

# Assessing the Impact of Entertainment Industry Incentives on Firm & Employment Growth

A Cross-State Analysis

Ric Kolenda

Georgia State University & Georgia Institute of Technology

# State Movie Production Incentive (MPI)

- Monetary inducements for film production
- Biggest growth in tax credits for film production costs
  - ▣ Credits from 5 to 40% of production costs
  - ▣ Most are transferable and/or refundable (i.e., regardless of tax liability)

Assessing the Impact of Entertainment Industry Incentives

11/6/12

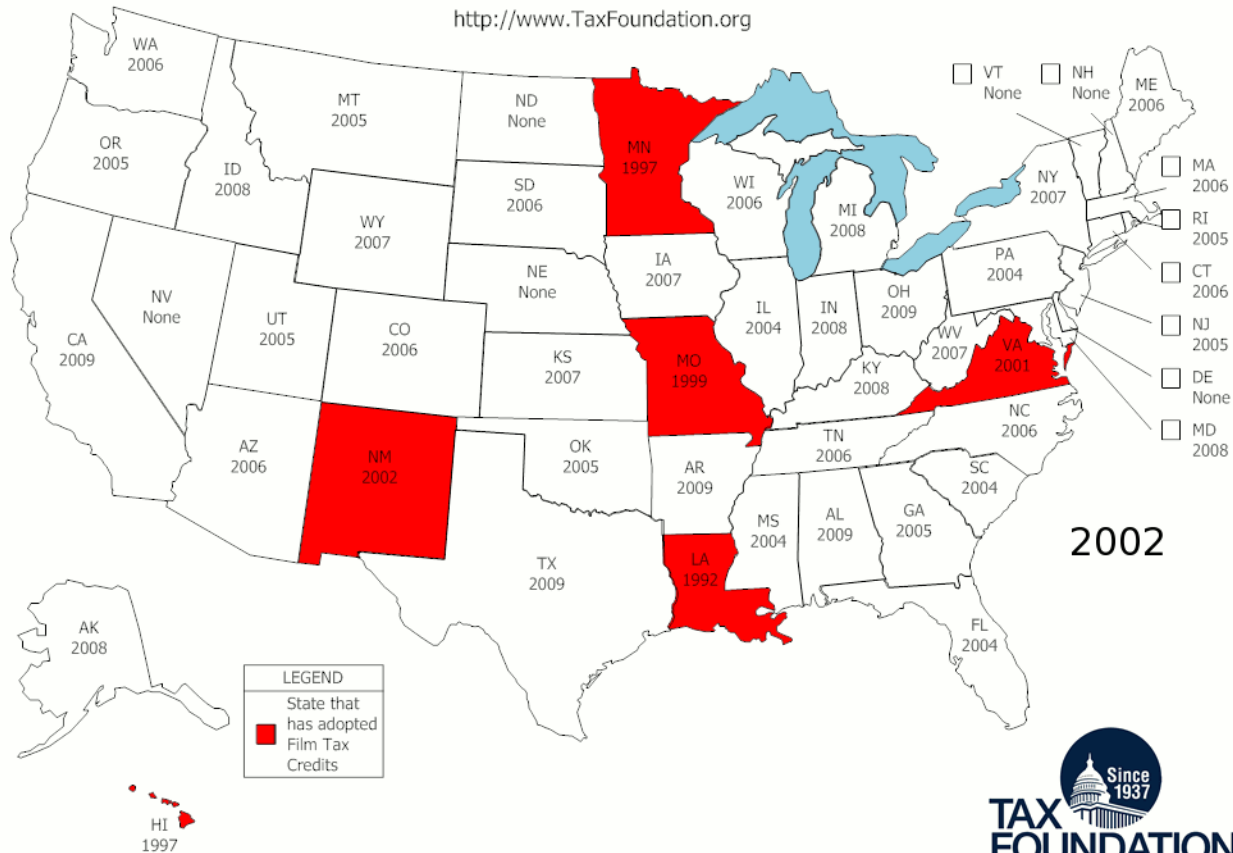
# Rapid Expansion of MPIs

- MPIs proliferated in the 2000s
  - ▣ From **4** states in 2002 to **44** states in 2010
- Cost to states
  - ▣ \$1.4 billion in 2010
  - ▣ Nearly **\$6 billion** since 2001
- Also expanded to related industries
  - ▣ Music Recording & Production
  - ▣ Digital Media Development

