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MCCARTHYISM, MEDIA, AND POLITICAL REPRESSION:
EVIDENCE FROM HOLLYWOOD

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ABSTRACT

We study a far-reaching episode of demagoguery in American history. From the late 1940s to 1950s, anti-communist hysteria led by Senator Joseph McCarthy and others gripped the nation. Hundreds of professionals in Hollywood were accused of having ties with the communist. We show that these accusations were not random, targeting those with dissenting views. Actors and screenwriters who were accused suffered a setback in their careers. Beyond the accused, we find that the anti-communist crusade also had a chilling effect on film content, as non-accused filmmakers avoided progressive topics. The decline in progressive films, in turn, made society more conservative.

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A data appendix is available at <http://www.nber.org/data-appendix/w32682>

1 Introduction

Demagogues have existed throughout history, inciting the passions and prejudices of crowds to build mass followings and break away from democratic norms. From the ancient Greeks to the framers of the US Constitution to modern-day scholars, there has been a long-standing recognition of the threat posed by demagoguery to democracies. Cleon of Athens, often regarded as the first demagogue, sought to convince the Athenians to put every man in the rebellious city of Mytilene to death. Alexander Hamilton, one of America’s Founding Fathers, warned his people in *Federalist No. 1* about “those men who have... begun their career by paying an obsequious court to the people; commencing demagogues, and ending tyrants.” More recently, the rise in democratic backsliding across countries has heightened concerns over the ability of demagogues to erode democratic values. Despite the dangers of demagoguery, there is little empirical evidence of its impact on society.

In this paper, we look at one of the darkest episodes of demagoguery in US history. From the late 1940s through the 1950s, amidst the Cold War, Senator Joseph McCarthy and others exploited the prevailing anti-communist paranoia to orchestrate a fervent witch-hunt for communists and communist sympathizers in America. Approximately one in five US workers were subject to loyalty reviews or investigations; often, unsubstantiated claims of communist ties were sufficient to ruin a person’s reputation and career (Brown, 1958). McCarthyism thus ushered in a period of widespread political repression, where civil liberties, dissent, and freedom of thought were suppressed (Schreker, 1999). While much has been written on this historical episode, quantitative work on the effects of McCarthyism remains limited.

We study the impact of a pivotal event during the McCarthy era: the anti-communist witch-hunt in Hollywood. The House Un-American Activities Committee (HUAC), McCarthy’s counterpart in the House of Representatives, conducted extensive investigations into the entertainment industry, targeting communist elements. Hundreds of Hollywood personalities, including actors, writers, and directors, were accused of having communist ties or sympathies. Many were subpoenaed to testify before Congress in highly publicized trials where they were interrogated about their political affiliations and pressured to name other communists. These investigations created a pervasive climate of fear. Qualitative accounts suggest that those who were accused found it difficult to secure employment, particularly if they had refused to cooperate with HUAC (Ceplair and Englund, 2003); contemporaneous reports also indicate that filmmakers became more cautious about making progressive films to avoid being labeled as communist sympathizers, steering away from topics like the plight of the working class or racial minorities (Cogley, 1956a).

Our paper assembles a unique collection of data spanning the period 1930-1970 to study the impact of the anti-communist crusade in Hollywood. We do this by answering three questions. First, who were the people being accused of having communist ties and sympathies? Second, what was the impact of being accused? Third, were there any effects beyond the accused, whether in the entertainment industry more broadly or in society as a whole?

In the first part of the paper, we examine the determinants of being accused—were the anti-communist accusations random or systematically targeted? To shed light on this, we collect in-

formation on actors, writers, and directors in the entertainment industry, combining both newly-digitized and existing records. Our data include a wide range of individual traits: demographics, career profile, accolades, political activities, and whether a person was accused during the anti-communist crusade. In addition, we pair text data on film content with machine learning techniques to measure the relative progressiveness of each film, which we then link to individuals. The data we gather allow us to study which characteristics predict the likelihood of being accused. We find that success mattered for actors—celebrities with more experience or who received Academy Awards nominations were more likely to be accused. Actors and writers involved in more progressive films were also at risk of being targeted. A common predictor across occupation groups is a person’s past involvement in activities opposing HUAC, such as denouncing it through advertisements. Taken together, our findings suggest that the anti-communist accusations were not random; instead, they were aimed at more prominent and progressive personalities with dissenting views.

The next part of our paper investigates the impact of being accused. On their own, accusations of communist ties or sympathies had no legal repercussions; whether they mattered for the accused thus remains an empirical issue. We start by looking at the careers of actors, measured in terms of the number of movie or TV titles they appeared in. Matching actors that were accused during the anti-communist crusade to past costars who had similar traits, we show that the two groups displayed similar career trajectories before the accusations were made, but diverged thereafter. On average, accused actors appeared in one less title per year after being accused, a magnitude comparable to the sample mean. This setback lasted for several years through the 1950s, only fading away in the late 1950s with the demise of McCarthy. The effects persisted even longer for certain groups, such as female actors and those who did not cooperate with HUAC. Importantly, we demonstrate that our results are not compromised by general equilibrium effects on past costars, the control group. Like actors, we find that the careers of accused writers were also adversely affected; however, our estimates for directors are imprecise, possibly due to the small number of accused among them.

What explains the negative impact of being accused? We explore this through the lens of customer versus employer discrimination—was it viewers avoiding titles associated with the accused or studios distancing themselves from accused persons for fear of backlash? To distinguish between these mechanisms, we propose a simple test: under customer discrimination, films associated with the accused should have poorer box office showings post-accusations. We run this test using weekly box office data for movie theaters in large US cities, covering the period 1945-1955. No drop in revenue or ticket price is observed for films involving the accused, suggesting that customer discrimination is unlikely to be the main explanation. Similar results are obtained when exploiting more exogenous variation from accusations made just around the release of films. Qualitative evidence, on the other hand, points toward employer discrimination.

In the final part of our paper, we ask if the effects of the anti-communist witch-hunt extended beyond the accused. Who else might be affected? We begin with non-accused employees in the entertainment industry. Upon seeing the plight of their accused colleagues, non-accused persons

might fear for their own careers and scale back on more controversial film content to avoid attracting attention. We refer to this form of self-censorship as a chilling effect. Indeed, both contemporaneous and contemporary observers contend that the Hollywood witch-hunt had a chilling effect on film content, particularly when it dealt with social problems through a progressive lens, which was deemed controversial at the time (Ceplair and Englund, 2003; Cogley, 1956a; Schrecker, 2002). Empirically, we find that non-accused filmmakers who had previously been involved in more progressive films responded strongly during the anti-communist crusade by cutting back on such work, consistent with a chilling effect. At the aggregate level, we also document a decline in progressive films as the anti-communist movement gained momentum. Hollywood productions were thus becoming more conservative.

Could the decline in progressive films, in turn, affect the rest of society? Hollywood films were immensely popular at the time, with 40 to 80 million people going to the movies each week.¹ Given the wide reach of movies, any change in their content could potentially influence the hearts and minds of a large segment of society. We investigate this by digitizing new data on movie theater capacity across the country in 1940 and using it to construct a local measure of movie exposure. Adopting a difference-in-difference approach, we document that counties with greater movie exposure saw an increase in Republican vote shares during the anti-communist crusade, suggesting that the change in movie content made society more conservative. To determine if these effects stem from the anti-communist witch-hunt or the Cold War more generally, we look at anti-communist films and differentiate between those about the internal threat of communism from those portraying the external threat of communism—the former are consistent with a McCarthyite message while the latter convey a broader Cold War message. We find that the impact on electoral outcomes is primarily driven by anti-communist films on internal communism. By influencing film content, the anti-communist movement was thus able to shape political preferences in America.

