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OF POLICY STUDIES



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

A Cross-State Analysis

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# 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)

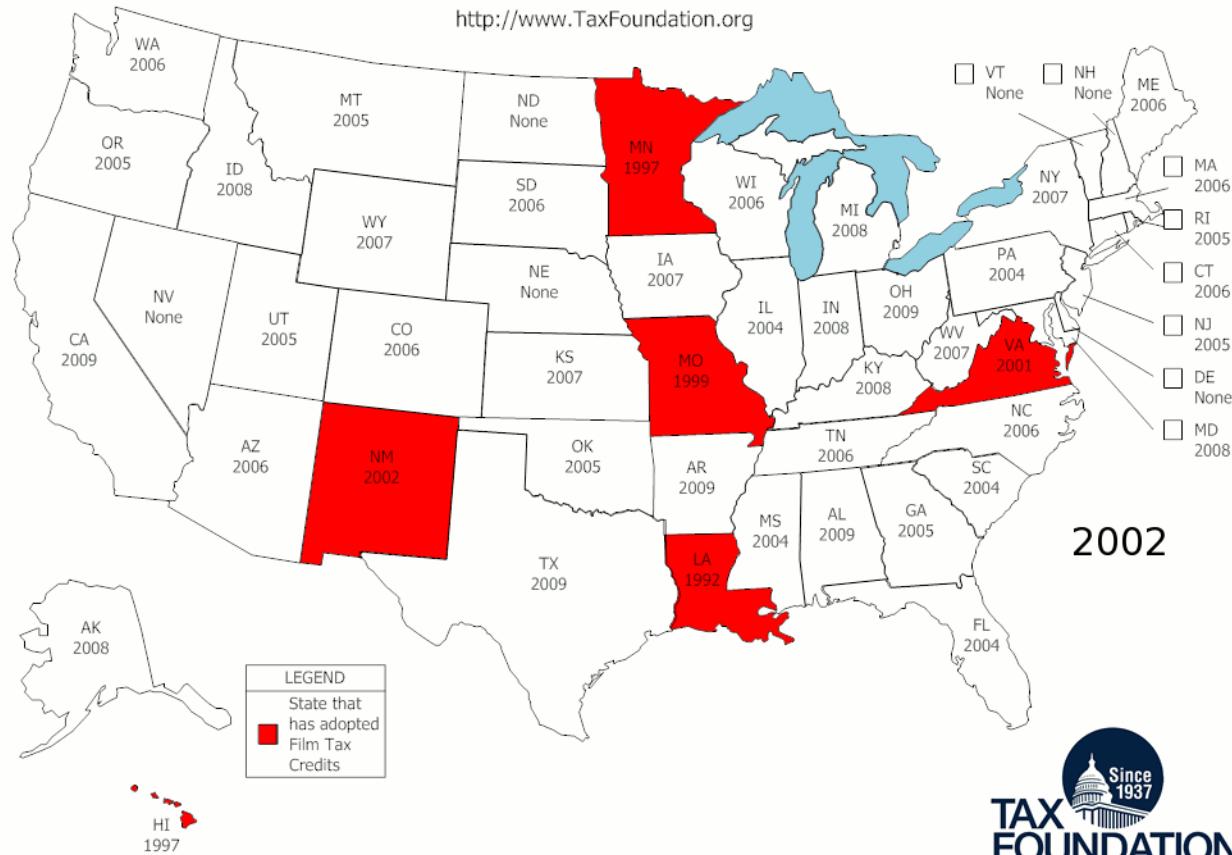
# Rapid Expansion of MPIs

- 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

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# Growth of MPIs by State 2002-2009

