

U.S. State- Level Tax Incentives for R&D and the Film Industry

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I. Introduction

Tax credits are widely used by state governments to encourage in-state innovation and attract investors to contribute to the state's economic growth. While the United States' 2015 Budget has clearly demonstrated that investing in R&D is one of the federal government's top priorities, individual states have also enacted their own innovation-related tax incentive programs.¹ In fact, over the last two decades, R&D tax credits have become increasingly generous and some surpass federal credits.²

This memo will focus on the R&D and film tax credits provided at the state-level in California, New York and Massachusetts. Following a review of these tax incentives, this memo will provide an analysis of the findings and identify trends related to state-level tax incentives in the United States.

II. California R&D Tax Credit

a. Who is eligible/beneficiaries

Taxpayers who have paid or incurred qualified research expenses while conducting qualified research activity in California. Beneficiaries can receive 15% of the excess of current year research expenditures over a computed base amount (minimum of 50% of the current year research expenses) or a 24% credits for basic research payments to third party organizations.³

¹ USA Innovation Tax Incentives (BHH Draft), Jan 2001, p.3

² Daniel J. Wilson. "Beggar Thy Neighbor? The In-State, Out-of-State, and Aggregate Effects of R&D Tax Credits", *The Review of Economics and Statistics*, Vol. 9, No. 2 (May 2009) at 431. [Wilson, "Beggar Thy Neighbor?"]

³ State of California, "Business Investment Guide", March 2015, at 7, online: <https://www.business.ca.gov/Portals/0/CalBiz/Documents/California%20Business%20Investment%20Guide%20-%20July%202014.pdf> [State of California, "Business Investment Guide"]

b. Allowable expenditures

Qualified research expenses (QRE) include wages, supplies and contract research costs incurred in California. Qualified wages as defined by the IRC §3401(a) are for services that directly relate to the service activities and are paid or incurred by the taxpayer. Supplies include tangible property that is used directly for the research activity or that is utilized for the development of a prototype. However, supplies do not include land or improvements to land, property subject to the allowance for depreciation, utilities (phone and electricity), small tools or shipping costs. Contract research expenses are amounts paid to consultants or non-employees to perform qualified research in California

c. Requirements and limitations of the credit

The research must be conducted within California and include basic or applied research of scientific inquiry, original investigation for the advancement of scientific or engineering knowledge or improved function of a business component.

As per the California Revenue and Taxation Code §§ 17052.12 and 23609, qualified research must meet all four of the requirements set out in the Internal Revenue Code (IRC) §41(d)(1):⁴

1. Qualify as a business deduction under IRC §174.⁵
2. Be undertaken to discover information that is technological in nature.⁶
3. Be undertaken to discover information intended to be useful to develop a new or improved business component of the taxpayer.⁷
4. Substantially all activities involve a process of experimentation. "Substantially all" means 80 percent or more of the research activities involve a process of experimentation.⁸

⁴ California Franchise Tax Board, "Research & Development Credit: Frequently Asked Questions", at 3, online: <https://www.ftb.ca.gov/forms/misc/1082.pdf> [California Franchise Tax Board, "Research & Development Credit: Frequently Asked Questions"]

⁵ IRC §41(d)(1)(A)

⁶ IRC §41(d)(1)(B)(i)

⁷ IRC §41(d)(1)(B)(ii)

Any unused amount may be carried forward until none remains.⁹

d. Refundability, and if any exists, what it is refundable against

The California R&D Tax Credit is not refundable. Any R&D credit that is not used to offset the qualified taxpayer's income or franchise tax must be carried over to future years until none remains.¹⁰

III. California Film & Television Tax Credit Program

a. Who is eligible/beneficiaries

Taxpayers and production companies may claim tax credits for up to 25% of qualified expenditures for film or television projects that are produced in California. The California Film Commission (CFC) offers three tax credits:¹¹

1. 20% non-transferable tax credit for non-independent productions (with the additional 5% uplift if spending occurs on visual effects performed in the state, music scoring and/or music track recording, qualified wage and non-wage expenditures outside the “Los Angeles zone”)
2. 25% transferable tax credit for independent productions
3. 25% non-transferable tax credit for non-independent relocating television series

