DEAN KEITH SIMONTON

Cinematic Creativity and Production Budgets: Does Money Make the Movie?

ABSTRACT Although filmmaking requires substantial capital investment, it is not known whether cinematic creativity is positively correlated with the size of the film's budget. Therefore, budgetary impact was investigated in a sample of feature films released between 1997 and 2001. Although production costs were positively related to box office success (as measured by both first weekend and gross), such expenditures had no correlation with best picture awards and were negatively correlated with critical acclaim (as gauged by both film reviews and movie guide ratings). These divergent consequences could be partly interpreted in terms of how the budget and success criteria differentially correlated with what have been identified as the four creative clusters of filmmaking, namely, the dramatic, visual, technical, and musical.

INTRODUCTION

In some domains of creative achievement, creators may require minimal capital investment. An example is the proverbial "starving artist in the attic" who writes poetry or paints canvases at minimal cost and yet with maximal consequence. Examples include Emily Dickinson and Vincent Van Gogh. Although not starving, both managed to create artistic masterworks with hardly more expense than it cost them to live. Other types of creativity require considerably more financial resources. As a consequence, creators cannot even begin to undertake a project until they have procured the requisite patronage, commissions, or grants. An obvious example is monumental architecture. Michelangelo could not have built the dome of Saint Peters in Rome without the substantial financial wherewithal of the Roman Catholic church. More

recently, scientific creativity has increasingly required the infusion of large grants, at least in those disciplines that have attained the status of "big science." The prototypical instance is high-energy physics, an activity that cannot even exist without the construction of particle accelerators that cost billions of dollars.

Although creativity in many areas may be contingent on abundant cash, that financial requirement is not equivalent to claiming that the quality of the creative product is always correlated with the amount of capital investment. The availability of a state-of-the-art particle accelerator no more guarantees that great discoveries will emerge than will a huge construction budget ensure that the resulting skyscraper will be aesthetically attractive rather than ugly. In other words, the financial requirements of creativity in some domains may operate more as a threshold effect. A certain minimal budget is probably necessary to provide the essential material resources for creativity, but additional increments beyond that minimum may not necessarily correspond with improvements in the quality of the final creative product. This circumstance is analogous to the relation between intelligence and creativity (Barron & Harrington, 1981; Simonton, 1994). Although creative behavior probably requires a minimum level of intelligence, beyond that threshold additional increases in intelligence may not necessarily translate into enhanced creativity.

One creative endeavor where this issue is especially prominent is the production of the feature films. There is no doubt that motion pictures represent among the most expensive forms of creative achievement. The 1997 movie *Titanic*, for instance, cost approximately $200 million. Although this film was supremely successful, especially at the box office, not all big-budget pictures enjoy the same fate. An infamous example is the 1981 *Heaven's Gate*. Not only did its production cost $44 million — an exorbitant price for the time — but in addition it made only $1.5 million and received scathing reviews from movie critics. Indeed, it received only one dubious honor: the Golden Raspberry ("Razzie") Award for Worst Director, plus nominations for Worst Actor, Worst Musical Score, Worst Picture, and Worst Screenplay. Unlike the financial backers of the *Titanic*, those who funded *Heaven's Gate* definitely did not get their money's worth. Hence, it seems that a huge capital investment cannot guarantee either critical or box office success.

Yet surprisingly, the relation between film budget and cinematic creativity has not been the subject of direct empirical inquiry. The sole exceptions are the few studies that have examined the connection between production budget and a picture's take at the box office (e.g., Litman, 1983; Litman & Kohl, 1989; Prag & Casavant, 1994; Smith & Smith, 1986). Yet a movie's earnings do not represent the only, or perhaps even the best criterion of cinematic creativity. No less relevant are best picture awards as well as rave reviews from movie critics. Yet these alternative criteria may not necessary agree with each other (Holbrook, 1999). A picture may earn blockbuster status through special effects, gruesome violence, or gratuitous sex rather than through great direction, acting, and screenwriting. Accordingly, my goal in this study is simply to assess the impact of a film's budget on its cinematic creativity as gauged by multiple criteria. These success criteria include the evaluations of critics both during and after the film's release, best picture awards received from various professional organizations, and the two box office standards of first weekend and gross earnings.