Our paper contributes to four strands of literature, among which are studies on the impact of McCarthyism. The significance of McCarthyism has drawn widespread attention from historians, sociologists, and political scientists (Brown, 1958; Doherty, 2018; Fried, 1991; Gibson, 2008; Goldstein, 1978; Johnson, 2006; Morgan, 1993; Negro et al., 2021; Oshinsky, 2005; Powers, 1998; Schreker, 1999; Tye, 2020). Much of the current work, however, tends to be more qualitative, with quantitative evidence being considerably thinner. One exception is Moser and Parsa (2022), who investigate the effects of McCarthyite persecutions on US scientists—they find a permanent reduction in scientists’ productivity. In contrast with Moser and Parsa (2022), we examine the effects of the anti-communist witch-hunt in Hollywood. Given their popularity at mid-century, movies have the capacity to influence a much broader segment of society. To our knowledge, we are the first to show that the Hollywood witch-hunt not only ruined individual careers but also changed the types of films Americans were exposed to, reshaping their political preferences in the process.

Our work also relates to a growing literature on political repression. Existing research has focused almost exclusively on more violent forms of repression in autocratic regimes, examining

¹See *Historical Statistics of the United States, Colonial Times to 1970*.

their long-run consequences. These include the Nazi persecution of Jews (Acemoglu et al., 2011; Becker et al., 2021; Waldinger, 2010, 2012), the Spanish inquisition (Drelichman et al., 2021), the Spanish expulsion of the Moriscos (Chaney and Hornbeck, 2016), the Anti-Rightist Campaign in China (Zeng and Eisenman, 2018) and the Cultural Revolution that followed (Huang et al., 2020). Adding to this line of work, we explore the effects of political repression in a democracy. By showing that the McCarthy-era witch-hunt created a chilling effect even among the non-accused, we provide novel evidence of how governments can stifle dissent by simply targeting a subset of individuals rather than the entire population.

In addition, our paper ties in with the political economy of media. A large and growing literature has explored the political and economic effects of different media types, including newspapers, radio, TV, the internet, and social media (Adena et al., 2015; Allcott et al., 2020; Angelucci et al., 2024; Ash and Galletta, 2023; Bursztyn et al., 2023; Campante et al., 2018; DellaVigna et al., 2014; Djourelouva et al., 2024; Durante et al., 2019; Enikolopov et al., 2011; Fujiwara et al., 2024; Gagliarducci et al., 2020; Grosjean et al., 2023; Guriev et al., 2021; Koenig, 2023; Le Penneec and Pons, 2023; Martin and Yurukoglu, 2017; Müller and Schwarz, 2023; Prat and Strömberg, 2013; Wang, 2021; Zhuravskaya et al., 2020). Within the broad media types, some have also honed in on specific productions. Ang (2023) and Esposito et al. (2023), for example, demonstrate how the movie *Birth of a Nation* (1915) affected racial violence and attitudes in America. Michalopoulos and Rauh (2024), on the other hand, seek to understand what drives the success of films rather than their impact, finding a role for traditional folklore, cultural narratives, and core values in society. We contribute to this field by looking at Hollywood, an institution which remains understudied in the economics literature despite its wide reach through film and entertainment. Our study provides the first empirical evidence of the persuasive effect Hollywood has on election outcomes.

Finally, our paper connects with the field of labor market discrimination. Previous work has examined discrimination along various dimensions, including race, gender, nationality, disability, and age (Bertrand and Mullainathan, 2004; Button et al., 2016; Charles et al., 2022; Goldin and Rouse, 2000; Hilger, 2016; Kessler et al., 2022; Neumark et al., 2016; Oreopoulos, 2011; Riach and Rich, 2002; Sarsons et al., 2021). We consider labor market discrimination on the basis of political beliefs, an area that has received less attention. Political discrimination at the workplace is not new. Kreisberg and Wilmers (2022) show that US employers frequently discriminated against union supporters and activists even back in the early 20th century. Colonnelli et al. (2024) find that business owners in Brazil prefer to hire co-partisan workers, pay them more, and promote them faster. We investigate how a far-reaching episode of political discrimination affected professionals in the American labor market. In doing so, we shed light on how demagoguery can exploit the politics of fear to turn a nation against politically undesirable minorities.

2 Historical Background

To set the stage, we begin by describing the situation in America during the 1940s and 1950s, drawing primarily on the material in [Ceplair and Englund \(2003\)](#), [Cogley \(1956a,b\)](#), and [Schrecker \(2002\)](#). This was a time when the fear of communism was sweeping across the country, a period dubbed the Second Red Scare.² It was a fear that grew out of a series of domestic and international events. The 1940s, for example, saw the communist-aligned journal *Amerasia* release classified US documents in 1945, former British Prime Minister Winston Churchill deliver his *Iron Curtain* speech in 1946, State Department official Alger Hiss publicly accused of spying for the Soviet Union in 1948, and China fall to the communists in 1949. There was no respite in the 1950s, with the Korean War breaking out in 1950 and a Jewish American couple, Julius and Ethel Rosenberg, being sentenced to death for espionage in 1951. These events gripped the country with fear. Attention soon turned to the internal threat of American communists. In 1946, some 49 percent of Gallup respondents felt that Americans belonging to the Communist Party were loyal to Russia and not America; this rose to 61 percent by 1947, reflecting the pervasive mistrust at the time.³

2.1 Key Players

One of the key figures that emerged in this climate of fear was Senator Joseph McCarthy. An attorney by training and war veteran, McCarthy's foray into politics eventually saw him win the 1946 Senate elections in Wisconsin. In 1950, he gave his (in)famous speech at Wheeling, West Virginia, alleging that there were communists in the State Department: "I have in my hand fifty-seven cases of individuals who would appear to be either card carrying members or certainly loyal to the Communist Party, but who nevertheless are still helping to shape our foreign policy" ([Congressional Record, 1950](#)).⁴ This event catapulted McCarthy to prominence. He was subsequently made chairman of the Senate Committee on Government Operations, which included the Senate Permanent Subcommittee on Investigations. The latter gave him the authority to investigate communist elements in the government. McCarthy made numerous allegations of communist infiltration in various government bodies, a mixture of half-truths and unfounded claims. The term McCarthyism was coined to describe this "practice of publicizing accusations of political disloyalty or subversion with insufficient regard to evidence" ([American Heritage Dictionary, 2011](#)).

Another important player during the Second Red Scare was HUAC. HUAC was formed as a temporary committee of the House of Representatives on 26 May 1938. It was then converted to a standing committee in 1945. Its purpose, as laid out by [Dies \(1938\)](#), was to investigate "(1) the extent, character, and object of un-American propaganda activities... (2) the diffusion within

²The First Red Scare happened in the early 20th century, spurred by the 1917 Russian Revolution and the 1919 anarchist bombings in the US.

³Authors' calculations from the July 1946 and March/April 1947 Gallup surveys, both available from the Roper Center for Public Opinion Research.

