

## **The Seat of Bob Parr's Pants 1: Intuition, programming and the local cinema circuit**

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*... despite the screenwriter William Goldman's (1983) aphorism that in Hollywood, 'nobody knows anything,' academics think they know something.*

Charles B. Weinberg<sup>1</sup>

*... it's seat of the pants but you know, we're not dumb.'*

Bob Parr, Wallis Cinemas

### **Abstract:**

This is the first of two articles examining relationships of exhibition through a study of Wallis Cinemas, a privately-owned cinema circuit in Adelaide. Both articles explore questions about the ways in which small multiplex exhibitors structure their businesses and the nature of their interactions with distributors and localised audiences. This first article examines the working practice of Wallis' former Programming Manager, Bob Parr. Beginning with an examination of recent attempts to develop economic models for predicting a film's box-office potential, we emphasise the importance of the exhibitor's role in allocating the industry's scarce resource, which is not movies but screens, and in mediating audience preferences through his or her decisions about these allocations. We then provide a descriptive account of Parr's programming strategies, and of the assumptions about films and audiences underlying his intuitive decision-making. Analysing the commercial performance of a year's worth of movies across the Wallis circuit, we identify significant variations in audience preferences among the four multiplexes, and examine how these variations relate to two of the movies' characteristics: their censorship classification and the genre attributed to them by trade sources.

**Keywords:** exhibition, multiplex, programming, cinema audiences, audience preferences.

This is the first of two articles examining relationships of exhibition through a study of Wallis Cinemas, a privately-owned cinema circuit in Adelaide and exploring questions about the ways in which small multiplex exhibitors structure their businesses and the nature of their interactions with distributors and localised audiences. In contrast to both the centralised programming decisions of the large exhibition chains (in Australia as well as in the US) and the aggregated national or international data used by most economic studies of the film industry, we are particularly concerned to explore the continuing extent of local differentiation in the era of the multiplex, and to pose the question of whether any observed local variations in film popularity might be explained, and hence, are predictable.<sup>2</sup> Our central concern is with the programming of Wallis' screens and we attempt to identify and account for the wide differences between the four multiplexes that comprise this circuit. Our research project is a distinctly bottom-up one, which begins from empirical studies based on an intensive micro-study and attempts to find grounds for connection with both theoretical work in the area and empirical studies that are more generalised in their scope.

This first article examines the working practice of Wallis' former Programming Manager, Bob Parr. Parr is a veteran of the Adelaide exhibition scene, who worked in virtually every role in the business prior to his recent retirement.<sup>3</sup> Widely-respected in the industry, he also programmed for ninety independent screens across Australia, centrally managing their negotiations with distributors. Parr accounted for his decision-making by what he calls a 'seat of the pants' understanding of the different preferences of audiences at each of his cinema complexes – a matter of experience-based intuition built up over the course of his career. The second article explores the composition and cinemagoing practices of the audiences for Wallis' four multiplexes, through a demographic study and the results of a survey. We begin by putting the seat of Bob's pants into a broader theoretical context.

### **The Knowability of the Business**

It is customary when writing on the economics of contemporary cinema to start by quoting William Goldman's 1983 aphorism that 'nobody knows anything ... nobody – not now, not ever – knows the least goddamn thing about what is or isn't going to work at the box office.'<sup>4</sup> Some – Arthur De Vany's 2004 book *Hollywood Economics*, for instance – end with it:

Anyone who claims to forecast anything about a movie before it is released is a fraud or doesn't know what he is doing. The margin of error is infinite. ... The probabilities of the past may not be those of the future. No amount of confirmation makes a theory about the movies right. There are black swans out there. There is no formula. Nobody knows anything.<sup>5</sup>

Others refute Goldman's aphorism as being out of date, and this century has seen a proliferation of algorithms codifying the expert knowledge of script readers and

scriptwriting manuals, along with neoclassical economic analyses seeking to provide investors with a reliable framework to ‘pick movies with the right characteristics to make money.’<sup>6</sup> Increasingly complex computational models have used a variety of proxy ‘big data’ – from the volume of Twitter mentions to the activity level of editors and viewers of Wikipedia entries – to predict movie revenues. Such analyses are now as likely to appear in the *European Journal of Physics* or *arXiv* as in *Economic Inquiry* or the *International Journal of Research in Marketing*.<sup>7</sup> These approaches are premised on the view that the unpredictability of the motion picture business and its dependency on break-out hits is inefficient and irrational, and that it must be susceptible to improvement through the application of marketing science and knowledge-based computer systems. Marketing economists Jehoshua Eliashberg, Anita Elberse and Mark Leenders consider it ‘staggering to discover how little ‘science’ usually goes into the process’ of ‘greenlighting’ a production, and confidently assert that the quantitative and qualitative methods developed by marketing scholars can improve success rates.<sup>8</sup>

Earlier academic attempts to circumvent Goldman’s principle were almost exclusively concerned with the production process. S. Abraham Ravid’s 1999 examination of the role of stars in the financial success of movies is typical of such studies in its focus on the analysis of a single factor in production: in this case, whether stars’ high salaries essentially capture the added value that they bring to a production, effectively negating their box-office value to the films in which they appear.<sup>9</sup> Such analyses have frequently left their authors puzzling over the economic rationality of Hollywood’s practices. Ravid’s study leaves him ‘wondering why the star system is such a cornerstone of Hollywood and why studios keep turning out big-budget films loaded with special effects.’<sup>10</sup> Producers who encountered it may have been equally puzzled over the relevance of such economic analyses; the movie industry, as Eliashberg, Weinberg, and Sam K. Hui note, appears particularly ‘unreceptive to the idea of applying quantitative decision models.’<sup>11</sup> This is perhaps because, as Barry Gunther observes in a recent overview of the research, while ‘it would be helpful for studios and investors in movies to have intelligence that can help to predict the likelihood of success for movies before they get to the production stage ... systematic tests of predictive variables have not always managed to generate consistent findings.’<sup>12</sup> The published conclusions of attempts to codify the expert knowledge of script readers and scriptwriting manuals into algorithms which are claimed to accurately predict box-office revenue – that a movie’s box office performance will depend, among other things, on ‘what the genre of the movie is, how the main conflict in the movie is built up, and how different conflicts are structured,’ that ‘family movies and comedies tend to generate highest risk-adjusted gross profits,’ and that ‘non-R rated movies generate higher risk-adjusted gross profits than R-rated movies’ – suggest that their algorithms are unlikely to tell executives anything of which they are currently unaware.<sup>13</sup>

These analyses recapitulate a long-standing argument over the extent to which the movie business, and the entertainment industry in general, can be understood in the same terms as other commercial enterprises, or whether the particular qualities of its

manufacturing processes and products render it inherently exceptional, in the manner suggested by Goldman.<sup>14</sup> While the movies' exceptionalism to economic rationality is most often asserted on the grounds of their contiguity to art practices, marketing scholars have most recently argued that the industry's tradition of intuitive decision-making stems from the large number of variables that executives or exhibitors have to consider, leading them to sometimes base their decisions on simple heuristics, or rules of thumb.<sup>15</sup> Berand Wieranga observes that:

traditionally, this industry values intuition and creativity more than formal analysis. Intuition plays an important role in decision making at virtually every stage of the movie-value chain, from the creative decisions about the story concept to the decisions about the number of screens on which a new movie will open. Even the more structured decisions about which movies to show in a given theater in a particular week, and how to schedule these ... use a good deal of intuition [which is often] the result of a life-long experience in the industry.<sup>16</sup>

Exhibition is seen as being no less resistant to scientific optimisation than production, operating as it does at levels of between ten and twenty percent of capacity, measured by the number of seats occupied.<sup>17</sup> A 'decision support system' called Silverscreener was developed by Eliashberg and colleagues to assist exhibitors with programming and scheduling decisions. They define the exhibitor's problem as one of dealing with a large number of variables which it is 'practically impossible' for an individual exhibitor to consider.<sup>18</sup> They suggest that managers may not use all the data available to them in their daily decision-making, and 'sometimes ... just use very simple heuristics to guide their decisions.'<sup>19</sup> One acknowledged weakness of the Silverscreener model, however, is its limited capacity to predict attendance for new movies; they suggest that this could be addressed by finding a way of integrating the theatre manager's intuitive judgment into the model, but they do not explain how this might be achieved.