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Growth of MPIs by State 2002-2009

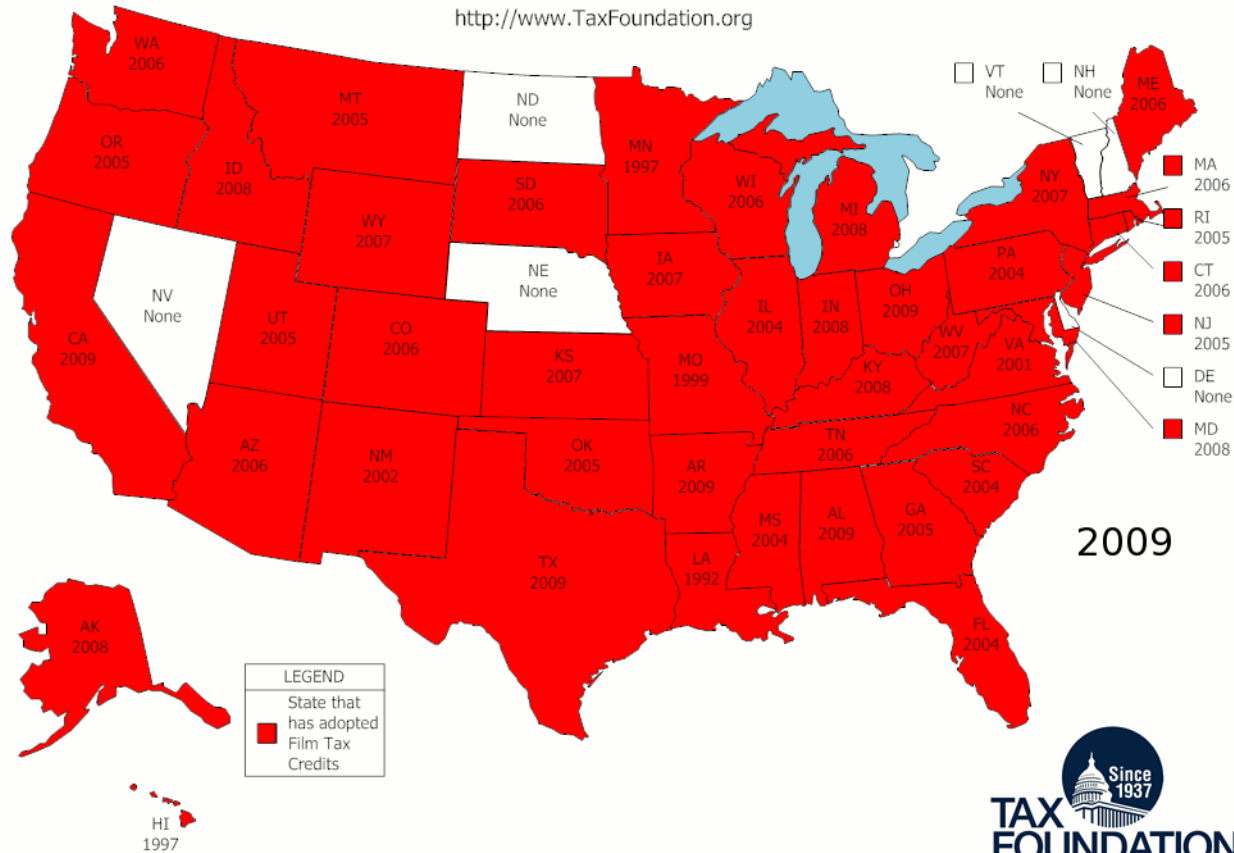


Source: Tax Foundation

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Growth of MPIs by State 2002-2009