In addition, to discern better the nature of the causal relation, I will add four measures that may provide intervening variables between a film's financial backing and its eventual creative impact. These variables concern whether the picture has displayed award-winning achievements in four creative clusters, namely, the dramatic (direction, acting, screenplay, and film editing), visual (cinematography, art direction, costume design, and makeup), technical (visual effects, sound effects editing, and sound), and musical (score and song). An earlier inquiry has shown that these clusters do not all have the same repercussions for cinematic creativity (Simonton, 2004). In particular, the dramatic cluster plays by far the biggest role in determining a film's success (see also Simonton, 2002). At the same time, it seems reasonable to assume that these same four clusters are differentially related to a film's budget. For instance, special effects often tend to be extremely expensive (e.g., the highly detailed ship model used in making the *Titanic*). The expense of these effects may not necessarily pay off in terms of the quality of the resulting motion picture.

METHOD

The raw data came mainly from electronic sources, such as the Internet Movie Database at http://us.imdb.com/Sections/Awards/ and various official sites, like those for the Academy Awards (http://www.oscars.org/awards_db/ index.html) and

the Golden Globes (http://www.hfpa.com/awardsframe.htm). This information was cross-checked using published reference books.

Sample

Although hundreds of movies are released each year, most are not suitable for examining the relation between budget and cinematic creativity. In the first place, budget figures are often available only sporadically except for the past decade or so (Simonton, 2004). Especially in the days of the big Hollywood studios, production costs were considered proprietary information that would not normally be made public unless it has some marketing value. In addition, the overwhelming majority of films produced each year do not receive wide release, or even more limited distribution. Distributors may not pick up films even when they win awards at film festivals. Without substantial distribution, it becomes meaningless to look at critical evaluations or box office earnings. Therefore, it is necessary to restrict the sample to relatively recent films that were widely distributed.

Accordingly, the sample consisted of all movies released between 1997 and 2001 that received special recognition in at least one of 17 award categories: picture, direction, male and female lead, male and female supporting actors, screenplay, art direction, costume design, makeup, cinematography, film editing, score, song, visual effects, sound effects editing, and sound. Specifically, the recognition had to consist of a nomination or an award from one of the following 7 professional societies: (a) the Academy of Motion Picture Arts and Sciences; (b) the British Academy of Film and Television Arts; (c) the Hollywood Foreign Press Association; (d) the National Board of Review; (e) the National Society of Film Critics; (f) the Los Angeles Film Critics Association; and (g) the New York Film Critics Circle. These 7 organizations were picked because (a) they all have been in existence for at least a quarter century, (b) they have consistently granted annual awards in most of the major categories, and (c) they focus on widely-distributed, English-language motion pictures (unlike movies honored at film festivals, such as Cannes, Venice, Berlin, or Sundance).

The sample began in 1997 so as to include the big-budget *Titanic*, and thus ensure the maximum variation on total costs. The sample ended in 2001 for two reasons. First, because films released late in the year will often continue showings well into the next, and because receipt of a major film award prolongs theatrical release, the gross earnings cannot be determined until after at least a year has transpired. Second, because movie

guide ratings are sometimes based on the videocassettes or DVDs rather than the theatrical releases, between one and two years must elapse before a film acquires an entry in many guides.

To render the films more comparable, three classes of movies were excluded: animated films, documentaries, and non-English-language movies. The distribution and market for these pictures do not make them comparable to most feature films. These deletions restricted the initial sample to 203 English-language, feature-length, narrative films.

Measures

The variables defined for this investigation can be grouped into four categories: (a) success criteria, (b) the creative clusters, (c) film budget, and (d) statistical controls.