The conclusions from this modelling therefore reinforce the position of local knowledge. The researchers suggest that the centralised decision-making employed by most exhibition chains is less than optimal because one scheduler is unlikely to have 'the basis for developing judgmental forecasts for the box office performance of each movie, in each of the local theaters. This contrasts with the norm of decentralized decision making and local control in the traditional retailing industry.'<sup>20</sup> A 2003 study by Elberse and Eliashberg of the behaviour of exhibitors as retailers and audiences as consumers concluded that the variables usually expected to influence audiences directly, including a movie's genre and stars and its advertising expenditure, actually had their principal influence indirectly, through their impact on exhibitors' screen allocations: whether through the terms of the initial contract mandating a number of screens for a set period, or through their subsequent judgement about a movie's likely 'playability,' or capacity to maintain an audience throughout its run.<sup>21</sup> Exhibitors allocate the scarce resource in the industry, which is not

movies but screens; as Australian film producers constantly complain, their decisions determine both what audiences can see and what access films have to their potential viewers.<sup>22</sup> Our analysis of Bob Parr's intuitive judgements aims, in part, to examine the variables that an experienced exhibitor considers in making programming decisions, and the extent to which these decisions can be more formally articulated in terms of the characteristics of the films or their audiences. Whether this analysis will be useful to those economic modellers seeking to reduce 'the uncertainty about movies' performances' is, however, a question for other researchers, with goals different from our own.<sup>23</sup>

## Wallis Cinemas

Wallis Cinemas grew out of a refrigeration business in the 1950s during the rise of drive-ins in Australia. At the height of the drive-in period, it ran eight drive-ins in Adelaide and six in country South Australia. Wallis pioneered multiplexes in the state in 1971 and its circuit now consists of four multi-screen sites in the suburbs of Adelaide and one remaining drive-in. The multi-screen sites are:

- **Mitcham:** 7-screen complex with a total seating capacity of 1,172 (compromised of auditoria of 248, 204, 153, 153, 151, 136 and 127 seats)  
Located in a shopping centre 6km south of the Adelaide CBD, the multiplex was opened in 2006. It is the only Wallis complex that is leased from a shopping centre owner.
- **Mt Barker:** 7 screens totalling 1,357 seats (303, 277, 251, 156, 141, 119, 110)  
This is located in the largest town in the Adelaide Hills, 33 kilometres east of the Adelaide CBD. It was opened in 2006 as part of a development which included a tavern and restoration of an 1860s mansion.
- **Noarlunga:** 5 screens totalling 1,548 seats (460, 286, 284, 264, 254)  
Located adjacent to a shopping centre in a commercial suburb 29km south of the Adelaide CBD, the multiplex was opened in 1991 and is owned by Wallis.
- **Piccadilly, North Adelaide:** 3 screens totalling 815 seats (418, 214, 183)  
Located in North Adelaide, 3km north of the city centre, the Piccadilly opened as a single screen cinema in 1940. It was purchased by Wallis in 1990 and converted to a triple screen cinema.

In previous studies of Adelaide exhibition in the 1940s we set out to analyse the factors that explained cinema location, identifying a pattern of intense clustering for first-run cinemas in the central business district, with suburban locations responding to a mixture of transport factors and competitive clustering.<sup>24</sup> At first glance things are now very different, with only one art cinema complex left within Adelaide's CBD at the time we analyse. Bob Parr regards Wallis' exit from its sole CBD site in 2006 as a matter of regret, but explains that the auditoria were too large and too costly to run because of their separate entrances and

projection rooms. Moreover, they occupied ground floor real estate, which is now unsustainably expensive for cinemas.

Nevertheless, strong underlying continuities with the past still exist, pointing to the structural factors that continue to underpin exhibition. First run releasing still clusters screens, but now does so within a single complex rather than by means of a range of competing co-located cinemas. Instead of clustering together beside competitors, multiplexes now cluster their own screens together under a single roof. For the audience, the same purpose is achieved: an entertainment precinct offering a choice of filmed entertainment. Competing exhibitors are no longer on the same street, but spread throughout the suburbs according to catchment areas, the size and dispersal of which is a subject for further research. Transport, however, remains a key explanatory factor, both because of the availability of car parking at shopping malls and in the way that malls function as hubs for public transport.

As explained by Parr, the key locational factor is the relationship between cinema operators and shopping centre managers. The connections between cinema management and the changing logic of retail stores have been explored by authors such as Anne Friedman and William Paul, although the link has increasingly become a more tangible partnership rather than simply one of analogous methods.<sup>25</sup> Mall operators see multiplexes as a valuable means of attracting patrons into their malls, particularly during evening periods. Because Wallis is not a national circuit, it has not been able to build a relationship with Westfield, the largest shopping mall operator in Australia, whose Adelaide operations house the 26-screen Marion complex in the southern suburbs as well as two smaller multiplexes at its other malls.<sup>26</sup> It has instead operated opportunistically, leasing its Mitcham site from a mid-size shopping centre re-development, and acquiring sites in Noarlunga adjacent to the nationally-based Colonnades shopping mall, and in a tavern redevelopment Wallis undertook with a property it owned in Mt Barker.

Describing the size of each complex, Parr explains that the overall number of seats for each venue is generally determined by the amount of available car parking space. A rough calculation for local government is that concert venues require one parking space for every five seats.<sup>27</sup> Equally important is the way in which the total number of seats is divided into separate auditoria. An analysis of Wallis' box office revenues for the 2013-14 financial year might cast some light on this point. (To protect the commercial-in-confidence nature of actual dollar values, a value of 1.00 has been attributed to the highest gross in each column with other grosses shown as a fraction of the highest gross: thus Mt. Barker's weekly gross is equivalent to 68% of Mitcham's, though its weekly gross per seat is only 58% that of Mitcham.)

Profitability can be calculated on the basis of earnings per seat or per screen: Noarlunga has a higher gross per screen than Mt Barker, but the latter grosses more per seat. By either measure Mitcham, which has the smallest average capacity amongst its auditoria, is its best performing complex. It has the largest gross earned by a relatively small number of seats. Each seat at Mitcham works twice as hard as a seat at Noarlunga.

