societal trends is not essential to the findings in the fiscal note that this particular tax will result in a net increase to state revenue with no net cost to local governments.

If the Office of Administration decides to use the same assumptions in projecting the revenue for other tobacco products (“OTP”) as it does for cigarettes, it is my opinion that the resulting collection estimate would be conservative but appropriate. Recent trends suggest that the revenue generated from the tax on other tobacco products is increasing.

Based on generally accepted methods for estimating the fiscal impact of a proposed tax, I estimate that a phased-in 50 cent cigarette tax increase will result in approximately 90 million dollars of revenue in calendar years 2017 and 2018. I estimate that the cigarette tax will result in approximately 150 million dollars of revenue in calendar years 2019 and 2020. I estimate that the cigarette tax will result in approximately 206 million dollars of revenue in calendar year 2021. In comparison, I estimate that an immediate 50 cent cigarette tax increase will result in approximately 214 million dollars of revenue in calendar year 2017. An immediate 63 cent cigarette tax increase will result in approximately 263 million dollars of revenue in calendar year 2017. An immediate 72 cent cigarette tax increase will result in approximately 295 million dollars of revenue in calendar year 2017. An immediate 80 cent cigarette tax increase will result in approximately 323 million dollars of revenue in calendar year 2017. An immediate one dollar cigarette tax increase will result in approximately 387 million dollars of revenue in calendar year 2017. These estimates assume a 1% yearly reduction in the state’s smoking level. I estimate the 5% increase in the tax on non-cigarette tobacco products will result in approximately 8 million dollars of revenue annually. There may be a small decrease in revenue collection for each phase of the additional tax due to lags associated with the implementation and collection of taxes.

These taxes are expected to result in limited implementation costs to the state. The costs associated with administering the Early Childhood Education and Health Trust Fund will primarily be borne by the Trust Fund. Nonetheless it is proper and reasonable to consider additional costs of administering the cigarette tax increase, which may include fixed costs like salaries as well as additional marginal costs, such as costs associated with stamping cigarettes. All state government costs are estimated to be offset by additional revenue increases.

Local governments will receive revenue from the tax to offset any potential decrease in local tax revenue. Based on a price elasticity of demand of -0.8, local revenue may decrease, but any such decrease in cigarette taxes will be by an amount less than \$1 million. By any reasonable estimate, 4% of the Early Childhood Education and Health Trust Fund will exceed the decrease in revenue associated with local tobacco taxes and local sales taxes. Accordingly, any such decrease will be offset as a result local revenue from the transfer of funds to localities with local tobacco taxes and local sales taxes. Additionally, while direct local revenue is zero, there are positive indirect effects the may result in additional revenue to local governments.

Sincerely,

/s/

Tom Kruckemeyer  
Director of Fiscal Policy & Chief  
Economist, Missouri Budget Project

The State Auditor's office did not receive a response from the **Department of Elementary and Secondary Education, Adair County, Boone County, Callaway County, Cass County, Clay County, Cole County, Jackson County Legislators, Jasper County, St. Charles County, St. Louis County, Taney County, the City of Cape Girardeau, the City of Columbia, the City of Jefferson, the City of Joplin, the City of Kirksville, the City of Mexico, the City of St. Joseph, the City of St. Louis, the City of Springfield, the City of Union, the City of Wentzville, the City of West Plains, Cape Girardeau 63 School District, Hannibal 60 School District, State Technical College of Missouri, Metropolitan Community College, and St. Louis Community College.**

### **Fiscal Note Summary**

Estimated additional revenue to state government is \$367 million to \$492 million annually, with limited estimated implementation costs. The revenue will fund only programs and services allowed by the proposal. The fiscal impact to local governmental entities is unknown.