Success criteria. The creative success of a feature film can be assessed by the following three sets of measures:

1. *Critics ratings* — Two distinct measures were devised to assess how critics evaluated the sampled films. The first was taken from Metacritic (at http://www.metacritic.com/), an internet website that compiles the evaluations taken from as many as 30 critical reviews into a single "megascore" (along a 100-point scale). Because the site did not start the systematic compilation of these *metacritic ratings* until recently, the scores are only available for films released from the year 2000 on, or a total of 73 movies. The scores range from 19 to 95 (M = 65.7 and SD = 17.0), a range indicating that films still exhibit tremendous variation in critical acclaim. The second measure was *movie guide ratings*. This was based on 5 different movie and/or video guides in which professional film critics provided some rating system, most often using stars (viz., Bleiler, 2001; Craddock, 2003; Maltin, 2002; Martin & Porter, 2001; Walker, 2001). These assessments were transformed into a quantitative measure by the following procedure. First, when necessary, each rating was converted into a "5-star" scale in which 1 = "turkey" or "bomb" and 5 = "masterpiece" or "classic." If a movie was not rated in a particular guide, then it was assigned a missing value for the corresponding score. Second, the 5 assessments were averaged across all non-missing values, yielding a combined measure that ranged from 1.88 to 4.85 (M = 3.51, SD = 0.56, n = 169). Coefficient alpha (a) for the resulting composite was .76, showing that there exists good consensus. It should be pointed out that where the metacritic ratings represent evaluations that were made during a film's theatrical release, the movie guide ratings were usually made after the showings had ceased. Even

so, the two alternative assessments correlate .75 ($p < .001$, $n = 40$), and thus they display substantial "test-retest" agreement.

2. *Best picture awards* — A 7-item composite measure was generated from all sources from which the sample originated (i.e., the 7 professional organizations). For each source the following scheme was used to calculate a best picture score: 2 = recipient, 1 = nominee, 0 = neither. These scores were then averaged across all 7 sources. The resulting measure ranges from 0-1.57 ($M = 0.11$, $SD = 0.23$). Coefficient alpha (a) for best picture honors is .73, indicating that the 7 separate assessments exhibit a reasonable agreement. On the other hand, this composite measure correlates .35 ($p < .01$, $n = 73$) with the metacritic score and .55 ($p < 001$, $n = 169$) with the movie guide ratings. Hence, the judgments represented best picture awards are not always in agreement with critical evaluations.

3. *Box office success* — Two distinct assessments were used to determine a film's popularity in the movie theaters. The first was the earnings in the *first weekend* of the theatrical release in the United States, with the figures expressed in millions of dollars rounded off to the nearest million. This measure could range from 0 to 93 ($M = 11.49$ and $SD = 17.16$, $n = 200$). The second was the film's *gross* U.S. earnings at the termination of its run. Again, the figures were expressed to the nearest million in U.S. dollars. The gross ranged from 0 to 601 ($M = 62.90$ and $SD = 81.48$, $n = 201$). Both measures were confined to the United States because of the greater reliability and availability of data for that venue. In addition, the films in the sample are predominantly Hollywood productions, and thus strongly cater to North American tastes. Although first weekend and gross earnings are strongly correlated ($r = .79$, $p < .001$, $n = 200$), neither exhibits statistically or substantively significant correlations with the two critic measures, with the sole exception that first weekend earnings are *negatively* correlated with the metacritic scores ($r = -.25$, $p < .05$, $n = 73$). Moreover, although box office success by the gross earnings criterion displays a moderate correlation with best picture awards ($r = .25$, $p < .01$, $n = 201$), the correlation of the latter measure with first weekend earnings is essentially zero ($r = -.01$). Hence, judging a film by how much money it makes is by no means identical to an evaluation based on either critical acclaim or best picture accolades.

Creative clusters. Four measures were taken from an earlier empirical study of the factors that contribute to a film's cinematic impact (Simonton, 2004). The measures were based

on the nominations or awards received in the major film categories according to the same 7 professional societies that provided the basis for the current sample. These nominations and awards were then used to define an indicator of achievement for each film category for each organization, using the same scheme as used for best picture awards (i.e., 2 = award, 1 = nomination, 0 = neither). Psychometric and factor analyses showed that the measures could be collapsed into composite scores for each of the following creative clusters: (a) *dramatic* (direction, screenplay, lead male and female actors, supporting male and female actors, and film editing; $M = 0.04$, $SD = 1.09$, $\alpha = .86$); (b) *visual* (cinematography, art direction, costume design, and makeup; $M = 0.00$, $SD = 0.91$, $\alpha = .84$); (c) *technical* (visual effects, sound effects editing, and sound; $M = 0.07$, $SD = 0.86$, $\alpha = .80$); and (d) *musical* (score and song; $M = -0.03$, $SD = 0.44$, $\alpha = .62$). Although in the original sample the four measures were standardized to $M = 0$ and $SD = 1.00$, the present measures depart slightly from *z* scores because of the restriction of the sample to more recent movies. This has no effect on the results.

