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From Program Shorts to Mutual Masterpictures: Cost Control as a Macroscale Production Strategy at 4500 Sunset Boulevard, 1914–15

ABSTRACT: This essay applies a scaled data set of archival cost ledgers from the Majestic plant at 4500 Sunset Boulevard to the question of macroscale production control in the American film industry during the late one-reel/early feature period. The documents show that Majestic budgeted multiple-reel features according to cost percentages very similar to those of its one- and two-reel shorts, making them substantially cheaper than the films on competing feature programs. Mutual then marketed its features in distribution by advertising nationally and offering flexible, nonprogram booking arrangements. These findings suggest that with the aid of distribution strategies, program-oriented producers like Mutual could scale up shorts production to feature length in order to compete on the nascent market for program features.

KEYWORDS: Hollywood studio system, early cinema, distribution, accounting, production control, Mutual, Reliance, Majestic, Komic, features

The emergence of the multiple-reel feature as the standard format of film production is commonly seen as one marker of early cinema's denouement in the United States. Considered purely in terms of the history of the American film industry, the rise of features often demarcates the end of one-reel variety program cinema and the beginning of the classical Hollywood studio system. Scholars cite 1914 and 1915 as years of particularly momentous changes in film distribution, pointing to the establishment of full-service feature programs from firms like Paramount and the Triangle Film Corporation.[1] Few historians would question the notion that the mid-1910s saw significant shifts in the way that films were produced, distributed, and exhibited in the United States. However, as a number of scholars have pointed out, shorts cinema and multiple-reel features coexisted for a substantial portion of the 1910s. Using reel data from a number of filmographies of the period, Ben Singer has shown that shorts production only began to

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decline in the American market in 1916. In 1915, the first full year of the feature program Paramount had initiated the previous September, releases of three or fewer reels still accounted for 75 percent of the reels produced by the American film industry as a whole.[2]

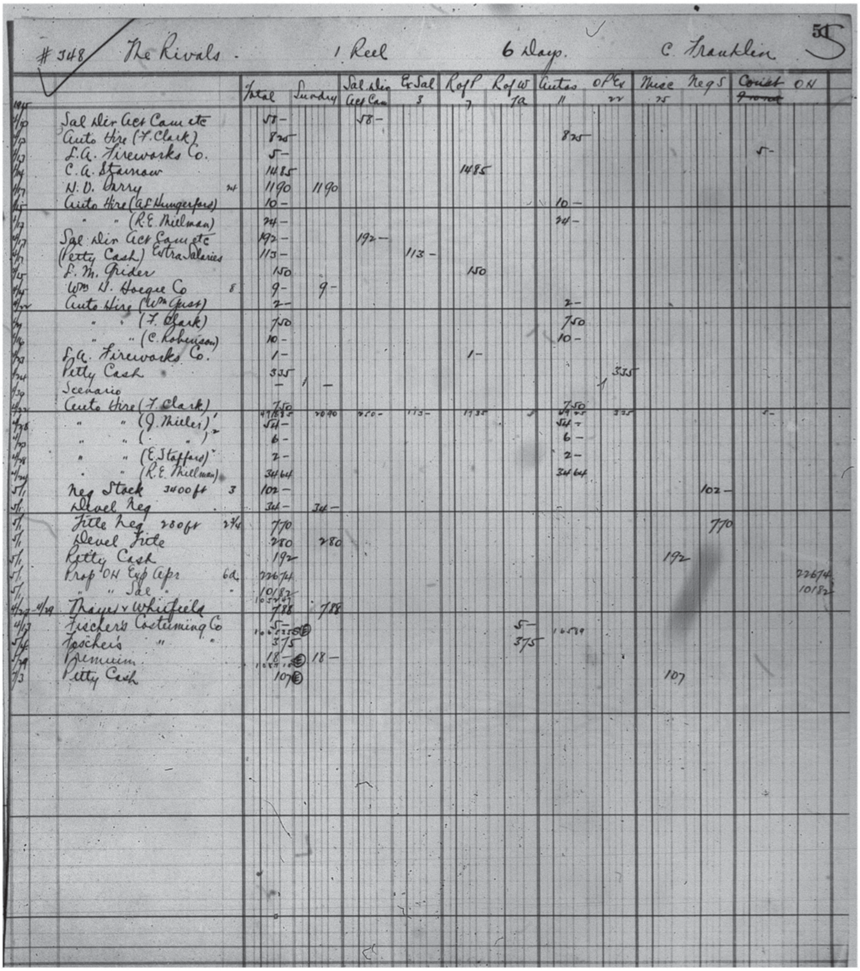
Singer's data, when considered in light of Ben Brewster's critique of the traditional historiographical impulse to periodize early cinema into distinct and discrete subsegments,[3] raises a number of important questions: How did the sector of the American film industry most heavily invested in program cinema—those companies releasing through Universal, Mutual, and the remnants of the General Film Company—shift its production strategies to align with the industrial logics of features in 1914 and 1915? What effect did program distribution—the full-service booking model that remained the dominant form of film distribution as late as 1917—have on the way that films of all kinds were produced in the context of an ascendant feature market? How did the program companies produce so-called regular features for the program market in addition to shorts, and what can that tell us about the relationship between distribution norms and production planning at a macro scale during this period?

This essay works toward answering these questions by employing a hybrid model of historiography that combines big-data approaches inspired by the digital humanities and more traditional modes of historical analysis based on archival research and the trade press. The case study it presents is based on microfilmed archival documents from the Harry and Roy Aitken Collection at the Wisconsin Historical Society. These documents are now being curated as a scaled, digital data set of the cost ledgers for 436 films of one to five reels, all of which were produced for release on various Mutual programs at the Reliance-Majestic plant at 4500 Sunset Boulevard between April 1914 and September 1915 (the current version of the set is available online at qmhdb.commarts.wisc.edu). The ledgers that make up the data are particularly rich and detailed. Compiled by studio bookkeepers, they include records not only of the final negative cost of each film but also itemized breakdowns, by vendor, of the amounts spent in fifteen different categories of production expenditure, including cast and director salaries, set and wardrobe costs, and studio overhead. These ledgers give us a dynamic sense of each production, showing us the exact number of days spent shooting as well as important midproduction shifts, such as changes in the number of a film's reels or switches in a film's brand.

Even more importantly, however, the aggregation of these records helps to illuminate the industrial logic of production organization in the mid-1910s at the scale of an entire studio plant. This allows us to better see the effect of distribution considerations on macroscale production cost control strategies, as part of a wider industrial logic. Because the set contains such rich data for both shorts and features, it is possible to quantitatively (and, to a certain extent, qualitatively) compare expenditure for both types of films as they were produced for release on the Mutual program. In its production of program films of nearly every length common during the mid-1910s, 4500 Sunset serves as an excellent case study of the scaled production planning of both shorts and features under program distribution. This affords us a rare opportunity to look at the productions of a single studio plant during the industry's transition to longer features.[4]

Producing an aggregated form of these data that would be flexible enough to analyze at scale required digital encoding and processing. I started by scanning each of the individual ledgers from microfilm copies (the physical originals had unfortunately been discarded). As accounting documents, these ledgers were, at first glance, ideally structured for digital processing (fig. 1). Each film's ledger was systematically broken down by dated individual expense descriptions, listed in the wider column on the left, with amount columns for the production as a whole as well as for individual expense categories (the fields near the top of the document with various abbreviated headers—"Total," "Sundry," "Sal Dir Act Cam," "Ex Sal," etc.). The expenditure categories recorded in each film's ledger were ordered as follows: Sundry Expenses, Director/Actor/Camera Salaries (listed as one category, in contrast to the line items for star and director salaries found in budgeting documents from the 1920s and 1930s), Extra Salaries, Prop Rentals, Prop Purchases, Auto Rentals, Operating Expenses, Negative Stock, Construction, Titles, and Overhead.[5] The bookkeepers listed running totals at certain points in each amount column.[6] This meant that each film's final negative cost could be calculated as the last running total amount plus any additional (typically small) expenses further down the column. This systematic structuring of the data meant that the ledgers did not require any fundamental data restructuring; they simply needed to be directly transferred into a comma-separated value format for processing and analysis (which can be done in Microsoft Excel or any standard spreadsheet software).