Source: Tax Foundation  
Assessing the Impact of Entertainment Industry Incentives



11/6/12

# The Question of Industry Incentives

- Do they work in building sustainable industry clusters?
- Critiques:
  - ▣ “Race to the bottom”
  - ▣ Rent-seeking behavior
  - ▣ Need to address supply & marketing chains
  - ▣ Lack of accountability
  - ▣ Corruption

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# The Motion Picture Industry: A Special Case?

- Unique modes of production (project-based)
- Unique location requirements (studio & remote)
- Unique labor organization (network of large & small firms and individual contractors)

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Research Questions

- Can MPAs create a self-sustaining local industry?
  - Do MPAs increase local industry employment?
  - Do MPAs increase local industry establishments?
  - Do higher MPAs perform better than lower ones?

Assessing the Impact of Entertainment Industry Incentives

11/6/12



# Do MPIs create a sustainable industry?

- Little academic research on film industry & economic development
- Prior research has focused on short-term fiscal & economic impacts
- I look at local jobs and firms

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Data

- County Business Patterns (CBP), 2002-2010
- Collected data from states on MPIs
- Dependent Variables:
  - ▣ # of employees
  - ▣ # of establishments
- Independent Variables:
  - ▣ MPIs
  - ▣ National employment growth
  - ▣ National film industry emp. growth
  - ▣ State employment growth

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Data Issues

- Dropped 11 states with no tax incentives
- Dropped 12 states with suppressed data
  - More than 3 periods with missing emp. Data
- 22 states remaining for analysis

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Selected NAICS for MP Industry

NAICS	Industry
5121	Includes:
512110	Motion Picture & Video Production
512120	Motion Picture & Video Distribution
51213	Motion Picture Exhibition
512191	Teleproduction & Other Postproduction Services
512199	Other Motion Picture & Video Industries

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Methodology

- Compare growth in industry employment and establishments to incentive levels
- Use linear regression analysis to assess incentive levels on employment growth
- Use total & industry national growth & state growth rates as control variables

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Film Industry Job Growth

- 15 of 22 states showed positive growth
- 14 of 22 states had growth  $>$  all job sectors
- 4 of 22 states showed growth  $>$  US MP industry

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Job Growth (continued)

- Only 4 states outperformed the US in job growth

State	2002-2010 Growth
California	45.0%
Texas	40.4%
Oklahoma	19.8%
Washington	17.4%
<b>US</b>	<b>16.5%</b>

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Film Industry Establishment Growth

- 15 of 22 states showed positive growth
- 13 of 22 states had growth  $>$  all job sectors
- 13 of 22 states showed growth  $>$  US MP industry