Film budget. For a subset of 168 films it was possible to obtain budget figures. As in the case of the two box office measures, these data were expressed in units of a million U.S. dollars, rounded off to the nearest million. The range was substantial, from the big-budget *Titanic* down to the small budget *The Blair Witch Project* which cost a mere $35,000, and thus received a score of 0 on this measure ($M = 44.81$ and $SD = 35.81$).

Statistical controls. Three sets of control variables were also carried over from earlier investigations (Simonton, 2002, 2004). The first was the film's *release date*, that is, the year in which the film was first widely distributed in the movie theaters ($M = 1998.90$, $SD = 1.40$). This was introduced to control for any trends (e.g., inflation) between 1997 and 2001. Second, to adjust for the nature of different film genre, 0-1 dummy variables were defined to account for those genres that represented at least 5% of all films in the earlier studies. These dummy variables specifically coded whether the movie fell into one of the following genre: *dramas*, *comedies*, *romances*, or *musicals*. These four categories are not mutually exclusive, given that a particular film might combine two or more genre (musical comedies, romantic dramas, etc.). Moreover, some films do not belong to any of the four categories. Third, another set of 0-1 dummy variables was defined to recognize the distinct

ratings put out by the Motion Picture Association of America. In particular, the dummy variables coded whether or not the movie was rated *G* (general admission), *PG* (parental guidance advised), or *PG-13* (parents strongly cautioned because some material may be inappropriate for children under 13). According to this coding, the control group defined by the intercept term in the regression equation is defined by those movies rated *R* (Restricted, children under 17 would not be admitted without an accompanying parent or adult guardian) that do not fall into the categories of drama, comedy, romance, or musical.

RESULTS

Table 1 shows the Pearson product-moment correlation coefficients between the budget measure and the success criteria and the creative clusters. The most obvious conclusion is that a film's budget does not have a consistent impact on a film's success. At one extreme, budget displays a strong positive relation with both first weekend and gross earnings, with the correlations being almost identical. At the other extreme, budget figures are negatively correlated with both metacritic scores and movie guide ratings, albeit the associations are somewhat

TABLE 1. Pearson Product-Moment Correlations between Film Budget and Measures of Cinematic Success and Creative Clusters.

	r	*n*
Critics ratings		
Metacritic	-.36**	63
Movie guides	-.22**	139
Best picture awards	.03	168
Box office earnings		
First weekend	.69***	166
Gross	.71***	167
Creative clusters		
Dramatic	-.09	168
Visual	.27***	168
Technical	.54***	168
Musical	.33***	168

* $p < .05$. ** $p < .01$. *** $p < .001$.

less pronounced. Finally, budget exhibits no correlation with best picture awards. Clearly, the benefits of spending lots of money on a motion picture are rather mixed. The correlations for the creative clusters help indicate the reason for the ambiguous outcome. Although budget is correlated positively with receiving awards in the visual, technical, and musical clusters, the correlation with the dramatic cluster is practically zero. Yet previous investigations have shown that the dramatic qualities of a movie have far more importance than the contributions in the other three categories (Simonton, 2002, 2004).

To obtain a better picture of how budget and the creative clusters relate to the success criteria, the latter variables were each regressed on budget and each of the four cluster variables. The standardized partial regression coefficients ("betas") are presented in Table 2. With respect to budget it is evident that the outcome did not appreciably change. This variable retained its positive correlations with the two measures of box office earnings and its negative correlations with the two measures of critics ratings, while the correlation with best picture awards remained essentially zero. On the other hand, the regression results for the four creative clusters provide some new and useful information. Most conspicuously, the dramatic cluster exhibits strong positive associations with best picture awards and both critic ratings, whereas the same cluster has a

TABLE 2. Standardized Partial Regression Coefficients for Success Criteria as Function of Film Budget and Creative Clusters.