⁸ IRC §41(d)(1)(C)

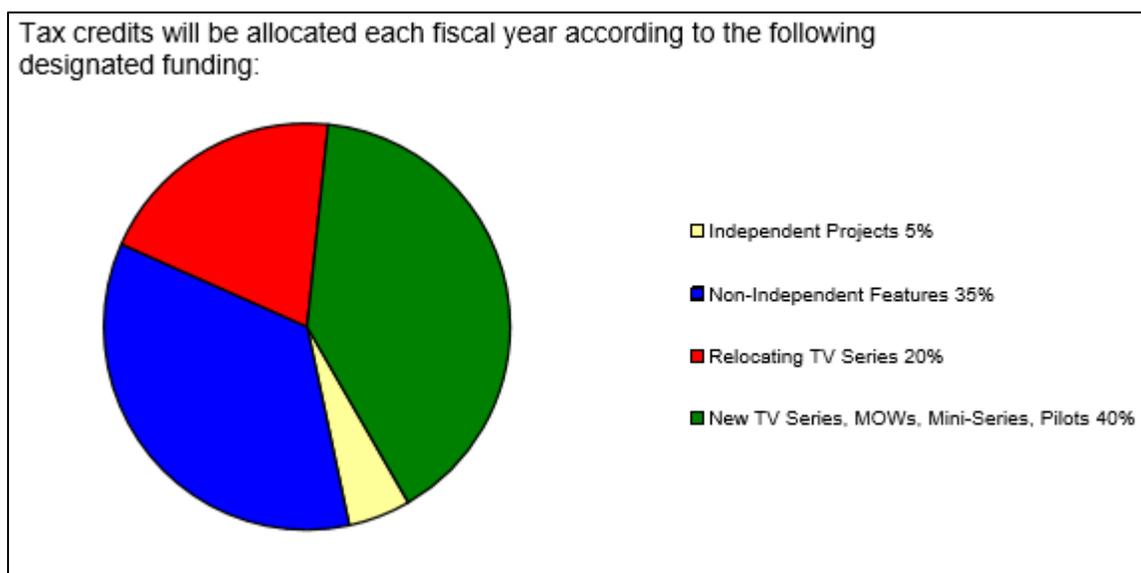
⁹ California Franchise Tax Board, “California Research Credit: Overview”, online: <https://www.ftb.ca.gov/businesses/credits/rd/overview.shtml>

¹⁰ California Franchise Tax Board, “Research & Development Credit: Frequently Asked Questions”, *supra* note 4, at 8.

¹¹ California Film Commission, “California Film & Television Tax Credit Program 2.0 Guidelines”, at 3-4, online: [http://www.film.ca.gov/res/docs/pdf/Incentives%20Documents/Program%20202%200%20Guidelines%20March%202016%20REV_FINAL\(2\).pdf](http://www.film.ca.gov/res/docs/pdf/Incentives%20Documents/Program%20202%200%20Guidelines%20March%202016%20REV_FINAL(2).pdf) [California Film Commission, “California Film & Television Tax Credit Program 2.0 Guidelines”]

b. Who is known to receive the credit and how much do they receive

The California Film Commission will annually allocate \$16.5M to independent projects; \$115.5M to non-independent features; \$66M to relocating TV series; and \$132M to new TV series, movies of the week, miniseries and pilots.¹²



c. Allowable expenditures

“Qualified expenditures” include crew and staff salaries, wages, fringes benefits, cost of facility rental and equipment, production operation costs such as construction, wardrobe, food, lodging, and lab processing.¹³ These costs must be incurred in the State of California.

Non-qualified expenditures that do not qualify for tax credits include:¹⁴

¹² *Ibid.* at 2.

¹³ *Ibid.* at 5.

