CHURCH VERSUS CHOICE:

CINEMA GOING IN THE NETHERLANDS IN THE 1930s

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Abstract

Cinema going in The Netherlands during the 1930s appears to have been much less intense than in the English-speaking world. To support this assertion we identify patterns of film popularity, distribution and exhibition drawn from a new large Dutch dataset, and contrast these observations with those derived from the Anglo-Saxon countries (United States, the UK and Australia). In setting down the economic principles behind the organisation of the film industry best describing the Anglo-Saxon model, we show how the Dutch experience differed from this model and provide an explanation based on the compartmentalisation of Dutch society and middle class morality.

I. Introduction

In the 1930s The Netherlands was a rich country with a per capita income well above the Western European average.[1] Yet, interestingly, the number of cinemas in that country was relatively the lowest in the developed world. As a point of contrast, Hollywood hits screened in Australia, a country with a comparable population and per capita income, could expect to earn eight times more box-office than in The Netherlands.[2] The status of the Dutch nation as an outlier in this respect is a cause for speculation, in that we might expect the movies to have captured the imagination and leisure time of the Dutch in much the same way as they had done elsewhere.

The most developed film markets during the 1930s were found in the Anglo-Saxon world of Australasia, Great Britain and the United States, each of which was dominated by the products of Hollywood that were sold world-wide by the distribution arms of its five 'major' studios – MGM, Paramount, RKO, Twentieth Century Fox and Warner Bros – and the three 'minor' ones – Columbia, Universal and United Artists.[3] The growth of the film industry from its origins can be explained in terms of audiences responding in ever greater numbers to films costing ever increasing amounts and displaying ever greater levels of technical sophistication.[4] Not only was film going the dominant paid-for-leisure activity in these countries, but among young adults it was endemic – fundamental to their leisure and probably to their worldview.[5] In terms of industrial organisation, the sunk costs associated with film production and, to an even greater extent, exhibition, required distributors and exhibitors to behave as revenue maximizers – it may be surmised that the film distributor needed to sell the rental rights to its films to exhibitors wherever there was an effective demand for them to the

[1] Maddison, *World Economy*.
[2] *Variety*, 6 November 1934
[3] Maltby, *Hollywood Cinema.* ch. 5.
[4] Bakker, *Entertainment Industrialised.* chs. 5-8.
[5] Sklar, *Movie-Made America.* p.227.

point at which the net revenue it gained from another screening of one of its films just equalled the cost of its distribution, while cinema owners needed a product that was sufficiently popular to meet the marginal costs associated with owning and maintaining their real estate as well as then acquiring and screening programmes. So extensive was the system of distribution and exhibition in the UK (but read for this the English-speaking world) that it caused industry analyst Simon Rowson to describe it as 'one of the sociological wonders of the century'.[6]

The limited provision of cinemas in The Netherlands meant that, apparently, film going did not play as important a part in national life as it did in the Anglo-Saxon world, making the Dutch experience different from that of the Anglo-Saxon model. In explaining this, we find Douglass North's distinction between formal and informal institutional constraints to be particularly helpful. For North, the fact that economies do not necessarily converge, or follow a particular critical path, is the stuff of history. He writes:

> It is simply impossible to make sense out of history …without recognising the central role that subjective preferences play in the context of formal institutional constraints that allow us to express our convictions at zero or very little cost. Ideas, organized ideologies, and even religious zealotry play major roles in shaping societies and economies.[7]

While the Dutch shared similar types of formal constraints, connected to the rule of law and property rights, with other democratic-capitalist countries in Europe, they had a peculiar set of informal constraints, largely the result of the vertical stratification of society into competing pillars, each of which had its own distinctive ideology, and which taken together militated against the notion of cinema as a productive use of the people's spare time.[8] The vertical stratification of Dutch society into pillars was the consequence of a high level of association

[6] Rowson, 'Statistical Survey of the Cinema'. p71.
[7] North, *Institutions, Institutional Change*. p.44.
[8] Lijphart, *Verzuiling, pacificatie en kentering.*

in civil society with competing blocks of disparate religious/social/political groupings, none of which looked benevolently at the cinema as a form of mass leisure activity. Recently, Van Poppel, Van Dalen and Walhout have contributed to the debate about the emergence of housewives, examining the data found in marriage certificates in the Netherlands between 1812 and 1922.[9] The task these authors set themselves is similar to our own, in that a motive needs to be inferred for the choices taken by individuals/households (not to go to the cinema, or not to participate in the labour market). In accounting for the growing proportion, and the pattern of diffusion, of women at the point of marriage not declaring an occupation, they favour social norms as the key factor, arguing that 'In societies where class awareness and class distinctions were prominent, once cannot ignore the role played by social norms'[10]

It is likely that going to the cinema may have carried with it social opprobrium in certain parts of the country – surely the opposite of Veblen's 'idea of conspicuous leisure.' Van Poppel, Van Dalen and Walhout comment on the importance that the Catholic and Protestant churches placed upon the role of married women in the home. Both churches, and by implication, the institutional pillars built around them, also took an active interest in film – the Protestant church was hostile to the very idea of movies and the pleasures they offered; the Catholic Church, less hostile, but certainly very keen to insist on a second (additional) tier of censorship to that already provided by the State through the Cinema Act of 1928. In North's terms, as formal institutions, the two churches were responsible for policing the (informal) social norms which they propagated, and for some Protestants the social cost to them of expressing their convictions to attend the cinema may have been too high.[11]

[9] Van Poppel, Van Dalen, and Walhout, 'Diffusion of a social norm'.
[10] Van Poppel, Van Dalen, and Walhout, 'Diffusion of a social norm'. p.100.
[11] North, *Institutions, Institutional Change*. p.43.

In this paper, we explore the extent to which these informal constraints explain the weak showing of the movie industry in The Netherlands, and in doing so contribute to the body of evidence supporting the importance of social and cultural factors in the decisions of agents and the performance of organisations. The paper is organised as follows: section 2 outlines the Anglo-Saxon model of film distribution and exhibition and presents evidence drawn from national (Great Britain and the United States) and local (Bolton, Brighton and Portsmouth) markets. Section 3 outlines the Dutch model of film distribution and exhibition and presents a similar, extensive historical dataset of film programming of 153 cinemas in 22 cities across the Netherlands over a three-year period. Section 4 presents a brief description of the principal producers and distributors based upon their market share, giving an idea of the openness of the market to foreign suppliers. While the Netherlands has the unique feature of distributors and cinema owners belonging to a single association, thus cartelizing the market, the programming data reveals a very fragmented, open market with little evidence of monopoly power behaviour, suggesting that there were few formal constraints explaining the backward nature of the Dutch market. Next, the influence of more informal institutions is reviewed, showing a minor constraint from second tier Catholic censorship that only opposed particular kinds of films, and the more substantial opposition from Protestants to film in its entirety, effectively reducing market size and resulting in considerably lower seating capacity in Protestant areas. Additionally, as we point out, their Calvinistic morality seems to extend well beyond their compartment, having pervaded throughout Dutch society, strongly favouring 'work and study', as opposed to 'useless pursuits such as entertainment'. Not only may this have diminished the general Dutch appetite for film, but, as we show, also led to specific preferences when film was at all attended, favouring family value films as opposed to many of the US box office hits popular in the UK. Taken together, particularly informal institutions such as the confessional morality of the Dutch and the compartment-specific influences seem

important in explaining why patterns of film popularity and circulation are different in scale and, in Protestant areas, in scope from Anglo-Saxon practice.

II. The Anglo-Saxon model of film distribution and exhibition

The system of film distribution that developed during the late 1910s and 1920s responded to audience preferences, making films that were highly popular with audiences less scarce than less popular films. In order for this to happen, major productions were first released to a small number of box-office rich showcase cinemas in metropolitan centres, where they built reputation, before going out in time and place, cascade-like, through a myriad of cinemas in particular localities, demarcated into runs - from box-office rich to box-office poor cinemas. In effect, audiences everywhere expressed a time preference for movies, sometimes paying a premium for the privilege of an earlier screening, rather than waiting until the film appeared later at lower status, less well accoutred, cinemas in their locality. In the 1930s, unlike today, exhibition was the sole medium through which film, as a commodity, existed, with the commercial life of films released onto the market limited to 15 months maximum.[12] The consequence of this was that perhaps for the first time in the history of markets, a long-right tail frequency distribution of revenues was created.[13]

Consider the northern town of Bolton and the southern town of Brighton and city of Portsmouth in the UK in the mid-1930s to be examples of urban film distribution found anywhere in the English-speaking world. With respective populations of 180,000, 200,000 and 250,000, each had 18, 18 and 21 functioning cinemas. Major studio releases were typically premiered in one of a set of first-run cinemas, mostly on single bill programmes for

[12] Greenwald, 'The Motion Picture Industry'.
[13] Pokorny and Sedgwick, 'Profitability trends in Hollywood'.

one week, subsequently filtering down through a series of second, third and fourth run cinemas - increasingly on double-bill programmes - normally following a clearance period of three weeks between runs.[14] Table 1 presents the pattern of diffusion in each of the three localities. There is an evident similarity between the localities in the way that the number, and probability, of films getting an additional booking decline geometrically.