	Best picture awards	Critics ratings		Box office earnings	
		Meta-critic	Movie guides	First weekend	Gross
Film budget	-.03	-.46**	-.21**	.64***	.60***
Creative clusters					
Dramatic	.71***	.45***	.67***	-.13	.13*
Visual	.16**	-.01	-.04	.13	.06
Technical	.09	.23	.13	.08	.18**
Musical	.10	-.04	-.03	-.12	.04
R^2	.76***	.40***	.51***	.49***	.59***
n	168	63	137	166	167

* $p < .05$. ** $p < .01$. *** $p < .001$.

nonsignificant negative correlation with first weekend earnings and a small but significant positive correlation with gross earnings. With just two exceptions, the remaining creative clusters are irrelevant to a film's success by any criterion. The first exception is the visual cluster, which has a small positive correlation with best picture awards. The second exception is the technical cluster, which has a positive correlation with gross earnings. Indeed, the technical cluster enjoys about the same magnitude of impact as does the dramatic cluster.

The general pattern of results shown in Table 2 does not change much when the control variables are introduced into the multiple regression equations. In particular: (a) best picture awards remains a function of just the dramatic and visual clusters, with the former having by far the greater impact; (b) both metacritic scores and movie guide ratings are still a negative function of budget and a positive function of the dramatic cluster; (c) first weekend earnings remains a positive function of budget only; and (d) gross earnings continues to be a positive function of both budget and the dramatic and technical clusters. The chief reason why the control variables mandated no substantive changes in the conclusions is that they shared very little variance in any of the dependent and independent variables (see also Simonton, 2004). Hence, the findings reported in Table 2 were unaffected by the addition of the controls.

DISCUSSION

It is now time to answer the question that motivated this inquiry: What is the relation between production budget and cinematic creativity? It should be clear that the answer is contingent on the criterion adopted. If the goal is to have long lines outside the theaters on opening weekend and to attain the status of a blockbuster moviemaker, then big budgets are a good bet. The large positive correlations and regression coefficients seen in the tables demonstrate that such capital investments have a strong likelihood of paying off with ample profits. Not only does the budget have a major direct effect on box office success, but also it can be said to have a supplementary indirect effect through the technical cluster, a contribution with which budget size has the strongest correlation according to Table 1. Hence, if moviemaking is equated to moneymaking, people in the film industry can indeed purchase cinematic impact.

On the other hand, if the goal is to win both best picture awards and critical praise, such excessive expenditures are far

from cost effective. First of all, big budgets are irrelevant to best picture awards or nominations. The correlation is essentially zero. Even worse, big budgets can actually backfire with respect to critics' assessments. Whether we look at the critical reviews published when the film is being shown in the theaters or the movie guide ratings published a year or more afterward, the size of a film's budget is a negative predictor. This inverse association is most apparent in the metacritic ratings for films that were released in 2000 and 2001, as illustrated in Table 3. The most conspicuous case is *Pearl Harbor*, which cost the most to make but was seventh from the bottom in terms of

TABLE 3. Top 10 and Bottom 10 Movies According to Budget versus Metacritic Ratings.

Budget	Metacritic ratings
Top 10	
Pearl Harbor	Almost Famous
Harry Potter and the Sorcerer's Stone	Gosford Park
How the Grinch Stole Christmas	Lord of the Rings (Part 1)
The Perfect Storm	In the Bedroom
The Patriot	You Can Count on Me
Lord of the Rings (Part 1)	Traffic
Ali	Hedwig and the Angry Inch
Gladiator	Mulholland Dr.
Planet of the Apes	Memento
Black Hawk Down	The Deep End
Bottom 10	
Best in Show	What Women Want
Hedwig and the Angry Inch	Vanilla Sky
Iris	Vertical Limit
Billy Elliot	Pearl Harbor
Memento	The Cell
Requiem for a Dream	Miss Congeniality
Monster's Ball	Vatel
The Deep End	102 Dalmatians
In the Bedroom	I Am Sam
You Can Count on Me	Hollow Man

Note. Rankings for films released in 2000 and 2001 ($n = 63$).

critical evaluation. In concrete terms, despite a budget of $153 million, this film received a rating of only 44 out of 100. At the other extreme is *You Can Count on Me*, which cost only about one million to make, but earned a metacritic score of 88. Other discrepant films include *Memento*, *The Deep End*, and *In the Bedroom*. To be sure, the first part of *Lord of the Rings* is an exception, but it is the lone exception, and such exceptions are to be expected given that correlation is only moderately negative, as seen in Table 2.