	Screens	Seats	Weekly Gross	Weekly Gross per Screen	Weekly Gross per Seat
<b>Mitcham</b>	7	1,172	1.00	1.00	1.00
<b>Mt Barker</b>	7	1,357	0.68	0.68	0.58
<b>Noarlunga</b>	5	1,548	0.65	0.91	0.49
<b>Piccadilly</b>	3	815	0.41	0.96	0.59

**Table 1:** Comparison of Grosses at each Wallis Cinema.

Edward Jay Epstein suggests that in the United States, the initial reason for multiplex auditoria commonly having under 300 seats was the need to evade the requirements of the 1990 Americans with Disabilities Act.<sup>28</sup> It seems, however, that the logic of contemporary suburban circuits in Adelaide is that they function best with a larger number of smaller-sized auditoria. This proposition is borne out by a comparison with the 26 screen Marion multiplex, operated as part of Greater Union’s nation-wide Event Cinema circuit and for several years after its opening in 1997 the largest multiplex in the Southern Hemisphere. This complex has a smaller average auditorium size (134 seats) than any of Wallis’ complexes, but it enjoys a weekly return estimated to be nearly 50 percent higher than the Wallis Mitcham complex. Arguing that each auditorium is seldom used to full capacity, Parr assesses the profitability of his multiplexes on the basis of their overall performance, rather than breaking it down by screen or by seat.

As Epstein points out, the change in the size and number of auditoria within a multiplex had immediate ramifications for the relationship between exhibition and distribution.<sup>29</sup> Parr’s negotiations with distributors are undertaken on a weekly basis according to a code of conduct that recognises the ability of different cinemas to play films under different conditions. Agreements involve the number of daytime and evening sessions and the minimum length of the run. A wide release film might be booked on a five-week minimum, playing the first three weeks on a 2+2 basis (two daytime sessions and two evening sessions) and then reducing to 2+1 for the last two weeks. In line with the industry’s practice of flexible contracting, these terms are open for renegotiation on a weekly basis.<sup>30</sup> Table 2 shows an example of how one film, *Are We Officially Dating*, moved around auditoria within each of the Wallis multiplexes, starting with four screenings per day in the three large centres in the first week and petering out to two screenings per day in the Mitcham and Mt Barker centres and none in the Noarlunga and Piccadilly centres by the fourth week.

Cinema	Mitcham					Potential Audience	Mt Barker				Potential Audience	Noarlunga					Potential Audience	Piccadilly		Potential Audience	Total Potential Audience
	2	3	4	6	7		2	3	6	7		1	2	3	4	5		1	2		
Capacity	127	153	248	151	136	277	251	141	110	460	286	264	284	254	418	214					
13/02/2013	1	2			1	569	3		1	863	2	1		1	1090	3	1254	3776			
14/02/2013	1	2			1	569	3		1	863	2	1		1	1090	3	1254	3776			
15/02/2013	1	2			1	569	3		1	863	2	1		1	1090	3	1254	3776			
16/02/2013	1	2			1	569	3		1	863	2	1		1	1090	2	1	1050	3572		
17/02/2013	1	2			1	569	3		1	863	2	1		1	1090	3	1254	3776			
18/02/2013	1	2			1	569	3		1	863	2	1		1	1090	3	1254	3776			
19/02/2013	1	2			1	569	3		1	863	2	1		1	1090	3	1254	3776			
20/02/2013		2	1			554	2	1		805	1	1		1	1030	2	1	1050	3439		
21/02/2013		2	1			554	2	1		805	1	1		1	1030	2		836	3225		
22/02/2013		2	1			554	2	1		805	1	1		1	1030	3	1254	3643			
23/02/2013		2	1			554	2	1		805	1	1		1	1030	2		836	3225		
24/02/2013		2	1			554	2	1		805	1	1		1	1030	2	428	2817			
25/02/2013		2	1			554	2	1		805	1	1		1	1030	2		836	3225		
26/02/2013		2	1			554	2	1		805	1	1		1	1030	2		836	3225		
27/02/2013		3				459		1	2	361	1		2		988	1	418	2226			
28/02/2013		3				459		1	2	361	1		2		988		0	1808			
1/03/2013		3				459		1	2	361	1		2		988	1	418	2226			
2/03/2013		3				459		1	2	361	1		2		988	1	418	2226			
3/03/2013		3				459		1	2	361	1		2		988	1	418	2226			
4/03/2013		3				459		1	2	361	1		2		988	1	418	2226			
5/03/2013		3				459		1	2	361	1		2		988	1	418	2226			
6/03/2013	1			1		278	1		1	361					0		0	639			
7/03/2013	1			1		278	1		1	361					0		0	639			
8/03/2013						0	1		1	361					0		0	361			
9/03/2013	1					127	1		1	361					0		0	488			
10/03/2013	1			1		278	1		1	361					0		0	639			
11/03/2013	1			1		278	1		1	361					0		0	639			
12/03/2013	1					127	1		1	361					0		0	488			
																		<b>68084</b>			

**Table 2:** Screening schedule for *Are We Officially Dating* at Wallis cinema centres. (Yellow shading indicates weekend and public holiday screenings.)

Wallis operates on a straight split of the gross with the distributor rather than the older alternative of subtracting a ‘house nut’ to cover the exhibitor’s operating expenses and splitting the net. Because multiplexes frequently move films from one screen to another to optimise overall capacity, calculating the expense nut for a single screen has become too confusing and contentious. Wallis’ typical terms involve a distributor-exhibitor split of 55%-45% of the gross in the opening week, with the percentage changing progressively in the exhibitor’s favour in subsequent weeks. The minimum distributor share is 25% for long-running films.

Exhibitors and distributors have a symbiotic relationship constructed around the screening of movies, but their commercial interests are quite divergent, and not only because of the temporal variation in the percentage splits in their contracts. For distributors, ‘theatrical box office may in part be exactly that: theatre, the ‘show’ of Hollywood’s business, a marketing platform for a product that reaps its major profits in other windows ... over long periods of time.’<sup>31</sup> But the profitability of the exhibitor’s

enterprise also depends on the theatre's ancillary markets in concessions and advertising. According to Tino Balio, concession sales account for 20% of a theatre's revenue on average, but nearly half its profits.<sup>32</sup> In the US market, Epstein estimates that a multiplex's profit margin on concession sales is 80 percent, and 90 percent on advertising.<sup>33</sup>

Disney's Chairman Alan Horn argues that 'exhibitors totally embrace the blockbuster philosophy,' because 'what they want to do is sell popcorn. Blockbuster movies put a lot more people in seats, which means they sell more popcorn,' particularly to the primary target audience of teenagers.<sup>34</sup> Bob Parr concurs:

If it wasn't for the candy bar and screen advertising we would not exist. The industry would not exist. The candy bar at Noarlunga is the best we've got. That demographic spends a lot more money per head than they do [in Mitcham]. The *Philomena* audience, they don't spend a thing. ... They don't buy popcorn. They'll buy a choc top, but you need those youth films to make big money.

Economist Peter Davis takes this line of argument a stage further when he suggests that exhibitors have a strong incentive to prefer lower admission prices, since a higher volume of admissions would produce additional concessions revenues.<sup>35</sup> Much like the suggestions from the Silverscreener researchers that exhibitors would behave more rationally if they screened fewer films in longer runs, this denies the operating conditions and relationships within the distribution-exhibition industry, in which the profitability of the enterprise lies elsewhere than in the ostensible principal transaction.