Table 1. The pattern of diffusion of films released in Portsmouth (1934), Bolton (1934-5) and Brighton (1934-5)

	Portsmouth (Pop., 250,000) 21 cinemas; 22,980 seats		**Bolton** (Pop., 180,000) 18 cinemas; 20,864 seats		**Brighton&Hove** (Pop 202,421) 18 cinemas, 20,970 seats	
Bookings	Films	p	Films	p	Films	p
1	573	1	1304	1	1474	1
2	504	0.880	964	0.739	1140	0.773
3	407	0.710	684	0.525	860	0.583
4	297	0.518	411	0.315	522	0.354
5	199	0.347	214	0.164	265	0.180
6	112	0.195	107	0.082	96	0.065
7	55	0.096	43	0.033	41	0.028
8	21	0.037	16	0.012	14	0.009
9	4	0.007	3	0.002	3	0.002
10			1	0.001		

Source: Sedgwick (2000, 2006)

The more gradual decay of the bookings received by films in Portsmouth is explained by the greater tendency for films to be screened on double-bill programmes, meaning that more films were required to supply the city's cinemas than was the case in Bolton and Brighton. Clearly, for each locality the films that made up the tail of the distribution were the hits of its season.

Table 1 counts the number of times any single film in the population of films received a distinct exhibition. As a measure of film popularity this method can be improved upon by including the box-office potential of the cinemas at which the films were screened, the billing status of those films (single bill, or shared billing), and the length of run as independent variables. The POPSTAT measure of film popularity is thus given:

[14] Sedgwick, *Popular Filmgoing*. ch. 3.

$$POPSTAT_{it} = \sum_{j=1}^{n_i} cinemaweight_j * billingstatus_{ij} * lengthofrun_{ij}$$

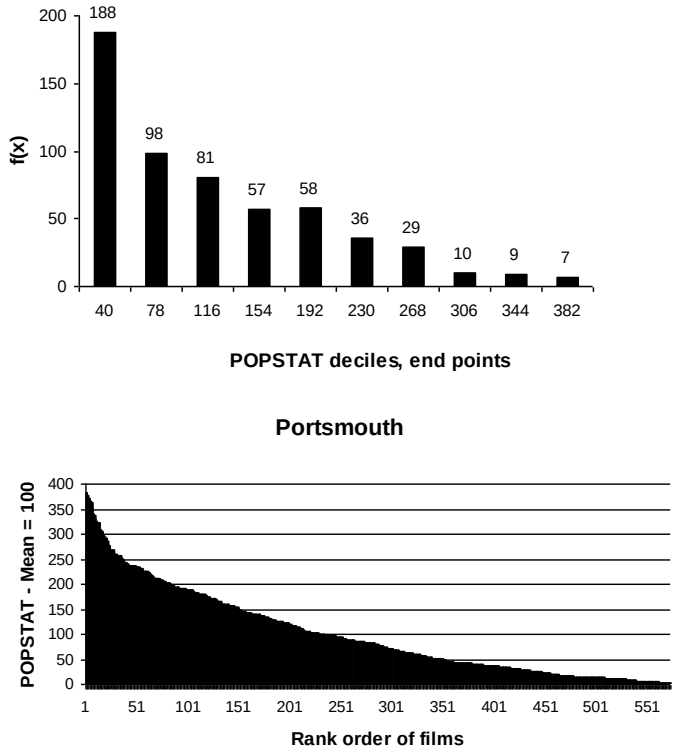
where, for the *ith* film, screened at the *jth* cinema, in time period *t*,

$cinemaweight_j$ is a weighting factor for cinema *j* , reflecting its revenue generating potential, relative to the average of all cinemas in the population;

$billingstatus_{ij}$ reflects the exhibition status of film *i* at cinema *j*. That is, it takes the value 1 if film *i* is presented as a single-bill programme, and 0.5 if film *i* is part of a joint double-bill programme;

$lengthofrun_{ij}$ is the duration of exhibition of film *i* at cinema *j* (during period *t*)

Figure 1. Frequency and Rank order distributions of POPSTAT Index values for Portsmouth in 1934, mean POPSTAT value =100.



Source: Sedgwick (2006)

Figure 1 presents two distributions of POPSTAT Index values for films screened in Portsmouth in 1934, with the mean (100) and median (79) falling into the 3rd decile group of the frequency distribution. After an initial steep decline, with Index values tumbling from 382 for the top film (IT HAPPENED ONE NIGHT) to 260 for the thirtieth film, the rate of decline is thereafter less precipitous, very gradually levelling out. From the datasets of studies made of film going in Bolton and Brighton very similar graphics can be derived, indicating that although revenues were skewed, generating distributions with right tails, these were not particularly severe.

The town/small city studies of Bolton, Brighton and Portsmouth referred to above include all the cinemas in each of the three populations.[15] Let us assume that the distribution characteristics found in Figure 1 repeat themselves in all urban environments of similar size. If all the films exhibited in the cinemas of all the similarly sized urban settlements were equally popular within a territory (i.e., were ranked in the same order, wherever they were screened), then the aggregate statistical distributions such as those found in Figure 1, would be identical to those generated locally.[16] Unfortunately, up until the point of this study, territory-wide studies encompassing all cinemas do not exist. However, Sedgwick and Pokorny report on two first-run box-office studies: one based on a sample of 104 first-run cinemas located in 24 cities across North America, between October 1934 and October 1936; and the other deploying the POPSTAT proxy method, derived from a sample of 88 first-run cinemas located in London's West End and nine other English and Scottish cities, for 1935 and 1936.[17] The resulting frequency statistical distributions, shown in Figure 2, are more right

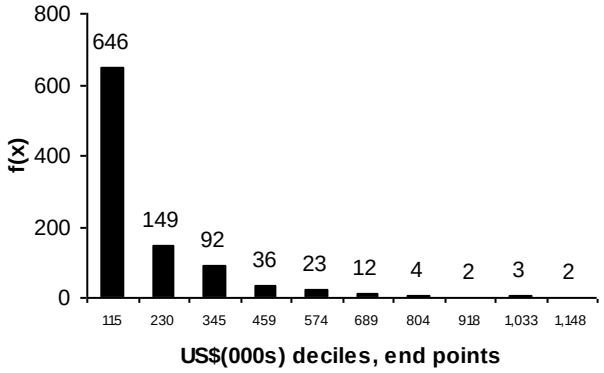
[15] See Sedgwick, *Popular Filmgoing*. And Sedgwick, 'Cinemagoing in Portsmouth'.
[16] While it is true that regional differences for some films/film stars can be identified in the data, most popular films were commonly popular across territories.
[17] Sedgwick and Pokorny, 'Film business in the U.S.'.

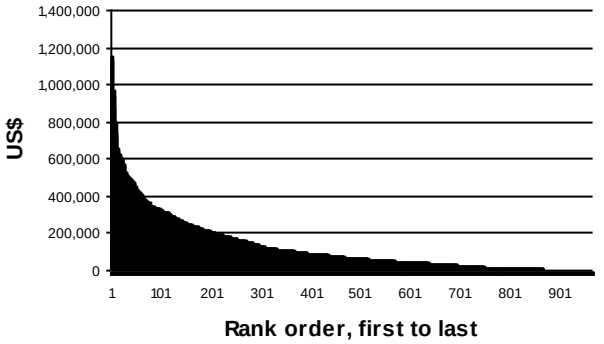
skewed than those seen in Figure 1, with the mean and median falling into the first decile group of the frequency distribution and the slope of the rank order distribution much steeper. It may be conjectured that the difference between local and first-run territorial distributions reflect the fact that films at first-run metropolitan cinemas were screened for as long as a threshold level of profitable demand prevailed, whereas in the localities levels of demand rarely called for screenings to last longer than one week. The effect of these different conditions of exhibition is to give greater emphasis to the most popular films in the first-run territorial studies – films that distributors and exhibitors were better able to exploit, given the greater audience drawing power of metropolitan first-run cinemas. The territorial revenues referred to are presented in Figure 2.

The system of film provision developed in the English-speaking world conforms closely to a price discrimination model, in which the pattern of film diffusion is controlled through time and space by distributors intent on maximising film revenues, while at the same time economising on the number of prints that needed to be developed. The most popular films not only had extended runs in the box-office rich cinemas of London's West End and provincial city centres, but subsequently diffused deeply through the various cinema tiers in Bolton, Brighton and Portsmouth, and widely throughout the territory. Assuming distributions costs were invariant, this meant that not only could films be consumed at various junctures in their life-cycle as commodities, but for consumers on the lower price reaches of the demand curve, at prices lower than a hypothetical single territory-wide price, thereby enhancing the consumer surplus of film audiences.

