

Memorandum

To: Montana Film Office
From: Econsult Solutions, Inc.
Date: November 10, 2022
RE: Follow up from Revenue Interim Committee Meeting

On September 15, 2022, Econsult Solutions, Inc. (ESI) presented at a Revenue Interim Committee meeting regarding the MEDIA Tax Credit Program. ESI was asked to evaluate tax credit cap scenarios that may generate a tax neutral or net benefit to the State General Fund. Two questions were asked that required follow up. This memo provides those responses.

1 How are Multipliers Developed?

ESI uses IMPLAN, an industry-standard input-output modeling software to evaluate the economic impacts of film industry spending on the Montana economy. IMPLAN's analysis is based on multipliers:

“Multipliers are a measure of an Industry's connection to the wider local economy by way of input purchases, payments of wages and taxes, and other transactions. Multipliers are the total production impact within the Study Area for every unit of direct production. Total production will vary depending on the method of inclusion (whether the Induced Effects are included or not). In IMPLAN, one can find multipliers for Output, Employment, Labor Income, and Total Value Added, as well as for each of the components of Value Added: Employee Compensation, Proprietor Income, Other Property Income, and Tax on Production and Imports.”¹

According to IMPLAN documentation multipliers are calculated via matrix algebra, but most commonly and easily understood as ratios. The results of those calculations are a complete transactions table showing what every Industry needs to purchase in order to make its products and the value of every Industry's labor payments (Labor Income), taxes (Taxes on Production & Imports), and profits (Other Property Income) and what each Household income group buys.

IMPLAN's model also accounts for how much of each Commodity is produced locally, which Industries or Institutions produce it in the local economy, and how much of the production is attributed to each producer. The combination of these factors allows the application to determine, based on the entered or estimated value of Industry Output, how much of each Commodity will be required to meet the change in production of the target Industry (Gross Absorption) and how much can be obtained from local vendors (Regional Absorption). After multiple rounds of purchases are accomplished and all the spending not attributed to local vendors is lost to leakage, the resulting values spent locally on each

¹ <https://support.implan.com/hc/en-us/articles/1260803916589-More-on-Multipliers>

RE: Montana Film Office
Date: November 10, 2022

Commodity can be summed to show the total purchasing requirements for that Commodity from the local economy in dollars and cents.²

Ultimately, the rounds of spending vary by a geography's economy, though a precise number of iterations for a geography/industry is proprietary information.

2 What Taxes Are Included in the Analysis' Tax Impact Model

For the 2022 report ESI used IMPLAN's proprietary tax impact model to evaluate taxes generated to the State of Montana as well as local jurisdictions. These models are customized for every state government across the United States, using Bureau of Economic Analysis data for information on Gross Domestic Product by State and Taxes on Production & Imports less Subsidies (TOPI) as well as data from the Annual Survey of State and Local Government Finances and the most recent Census of Government Finance.³

ESI has provided on the following pages an accounting of all types of taxes considered within IMPLAN's customized/by state input-output model and how those taxes are categorized in the outputs of the analysis.

² <https://support.implan.com/hc/en-us/articles/1260803916589-More-on-Multipliers>

³ <https://support.implan.com/hc/en-us/articles/115009674528-Generation-and-Interpretation-of-IMPLAN-s-Tax-Impact-Report>

RE: Montana Film Office
 Date: November 10, 2022

TAXES INCLUDED IN TOPI

Type of Tax	Specific Taxes Included	Where Levied
Sales Tax	Alcohol, amusement, bed, cigarettes, consumption, cosmetic medical procedures, fuel, gallonage, gasoline, general sales, gross receipts, hotel, insurance premium, internet, local general, lodging, liquor, luxury, meals, occupancy, other selective, parimutuels, plastic surgery, public utilities, recycling, sin tax, state general, sewer, ticket, tobacco, transfer, occupancy, resort, sin, turnover, use, utilities, waste management, value added (VAT), vanity tax, water	State, County, Sub County General, Sub County Special
Property Tax	Boats, business personal property, intangible property, machinery and equipment, property, real estate, school	State, County, Sub County General, Sub County Special
Motor Vehicle License	License fees - business, license plates, operators license - business, registration fees - business, vehicle license - business	State, County, Sub County General, Sub County Special
Severance Tax	Carbon dioxide, crude oil, natural gas, methane, severance, timber, uranium	State, County, Sub County General
Other Taxes	Alcoholic beverage license, amusements license, business license, business registration renewal, concession license, corporation license, documentary fee, documentary and stock transfer, fishing license, franchise tax, food and beverage license fees, hunting license, gun license, mortgage recording, Nonemployee Compensation (NEC), occupation and business license, other license, permit, public utility license, tourism license, stamp tax	State, Sub County General, Sub County Special
Special Assessments	Fee, fine, special assessment, toll	State, Sub County General, Sub County Special
Excise Tax	Air transportation, alcohol, biodiesel, cable, "Cadillac" tax (high-cost employer-sponsored health insurance), charitable hospitals for failure to meet the community health needs, cigarettes, cell phone, coal, crude oil windfall profit, development impact, diesel, fuel, environmental, gas-guzzler, gasoline, hazardous materials, health insurance, indoor tanning, inspection fee, insurance receipts, jewelry, liquor, medical devices, nuclear fuel, ozone-depleting chemicals, pharmaceutical, public utilities (electric, gas, phone), refunds (other than for alcohol and tobacco), satellite, tires, storage fee, soda, telephone, tobacco, trucks, windfall profit, wireless	Federal
Custom Duty	Custom duties, export tax, import tax, tariff	Federal

