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To: Shelley Geballe, Distinguished Senior Fellow, Connecticut Voices for Children
From: Jennifer Weiner, Policy Analyst
Date: April 2, 2009
Re: Ernst & Young Analyses of New Mexico and New York Film Tax Credits

Introduction

In January 2009 the Center released a memorandum evaluating the evidence on the costs and benefits of Connecticut's film and digital media production credit ("film tax credit").[1] This memo concluded that the credit does not pay for itself, meaning that new state tax revenues generated by activity induced by the credit are not likely to offset the entire cost of the credit. This conclusion was based primarily on estimates from a February 2008 evaluation conducted by the Connecticut Department of Economic and Community Development (DECD) which suggest that one dollar of film tax credit was offset by about 7 cents in new state tax revenue.[2]

Since the release of that memo two new studies have emerged that estimate the economic and fiscal impacts of the film tax credits offered by New Mexico and New York State, respectively.[3,4] In contrast to the Connecticut evaluation, these studies—both conducted by Ernst & Young (E&Y)—concluded that these states' film tax credits *do* pay for themselves. Specifically, the E&Y authors estimated that state *and local* governments in New Mexico earn $1.50 in new revenues for each dollar of state credits; the combined estimate for New York State and New York City was $1.90. Removing local government from the equation, the state of New Mexico earned $0.94 in estimated new revenues per dollar of credit and New York State earned $1.10 per dollar of credit.

This memo explores why the findings of the new E&Y studies diverge so drastically from the Connecticut study. There are a whole host of differences among the three studies in terms of what is being measured and how—as well as differences among the states themselves—that have likely contributed to the divergent outcomes. Although some of the methodological choices made by the E&Y authors are legitimate, there are several problems with the studies that lead us to question the accuracy of their findings. For example, neither E&Y study incorporates a balanced budget requirement (though both states have one), and neither adjusts for salaries earned by big name actors and other "above the line" personnel who are likely to reside out-of-state. Furthermore, both E&Y studies lack explanatory methodological detail, which makes it difficult to gauge whether their findings are plausible. We recommend taking all of these factors into consideration when comparing the different studies and when trying to determine the applicability of the New Mexico and New York results to Connecticut or other states.

Study differences

Table 1 provides a side-by-side comparison of the Connecticut, New Mexico, and New York studies across a variety of dimensions. For sake of contrast, Table 1 also includes two additional studies: (1) a May 2008 evaluation of the Massachusetts film tax credit conducted by the state's Department of Revenue (DOR)[5] and (2) an August 2008 evaluation of the New Mexico film tax credit conducted by Popp and Peach, researchers at New Mexico State University.[6] Hereafter the Popp and Peach study is referred to as New Mexico I and the more recent E&Y study of the New Mexico credit as New Mexico II.

As Table 1 clearly indicates, there are many differences across the studies that have likely contributed to their divergent findings. Differences are discussed in more detail below.[7]

- **State versus local revenues.** Although the New Mexico II and New York studies do report state-only estimates, most news reports have tended to focus on the larger combined state and local figures of $1.50 and $1.90 in revenue per dollar of credit. On the other hand, the Connecticut study—like the New Mexico I and Massachusetts evaluations—considers only state effects. Even if one *were* to consider local revenue impacts in Connecticut, it is not clear whether such impacts would be of the same magnitude as those estimated in the New Mexico II and New York studies. The size of the local revenue impact will likely depend on the existing mix of state and local taxation. The New York study, for example, might be expected to have a higher than average local revenue impact due to the fairly high level of local taxation in New York City, which is where the study is focused.[8]

  This begs the question, *should* local revenues be considered? There is not necessarily a right or wrong answer. Tax credits that spur new revenues at the local level may indeed be desirable to state policy makers, although from a state budget perspective, new *state* revenues are likely to be most important. However, increased local revenues may benefit state budgets if they support reductions in the amount of aid granted to cities and towns.