However, 4500 Sunset's bookkeepers recorded each film's cost breakdowns by hand, which complicated the digitization process. Trial runs using optical character recognition (OCR) software, which was meant to transform the digital images of the cursive text into digital characters, yielded unacceptably inaccurate results and made an automated digitization of cost entries across all 436 titles unworkable. This necessitated manual transcription of each amount into spreadsheet software, where I compiled an enhanced digital version of the data represented in the microfilmed ledgers. Though laborious, manually coding the data had the benefit of ensuring absolute accuracy. Even more crucially, it enabled me to encode certain peculiarities of each film noted by the bookkeepers into the enhanced data set, such as whether a film had been



\# 348 The Rivals. 1 Reel 6 Days. C. Franklin 51

1915			Total	Sundry	Sal Dir Act Cam	Ex Sal 3	R of P 7	R of W 7a	Autos 11	O P Ex 22	Music 25	Neg S	Const	ON
4/10	Sal Dir Act Cam etc		58–		58–									
4/12	Auto Hire (F. Clark)		825						825					
4/13	L.A. Fireworks Co.		5–										5–	
4/14	C.A. Stairnow		1485				1485							
4/17	N.D. Barry	24	1190	1190										
4/15	Auto Hire (A.F. Hungerford)		10–						10–					
4/17	" " (R.E. Millman)		24–						24–					
4/17	Sal Dir Act Cam etc		192–		192–									
4/17	(Petty Cash) Extra Salaries		113–			113–								
4/15	F. M. Grider		150				150							
4/15	Wm D. Hoegue Co	8	9–	9–										
4/22	Auto Hire (Wm Gust)		2–						2–					
4/19	" " (F. Clark)		750						750					
4/16	" " (C. Robinson)		10–						10–					
4/23	L.A. Fireworks Co.		1–				1–							
4/24	Petty Cash		335							335				
4/29	Scenario		–	–										
4/22	Auto Hire (F. Clark)		750						750					
			47885	2090	250–	113–	1735		6925	335			5–	
4/26	" " (J. Miller)		54–						54–					
4/30	" " (")		6–						6–					
4/28	" " (E. Stafford)		2–						2–					
4/24	" " (R.E. Millman)		3464						3464					
5/1	Neg Stock 3400 ft	3	102–									102–		
5/1	Devel Neg		34–	34–										
5/1	Title Neg 280 ft	2¾	770									770		
5/1	Devel Title		280	280										
5/1	Petty Cash		192								192			
5/1	Prop OH Exp Apr	6d	22674											22674
5/1	" " Sal		10182											10182
4/27–4/29	Thayer & Whitfield		788	788										
4/17	Fischer's Costuming Co		5–					5–						
5/4	Fischer's "		375					375						
5/29	Premium		18–	18–										
7/3	Petty Cash		107								107			

Fig 1: Cost breakdown for *The Rivals* (Chester Franklin for Komic, 1 reel, 1915)

expanded in length or transferred to a different Mutual-distributed brand. These descriptive metadata, which could not have been generated through automation, helpfully contextualized the raw expenditure amounts and enabled some of the more qualitative findings of this study.

However, manual transcription also meant that I had to make certain decisions about what to record. Each ledger contained dozens of individual expense entries; the ledger for the one-reel film in figure 1, which includes more than thirty individual expenses, is actually one of the shorter records. As a result, it was simply not practical to digitize every single individual expense, complete with amount and vendor, for all 436 films. Instead, for each film, I decided to initially record only the total expense accounted to each category of production expenditure. Trading depth for breadth enabled me to digitize all the ledgers in the set in a reasonable amount of time and achieve a certain scale of analysis while still preserving a midlevel perspective on the relative importance of various kinds of production expenditure.[7] Encoding the individual vendors and expense amounts is a long-term goal of the larger project represented by this article, but in the meantime, closer analysis of a selection of these individual amounts has helped to specify the nature of many of the broader expense categories. Organizing the encoded expense data by number of reels, expenditure type, brand, director, and other fields was a simple matter of using Excel's sort functions and adding additional fields for various derivative calculations I was interested in, such as average costs, standard deviation, and expenditure percentages.

Because Reliance and Majestic produced both shorts and features of a variety of lengths at 4500 Sunset, the most immediately relevant data fields for the question of macroscale production planning during this period were the number of reels and the relative amounts of the individual expenditure categories. Specific attention to these fields revealed a number of important continuities between shorts and program feature production in the mid-1910s.

Historians often posit a fundamental difference between shorts and features during this period in terms of the scale of their production, with shorts often characterized as hamstrung by the flat-fee limitations of program distribution. Feature producers, by contrast, could ostensibly differentiate their product through expenditure (on spectacular sets and highly paid stars) while managing the risks of such spending through more lucrative percentage deals with distributors.[8] However, this data set reveals that at 4500 Sunset, the difference between shorts and multiple-reel features from a production standpoint was minimized. While features did cost more on a per-reel basis than shorts, the relative percentages budgeted for each category of expenditure on features were virtually identical to those of shorts.

If shorts and features were not radically distinguished through production expenditure at 4500 Sunset, then what strategies were employed to differentiate them? Ultimately, the similarities revealed in this cost data point to the importance of distribution practice to early program feature production. They show that while Reliance and Majestic's program features (which Mutual branded as Masterpictures) were differentiated from shorts in production in certain respects, Mutual's strategies of distribution and marketing played a much more important role in convincing exhibitors to book them (and, in fact, the films' affinities with program shorts played a crucial part in these strategies). Consequently, this article examines some of these distribution and marketing strategies, situating them as part of the ambivalent landscape that faced the American film industry in 1914–15, when the mature (and still economically dominant) shorts program coexisted with the ascendant model of the feature program. By making multiple-reel features at higher but standardized costs, program distributors like Mutual could compete on the feature market, justifying higher film prices by differentiating and specially promoting features for the benefit of exhibitors. At the same time, manufacturers like Majestic were obliged to carefully control the costs of such films to ensure that they would profit under program distribution.

The qualitative strategies evident in Mutual's advertising place the more quantitative cost data into sharper relief, suggesting that scholars should attend more closely to the various mutually determined relationships between production control and distribution planning. Janet Staiger has argued that the primary instrument of production control under the central producer system was the continuity script, which served as a "blueprint" for production. Through the continuity script's estimation of production costs and listing of shooting setups, films could be made according to the prevailing practices of Taylorist "scientific management."[9] Building on Staiger's work on the management practices that shaped production at the level of the individual film, I present this work as one approach to examining production control at a macro scale—as a set of planning and organizational practices that defined each film in relation to the other films being released on the same distribution program. Macroscale production control is, by definition, a relationship *between* production and distribution. The present study offers a means of outlining the stakes of that relationship, by using a big-data approach to examine Reliance and Majestic's control of production costs at scale and an analysis of trade advertising to highlight Mutual's pricing and releasing priorities in distribution.

THE RESILIENCE OF THE GENERAL FILM COMPANY MODEL: PRICING, LENGTH, RUN, AND EXPENDITURE NORMS

A brief account of the state of film distribution in the early teens is necessary to fully contextualize the norms of industrial conduct that guided production planning at 4500 Sunset beginning in 1914. As Robert Anderson has shown, the General Film Company (GFC) rationalized distribution at a national scale after 1910 and solved many of the problems that had plagued the industry under the Edison licensing system,[10] which in 1907 had brought several of the major film manufacturers together through a common patent and royalty arrangement. Under the GFC model, exhibitors rented, through standing order, a daily program of films for a flat per-reel fee from a local GFC exchange, which arranged and priced an exhibitor's service based on the zone. Exchanges assembled programs with an eye toward variety, mixing various genres of film in an effort to serve an imagined "transient spectator"—the casual patron passing by the theater, seeking a series of short amusements rather than a particular film.[11] The program's price was a function of the age of the films that comprised it; top-of-the-line program service consisted primarily of first-day-of-release films, while lower tiers of service might mix first-run films with films several days or weeks old (or consist entirely of old films).[12] The main appeal of the GFC's program service to exhibitors was its completeness, regularity, and variety; a theater, no matter its size or zone, need merely rent service from the local GFC exchange and would be provided a complete program of diverse films, every single day.

The advent of national distribution via the GFC enabled manufacturers to more efficiently plan their productions at scale as a result of rationalized price incentives. The GFC purchased film outright from the various Motion Picture Patents Company (MPPC) manufacturers (Biograph, Edison, Vitagraph, Selig, Lubin, etc.) at a certain fixed price per foot, typically between eight and twelve cents, just as local exchanges had done directly under the licensing system. However, the GFC ensured that this per-foot pricing to manufacturers was now uniform for all MPPC films, regardless of brand. Under the licensing system, manufacturers had actually been incentivized to *lower* the costs and quality of their films as a result of extreme competition for the newest films.[13] By contrast, the GFC's uniform pricing stabilized cost incentives for producers: a run of forty positives for a one-reel (1,000 foot) program film would reliably gross the manufacturer between $3,200 and $4,800 from the GFC (depending on the per-foot price). However, careful cost control on the part of manufacturers was needed in order to safeguard profits under this system; for any one film to yield a solid profit (accounting for printing and other incidental distribution expenses for which manufacturers were generally responsible), its negative cost generally needed to be fixed around $800 to $1,200 per thousand-foot reel (circa 1914). This made it quite difficult for manufacturers to substantially increase their production costs since there was no direct way for them to profit off of the increased investment.[14] The only way to increase the profitability of films was to charge a higher price for service, and justifying such prices generally required increased production costs across the program as a whole.