RE: Montana Film Office
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OTHER PROPERTY INCOME (OPI):

Other Property Income (OPI) represents gross operating surplus minus Proprietor Income. OPI includes consumption of fixed capital (CFC), corporate profits, and net business current transfer payments. It includes income derived from dividends, royalties, corporate profits, and interest income. Thus, OPI provides a source of income for households, businesses, and governments. The other key component of OPI is corporate profits tax.

For government enterprise Industries, subsidies from different levels of government (i.e. federal to state, state to county) will show up in government enterprise OPI. Just like TOPI, I-O models by default treat OPI as a leakage, meaning that any OPI generated as part of an analysis will not generate any additional effects. This is because there is no assumption built into the model as to how, when, and where OPI will be spent.

TAXES INCLUDED IN OPI

Type of Tax	Specific Taxes Included	Where Levied
Corporate Profits	Corporate profits tax, corporate income tax, private enterprise tax, profits tax	Federal, State, County, Sub County General

SOCIAL INSURANCE TAXES:

Social Insurance taxes (commonly referred to as payroll taxes) are paid under Employee Compensation. Remember this is always a fully-loaded number so it should include all wages and benefits. They include both employee-paid and employer-paid portions and show up in the SAM and tax impact report as payments from the Employee Compensation column. All payroll taxes are paid at the place of employment; this is in contrast to personal taxes, which are discussed in the next section.

TAXES INCLUDED IN SOCIAL INSURANCE

Type of Tax	Specific Taxes Included	Where Levied
Employee Contribution	Disability, Children's Health Insurance Program (CHIP), estimated payments, Federal Insurance Contributions Act (FICA), IRA rollover, Medicare, Medicaid, non-qualified health savings account distributions, Old Age Survivors and Disability Insurance (OASDI), pay-as-you earn (PAYE), pay-as-you-go (PAYG), penalty for underpayment of estimated tax, retirement early withdrawal penalty, surtax, Social Security, survivors, State Government Retirement	Federal, State, County
Employer Contribution	Disability, hospital, Children's Health Insurance Program (CHIP), Federal Insurance Contributions Act (FICA), Federal Unemployment Tax Act (FUTA), Medicaid, Medicare, Military medical, Old Age, Survivors and Disability Insurance (OASDI), payroll, pension, Social Security, State Government Retirement, Federal Insurance Contributions Act (FICA), State Unemployment Tax Act (SUTA), survivors, retirement, Unemployment, Workers' Compensation	Federal, State, County

RE: Montana Film Office
 Date: November 10, 2022

PERSONAL INCOME TAX:

Employees pay payroll tax on their Labor Income (EC + PI) and then pay personal income tax on their Household Income, which may include more than just employment-based income. Personal income taxes are also paid on other types of income (e.g., rental income, dividend income, interest income, capital gains, retirement income). The effective personal income tax rate in IMPLAN is basically a weighted average of the individual rates of all these types, depending on the amount of each paid in a given region in a given year.

In IMPLAN, all personal income tax is assumed to be paid at the place of residence; however, in the real world, the personal tax paid on wage income (which is part of what is withheld from an employee’s paycheck) is paid to the place of employment. This is true of state and local personal taxes on wage and salary income, which are levied based on where people work.

TAXES INCLUDED IN PERSONAL INCOME TAX

Type of Tax	Specific Taxes Included	Where Levied
Motor Vehicle License	Cars - personal, motor vehicle - personal	State, County, Sub County General, Sub County Special
Other tax	Dog license, fishing license, hunting license, other personal license, pet license	State
Income Tax	Alternative Minimum, capital gain, dividend, income, individual income, interest income, Kiddie Tax (Tax on a Child's Investment and Other Unearned Income), personal income, rental income, wage income, withholding	Federal, State, County, Sub County General, Sub County Special
Estate and Gift Tax	Death, estate, gift, inheritance	Federal

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3 About Econsult Solutions, Inc

This report was produced by Econsult Solutions, Inc (“ESI”). ESI is a Philadelphia-based economic consulting firm that provides businesses and public policy makers with economic consulting services in urban economics, real estate economics, transportation, public infrastructure, development, public policy and finance, community and neighborhood development, planning, as well as expert witness services for litigation support. Its principals are nationally recognized experts in urban development, real estate, government and public policy, planning, transportation, non-profit management, business strategy and administration, as well as litigation and commercial damages. Staff members have outstanding professional and academic credentials, including active positions at the university level, wide experience at the highest levels of the public policy process and extensive consulting experience.

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