One reason for the adverse effect is that big budgets are associated with the wrong creative clusters. Budget size is positively associated with great visual qualities (cinematography, art direction, costume design, and makeup), great special effects (visual effects, sound effects editing, and sound), and great music (score and song). Yet these three creative clusters are relatively unimportant to a film's impact, especially in the eyes of the film critics. In contrast, best picture awards and critical acclaim are bestowed on movies that feature great screenplays, directing, acting, and film editing. And yet ironically, this cluster has a zero correlation with a film's budget. This null association may come as a surprise because one might expect that money could be used to purchase the very best movie stars, and thus take advantage of "star power." Even so, the empirical literature has shown that movie stars have very inconsistent and unpredictable effects on a film's box office success (e.g., Kindem, 1982; Simonet, 1980; Wallace, Seigerman, & Holbrook, 1993). It is not completely clear, therefore, whether movie stars can do any better in ensuring that a film receive best picture honors or critical acclaim (cf. Zickar & Slaughter, 1999).

In any case, these divergent budget effects probably reflect a tension in filmmaking that has existed almost since its inception at the end of the 19th century. Although moviemakers were originally dedicated to producing popular entertainment, and placed much emphasis on the profit motive, filmmaking eventually began to be viewed as a form of artistic expression (Bauman, 2001). This shift is evident in the founding of the Academy of Motion Picture Arts and Sciences in 1927 as well as the publication of Rudolf Arnheim's 1933 *Film*, which was later adapted into the book *Film as Art* (Arnheim, 1957). The conception that the motion pictures represented a legitimate art form was accentuated in the emergence of the "Auteur theory" which argues that certain filmmakers, most commonly directors, exert a personal imprint on their creations that is as

distinctive as that expressed by creators in more traditional domains, such as art, literature, and music (Blandford, Grant, & Hillier, 2001, pp. 16-18). Just as Michelangelo, Shakespeare, and Beethoven have imposed their unique stamp on their respective domains, so have directors like Woody Allen, Ingmar Bergman, Luis Buñuel, Federico Fellini, Alfred Hitchcock, and François Truffaut left an identifiable impression on their respective films. Of course, film as art never completely replaced film as entertainment. And to some degree the advent of the blockbuster may have even somewhat undermined the artistic status of feature films. Even so, most award ceremonies, including the 7 used to define the sample and measures used in the present study, may assign far more weight to film aesthetics than to film finances.

Nonetheless, the negative correlation between budget and film aesthetics should not be misinterpreted. It is certainly not the case that cheaper is always better. We must remember that the sample consisted of films that met the minimum standards for wide theatrical distribution. Moreover, every one of the sampled movies received at least one award nomination in one of 17 categories of cinematic achievement, as determined by the 7 professional organizations. Therefore, it could be argued that a more heterogeneous sample of films might actually exhibit a curvilinear, inverted-U relation between budget and the aesthetic assessments of the critics. Certainly no critic is to give five stars to a truly amateurish production. Nevertheless, the threshold budget to be eligible for critical appreciation appears to be rather low. In the 5-year period represented by this sample of films, there are many excellent films that were made for less than a million dollars. Even if we confine attention to the films that have earned major critical recognition, the lower bound for the budget appears relatively low. For instance, the 2001 movie *In the Bedroom* was made for less than two million, or less than 100th the budget of *Titanic* and less than 4% of the average budget for the movies in this sample. That bargain-basement cost did not prevent the film from earning a metacritic score of 90, nor did it stop the film from receiving an award for best picture from the Los Angeles Film Critics Association. The film's high-quality screenplay, direction, and acting more than compensated for its extremely modest budget. Accordingly, so long as a filmmaker is not committed to creating a blockbuster, cinematic creativity is only weakly constrained by capital investment. Excellent drama then buys more success than can copious cash.