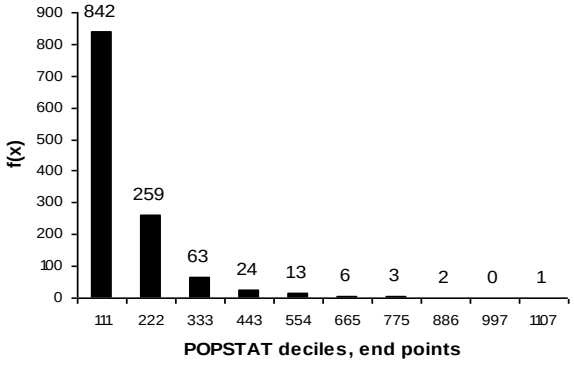
Figure 2. Frequency and rank order distributions of first-run cinema in a) the US., 1934-36 in US$; and b) the UK., 1935-36, in POPSTAT Index values, mean = 100

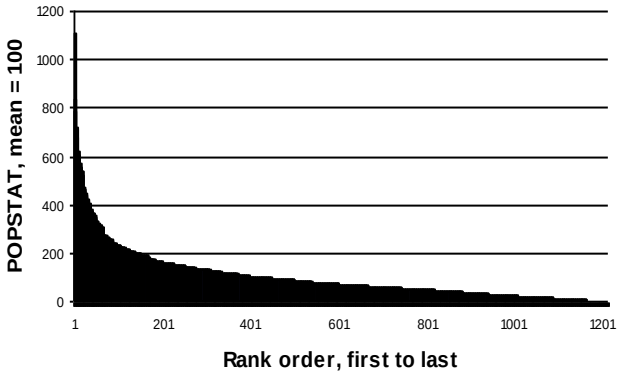
a) the US.





b) the UK





III. The Dutch model of film distribution and exhibition

The Central Bureau of Statistics counted 333 operating cinemas in The Netherlands in 1937[18], while the American trade journal *Film Daily* reported only 275 theatres wired for sound, 'used solely, or primarily, as cinemas', with a seating capacity of 143,500.[19] Both numbers, however, dwarfed (even allowing for differences in population) by Simon Rowson's estimates for Great Britain of 4,305 cinemas and 3,872,000 seats.[20]

Table 2. Selected comparative statistics, 1934-36

	Population (1)	GDP Per Capita ($US) (2)	Admissions (millions) (3)	Annual Admissions per capita (4)	Number of cinemas (5)	Cinema seats (6)	Average seats per cinema (7)	Population per cinema (8)	Population per cinema seat (9)
The Netherlands	8,430,333	4,975	33	4	275	143,500	521	30,656	58.75
Great Britain	46,871,667	5,814	910	19	4,305	3,872,000	899	10,888	12.11

Sources: Dibbets and Van der Maden (1986); Film Daily Yearbook (1938); Maddison (2001); Rowson (1936); Sedgwick (2000)
Notes: Figures derived by taking the mean for the three years 1934, 1935 and 1936.

Table 2 shows that there were three times the population for every cinema in The Netherlands than in Great Britain, increasing to a multiple of five when the seating capacities and annual admissions per capita are compared. In order to investigate the differences between the film business in the two countries suggested by these statistics, a Dutch dataset was constructed for the years 1934 to 36 based on the advertised film programmes of 145 wired-for-sound cinemas located in 22 Dutch cities and towns – well over half of all operational cinemas in the country. The dataset records the titles and number of screenings of 2,411 feature films[21] that together appeared on 26,059 programmes and to our knowledge represents the most comprehensive record of any single nation's cinema going habits at the time, both in terms of

[18] Centraal Bureau voor de Statistiek, *Statistiek van het bioscoopwezen 1937*. p. 5. This number also includes localities where only very irregular cinema showings took place like theatres or society buildings.
[19] *Film Daily Yearbook* (1938). p. 1244.
[20] Rowson, 'Statistical Survey of the Cinema'. Derived from Entertainment Tax returns.
[21] Occasionally a documentary film was included in the dataset as it was scheduled as a fiction film in the main program. This was for example the case with 20.000 MIJLEN ONDER ZEE, a feature length Polygoon documentary on the journey around the world of the Dutch submarine K XVIII. Usually documentaries were shown as part of the shorts or shown on Sunday mornings in the so called scientific screenings.

the spread of geographical coverage (from Amsterdam with a population of 781,645 to the 6,944 inhabitants living in Zierikzee) and depth of each locality's experience measured by the advertised programmes of each of the cinemas in each of the 22 localities. For 14 towns and cities, the data was collected from weekly advertisements found in local newspapers.[22] The Cinema Context Collection was the source of data for the remaining eight cities.[23]

Appendix 1 shows the widespread location of cinemas in the dataset, with clear concentrations in the cities. Table 3 provides the descriptive details of each of the 22 cities and towns as well as the film diffusion statistics of films associated with each. Not surprisingly, the number of films screened at least once correlates strongly with both the number of seats (0.83) and the city/town population (0.80). However, of greater interest is the rate of decline evident in the table - the probability of any one film in the population of films screened in a locality getting a second, third, and so on, booking.

[22] Alkmaar, Apeldoorn, Culemborg, Dordrecht, Eindhoven, Haarlem, Den Bosch, Leiden, Nijmegen, Schiedam, Tiel, Tilburg and Zeist.

[23] The Cinema Context Collection is a web based collection of data on cinema in The Netherlands. It contains information on cinemas, film programs and censorship: www.cinemacontext.nl. The eight cities were Amsterdam, Rotterdam, The Hague, Groningen, Maastricht, Heerlen, Geleen and Zierikzee. This information was also derived from local newspaper advertisements.

Table 3. The pattern of diffusion of films released in the 22 Dutch cities and towns

	Rotterdam (Pop. 595,448) (22 cinemas; 17,100 seats)		**Den Haag** (Pop. 482,397) (23 cinemas; 17,740 seats)		**Amsterdam** (Pop. 781,645) (34 cinemas; 19,559 seats)		**Tilburg** (Pop. 88,890) (6 cinemas; 2,990 seats)	
Bookings	*Films*	*p*	*Films*	*p*	*Films*	*p*	*Films*	*p*
1	1536	1.000	1521	1.000	1343	1.000	1170	1.000
2	991	0.645	841	0.553	788	0.587	364	0.311
3	625	0.407	494	0.325	515	0.383	92	0.079
4	395	0.257	294	0.193	347	0.258	40	0.034
5	238	0.155	183	0.120	242	0.180	19	0.016

	Nijmegen (Pop. 90,739) (5 cinemas; 4,365 seats)		**Groningen** (Pop. 115,185) (4 cinemas; 2,543 seats)		**Maastricht** (65,929) (3 cinemas; 2,450 seats)		**Utrecht** (Pop. 161,093) (7 cinemas; 4,589 seats)	
Bookings	*Films*	*p*	*Films*	*p*	*Films*	*p*	*Films*	*P*
1	950	1.000	939	1.000	909	1.000	907	1.000
2	46	0.048	118	0.126	348	0.383	237	0.261
3	10	0.011	21	0.022	80	0.088	52	0.057

	Haarlem (Pop. 131,257) (5 cinemas; 3,203 seats)		**Eindhoven** (103,030) (5 cinemas; 3,808 seats)		**Alkmaar** (Pop. 30,467) (6 cinemas; 2,566 seats)		**Dordrecht** (Pop. 60,131) (2 cinemas; 1002 seats)	
Bookings	*Films*	*p*	*Films*	*p*	*Films*	*p*	*Films*	*p*
1	758	1.000	755	1.000	646	1.000	627	1.000
2	89	0.117	155	0.205	56	0.087	26	0.041
3	24	0.032	33	0.044	12	0.019	4	0.006

	Leiden (Pop. 73,612) (5 cinemas; 2,199 seats)		**Zeist** (Pop. 29,691) (2 cinemas 1,050 seats)		**Schiedam** (Pop. 61,845) (3 cinemas; 1,614 seats)		**Heerlen** (Pop. 49,724) (2 cinemas; 1,407 seats)	
Bookings	*Films*	*p*	*Films*	*p*	*Films*	*p*	*Films*	*p*
1	618	1.000	492	1.000	485	1.000	482	1.000
2	66	0.107	11	0.022	22	0.045	12	0.025

	s Hertogenbosch (Pop. 46,212) (4 cinemas; 3,098 seats)		**Tiel** (Pop. 12,730) (2 cinemas; 1,138 seats)		**Apeldoorn** (Pop. 68,590) (2 cinemas; 771 seats)		**Geleen** (Pop. 14,289) (1 cinema; 900 seats)	
Bookings	*Films*	*p*	*Films*	*p*	*Films*	*p*	*Films*	*p*
1	430	1.000	397	1.000	360	1.000	319	1.000
2	36	0.084	56	0.141	24	0.067	14	0.044

	Zierikzee (Pop. 6,944) (1 cinema; 450 seats)		**Culemborg** (Pop. 9,359) (1 cinema; 500 seats)	
Bookings	*Films*	*p*	*Films*	*p*
1	162	1.000	111	1.000
2	3	0.019	2	0.018

The pattern of diffusion in the three largest Dutch cities of Amsterdam, Rotterdam and Den Haag resembles that of Bolton, Brighton and Portsmouth in Figure 1. However, although having twice as many inhabitants (or more) as the English towns/city, it is noticeable that the three Dutch cities have higher decay rates, even though they screen fewer films[24] - the proportion of films getting second, third, fourth billings is in all cases lower in the Dutch cities, suggesting that not only the quantity of films screened was lower, but also that their velocity of circulation was higher in The Netherlands than in the UK. Outside of these cities the rates of decay are considerably greater as might be expected since the scope for showing films on multiple programmes was diminished by the lower number of cinemas associated with smaller populations.