Historians of the GFC frequently point to this restricted cost as one of the reasons the system could not accommodate longer features, particularly those with high-priced stars.[15] This is true, but we should not overlook that this pricing structure also encouraged consistency of quality since the GFC had the power to reject consistently poor brands of service from the program. As Biograph's J. J. Kennedy argued in 1914, consistent pricing ensured consistent supply and quality of product to exchanges; he also pointed out the advantage to manufacturers, suggesting that an increase in the average quality of a particular manufacturer's films would tend to increase the average number of prints sold per subject.[16] Furthermore, in contrast to the licensing system, the GFC guaranteed that the marginal profit generated by any demand for additional prints was now consistent since prints made their way through the exchange system rationally, according to zone. Uniform pricing enabled the growth of the manufacturing sector to be a more-or-less direct function of the growth of the national distribution market. This consistency—the quality of the industry's filmmaking at scale and the predictability of manufacturers' and distributors' profits—was fundamental to the logic of program distribution.

Between 1910 and 1913, both the GFC specifically and the program system in general underwent a number of changes. In 1910, concurrently with the inception of the GFC, a group of manufacturers independent of the MPPC, including Carl Laemmle's IMP and Adam Kessel and Charles Baumann's New York Motion Picture Company, allied to create their own program-service distributor, the Motion Picture Distribution and Sales Company. They were eventually joined by other manufacturers, and by May 1910 the Sales Company was able to release twenty-one reels a week, enough to satisfy the needs of most exhibitors. By 1912, when the Sales Company split into two separate and competing national distributors, Universal and Mutual, the GFC found itself in an even more competitive program market.[17] With a US Circuit Court ruling against the MPPC for control of the Latham loop patent in August 1912, the independents were granted access to formerly Edison-licensed technology, allowing them ramp up the quality and quantity of production significantly.[18] While this development was the beginning of the end of the MPPC, it ultimately strengthened the program system as a whole, since all manufacturers could now release a consistently high-quality product.

As Michael Quinn argues, the GFC's model was largely incompatible with special pricing, advertising, and production inputs—the hallmarks of the feature film in the early teens. But it was not, in principle, incompatible with longer films. The conflation of features and longer films is a common naming error committed by historians of the one-reel period. It is true that the GFC had certain structural inadequacies when it came to longer films—mostly as a result of the relatively short length of most exhibitors' programs. Many GFC exchanges released multiple-reel films across multiple days, and Robert Anderson cites a 1913 memorandum wherein GFC officials characterize "feature subjects of more than five reels ... [as] too long for the average picture theaters."[19] However, it should be noted that few of the distributors that started releasing programs of features in 1914–15 made them substantially longer than the typical program would have been at that time: four or five reels. The daily-change exhibition model and flat-fee pricing absolutely did limit the potential profitability of features, regardless of length. Yet a film released as part of the daily program could, in theory, be as long as the program itself, assuming that exhibitors were willing to accept less variety in that program.

And evidence suggests that many were—Mutual and Universal were able to fairly painlessly integrate two- and three-reel releases into their programs in 1912 and 1913. According to Singer's statistics, the production of two-reel films increased almost tenfold from 1911 (12 films) to 1912 (116), and then fivefold again in 1913 (582), compared to an 86 percent total increase in one-reel production over the same period (from 2,060 films to 3,841).[20] Certainly, some of these films may have been states-rights releases sold to independent regional distributors rather than through programs, while some of this growth might be attributed to the increasing use of two-projector setups in larger exhibition spaces, which allowed theaters to screen multiple-reel films without breaking for a reel change.[21] In any case, these statistics support the contention that the service distributors were increasingly able to integrate two- and three-reel releases into their programs. By September 1913, Mutual's in-house trade paper, *Reel Life*, was listing three or four two-reel releases every week and about one three-reeler every month on the company's program.[22]

Despite the increasing diversity of film length, the vast majority of exhibitors continued to change their programs every day. This had significant implications for distributors wishing to release higher-priced feature programs. Because runs began on a specified release date and were generally short at any one theater—never more than a week, and for most exhibitors two or three days at the most—raising prices on programs in distribution required strategies based around adding value to an exhibitor's service as a whole, rather than extending the runs of individual films to increase their value.[23] For distributors, this meant concentrating the value of short runs by various means; such run-value concentration strategies might include giving exhibitors exclusive access, enforcing long periods of protection (clearance), limiting feature programs to certain theaters, or specially marketing features for the benefit of the exhibitor.[24] As detailed below, Mutual's strategy emphasized the last of these approaches to feature differentiation.

The GFC's model of distribution practice was dominant at the beginning of 1914, despite the emerging feature market and the increasing length of films. This dominance was a result of the structures of the exhibition market—in which the daily change remained standard practice—and the program system's rationalized solutions to the problems that had plagued national distribution under the licensing system. That the GFC's competitors had effectively copied its model from the very beginning—the Sales Company from 1910, and

Mutual and Universal from 1912—attests to the prevailing orthodoxy of the program distribution strategy before the mid-1910s. As Eileen Bowser points out, "throughout the period when they were trying to get established, the independents followed the practices of the licensed group rather than break new ground."[25] As late as 1917, the distribution model of program service that the General Film Company had innovated continued to heavily influence the dominant releasing practices of the American film industry, even as it was effectively adapted in various ways for longer features after 1915. Mutual's macroscale production planning strategies were fundamentally based in the cost-centered logic of the GFC model.

COST STANDARDIZATION FOR THE REGULAR MUTUAL PROGRAM AT 4500 SUNSET, 1914–15

Despite film historians' tendency to characterize it as one of the companies independent from the MPPC, Mutual effectively copied the GFC's model of the variety program. By 1914, Mutual had assembled what was probably the strongest collection of producers of any of the national program-service distributors, handling the product of Thomas Ince's New York Motion Picture Company, American, and Thanhouser. Additionally, Mutual president Harry Aitken had acquired the services of D. W. Griffith and his associated staff from Biograph early that year, strengthening Mutual's position even further.[26] The Griffith contingent took over the Reliance, Majestic, and Komic brands, and the head of Griffith's scenario department, Frank Woods, became production manager for these brands at the newly acquired and upgraded studio plant at 4500 Sunset Boulevard.[27]

When they started producing one- and two-reel films for Mutual at 4500 Sunset in 1914, Reliance and Majestic had already been churning out program shorts for the distributor for a few years, at respective studios in Coney Island and at Fairview Avenue in Los Angeles.[28] Majestic seems to have refurbished 4500 Sunset significantly after taking it over from its previous owner, the Kinemacolor company. *Moving Picture World* reported that the company built new printing and developing facilities, while *Reel Life* boasted that "dressing-rooms and property-rooms have been enlarged, new stages have been constructed and the scenario department is now housed in new quarters."[29] *Motion Picture News* noted that the company built new carpentry shops on the lot as well.[30] The earliest day for which there are entries in the Reliance and Majestic production ledgers is April 10, 1914, suggesting that production work began around that date.[31]

When it came to program shorts production, Woods implemented a strategy at the studio that essentially mirrored all the manufacturers releasing through the GFC's variety program model: establishing consistency of cost

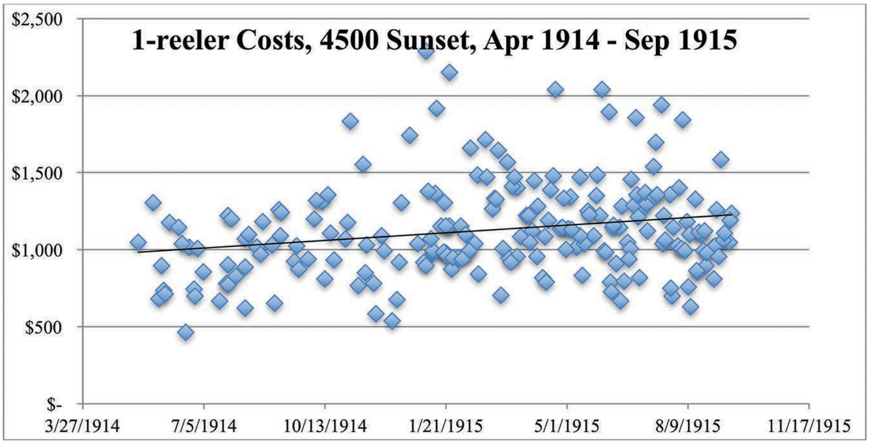


Fig. 2: One-reeler costs, 4500 Sunset, April 1914–September 1915

across the program. The average expenditure on one-reelers, based on the data set of 270 films produced at 4500 Sunset from April 1914 to the fall of 1915, was $1,126, or slightly above one dollar per foot. Figure 2 provides a scatter plot, with a trend line, of this sample.

As we can see, the average cost of these films increased only slightly from the spring of 1914 to the fall of 1915, from almost exactly $1,000 to about $1,200. This is not at all surprising given Mutual's use of the GFC's model of program distribution. Mutual paid Majestic a flat fee of between eight and eleven cents per foot of positive film, incentivizing consistently controlled costs.[32] This is not to say that costs were standardized enough to completely restrict variations of genre, shooting length, or the director's spending habits; Majestic one-reelers during this period could cost $1,300, or they could be as cheap as *Their First Acquaintance* (1914), which was made for $465 (in three days!). It should be noted that the 270 films in this sample include Komic shorts, children's films, westerns, and melodramas. They also represent a full year and a half's worth of production at 4500 Sunset, during which inflation and the still-growing variety program market would have slightly increased production costs. Thus, the standard deviation of this set, a statistical indication of how much all the films' costs are dispersed from the mean cost, might seem high: $330, or 29 percent of the average. However, this is an indication of the amount of cost diversity that could occur within a program with strictly controlled average costs. The average time of production on these films was almost exactly seven days, but this too could vary considerably; Reliance one-reelers were frequently shot in five or six days in 1914, while Komic one-reelers could take anywhere from four days to two weeks.