¹⁴ *Ibid.*

- Wages paid to producers, writers, directors, actors, stunt performers, music directors, music composers and music supervisors, and performer;
- Expenses, including wages, paid or incurred with respect to acquisition, development, turnaround or any rights thereto;
- Expenses, including wages, related to financing, overhead, marketing, publicity, promotion or distribution of a qualified motion picture, this includes but is not limited to digital cinema distribution copies and release prints;
- Expenses, including wages, related to “New Use,” “Reuse,” “Clip Use,” “Licensing,” “Secondary Markets,” “Residual Compensation” or the creation of any “Ancillary Product” including but not limited to, a soundtrack album, toy, game, video game, trailer or teaser;
- Expenses for services performed outside the state of California (e.g., “Visual Effects” work which is physically performed out-of-state);
- Certified Public Accountant Expenses for an independent Agreed Upon Procedures Report;
- Federal Payroll taxes;
- Expenditures paid or incurred prior to issuance of the “Credit Allocation Letter (CAL)” or 30 days after the process of “Post-Production” is “Completed.”

d. Requirements and limitations of the credit

Film or television projects must be one of the following:¹⁵

¹⁵ *Ibid.* at 3

1. A “Feature Film” with a minimum “Production Budget” of \$1,000,000. Tax credits apply to the first \$100,000,000. There is no cap on the total budget amount.
2. A “Movie of the Week” or “Miniseries” with a minimum “Production Budget” of \$500,000.
3. A new “Television Series” licensed for any distribution outlet with a minimum episode budget of \$1,000,000 and with a running time longer than forty (40) minutes, exclusive of commercials. “Television pilots” are also qualified and must have a minimum budget of \$1,000,000. Pilots and series may be produced for distribution in any media outlet, including basic cable, pay (premium) cable, internet transmission, or network broadcast.
4. A “Television Series that Relocated to California” (Relocating Television Series) without regard to episode length that filmed its most recent season (minimum of 6 episodes for a minimum of forty (40) minutes each) outside of California. There is a minimum “Production Budget” requirement of \$1,000,000 per episode. The series may be produced for distribution in any media outlet, including basic cable, pay (premium) cable, internet transmission, or network broadcast.
5. An Independent Film with a minimum “Production Budget” of \$1,000,000 that is produced by a company that is not publicly traded and that publicly traded companies do not own more than 25% of the producing company. While there is no budget cap, credits apply only to the first \$10,000,000 of “Qualified Expenditures.”

A “Qualified Motion Picture” must be an Independent Film, “Feature Film,” “Movie of the Week,” “Miniseries,” “Television Pilot” or “Television Series” AND meet one of the following conditions:¹⁶

¹⁶ *Ibid.*

1. A minimum of 75% of total “Principal Photography” days must occur wholly in California. “Principal Photography” days in California do not include the filming of primarily backgrounds, “Visual Effects,” action and/or crowd scenes by the second, stunt or visual effects units; OR
2. A minimum of 75% of the “Production Budget” must be incurred and used for goods, services and/or wages within California.

e. Refundability, and if any exists, what it is refundable against

Credits applied to income tax liability are not refundable. Credits applied to sales and use tax are refundable.¹⁷

CFC credits attributable to an “Independent Film” are transferable to third parties.¹⁸

f. Statutory sources

AB 1839 California Film and Television Job Retention and Promotion Act

g. Any recent changes/developments relating to these credits, and any anticipated or proposed changes that may come about

The California Film Commission has been allocated \$1.55 billion to provide tax credits through the California Film & Television Tax Credit Program 2.0. \$330 million is available annually beginning on July 1, 2015 through June 30, 2021 to qualified productions.¹⁹

¹⁷ State of California, “Fact Sheet: Using The Tax Credits”, p. 1, online: <http://www.film.ca.gov/res/docs/FACT%20SHEET-%20%20Using%20the%20Tax%20Credits%20June%202015.pdf>

¹⁸ *Ibid.* at 2.

¹⁹ State of California, “Business Investment Guide”, *supra* note 3 at 7.

IV. New York R&D Credits For Emerging Technology Companies

a. Who is eligible/beneficiaries

Qualified Emerging Technology Companies (QETC) that are subject to tax under Article 9-A of the Tax Law can apply for an employment and/or capital tax credit.