POPSTAT distributions have been estimated for each of the 22 cities and towns in the Dutch sample. Table 4 presents slope coefficients and Pareto alpha values to measure the rate of decline in the rank order of these distributions and the degree of inequality inherent in them.[25] The results are interesting because it would appear that the long-tail properties of film popularity, present in the United States and Great Britain, were also present at the national level in the smaller Dutch market. At the local level, the low alpha values generated by the big three cities of Amsterdam, Rotterdam and Den Haag suggest that even though their cinemas screened fewer films, their alpha coefficients were comparable to the English towns featured in this study. Not surprising a strong negative correlation of -0.68 describes the association between the 22 Dutch city/town alphas and the probability of a film getting a

[24] Table 4 reports the number of films booked over a three year period, whereas the figures found in Table 1are for the two years 1934-35 in the cases of Bolton and Brighton and one year (1934) in the case of Portsmouth.
[25] The slope coefficients are the beta value derived by regressing the log of rank on the log of POPSTAT. The Pareto alpha is the inverse of the regression beta, expressed as a positive number. With a minimum value greater than 0, Pareto alpha coefficient values are a commonly used measure of inequality, with low values indicating higher levels of inequality – an alpha of around 1 indicates a sufficiently high level of inequality that the first and second moments of the distribution cannot be calculated with confidence, which they can when values rise to 2 and above.

second billing – implying that large urban centres have greater capacity to give films that are popular more bookings, thus making the distribution of revenues more unequal.

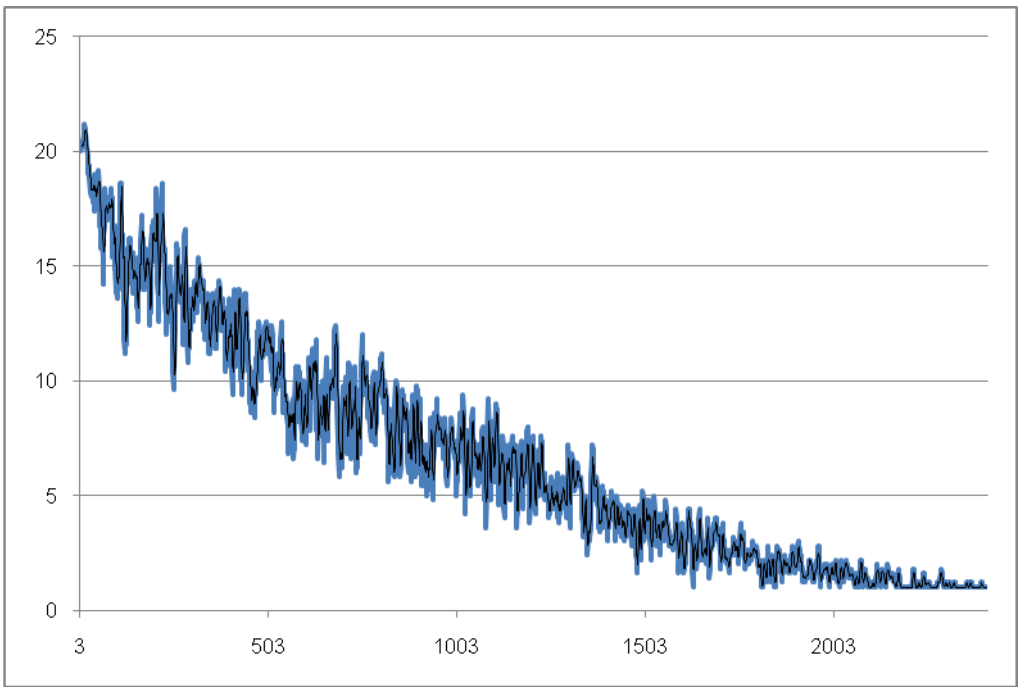
Table 4. Pareto alpha values of the inequality of film popularity

	All films (1934 - 1936)			
City	***Number of Films***	***Slope Coefficient***	***Pareto Alpha***	***Adj R2***[1]
Amsterdam	1,344	-1.09	0.91	0.73
Rotterdam	1,524	-0.99	1.01	0.78
Den Haag	1,521	-0.98	1.02	0.77
Eindhoven	756	-0.86	1.17	0.84
Utrecht	907	-0.81	1.24	0.73
Tilburg	1,168	-0.83	1.21	0.78
Schiedam	478	-0.67	1.50	0.88
Haarlem	759	-0.89	1.13	0.63
Zeist	492	-0.67	1.48	0.69
Den Bosch	431	-0.59	1.69	0.76
Groningen	936	-0.52	1.92	0.88
Maastricht	912	-0.62	1.61	0.83
Tiel	397	-0.59	1.69	0.84
Zierikzee	163	-0.40	2.49	0.84
Leiden	617	-0.56	1.77	0.83
Alkmaar	647	-0.49	2.06	0.72
Apeldoorn	360	-0.49	2.06	0.55
Nijmegen	950	-0.42	2.36	0.85
Culemborg	112	-0.36	2.74	0.75
Heerlen	483	-0.36	2.76	0.83
Geleen	320	-0.34	2.96	0.84
Dordrecht	627	-0.29	3.40	0.44
The Netherlands	**2,411**	**-1.43**	**0.70**	**0.73**
United States	**969**	**-1.30**	**0.77**	**0.68**
Great Britain	**1,213**	**-0.98**	**1.02**	**0.66**
Portsmouth	573	-0.96	1.04	0.63
Brighton and Hove	1,474	-0.88	1.14	0.58

Notes: Films counted in The Netherlands for 36 months; for the US, 25 months; for Great Britain, 24 months; for Portsmouth, 12 Months; and for Brighton and Hove 24 months.
1. All adjusted R2 values are significant at the 99 per cent level (p<.001)

A most interesting feature of Table 4 is the disparity between the number of films programmed at least once in national market and big three cities, which screened over 1,000 fewer films. When contrasted with the British and American first-run markets, it would seem that there were a very large number of films in the Dutch market doing very little, in terms of bookings. The five-film ranked order moving average depicted in Figure 3 throws some light onto this, indicating that roughly half of the 2,411 films marketed nationally were distributed to five-or-less of the 22 cities and towns which comprise the study, for the most part to one cinema only. Such films form a kind of debris that would have been removed in Anglo-Saxon markets.

Figure 3. Five film-rank order moving average of the number of Dutch towns and cities in the sample at which films were screened



A better idea of the Dutch market can be got from an investigation of the POPSTAT ranked top 500 films, which were screened in at least half of cities and towns in the sample, with the Top 20 films beings screened more-or-less everywhere. Given that many of the towns in the sample had small populations, this is an indication that distribution in The Netherlands could

be wide-reaching. As with the Bolton, Brighton and Portsmouth, the most popular films in The Netherlands were scheduled in all the major population centres. For instance, over 400 of the most popular 500 films were screened eight cities – Amsterdam (497), Rotterdam (491), Den Haag (488), Utrecht (435) Groningen (419), Tilburg (412), Maastricht (408) and Nijmegen (402). All of the top 200 films were programmed in Amsterdam and Rotterdam. Of the remaining cities in this list, Maastricht, a city with a population of just 66,000, screened the fewest – 175 films.

With a population one-sixth of that of Great Britain, it is to be expected that the scale of the exhibition sector in The Netherlands was very much smaller than in Great Britain. However, this in itself does not explain the very much higher number of persons per cinema seat reported in Table 2. As a point of contrast, Australia during the mid-1930s had a comparable population but the demand for film entertainment was such that fewer than 10 persons generated the supply of a cinema seat. The data for Sydney suggests that Australian exhibitors supplied as many as 10 times the number of seats per million people as their Dutch counterparts. Yet, in many ways the statistics of film going presented in this paper are surprising in that it might be thought that the relatively very low-level provision of seats in The Netherlands would have generated a much flatter pattern of diffusion than is in fact indicated by the diffusion statistics produced in Tables 3 and 4 and Figure 3. It would seem that the Dutch industry was a microcosm of the Anglo-Saxon model, smaller in scale for sure, and less intense, but nevertheless structurally similar.

IV. Exploring reasons for low demand: the role of formal institutions

Having established that films, as commodities, in essence behaved very similarly in The Netherlands, driven by the same profit maximising behaviour, we are left with the question as to why cinema capacity and film consumption did not reach levels similar to the Anglo-Saxon experience. North suggests that the reason countries show divergent paths of development is best explained by looking at both formal institutions, such as laws and regulations, and informal institutions, such as ideologies, religion, and values[26]. In this section we review a number of the formal and informal institutions in this country in their help in explaining Dutch position as such an outlier.