The relative cost standardization of the program as a whole becomes clearer when we look more closely at what kinds of expenditure took up the bulk of the costs. The average amounts dedicated to particular expenditure categories break down according to the following proportions, which on the whole were quite consistent from film to film:[33]

Cost Categories	**1-reel percentages**
Average Total Negative Cost	$1,126
Director, Actor, Camera Salaries	32%
Overhead	28%
Extra Salaries	11%
Negative Stock	8%
Sundry	7%
Autos	4%
Other (Props, Wardrobe, Construction, Lunches, Titles, Misc.)	10%[34]

Eighty percent of the cost of an average one-reeler at 4500 Sunset went to predictable, standardized expenses: salaries, the cost of negative stock, and overhead. Another 14 percent or so went to small amounts for various categorized expenses like props, wardrobe, and construction, as well as automotive rental for location shooting. These miscellaneous categorized expenses were themselves largely standardized from film to film, and each individual category was usually negligible compared to the cost of salaries, stock, and overhead. The only consistent exception to this seems to have been westerns, which had relatively high automotive expense as a percentage of negative cost. However, almost every one-reeler in the sample had some kind of automotive expense charged to its ledger, indicating that auto rentals were a standard expense of every genre of filmmaking in 1914.

The aggregated evidence of these films' costs suggests that the claim that these films were ground out like so many sausages, a common conception of one-reel production, is something of an exaggeration.[35] As the data set indicates, there were many kinds of variations within one-reel films, whether by genre, brand, or director, and manufacturers absolutely recognized that some films would be more expensive than others. The central goal of the program-service manufacturers was to produce for a variety program, which by definition required variations among individual films, and manufacturing brands served to highlight those variations within program service. A Komic film designated a different kind of product from a Reliance or Majestic, and these differences had real implications for production. However, the variety program's constant demand for new films meant that such variations tended to occur within fairly rigid limits.

Overhead costs in particular demonstrate the way in which production planning accorded closely with the production throughput needs of program distribution. The bookkeepers at 4500 Sunset assigned overhead according to a flat rate based on the length of an individual film's shoot, which varied month to month, but was around fifty dollars per day by early 1915. This flat rate was determined by the total number of shooting days, per reel, of all films made at the studio in a particular month. The total overhead expenses of all films were added up and divided by this total number of days, and overhead was assigned to each reel proportionally. An important function of this accounting method was to incentivize greater production across the program; more completed films per month meant that total studio overhead could be split across more reels. This was not the only way to account for studio overhead during this period, but most of the common approaches tended to calculate overhead based on the total monthly production of a plant, regardless of any individual film's place in distribution.[36]

Perhaps the most interesting and revealing cost category with regard to the question of cost diversity within the standardized variety program is the sundry account. In accounting, a sundry account is used for recording miscellaneous expenses not chargeable to a named account—in other words, sundry expenses are not part of the typical process of production. In that sense, we might take the one-reel sundry account as a rough measure of spending outside the norms of the program, beyond the natural variations of genre, brand, or director that would be accounted for in the standard cost categories. The most common sundry charges for these one-reel films are for accepted scenario submissions from outside writers (usually a fifty-dollar charge), developing negative, or intertitles from a company named Thayer and Whitfield.[37] The sundry expenses for one-reel films, while relatively small, suggest that slight and occasional increased expenses on individual films within the program were a necessary part of maintaining its quality. This small-scale cost variation must have been a standard part of the production planning process and likely would have rested with the scenario department. Woods, in approving projects for production, would have needed to decide which directors would receive scripts produced internally by the scenario department, and which would get outside submissions. Across the program as a whole, however, consistent production throughput was the primary goal.

The strategy of cost standardization extended to two-reel films as well, despite the practice at Mutual of marketing two-reelers as features. The sample of 148 two-reel films in the data set reveals an almost identical pattern of

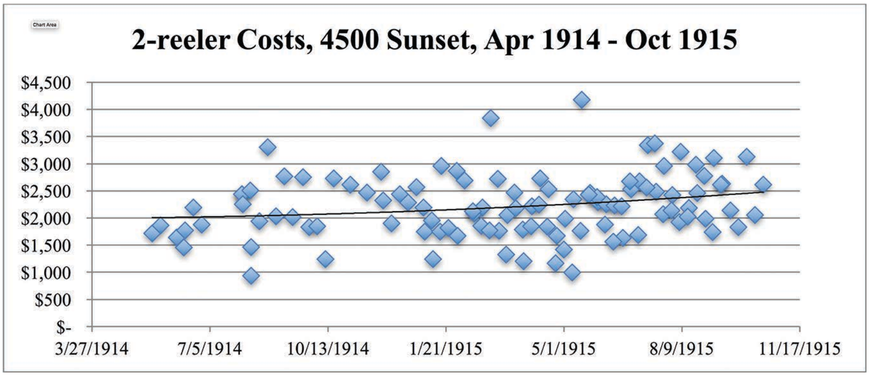


Fig. 3: Two-reeler costs, 4500 Sunset, April 1914–October 1915

programmatic standardization. The average negative cost of these films was $2,223. Per reel, this was nearly equivalent to the average cost of one-reelers over the same period. The average cost of a two-reeler increased at the same rate as well (fig. 3).

Cost Categories	1-reel percentages	2-reel percentages
Average Cost	$1,126	$2,223
Director, Actor, Camera Salaries	32%	33%
Overhead	28%	25%
Extra Salaries	11%	13%
Negative Stock	8%	8%
Sundry	7%	7%
Autos	4%	4%
Other (Props, Wardrobe, Construction, Lunches, Titles, Misc.)	10%	9%

Measured in terms of cost proportion, the two-reel films produced at 4500 Sunset were virtually identical to one-reel films. At a first glance, the costs of two-reelers would seem to be even more consistent, as their standard deviation ($564) is smaller as a percentage of the average negative cost (25 percent) than the one-reelers, and their per-reel negative cost is slightly lower. However, because overhead was apportioned on a days-per-reel basis, one- or two-day overruns on one-reelers had a greater proportional effect on their average cost than was the case with the two-reelers. As a result, two-reelers did benefit from an economy of scale in terms of studio overhead. The average two-reel film at

4500 Sunset was shot in twelve days—more quickly, on a per-reel basis, than one-reelers. This suggests that from the standpoint of production throughput, two-reel production was more efficient in general than one-reel production.

These data show production planning for the variety program in action. By keeping tight control of per-reel costs, Woods and his scenario department ensured that the program made a consistent profit in distribution. Overruns and variations in individual films balanced out in the aggregate of the program, thanks to the incentives of standard costing and the role of the single reel as a distribution module. One- and two-reel films were functionally equivalent, which meant that any unanticipated costs incurred on a single-reeler could be smoothed over simply by expanding it into a two-reeler. This modularity had benefits for both production and distribution; there are numerous margin notes in the ledgers indicating that several films were "switched to two-reelers" or transferred from Majestic to Reliance (or vice versa).[38] Consistency of cost in the one-reel period was thus a function of the mutually reinforcing relationship between film manufacturing and film distribution.

INTEGRATING AND MARKETING MULTIPLE-REEL FEATURES: MUTUAL MASTERPICTURES, 1915

Each of the brands releasing on the Mutual program was a separate and largely independent production company, replicating the structure of the GFC. Mutual differed from the GFC, however, in the extent to which some of their manufacturers—particularly Griffith's and Ince's companies—were invested in features. Mutual's features were still released separately from the normal program in 1914, either through the states-rights system—whereby releasing rights were sold to independent regional distributors—or through special booking at the company's own exchanges. However, the extent and scale of feature production at Mutual in 1913 and 1914 surpassed that of the MPPC producers. Griffith himself, though nominally the supervising director of all films made at 4500 Sunset, concentrated his efforts on making special productions. The most famous of these specials was obviously *The Birth of a Nation* (1915), shot partially at the studio, but 1914 saw the release of *The Battle of the Sexes*, *The Escape*, *The Avenging Conscience*, and *Home, Sweet Home*, which were variously released through states rights and Mutual's own exchanges.[39] Mutual's special releases were not limited to Griffith productions, however, and included Thomas Ince's *The Battle of Gettysburg* (1913), Reginald Barker's *The Wrath of the Gods* (1914), and Thanhouser's *Cardinal Richelieu's Ward* (1914).