Assessing the Impact of Entertainment Industry Incentives

11/6/12



# Firm Growth (continued)

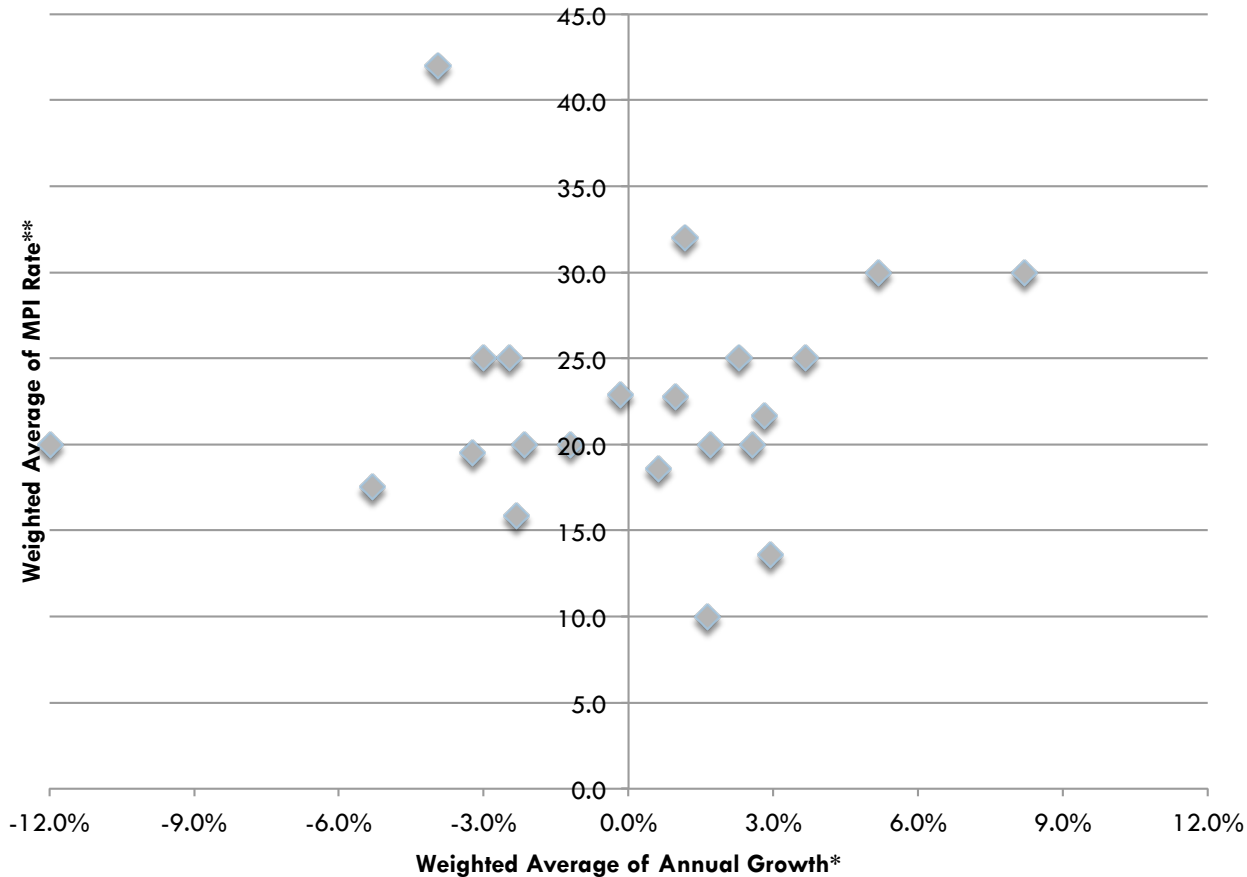
- Top 5 states outperforming the US in annual growth

State	2002-2010 Growth
Oregon	23.6%
Georgia	20.1%
Utah	13.1%
Oklahoma	12.6%
Louisiana	12.1%
<b>US</b>	<b>3.3%</b>