In order to apply for the QETC Employment Tax Credit, the average number of full-time employees at the company in New York during the taxable year must be at least 101% of the company's base year employment.²⁰

The taxpayer subject to Article 9-A of the Tax Law that makes a qualified investment in a QETC can apply for the Capital Tax Credit. The credit is designed to encourage investment in emerging technology companies.²¹

Pursuant to section 3102-e of the Public Authorities Law (PAL), a QETC is defined as a company located in New York State that has a total annual product sales of \$10 million or less and either (1) its primary products or services are classified as "emerging technologies" under section 3102-e(1)(b) or the PAL or (2) it has research and development activities in New York State and its ratio of research and development funds to net sales equals or exceeds the average ratio for all surveyed companies classified.²²

²⁰ New York State Department of Taxation and Finance, "Qualified Emerging Technology Company Tax Credits", September 18 2000, at 5, online: https://www.tax.ny.gov/pdf/memos/corporation/m99_2_1c.pdf [New York State Department of Taxation and Finance, "Qualified Emerging Technology Company Tax Credits"]

²¹ *Ibid.* at 9.

²² *Ibid.* at 1.

“Emerging technologies” are defined under section 3102-(1)(b) of the PAL and include aeronautical and airborne systems, defense technologies, electronic and photonic devices for interactive media, information and communication technologies.²³

b. Allowable expenditures

The QETC Employment Tax Credit is equal to: (1) the average number of individuals (including general executive officers) employed full-time by the taxpayer in New York State for the current taxable year, minus (2) the taxpayer's average number of individuals employed full-time for the base year employment, multiplied by (3) \$1,000.²⁴

The QETC Capital Tax Credit is computed on each qualified investment made during the taxable year and equal to the sum of:²⁵

- 1) 10% of qualified investments in certified QETC, if the taxpayer certifies to the Commissioner of Taxation and Finance at the time the credit is claimed that the qualified investment will not be sold, transferred, traded, or disposed of within four years from the close of the tax year in which the QETC capital tax credit is first claimed; and
- 2) 20% of qualified investments in certified QETC, if the taxpayer certifies to the Commissioner of Taxation and Finance at the time the credit is claimed that the qualified investment will not be sold, transferred, traded, or disposed of within nine years from the close of the tax year in which the QETC capital tax credit is first claimed.

²³ New York State Department of Taxation and Finance, “Qualified Emerging Technology Company Tax Credits”, *supra* note 20 at 2-3.

²⁴ *Ibid.* at 6; Tax Law §210.12-E.

²⁵ *Ibid.*

c. Requirements and limitations of the credit

The QETC employment tax credit can be claimed for three consecutive years selected by the company who meets the eligibility requirements for each of the three years. Also, the credit and carryover of the credit deducted for the tax year cannot reduce the tax to an amount less than the tax due on the minimum taxable income base or the fixed dollar minimum, whichever is higher.²⁶

The total amount of QETC capital tax credit allowable to a taxpayer for all years may not exceed \$150,000 for a credit at the rate of 10% of qualified investments, and \$300,000 for a credit at the rate of 20% of qualified investments. Any amount of the credit not deductible in the current tax year may be carried over for an unlimited number of taxable years. However, the credit and carryover of the credit deducted cannot exceed 50% of the tax imposed, before the deduction of any tax credit. Furthermore, the credit and carryover of the credit deducted for the tax year cannot reduce the tax to an amount less than the tax due on the minimum taxable income base or the fixed dollar minimum, whichever is higher.²⁷

d. Refundability, and if any exists, what it is refundable against

The QETC employment tax credit carryover is refundable.²⁸

The QETC capital tax credit is not refundable.²⁹

e. Additional information and possible reforms

In a report prepared for the New York State Tax Reform and Fairness Commission in November 2013, Rubin and Boyd identified the QETC R&D Tax Credits as rarely used credits which could be eliminated

²⁶ *Ibid.* at 10.

²⁷ *Ibid.* at 11.

²⁸ Tax Law, sections 210.12-E and 209-B(4); Public Authorities Law, section 3102-e.

