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FILM AND VIDEO TAX INCENTIVES
Estimated Economic and Fiscal Impacts

Introduction

Film and video production in the state increased dramatically in 2003 and 2004, associated with the availability of tax credits for investment in qualifying projects and the employment of Louisiana residents, as well as an exemption from state sales taxes. According to the Governor's Office of Film and Television Development (GOFTD), projects participating in the incentives and completing production in 2002 reported $11.8 million of production budget, completions in 2003 reported $188.8 million of budget, and completions in 2004 reported $354.7 million of budget. Compensation of state residents employed on projects was reported as $75,000 in 2002, $30.0 million in 2003, and $29.6 million in 2004. Prior to the availability of these incentives, production activity in the state may have averaged only about $10 million to $30 million per year, and was quite sporadic.

This increased activity has generated additional employment, income, and tax receipts. However, these benefits also come with the price tag of tax credits that must be borne by the State budget. The projects completed in 2002 generated $1.8 million of tax credits (virtually all investor credits), projects completed in 2003 generated $34.1 million of tax credits (83% investor credits and 17% employment credits), and those completed in 2004 generated $58.9 million of credits (90% investor credits and 10% employment credits).

While the credits can be taken against corporate tax liabilities, the GOFTD indicates that the credits are likely to be concentrated in personal income taxes. The first tax returns upon which these credits could be taken were returns for tax year 2002, affecting fiscal year 2002 – 2003 receipts. Returns for earlier years could be amended to utilize these credits, but the first fiscal year receipts that could be affected is still 2002 – 2003. It is not possible to know with certainty how much, if any, of the available credits have already been taken against liabilities for tax years 2002 and 2003 because these credits are combined with numerous other credits in a catchall category on returns called "All Other Credits". However, an examination of that category of credits over recent years suggests that about $15.7 million of the initial stock of credits was taken against 2003 tax liabilities, affecting fiscal year 2003 - 2004 tax receipts. Returns for tax year 2004, filed in the spring of 2005 will be the first returns with a reporting line specifically for these movie incentive credits.

It should be noted that tax credits generated by the film projects are real reductions to existing tax liabilities. While the credits are generated by economic activity that might not occur in the state in the absence of the credits, the credits are not applied against tax liabilities that might be directly associated with that new economic activity. The credits are sold to Louisiana taxpayers who have existing tax liabilities unrelated to the film

production economic activity that generated the credits. The film producers are able to reduce their cost contributions to the projects, making Louisiana an attractive place to shoot movies, while the State's tax revenues are reduced by the amount of the credits taken by taxpayers who have purchased them from the production firms. Brokers typically connect Louisiana residents seeking to buy these tax credits with production firms generating the credits.

Assumptions and Inputs

This report presents a multi-year, dynamic estimate of the total economic activity associated with the film and video incentive program, as well as the fiscal impact on state government. The estimates are based on a 70-sector economic model of the state of Louisiana, commonly known as the REMI model. The model incorporates inter-industry transactions, input substitutions resulting from changing relative input costs, migration response to changes in expected income, wage responses to changing labor market conditions, changes in local and export market share in response to changes in regional profitability and production costs, and final demand feedbacks. While a wide variety of economic variables can be estimated, this report will focus on only a few that reflect the overall impact associated with the program. The inputs and assumptions utilized in the estimates are enumerated below.

a) Nominal expenditures of $4.7 million in 2002, $75.5 million in 2003, and $142 million in 2004 are input as industry sales of the motion picture and sound recording industry. While the GOFTD reports substantially more than these amounts as the production budget of projects participating in the program, only a portion of these budgets is spent purchasing goods and services from Louisiana suppliers. An economic impact study commissioned by the GOFTD surveyed participating projects in 2003 and reported that these projects spent 37.91% of their budgets on purchases of goods and services from Louisiana suppliers (including labor). It is these purchases that stimulate the state economy, not the gross production budget of the projects. This analysis assumes 40% of production budgets are spent purchasing goods and services from Louisiana suppliers.
b) Nominal expenditures of $142 million are input as industry sales for all subsequent years (the 2004 activity level is assumed to occur permanently). To the extent that activity in subsequent years differs from this assumption, economic effects and tax credit costs will also differ from those estimated below.
c) Investment response in the motion picture industry from the direct industry sales increases is allowed to occur. It is likely that this works to overestimate the impact of this new activity. The state economy is adding capacity to support location shooting of films and videos, but the full spectrum of production facilities that characterizes the industry is not likely to be added in the near future.
d) Personal taxes are reduced by the amount of the credits generated. A reduction of $15.7 million is input during 2004, a $79.1 million reduction is input during 2005 (the backlog of initial credits generated is assumed to be worked off in 2005), and $58.96 million of reductions are input during 2006 and all subsequent years (the 2004 activity level is assumed to occur permanently). The incentives can work to stimulate the state economy in two ways; first, by resulting in increased spending through the motion picture industry and second, by increasing disposable income of Louisiana residents that reduce their tax liabilities by purchasing the credits. It is likely that this also works to overestimate the impact of this new activity because the model assumes that purchasers of the credits will increase their spending in the state to the same extent that the average consumer would increase their spending if their disposable income increased. However, the