Karel Dibbets has argued that much of the explanation for the Dutch levels of film consumption can found primarily in formal institutional arrangements – specifically, that it wasn't the religious orientation of the Protestant and Catholic compartments as such that retarded the growth of the cinema market, but rather a combination of industry specific factors and in particular constraining censorship regulations and the domination of a price-fixing trade association of distributors and exhibitors.[27]

The Dutch industry was unusual in that distributors and exhibitors belonged to a single trade association, the Netherlands Film Alliance (Nederlandse Bioscoop Bond, hereafter NBB)[28] – in the United Kingdom and United States, distributors organised themselves separately from exhibitors, resulting in frequent clashes between small chain and independent exhibitors and

[26] North, Institutions, Institutional Change. p. 44.
[27] Dibbets, 'Taboe van de Nederlandse filmcultuur'.
[28] Film studios and film labs could become a member after 1932 and in 1937 film producers. Dibbets & Van der Maden, *Geschiedenis van de Nederlandse film.* p. 249.

distributors dominated by the major Hollywood studios.[29] Established in 1921, the NBB had developed into a powerful organisation that maintained a tight controlled Dutch market. The NBB operated in a market without entry barriers such as high import taxation on foreign films to protect the national film industry. Since there was hardly any domestic film production, import taxes would harm distributors and cinema owners as they were almost completely depending on foreign films. Thus, when in 1934 the Dutch government intended to raise the import tax on film sharply, the NBB successfully mounted a fierce protest[30]. So the Dutch film market was unusually open, with Film Daily stating that from the American viewpoint 'taxation is not considered excessive'. [31]

Our Dutch dataset shows that during the mid-1930s, films from the United States dominated supply, with 52 per cent of the film titles screened at our sample set of cinemas produced in Hollywood. Germany was the second largest supplier with a share of 27 per cent, followed by France 7 per cent and Great Britain 4 per cent. Indigenous films production accounted for less than 2 per cent.[32] These data are reflected in patterns of industrial concentration. Half of the films on the Dutch market came from a few large production companies while the other half of the films came from many small ones. Only 16 film production companies supplied 20 films or more during the three years, together holding 42 per cent share of the films supplied. MGM, Paramount, UFA, Fox Film, Universal and British International Pictures were amongst the larger suppliers. No less than 585 other producers, each supplying less than 20 film titles,

[29] See *Minutes of Evidence taken before the Departmental Committee appointed by the Board of Trade to consider the Position of British Films*, chairman: Lord Moyne, (London, HMSO, 1936); and *Hearing before a Subcommittee of the Committee on Interstate and Foreign Commerce, House of Representatives, Seventy Fourth Congress, on Bill to Prohibit and to Prevent the Trade Practices Known as "Compulsory Block-Booking" and "Blind Selling" in the Leasing of Motion Picture Films in Interstate and Foreign Commerce* (Washington D.C., 1936).

[30] *Jaarverslag van de Nederlandse Bioscoop Bond* (1934). pp. 4-6.

[31] *Film Daily yearbook* (1938). p. 1244. Also, for details of various local tariffs see *Jaarverslag van de Nederlandse Bioscoop Bond* (1934). pp. 4-6.

[32] This fits closely with the breakdown of the national origin of films screened in the country published in the 1938 Yearbook of the trade journal *Film Daily*, where the proportions for 1935 were 55 percent for the US., 18 per cent for Germany, 8.7 per cent for France, 4.6 per cent for Czechoslavakia 4.9 per cent for Austria and 5.2 per cent for the UK. *Film Daily Yearbook* (1938). p. 1243.

396 of which marketing just one film, supplied the other remaining 58 per cent of market supply.

The distribution side of the industry was similarly concentrated. According to the NBB, 55 distribution companies supplied the Dutch market.[33] Twenty-eight of them distributed between 1 and 50 films, while eight companies distributed between 51 and 100 films, and four between 101 and 150 films (including Fox). Topping the list were five distributors that allocated between 150 and 200 films. The German firm UFA distributed 200 titles, the Express-Film (Dutch) 192, Paramount 167, the City Film (Dutch) 163, and MGM 161.[34] Thus half the supply put onto the Dutch film market was produced and distributed by small companies. Alone among the large production companies and distributors, UFA owned two cinemas, mostly screening in-house productions.[35] In sum, while the organizational structure of the NBB might potentially have cartelized the market, evidence to suggest they restricted supply and raised prices is hard to come by. With no excessive taxation blocking major Hollywood US block buster films, with no major players controlling the market, and with hardly any vertical integration, the open market structure does not seem to go far in explaining the low demand.

As was common in the developed world, the Dutch state passed censorship legislation in the form of the 1928 Cinema Act, which created the Central Film Censorship Committee (Centrale Commissie voor Filmkeuring). Comprising of one representative for each of the main compartments in Dutch society: Protestants, Catholics, Socialists and Liberals, the Central Film Censorship Committee rated all films released for public viewing as either:

[33] *Jaarverslag van de Nederlandse Bioscoop Bond* (1933).
[34] These numbers are extracted from Cinema Context. These numbers include new films and old films. It should be noted that these numbers need some refinement because some films had two distribution companies mentioned.
[35] These were the Rembrandt in Amsterdam (1200 seats) and Luxor In Rotterdam (1200 seats).

suitable for all ages; suitable for 14 years and above; suitable for 18 years and above; and unsuitable.

Table 5. Censor category rulings 1934 – 1936

Censor's Categories	Number of films	%
All Ages	833	36.3
14	628	27.4
18	826	36.0
Not Allowed	6	0.3
Total number of films submitted[36]:	2,293	100.0

Source: Cinema Context

In the timeframe of our dataset, 2,293 films were submitted to the Central Film Censorship Committee for review. Table 5 shows the censorship results by rating categories. As can be seen, the category 'All ages' was about the same size as the category '18+', including 833 and 826 films respectively. The number of films judged as "unsuitable" was very low, suggesting that, certainly at a national level, censorship did not act as a major constraint for consumers.

The 1928 Cinema Act, however, also allowed cities to adopt additional censorship cover, an option included to appease the Catholic compartment. Under this provision a group of Catholic cities formed the Catholic Film Centre (Katholieke Film Centrale, hereafter KFC) in order to re-evaluate films passed fit for public consumption by the Central Film Censorship Committee, into one of four classifications: no additional objections; with some reservation; with substantial reservation; and not allowed.[37] The KFC did not review all films again, but mostly concentrated on those ruled as "18+" by the national censors. To assess the impact of these KFC ratings, we look at the 819 films that, according to national censorship records[38], were released into the Dutch market for the first time in 1934 or 1935, thus allowing us to

[36] The number of films submitted to the censor between 1934-36 is smaller than the number of films in our dataset (2,428), as our dataset also includes films released and censored in earlier years, but (still) being shown in 1934 – 1936.
[37] Van Oort, *Film en het moderne leven.* pp.182-184.
[38] The Cinema Context Collection lists the censorship rulings and dates for all films entering the market.

follow their subsequent passage through the cinemas of the 22 Dutch cities and towns that make up our sample. Of the 819 newly entering films, 275 were subjected to an additional KFC review; 58 of which were consequently labelled "not allowed". The 819 films that were re-examined by the KFC are the subject of Table 6.

Table 6. Programming per city by KFC rating for films entering the market in 1934 - 1935

City	Total Popstat for new films in their first 12 mo.	% Not KFC rated	KFC Rated			
			% No (additional) objection	*% With some reservation*	*% With substantial reservation*	*% Not Allowed*
Non-predominantly Catholic areas						
Amsterdam	38,633.4	66.9	7.2	4.6	15.5	5.7
Rotterdam	32,263.6	66.5	7.2	4.0	16.5	5.8
Den Haag	26,534.9	65.5	7.8	3.4	17.1	6.2
Utrecht	10,584.7	66.7	8.0	4.0	16.8	4.5
Haarlem	7,574.0	67.2	6.7	3.9	15.3	6.8
Groningen	3,912.9	73.6	6.4	3.3	12.2	4.4
Alkmaar	2,293.9	70.0	7.7	2.1	15.7	4.6
Leiden	1,455.6	73.9	5.5	2.5	16.8	1.3
Schiedam	1,340.2	80.4	4.8	2.7	9.2	3.0
Zeist	1,083.4	70.1	5.8	2.1	16.0	6.0
Dordrecht	1,042.2	68.2	8.4	2.8	14.3	6.2
Apeldoorn	1,020.8	67.1	8.0	2.8	16.8	5.4
Tiel	480.0	74.1	6.3	3.5	14.5	1.6
Culemborg	107.4	71.2	12.2	2.2	10.1	4.3
Zierikzee	34.1	79.6	14.3	0.0	6.1	0.0
Sum Popstat	128,361.1					
Weighted avg shares		*67.1*	*7.3*	*3.9*	*16.0*	**5.7**
Predominantly Catholic areas						
Nijmegen	4,192.2	66.5	7.1	4.1	17.4	5.0
Eindhoven[1]	4,246.2	66.2	7.8	5.7	20.2	0.0
Tilburg[1]	3,472.4	73.1	8.2	3.6	14.9	0.3
Maastricht[1]	2,314.6	67.7	9.5	4.6	18.1	0.2
s Hertogenbosch[1]	1,595.1	74.3	6.2	3.4	16.1	0.0
Heerlen[2]	992.7	71.7	7.2	4.4	16.3	0.4
Geleen[1]	656.9	67.4	12.2	5.1	14.5	0.8
Sum Popstat	13,277.9					
Weighted avg shares		*69.7*	*8.2*	*4.6*	*17.4*	**0.2**

[1] *Member of the KFC;* [2] *Not a paying member of the KFC, but following their rulings*

Broken into two sets according to the geographic density of religious affiliation, the 22 cities and towns ranked according to their respective market size, measured by their aggregate

POPSTAT index values. The 58 films not shown in the Catholic areas were screened elsewhere in The Netherlands, and as can be seen contributed on average 5.7 per cent of market revenues. Table 6 also shows that these same films were barely screened at all in the Catholic towns, with the exception of Nijmegen, which did not formally join the KFC. Indeed, Nijmegen is interesting for this reason, with our results suggesting that 5 per cent of market revenues there were generated by the 58 films. Notable is also that only KFC 'not allowed' rulings had an effect on programming; e.g., table 4 shows no difference in the share for films with 'substantial reservation'. While one might have expected such dissuasive labels to have some impact, cinema owners apparently only constraint themselves from potential earners when really forced to.