- **Models and methods.** Researchers often turn to one of several "input-output"-type models to estimate the economic impacts of a particular policy in a state or region. Generally speaking, these types of models are designed to relate spending in one sector of a state's economy to spending in other sectors—though the nature of the inter-sector relationships may vary from one model to another. In the context of film tax credits, these models can capture how increases in film production expenditures ripple through the rest of the state's economy.

  Both the New Mexico studies and the New York study use one such model—IMPLAN—to estimate the economic impacts (output/production value, income, and employment) of their respective film tax credits. In general, these studies estimate fiscal impacts by applying historical ratios of tax collections to personal income to the income estimates generated by IMPLAN. The Connecticut and Massachusetts studies rely on a different model—REMI—to estimate most economic and fiscal impacts.

While we do not advocate for one particular model, we want to point out that differences in the models—and, importantly, how researchers employ them—can contribute to differences in findings. This is perhaps best exemplified by the two New Mexico studies: Even when comparing like-components of the two studies (new state revenues generated by film production spending), the estimated a fiscal impact in New Mexico II was about three times that of New Mexico I. An inspection of the two studies suggests that the difference in magnitude is driven largely by a "calibration" of the IMPLAN model performed by the E&Y authors in New Mexico II, though the study provides few details about how this calibration was accomplished. Unfortunately a lack of methodological detail is not unique to the New Mexico II study; rather it is a problem that seems to plague most tax credit evaluations.

- **Balanced budget requirements.** Due to balanced-budget requirements most state governments offering a tax credit must either cut spending or increase other taxes to offset the loss in tax revenues attributable to the credit. Either action is likely to have negative effects that offset the economic benefits of the credit, thus reducing the incremental tax revenues the government will collect. The Connecticut study accounts for this by balancing the initial cost of the film tax credit with a reduction in state government spending; the New Mexico (I and II) and New York studies do not address this issue. The Massachusetts study included two scenarios—one with a balanced budget requirement and one without. The fiscal impact *with* a balanced budget requirement was estimated to be 20 percent lower than without it. Though the effects of such a requirement would likely differ from state-to-state based on factors such as the state's government spending multiplier and tax code, the findings from Massachusetts imply that the effects are not trivial. It is also worth noting that the need to balance the budget exists even if, over the long run, film tax credits "pay for themselves and then some." Most of the fiscal costs of film tax credits are incurred early, while many of the fiscal benefits occur over time. As a result, some short-term financing is necessary, which will exert negative economic effects.

- **Level of credit-assisted film activity actually induced by the credit.** When estimating the impacts of a film tax credit, it is important to distinguish between film activity that is actually induced by the credit versus activity that would have occurred in the credit's absence. The Connecticut, New Mexico, and New York studies all assume that the film projects receiving credit assistance were actually induced by the credits. This assumption may overstate the true impact of a state's film tax credit to the extent that some film projects would have located in that state even if there was no tax credit available. Only the Massachusetts study attempts to distinguish between the two, assuming that some small portion of credit-assisted film activity would have occurred without the credit.

  Although the Connecticut, New Mexico, and New York authors have all used a similar assumption, the justifiability of that assumption may differ from state to state. Indeed, it may be least justifiable in New York, given that New York City has long been an established film production center. One would expect some film makers—attracted by the existing pool of specialized labor and services—to locate in New York even in the absence of the state's 30 percent credit.[9]

- **Impact of film production spending that is not credit-eligible.** Most state film tax credit programs include two levels of eligibility criteria. First, there are criteria to determine whether a particular film project is eligible to receive any credit assistance. Once a project's eligibility is established, there are typically additional criteria that dictate what types of production expenditures incurred for that project are eligible or "qualified" to generate credits. The New Mexico II, New York, and Connecticut studies all capture some level of production spending that does not qualify for tax credits even though the film projects themselves are credit eligible. This makes sense: To the extent that these projects were induced by the credit, these "non-qualified" expenditures would not have occurred in the credit's absence, and thus are attributable to the credit. Furthermore, like qualified spending, non-qualified spending can also cycle through the state's economy, generating jobs and income.