⁴The quotation is based on a transcript McCarthy provided to the Congressional Records. However, because no audio recordings of his speech exist, the actual number of individuals he cited at Wheeling is debatable; alternative figures of 81 and 205 have been suggested ([Schrecker, 2002](#)).

the United States of subversive and un-American propaganda that... attacks the principle of the form of government as guaranteed by the Constitution, and (3) all other questions... that would aid Congress in any necessary remedial legislation.” Communism became a prime target. Various organizations came under HUAC’s investigations, including the Congress of Industrial Organization (CIO) and New Deal agencies like the Work Progress Administration (WPA) and the Office of Price Administration (OPA). HUAC drew both praise and condemnation for its actions. With a number of Klan members among its leaders, HUAC was espoused by several extremist groups; President Harry S. Truman, on the other hand, denounced HUAC as un-American. Soon, the HUAC juggernaut would come to Hollywood, a move that could generate substantial publicity for its anti-communist endeavors.

2.2 Hollywood on Trial

In 1947, HUAC launched a major investigation into the motion picture industry. It summoned 41 witnesses, among whom were writers, directors, and producers, to testify about communism in Hollywood. Of these, 19 announced that they would not answer the Committee’s questions—they were known as the Hollywood Nineteen.⁵ The HUAC trials began on 20 October 1947, opening with testimonies from cooperative (friendly) witnesses like Ronald Reagan, then President of the Screen Actors Guild, and Walt Disney. Thereafter, the Hollywood Nineteen were called. True to their word, the first 10 of the Hollywood Nineteen who took the stand refused to cooperate with HUAC. These were the Hollywood Ten. Each of their trials followed a similar pattern: the uncooperative (unfriendly) witness would invoke the First Amendment to avoid answering questions on his political affiliations, HUAC investigator Louis J. Russell then listed the alleged Communist Party card number of the witness, after which the Committee cited the witness for contempt of Congress on the grounds of refusing to answer questions. In truth, HUAC had uncovered little evidence of communist propaganda in Hollywood films, lest any attempts at subversion. Nonetheless, the contempt charges against the unfriendly witnesses were upheld in the House of Representatives by a vote of 346 to 17 on 24 November 1947. Following their convictions, the Hollywood Ten were fired by their studios and sentenced to jail.

What happened to the rest of the Hollywood Nineteen? Curiously, HUAC stopped at the Hollywood Ten, suspending its hearings abruptly on 30 October 1947, without calling the remaining 9 unfriendly witnesses. This could have been a response to the public backlash HUAC had received for the way it conducted the trials. But this apparent letup was merely the calm before the storm.

The storm broke out in the early 1950s, with large numbers of people being accused of having communist ties or sympathies. These accusations came as a surprise to many, both in terms of timing and scale. It began in 1950 with the release of *Red Channels: The Report of Communist Influence in Radio and Television*. Published by the American Business Consultants, *Red Channels*

⁵The Hollywood Nineteen comprised: Herbert J. Biberman, Edward Dmytryk, Ring Lardner Jr., Alvah Bessie, Lester Cole, John Howard Lawson, Albert Maltz, Samuel Ornitz, Dalton Trumbo, Adrian Scott, Waldo Salt, Lewis Milestone, Robert Rossen, Irving Pichel, Richard Collins, Larry Parks, Gordon Kahn, Bertolt Brecht, and Howard Koch. The first ten of these would become the Hollywood Ten mentioned below.

was a pamphlet listing the names of 151 alleged communists and communist sympathizers in the broadcast industry. With such information being made public, the individuals named in *Red Channels* now came under intense scrutiny. The situation worsened a year later when HUAC resumed its investigations into Hollywood, conducting a new wave of trials from 1951-1954. This time, hundreds of people were subpoenaed, drawn from across the entertainment industry: motion picture, TV, radio, and even theater. To prove their innocence and clear their names, witnesses would be asked to provide the names of other communists or communist sympathizers. The only way to avoid naming names was to take the Fifth Amendment, but doing so could be construed as confirmation of one's communist links. With the stakes at their highest, many gave in and provided names, accusing others of having communist ties. These mass hearings were effective, producing 324 names of which 212 were active in the motion picture industry. The anti-communist witch-hunt was in full swing.

2.3 Light After Darkness

Fortunately for the accused, the tide began to turn in 1954. The catalyst was a series of televised hearings involving the US Army and Senator Joseph McCarthy. The Army had accused McCarthy of trying to gain preferential treatment for his former aid who had been drafted. McCarthy counter-charged that the Army was attempting to derail his investigation of communists in the military. Both sides met head-on in the Army-McCarthy hearings, which were widely televised from 22 April to 17 June 1954. McCarthy was acquitted, but his unpleasant and aggressive personality during the hearings turned public opinion against him. In just four months, from February to June that year, the share of people with a favorable view of McCarthy fell from 39 to 32 percent.⁶ Some 64 percent of the populace also felt that McCarthy had hurt himself by being in the hearings.⁷ Things got worse for McCarthy on 2 December 1954, when the Senate voted 67 to 22 to censure him for misconduct (Butler and Wolff, 1995). He died of alcoholism a few years later on 2 May 1957.

Although McCarthy and HUAC did not cross paths directly, the former being in the Senate and the latter a House committee, their fates appear to be intertwined. With the fall of McCarthy, HUAC's influence began to wane. Its authority was further undermined by a new generation of openly defiant activists, including members of the Yippies and Students for a Democratic Society. College students from UC Berkeley, Stanford, and other institutions protested against the HUAC hearings in San Francisco City Hall on 13 May 1960; while Jerry Rubin and Abbie Hoffman made a mockery of the trials in the late 1960s. Increasingly ineffective and irrelevant, HUAC was finally abolished in 1975 and its functions were transferred to the House Judiciary Committee.

⁶Authors' calculations from the February/March and June 1954 Gallup surveys. Apart from the Army-McCarthy hearings, could other events explain the change in public perception of McCarthy? Broadcast journalist Edward R. Murrow, for example, went on his TV program *See It Now* to criticize McCarthy on 9 March 1954—might this have contributed to McCarthy's declining popularity? We think it is unlikely. Wilson (1976) argues that Murrow's episode on McCarthy reached a small audience and one that already viewed McCarthy as a menace.

⁷Author's calculation from the June 1954 Gallup survey.

3 Who were the Accused?

Having set out the situation at the time, we now focus on those who were accused of having communist ties—were they randomly selected or systematically targeted? We investigate this in two steps. First, we compile the names of accused persons working in the entertainment industry. Second, we explore the determinants of being accused. Undergirding our analysis in this section is a large collection of novel datasets.

3.1 Names of the Accused

We start by collating the names of accused persons. The challenge here is that no fixed or official list of names exists—names of suspected communists and alleged sympathizers were mentioned at different times, in different places, through different mediums, and by different people or organizations. To make progress, we draw on four relatively large sources of names frequently cited by historians as the key sources of accusations (Ceplair and Englund, 2003; Cogley, 1956a,b; Hill, 2016; Schrecker, 2002; Stabile, 2018).

Our first source is HUAC, which resumed its investigations into the entertainment industry from 1951. The names of alleged communists mentioned during these trials and the identities of cooperative (friendly) witnesses have been compiled by Vaughn (1996), based on transcripts and reports of the hearings. Also provided are the profession of each individual and the date of accusation or appearance before HUAC. Figure A.1 shows a sample page from Vaughn (1996).

A second source is *Red Channels*, previously referenced in Section 2.2. This 231-page pamphlet was published on 22 June 1950 by the American Business Consultants, a private organization founded by three ex-FBI men: Ken Bierly, Ted Kilpatrick, and John Keenan. *Red Channels* lists 151 professionals in the broadcast industry, their occupations, and their alleged communist activities. Such information was sourced from front group letterheads, Congressional and state committee reports, as well as clippings from the Communist Party’s *Daily Workers* (Schrecker, 2002). Figure A.2 displays a page from *Red Channels*.