²⁹ New York State Department of Taxation and Finance, “Qualified Emerging Technology Company Tax Credits”, *supra* note 20 at 11.

in order to generate revenue for the state and to deliver compliance and administration savings.³⁰ The QETC Employment and Capital Tax Credits only represent approximately \$1million each and the elimination of underused credits could generate \$15 million in revenue.³¹

V. New York Film Tax Credit Program

a. Who is eligible/beneficiaries

The Film Tax Credit Program provides qualified production companies that produce feature films, television series, relocated television series, television pilots, films for television, and/or incur post-production costs associated with the original creation of these productions. In order to qualify for the production credit, companies must film a substantial portion of their project in New York State (NYS). On the other hand, the post-production credit is available when companies that filmed their projects outside of the state contract their post-production work to companies in NYS.³²

Production companies may be eligible to receive a fully refundable credit of 30 percent of qualified production and post-production costs incurred in NYS. An additional 5 percent may be available in the post-production program for costs incurred in upstate New York, outside the Metropolitan Commuter Transportation District (MCTD).³³

³⁰ Marilyn M. Rubin and Donald J. Boyd “New York State Business Tax Credits: Analysis and Evaluation”, *A Report Prepared for the New York State Tax Reform and Fairness Commission*, (November 2013) at 19-20. [Rubin and Boyd, “New York State Business Tax Credits: Analysis and Evaluation”]

³¹ *Ibid.*

³² Empire State Development, “New York State Film Tax Credit Program Guidelines”, p.2, online: <http://esd.ny.gov/businessprograms/Data/Film/2016/FilmCreditGuidelines.pdf> [Empire State Development, “New York State Film Tax Credit Program Guidelines”]

³³ *Ibid* at 1.

Program credits of \$420 million per year can be allocated to encourage companies to produce film projects in New York and up to \$25 million of this total amount is dedicated to supporting the post-production industry in the state.³⁴

b. Who is known to receive the credit and how much do they receive

The New York Empire State Development (ESD) publishes quarterly reports of all the film tax credits issued. The most recent report for the 3rd quarter in 2015 states that over \$19.2M in tax credits for production and \$5.7M in tax credits for post-production were issued to companies.³⁵ The tax credit amounts varied between \$37,075 and \$4,960,747.³⁶

c. Allowable expenditures

Qualified costs related to production include labor costs incurred on set construction, crew and camera equipment, film stock, developing and printing of a film, etc.³⁷

Qualified post-production expenditures are costs associated with the production of original content for a film employing traditional, emerging and new workflow techniques for picture, sound and music editorial, re-recording and mixing, visual effects, graphic design, original scoring, animation, and musical composition. This post-production work must be done in NYS in order to be eligible for the tax credit.³⁸

d. Requirements and limitations of the credit

³⁴ *Ibid.*

³⁵ Empire State Development, “Film Tax Credit- Quarterly Report 2015: Third Quarter”, (September 30 2015), at 6, online: http://esd.ny.gov/Reports/2015_2016/FTCP_3Q2015.pdf

³⁶ *Ibid.* at 7-9.

³⁷ Empire State Development, “New York State Film Tax Credit Program Guidelines”, at 5-6, online: <http://esd.ny.gov/businessprograms/Data/Film/2016/FilmCreditGuidelines.pdf>

³⁸ *Ibid.* at 6.

If the film has a production budget over \$15 million and/or is being produced by a publicly traded entity, at least 10 percent of the total principal photography shooting days must be at a qualified production facility (QPF) in NYS in order to be eligible for the Film Production Credit.³⁹

Independent productions with budgets of \$15 million or less produced by companies that are independently owned must shoot at least one full day of principal photography at a QPF on a set built expressly for the production.⁴⁰

If a non-qualified production facility is used by the production company, at least 75 percent of the total of all expenses related to work (excluding post-production) done must be related to work done at the QPF.⁴¹

If a production company meets the 75 percent test, it may also qualify for credit based upon qualified expenditures outside the QPF that are related to pre-production, location production and post-production if:⁴²

- 1) The production spends \$3 million or more at a QPF, then all qualified expenditures related to pre-production, location production and postproduction in NYS can be used for calculating the credit;
or
- 2) The production spends less than \$3 million at a QPF, then at least 75 percent of the location shooting days must be spent in NYS.

e. Refundability, and if any exists, what it is refundable against

The New York Film Tax Credits are refundable. However, Rubin and Boyd argue that it is a misnomer to call film credits *refundable*: “payment will be made to the qualifying business even

³⁹ *Ibid.* at 3.