  The E&Y authors go a step farther in the New York study. Here the authors also estimate the impacts of production spending on film projects that are NOT receiving credit assistance. Their rationale for this is that the film tax credit helps the state to maintain its film industry "cluster", which in turn leads to the retention of production activity not eligible for the credit that would have otherwise gone elsewhere. It is indeed possible that a growing film industry in Connecticut could attract film-related activity that is not eligible for the Connecticut film tax credit. However, the economic and fiscal impact of Connecticut's non-eligible activity may not be as large or immediate as in New York, which already had an established film industry to begin with.

- **Impact of post-production spending.** In the New York study the E&Y authors also estimate the economic and fiscal impacts associated with post-production activity—work such as editing, sound editing, and special effects that take place after filming is completed—as a separate category. The authors argue that the credit has allowed New York to retain post-production activity that would otherwise have left the state. While potentially a plausible argument, it is important to capture both the benefits and costs of retaining this activity. Post-production spending associated with credit-eligible projects counts as "qualified" spending under certain criteria. Thus, when calculating the total cost of film tax credits granted, the authors should consider credit dollars generated by all eligible film-related spending, including post-production spending. It is not clear whether or not the authors consider the costs of credits granted for post-production activity in New York, which means that their calculated overall return on investment may be overstated.

- **Impact of film tourism.** As noted in the Center's earlier memo, increased film production in a state may lead to increased tourism, which can have economic and fiscal benefits. However, attributing tourism spending to a film tax credit is difficult, if not impossible. In the New Mexico II study, the E&Y authors attempt to estimate levels of film-related tourism using results from a survey completed for the state's tourism department. Based on their calculations, tourism represents between 25 and 40 percent of the estimated economic impact of the state's film tax credit, depending on the outcome measure—i.e. output, income, or employment—used. Unfortunately the authors provide limited detail on the specifics of the survey makes it

difficult to assess whether their findings are reasonable or whether other states could expect to enjoy a similar benefit.

- **Impact of capital expenditures for film infrastructure.** As the E&Y authors note in the New Mexico II study, the expansion of film infrastructure through construction and equipment purchases induced by the film tax credit will have ripple effects throughout the state economy. The New Mexico II study estimated the level of capital expenditures attributable to the credit in a single year(2007) based on "…survey responses by New Mexico businesses that indicated they had expanded their businesses due to the increase in New Mexico film production activity assumed to result from the continued support of the film tax credit program." The authors note that 85 percent of capital expenditures in that year were associated with the construction of a single large film production facility—Albuquerque Studios.

  It is important to recognize that the ripple effects associated with a construction project are likely to represent one-time impacts, not to repeat from year-to-year. The reason is simple: A facility like Albuquerque Studios, once built, will not be torn down and reconstructed the following year. It is available to serve film production undertaken in future years. The estimated impact of film infrastructure spending in a year without the construction of a large in-state film studio would likely be much smaller; thus the year chosen by the E&Y authors may be unique.

  One could also estimate the economic and fiscal impacts of film infrastructure spending in Connecticut, though again it would be important to recognize the one-time nature of these impacts. Connecticut's return on investment would also likely be different from New Mexico's because Connecticut offers a separate tax credit for film infrastructure. Thus, any analysis considering the impacts of infrastructure investment there would need to take into account the costs to the state associated with the infrastructure credit, not simply the credit on production spending.