The third source is the American Legion, a non-profit organization for US veterans that emerged as a key proponent of the anti-communist movement. Its flagship publication, the *American Legion Magazine*, reported the names of alleged communist sympathizers in Hollywood. Of particular interest here is the December 1951 issue, which contained the Legion’s primary release of names in the article “Did the Movies Really Clean House?” It was written by Joseph Brown Matthews, previously chief research director at HUAC. A total of 122 names were cited along with the reasons for their inclusion: denouncing HUAC in advertisements, submitting an amicus curiae brief to the US Supreme Court in defence of the Hollywood Ten, calling for the dismissal of William E. B. Du Bois’ indictment, participating in the Progressive Citizens for America Rally, among other things. Figure A.3 presents a page from the article.

Our fourth source is the Catholic Church. American Catholics had been anti-communist even before communism established a foothold in Russia; they fueled the wave of anti-communism at

home with their fervor, numbers, and leaders (Powers, 2004). The October 1949 issue of *Sign*, a monthly Catholic publication, contained an article “Red Fronts in Radio”, which named 55 individuals allegedly associated with communist causes or fronts. While anonymous, “Red Fronts in Radio” is widely known to have been written by Vincent Hartnett, who was also involved in *Red Channels* (Cogley, 1956b). Figure A.4 provides a sample page from this write-up.

We digitize the names in our four sources and merge them into a single list of accused persons. To facilitate a clear distinction between the pre- and post-treatment periods in our subsequent analysis, we exclude the Hollywood Nineteen from the list as they were accused in 1947, well before the mass accusations.⁸ Our final list comprises 130 actors, 119 writers, and 24 directors.⁹ While this may not cover the universe of victims, our numbers are consistent with historical accounts of 200 to 300 people in the industry being accused (Cogley, 1956a; Schreker, 1999). We are thus confident that our list provides a reasonably comprehensive coverage of the accused.

3.2 The Determinants of Being Accused

Having identified the accused, we then ask if they shared any similar traits. Some believe that the anti-communist accusations were arbitrary (Buhle and Wagner, 2003) while others contend that specific groups were targeted (Litvak, 2009; Stabile, 2018). Yet there has been no systematic attempt to understand how the accused were selected. This section fills that gap.

3.2.1 Characteristics

To study the determinants of being accused, we gather information on actors, writers, and directors in the entertainment industry. Our primary source of data is the American Film Institute (AFI) database, a catalogue of American feature films since 1893. For each film, the AFI data report its cast, crew, and subjects, among other things. These variables allow us to construct several predictors for our analysis. The availability of film subjects, in particular, makes it possible to measure film content and use it as a predictor—we thus prefer the AFI database to the Internet Movie Database (IMDb) for the current analysis, the latter of which lacks details on film subjects.

We start with an individual’s demographics. Two traits are of interest here. The first is gender. Stabile (2018) argues that anti-communist forces sought to silence the women in *Red Channels* not because of their alleged communist influence, but because they posed a threat to the traditional ideal of white patriarchal families. Were women in entertainment more likely to be accused? While gender is not reported in the AFI data, we can use a person’s *first* name to infer this information, applying the gender-guesser package in Python. The second trait is ethnicity, namely, whether one

⁸Besides the Hollywood Nineteen, a few other persons were also accused in 1947—they too are dropped.

⁹We do not study producers as few of them were accused. To maintain a consistent list throughout the paper, we map our set of names to the Internet Movie Database (IMDb), the primary data source for the main analysis, keeping only those who can be matched. The mapping is done with the public-use IMDb data, which contain the principal cast and crew for each title rather than the full list of credits. Since IMDb focuses on films and TV, those who were exclusively involved in radio or theater are mechanically excluded. Table A.1 shows the overlap between our four sources of names for the final list of accused.

was a Jew. John Howard Lawson claimed that HUAC targeted Jews (Cogley, 1956a); Litvak (2009) asserts that a disproportionate number of accused persons were Jews; while Ceplair and Englund (2003) note that 10 of the Hollywood Nineteen were Jews. Like gender, ethnicity is not recorded in the AFI database. We circumvent this by using *last* names to identify likely Jews.¹⁰

Next, we look at a person’s career profile from 1930-1949, before the outbreak of widespread accusations. As a measure of experience, we count the number of years where an individual had at least one film credit.¹¹ To capture productivity, we calculate the average number of film credits per year of experience. In terms of prominence, we ask if any Academy Awards nominations were received, drawing on the Academy Awards database.

We also consider the relative progressiveness of an individual’s work. Some have interpreted the anti-communist witch-hunt as an attempt by conservatives to suppress liberals (Ceplair and Englund, 2003; Ho, 2018; Schreker, 1999). If true, the progressiveness of one’s work might make the person a target. To facilitate the exposition, this section provides the intuition on how we measure film progressiveness; Section 6.1.1 provides a more detailed description and several validation exercises. We measure film content using word embedding, a Natural Language Processing (NLP) technique that represents words as real-valued vectors and captures inter-word semantics—words closer in the vector space have similar meanings. Embedding the major subjects (main themes) of films, we can compare the similarity of each movie to a set of known progressive and conservative films separately. This tells us how progressive and conservative a film is, from which we can take the difference to calculate its *net* progressiveness. The differencing helps account for secular trends in the underlying data, such as changes in the number of major subjects reported for each film over time. We then measure the progressivity of a person’s work as the average net progressiveness of films associated with the individual between 1930-1949. Boeing et al. (2024) and Kelly et al. (2021) use a similar method to measure the novelty of patents.¹²

Finally, we delve into the activities a person was involved in before 1950. *What* one did was often used as evidence of *who* one was, whether a communist or fellow traveller. The median accused in *Red Channels*, for instance, had nine allegedly subversive activities or affiliations (Figure A.5). However, without the universe of people participating in a given activity, it is unclear if (i) participants were more likely to be accused or if (ii) the accused simply happened to be part of that activity. Guided by historical accounts, we search through primary sources and digitize new data on the universe of persons who took part in five activities that explicitly opposed HUAC. The

¹⁰More precisely, we identify likely Jews in four steps. First, we turn to the complete count of the 1910 US census (Ruggles et al., 2021), the only full count reporting the language spoken by respondents. Second, for each last name in the 1910 census, we measure the relative probability of it being held by Jewish or Yiddish speakers, constructing a Jewish Name Index (JNI) in the spirit of Abramitzky et al. (2020a), Abramitzky et al. (2020b), and Fryer and Levitt (2004). This metric takes on values from 0 to 100. Third, we consider names with a JNI of 80 or higher to be Jewish; these names are four times as likely to be selected by Jewish or Yiddish speakers. Fryer and Levitt (2004) use a similar threshold to define distinctively Black names. Fourth, we identify individuals in our AFI sample whose last names match the set of Jewish names—these are the likely Jews.

¹¹Experience may also serve as a proxy for age or birth cohort, neither of which are available in the AFI database.

¹²Patent novelty is measured by estimating the similarity of a given patent to all past and future patents separately, and then taking the difference between the two similarity metrics.

first are members of the Committee for the First Amendment, who stated that the 1947 hearings were morally wrong. The second are signatories of an advertisement in *Variety* magazine on 20 October 1947, where they expressed disgust at HUAC. The third are signers of advertisements in the *Hollywood Reporter* on 28 October and 3 November 1947, both of which criticized HUAC whilst praising the accused. The fourth are people who spoke against HUAC on a national radio broadcast titled “Hollywood Fights Back”, aired on 26 October and 2 November 1947. The fifth are signers of the amicus curiae brief submitted to the US Supreme Court in 1949 on behalf of the Hollywood Ten. In total, we identify 537 names across the five activities. Were these people more likely to be accused in later years, as some have suggested (Schwartz, 1999; Stone, 2004)?