⁴⁰ *Ibid.*

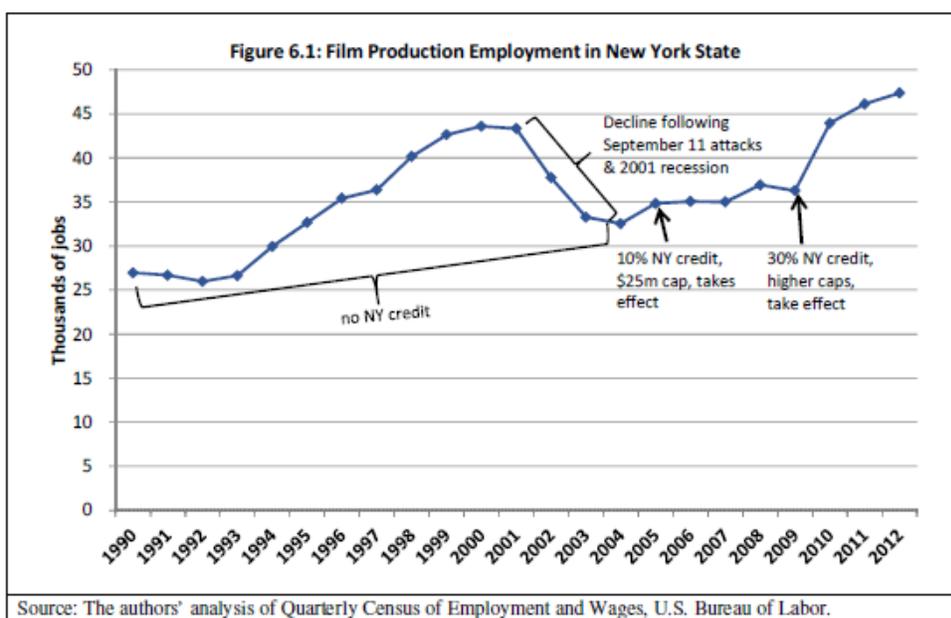
⁴¹ *Ibid.*

⁴² *Ibid.*

if it never paid any taxes and never will...the credit is essentially a spending program subsidizing the costs of producing films in New York.”⁴³

f. Any recent changes/developments relating to these credits, and any anticipated or proposed changes that may come about

Although the increase in New York Film Tax Credits correlates with an increase in film production employment in New York State, Rubin and Boyd call for a \$50 million reduction of the current annual allocation of \$420 million to the Film Tax Credit Program.⁴⁴



Source: Rubin and Boyd, November 2013, p.78

⁴³ Rubin and Boyd “New York State Business Tax Credits: Analysis and Evaluation”, *supra* note 30 at 75.

⁴⁴ *Ibid.* at 19.

VI. Massachusetts Film Tax Credit

a. Who is eligible/beneficiaries

Motion picture companies are eligible for the Massachusetts Film Industry Tax Incentives (MFITI).

b. Who is known to receive the credit and how much do they receive

In 2014, 113 film projects received the film tax credit for amounts varying between \$13,479 (“Extremely Small Spaces” by Patricia Moreno dba Filmshack) and \$15,546,926 (“Equalizer” by Columbia Pictures Industries, Inc.).⁴⁵ Other notable projects which benefited from this tax credit were “American Hustle” by White Dog Productions LLC which received a tax credit of \$8,097,916 and “TED 2” by Raging Bear LLC which received a tax credit of \$14,043,474.⁴⁶ In total, the Massachusetts Film Tax Credit authorized \$57,938,121 in tax credits to production companies and film producers.⁴⁷

c. Allowable expenditures

Motion picture companies can claim (1) a credit equal to 25% of the total qualifying aggregate payroll for employing persons for the filming and production of a motion picture and (2) a credit equal to 25% of the Massachusetts production expenses. The taxpayer can qualify for and claim both credits.

d. Requirements and limitations of the credit

⁴⁵ Department of Revenue, “Massachusetts Tax Credit Transparency Report, Calendar Year 2014, Summary and Details”, online: <http://www.mass.gov/dor/tax-professionals/news-and-reports/massachusetts-tax-credit-transparency-reports/calendar-year-2014-reports.html> [Department of Revenue, “Massachusetts Tax Credit Transparency Report, Calendar Year 2014, Summary and Details”]