In seeking to gain the audience's attention, the studio-distributor aims for a marketing campaign focused on creating a short-term audience for a movie's opening, in the expectation that this group of opinion-leaders will influence subsequent consumers, who amplify the choices of the early adopters in what Matthew Salganik and Duncan Watts describe as a 'cumulative-advantage process.'<sup>36</sup> The exhibitor, on the other hand, seeks the stability of a regular audience, which he or she pursues through community engagement. Wallis' rapport with the community comes through regular events such as nostalgia sessions, sensory friendly sessions for children with Autism Spectrum Disorder, 'Bring a Bub' sessions where babies and toddlers are welcome, 'Underage Rages,' 'Saturday Kidz Club' sessions and 'Girls' Night Out.' These are not necessarily large money earners. Parr feels there is a 'need to do them to make the theatre interesting. Otherwise it's just becoming a multiplex showing just like a sausage factory.' Initiatives such as the Boulevard Lounge at Mitcham cinema centre are another example of a service provided solely to avoid the 'sausage factory' analogy. Parr believes that 'in the big picture the image of the theatre is lifted.'

## Wallis Cinemas' Audiences

*'It doesn't matter how long or what experience you've got in this business, it's very difficult to predict what a film's going to do. Some films are a no-brainer, but there a lot of films in there that you haven't got a clue. Now with a single screen, if you make a mistake you've got nowhere to go.'*

Bob Parr

Parr explains the advantage of multi-screen complexes as a response to the basic uncertainty about the popularity of films and the variability of response from cinema to cinema. These are assumptions that go to the heart of debates about Goldman's unknowability principle and we will seek to put some of these propositions to the test. We are interested in the question of whether variations between cinemas are predictable based on differing qualities that can be attributed either to the films screened or to the composition of the audience.

The variability from cinema to cinema is a remarkable aspect of Wallis' business. The following table lists the twenty top-grossing films at each of Wallis' sites over the 12 month period from February 7, 2013 to February 12, 2014, comparing these results with the total for the whole circuit and their national position.

In the most general sense, the Wallis circuit reflects national rankings in that the top five films are identical. There is, however, a reversed emphasis, with animated films (*Despicable Me 2*, *Frozen*) proving more popular for Wallis than action films (*Iron Man 3*, *Catching Fire* and *The Desolation of Smaug*). The differences among rankings increase further down the list: while the first 8 films in the Wallis rankings have an average rank difference of 2.4 in relation to the national ranking, that figure almost triples to 7 for the next 12 films.

Importantly, the micro-analysis of individual multiplexes captures differences that might be obscured by reliance on larger scale data. There are significant variations in rankings between cinemas in the circuit. The strongest examples of this are clearly films such as *The Great Gatsby*, which ranked first and second at Mitcham and the Piccadilly but tenth and 27<sup>th</sup> at Mt Barker and Noarlunga, and *Philomena*, which ranked first at the Piccadilly, sixth at Mitcham, ninth at Mt Barker but only 36<sup>th</sup> at Noarlunga. In the opposite direction, *Fast and Furious 6* ranked eighth at both Noarlunga and Mt Barker, but only 22<sup>nd</sup> and 31<sup>st</sup> at the Piccadilly and Mitcham.

These rankings suggest a rough distinction between the preferences of audiences at Mitcham and the Piccadilly on one hand, and Mt Barker and (more strongly) Noarlunga on the other. Parr organises the circuit's programming around just such rule of thumb distinctions. His programming decisions are firmly grounded in his local knowledge of audiences, their socio-economic status, their likely tastes and behaviours, and the specific

requirements of managing each of his company’s venues. His explanations contain vivid juxtapositions of variables:

National Rank	Film Title	Overall Wallis Rank	Mitcham	Mt Barker	Noarlunga	Piccadilly
4	Despicable Me 2	1	2	1	1	5
5	Frozen	2	3	3	2	12
1	Iron Man 3	3	7	4	5	3
2	Hunger Games: Catching Fire	4	5	6	6	4
3	The Hobbit: The Desolation of Smaug	5	4	2	7	9
8	The Croods	6	11	5	3	7
10	Monsters' University	7	8	7	4	10
6	The Great Gatsby	8	1	10	27	2
28	Philomena	9	6	9	35	1
21	The Book Thief	10	9	11	16	6
16	Now You See Me	11	10	14	15	8
26	Cloudy With A Chance	12	15	12	9	28
7	Fast & Furious 6	13	31	8	8	22
22	Secret Life of Walter Mitty	14	12	17	20	20
20	The Heat	15	26	13	12	13
14	World War Z	16	21	18	13	18
17	Star Trek Into Darkness	17	18	19	17	17
13	The Hangover 3	18	25	20	14	11
9	Man of Steel	19	16	27	22	16
25	Turbo	20	32	16	10	33

**Table 3:** Top 20 grossing films for the period 7 February 2013 to 12 February 2014.

Noarlunga is definitely family audience. This weekend *Robocop* will be the best film down there whereas at Mitcham it’ll be probably number five film. ... Mitcham has got an older demographic, and that’s another reason why the day trade here is the best of any of our theatres. ... they’re older people who want to go out but be home for tea. ... [At Mitcham] I’m very careful sometimes to put some of those smaller films in if we can fit them in, because we have a discerning audience. It’s not an art-house, it’s a commercial theatre. We’d go broke if it was an art-house because you need the big budget films. ... But you need also to have

that spread, and I also showed *Paranormal Activity* because if we don't we're not getting that young person used to going to the movies.

Mt Barker is a cross section. There's a lot of single parents there, there's a lot of new homes there with young families with higher debt. It's doing quite well but the public transport from other towns is not good. So we are finding that that teen market, it's easier for them to get on a bus and go to Marion than to get to Mt Barker. ... But that will outgrow itself. ... it's just a matter of knowing what is happening there and you know, in a place like that you get very close to the council and locals and they help, they advise and you can find out a lot of this information. ...

You've got so many different demographics that are accessible to Piccadilly, it can do well on a lot of things. Now *Philomena* is the biggest film in the last 12 months, but it can also do very well with an action film.

Programming, he maintains, is 'just experience and knowing what you're dealing with.' He also emphasises the extent to which he sees his relationship with distributors as a partnership, reliant to a significant extent on a degree of mutual trust: 'We're in the exhibition business together. ... Our opposition is alternative forms of entertainment, DVDs, all that sort of thing, televisions, whatever it is.' This mutual commercial interest forms the basis for Parr's bargaining with distributors over their access to his scarce resource: screening slots in Wallis' multiplexes, or what marketing economists would by analogy call shelf space:<sup>37</sup>

here's how they'll ask us, this is what they want ... two day and two evening and how many weeks. But then because there are so many other films in the marketplace, we may not be able to cope with that. So then I send off this chart with a counter offer, with this is what we can do, this is what we can offer, and they either agree or disagree and then we debate and go backwards and forwards and resolve the issues that way. ... Paramount's got *Tracks*. I've looked at *Tracks* and I know it opened the Adelaide Film Festival. It opens the same week as *300 Rise of the Empire*. Now *300 Rise of the Empire* will have a big following, and they wanted two day and two evening for *Tracks* in a four screen complex. And I said no I can't do it and they came back and said we can accept that as long as nothing else is opening more than two plus one. And I said yes it is, *300* is. But with all due respect, *Tracks* is not going to take any money, *300* is. And they sent back and said we take your point. We accept your offer.