3.2.2 Results

For each person in the entertainment industry, we now know their pre-1950 characteristics (Section 3.2.1) and whether they were subsequently accused (Section 3.1)—what determines the likelihood of being accused? To shed light on this, we run a simple regression:

$$Accused_i = \gamma X_i + v_i \tag{1}$$

where the subscript i denotes an individual. The outcome, *Accused*, is an indicator for those who were accused (from around 1950 onward). The explanatory variable, X , is the set of individual traits described in the previous section (measured before 1950): demographics, career profile, net progressiveness, and past activities. Since the dynamics within each occupation group might vary, we conduct this exercise separately for actors, writers, and directors.

Table 1 presents the OLS results while Tables A.2 and A.3 give the marginal effects of the corresponding probit and logit estimates. Across actors, writers, and directors, we find little evidence of women being disproportionately targeted. The results for Jews are more mixed—we do not observe significant coefficients with writers or directors but the probit estimate for actors is significant and positive, suggesting that anti-Semitism may have played a role. For actors, what clearly matters is a person’s experience and accolades, both of which raise the odds of being accused. Put differently, the accusations were aimed at more established, successful, or influential actors. There is some hint that involvement in progressive work also puts actors at risk, but this is a stronger predictor for writers. Indeed, writers with more progressive films are more likely to be accused, consistent with the idea that they were deemed responsible for film content. There may thus be some merit to the claim that conservatives were exploiting the anti-communist hysteria to attack liberals. For directors, neither career profile nor progressiveness consistently predicts the probability of being accused. The one characteristic that is relevant for all three groups is an individual’s past activities. Those opposing HUAC were 27 to 32 percentage points more likely to be accused, a large association compared with the average accusation rate. In fact, this variable alone explains some 17 to 18 percent of the variation in accusations, based on adjusted R-squareds of regressions with just the activity indicator. Each of the constituent activities contributes to the positive asso-

ciation (Figure A.6). Finally, the broad patterns in Table 1 continue to hold when we restrict the sample to those with more than a year of activity before 1950 (Table A.4) or when we measure net progressiveness as the ratio of a film’s progressiveness and conservativeness (Table A.5).¹³

To summarize, the anti-communist accusations were not random. They were systematic, targeting more prominent and progressive personalities with dissenting views.

4 The Impact of Being Accused

Having identified the victims of the anti-communist witch-hunt, we now ask what happens when a person is accused of having communist ties. Of particular interest here is the impact on an individual’s career trajectory. Importantly, there is no mechanical association between being accused and career success—accusations do not automatically translate to worse outcomes if no one believes the claims or acts on them. As alluded to previously, simply being accused of having communist ties had no legal repercussions, unlike genuine cases of spying or espionage. Indeed, studio executives lamented the “absence of a national policy... with respect to the employment of Communists in private industry” and asked Congress to “enact legislation to assist American industry to rid itself of subversive, disloyal elements” (Cogley, 1956a). What happens when a person is accused thus remains an empirical question. We consider the effects on actors, writers, and directors in turn.

4.1 Actors

We start with actors. Much of our discussion will center on this group of creatives for practical reasons. First, productions typically involve more cast than writers or directors—there is thus a larger pool of people from which a valid control group can be constructed for actors. Second, the larger sample permits a wider range of analysis, allowing for more data-intensive exercises.

4.1.1 Empirical Approach

To assess the impact of being accused, we compare the career trajectories of accused actors with an appropriate control group, drawing on data from IMDb. We construct our control in two steps. First, we identify all non-accused artists who costarred with a future-accused actor between 1930-1949, before the outbreak of widespread accusations. Recall that the victims in our sample were accused around 1950 or later (Section 3.1). Second, we match each accused celebrity to costars with similar characteristics using coarsened exact matching (CEM), which creates a counterfactual comparable to the treated group in terms of the joint distribution of observed characteristics (Ager et al., 2022; Iacus et al., 2012; Aneja and Xu, 2022; Azoulay et al., 2019; Voth and Xu, 2022). The characteristics we match on are: birth cohort, gender, number of titles, whether these titles were

¹³We make two points here. First, individuals with more than a year of activity may be viewed as the more active group of employees in the entertainment industry. About 56.8 percent of actors, 27.6 percent of writers, and 40.3 percent of directors in our sample had just one year of activity before 1950. Second, our ratio-based measure of net progressiveness is calculated as $(\text{Progressiveness} + 1)/(\text{Conservativeness} + 1)$, similar in spirit to Gennaro and Ash (2022). This metric takes the value 1 if a film is equal in both progressiveness and conservativeness.

all movies, whether any Academy Awards nominations were received for Best Actor or Actress (leading or supporting), and whether other creative roles were held (writer, director, or producer), all measured before 1950.¹⁴ The resulting sample of matched costars will serve as our control group.

Table 2 investigates if matched costars constitute a valid control group. We begin by comparing the pre-1950 characteristics of accused actors (column 1) to *all* their past costars (column 2). Significant differences can be observed. On average, those who were accused tend to be slightly younger and male; before 1950, they also appeared in substantially fewer titles, were less likely to work entirely in movies, and were more likely to hold other creative roles (column 3). The full set of costars thus fails to provide a reasonable comparison group. We then consider the matched sample. Almost all accused stars and about half of their past costars can be matched (columns 4 and 5). Crucially, any observable differences between them are small and statistically insignificant (column 6), indicating that matched costars are a valid control group.

Having defined our sample of interest, Figure 1A then traces the career paths of actors from 1930-1970, separately for the accused (treated) and their matched costars (control). We measure an actor’s career trajectory using the number of titles he or she appeared in each year.¹⁵ This includes both movie and TV titles, whether local or foreign, all of which are covered in IMDb.¹⁶ The broader coverage of IMDb makes it preferable to the AFI database here, the latter of which only has American feature films. We find that accused actors and their costars tracked each other closely before 1950, averaging about 0.5 titles per year from the 1930s to early 1940s and then doubling to over 1 title a year in the late 1940s. The sharp rise after World War II (WWII) was driven entirely by the rapid expansion of TV. From 1950, however, accused actors began to fall behind their costars. It was not until the late 1950s that they managed to close the gap. Being accused thus appears to have negatively affected an actor’s career. Nonetheless, there could be confounding factors that are not accounted for in the raw trends, necessitating a more formal analysis.

To estimate the impact of being accused, we turn to an event study:

$$Y_{it} = \sum_{j=1930}^{1970} \beta_j Accused_i \times I_t^j + \theta_i + \theta_t + \varepsilon_{it} \quad (2)$$

where the subscripts i and t denote an actor and the year, respectively. The outcome, Y , is the number of titles (movie or TV) associated with an actor in a given year. The main explanatory variable is the interaction between an indicator for accused persons, $Accused$, and a vector of year dummies, I . Also included are individual and year fixed effects, the θ s, to account for level differences across individuals and years. We use 1949 as the omitted year, just before the outbreak

¹⁴To ensure that there are sufficient observations in each stratification, we divide our cohorts into eight bins of approximately 10 years each and split the number of pre-1950 titles into four bins.

¹⁵While income might be a more natural measure of career performance, such data are not available for all persons and years. The number of titles, on the other hand, is consistently available for each person and year.