⁴⁶ *Ibid.*

⁴⁷ Department of Revenue, “Massachusetts Tax Credit Transparency Report, Calendar Year 2014, Final Report”, online, p.10: <http://www.mass.gov/dor/tax-professionals/news-and-reports/massachusetts-tax-credit-transparency-reports/calendar-year-2014-reports.html> [Department of Revenue, “Final Report”]

A taxpayer must apply to the Department of Revenue (DOR) before using the credit. After processing the application, the DOR will issue a credit certificate to the taxpayer which allows the taxpayer to take the credit on its tax return or transfer the credit.⁴⁸

The production companies must incur a minimum of \$50,000 in qualified expense during a consecutive twelve-month qualification period.⁴⁹ There is no cap to the tax credit.⁵⁰

e. Refundability, and if any exists, what it is refundable against

The credits are transferable or 90% refundable to the motion picture production companies to the extent that the credits exceed the companies' Massachusetts tax liability. Transferees do not qualify for the 90% refundable credits, but can use these credits to offset any direct tax liabilities.⁵¹

f. Statutory sources

- TIR 06-01, An Act Providing Incentive to the Motion Picture Industry.
- DOR Directive 07-01, Questions concerning the Film Credit; Qualifying Expenses, Transferee Liability and Withholding Procedures (updated and clarified by TIR 07-15).
- TIR 07-15, An Act Providing Incentives to the Motion Picture Industry.
- Regulation 830 CMR 62B.2.3, Motion Picture Production Company Withholding.

g. Additional information and recent developments

The Massachusetts Government estimated that over the course of 2006-2011, the direct impact of its film tax credits ranged from only 22 to 38 per cent of the film production total spending. Simply put, the state government claims that its film tax credit benefited Massachusetts film producers and residents.⁵²

⁴⁸ *Ibid.* at 3.

⁴⁹ *Ibid.* at 4.

⁵⁰ *Ibid.* at 3.

⁵¹ *Ibid.* at 4.

The total amount of Film Tax Credit issued has increased from \$44 million in 2011 to almost \$58 million in 2014.⁵³ In fact, the Film Tax Credit represents approximately 42% of all tax credits issued in the state of Massachusetts.

Overall, the state of Massachusetts' tax incentives target the film industry, historic rehabilitation, low-income housing and the life sciences research.⁵⁴

VII. Analysis

R&D Tax Credits

California and New York have both provide state-level tax credits for R&D. The 24% tax credit for basic research in California surpasses the federal tax credit rate (20%).⁵⁵ Therefore, it is unsurprising that California is a hub for biomedical and technology companies.⁵⁶ It also is the number one state for attracting foreign direct investment and has more Fortune 500 companies than any other state.⁵⁷ On the other hand, it is unclear whether the New York R&D Tax Credit for Emerging Technology Companies will grow or whether it will continue to be underused.⁵⁸

Although several states including Iowa, Louisiana, Minnesota, Nebraska, Virginia and New York (QETC Employment Tax Credit) offer refundable R&D tax credits, California's R&D tax credit and New York's

⁵² Chen, Duanjie. "The Framework for Assessing Tax Incentives: A Cost-Benefit Analysis Approach." Paper for Workshop on Tax Incentives and Base Protection, New York, 23-24 April 2015 at 18. [Chen, "The Framework for Assessing Tax Incentives"]

⁵³ *Ibid.* at 19.

⁵⁴ Department of Revenue, "Final Report" *supra* note 47 at 10.

⁵⁵ *USA Innovation Tax Incentives (BHH Draft)*, Jan 2001, at 3.

⁵⁶ State of California, "Business Investment Guide", *supra* note 3 at 9.

⁵⁷ *Ibid.*

⁵⁸ Rubin and Boyd "New York State Business Tax Credits: Analysis and Evaluation", *supra* note 30 at 19.