Ironically, the relative strength of Mutual's manufacturers when it came to feature production posed a problem for the distributor. Beginning in 1914, Mutual's features were distributed through the Continental Feature Film

Corporation. According to Kalton Lahue, Harry Aitken formed Continental for the release of "big pictures" independently of the program, angering the rest of Mutual's board.[40] Bowser suggests that Continental was a franchise organization of states-rights distributors through Mutual.[41] Continental appears to have used Mutual's physical distribution network, but local states-rights franchises paid the manufacturers directly for the privilege of booking and selling these features to exhibitors. Indeed, ads in the trade press for Continental features were taken out directly by the manufacturers and emphasized that exhibitors could book Continental features at any local Mutual exchange.[42] Mutual may have been paid a nominal fee for the use of their exchange network, but the real money in distributing these features came through handsome states-rights royalties (which often amounted to tens of thousands of dollars for each territory). This disproportionately benefitted the individual feature manufacturers, which tended to be Ince's NYMP and Griffith's Majestic, over the distributor as a whole. As a result, a major rift formed on the Mutual board, with the feature-invested Aitken on one side, and American's John Freuler and Samuel Hutchinson on the other.

The year 1915 began with the national market for program features in full swing. Paramount had been offering its two-features-a-week service to exhibitors since September 1914, and the variety-program distributors began offering their own programs of features soon after. Mutual's manufacturers had been making features for release through states rights and Continental since at least 1913, but now the distributor needed to find a way to release its own features programmatically. Of course, the service companies had been releasing features, broadly defined, on their regular programs since the emergence of multiple-reel films. By the summer of 1914—before Paramount started offering its four- and five-reel feature program—all of the program-service distributors were offering daily two-reel releases, and such films were generally marketed as features. The GFC listed all of its two-reelers as "specials" in *Moving Picture World*, and Mutual marketed its two-reel releases explicitly as "Regular Mutual Program Features" in the trade press.[43]

There was a logic to this marketing strategy: for the vast majority of exhibitors in the early teens, long features of four or more reels were simply not a priority. Bowser points out that many local exchanges and exhibitors actively resisted such films since they seemed ill suited to the transient audience and the frequent-change variety of the program.[44] Two-reel films, on the other hand, could be integrated into most exhibitors' programs fairly easily; even the most conservative exhibitors could play the individual reels of such films across multiple days. The average program was four reels long by 1914, and a typical day's service at this time consisted of one two-reeler and two one-reelers. Under this arrangement, exhibitors could claim to have a daily feature in addition to maintaining substantial variety on their programs. This made sense from a production standpoint as well since, as we have seen, two-reelers were relatively efficient for manufacturers to produce. This helps explain why two-reel films, which in 1910 would have been twice as long as the typical film, were so easily integrated into the program in 1913 and 1914. They were slightly more economical from the standpoint of production and could be marketed as features with little additional cost in distribution.

Nevertheless, Paramount's full-service feature program necessitated the scaling up of multiple-reel feature production on the part of the service companies. For Mutual, producing a program of films of the same scale and quality as those released through Continental was not feasible. Such films needed the extended runs and advertising typical of the states-rights system, and Mutual's pricing policies did not accommodate that type of production at scale. Rather, the distributors needed to release a series of films that exhibitors could charge higher ticket prices for, but also that its manufacturers could produce under the existing flat-fee-per-foot pricing system. They also needed to distribute the films in such a way that they could be booked as a program of regular releases without cannibalizing their shorts service. This meant introducing an entirely different tier of service, separate from the normal program.

Mutual settled on its feature strategy in March 1915: a series of Mutual Masterpictures, released twice a week on Mondays and Thursdays, that could be booked separately from the standard Mutual program. According to Lahue, all of the manufacturers releasing through Mutual—Reliance, Majestic, the New York Motion Picture Company, Thanhouser, and American—were initially supposed to produce one Masterpicture every five weeks, but in practice the bulk were produced by Reliance, Majestic, and NYMP. At the zenith of the distributor's Masterpicture output in May 1915, Mutual was able to release two four-reel features every week on Thursday and Monday, totaling eight reels. In terms of sheer output, this was comparable—in release frequency at least—to the schedule of Paramount's program, provided from Famous Players, Lasky, and Bosworth.[45] These films were a continuation of the marketing-based strategy the service companies used in the early teens to accommodate longer films, with some important modifications.

The Masterpictures represented a kind of hybrid between Paramount's distribution model, variety program service, and states rights. As was the case at Paramount and under states rights, individual films branded as Masterpictures were nationally advertised through the trade press, and Mutual placed ads for the films in mass-market publications like the *Saturday Evening Post*. The Masterpictures were usually four reels long (with occasional three- or five-reelers),

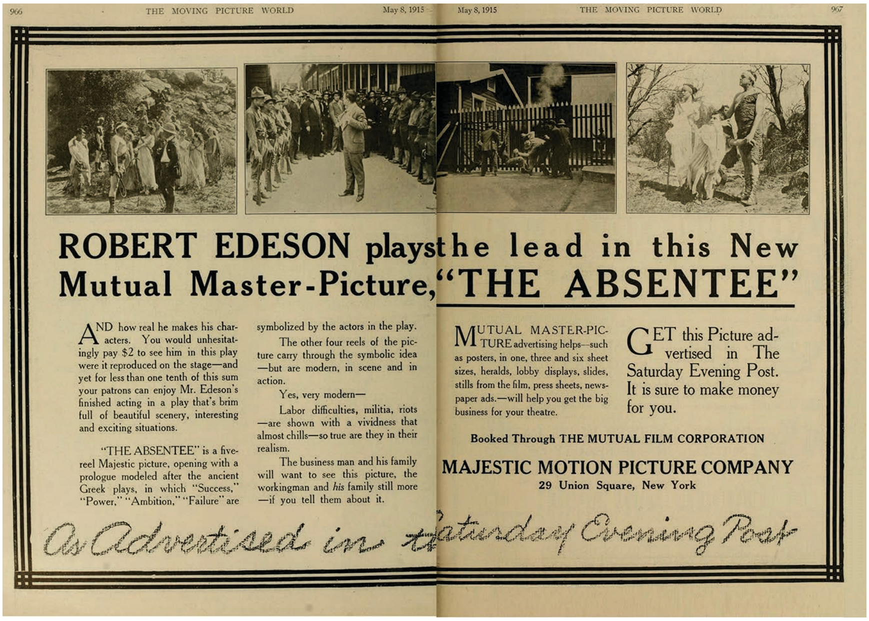


Fig. 4: Ad for *The Absentee*. (*Moving Picture World*, May 8, 1915, 966–67)

and their two-features-a-week release rate was clearly intended to compete with Paramount's feature program. The Masterpictures differed from Paramount's films, however, in that they were not actually marketed as a full-service distribution program. Rather, exhibitors could book them individually through Mutual's exchanges, at higher but still reasonable prices.

This was a conscious strategy on Mutual's part to orient the films toward their long-standing exhibition market: smaller and midsize theaters that relied on shorts service for their day-to-day programming. Many of these theaters were routinely running features one or two days a week by 1915, but most of them were not ready to commit to the minimum run requirements, yearlong contracts, advance deposits, and general expense of Paramount's full-service feature program. Thus, Mutual emphasized the flexibility of the Masterpictures in distribution, making them available as an occasional alternative or addition to shorts service rather than a full-service replacement for it. Toward that end, Mutual often de-emphasized the release dates of the Masterpictures in *Reel Life* and the trade press; this differentiated the films from the normal program and its release-date–dependent pricing. Certainly, Mutual benefitted from any full-service booking of the Masterpictures, but the company likely did not expect many exhibitors to rent them this way. Through their pricing and length, Mutual strove to make these films easy for shorts-reliant exhibitors in smaller houses to integrate into their programs.

This strategy is revealed in representative examples of advertising promoting two of the Majestic films released as Mutual Masterpictures: *The Absentee* (released Monday, May 3, 1915) and *The Victim* (released Thursday, May 6, 1915). The ad copy for *The Absentee* (fig. 4) extolled the performance of its lead actor, Robert Edeson: "And how real he makes his characters. You would unhesitatingly pay $2 to see him in this play were it reproduced on the stage—and yet for less than one tenth of this sum your patrons can enjoy Mr. Edeson's finished acting in a play that's brim full of exciting scenery, interesting and exciting situations."[46]

In emphasizing *The Absentee*'s star and his theatrical origins, Mutual clearly wished to set the film apart from the company's standard program service. At the same time, the distributor stressed that the admission prices for such films, and consequently the rental fees, need not be drastically more expensive than shorts service (the ad for *The Absentee*, for instance, suggests an admission price of less than twenty cents). A similar ambivalent strategy is evinced in an adjacent ad for *The Victim*, starring Mae Marsh and Bobby Harron, which promotes the film's stars but takes care to mention the relatively short length of the film at the head of the copy: "*The Victim* is not a long picture, but its three reels carry a story full of human interest."[47] The Masterpictures were meant to be taken as features in a way that one- and even two-reel films were not, but Mutual's marketing of them to exhibitors who still relied on the daily-change variety program subtly highlighted the ways in which the films were compatible with that exhibition model. Features of three or four reels allowed small exhibitors to screen such films at affordable ticket prices—ten or fifteen cents—while at the same time preserving something of a balanced program by leaving time to pair them with another reel or two of shorts (or for exhibitors with shorter programs to add more screenings of the film).