¹⁶The TV titles in IMDb largely consist of TV episodes. To avoid double counting, we include each TV episode but not the corresponding parent series (which IMDb also includes). We count episodes rather than just the parent series as celebrities with one episode have vastly different opportunities from celebrities starring in 100 episodes. For simplicity, we also exclude minor title types like TV specials (often awards shows), videos, and video games.

of widespread accusations. The parameter of interest, β , thus captures the difference in title counts between accused actors and their matched costars over time, relative to 1949. Small and insignificant β s before 1950 (pre-treatment period) would reinforce the validity of our control group. The β s after 1950 (treatment period) can then be interpreted as the causal effect of being accused.

4.1.2 Baseline Results

Figure 1B presents our event study estimates. Three distinct phases can be observed over our period of study. First, before 1950, no differential trends are seen. This reinforces the comparability of accused actors and their matched costars, strengthening our confidence in the research design. Second, from 1950, negative and statistically significant coefficients begin to emerge. In words, accused actors now appear in fewer titles compared to their costars. Absent pretrends, the negative impact here can be attributed to the anti-communist accusations. These effects become increasingly negative until around 1954, when the gap is 2.15 titles—a sizable drop relative to the sample mean of 1.45 titles a year.¹⁷ Third, after 1954, the impact of being accused appears to plateau, fading out by 1957. On average, accused actors thus found their careers set back by some seven years.

What explains the recovery between 1954-1957? We consider two explanations here. The first is an age-out story—as actors get older and age out of Hollywood, their exit mechanically narrows the gap in appearances. To test this hypothesis, Figure A.7A traces the share of artists with at least one title in a given year *relative* to the peak share, our proxy for participation rate. This rate is reasonably steady for accused actors from the mid-1950s but falls through the 1950s and 1960s for costars. The latter suggests some merit to the age-out hypothesis. Nonetheless, even by 1957, a majority of our sample were still active, with relative participation rates of 54.2 and 81.2 percent for accused actors and their costars respectively. There must be more than a simple age-out story. The second explanation has to do with the events around 1954-1957. In particular, the plateau from 1954 coincides with the Army-McCarthy hearings (April to June 1954) while the fade-out by 1957 follows the death of Joseph McCarthy (May 1957). Although McCarthy did not attack Hollywood directly, the impact of being accused appears to be tied to his rise and fall.

For completeness, we also estimate the average impact of being accused. We do this by switching regression (2) to a simple difference-in-difference (DD) model, replacing the interaction year dummies with a post-1950 indicator. Given the fade-out in accusation effects after 1954 (Figure 1B), we restrict the time frame to 1930-1954. Column 1 of Table 3 presents our estimate: on average, being accused led to about one less title a year. With the simple DD, it is then straightforward to add further controls for potential confounding trends. Columns 2 to 6 of Table 3 thus include interactions between the baseline characteristics used in the CEM procedure and a post-1950 dummy—the estimated impact of being accused remains stable across specifications. Finally, to capture the *increasingly* negative effects in the early 1950s (Figure 1B), we add a triple

¹⁷What explains the growing accusation effects? We propose two reasons. First, the entertainment industry needed time to establish the machinery for political screening (Cogley, 1956b). Second, later events may have amplified the stakes of being accused. For example, grocer Laurence A. Johnson led the Syracuse crusade from 1951, threatening to boycott the products of companies that sponsored programs featuring accused persons.

interaction between the accused indicator, post-1950 dummy, and year. As seen in column 7 of Table 3, this adjustment causes the accused-post-1950 interaction to lose significance while the triple interaction is negative and significant, consistent with Figure 1B.

4.1.3 General Equilibrium Effects

One concern with the baseline analysis is whether our control group of costars might be *indirectly* affected by the accusations against their colleagues. Such general equilibrium effects, if any, could be negative or positive. We consider both cases in turn.

Costars may be negatively affected if they are stigmatized because of their past associations with accused actors.¹⁸ This stigmatization by association can be even more persistent than direct stigmatization (Negro et al., 2021). The bias induced by these dynamics would cause us to understate the true accusation effect. Nonetheless, we argue that such bias is likely to be small. We make our case in two ways. First, we show that accused actors did not just fall behind their costars; they also fared worse than non-costars, a group less likely to be stigmatized by association. Figure A.8 presents the results from an event study with non-costars as the control group.¹⁹ While noisier, a negative impact on accused actors can still be detected. Second, we distinguish costars by the intensity of their past associations. Specifically, we compare accused actors *separately* against (i) costars who appeared with a future-accused actor just once before 1950 (low intensity) and (ii) costars who made such joint appearances multiple times before 1950 (high intensity). If stigmatization by association matters, costars with a high intensity of past associations should be more adversely affected, leading to *smaller* accusation effects when they are used as the control group. Figure A.9 indicates that this is not the case. The effects with high-intensity costars are twice as large; even after accounting for their higher mean title count, the relative impact is comparable to the case with low-intensity costars, not smaller. Taken together, the evidence suggests that our findings are not biased by negative general equilibrium effects.

On the other hand, costars might be positively affected if they are viewed as substitutes for accused actors. Intuitively, if accused actors are dropped, studios will need to replace them with other artists. Even so, this is unlikely to distort our results substantially. There are about 8 costars for every accused person in our matched sample (Table 2)—the average gain for each costar would thus be small. Furthermore, while costars may be more similar to accused actors, this does not rule out non-costars from being substitutes as well. We count around 85 non-costars for every accused individual (Figure A.8). Had accused actors continued along their initial trajectories if not for the accusations, back-of-the-envelope calculations suggest that other artists stand to gain 0.010 to

¹⁸Besides stigmatization by association, costars could also be adversely affected if they are complements in production with accused actors. However, such complementarity, if any, is likely to be rare—less than 5 percent of matched costars appeared with the *same* future-accused person more than once before 1950.

¹⁹We match accused actors to comparable non-costars using the CEM approach. To improve comparability, we use a slightly different set of characteristics for matching compared with the baseline. Instead of the number of pre-1950 titles, we use the corresponding numbers for 1949 and before 1948 separately. We also match on whether a person’s pre-1950 appearances were solely as oneself.

0.105 more titles a year, a small benefit compared with the average treatment effect (Table 3).²⁰ We conclude that any bias from positive general equilibrium effects is likely to be small.

4.1.4 Heterogeneity by Subsample

Do the accusation effects vary across different subsets of actors? Figure A.10 investigates this by applying our event study to various subsamples.

First, we differentiate accused actors based on where they were named. Specifically, we separate those whose names came up during the HUAC trials from those whose names appeared in other sources—we view the former as state-affiliated accusations and the latter as non-state accusations. The impact of being accused is much stronger for actors implicated in the HUAC trials (Figure A.10A) compared with other accused celebrities (Figure A.10B).²¹ State-affiliated accusations also tend to have long-lasting effects that stretch until the mid-1960s or later. The evidence here is consistent with the view that accusations made by the state carry greater weight and more serious consequences than non-state accusations.

Second, we separate accused actors who were friendly witnesses during the HUAC trials from all other accused. Friendly witnesses cooperated with HUAC and often gave names of alleged communist sympathizers. The other accused in our sample either refused to cooperate with HUAC or were not called to give testimony. Friendly witnesses experienced a sharp loss of titles in 1950 but recovered quickly by 1951 (Figure A.10C), coinciding with the new wave of HUAC trials where suspects had the opportunity to name names and clear themselves. Other accused, in contrast, were negatively affected until 1957 (Figure A.10D). This reinforces our view that the loss of titles among accused stars was due to the accusations and not some other factor.

