

Better Than Real Life: How Virtual Worlds Are Changing the Movies



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Speakers

Rob Bredow, Chief Technology Officer and Visual Effects Supervisor, Sony Pictures Imageworks

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Moderator

Kevin Klowden, Director, California Center, and Managing Economist, Milken Institute

Top-grossing films of all time

By U.S. revenue



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Rank	Title	Revenue US\$ millions	Release Date
1	Avatar	760.5	2009
2	Titanic	654.0	1997
3	The Dark Knight	533.3	2008
4	Star Wars: Episode I - The Phantom Menace	474.5	1999
5	Star Wars	461.0	1977
6	Shrek 2	441.2	2004
7	E.T.: The Extra-Terrestrial	435.1	1982
8	Pirates of the Caribbean: Dead Man's Chest	423.3	2006
9	The Lion King	422.8	1994
10	Toy Story 3	415.0	2010

Top-grossing films

Domestic, 2012



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Rank	Title	Revenue US\$ millions
1	The Hunger Games	359.2
2	Dr. Seuss' The Lorax	207.4
3	21 Jump Street	128.1
4	Safe House	125.6
5	The Vow	124.6
6	Journey 2: The Mysterious Island	101.3
7	Wrath of the Titans	77.9
8	Act of Valor	69.5
9	John Carter	69.0
10	Contraband	66.5

Top-grossing films

Overseas, 2011



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Rank	Title	Revenue US\$ millions
1	Harry Potter and the Deathly	1328.1
2	Transformers: Dark of the Moon	1123.7
3	Pirates of the Caribbean: On Stranger Tides	1043.9
4	The Twilight Saga: Breaking Dawn Part 1	705.1
5	Mission: Impossible - Ghost Protocol	693.1
6	Kung Fu Panda 2	665.7
7	Fast Five	626.1
8	The Hangover Part II	581.5
9	The Smurfs	563.7
10	Cars 2	559.9

Top-grossing animated films of all time



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U.S. gross

Rank	Title	Revenue US\$
1	Shrek 2	\$441.2
2	The Lion King	\$422.8
3	Toy Story 3	\$415.0
4	Finding Nemo	\$339.7
5	Shrek the Third	\$322.7
6	Up	\$293.0
7	Shrek	\$267.7
8	The Incredibles	\$261.4
9	Monsters, Inc.	\$255.9
10	Despicable Me	\$251.5

Most expensive animated films



Rank	Film	Cost US\$ (millions)	Release Date
1	Tangled	\$260	2010
2	Toy Story 3	\$200	2010
3	Cars 2	\$200	2011
4	A christmas Carol	\$190	2009
5	WALL-E	\$180	2008
6	Monsters vs. Aliens	\$175	2009
7	Up	\$175	2009