purchasers of these credits will be considerably wealthier than the average consumer in the state and are not likely to spend as much of their gain in disposable income as assumed by the model. In fact, the purchase of credits by these residents is largely a reallocation of their savings portfolio.

e) A balanced budget is required of state government. Tax revenue lost due to the credits reduces the government spending baseline by a like amount. The credits generated are assumed to reduce the government spending baseline in the same amounts and in the same periods as personal taxes are reduced by the realization of those credits against tax liabilities: $15.7 million during 2004, $79.1 million during 2005, and $58.96 million during 2006 and all subsequent years.

Results and Interpretation

The economic and fiscal effect of this incentive program under these assumptions is estimated for a ten-year period and depicted in the accompanying table. For various reasons, dynamic analysis results tend to be generous. Even with a carefully constructed analysis and utilizing a high quality model, the results should be considered maximums. This is reinforced in this analysis by the use of assumptions that are likely to overestimate the impact of this new film production activity. Some comments about the results and how to interpret them follow.

The top block of estimates in the accompanying table, boxed in and titled "Estimated Impact with a Balanced Budget Imposed", is the estimated economic and fiscal impact of the program under all of the assumptions discussed above. The bottom block of estimates, generated without a balanced budget requirement, is included to depict the program's effects without any fiscal costs imposed. This can then be compared and contrasted with the more realistic assumptions embodied in the top block of estimates. All of the estimates are differences from a baseline projection resulting from the changes to the variables discussed above. These are not changes or growth from one year to the next, but are changes from a level that is projected to exist in the absence of the changes introduced into the model. These differences will tend to get smaller over time, even though the expenditure inputs being examined plateau, because the model incorporates diminishing marginal returns to any expansion of economic activity. However, should film production expenditures in future years exceed the level experienced in 2004 the economic gains estimated by the model will tend to stabilize or even grow larger each year.

As film production expenditures dramatically increased in 2002-2004 employment, earnings, and tax receipts all increased dramatically, as well. As film production expenditures are assumed to plateau at the 2004 level, economic and fiscal gains also stabilize. Since State government must operate under a balanced budget requirement, tax credit realizations reduce State government expenditures and employment from levels that would otherwise occur, dampening the economic gains from the film production expenditures. Tax credits begin to be realized in 2004, enough to offset state revenue gains but only modestly dampening the economic effects from the increase of film production expenditures. The tax credit backlog is assumed to be fully realized in 2005, and then stabilizes for all subsequent periods. Once credits begin to be realized, State tax credits exceed State revenue receipts. State revenue gains from stimulated economic activity settle to about 16% - 18% of State tax credit costs.

Tax revenues are also generated for local governments in amounts roughly comparable to the amounts generated for State government. However, while local governments incur costs providing the public services associated with these production activities, they do

not incur any loss of revenue associated with the tax credits. These are entirely State costs.

In addition, the tax revenue estimates generated by the model tend to be generous. These estimates are generated on the basis of the average yield of revenue from the economic tax base (employment, income, profits, etc.). This approach does not control for any of the myriad reasons that revenues are received in any particular period other than the association with the economic tax base. This tends to overestimate the change in tax revenue resulting from a change in economic activity. If the economic results of this policy simulation model were utilized in forecasting models of specific revenue sources, estimates of the additional revenue associated strictly with the additional economic activity would tend to be lower than presented here.

It should be realized that government expenditures and employment are not necessarily reduced in an absolute sense (they continue to grow from year to year), but are estimated to be less than they would otherwise be in the baseline projection. This dampens the positive economic effect of the film production expenditures but does not completely offset it. This dampening effect is the difference between the two blocks of estimates, with and without a balanced budget requirement.