The mutuality in the bargaining practice relies, on the one hand, on Parr's localised judgement about the market for any given film, and on the other, on his acquiescence in the

flow of product. Silverscreener's modelling of optimum screening schedules suggests that exhibitors' profits could be increased by showing significantly fewer films in longer runs, but without the flexibility provided by the 26 screens of the Marion megaplex, Parr considers himself 'forced to' replace still profitable product with new releases, as part of his compact with distributors:<sup>38</sup>

... one of the big issues we've got next week is that we've got so many new films coming in. Films like *Book Thief*, *Philomena* and *Railway Man* in some places are still doing so well we're going to have to screw them. Taking a film off that's taking money when it's down to 25% [distributor share of the box-office gross] hurts a lot. You don't want to take it off but we're forced to.

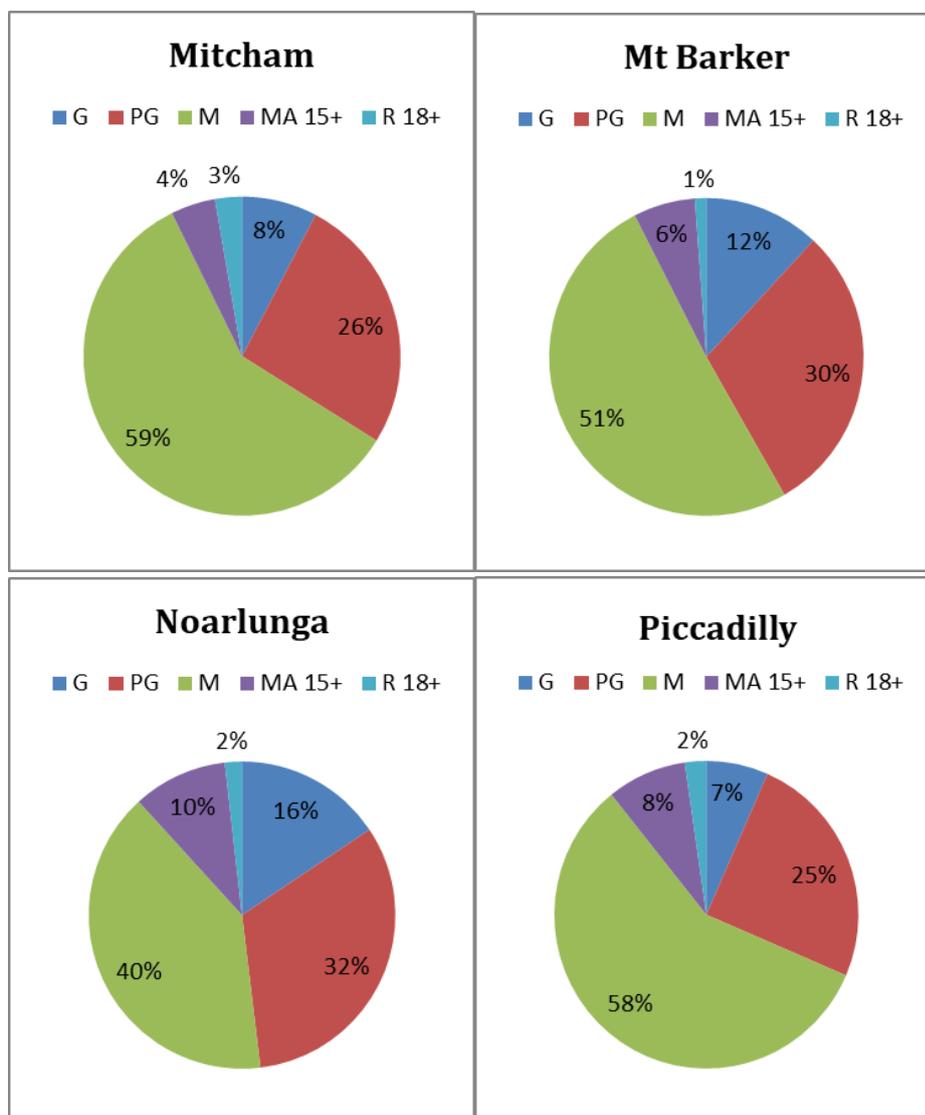
What neoclassical economics describes as 'sub-optimal' decision-making occurs as an outcome of the management of relationships between the parties involved. In exhibition, this is most clearly demonstrated in the flexibility of contracts, which are regularly renegotiated depending on the initial success of any film. As De Vany observes,

The adaptive run is the primary mechanism for capturing motion picture value and casting out failures. It depends on a mixture of flexible contracting and the use of global and local information that decentralizes decisions to expand or contract exhibitions in response to demand.<sup>39</sup>

In earlier work on Classical Hollywood's understanding of its audience, we have argued that the composition of a theatre's potential audience – the character of its surrounding population – was the prime determinant in decisions about its location, architecture and entertainment policy, and that the major companies used attendance information from their theatres to assess the appeal that the various component parts of their output held for different sectors of the audience and to guide their decisions about the content of future productions.<sup>40</sup> In order to increase the efficiency with which the industry's output delivered the maximum number of viewers to exhibition sites, information about audiences was integrated into the system by which pictures, theatres and audiences were categorised and classified.

Rather than Hollywood maintaining a view of the audience as an undifferentiated mass, the industry sought to provide a range of products that would appeal to different fractions of the audience, and to include a set of ingredients that, between them, would appeal to the entire range of different audience fractions. The evidence of this discourse on the audience suggests that the industry assumed that it addressed a number of quite clearly-differentiated groups of viewers, and that the categories of difference altered over relatively short periods of time.<sup>41</sup>

Statistical studies of historical audience behaviour have recorded evidence of ‘quite different levels of interest on the part of exhibitors, and presumably audiences,’ in different locations, indicating the extent to which cinema remained a significantly local experience and suggesting a basis for using ‘the films that audiences went to see ... as evidence for the preferences that they had.’<sup>42</sup> Given that the vertically-integrated chain that attached production decisions to theatres and audiences no longer functions as it did in Classical Hollywood, does this account still provide a useful means of understanding audience composition? Current methods of audience segmentation – for example, the ‘quadrants’ provided by National Research Group – appear less finely granulated than earlier, more heuristic methods, while studios justify their very high expenditure on marketing with the explanation that they have to create an audience for each new release, through large-scale publicity and advertising campaigns geared to a wide release aiming to fill 3,000 or more venues on a film’s opening weekend.<sup>43</sup>