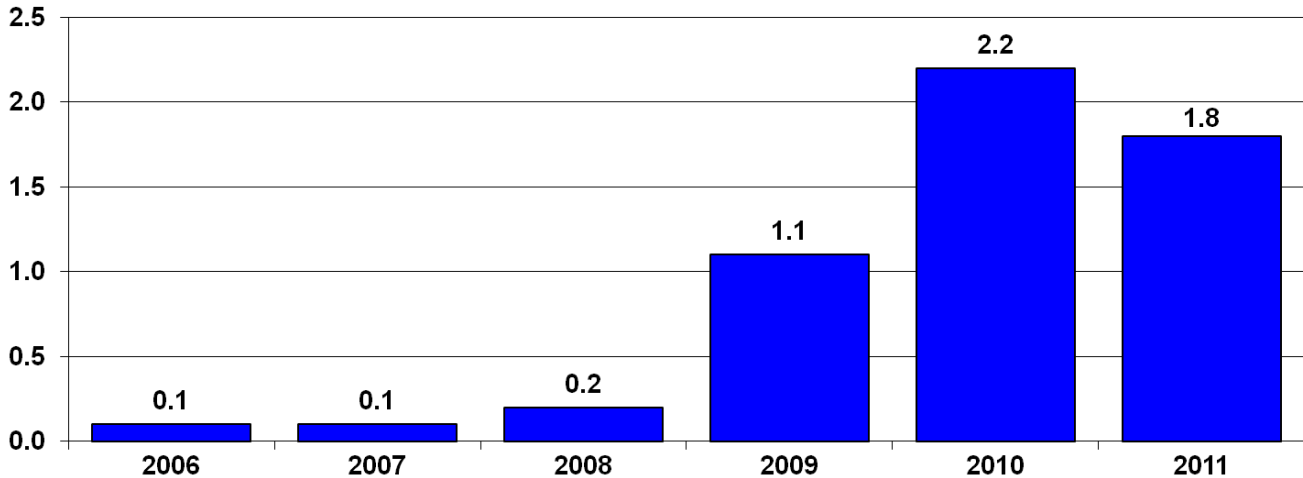
3D box office revenue

U.S. and Canada



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US\$ billions



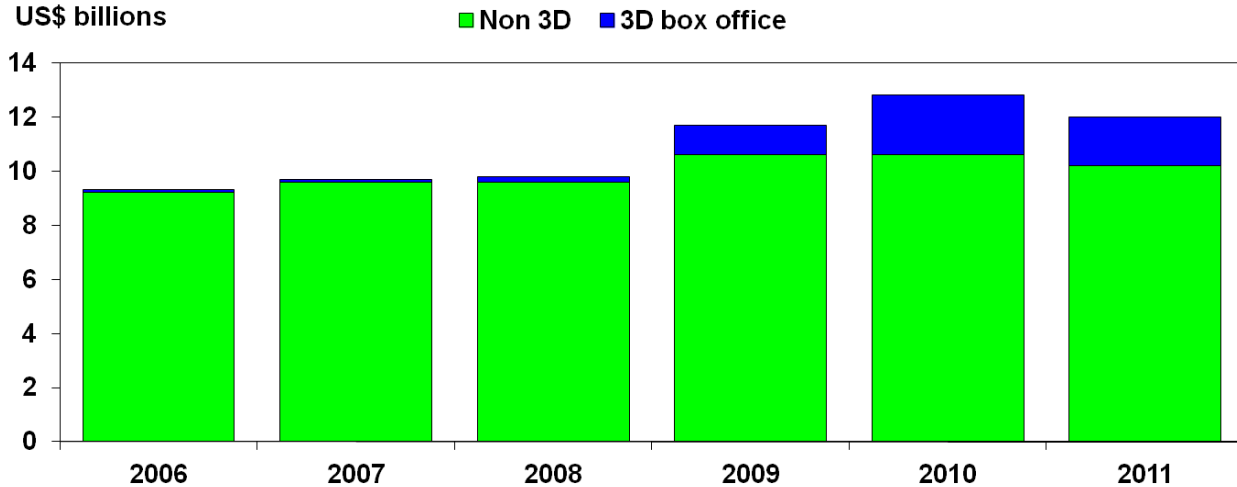
Source: Motion Picture Association of America.

Total box office revenue

U.S. and Canada



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Source: Motion Picture Association of America.

Worldwide digital 3D screens



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	2007	2008	2009	2010	2011	% of digital
U.S./Canada	994	1,514	3,548	8,505	13,695	50%
EMEA	211	594	3,510	8,143	11,642	61%
Asia Pacific	80	344	1,584	4,659	8,116	58%
Latin America	12	84	362	1,104	2,026	97%
Total	1,297	2,536	9,004	22,411	35,479	57%
% change vs. previous year	403%	96%	255%	149%	58%	--

Source: Motion Picture Association of America.