The discussion above helps illustrate a significant result of the analysis. It is not the recognition of a balanced budget requirement that causes the State revenue receipts to be less than the State tax credits. Even without a balanced budget requirement and no reduction in State government expenditures relative to the baseline projection, State tax revenue receipts from stimulated economic activity do not exceed State tax credit costs. The State recoups slightly more of its tax credit costs (18% - 19%) without a balanced budget requirement, but net State fiscal effects are still negative.

This does not mean that there are no benefits associated with the program. The state's private sector economy is positively affected. Job counts are increased by over 3,000 from what they would otherwise be, and personal earnings in the state are close to $200 million higher. State tax revenues are increased by over $10 million before accounting for the tax credits. In fact, the economic and fiscal effects are fairly similar regardless of the imposition of a balanced budget requirement on the analysis. However, the economic benefits are not sufficient to provide tax receipts approaching a level necessary to offset the costs of the tax credits that stimulated the increased film production expenditures.

In addition, while only about 40% of the reported production budget amounts are actually spent purchasing goods and services from Louisiana suppliers, this also does not causes State revenue receipts to be less than State tax credits. This factor may increase over time as the infrastructure to service these productions develops in the state. However, even if 100% of the reported production budget amounts were being spent purchasing goods and services from Louisiana suppliers, the economic benefits would not be sufficient to provide tax receipts approaching a level necessary to offset the costs of the tax credits. While not included on the accompanying table, the estimated share of tax credits recovered under that scenario is in the range of 35% to 40%.

The fundamental reason why dynamic effects can not offset direct tax reductions is because the economic multipliers, that summarize the linkages in an economy, are quite small. For example, the current statewide economic multipliers, supplied by the Bureau of Economic Analysis of the U.S. Department of Commerce, for the motion picture and sound recording industries estimate that each dollar of expenditures in those industries

generates about 40¢ of earnings throughout the entire economy (a final demand earnings multiplier of 0.3982). Each $1 million of expenditures in those industries is estimated to generate about 22 jobs throughout the entire economy (a final demand employment multiplier of 22.2459). These multipliers might increase somewhat over time as the state develops its ability to service film and video production activity. However, even industries with significant longstanding presence in the state have relatively small multipliers. For example, the petroleum, chemicals, and plastics manufacturing industries have earnings multipliers that range from 0.3571 to 0.4577. Their employment multipliers range from 8.9777 to 14.8683. The fact is that the economies of states are as characterized by their leakages (spending quickly flows out of states importing goods and services produced elsewhere) as they are by the retention of spending within a state buying goods and services produced there.

In addition, the analysis in this report is based on a statewide economy, although much of the film production activity is concentrated in particular regions or metropolitan areas of the state. It is the linkages and multipliers of those areas that actually reflect the economic impact of this film production activity. This is another reason the results reported here are likely to be overestimates of the true economic activity associated with the film production expenditures. Economic multipliers tend to be smaller for sub-state regions, collections of parishes or a metropolitan area, than they are for state-level or multi-state regions. The smaller the economic region, the faster spending tends to leak out of it.

The job estimates, especially those for the motion picture industry itself, should be viewed with some qualification. The economic activity being examined, film and video production shooting, is a collection of discrete projects that purchase goods and services, and employs labor for each individual project. To the model however, a series of these projects is essentially similar to a factory starting up in the state with a one-time increase in permanent employment. To the model, each unit of job count gained is equivalent to a person becoming permanently employed in that particular job. In reality, a series of these projects are each generating job count gains that will, to some extent, be held by the same persons moving from one job opening to the next on different projects. Depending on the size of the project, preproduction activity days can range from 10 days to 40 days, and production activity days can range from 12 days to 60 days on any particular project. Thus, the job count gains estimated in this analysis will tend to overstate the actual gains in persons employed. Since the income gains result in large part from the job gains, they are also likely to be overstated in this analysis.

Conclusion

The film and video incentive program has generated additional jobs, incomes, and tax revenue for both state and local governments. These benefits occur directly through the additional spending associated with film and video production activities in the state and, to some extent, indirectly through the increase in disposable income that is realized by taxpayers that purchase tax credits. Government, especially local government, incurs the costs of providing public services associated with the production activities. In addition, State government incurs the cost of lost tax revenue when the tax credits are realized. After accounting for the dynamic effects on the economy of the additional film and video production activity, the State may expect to recoup 16% to 18% of the tax revenue it obligates to the program through the transferable tax credit mechanism. The estimates generated by dynamic analysis tend to be generous, and a number of aspects of this particular analysis work to overestimate the likely true impact of the program. Thus, the estimates presented here should be considered maximums.