- **Earnings of above-the-line workers.** The Connecticut study excludes salaries paid to above-the-line (ATL) workers (e.g. producers, directors, and principal actors) when calculating the total amount of production spending induced by the film tax credit and its impact on the Connecticut economy. The rationale for this is that many of these workers do not reside in Connecticut, and thus are not likely to spend a large portion of their earnings in-state. Regardless of where they live, these individuals may be more likely to save than spend their earnings, which would also prevent them from indirect effects through the economy. However, such compensation is subject to the state income tax in the state where it is earned, regardless of whether or where it spent or saved. Excluding these earnings from the analysis completely—as the Connecticut authors appear to do—could serve to understate new revenues generated by the credit. Applying a marginal tax rate of five percent to the excluded ATL compensation in the Connecticut study would raise the estimated new revenues per dollar of credit by roughly 4 cents.

On the other hand, including all salaries paid to ATL workers—as the authors of the New Mexico (I and II) and New York studies appear to do—may overstate the economic impacts of the state film tax credits and associated revenues. Of course, to the extent that many in the film industry do live in these places and spend their money there—New York City in particular comes to mind—this may be less of a concern.[10]

The Massachusetts study attempts to address both issues: The authors of that study exclude 90 percent of payroll expenses for non-resident workers—many of whom are likely to be ATL—when estimating the economic impacts of that state's credit. However, they do include the Massachusetts income taxes that would be paid on this compensation when estimating the credit's fiscal impact.

State differences

Table 2 attempts to calculate more comparable estimates of new revenues per credit dollar for each study by adjusting for some of the factors discussed above. Although these adjusted estimates still do not represent an "apples-to-apples" comparison, they can provide some insight into the magnitude of the factors driving the differences in the effects found in the various studies. While some of the remaining variation is likely to be attributable to additional methodological variation, some portion is due to differences among the states themselves.

As alluded to in the above discussion, a particular state's characteristics can influence the impact of its film tax credit. Various factors—including the size of the state's film industry before the initiation of a film tax credit, the age of the state's credit program vis-à-vis those of other states, the geographic location of the state, and the nature of its economy and tax system—may affect the economic and fiscal impacts of a film tax credit. For example, a state like New York with an established film industry may see greater economic and fiscal returns to its credit than other states. Filmmakers that choose New York City because of the available film tax credits can take advantage of the specialized labor force and services that already exist; they may not have to import these components of the film production process from other states. As a result, money paid to these workers and firms stays in New York's economy. Production companies filming in Connecticut, on the other hand, may be required to hire New York workers or buy services from New York businesses. If this is the case, much of the income generated by these transactions will likely leave the state, thus reducing the potential benefit to Connecticut's residents.[11]

Net cost per job

Our earlier memorandum noted that the net cost per job created is a common metric for assessing the cost-effectiveness of a business tax credit. Table 3 presents estimates of net cost per job created for each of the five film tax credit evaluations examined. The top panel of Table 3 calculates net cost per job without making adjustments for any of the cross-study differences accounted for in Table 2. All jobs are considered, including those associated with film infrastructure and tourism (New Mexico II) and non-eligible film projects and post-production activity (New York). For New York, the estimated

cost per job is negative—meaning that, on net, the state earns new revenue for each job created. This is the expected result given that the E&Y authors estimated that each dollar of credit would yield more than one dollar in new revenues. For the other studies the estimated net cost per job ranges from about $300 in New Mexico II to over $33,000 in Connecticut.

The bottom panel of Table 3 also calculates estimates of net cost per job, but adjusts both revenues and employment estimates to account for selected cross-study differences. Here net cost per job estimates range from about $7,500 in New Mexico II to close to $32,000 in Connecticut. Surely some of this disparity is driven by differences among the state themselves, though there may be other methodological differences still unaccounted for. For example, the Connecticut and Massachusetts studies both explicitly report the number of full-time equivalent (FTE) jobs, whereas it is unclear whether the employment figures reported in the New Mexico and New York studies represent FTE jobs or a total count of full- and part-time positions. If it is the latter, the employment effect and the relative cost-effectiveness of the film tax credits in those states vis-à-vis the credits in Connecticut and Massachusetts would be overstated.