<http://www.TaxFoundation.org>



Source: Tax Foundation

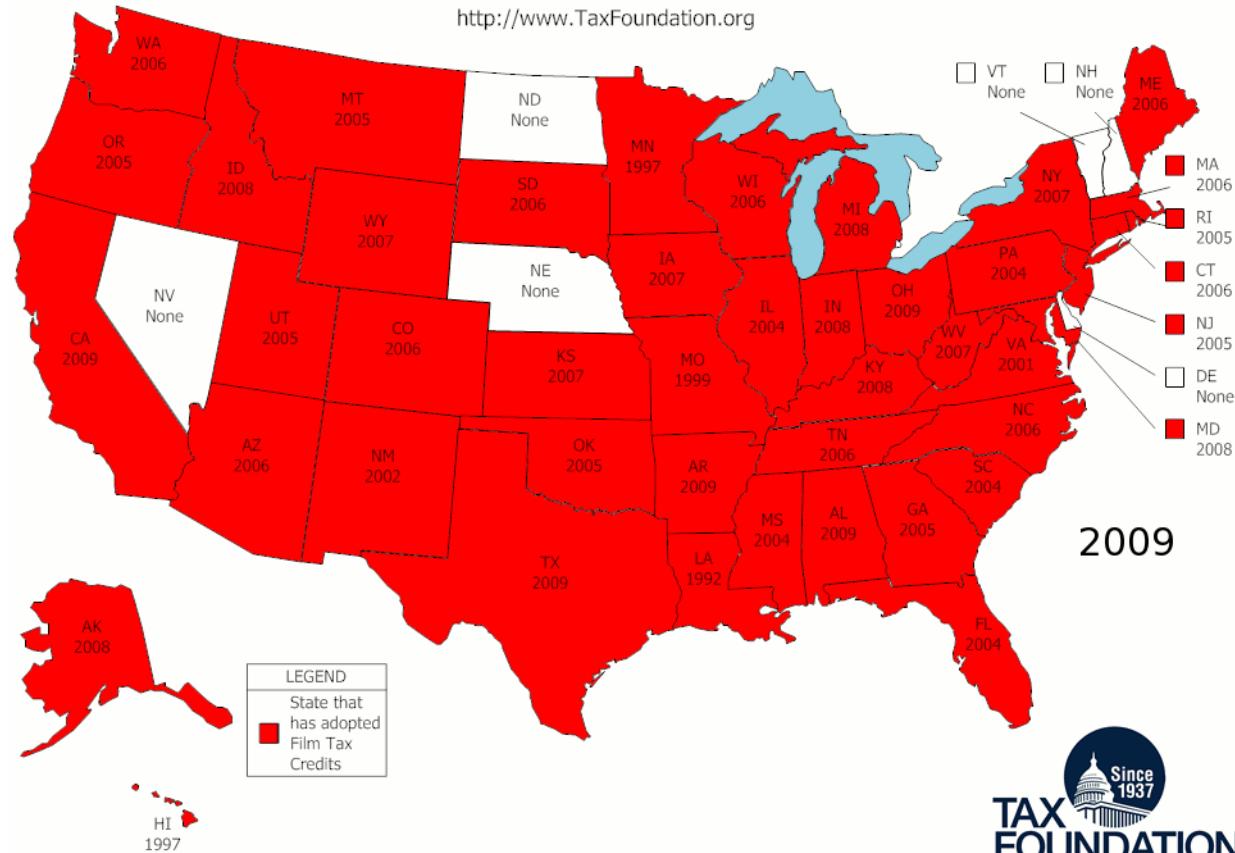
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# Growth of MPIs by State 2002-2009

<http://www.TaxFoundation.org>



Source: Tax Foundation

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# 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

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# 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)

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# Research Questions

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

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# 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

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# 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

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# 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

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# 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

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# 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

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# 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

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# 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>

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# 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