FILM AND VIDEO TAX INCENTIVES
Estimated Economic and Fiscal Effects
Differences From Baseline Projection

Estimated Impact with a Balanced Budget Imposed

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Employment	158	2,366	4,168	3,651	3,607	3,414	3,203	2,989	2,785	2,596
Motion Picture Industry	102	1,508	2,670	2,537	2,387	2,277	2,174	2,077	1,985	1,900
All Other Industries	56	858	1,498	1,114	1,220	1,137	1,029	912	800	696
Total Labor & Proprietor Income	$5,257,000	$81,940,000	$161,600,000	$188,300,000	$189,100,000	$191,400,000	$191,300,000	$189,600,000	$187,100,000	$184,500,000
Wage & Salary Disbursements	$2,663,000	$41,050,000	$83,900,000	$106,100,000	$108,200,000	$110,700,000	$111,000,000	$110,000,000	$108,100,000	$106,000,000
Proprietor & Other Labor Income	$2,596,000	$40,890,000	$77,680,000	$82,150,000	$80,900,000	$80,700,000	$80,260,000	$79,660,000	$79,000,000	$78,500,000
State Revenues	$728,200	$4,633,000	$8,926,000	$11,450,000	$10,710,000	$10,630,000	$10,430,000	$10,180,000	$9,916,000	$9,636,000
Tax Credits Realized	$0	$0	($15,700,000)	($79,100,000)	($58,960,000)	($58,960,000)	($58,960,000)	($58,960,000)	($58,960,000)	($58,960,000)
Net State Tax Effect	$728,200	$4,633,000	($6,774,000)	($67,650,000)	($48,250,000)	($48,330,000)	($48,530,000)	($48,780,000)	($49,044,000)	($49,324,000)
Tax Recovery Ratio			56.9%	14.5%	18.2%	18.0%	17.7%	17.3%	16.8%	16.3%
Local Revenues	$814,000	$4,153,000	$7,798,000	$9,724,000	$9,757,000	$10,118,000	$10,340,000	$10,468,000	$10,533,000	$10,548,000

Estimated Impact with No Balanced Budget Imposed

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Employment	158	2,366	4,490	5,255	4,804	4,606	4,387	4,165	3,951	3,755
Motion Picture Industry	102	1,508	2,670	2,537	2,388	2,277	2,175	2,077	1,985	1,901
All Other Industries	56	858	1,820	2,718	2,416	2,329	2,212	2,088	1,966	1,854
Total Labor & Proprietor Income	$5,257,000	$81,940,000	$163,500,000	$198,300,000	$197,600,000	$200,300,000	$200,600,000	$199,200,000	$197,000,000	$194,700,000
Wage & Salary Disbursements	$2,663,000	$41,050,000	$85,310,000	$113,500,000	$114,500,000	$117,300,000	$118,000,000	$117,100,000	$115,500,000	$113,500,000
Proprietor & Other Labor Income	$2,596,000	$40,890,000	$78,200,000	$84,820,000	$83,060,000	$82,960,000	$82,610,000	$82,090,000	$81,520,000	$81,120,000
State Revenues	$731,500	$4,636,000	$9,147,000	$12,550,000	$11,570,000	$11,510,000	$11,320,000	$11,070,000	$10,810,000	$10,540,000
Tax Credits Realized	$0	$0	($15,700,000)	($79,100,000)	($58,960,000)	($58,960,000)	($58,960,000)	($58,960,000)	($58,960,000)	($58,960,000)
Net State Tax Effect	$731,500	$4,636,000	($6,553,000)	($66,550,000)	($47,390,000)	($47,450,000)	($47,640,000)	($47,890,000)	($48,150,000)	($48,420,000)
Tax Recovery Ratio			58.3%	15.9%	19.6%	19.5%	19.2%	18.8%	18.3%	17.9%
Local Revenues	$818,000	$4,158,000	$7,974,000	$10,607,000	$10,470,000	$10,868,000	$11,117,000	$11,266,000	$11,352,000	$11,388,000