Thus, although censorship prevailed, doubly so in the Catholic areas, very few films were forbidden for public consumption. And even in the case of the towns under KFC jurisdiction, the scale of the loss, when measured in terms of the revenues generated in the non-Catholic areas and Nijmegen was small, from which we concluded that there is very little evidence that formal censorship in itself stopped the Dutch going to the cinema.

The preceding primarily focused on the supply side, identifying no major obstacles in providing the localities with a sufficient number and level of quality of films. If there are plenty of goods supplied, and if the films that made box office hits elsewhere had no particular obstacle in entering the market, demand effects seem the more likely answer to explaining the Dutch experience.

A second explanation developed by Dibbets for the retarded nature of the film industry were the monopoly practices practiced by the trade association, the NBB. The early 1930s was a

difficult period for exhibitors because of the downturn in demand that resulted from the Depression, while at the same time new cinemas continued to be built. Consequently, from 1936 onwards, the NBB did attempt to restrict openings of new cinemas to only those it approved of, with the threat of supply sanctions.[39] Thus, it would not appear that the NBB restricted the growth of the trade by limiting the building of cinemas, at least not before 1936, and as reported in section III the diffusion of films was widespread throughout the country.

V. Exploring reasons for low demand: the role of informal institutions

Finding no formal institutional barriers to explain our problem, we turn next to informal institutional arrangements in the Netherlands. A glance at the map of The Netherlands in the Appendix with the locations of cinemas in our sample and the political complexion of the Dutch nation following the 1933 General Elections suggests that the low number of cinemas per capita may be a particularly Protestant phenomenon. Indeed, the negative relationship between Protestants and film going was the subject of an observation made by the journalist Gerard Werkman in 1936 in his overview of the Dutch nation, noting that in the rural areas of the province of Utrecht amusement films were rarely shown. He also thought that the Calvinist majority of the two large provincial towns of Apeldoorn and Dordrecht explained why they had only two cinemas each.[40] While the Protestant compartment was quite segmented - the Dutch Reformed Church (Gereformeerden), the Reformed, (Hervomden), and the Lutherans all had their separate churches and preached their version of the Word - most of these churches were non-Methodist, and instead, strongly reliant on the ideas of Calvin; including an opposition to the picturing of Christ. [41] When it came to going to the cinema

[39] Dibbets and Van der Maden, *Geschiedenis van de Nederlandse film.* P. 257.
[40] Werkman, 'Het Calvinisme'. Werkman used the statistics regarding religion and combined these with the number of cinemas.
[41] Hes, *In de ban van het beeld.* p. 145. For a detailed explanation of the different religions in The Netherlands see: Knippenberg, R*eligieuze kaart van Nederland.* Chapters 3 and 4 discuss the Protestants.

there was indeed one basic principle: that of avoidance.[42] Protestants regarded film and cinema as damaging well being and mental health. In particular the visual, sensual and dramatic nature of film was refuted. For instance, in 1930 the Dutch Reformed Church officially stated that the fiction (drama) film should be rejected. Only documentary, reconstruction of historical episodes (as long as no professional actors were used) and animation film were allowed, provided that they were not contrary to the Word. [43] For most Protestants, therefore, the commercial cinema was a no-go-area at all.

As the compartments in The Netherlands were spatially clustered (see appendix), the shares of compartments varied greatly across cities, allowing us to correlate this variance with any variance in seating capacity. Table 7 presents the total seating capacity per city, as registered in the Cinema Context Collection database for the 22 cities in our dataset, against historical data on number of inhabitants and the local results of the 1933 General Elections, as reported by Beekink et al. (2003). If anything, economic considerations, such as sufficient local spending power, too, are likely to have been primary drivers of cinema openings (particularly in the down times of the 1930s). As Beekink et al. (2003) also list the percentage of inhabitants paying wealth tax in 1935, we include this as a proxy for local variance in economic prosperity.

Ranked by population per cinema seat in decreasing order, a first glance at the column listing the percentage voters for Protestant parties shows there are more often higher percentages in the top half than in the lower half of the column. In contrast, it is apparent in the column listing the percentage paying wealth tax, the top half of the column more often contains lower percentages whereas the bottom half more often lists higher percentages.

[42] Hes, *In de ban van het beeld.* pp. 112-113.
[43] Hes, *In de ban van het beeld.* p. 94.

Table 7. Population, cinema capacity, religion and wealth tax per city

City	*Population*	*Total nr of seats*	*Population per seat*	*% Prot*[1]	*% Cath*[2]	*% Lab*[3]	*% Lib*[4]	*% Paying wealth tax*
Apeldoorn	68,590	771	89.0	42.2	10.1	24.5	15.0	14.0
Dordrecht	60,131	1,002	60.0	31.2	9.2	37.3	18.1	8.4
Groningen	115,185	2,543	45.3	28.2	8.0	38.0	16.6	13.6
Haarlem	131,257	3,203	41.0	17.1	26.7	35.3	16.4	9.8
Amsterdam	781,645	19,559	40.0	17.1	15.3	46.9	15.2	6.3
Schiedam	61,845	1,614	38.3	28.3	25.3	30.4	9.9	5.4
Heerlen	49,724	1,407	35.3	6.8	60.4	20.0	1.8	5.3
Utrecht	161,093	4,589	35.1	24.5	27.3	31.3	13.1	9.1
Rotterdam	595,448	17,100	34.8	23.7	15.6	40.7	13.4	6.6
Leiden	73,612	2,199	33.5	31.8	20.9	33.0	10.4	9.2
Tilburg	88,890	2,990	29.7	2.7	80.6	11.0	1.4	8.7
Zeist	29,691	1,050	28.3	44.5	12.3	20.5	17.6	18.8
Den Haag	482,397	17,740	27.2	24.8	18.2	32.7	16.5	13.0
Eindhoven	103,030	3,808	27.1	6.5	68.1	18.4	3.5	6.3
Maastricht	65,929	2,450	26.9	2.2	60.4	27.5	2.2	8.9
Nijmegen	90,739	4,365	20.8	8.6	62.8	18.7	6.3	14.3
Culemborg	9,359	500	18.7	15.1	39.0	28.5	15.2	14.0
Geleen	14,289	900	15.9	5.4	66.8	14.8	0.7	4.8
Zierikzee	6,944	450	15.4	37.0	12.4	20.1	26.8	21.8
Den Bosch	46,212	3,098	14.9	4.2	68.7	10.7	2.6	8.3
Alkmaar	30,467	2,566	11.9	12.8	31.5	31.2	21.1	14.3
Tiel	12,730	1,138	11.2	14.3	21.9	37.6	19.1	12.8

Sources: Cinema Context Collection; Beekink et al. (2003)
1. ARP, CHU, SGP, CDU and Hervormd Gereformeerde Partij
2. Rooms-Katholieke Staatspartij and Rooms-Katholieke Volkspartij
3. SDAP, CPH and Revolutionair-Socialistische Partij
4. Vrijzinnig Democratische Bond and Vrijheidsbond

To more formally test this assertion, a regression analysis was carried out with population per seat as dependent variable and the shares of the compartments, the percentage paying wealth tax, and the (natural log of the) population as independent variables. As the shares of the various pillars are highly correlated, a stepwise procedure was used to select the most parsimonious model whilst avoiding multicollinearity. This results in the following model (Adj. $R^2 = .407$, $p < .01$):

Table 8. Regression on Population per cinema seat

	B	*Std. Error*	*Standardized beta*	*t*
Constant	32.849	7.604		4.320
% Protestant voters	1.056	.265	.779**	3.986
% Paying wealth tax	-2.035	.762	-.522*	-2.670

** p < .05*
*** p < .01*

While, as to be expected, economic prosperity (as measured by the percentage of inhabitants paying wealth tax) does influence cinema capacity, there is an even stronger influence of the percentage of voters for Protestant parties: positively correlating with the number of inhabitants per seat; and thus a negative influence on cinema capacity.

Is this a pure demand effect of Protestant non-attendance, with increased percentages of Protestants proportionally reducing the size of local markets? Or is there a top-down effect, with cinema owners being constraint in Protestant dominated areas, for instance by bylaws, regulations, or political relations? With the real estate as their fixed assets, we may assume cinema owners to try to maximize revenue by putting on as many shows as economically viable. If seating capacity is forcedly low given (true) local demand, cinema owners will likely have increased the number of shows to meet demand; resulting in more shows per seat.