Third, we stratify our sample by gender. Negative effects are observed for both female (Figure A.10E) and male actors (Figure A.10F). However, female actors do not recover as quickly, with the adverse effects persisting till the early 1960s or later. Our results differ from Moser and Parsa (2022), who conclude that anti-communist accusations aimed at academics in the 1950s affected men but not women. This contrast might reflect the different gender makeup of each industry—women comprise 34 percent of our matched sample but less than 10 percent of Moser and Parsa’s (2022). That female actors are not spared also implies that our baseline findings are not confounded by military conscription during the Korean War (1950-1953).

Fourth, we split our population by nativity. The accusations adversely affected both US- (Figure A.10G) and foreign-born actors (Figure A.10H), though our estimates for the latter are noisier as just 17 accused artists in our matched sample were foreign-born. The level impact is slightly larger for US-born actors, but they also have more titles on average. Conditional on being

²⁰We detail our back-of-the-envelope calculations here. Suppose that accused actors continued experiencing the same annual increase in title counts as they did between 1948-1949, the period of greatest increase before 1950. This extreme assumption works against our argument, generating 100 more titles per year for all accused stars combined. We then distribute these opportunities across the pool of potential substitutes. Our lower bound comes from dividing 100 by the number of matched costars and non-costars ($953 + 9,188 = 10,148$); our upper bound comes from dividing 100 by the number of matched costars (953).

²¹The gap is greater after accounting for the mean title count, which is *lower* for those named in the HUAC trials.

accused, the foreign-born were not treated any worse.

Fifth, we look across cohorts. Using the 1912 cohort to divide our sample into two groups of comparable size, we find that neither older (Figure A.10I) nor younger actors (Figure A.10J) escaped the negative accusation effects. Experience thus offered little protection from the anti-communist hysteria.

Sixth, we distinguish between more (above-median) and less (below-median) productive actors, based on the number of appearances they made before 1950. The level effect on more productive actors (Figure A.10K) can be twice that of their less productive colleagues (Figure A.10L). However, more productive artists also had double the number of titles on average; the relative impact is thus broadly comparable.

In summary, the effects of being accused were widely felt among actors, whether female or male, US- or foreign-born, old or young, and more or less productive. Things were especially bad for those implicated in the HUAC trials. The ones that escaped the worst outcomes were the people who gave in and cooperated with HUAC.

4.1.5 Heterogeneity by Title Type

Next, we explore if the impact of being accused varied by title type. Figure A.11 shows our results.

We begin by separating movie and TV titles. TV production exploded right after WWII, eclipsing movies in terms of sheer quantity (Figure A.12). Acting in either industry could be lucrative. Figure A.13 shows the wage densities of (i) actors in motion pictures and theater, (ii) actors in TV and radio broadcasting, as well as (iii) non-actors, based on the 1950 and 1960 censuses. Actors in both movies and TV could potentially earn more than the rest of society, particularly by 1960—losing roles in either medium would thus represent a sizable loss of income. It bears emphasizing that TV was not necessarily inferior to movies. While some initially saw TV as a medium beneath the stature of true film stars, the movie industry soon came to accept the credibility of TV (Becker, 2005). By the mid-1950s, established movie actors were already appearing on TV (Becker, 2005). In fact, both more and less productive stars became increasingly involved with TV over time (Figure A.14).

We find a stark difference in how movie and TV appearances were affected. Being accused did not lead to a loss of movie titles (Figure A.11A) but caused a significant decline in TV titles (Figure A.11B). These patterns hold across major and minor studio productions (Figures A.11C-F)—there was thus no respite for accused artists even among smaller production companies. Similar differences are observed for state-affiliated and non-state accusations (Figures A.11G-J).

Why did the anti-communist accusations affect opportunities in TV but not movies? We think this reflects how the two industries differed in their tolerance for controversial content and sensitivity to outside pressure. As Cogley (1956b) puts it:

The radio-tv industry... is singularly susceptible to pressure. Hollywood certainly goes out of its way to avoid offending any significant section of the public. But the film industry has been willing to deal with controversial subjects... as long as the prospect

of a heightened interest in some quarters promises to compensate for moviegoers who might be lost. The radio-tv industry, though, is devoted to advertising. Sponsors seek “100% acceptability” for their products. Any group, however small, which is alienated because of the content of a radio or television show, or because of a performer on the show, must be placated.

Next, we differentiate between US and foreign titles, based on the country of origin. Accused actors experienced a large drop in US (Figure A.11K) but not foreign titles (Figure A.11L). The null effect on foreign titles is not surprising as the accusations were US-specific. That there is no *rise* in foreign titles, however, contradicts anecdotes of accused stars like Larry Parks and Paul Robeson finding opportunities overseas. Our results suggest that while accused artists were not discriminated abroad, their overseas engagements did not compensate for their losses at home.

Finally, we breakdown titles by genre. Specifically, we consider dramas and comedies, which account for close to a third and a quarter of all titles from 1930-1970, respectively.²² If audience sensitivity to communism varies across genres, the accusation effects may also differ along those lines. Instead, we document comparable losses in both drama (Figure A.11M) and comedy titles (Figure A.11N), whether in absolute or relative terms.

To summarize, the impact of being accused was primarily driven by declines in TV appearances. Losses were concentrated in American titles and affected different genres.

4.1.6 Alternative Outcomes

Beyond a reduction in on-screen appearances, were there other effects on accused actors? Figure A.15 and Table A.6 explore a range of career and non-career outcomes, respectively.

First, we look at the extensive margin: the probability of having *any* title. Switching the outcome in regression (2) to an indicator for those who made at least one appearance in a given year, we find some evidence that accused actors were less likely to even be hired (Figure A.15A).

Second, we turn to the quality of titles—did the accusations push actors into lower-quality projects, a shift which could further erode their earnings? To shed light on this, we use the audience ratings in IMDb to proxy for title quality. Naturally, these ratings are not perfect: they are coarse, subjective, limited in availability, and based on respondents who vary in number and composition. Moreover, the respondents in question are modern-day viewers, whose notion of a good production might differ from mid-century viewers. Nonetheless, this mismatch could work in our favor as modern audiences are less swayed by the anti-communist sentiments of the 1950s. Comparing accused actors and their costars, we observe a negative impact on the quality of titles associated with the accused (Figure A.15B).

Third, we consider the number of lead roles played by an actor. We define such roles based on the order in which cast are listed under a given title in IMDb. The arrangement in IMDb mirrors the order in the most complete on-screen credit list for each title, where cast are typically ranked by

²²Authors’ calculations from IMDb. The categories are not mutually exclusive as a title can have multiple genres.

importance. We proceed by changing the outcome in regression (2) to the number of titles where an artist was the lead actor. Those who were accused saw fewer lead roles in the early 1950s, though they did close the gap later on (Figure A.15C). This loss in lead roles could further compound the monetary cost of being accused.

In terms of career prospects, the accusations thus affected more than just the number of titles an actor appeared in—whether one had any titles, the quality of those titles, and the roles in those titles all suffered as well.

Fourth, turning to non-career outcomes, we ask if the accusations worsened an individual’s health. Schrecker (2002) contends that being accused “took a personal toll... broken health and broken marriages, even suicides, were not unknown.” Accused actor John Garfield died of a heart attack at age 39; Philip Loeb, another accused actor, took his life in 1955. To determine if these cases were part of a more general phenomenon, we look at annual mortality (short-run) and life expectancy (long-run). We use our simple DD model to study annual mortality, where the outcome is an indicator for those who were still alive in a given year. No differences are observed between the accused and their costars (Table A.6, column 1). For life expectancy, a time-invariant outcome, we simply compare accused artists to their costars whilst controlling for cohort. If anything, those who were accused appear to live slightly longer (Table A.6, column 2).²³ As a whole, we find little evidence of adverse health effects.