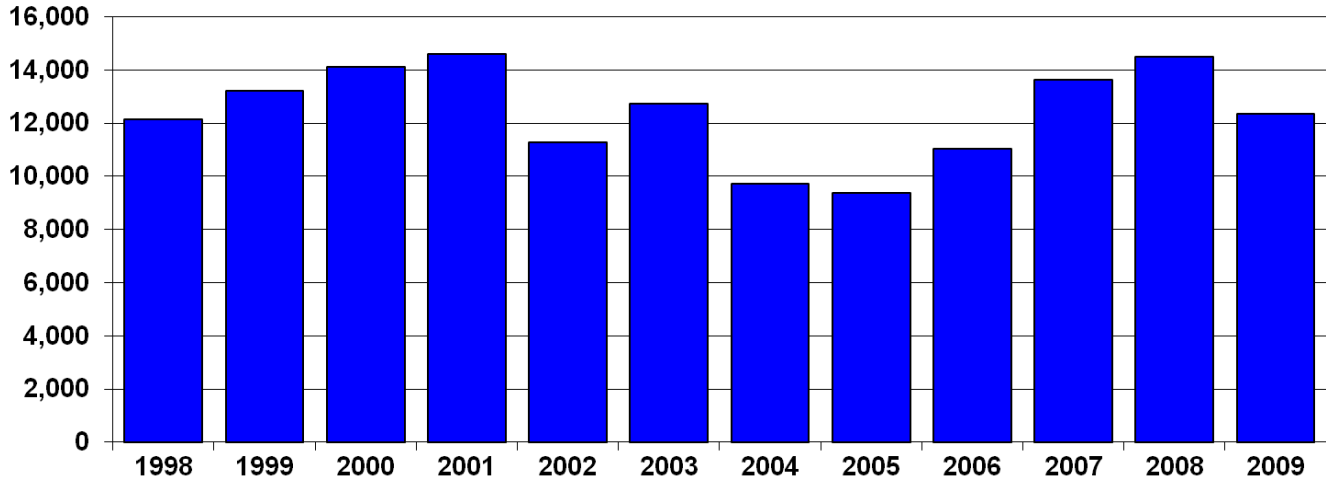
Movie and video industry post-production

California



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Thousands



Sources: US Census Bureau, County Business Patterns.

Many countries offer tax incentives for visual effects



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Canada

- Alberta
- British Columbia
- Ontario
- Quebec

Australia

New Zealand
United Kingdom

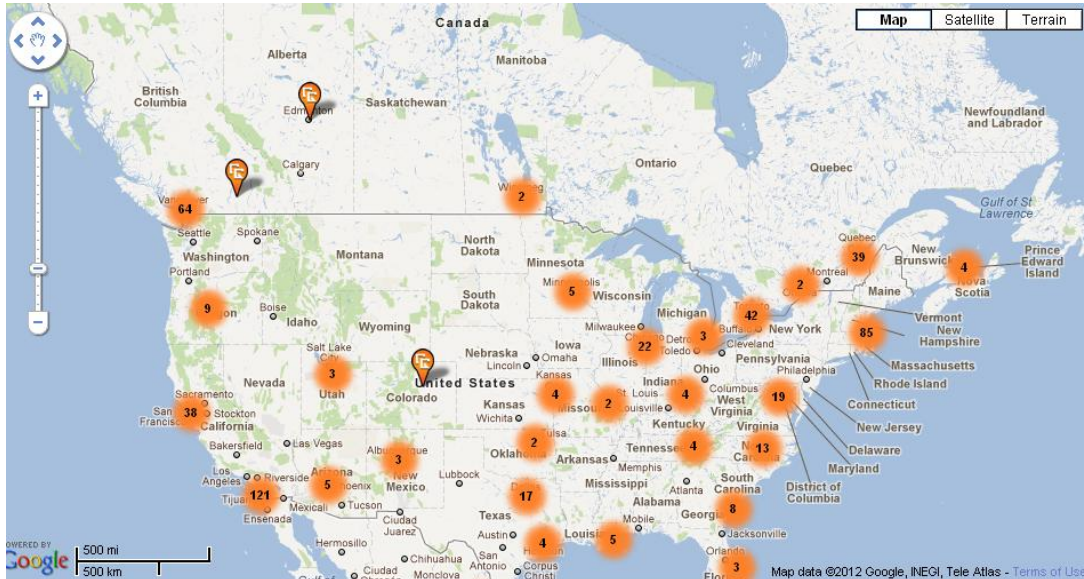
Many visual effects studios are opening offices or moving outside of the U.S.



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- **Pixar Canada** (Vancouver)
- **Digital Domain** (Vancouver)
- **Imageworks** (Vancouver)
- **Animal Logic** (Sydney)
- **WETA Digital** (New Zealand)
- **Framestore** (London)
- **Arc Productions** (Toronto)

North American visual effects studio locations



Examples of special achievement Oscars for visual effects



- **King Kong (1977)**
- **Superman (1978)**
- **The Empire Strikes Back (1980)**
- **Who Framed Roger Rabbit (1988)**
- **Toy Story (1995)**

Real Steel (2011)



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Sources: Cinefex.

Real Steel (2011)





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Star Trek (2009)

Thor (2011)





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Transformers: Dark of the Moon (2011)

Avatar (2009)