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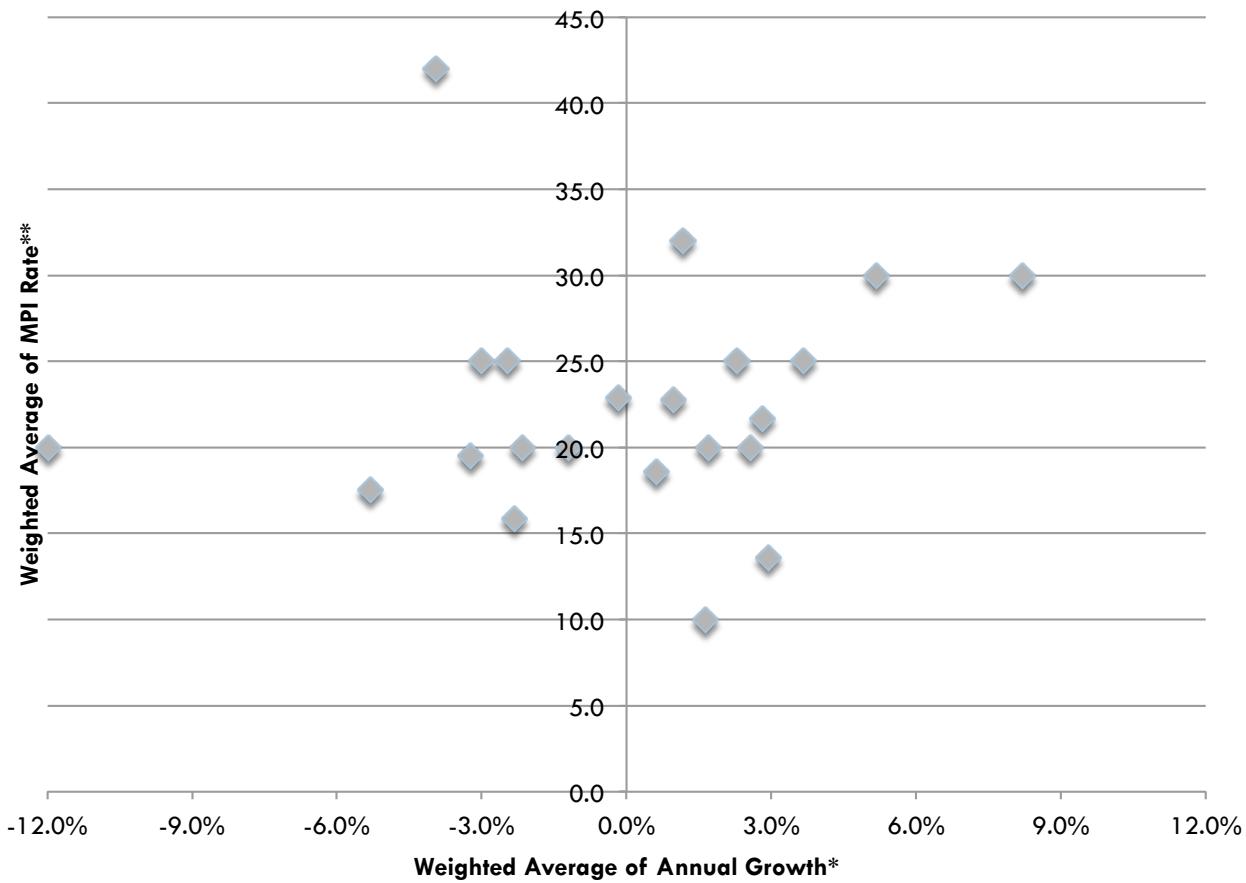
# Firm Growth (continued)

- 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>

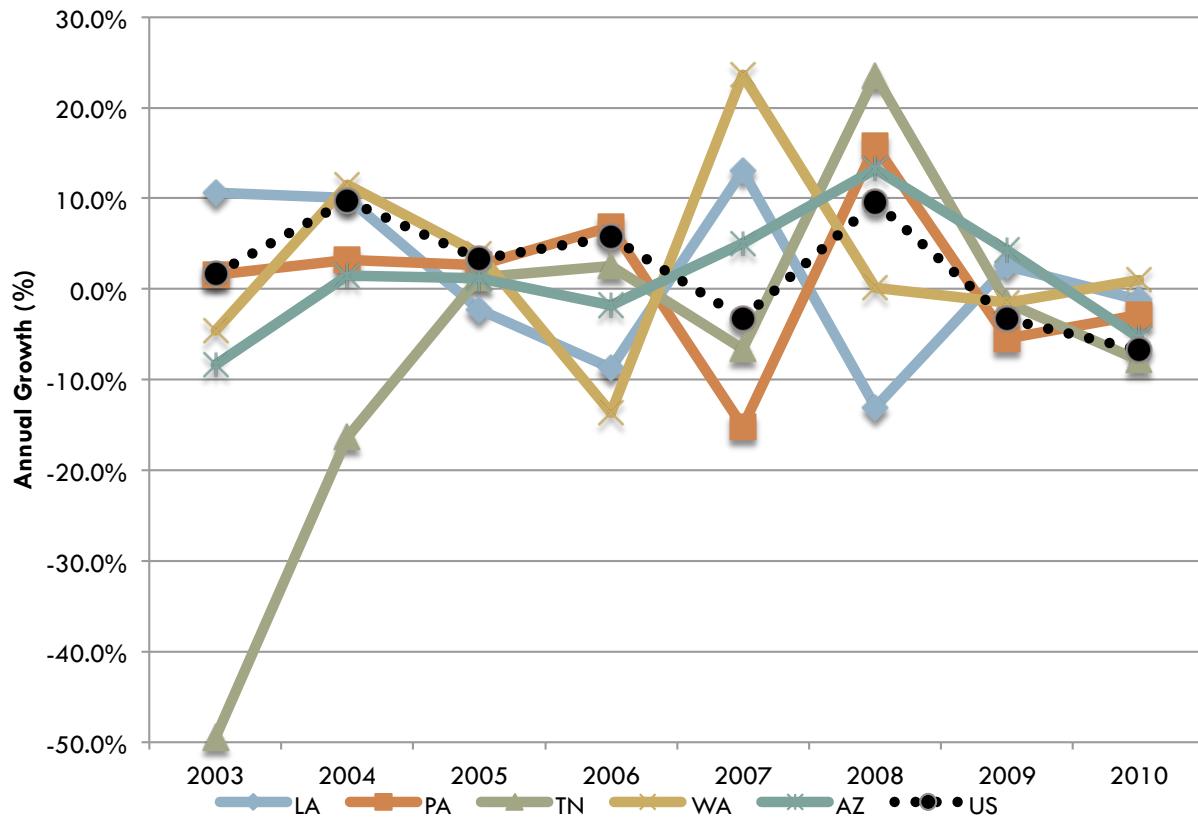
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# Film Industry Annual Growth Rate by MPI, 2002-2010