Assessing the Impact of Entertainment Industry Incentives

11/6/12

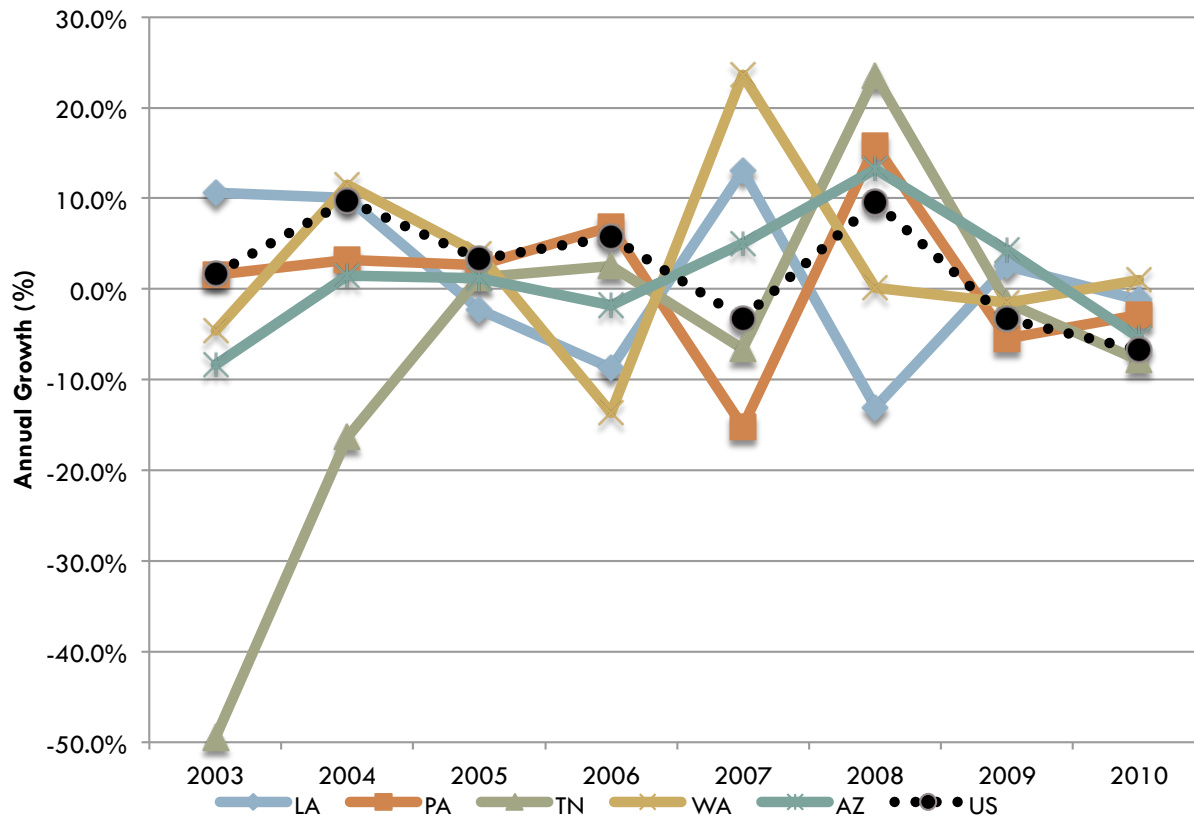
# Film Industry Annual Growth Rate by MPI, 2002-2010