Advertising in the *Saturday Evening Post*—a popular but nevertheless respectable middle-class publication—was another systematic strategy on Mutual's part and suggested to exhibitors that Masterpictures could attract a higher class of trade who would pay higher prices. The company was clearly interested in differentiating the Masterpictures from its daily-release program, and they did so through an appeal to a certain conception of middlebrow taste. Almost all of the films were adaptations of well-known (if often older) plays or literary works, including versions of Henrik Ibsen's *Ghosts*, Tennyson's *Enoch Arden*, John Luther Long's *The Fox-woman*, and Ouida's *Strathmore* (all 1915). As source material, Mutual deemed these works respectable and accessible for spectators and marketed them as such; for instance, one ad proclaimed, "Mutual Masterpictures set a new standard in Motion Pictures because they do not shock the intelligence of the audience or play over their heads."[48] Mutual sought to communicate to exhibitors the dual notion that these films were indeed features, differentiated from normal daily releases, but also as accessible to patrons as a standard one-reel short.

Certainly, Mutual benefitted from Masterpicture bookings in the increasingly large and luxurious theaters of urban centers. The company encouraged three-day bookings of the Masterpictures from theaters in larger cities (the same as Paramount's minimum rental time), and such venues did play the films for runs of that length. An ad reprinted in the *World* for a booking of *Up From the Depths* (Reliance, released June 17, 1915) in Portland, Oregon, indicated that the film showed for three days at the recently built Orpheum Theatre,[49] while the Broadway in Salt Lake City ran the film for two days.[50] By contrast, smaller exhibitors seem to have positioned these films as Mutual had intended: an occasional feature substitute for the normal program. A survey of local newspaper ads for the film revealed ten bookings of the Masterpictures in smaller towns, only two of which lasted two days: the Foto Play Theatre in Grand Forks, North Dakota, and the Majestic in Boise, Idaho.[51] The other eight bookings were for only a single day and always with an additional one- or two-reeler on the program. Thus, while Masterpictures might run on their own for multiple days in larger markets, they could also be integrated into smaller exhibitors' daily programs. In both cases, rentals would have been lower than for Paramount's films—on the order of twenty dollars per day for smaller houses—and exhibitors were not required to take the entire program or to book films for three-day minimum runs.[52]

This flexible distribution strategy had major consequences for these films' production. To keep prices for the rental of Masterpictures low, Mutual sold them according to the basic pricing structure of program service. Mutual paid its manufacturers a flat rate for every positive foot of Masterpicture film, just at a higher rate than the shorts—likely twenty or twenty-five cents a foot.[53] This pricing scheme made the Masterpictures a clearly separate tier of production in the eyes of Mutual's manufacturers, but at the same time it encouraged them to control the costs of the films just as they had for their shorts. As a result, budgets for the Masterpictures were not nearly as high as those for Paramount films in 1915: around \$8,000 or \$9,000, as opposed to \$30,000 to \$35,000. Furthermore, while Paramount's producers rationalized their features into separate A, B, and C tiers within the program, allowing them to sell the entire program on the basis of a small number of films at the very highest budget level, Mutual's manufacturers tended to spend roughly equal amounts on each Masterpicture, using the same cost-standardization approach they had employed for variety-program production.[54] Thus, although they spent more per reel on the Masterpictures, Reliance and Majestic produced them within a set of cost constraints almost as standardized as those of the variety shorts.

Category	# of films in sample	Avg. Neg. Cost	Avg. Cost per reel	Shoot days
1 reel	270	$1,126	$1,126	7
2 reels	148	$2,223	$1,111	12
Masterpictures (3–5 reels)	18	$8,659	$2,227	42

The average negative cost of the eighteen Masterpictures in the set ($8,659) is substantially higher than that of the shorts. Their average cost per reel ($2,227) is twice that of the one- and two-reelers, and unsurprisingly, they also took more time to produce (forty-two days). While the one- and two-reelers hewed fairly closely to a production schedule of one reel a week, the Masterpictures' directors took ten to twelve days to produce a single finished reel of negative.[55] It is clear that the films were substantially more expensive than the one- and two-reelers, but if we examine the average cost breakdown for the Masterpictures, they exhibit some surprising similarities with the shorts:

Cost Categories	Masterpicture percentages
Average Cost	$8,659
Director, Actor, Camera Salaries	35%
Overhead	20%
Extra Salaries	15%
Sundry	11%
Negative Stock	6%
Prop Rentals	4%
Autos	3%
Other (Props, Wardrobe, Construction, Lunches, Titles, Misc.)	7%

We might have expected much greater expenditure on actor salaries, especially given the extent to which Mutual's marketing in the trade press and the *Saturday Evening Post* played up these films' casts. Yet the Masterpictures spent only a fractionally greater amount on salaries than the program shorts did as a proportion of total negative cost: 35 percent, as opposed to 32 percent and 33 percent for the one- and two-reelers, respectively. The reason for this is that the Masterpictures tended to feature Griffith stock company players, such as Henry B. Walthall, Mary Alden, Charles Clary, and Robert Harron, rather than specially contracted and highly paid stars. By the same token, we might have expected these films to have more varied sundry expenses, and while they do spend a bit more as a percentage on such expenses, a closer look at the ledgers of individual films reveals why. By far the most common and significant sundry expenses in the Masterpictures fall into two categories: "sample" or "test" prints of around $300 to $500, and charges on the order of $200 to $300 for scenarios. The former was likely an equivalent to the modern answer print, used to test the quality of the finished negative and make adjustments before printing distribution positives.[56] Similarly, the latter category is simply an equivalent to the scenario expenses incurred by many of the program shorts—the fifty dollars commonly paid to outside scenario contributors for one-reelers, scaled up slightly on a per-reel basis for features.

Ultimately, these data suggest that Mutual's strategy for obtaining higher rentals for the Masterpictures concentrated on distribution and marketing, while its pricing encouraged the company's manufacturers to produce the films at higher but still carefully controlled and consistent costs. By offering a flexible, higher-priced tier of service that was an ancillary to program shorts service rather than a substitute for it, Mutual hoped to navigate a middle ground between shorts and features by increasing its prices to manufacturers without fundamentally changing the structure of that pricing.[57] As a production strategy, the Masterpictures represented the limit of what was possible for features purchased by distributors on a flat-fee-per-foot basis. Higher flat fees in distribution could certainly generate longer films of feature quality while keeping prices within the margin of what many exhibitors were willing to pay in the mid-1910s, but without a share in rental profits, manufacturers continued to standardize their costs and, by extension, their production. In the absence of percentage fees or distribution advances to enable producers to make more lavish films, Mutual's Masterpictures remained an ancillary to the weekly shorts program for the rest of 1915. In addition, the departure of Aitken, Ince, Griffith, and Sennett for Triangle in May left the distributor starved for product, and Mutual was unable to offer a steady Masterpicture program again until January 1916.[58]

CONCLUSION

Traditional accounts of the American film industry in the mid-1910s, as feature programs played an increasingly dominant role in film production and distribution, tend to paint the shorts service manufacturers and distributors as historical losers, unable to adapt to a demand for features. Yet as Singer points out, many exhibitors were reluctant to take features in the first place or simply could not afford to pay for them.[59] Mutual's Masterpictures exemplify one strategy to serve this market and point to the genuine belief among many in the industry in the mid-1910s that shorts and features could exist as part of a parallel system. Furthermore, the Masterpictures show a number of important continuities from shorts production practice that lasted into at least some portion of early program feature production. These include an emphasis on cost control brought about by flat-fee pricing in distribution, standardization of spending proportions and film length, and differentiated spending on individual films within specified limits defined by the distribution program as a totality. While the films of dedicated feature distributors like Paramount and Triangle were different in many respects due to the circumstances of their distribution, the continued dominance of flat-fee rentals to exhibitors throughout the teens and well into the twenties put similar pricing pressures on them.[60]

Certainly, previous scholars have shown the value of accounting documents as historical evidence, not only in research on the American film industry in general but also on production control specifically. Richard Koszarski has cited studio accounting memoranda to show the explosive increase in production costs across the industry from the mid-1910s to the early 1920s.[61] Mark Garrett Cooper, in his work on standard costing at Universal under studio manager H. O. Davis, argues that cost accounting served as a "partner" to the continuity script in managing individual productions by "defining a standard against which [film workers'] performance [could] be measured."[62] In setting such standards, Cooper argues, standard costing encouraged self-discipline from directors and other personnel when it came to production costs.[63]

The evidence presented here builds on Koszarski's and Cooper's findings by reframing them at the more distant interpretive scale of the studio plant producing for a dynamic distribution market in the mid-1910s.[64] This distance highlights the importance of thinking about costs in relation to a larger managerial ecosystem defined by the relationship *between* cost control and differentiation in distribution in the early studio era. Controlling costs was a dominant production control practice under the variety program system, but by the mid-1910s it was only one side of the managerial coin. The rise of features as a standard format put the importance of the other side—the need to make films that would yield greater income in distribution—into sharp relief. This would ultimately require less programmatic and more flexible forms of distribution than the program. The tension between these poles is readily evident in the case of the Masterpictures, which navigated a middle way (if only temporarily) between flexibility in distribution and standardization of production cost. In that sense, they instantiate the wider pattern noted by Cooper in his examination of Universal's Bluebird brand, which in 1915 struggled between the differentiation of individual Bluebird titles and "the identity of the brand as a mark of consistent quality."[65]

At first glance, the evidence presented here might seem to privilege the quantitative over the qualitative in its attention to statistics, averages, and trends. However, attention to studios' use of cost-control strategies during this period forces historians to rearticulate their questions in light of this important persistent practice of the variety program. What implications did cost control have for genre and story allocation, for instance, or decisions about directors and casting? Frank Woods, as head of the scenario department, likely had significant power over these decisions, and in the absence of archival evidence of them through correspondence or similar documentation, their exact nature and criteria at Mutual remain conjectural. However, as I have shown, the use of scaled cost data sets helps to enable richer critical interpretations of the discursive strategies evident in other sources. Data can aid critical analyses of evidence like trade-press advertising by providing a quantitative measure of the film product being sold. In the same way, understanding production and distribution in the early studio system at a macro scale requires a multimodal approach to historiography.