QETC Capital Tax Credit are not.⁵⁹ R&D credits in Arizona, Connecticut, Massachusetts (for life sciences research), and West Virginia are fully or partially refundable under certain circumstances.⁶⁰

When a state offers refundable R&D tax credits, the credit effectively operates like a grant that the firm gets at the end of the year whether it has taxable income or not.⁶¹ Hemel and Ouellette note that the advantage of refundable tax credits over non-refundable ones is that they “mitigate the welfare loss due to capital market frictions” especially for start-ups and small businesses.⁶² After all, these capital market frictions are far less concerning for large corporations such as Microsoft or Apple that have cash reserves to finance new ventures.⁶³ Thus, further research should be done to assess which companies (start-ups, small businesses or large corporations) are benefiting from the R&D tax credits.

An important concern with state-level tax incentives for R&D is whether they increase R&D outputs (i.e. innovation) or merely encourage companies to relocate to different states. Daniel J. Wilson of the Federal Reserve Bank of San Francisco finds that state R&D tax credits are effective at increasing R&D within a state.⁶⁴ However, his study also suggests that these tax credits can have a “beggar-thy-neighbor” effect whereby the tax credits encourage companies to simply move their R&D activities to the state with the more advantageous tax incentives rather than increase their aggregate expenditures.⁶⁵ Where a low tax state is next to a high tax state that also has a high innovative level, some of the more mobile activity has a tendency to move to the low tax state (such as New Hampshire and Massachusetts, Nevada and California).⁶⁶ Wilson also raises concerns about the degree of international R&D mobility in the current era of globalization: “it seems likely that large foreign and U.S. multinationals, which are responsible for

⁵⁹ Daniel J. Hemel and Lisa Larrimore Ouellette, “Beyond the Patents-Prizes Debate”, 92 *Texas Law Review* 303 (2013) at 337. [Hemel and Ouellette, “Beyond the Patent-Prizes Debate”]

⁶⁰ *Ibid.*

⁶¹ *Ibid.*

⁶² *Ibid.* at 338-339.

⁶³ *Ibid.*

⁶⁴ Wilson, “Beggar Thy Neighbor?” *supra* note 2 at 436.

⁶⁵ Hemel and Ouellette, “Beyond the Patent-Prizes Debate”, *supra* note 59 at 326.

⁶⁶ Wilson, “Beggar Thy Neighbor?” *supra* note 2 at 436.

the bulk of U.S. R&D spending, may fairly easily relocate R&D activity to (from) the U.S. in response to favourable (unfavourable) changes in U.S. policy vis-à-vis foreign policy.”⁶⁷

Film Tax Credits

In 2015, the governments of New Jersey, Michigan, Montana and Alaska all shut down their states’ film tax credit programs.⁶⁸ Although the film industry would prefer to have widely available programs, these tax credit programs were relatively small in size. Other bills to end or limit tax incentives for the film industry have been introduced in Rhode Island, South Carolina, Oklahoma, Washington, Florida, Mississippi and Wyoming.⁶⁹

Despite fears that the increasing trend of hostile legislation against film tax credits, California, New York and Massachusetts continue provide significant tax incentives for the film industry.⁷⁰ Annually, they respectively account for \$330 million, \$420 million and \$58 million in tax credits.

It is worth noting that New York and Massachusetts are transparent about the projects that receive approval for these tax credits and publish the lists of taxpayers (production companies) that benefit from the credits. The New York ESD publishes quarterly reports and the Massachusetts DOR publishes an Annual Tax Credit Transparency Report.

⁶⁷ *Ibid.*

⁶⁸ Brian Bardwell, “Despite a Few Hits in 2015, Film Industry Is Optimistic on Future of Incentives”, *Tax Analysts* 2016 STT 321 (February 18, 2016) at 2.

⁶⁹ *Ibid.* at 2-3.

⁷⁰ *Ibid.* at 1.

VIII. Conclusion

California, New York and Massachusetts all provide significant state-level tax incentives for R&D and the film industry. The California provides an advantageous R&D tax credit which can surpass the tax credit provided at the federal-level, whereas the New York tax credit for Qualified Emerging Technology Companies provides only limited advantages for taxpayers. The film tax credits provided in the three states discussed in this memo are steadily increasing, whereas such credits may decrease in other states within the next year. While it is unclear whether these state tax credits have the direct effect of increasing innovation within the United States, state governments continue to provide these tax incentives to American taxpayers in order to encourage economic growth within the state.