**Graph 1:** Censorship classification scores for top 50 ranked films.

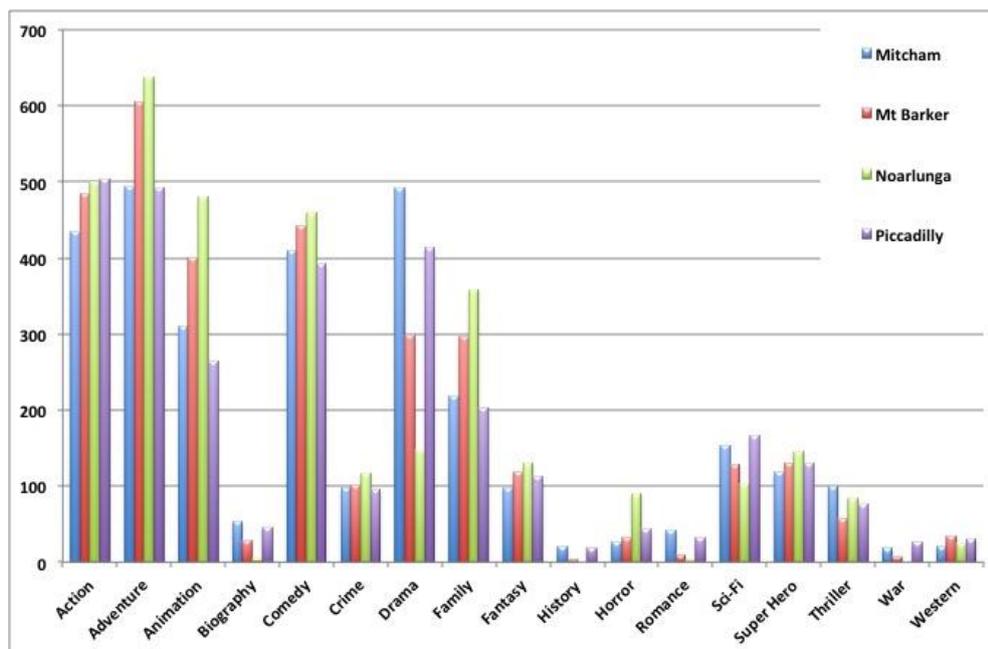
However little notice production and distribution systems may take in the geographic specificity of their audiences, these audiences live, work and entertain themselves in particular locations marked by multiple social and economic differences, posing the question of whether, in suburban multiplexes such as Wallis operates, different types of audiences display preferences for different types of films. The first challenge in addressing this question is to speculate on what types of differences in films might be significant, and how to go about systematically describing those differences. We examined two markers of difference which are extensively discussed in the economic literature: censorship classification, and genre.<sup>44</sup> In each case, we took the top 50 films at each Wallis complex over the twelve-month period of our data, and gave them a ranked score, so that the Number 1 film at each cinema would score 50 points, the Number 2 film 49 points, and so on.

The first marker of difference we identified as possibly significant was censorship classification. This is not necessarily to suggest that audiences decide to watch films on the basis of their classification (although some undoubtedly do) but rather as a more indirect suggestion that some audiences are attracted to certain types of subject matter, which is categorised in consistent ways by censors.<sup>45</sup>

Mt Barker and Noarlunga can be grouped, both displaying a solid outperformance for G rated films. Noarlunga also has the highest ranking for MA15+ films giving it a noticeably lower score in the middle M category.

Our next test was for genre as a means of differentiating films. The problem here is that films can rarely be classified according to a single genre; there are as many ways to classify them as there are people brave enough to undertake the task.<sup>46</sup> We made use of two systems of genre tagging from industry sources: one from the exhibitor trade journal *Box Office*, the other from West World Media (WWM).<sup>47</sup> As with our investigation of censorship, we gave the top 50 films at each Wallis complex a ranked score. Using *Box Office's* classification produces the results in **Graph 2** (below). On the basis of this, we draw a number of preliminary conclusions:

- Action, fantasy and comedy are spread across all cinemas with a slight underperformance at Mitcham;
- Adventure and animation are stronger at Mt Barker and Noarlunga than they are at Mitcham and the Piccadilly;
- Biography, romance, war and history have a stronger (though still marginal) appeal at Mitcham and the Piccadilly and almost no appeal at Noarlunga;
- Drama is stronger at Mitcham and the Piccadilly and underperforms at Noarlunga and Mt Barker;
- Family films and horror films work best at Noarlunga.

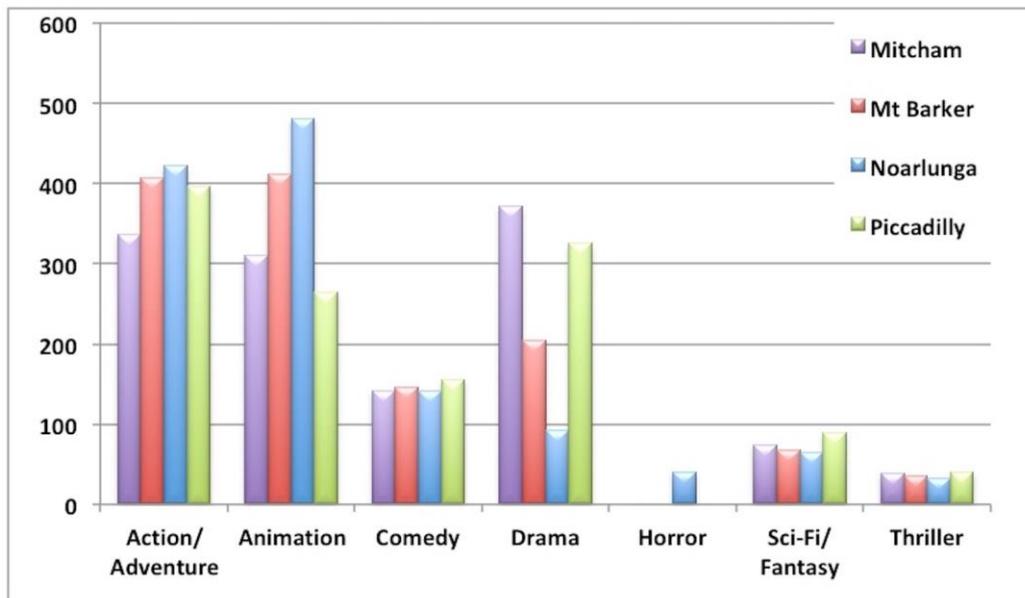


**Graph 2:** Box Office genre by classification.

Classifying a film with a single genre might give a clear indication of popular genres, but it ignores sub-genres that might attract a cinemagoer to a particular film. West World Media (WWM) use a narrower system of classification, which reduces Wallis’ top 50 films from seventeen genres to seven. This produces the results in **Graph 3** (below).

- Action/Adventure films underperform at Mitcham;
- Animation films are stronger at Mt Barker and Noarlunga than at Mitcham and the Piccadilly;
- Comedy films are near to even across all four complexes; and
- Drama films perform well at Mitcham and the Piccadilly, but not as well at Mt Barker and poorly at Noarlunga.

Perhaps unsurprisingly, our analysis of box-office performance confirms Parr’s seat-of-the-pants view of what works in each of his multiplexes, and we recognise that the coarse granularity of our mechanisms of censorship and genre classification restricts the precision of any examination of the differences between films. If, however, we seek to view exhibition as a transaction between films and audiences, and therefore to examine the proposition that different box office responses do not stem only from differences in some quality of the films exhibited, we also need to consider the ways in which these variations might be linked to differences in the composition of the potential audience. Our examination of this question will be the subject of our second article, which will appear in *Participations* 16.1 (May 2019).



**Graph 3:** West World Media genre classifications.

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*Mapping the Contemporary Australian Cinema Market*).

## Notes:

<sup>1</sup> Charles B. Weinberg, 'Research and the Motion Picture Industry,' *Marketing Science*, Vol. 25, No. 6, November-December 2006, 667.

<sup>2</sup> Jehoshua Eliashberg, Anita Elberse Mark A.A.M. Leenders, 'The Motion Picture Industry: Critical Issues in Practice, Current Research and New Research Directions,' *Marketing Science* Vol. 25, No. 6, November–December 2006, p. 639 n.1.

<sup>3</sup> Bob Parr began his career with the Clifford Theatre chain of independent cinemas in the 1950s, and programmed and managed cinemas across South Australia for over fifty years. He is not related to the protagonist of *The Incredibles*.