Film historians are quite accustomed to thinking and writing about films on an individual basis, or at least in the broad (and often ill-defined) categories familiar from the mature studio system: A films, B films, programmers. The study presented here, though it covers but a year and a half at the zenith (and, as it would turn out, twilight) of program shorts production in the American film industry, shows the crucial importance of the distribution program in the industry's conception of its own product. That conception may have played a significant role in defining those familiar categories of the 1930s, which were themselves functions of the macroscale relationship between distribution and production control.[66] The fifteen-year interim, a history of the origins of the studio system's mature distribution practice, remains to be written.

Notes

The author would like to thank Ben Brewster, Lea Jacobs, Greg Waller, and the anonymous *Film History* reader for their helpful comments on earlier versions of this article.

1. See the contributions of Tom Gunning, Charlie Keil, Ben Brewster, Ben Singer, and Scott Curtis in Charlie Keil and Shelley Stamp, eds., *American Cinema's Transitional Era: Audiences, Institutions, Practices* (Berkeley: University of California Press, 2004), as well as Michael Quinn, "Early Feature Distribution and the Development of the Motion Picture Industry: Famous Players and Paramount, 1912–21" (PhD diss., University of Wisconsin-Madison, 1998); and Rob King, *The Fun Factory: The Keystone Film Company and the Emergence of Mass Culture* (Berkeley: University of California Press, 2008).

2. Ben Singer, "Feature Films, Variety Programs, and the Crisis of the Small Exhibitor," in Keil and Stamp, *American Cinema's Transitional Era*, 78–82.

3. Ben Brewster, "Periodization of Early Cinema," in Keil and Stamp, *American Cinema's Transitional Era*, 73–74.

4. Direct negative cost data for the films was obtained from reels 7 and 18 of the microfilmed portion of the collection. Ben Brewster, who has examined these same documents for his entries in *The Griffith Project* (vol. 8 and 9, ed. Paolo Cherchi Usai [London: BFI, 2004–2005]), notes that the ledgers were not tied to any single corporate entity or brand.

5. Some films contained additional categories such as wardrobe rental, wardrobe purchase, film insurance, construction, and lunches; these categories tend to appear only for later films. In May 1915, the bookkeepers began recording a titles category for intertitle expenses.

6. Based on my experience with similar documents in other archival collections, the bookkeepers probably wrote the running totals in red ink. This would have aided the digitization process immensely had the originals been preserved since the different color directly encoded these amounts as running totals rather than individual entries. However, since I was working with grayscale microfilm scans, running totals had to be deduced visually and through manual verification (via choosing a sample of ledgers and calculating the total amount represented by the individual expense entries).

7. This approach was also a more direct approach to answering my research questions. While the detailed individual charges promise to contain interesting insights into Los Angeles's ancillary production economy as of the mid-1910s (particularly with regard to wardrobe, props, and construction), many of the charges are simply eponymous with the expense category they are charged to. For example, the individual charges for director/actor/camera salaries are simply lump-sum weekly payments and do not include any disaggregated data for individual personnel. Recording the weekly payroll as presented in these documents might eventually yield interesting insights, but such data do not clearly illuminate patterns of distribution planning and production control at the scale of the studio in the mid-1910s.

8. Robert Anderson, "The Motion Picture Patents Company" (PhD diss., University of Wisconsin, 1983), 254–55; Quinn, "Early Feature Distribution," 61–62.

9. Janet Staiger, *The Classical Hollywood Cinema: Film Style and Mode of Production to 1960* (New York: Columbia University Press, 1985), 128–41.

10. Robert Anderson, "The Motion Picture Patents Company: A Reevaluation," in *The American Film Industry*, ed. Tino Balio (Madison: University of Wisconsin Press, 1985).

11. Quinn, "Early Feature Distribution," 49–50.

12. As Quinn notes, the exact level of service was based on the price paid by the exhibitor in the context of the local market, and after 1913 no program service offered by the GFC consisted solely of new films, as exhibitors were limited to two first-runs in any program. Quinn, "Early Feature Distribution," 56.

13. Anderson, "The Motion Picture Patents Company," 143.

14. Paramount famously avoided this problem via its system of percentage payments to its producers.

15. Anderson, "The Motion Picture Patents Company," 150–52.

16. Eileen Bowser, *The Transformation of Cinema, 1907–1915* (Berkeley: University of California Press, 1990), 33.

17. Bowser, *The Transformation of Cinema*, 81. Bowser notes a contemporary estimate that the Sales Company served three thousand theaters to the GFC's seven thousand.

18. Bowser, *The Transformation of Cinema*, 83–84.

19. Anderson, "The Motion Picture Patents Company," 150.

20. While three-reel releases were rarer before 1914, they too increased faster than the rate of one-reel production, from only seven in 1911 to 138 in 1913. Three-reelers saw a brief burst of production from 1914 to 1916 (248, 449, and 362 films), before largely disappearing in the late teens. Singer, "Feature Films, Variety Programs," 79.

21. As Brewster points out, however, even theaters that could continuously project multiple-reel films did not necessarily do so, and the many small theaters that were the service companies' primary customers were even less likely to have multiple projectors. Ben Brewster, "*Traffic in Souls*: An Experiment in Feature-Length Narrative Construction," *Cinema Journal* 31, no. 1 (Autumn 1991): 40–41.

22. Untitled list of Mutual releases by date, *Reel Life*, September 20, 1913, 30, http://archive.org/stream/reellife03unse#page/n37/mode/2up.

23. The 1908 rental schedule for Edison films did not even have a pricing tier for contracts longer than seven days. See Petitioner's Exhibit No. 91, United States v. Motion Picture Patents Co., 229 U.S. 1 (1913) at 350–51.

24. As Quinn points out, Mutual and Universal tended to embrace multireel films more readily than the GFC. Nevertheless, the MPPC was conscious of the importance of multiple-reel features, particularly by October 1913, when it experimented with an "exclusive service" strategy. Quinn, "Early Feature Distribution," 76.

25. Bowser, *The Transformation of Cinema*, 78.

26. Bowser, *The Transformation of Cinema*, 221–22.

27. Alfred A. Cohn, "The Empire Theatre of the Screen," *Photoplay*, July 1917, 31–32, 136.

28. Ben Brewster, "*Home, Sweet Home*," in *The Griffith Project*, vol. 8, 31.

29. Marc Edmund Jones, "The Los Angeles Mutual Studios," *Moving Picture World*, January 17, 1914, 282; and "Heard in Studio and Exchange," *Reel Life*, February 28, 1914, 8.

30. "Live News of the Week," *Motion Picture News*, March 21, 1914, 37–38.

31. There were nine directors working at the studio through the spring of 1914: Christy Cabanne, J. B. O'Brien, John Adolfi, Donald Crisp, and Edward Dillon for Majestic, and Arthur Mackley, Fred Kelsey, Edward Morrissey, and James Kirkwood for Reliance. This number would increase to fifteen by July 1915, as they were joined or replaced by George Beranger, George Siegmann, Raoul Walsh, George Nichols, Chester and Sidney Franklin, Lloyd Ingraham, Jack Conway, and others. By that time, the studio was producing sixty thousand feet of finished negative a month, equivalent to two reels every day. "Reliance-Majestic," *Moving Picture World*, July 10, 1915, 249.

32. These prices are explicitly stated in Majestic's monthly financial statements. In the three-month period encompassing May–July 1913, Majestic handled 1,024 separate shipments of reels to Mutual exchanges, 730 of which were paid at eight or ten cents in cash per foot and 241 of which were charged to standing accounts at eleven cents. The rest of the accounts represent various combinations of cash and charge for similar amounts. Box 33, Aitken Collection, Wisconsin Historical Society.

33. For clarity of description and so as not to overcomplicate the results for readers, I present calculations derived from averages. However, I also calculated median amounts and percentages (which, in theory, better account for outlying high or low amounts). The results were essentially identical; the only categories that changed when calculating using the median were extra salaries and overhead, both of which differed from the average figures by less than 1 percent (in absolute terms). There were certainly outliers and variations in the broader data from film to film, but standard deviation

calculations showed that the director/actor/camera salary category varied by less than 10 percent (absolute) from the film to film mean, while extra salaries, stock costs, and overhead varied by less than 6 percent. More intricate breakdowns (by genre, for instance) should be possible once the relevant metadata is coded.