The estimates in Table 3 represent one-year costs and employment effects. Because of the short-term nature of most film projects, jobs induced by a film tax credit will likely disappear unless a state can maintain a steady stream of film activity. To the extent that a state will have to continue to provide additional tax credits each year to generate a sustained level film activity, the net cost per *permanent* job created will likely be higher than the estimates presented in Table 3.

Summary

There are many factors driving the divergent findings between new evaluations of film tax credits in New Mexico and New York with older evaluations from other states, including Connecticut. As detailed in this memo, a large portion of this divergence is due to differences in the scope and methodologies of the studies, but differences in characteristics among the states themselves are also likely an important factor. In some cases, state characteristics drive the methodological decisions made by the researchers conducting the evaluations, however, some of the decisions of the E&Y authors—such as the failure to include a balanced budget requirement—cannot be easily justified. Based on this review we urge caution in drawing the conclusion that the return on investment estimated for one state's film tax credit can necessarily be achieved by another state.

Endnotes

[1] Jennifer Weiner. January 19, 2009. Memorandum re: Cost-benefit analysis of Connecticut's film tax credit. The New England Public Policy Center, The Federal Reserve Bank of Boston, Boston, MA.

[2] Stanley McMillen, Kathryn Parr, and Troy Helming. February 2008. "The Economic and Fiscal Impacts of Connecticut's Film Tax Credit." Hartford, CT: Department of Economic and Community Development (DECD) The estimate of 7 cents in new revenues per dollar of credit is based on a single year, 2007. The present discounted value of new revenues over six-year period, assuming no tax credits were granted after 2007, would be about 8 cents. The DECD also projected changes government spending stemming from the tax credit. Reductions in government spending would provide an additional offset per credit dollar of 13 cents in 2007, and but only 3 cents (present discounted value) over the six-year period.

[3] Ernst & Young. January 2009. "Economic and Fiscal Impacts of the New Mexico Film Production Tax Credit." Prepared for the New Mexico State Film Office and State Investment Council.

[4] Ernst & Young. February 2009. "Estimated Impacts of the New York State Film Credit." Prepared for the New York State Governors Office of Motion Picture and Television Development and the Motion Picture Association of America.

[5] Massachusetts Department of Revenue. May 19, 2008. Letter to Representative Steven D'Amico. An updated of this analysis, originally slated for release in December 2008, is forthcoming.

[6] Anthony V. Popp and James Peach. August 2008. "The Film Industry in New Mexico and the Provision of Tax Incentives." A Report Submitted to the Legislative Finance Committee of the State of New Mexico. Arrowhead Center. New Mexico State University. Las Cruces, NM.

[7] Another difference between the Connecticut study and the studies from other states is that the DECD authors also project changes in state spending resulting from changes in economic activity induced by the film tax credit. This does not directly affect the estimated revenue impact, but does affect the estimated net cost of the credit. We address this in our calculations in Table 3.

[8] According to the E&Y study, New York City would gain additional revenue from the property tax, individual income tax, corporate income tax, general sales tax, other selective sales taxes, and other taxes. In contrast, local governments in Connecticut are more limited in their taxing ability, relying predominantly on property and real estate conveyance taxes.

[9] Although New York State's film tax credit rate—30 percent—is equal to that of Connecticut, New York's credit is actually less generous because it does not count certain "above-the-line" costs in the calculation of the credit including costs of stories and scripts, and wages for writers, directors, producers and performers (other than extras without spoken lines). The fact that New York attracts film activity despite having a less generous credit demonstrates that film makers do consider factors beyond tax incentives when deciding where to locate.