Table 9. Cinema use, seating, population, religion and wealth tax

City	*Popstat*	*Total nr of seats*	*Popstat per seat*	*Population*	*Population per seat*	*% Prot*[1]	*% Paying wealth tax*
Utrecht	19,868.3	4,589	4.3	161,093	35.1	24.5	9.1
Haarlem	13,037.4	3,203	4.1	131,257	41.0	17.1	9.8
Amsterdam	72,673.1	19,559	3.7	781,645	40.0	17.1	6.3
Rotterdam	58,218.9	17,100	3.4	595,448	34.8	23.7	6.6
Den Haag	48,341.8	17,740	2.7	482,397	27.2	24.8	13.0
Groningen	6,809.3	2,543	2.7	115,185	45.3	28.2	13.6
Apeldoorn	1,900.6	771	2.5	68,590	89.0	42.2	14.0
Tilburg	6,024.7	2,990	2.0	88,890	29.7	2.7	8.7
Dordrecht	2,009.4	1,002	2.0	60,131	60.0	31.2	8.4
Zeist	1,912.4	1,050	1.8	29,691	28.3	44.5	18.8
Eindhoven	6,683.1	3,808	1.8	103,030	27.1	6.5	6.3
Maastricht	4,129.5	2,450	1.7	65,929	26.9	2.2	8.9
Nijmegen	7,228.5	4,365	1.7	90,739	20.8	8.6	14.3
Alkmaar	4,137.0	2,566	1.6	30,467	11.9	12.8	14.3
Schiedam	2,455.8	1,614	1.5	61,845	38.3	28.3	5.4
Leiden	2,862.9	2,199	1.3	73,612	33.5	31.8	9.2
Geleen	1,137.2	900	1.3	14,289	15.9	5.4	4.8
Heerlen	1,729.5	1,407	1.2	49,724	35.3	6.8	5.3
Tiel	953.4	1,138	0.8	12,730	11.2	14.3	12.8
Den Bosch	2,591.4	3,098	0.8	46,212	14.9	4.2	8.3
Culemborg	300.1	500	0.6	9,359	18.7	15.1	14.0
Zierikzee	164.7	450	0.4	6,944	15.4	37.0	21.8

Sources: Cinema Context Collection; Beekink et al. (2003)
[1.] ARP, CHU, SGP, CDU and Hervormd Gereformeerde Partij

Expressed in terms of POPSTAT per seat (column 4), table 9 indeed shows a large variance in the intensity with which the seating capacity was used; with seats in some cities having more box office potential as relatively more shows were staged. If lower capacity is due to top-down constraints, the POPSTAT per seat is likely correlated to population per seat. A stepwise linear regression on 'POPSTAT per seat', similar to table 8, however, shows that neither population per seat or the percentage of Protestant voters have a significant effect in explaining the variance in programming intensity (Adj. $R^2 = .617$, $p < .01$). Only the (natural log of the) population has a significant effect on the intensity with which seats are used ($\beta = .771$, $p < .01$). Ergo, in the absence of extra shows to meet demand, the variance in population per seat is likely to be a pure demand effect, with the percentage of Protestants proportionally decreasing market size. With Protestant parties gaining 25.7% of the eligible votes in the 1933 General Election[44], the true market size for film going in The Netherlands may have been closer to 75% of what otherwise would have been the market size.

The negative Protestant effect on cinema attendance is still witnessed in later years. Twenty years later, a report by the Central Bureau of Statistics (1955) into drivers of cinema attendance reveals a negative influence of church attendance on cinema attendance; an effect that is strongest for the Protestant Dutch Reformed Church.[45] Even as late as 1966, a market research study concludes that 40% of the Dutch cinema audience are non-church attendees; relatively high compared to the 19% share of non-church part of the population; with similarly relatively less Protestants than Catholics, compared to national ratios.[46]

[44] *Beekink et al.* report that together, the ARP, CHU, SGP and Hervormd Gereformeerde Partij attracted 957,812 votes of the 3,721,828 eligible votes in the 1933 General Election. Beekink, Boonstra, Engelen and Knippenberg, *Nederland in verandering.*
[45] Centraal Bureau voor de Statistiek: *Vrije-tijdsbesteding in Nederland, winter 1955/56. Deel 3: Bioscoopbezoek*. Zeist, 1957, as quoted in Hes, *In de ban van het beeld.* pp. 162-165.
[46] Veldkamp, *Het bioscooppubliek.* p. 22.

V1. A Protestant issue or a Dutch attitude?

While the seats per capita in the Protestant cities and towns were much lower than the average for the country, this does not explain overall the very weak showing of The Netherlands when compared internationally. Here we suggest that the Calvinistic morality that discriminated so strongly against film going in the Protestant areas was pervasive throughout Dutch society. Indeed, although Dutch society in the 1930s was strongly compartmentalized along ideological and religious lines, historians have observed a remarkable unity in mentality, described as 'a middle class moral strongly influenced by Calvinism', and shared by Catholics and Protestants alike. For instance, marriage and family were the most preferred forms of household and sex before marriage was denounced in all circles, with statistics of extra marital children showing a steady decline since 1849.[47] The woman's role was expressly defined as serving and supporting her husband.[48] Increasing male wages more and more allowed lower class women to refrain from paid labour, but social norms and values, too, played an important role in women's decision to stay home.[49] This Calvinist middle class morality was also evident outside the home, for instance at work, where workers were coerced to control themselves in many respects.[50] Alcohol abuse, for instance, was strongly discouraged by factory owners, with jenever (Dutch gin) consumption in this period plummeting to one sixth of what it was in the 1870s.[51] Overall, workers were encouraged not to strive for direct pleasures but to restrain themselves for long term results: "Workers adopted middle class behaviour, the middle classes exerting – deliberately and unintentionally

[47] Montijn, *Leven op stand*. P. 45; Schuursma, *Jaren van opgang.* pp. 55-56; De Regt, *Arbeidersgezinnen en beschavingsarbeid.* pp. 81-86.
[48] De Regt, *Arbeidersgezinnen en beschavingsarbeid.* p. 55; Van Poppel, Van Dalen, and Walhout, 'Diffusion of a social norm'.pp. 104-105.
[49] De Regt, *Arbeidersgezinnen en beschavingsarbeid.* pp.54-57; Van Poppel, Van Dalen, and Walhout, 'Diffusion of a social norm'.pp. 99-127.
[50] De Regt, *Arbeidersgezinnen en beschavingsarbeid.* pp. 26-31.
[51] De Regt, *Arbeidersgezinnen en beschavingsarbeid.* pp. 26-27; Van Zanden, *Klein land in de 20e eeuw.* pp. 28-29).

– an influence on the behaviour of workers".[52] While this does not imply a singular society, there was a clear convergence among all four pillars towards promoting self-discipline, work ethic and education as a means of improving living standards.[53]

Also in leisure, many chose for self improvement instead of relaxation at the movies. One of the rare time consumption studies of that time, as part of a larger research project by Blonk, Kruijt and Hofstee (1936), reveals that the 226 participants who kept a diary for two weeks of how they spent their time, on average spent only 1 hour 19 minutes per week on attendance of theatre, cinema, concerts, performances or festive meetings. Most time was spent home, either on reading and studying (11 hours 42 minutes) or listening to the radio (3 hours 14 minutes). Primary outdoor activity was participation in some form of club, including sports (6 hours 48 minutes).[54] Such sentiments are also echoed in a report by Engels (1934) on leisure time activity among 39 unemployed workers that regularly frequented the Amsterdam Communal Centre for the Unemployed.[55] The author's comments on the responses are indicative of the low status of cinema in Dutch society, stating "his lack of surprise" that the group of uneducated unemployed "provided the least impressive answers": "For many, more or less frequent visits to the cinema were, as far as they could even remember (sic), the primary pursuit in life; in addition, others speak of fishing, playing football or an occasional stroll around the block"[56]. White collar workers indicated to frequent cinema far less, mentioning

[52] "Arbeiders namen burgerlijke gedragsmodellen over, burgerlijke groepen oefenden - bewust en onbewust – invloed uit op het gedrag van arbeiders". De Regt, *Arbeidersgezinnen en beschavingsarbeid.* pp. 246-247.
[53] De Regt, *Arbeidersgezinnen en beschavingsarbeid.* pp. 246-247.
[54] Blonk, Kruijt and Hofstee, *Het gebruik van den vrijen tijd.*
[55] The Gemeenschapshuis voor werklozen (Community House for the Unemployed) was established by the Maatschappelijk Werkverband van het Vrijzinnig Protestantsch Verbond, Amsterdam (V.P.V.A.) (Social Labour Connection of the free-thinking protestants). The Werkverband van het Religieus-Socialistisch Verbond (The Labour Connection of the Religious Socialists had joined them. Engels, 'Gebruik van vrijen tijd (I)'. p. 503.
[56] "Meer of minder druk bezoek aan de bioscoop vormde, voorzoover (sic) zij het zich thans nog herinneren voor velen den voornaamsten inhoud van hun leven; daarnaast spreken sommigen nog van "hengelen", "voetballen" of "zoo nu en dan een straatje om" Engels, 'Gebruik van vrijen tijd (I)'. p. 504.

"reading, playing cards, playing checkers or visiting friends"; "also a form of wasting time on insignificant matters", according to Engels.[57]

Next to the direct effect of Protestantism on cinema capacity, this general pervasive Calvinist middle class moral seems an attractive additional explanation for the low demand in The Netherlands. While it isn't possible to empirically estimate the *size* of this additional effect, the ranking of films by popularity does provide some *qualitative* evidence for this Calvinist middle class moral influencing Dutch film consumption. Table 10 compares the top 10 films ranked by POPSTAT for The Netherlands and Great Britain, with country of production and title. These top 10's show a striking difference in both dominant genres as well as the percentage of Hollywood domination.