<sup>4</sup> William Goldman, *Adventures in the Screen Trade*, London: Warner Books, 1983, pp. 39,41.

<sup>5</sup> Arthur S. De Vany, *Hollywood Economics : How Extreme Uncertainty Shapes the Film Industry* (London ; New York: Routledge, 2004), 260, 268, 275.

<sup>6</sup> <http://www.theguardian.com/film/2007/jul/13/1> (accessed June 4, 2018); *Wall Street Journal*, April 29–30, 2006, quoted in Jehoshua Eliashberg, Charles B. Weinberg, and Sam K. Hui, 'Decision Models for the Movie Industry,' in *Handbook of Marketing Decision Models*, eds Hillier, Frederick S., and Berend Wierenga. (Springer, 2008), p. 464. <http://dx.doi.org/10.1007/978-0-387-78213-3> (accessed June 4, 2018).

<sup>7</sup> Eg, S Sinha and S. Raghavendra S (2004) 'Hollywood blockbusters and long-tailed distributions: An empirical study of the popularity of movies,' *European Journal of Physics J B* 42: 293-296; Marton Mestyan, Taha Yasseri, Janos Kertesz, 'Early Prediction of Movie Box Office Success based on Wikipedia Activity Big Data,' *arXiv:1211.0970v3 [physics.soc-ph]* 26 Jun 2013; Malcolm Gladwell, 'The Formula: What if you built a machine to predict hit movies?,' *The New Yorker*, 16 October 2006. <http://www.newyorker.com/magazine/2006/10/16/the-formula> (accessed June 17, 2018); Jehoshua Eliashberg, Sam K. Hui, Z. John Zhang, 'Using Movie Scripts: A Kernel-Based Approach,' *IEEE Transactions on Knowledge and Data Engineering*, Vol. 26, no. 11, November 2014, 2639 - 2648.

<sup>8</sup> Eliashberg, Elberse and Leenders, p. 641.

<sup>9</sup> S. Abraham Ravid, 'Blockbusters, and Stars: A Study of the Film Industry,' *The Journal of Business*, Vol. 72, No. 4 (October 1999), pp. 463-492.

<sup>10</sup> Ravid, 498-9. Ravid's explanation is that these practices are best understood as 'suboptimal risk-management strategies by extremely risk-averse executives ... if executives care much more about avoiding failures than about big hits, their observed choices are more easily explained.' See also S. Abraham Ravid, 'Film Production in the Digital Age – What Do We know about the Past and the Future?' in *A Concise Handbook of Movie Industry Economics*, ed. Charles C. Moul (Cambridge: Cambridge University Press, 2005), p. 42.

<sup>11</sup> Jehoshua Eliashberg, Charles B. Weinberg, and Sam K. Hui, 'Decision Models for the Movie Industry,' in B. Wierenga (ed.), *Handbook of Marketing Decision Models*, p. 460. The extent to which this modelling describes actual studio practice is also at least questionable: see Daniel R Fellman, 'Theatrical Distribution,' in *The Movie Business Book*, ed. Jason E. Squire (New York: Fireside, 2004), p. 366.

<sup>12</sup> Barry Gunther, *Predicting Movie Success at the Box Office* (Palgrave Macmillan, 2018), pp.29, 147. <https://doi.org/10.1007/978-3-319-71803-3> (accessed August 1, 2018).

- <sup>13</sup> Jehoshua Eliashberg, Sam K. Hui Z., John Zhang, 'Green-lighting Movie Scripts: Revenue Forecasting and Risk Management,' May 6, 2010. [http://www.stern.nyu.edu/sites/default/files/assets/documents/uat\\_024238.pdf](http://www.stern.nyu.edu/sites/default/files/assets/documents/uat_024238.pdf) (accessed June 4, 2018). For a more recent assessment of the utility of current academic marketing research, see Florian Kumb, Reinhard Kunz and Gabriele Siegert, 'Research on the Motion Picture Industry: State of the Art and New Directions off the Beaten Track Away from Theatrical Release,' *Journal of Economic Surveys* (2017) Vol. 31, No. 2, pp. 577–601.
- <sup>14</sup> S. Abraham Ravid, for example, suggests that 'one may be able to draw comparisons with the biotechnology and drug industries, which face both regulatory hurdles and a long development process with uncertain prospects.' Ravid, 'Film Production in the Digital Age,' pp. 32-3. In 'Early Predictions of Movie Success: the Who, What, and When of Profitability,' (*Artificial Intelligence*, 2016, 16) Michael T. Lash and Kang Zhao suggest that their predictive model could 'be adapted to predict the success of other creative works, which often requires a team of contributors, whose content can be described with texts, and for which timing is important, such as research papers, grant proposals, operas, etc.' <http://arxiv.org/abs/1506.05382> (accessed June 17, 2018).
- <sup>15</sup> Eliashberg, Weinberg, and Hui, p. 462; Jehoshua Eliashberg, Quintus Hegie, Jason Ho, Dennis Huisman, Steven J. Miller, Sanjeev Swami, Charles B. Weinberg, and Berend Wierenga, 'Demand-driven scheduling of movies in a multiplex,' *International Journal of Research in Marketing* 26 (2009), 75.
- <sup>16</sup> Berend Wierenga, 'Motion Pictures: Consumers, Channels, and Intuition,' *Marketing Science*, Vol. 25, No. 6, November-December 2006, 676.
- <sup>17</sup> Guest Post by Jon Fougner: 'Cinema Profitability Part 2,' Posted on May 12, 2011, <http://jonreiss.com/2011/05/guest-post-by-jon-fougner-cinema-profitability-part-5/> (accessed June 4, 2018).
- <sup>18</sup> Jehoshua Eliashberg, Quintus Hegie, Jason Ho, Dennis Huisman, Steven J. Miller, Sanjeev Swami, Charles B. Weinberg, and Berend Wierenga, 'Demand-driven scheduling of movies in a multiplex,' *International Journal of Research in Marketing* 26 (2009), 77.
- <sup>19</sup> Eliashberg, Charles B. Weinberg, and Sam K. Hui, p. 460.
- <sup>20</sup> Jehoshua Eliashberg, Charles B. Weinberg, and Sam K. Hui, 'Decision Models for the Movie Industry,' in B. Wierenga (ed.), *Handbook of Marketing Decision Models*, Springer Science Business Media, LLC 2008, p.461.
- <sup>21</sup> Anita Elberse and Jehoshua Eliashberg, 'Demand and Supply Dynamics for Sequentially Released Products in International Markets: The Case of Motion Pictures,' *Marketing Science*, Vol. 22, No. 3, Summer 2003, pp. 329–354.
- <sup>22</sup> This complaint is as old as the Australian production industry itself. It recurs throughout the 1927-8 Royal Commission into the Motion Picture Industry. For a recent contribution, see Michael West, 'Aussie filmmakers kick like a mule at cinemas,' *The Age*, Melbourne, February 7, 2015, p.7.
- <sup>23</sup> Eliashberg, Weinberg and Hui, -p. 464.
- <sup>24</sup> Mike Walsh, 'Entering the Market: First Run Exhibition in Adelaide' and Dylan Walker, 'Suburban cinema exhibition in South Australia during the Second World War: Clifford Theatres, 1942-43', unpublished papers presented at the European Network for Cinema and Media Studies (NECS) annual conference, Prague, June 2013. See also Richard Maltby, Mike Walsh and Dylan Walker, 'Three Moments of Cinema Exhibition,' in *the Routledge Companion to New Cinema History* (London: Routledge, forthcoming 2019).