34. Apart from Other, which encompasses the parenthetical categories, all of these categories are those of the original bookkeepers.

35. Compare to Bowser's citation of *Moving Picture World*, July 31, 1909, 151. Bowser, *The Transformation of Cinema*, 53.

36. [F. W. Thornton], *Memorandum on Moving Picture Accounts, July 10, 1916* (New York: Price Waterhouse, 1916); and Raymond Fielding, "Accounting Practices in the Early American Motion Picture Industry," *Historical Journal of Film, Radio, and Television* 12, no. 2 (1992): 115–25.

37. The last of these is somewhat surprising; although the ledgers for the one-reel films would have a dedicated column for titles beginning in May 1915, it seems that before then they were considered a special expense. These charges may have been for a particular kind of art title, but Thayer and Whitfield is the named vendor indicated for dedicated title charges as well.

38. Among the films that were expanded to two-reelers were *His Lesson* (1915), *False Pride* (1914), *The Better Way* (1914), and *The Better Man* (1915).

39. The Aitken Collection does not include cost breakdowns for any of these states-rights films. Records do exist for *Birth of a Nation* (under its initial title, *The Clansman*), as well as for most of the Fine Arts films produced for Triangle at the studio in 1915 and 1916. Space does not allow an extended analysis of these films here, but in brief, their cost profiles are starkly different from the program films and Masterpictures discussed in this essay, with significantly greater amounts accounted to sundry expenses, premiums for directors and crew, and location spending.

40. Kalton Lahue, *Dreams for Sale: The Rise and Fall of the Triangle Pictures Corporation* (New York: A. S. Barnes, 1971), 23.

41. Bowser, *The Transformation of Cinema*, 222–23. In contrast to the variety program, the states-rights system was a more flexible form of distribution that allowed for longer runs of more individuated and specifically advertised films (features, in other words), as well as higher budgets for manufacturers. Under states rights, a manufacturer sold exclusive distribution rights for a particular film to buyers on a territorial basis, typically for extended periods (usually five years, according to Quinn). Those buyers could then rent the film to exhibitors, subdivide the distribution rights to other companies, exhibit the film directly, or effect some combination thereof. Michael Quinn, "Distribution, the Transient Audience, and the Transition to the Feature Film," *Cinema Journal* 40, no. 2 (2001): 48.

42. See *Moving Picture World*, October 10, 1914, 132, for a typical example of such ads.

43. "Calendar of Licensed Releases" and "Calendar of Independent Releases," *Moving Picture World*, June 27, 1914, 1854, 1856. Mutual even listed its two-reelers as a unit in their house organ, *Reel Life*, suggesting that the company may have offered them separately as a particular service for interested exhibitors. *Reel Life*, September 19, 1914, 26.

44. Bowser, *The Transformation of Cinema*, 196.

45. Quinn, "Early Feature Distribution," 130.

46. Continental advertisement, *Moving Picture World*, May 8, 1915, 966–67.

47. Advertisement for *The Victim*, *Moving Picture World*, May 8, 1915, 964–65.

48. Mutual Masterpieces advertisement, *Moving Picture World*, June 19, 1915, 2009.

49. Advertisement for *Up From the Depths*, *Moving Picture World*, July 17, 1915, 561. The ad stressed the theater's continuous projection of the film's four reels. The Orpheum was featured in *Moving Picture World* in 1916, after it had been renamed the T&D. *Moving Picture World*, October 21, 1916, 397.

50. Advertisement for *Up From the Depths*, *Salt Lake Telegram* (Salt Lake City, UT), June 20, 1915, 30.

51. Advertisements for *Up From the Depths*, *Grand Forks (ND) Daily Herald*, August 8, 1915, 6; and *Idaho Daily Statesman* (Boise, ID), August 6, 1915, 10. Other bookings appeared in: *Tulsa (OK) Daily World*, June 26, 1915, 9; *New Orleans Times-Picayune*, June 27, 1915, 38; *Jackson (MI) Citizen Press*, August 10, 1915, 3; *Olympia (WA) Daily Recorder*, July 27, 1915, 4; *Augusta (GA) Chronicle*, July 7, 1915, 10; *Lexington (KY) Herald*, July 19, 1915, 9; and *Colorado Springs Gazette*, June 27, 1915, 15.

52. Quinn, "Early Feature Distribution," 139–40. By contrast, Paramount's cheapest possible level of service as of mid-1914 was twenty-five dollars for a day's run in the smallest daily change houses, with forty to seventy dollars a more common rental (and then only as part of mandatory two- or three-day runs). Quinn, "Early Feature Distribution," 306.

53. This is evinced by the Masterpictures' placement in a separate section of the New York Motion Picture Company's "Release Book" and its records of the exact length of each Masterpicture and the number of positives struck. Exactly the same kinds of records were kept for the one- and two-reel films. Unfortunately, I have not been able to find a record of the exact rate; my estimate of twenty to twenty-five cents is based on the typical production costs of the films (around $8,000–$9,000) and their positive print runs (usually thirty-two prints). At an average length of about 4,000 feet and a conservative price of $0.20/foot paid by Mutual, this works out to a typical distribution gross for each film of about $25,000. Kay Bee Release Book, 1913–15, reel 4, vol. 33, Aitken Collection, Wisconsin Historical Society.

54. Quinn, "Early Feature Distribution," 124–25.

55. It should be noted that these averages are brought down by the three final Majestic Masterpictures to be released; these films are only three reels long and are substantially cheaper than the rest of the set. These films were produced after the Aitkens' break with Mutual, and were likely intended only to fulfill Majestic's contract to produce features for the Masterpicture release brand. Excluding these films, the average negative cost of the Masterpictures is somewhat higher ($9,457), although the adjusted average cost per reel is only marginally higher ($2,325).

56. None of the one- or two-reelers includes charges for such test prints, and while I have been unable to find any further documentation on them, I would hypothesize that the production of these prints was intended to differentiate the Masterpictures' technical quality from the normal program releases.

57. Certainly, it would be inaccurate to describe the Masterpictures simply as glorified program shorts; they were substantially more expensive and took much longer to produce on a per-reel basis. They were also received, unquestionably, as features; the trade press gave them good reviews, both for their photographic qualities (possibly a result of the films' test prints), and for their sets and performances.♀ The occasional sharp-eyed reviewer did note characteristics we might attribute to the cost-control priorities of Mutual's manufacturers in producing the Masterpictures. Louis Reeves Harrison, in a review of George Siegmann's four-reel *Yankee from the West*, noted that the film "had the appearance of being stretched from smaller dimensions,"♀ and a brief review of *A Man's Prerogative* (4 reels) complained that "there is noticeable [and] considerable padding, and a brief story is told with labor." See Louis Reeves Harrison, review of *Yankee from the West*, *Moving Picture World*, September 11, 1915, 1845; and review of *A Man's Prerogative*, *Moving Picture World*, May 1, 1915, 729.

58. This program, which rebranded the films as "Masterpictures De Luxe" and operated through most of 1916, released three five-reel features a week from American, Thanhouser, Gaumont, and Centaur. Ad insert, *Moving Picture World*, December 18, 1915, 2122. A survey of release charts in *Moving*

Picture World and *Motography* in 1916 indicates that Mutual was able to provide a full-service feature program for most of that year.

59. Singer, "Feature Films, Variety Programs," 88.

60. Quinn, "Early Feature Distribution," 183.

61. Richard Koszarski, *An Evening's Entertainment: The Age of the Silent Feature Picture, 1915–1928* (Berkeley: University of California Press, 1990), 111–16.

62. Mark Garrett Cooper, *Universal Women: Filmmaking and Institutional Change in Early Hollywood* (Urbana: University of Illinois Press, 2010), 41–42.

63. My own sense of the extant documentation leads me to believe that the cost accounting system employed at 4500 Sunset was likely not as centralized or rigorous as Davis's system at Universal. Cooper cites Davis's interest in using hourly timetables and daily cost reports at Universal, and while it is not inconceivable that such documents were kept by Majestic or Reliance, I have found no archival evidence for them. See Cooper, *Universal Women*, 41. Davis also seems to have cultivated his public persona around studio efficiency in a way that Frank Woods simply did not. It is telling that Davis eventually took over the failing Triangle Film Corporation in 1917 and instituted an efficiency scheme there similar to the one he brought to Universal, while Woods went on to work as head of the scenario department and "supervising director" for the flourishing Paramount. Lahue, *Dreams for Sale*, 168; "Common Sense in Studio Management," *Moving Picture World*, February 8, 1919, 748; and "Urges Less Producers," *Film Daily*, June 18, 1920, 3.

64. My thinking here was inspired by Franco Moretti's notion of "distant reading." See Franco Moretti, *Distant Reading* (London: Verso, 2013).

65. Cooper, *Universal Women*, 104.

66. See Lea Jacobs, "The B-Film and the Problem of Cultural Distinction," *Screen* 33, no. 1 (Spring 1992): 1–13.

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