Table 10. Top ten most popular films in The Netherlands and the UK 1934-1935

Great Britain		***The Netherlands***
US – The House of Rothschild	**1**	NL – De Jantjes
US – The Lives of a Bengal Lancer	**2**	**US** – Bright eyes
US – Top hat	**3**	NL – Bleeke Bet
UK – The Scarlet Pimpernel,	**4**	NL – Het meisje met den blauwen hoed
US – One night of love	**5**	**US** – The little colonel
US – Roman scandals	**6**	DE – Mazurka
UK – The Iron Duke	**7**	NL – Malle gevallen
US – Love me forever	**8**	NL – Op hoop van zegen
UK – Sanders of the River	**9**	NL – De kribbebijter
UK – The Rise of Catherine the Great	**10**	DE – Wenn du jung bist, gehört dir die Welt

In contrast to the Dutch, the British audiences strongly preferred war, adventure, historical and biographical films The Dutch did not like "the ostentatious and romantic costume films" as a Dutch reviewer of the IRON DUKE commented on English movies[58] and the programming records in our dataset suggest his remarks echoed general sentiments: THE IRON DUKE only

[57] Engels, 'Gebruik van vrijen tijd (I)'. p. 505.
[58] *Het Vaderland*, 11 mei 1935.

ranks as number 597 in POPSTAT. Similarly, the British number one THE HOUSE OF ROTHSCHILD, only comes 236 in the Dutch ranking. In fact, while almost all of the few Dutch films made it into the top 10, a Dutch historical film on their own founding father, William of Orange (WILLEM VAN ORANJE, 1934) was a outright failure at the box office.[59]

Instead, the Dutch top ten films suggests a preference for humorous, optimistic films with a lot of song and dance. The Dutch films in the top ten are all set in a middle class or lower middle class settings. Not the rich and the famous, but the ordinary man and woman are the leading characters. In the two German and two US films the rich are contrasted with the middle class or even poor servants. But at least some of the rich learn from lower classes that love is more important than money and status. In all the films the richer characters are ridiculed to some extent, with most of the richer or higher class characters portrayed as not very attractive or friendly. There is always one exception and that is the character that opens up to someone from a lower class and engages in a relationship (friendship or marriage). The perspective in all top ten movies is that from the lower classes, even if the difference is only between lower middle class and middle class, always telling us in some way or the other that money and status aren't everything.

Judging by the two top 10s, Hollywood was more successful in matching British preferences. Six of the British top ten films were produced in the US; only four were British productions. In The Netherlands, too, US films dominated the Dutch market, with 52% produced in the US and indigenous production limited to only 2% of the unique film titles in our dataset. However, only two US films really seem to have captured the imagination of the Dutch. Indigenous production, on the other hand, commands six of the top ten places. In fact, the

[59] WILLEM VAN ORANJE ranked 220 in POPSTAT in our dataset, producing less than 10% of the POPSTAT of DE JANTJES.

2.3% of Dutch titles on the market constituted 10.3% of the total POPSTAT in our dataset; Dutch films on average attracting a POPSTAT of 800, while US films only attracted an average POPSTAT of 148. In other words, it may be that the limited demand for film in part had to do with a lack of titles fitting the predominant Calvinist middle class moral.[60]

This is cause for speculation about the role of the lack of a national film production in explaining the low demand for film, as local film producers apparently were better at capturing such sentiments. Dutch film production only started out in 1934 and peaked shortly after the success of THE SAILORS (DE JANTJES, 1934). Apart from some experiments, the production of feature sound films only started in 1933. Between 1934 and 1940 thirty-seven Dutch films were produced, twenty-seven of which between 1934 and 1936. Like the film distribution sector the production sector was very fragmented: no less than twenty-nine production companies were involved between 1934 and 1940. Behind these were twenty-four different persons. This means that for almost every new film a new production company was established. Thus, there was no continuous production and no strong domestic film industry arose. While more indigenous production would still face the Protestant's rejection of any fiction film, it may have made up to at least some extent for the low per capita spending in this country.

VII. Conclusion

The extraordinary success of Dutch films in the Dutch market, and their widespread diffusion suggest that the Dutch people could be persuaded to go to the cinema when the 'right' film came along. Although seats were relatively scarce by international comparison, the system of provision by which films got to audiences resembled that found in the Anglo Saxon world, albeit on a much reduced scale. There are no formal institutional reasons for this. In

[60] In his work on German cinema audiences between 1921 and 1971, Josef Garncarz also points out the preferences of film audiences for domestically-produced movies. Garncarz, 'Hollywood in Germany'.

investigating the impact of Dutch censorship practices, and reviewing the operations of the trade association in which distributors and exhibitors were co-joined, we find no evidence of restrictive practice that was significantly different from that found in comparator nations. And while strong evidence is presented to suggest that indeed Protestant areas were seriously under supplied when it came to cinema seats, the reasons for this cannot explain the low level of provision in the big three cities. Assuming that cinema seats per capita is over time a good indicator of the demand for films, the low level of demand in The Netherlands for films is best explained by what North has termed informal institutional factors – in this case, it was the social norms of the Dutch people which led them to diverge from the film going practices experienced in neighbouring countries and further afield.

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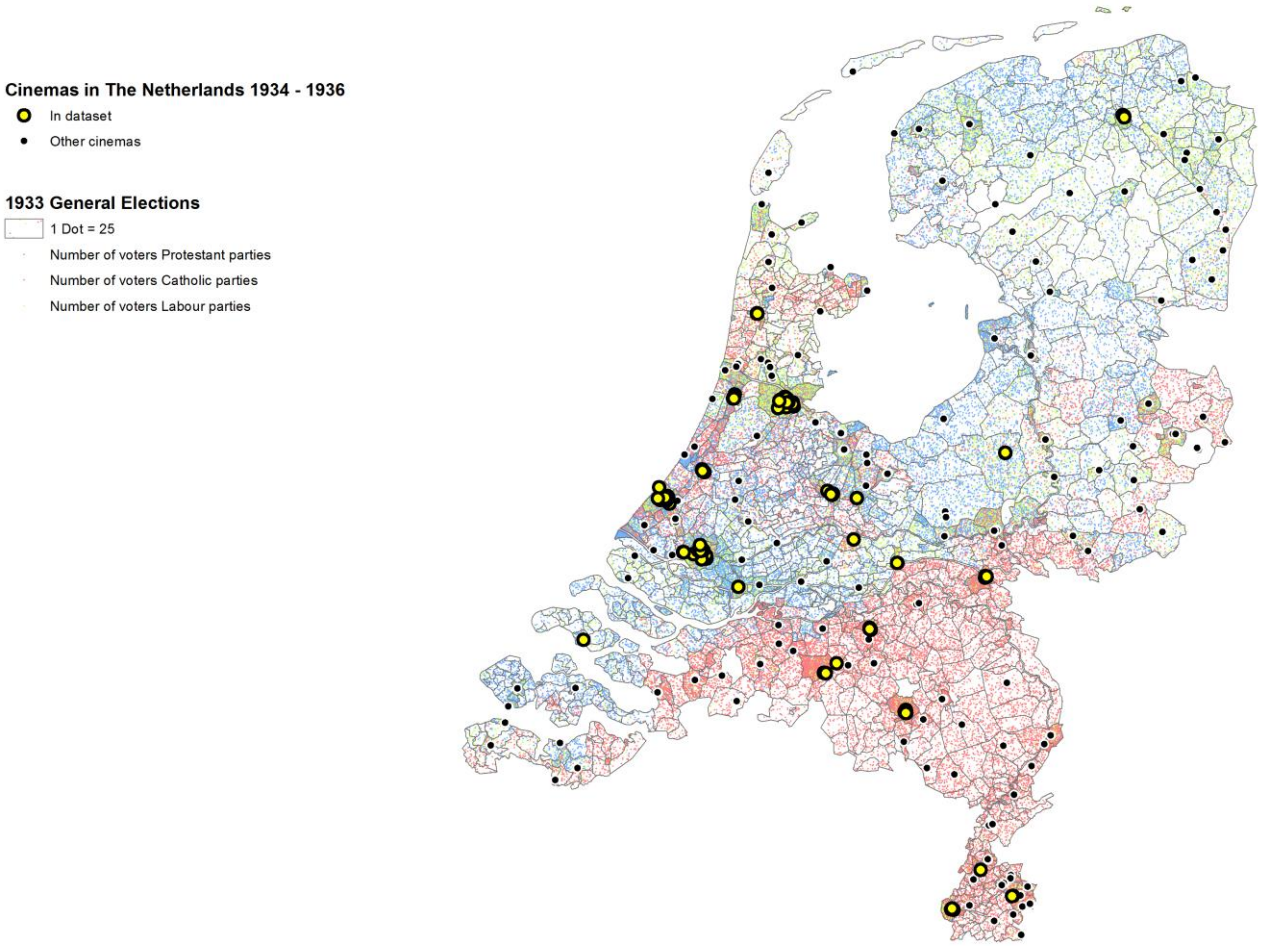
Appendix 1. Map of The Netherlands with cinemas

and results of the 1933 General Elections



Source: Cinema Context Collection; Beeking, Engelen and Knippenberg (2003)