Assessing the Impact of Entertainment Industry Incentives

11/6/12

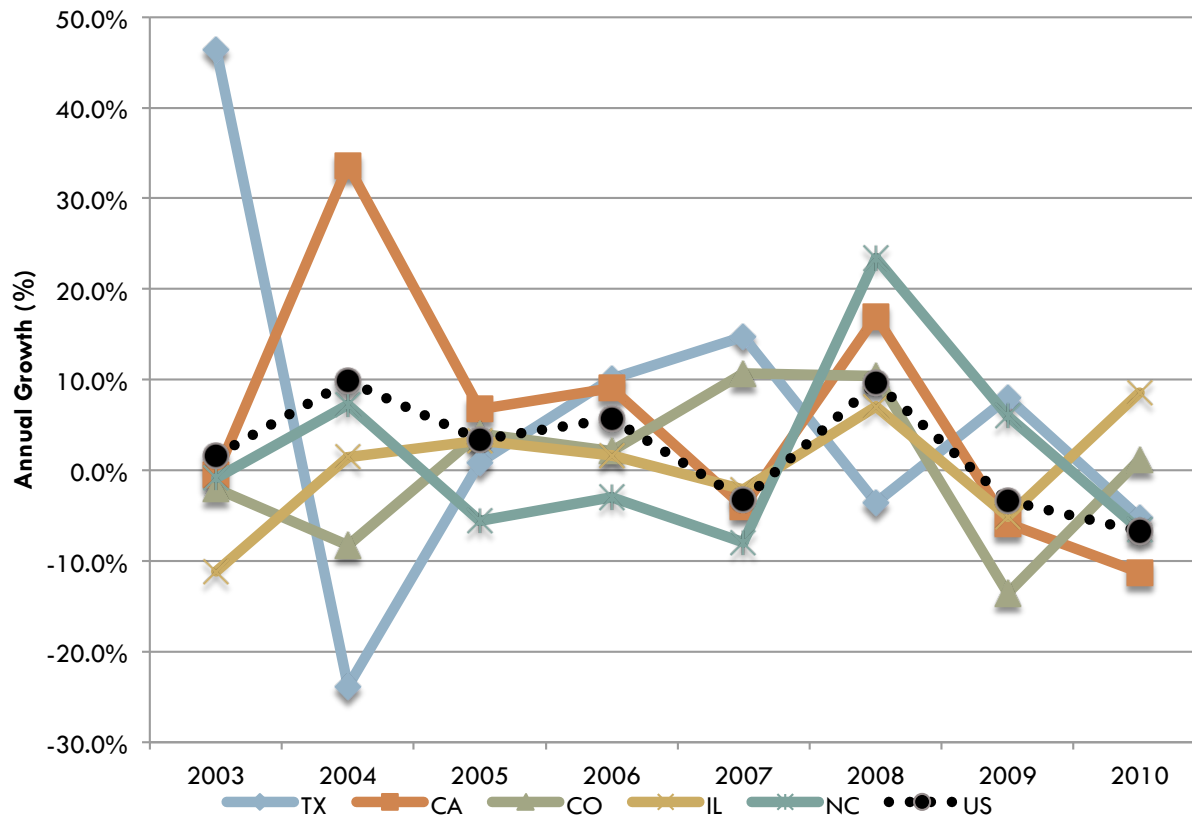
# Film Job Growth in Top 5 by MPI



Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Film Job Growth-Bottom 5 by MPI



Assessing the Impact of Entertainment Industry Incentives

11/6/12

# OLS Regression

VARIABLES	(1) MP Emp. Growth	(2) Avg. Annual MP Growth
MPI Weighted Avg.	0.00201 (0.00419)	0.00223 (0.00200)
Total State Emp. Growth	0.595 (0.881)	
Avg. Annual MP Growth		1.418 (1.075)
Constant	-0.00470 (0.0889)	-0.0339 (0.0401)
Observations	22	22
R-squared	0.033	0.127

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Robust standard errors in parentheses

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Summary of Findings

- Use & level of MPIs rising
- No clear effects on employment growth
- All but 4 states did not outperform national industry job growth
- Establishment growth was somewhat better than job growth

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Conclusions

- Descriptive data do not support hypotheses
- Regression models do not support hypotheses
- Establishments do better than employment
  - ▣ could this lead to longer-term job growth?
- MPAs alone not likely to build self-sustaining local industry

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# Policy Implications

- Caution in using MPIs
- Learn lessons from other incentive programs
  - ▣ Better enforcement of programs
  - ▣ More targeted incentives
    - e.g., local hires, local producers, etc.
- Path dependency and cumulative causation
- Importance of specialized infrastructure
  - ▣ CA and NY have some of the highest growth rates

Assessing the Impact of Entertainment Industry Incentives

11/6/12



# Future Research

- Refine MPI data for states
- Add state growth rates for comparison
- Regression analysis (including panel data)
- Use panel or time-series analyses with lagged effects

Assessing the Impact of Entertainment Industry Incentives

11/6/12

# For more information...

Ric Kolenda

[rkolenda1@gsu.edu](mailto:rkolenda1@gsu.edu)

[ric@gatech.edu](mailto:ric@gatech.edu)

<http://kolenda.com/web/research.html>

Assessing the Impact of Entertainment Industry Incentives

11/6/12