REFERENCES

ACADEMY AWARDS DATABASE. (n.d.). Accessed from http://www.oscars.org/awards_db/ index.html

ARNHEIM, R. (1957). *Film as art*. Berkeley: University of California Press.

BARRON, F. X., & HARRINGTON, D. M. (1981). Creativity, intelligence, and personality. *Annual Review of Psychology, 32*, 439-476.

BAUMAN, S. (2001). Intellectualization and art world development: Film in the United States. *American Sociological Review, 66*, 404-426.

BLANDFORD, S., GRANT, B. K., & HILLIER, J. (2001). *The film studies dictionary*. New York: Oxford University Press.

BLEILER, D. (Ed.). (2001). *TLA film and video guide: The discerning film lover's guide 2002-2003*. New York: St. Martin's Griffin.

CRADDOCK, J. (Ed.). (2003). *VideoHound's golden movie retriever 2003*. Boston: Visible Ink.

HOLBROOK, M. B. (1999). Popular appeal versus expert judgments of motion pictures. *Journal of Consumer Research, 26*, 144-155.

HOLLYWOOD FOREIGN PRESS ASSOCIATION. (n.d.). Accessed from http://www.hfpa.com/ awardsframe.htm

INTERNET MOVIE DATABASE (n.d.). Accessed from http://us.imdb.com/Sections/Awards/

KINDEM, G. (1982). Hollywood's movie star system: A historical overview. In G. Kindem (Ed.), *The American movie industry: The business of motion pictures* (pp. 79-94). Carbondale, IL: Southern Illinois University Press.

LITMAN, B. R. (1983). Predicting success of theatrical movies: An empirical study. *Journal of Popular Culture, 16*, 159-175.

LITMAN, B. R., & KOHL, L. S. (1989). Predicting financial success of motion pictures: The '80s experience. *Journal of Media Economics, 2*, 35-50.

MALTIN, L. (Ed.) (2002). *Leonard Maltin's 2003 movie & video guide*. New York: Signet.

MARTIN, M., & PORTER, M. (2002). *Video movie guide 2003*. New York: Ballantine.

METACRITIC (n.d.). Accessed from http://www.metacritic.com/

PRAG, J., & CASAVANT, J. (1994). An empirical study of the determinants of revenues and marketing expenditures in the motion picture industry. *Journal of Cultural Economics, 18*, 217-235.

SIMONET, T. S. (1980). *Regression analysis of prior experience of key production personnel as predictors of revenues from high-grossing motion pictures in American release*. New York: Arno Press.

SIMONTON, D. K. (1994). *Greatness: Who makes history and why*. New York: Guilford Press.

SIMONTON, D. K. (2002). Collaborative aesthetics in the feature film: Cinematic components predicting the differential impact of 2,323 Oscar-nominated movies. *Empirical Studies of the Arts, 20*.

SIMONTON, D. K. (2004). Group artistic creativity: Creative clusters and cinematic success in 1,327 feature films. *Journal of Applied Social Psychology, 34*, 1494-1520.

SMITH, S. P., & SMITH, V. K. (1986). Successful movies: A preliminary empirical analysis. *Applied Economics, 18*, 501-507.

WALKER, J. (Ed.). (2001). *Halliwell's film & video guide 2002*. New York: HarperCollins.

WALLACE, W. T., SEIGERMAN, A., & HOLBROOK, M. B. (1993). The role of actors and actresses in the success of films: How much is a movie star worth? *Journal of Cultural Economics, 17*, 1-27.

ZICKAR, M. J, & SLAUGHTER, J. E. (1999). Examining creative performance over time using hierarchical linear modeling: An illustration using film directors. *Human Performance, 12*, 211-230.

AUTHOR NOTE Correspondence concerning this article should be addressed to Dean Keith Simonton, Department of Psychology, One Shields Avenue, University of California, Davis, California 95616-8686. Electronic mail may be directed to dksimonton@ucdavis.edu.