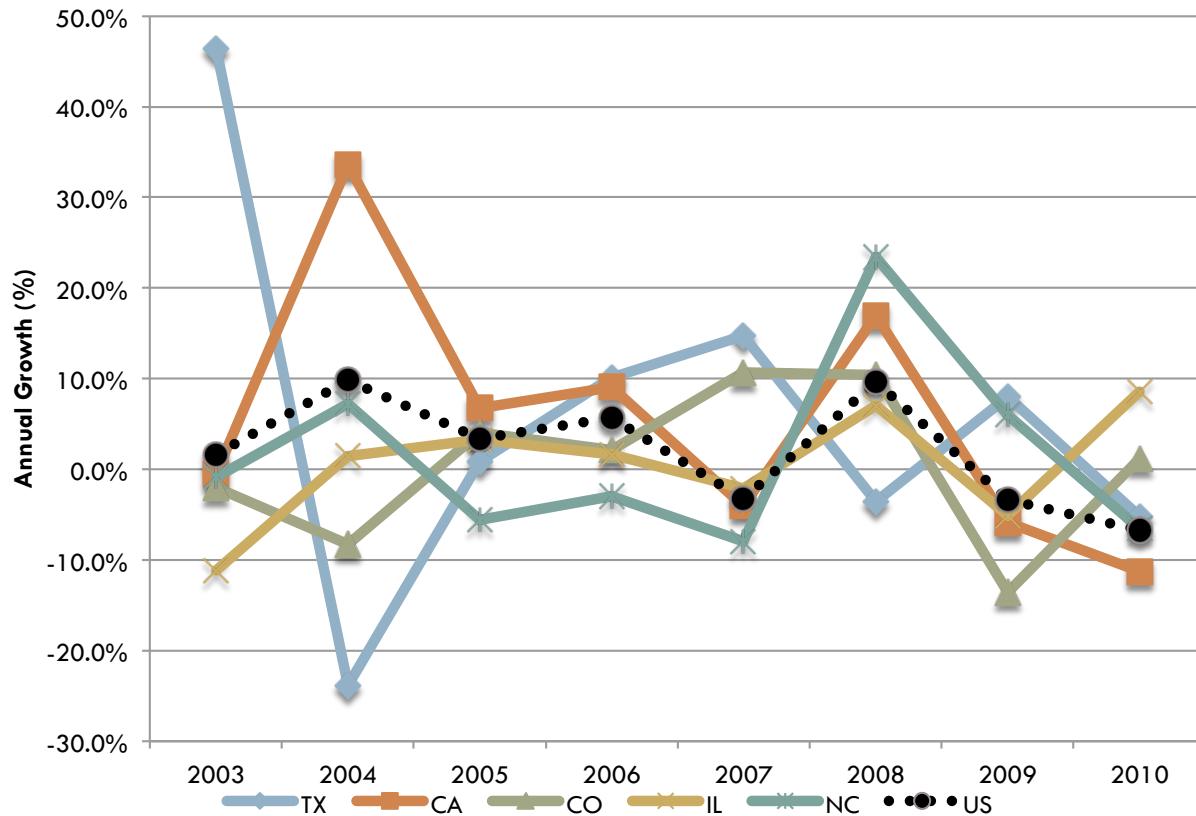
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# Film Job Growth in Top 5 by MPI



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# Film Job Growth-Bottom 5 by MPI



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# 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

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# 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

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# 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?
- MPIs alone not likely to build self-sustaining local industry

# 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

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# 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

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# For more information...

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