- <sup>25</sup> Anne Friedberg, *Window Shopping: Cinema and the Postmodern* (Berkeley, CA): University of California Press, 1993; William Paul, 'The K-Mart Audience at the Mall Movies', *Film History* 6, 4 (Winter 1994) 487-501; Peter Davis, 'Spatial Competition in Retail Markets: Movie Theaters,' *The RAND Journal of Economics*, Vol. 37, No. 4 (Winter, 2006), pp. 964-98.
- <sup>26</sup> These are the seven-screen Reading Cinema at West Lakes and the nine-screen Hoyts at Tea Tree Plaza in the city's northern suburbs.
- <sup>27</sup> <https://www.holdfast.sa.gov.au/webdata/resources/minutesAgendas/Council%20Minutes%20-%2012-05-22.pdf> (accessed June 4, 2018).
- <sup>28</sup> Edward Jay Epstein, *The Big Picture: The New Logic of Money and Power in Hollywood*, 1st ed. (New York: Random House, 2005), p. 45.
- <sup>29</sup> Epstein, pp. 46-8.
- <sup>30</sup> A detailed examination of exhibition contracts is provided by Darren Filson, David Switzer, and Portia Besocke, 'At the Movies: The Economics of Exhibition Contracts,' *Economic Inquiry* Vol. 43, No. 2 (2005), 354-369.
- <sup>31</sup> Philip Drake, 'Distribution and Marketing in Contemporary Hollywood,' in *The Contemporary Hollywood Film Industry*, eds Paul McDonald and Janet Wasko (Malden, MA: Blackwell, 2008), p. 81.
- <sup>32</sup> Tino Balio, *Hollywood in the New Millennium* (London: Palgrave Macmillan, 2013), p. 93.
- <sup>33</sup> Edward Jay Epstein, *The Hollywood Economist: The Hidden Financial Reality Behind the Movies Release 2.0* (New York: Melville House, 2012), location 1928; Sanjeev Swami, Jehoshua Eliashberg and, Charles B. Weinberg, 'SilverScreener: A Modeling Approach to Movie Screens' Management,' *Marketing Science*, Vol. 18, No. 3, 1999, 360.
- <sup>34</sup> Horn quoted in Elberse, loc 689.
- <sup>35</sup> Peter Davis, 'Spatial Competition in Retail Markets: Movie Theaters,' *The RAND Journal of Economics*, Vol. 37, No. 4 (Winter, 2006), 980.
- <sup>36</sup> Matthew J. Salganik and Duncan J. Watts, 'Leading the Herd Astray: An Experimental Study of Self-Fulfilling Prophecies in an Artificial Cultural Market,' *Social Psychology Quarterly* 71, no. 4 (2008): 338-55.
- <sup>37</sup> Allègre L. Hadida, 'Motion picture performance: A review and research agenda,' *International Journal of Management Reviews* (2009) Volume 11 Issue 3, 316.
- <sup>38</sup> Eliashberg, Elberse and Leenders, 656.
- <sup>39</sup> Arthur S. De Vany and W. David Walls, 'The Market for Motion Pictures: Rank, Revenue, and Survival,' *Economic Inquiry* Vol. XXXV, October 1997, 783-797.
- <sup>40</sup> Mike Walsh, 'From Hollywood to the Garden Suburb (and Back to Hollywood): Exhibition and Distribution in Australia,' in *Explorations in New Cinema History: Approaches and Case Studies*, eds Richard Maltby, Daniel Biltereyst and Philippe Meers ((Malden, MA: Wiley Blackwell, 2011), pp. 159-71; Samuel Katz, 'Theatre Management,' in Joseph Kennedy, ed., *The Story of the Films* (Chicago: AW Shaw, 1927), pp. 265-6. Universal, for instance, surveyed a 20 square block area, with a population of 150,000, before deciding to build a 3,000-seat theatre in the New Utrecht Avenue district of Brooklyn. *Harvard Business Reports Vol. 8: Cases on the Motion Picture Industry*, ed. Howard T. Lewis, (New York: McGraw-Hill, 1930), pp 480-4. Katz, 'Theatre Management,' pp. 271-2; Douglas Gomery, *Shared Pleasures: A History of Movie Presentation in the United States* (London: BFI, 1992), p. 49; Harvard Business Reports Vol. 8, pp. 516-9.

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<sup>41</sup> Richard Maltby, 'Hicks, Stick and Flaps: Classical Hollywood's Generic Conception of Its Audience' in *Identifying Hollywood's Audiences*, eds Melvyn Stokes and Richard Maltby (London: British Film Institute, 2001), p. 25.

<sup>42</sup> John Sedgwick and Clara Pafort-Overduin, 'Understanding Audience Behaviour Through Statistical Evidence: London and Amsterdam in the Mid-1930s,' in Ian Christie, *Audiences: Defining and Researching Screen Entertainment Reception* (Amsterdam: Amsterdam University Press, 2012), p. 109.

<sup>43</sup> Epstein, *The Hollywood Economist*, Loc. 1384. NRG was founded in 1978 as the National Research Group, and is now a part of Nielsen Entertainment, supplying 'Competitive Positioning' reports to the major studios. Their quadrants divide the audience by age (above or below 25) and gender. Unsurprisingly, blockbusters seek to market themselves as 'four-quadrant movies.' Anita Elberse, *Blockbusters Hit-Making, Risk-Taking, and the Big Business of Entertainment*, (2014): loc 288.

<sup>44</sup> See, for example, Thorsten Hennig-Thurau, Mark B. Houston and Gianfranco Walsh, 'Determinants of motion picture box office and profitability: an interrelationship approach,' *Review of Managerial Science*, 1 (2007), in which they suggest that 'movie characteristics discussed in the literature include the concepts of star power, director power, cultural familiarity, genre, and certification.' 67.

<sup>45</sup> Gunther, *Predicting Movie Success*, summarises research into the relationship between censorship ratings and attendance on pp. 127-45. Films in Australia are classified into either advisory or legally restricted classifications. Advisory classifications are: G (for general exhibition); PG (parental guidance recommended); and M (recommended for mature audiences). Legally restricted classifications are: MA 15+ (not suitable for people under 15. Under 15s must be accompanied by a parent or adult guardian); and R 18+ (restricted to 18 and over).

<sup>46</sup> An extensive critical literature problematising the understanding of genre as a classificatory system includes Rick Altman, *Film/Genre* (London: British Film Institute, 1999); Steve Neale, *Genre and Hollywood* (London: Routledge, 2000); Richard Maltby, *Hollywood Cinema: Second Edition* (Malden, MA: Blackwell, 2003), pp. 74-110.

<sup>47</sup> We found that IMDB, while tagging films in a roughly similar way, included a greater number of tags for each film. As these tags overlapped more often, it became harder to differentiate between the films. The two industry data websites, The Numbers and Box Office Mojo, use radically different systems of genre distinction: The Numbers identifies 14 genres, while Box Office Mojo lists 219.

<https://www.the-numbers.com/market/genres>;

<http://www.boxofficemojo.com/genres/?sort=genre&order=ASC&p=.htm> (accessed 29 May 2018).