[10] The fact that New York does not count the earnings of above-the-line personnel in the calculation of its film tax credit can help to explain why New York's credit may legitimately yield a higher return on investment on induced film projects than credits in other states. Consider this illustrative example: a credit-induced project has an overall budget of $20 million, $8 million of which represents compensation to above-the-line employees. In New York State this project would receive a credit worth $3.6 million (30 percent x $12 million), whereas in Connecticut the same project would earn a credit worth $6 million (30 percent x $20 million). Even if the additional revenue generated by the new film activity was the same in both states (the "return"), the initial state investment in New York would be lower, translating into a higher return on investment.

[11] The geographic proximity of Connecticut to New York City may actually help the state garner more film activity if film makers are attracted to the state because they know they can rely on New York's more established industry for specialized labor and services. In other words, Connecticut may see more productions, but the benefits accruing to the state from each

production may be tempered by the fact that at least some of the income generated will flow to New York rather than Connecticut residents. A recent working paper from Cornell University discusses the interrelationships between Connecticut and New York. See Susan Christopherson and Ned Rightor. October 2008. "The Creative Economy as 'Big Business': Evaluating State Strategies to Lure Filmmakers." Cornell University. Economic Development: Communities and Regions Working Paper Series.

Table 1: Comparison of film tax credit evaluations

	Connecticut (DECD)	Massachusetts (DOR)	New Mexico I (Popp & Peach)	New Mexico II (Ernst & Young)	New York (Ernst & Young)
Estimated new revenue per credit dollar	$0.07 (state only)	$0.18-$0.23 (state only)	$0.14 (state only)	$0.94 (state only) $1.50 (state & local)	$1.10 (state only) $1.90 (state & city)
Model/methods used	Economic and fiscal impacts estimated with REMI.	Direct employment impacts estimated based on data from credit applications. Fiscal impacts of direct payroll spending calculated based on assumed effective tax rates. Other impacts estimated with REMI.	Economic impacts estimated with IMPLAN. Fiscal impacts based on historical relationships between tax collections and personal income.	Economic impacts estimated with IMPLAN, as calibrated by the authors. Most fiscal impacts based on historical relationships between tax collections and personal income.	Economic impacts estimated with IMPLAN (adjusted by authors for estimation of post-production impacts). Fiscal impacts based on historical relationships between tax collections and personal income.
Does the study assume a balanced budget requirement?	Yes	Yes	No	No	No
Are all projects receiving a credit assumed to be induced by the credit?	Yes	No; assumes that 5 to 10 percent of spending was for projects not induced by credit.	Yes	Yes	Yes
Does the study include impacts of non-qualified in-state spending on projects receiving a credit?	Yes	No	No	Yes	Yes
Does the study include impacts of any in-state spending on projects NOT receiving a credit?	No	No	No	No	Yes; the authors assume that some projects not receiving a credit were actually induced by the credit program due to a clustering effect.
Does the study separately measure the impacts of in-state post-production spending?	No	No	No	No	Yes
Does the study include impacts associated with increased tourism?	No	No	No	Yes	No
Does the study include impacts of film-related capital expenditures?	No	No	No	Yes	No
Does the study make any adjustments for compensation of above-the-line workers?	Yes; excludes compensation to primary producers, executive producers, primary directors, principal cast, and supporting cast.	Yes; excludes 90 percent of compensation to non-residents, assumed mostly to be above-the-line workers when estimating economic impacts.	No	No	No

Notes:

Estimated new revenue per credit dollar are all assumed to represent short-term (i.e. one-year) impacts. The Connecticut study also projects revenue impacts over a six-year period, though most of the impact does occur in the first year. The present discounted value of all revenue impacts over this period suggests Connecticut will earn $0.08 per credit dollar.

In the New Mexico I study, the portion of the gross receipts tax distributed to local governments is counted as state revenue. The New Mexico II state-only estimates exclude this.

Table 2: Calculation of adjusted revenues per credit dollar

	Connecticut (DECD)	Massachusetts (DOR)	New Mexico I (Popp & Peach)	New Mexico II (Ernst & Young)	New York (Ernst & Young)
Estimated new state revenue per credit dollar	$0.07	$0.18	$0.14	$0.94	$1.10
Subtract revenue associated with:					
Capital expenditures (NM II)				$0.12	
Film tourism (NM II)				$0.34	
Non-eligible projects (NY)					$0.30
Post-production activity (NY)					$0.20
Balanced-budget requirement (NM I, NM II, NY)			$0.03	$0.10	$0.12
Add revenue associated with:					
Income taxes paid by above-the-line workers (CT)	$0.04				
Estimated new state revenue per credit dollar (adjusted)	$0.11	$0.18	$0.12	$0.39	$0.48

Notes:

The adjustment for the balanced budget requirement assumes that that new state revenues, after other subtractions, would be offset by 20 percent. This assumption is based on results from the Massachusetts study, which found new revenues in the balanced budget scenario to be approximately 20 percent lower than new revenues in the non-balanced budget scenario.

New state revenues associated with capital expenditures and film tourism taken directly from New Mexico II study.

The New York study does not provide separate fiscal impacts for eligible projects, non-eligible projects, and post-production activity. Figures in this table estimated by apportioning total new state revenue to each category based on its share of the overall impact on personal income.

Estimated state income taxes associated with above-the-line workers were estimated by multiplying the total amount of compensation for these individuals excluded from the study ($13.8 million) by the marginal individual income tax rate (assumed to be 5.0 percent).

Table 3: Net cost per job created

	Connecticut (DECD)	Massachusetts (DOR)	New Mexico I (Popp & Peach)	New Mexico II (Ernst & Young)	New York (Ernst & Young)
Panel 1: Unadjusted					
Estimated new state revenue per credit dollar (unadjusted)	$0.07	$0.18	$0.14	$0.94	$1.10
Net cost per dollar of credit granted	$0.80	$0.82	$0.86	$0.06	($0.10)
Total assumed credits granted in study period (millions)	$16.5	$100.0	$38.2	$47.1	$184.4
Total estimated net cost (millions)	$13.2	$82.1	$32.8	$2.8	($18.4)
Estimated jobs created (unadjusted)	395	3,023	2,434	9,209	19,512
Estimated net cost per job created	$33,418	$27,158	$13,495	$307	($945)
Panel 2: Adjusted for study differences					
Estimated new state revenue per credit dollar (adjusted)	$0.11	$0.18	$0.12	$0.39	$0.48
Net cost per dollar of credit granted	$0.76	$0.82	$0.88	$0.61	$0.52
Total assumed credits granted in study period (millions)	$16.5	$100.0	$38.2	$47.1	$184.4
Total estimated net cost (millions)	$12.6	$82.1	$33.8	$28.9	$95.9
Estimated jobs created (unadjusted)	395	3,023	2,434	9,209	19,512
Subtract jobs associated with:					
Capital expenditures (NM II)				1,553	
Film tourism (NM II)				3,827	
Non-eligible projects (NY)					5,398
Post-production activity (NY)					3,242
Estimated jobs created (adjusted)	395	3,023	2,434	3,829	10,872
Estimated net cost per job created (adjusted)	$31,810	$27,158	$13,885	$7,543	$8,825

Notes:
See Table 2 for calculation of adjusted estimated new state revenue per credit dollar.

Net cost per dollar of credit granted is calculated as $1 - estimated new state revenue per credit dollar, except for Connecticut where we have also subtracted an additional $0.13 in reductions in government spending projected by the DECD authors. Other studies did not report changes in government spending in 2007 resulting from film tax credits.

Total estimated net cost is calculated as net cost per dollar of credit granted x total assumed credits granted in study period.

Estimated net cost per job created is calculated as: total estimated net cost x $1,000,000 ÷ estimated jobs created. Here a negative value implies that, on net, the state gains revenue for each job created. Estimated jobs created for Massachusetts represents the mid-point of the range estimated by the DOR.