Fifth, we study a person’s decision to migrate. Some accused celebrities did leave the country, whether temporarily or permanently. These include Larry Adler, Hugo Butler, Charlie Chaplin, Cyril Enfield, Larry Parks, Paul Robeson, Donald Ogden Stewart, and Orson Welles. But did they move because of the accusations or some other factor? The challenge here is that we do not observe where a person lived each year. To make progress, we start with the subset of US-born actors who had passed away by the time of writing; those who died outside the US are assumed to have left the country permanently. About 5.6 percent of actors in our matched sample migrated permanently. Comparing accused persons with their costars reveals that the former are indeed more likely to have moved abroad permanently (Table A.6, column 3), suggesting that the anti-communist witch-hunt led to a talent drain from America.

4.2 Writers

While much of our analysis has centered on actors, they were not the only victims of the anti-communist witch-hunt—writers were not spared either. Mirroring the preceding sections, we start by matching accused writers to co-writers that shared similar characteristics prior to the accusations.²⁴ We then compare the number of titles written by each group before and after 1950, using

²³At the time of writing, 15 actors in our matched sample are still alive; they are not included here. Running a similar regression but with an indicator for whether one is still alive as the outcome yields an insignificant estimate.

²⁴The characteristics used for matching writers are similar to actors, with one change: instead of the number of titles before 1950, we use the numbers before 1949 and in 1949 separately. This improves comparability and produces cleaner pretrends.

regression (2).²⁵ The matched sample is much smaller for writers than actors as each production typically has fewer writers than cast. This could reduce precision and limit the range of analysis.

Like actors, accused writers experienced a setback in their careers. Figure 1C plots the raw trends in title counts while Figure 1D presents the corresponding event study estimates. Accused writers tracked their matched co-writers reasonably well before 1950 but began to fall behind thereafter, only recovering in the later part of the 1950s. Again, age-out dynamics are unlikely to be driving the recovery, with participation rates remaining high through the 1950s for both groups of writers (Figure A.7B)—we think the events of 1954-1957 involving Joseph McCarthy may better explain the convergence. As with actors, the negative impact on writers is not due to a loss of movie titles (Figure A.16A) but a decline in TV titles (Figure A.16B); accusation effects also tend to be stronger for writers who were named during the HUAC trials than those who were accused elsewhere (Figure A.17). Nonetheless, there are some differences between accused writers and actors. Compared with actors, writers are hit much harder—the 1954 point estimate in Figure 1D is more than double the mean title count among writers, whereas this ratio is closer to 1 for actors.

4.3 Directors

Finally, from actors and writers, we now turn to directors. Because each production usually has one director, it is not possible to construct a sample of co-directors as our control. Using all non-accused directors in IMDb would not work either as that would include both US- and foreign-based directors—even if they had the same age profile and productivity, the two groups would be operating in completely different markets.²⁶ By definition, all accused directors would be based in the US (always or in part) while all directors permanently based abroad would not be accused. To make progress, we hone in on the subset of directors in IMDb who can also be found in the AFI database, the latter of which comprises directors with at least one American film. This narrows our sample to likely US-based directors. We match accused directors to other US-based directors with similar traits prior to the accusations and then implement regression (2).

We do not find strong effects on accused directors. The raw trends suggest that accused directors may have fallen behind their counterparts in the 1950s (Figure 1E) but this gap is not significant in our event study (Figure 1F). We propose two reasons for the insignificant results. First, just 15 directors in our matched sample were accused, a small number that may reduce precision. Second, the restriction to AFI directors limits the scope to those who were more involved in movies

²⁵Unlike actors, the title count for writers may invite more scrutiny, given the possibility of using fronts and pseudonyms. Nonetheless, several factors limit the margin for error here. First, the Writers Guild of America has attempted to correct the writing credits of films over time, adding the names of screenwriters who had been accused (Weinraub, 2000). When the true identity of a writer is known, this appears to be reflected in IMDb. For example, accused writer Carl Foreman wrote *Born for Trouble* (1965) under the pseudonym Derek Frye. Foreman’s name appears under *Born for Trouble* (1965) in IMDb, with the pseudonym in parenthesis. Naturally, cases where a writer’s true identity is unknown cannot be corrected. Second, the scope for using fronts and pseudonyms is limited. Cogley (1956b) discusses the challenges of this strategy, from the need for writers to be present at meetings to the egos of fronts, concluding that the black market was “open only to the best... talent and is hazardous even for them.”

²⁶This was less salient with actors and writers. Since accused actors and writers were based in the US, restricting the control group to their costars or co-writers kept the samples to those with US-based work.

than TV, the latter of which was the driving force behind the results for actors and writers.²⁷

5 Mechanisms

What explains the negative impact of being accused? As alluded to above, this is not simply a mechanical result as the accusations can be ignored. To unpack the underlying mechanisms, we frame our discussion in terms of customer versus employer discrimination, where people are discriminated for their political beliefs. With customer discrimination, viewers are the key agents. Should they have a distaste for communists or communist sympathizers, viewers might respond by avoiding productions associated with the accused. This would then reduce the marketability of accused persons and lead to fewer job opportunities for them. With employer discrimination, the focus shifts to movie or TV studios. In a climate of fear, studios could choose to distance themselves from accused employees in the hope of avoiding controversy, political backlash, or boycotts.²⁸ Their actions may be pre-emptive rather than a reaction to actual monetary losses. This section explores both forms of discrimination and finds a greater role for employer discrimination.

5.1 Customer Discrimination

To determine if customer discrimination mattered, we turn to the box office performance of films. Under customer discrimination, we would expect movies associated with the accused to have poorer box office showings after the accusations are made as audiences seek to avoid them. We test this hypothesis using [Gil and Marion’s \(2022\)](#) movie theater data. There is an unbalanced panel of theaters in 26 large US cities, compiled from weekly issues of *Variety* magazine published between 1945-1955. For each theater, weekly information on the film(s) being shown, revenue (from the previous week), and ticket price (highest and lowest) is included. These data allow us to run an event study that relates the accusations to film performance:

$$Y_{f,w,l,t} = \sum_{j=1945}^{1955} \beta_j^{theater} Associated_{f,w,l} \times I_t^j + \theta_w + \theta_t + e_{f,w,l,t} \quad (3)$$

where the subscripts f , w , l , and t denote a given film, theater, city, and year, respectively.²⁹ The outcome, Y , is the log weekly film revenue or log ticket price. The main explanatory variable is the interaction between an indicator for films associated with accused persons (actors, writers,

²⁷About a quarter of the directors sample had at least one TV title from 1930-1970, compared with almost 80 and 60 percent of the actors and writers samples respectively.

²⁸In an environment without the fear of controversy or backlash, the accusations could instead have no effect or even a positive effect on victims—when one studio drops a talented professional because of his or her political beliefs, other studios can hire that individual and benefit from the person’s work.

²⁹Our unit of observation is a film-theater-week. For simplicity, we drop theaters that appear multiple times in the same week and city showing the same film. It is unclear if these were different theaters with the same name and owner or theaters with the same name but different owners. We also restrict our sample to theaters that screened just one film in a given week as the revenue and ticket price data refer to all films being shown in a week—this allows us to assign revenue and price information to a specific film.

directors, or producers), *Associated*, and a set of year dummies, I . Theater and year fixed effects are also included in the θ vectors, while standard errors are clustered at the film level.

Figure 2 presents our event study estimates. While the pretrends are not as clean as our baseline results, we find no indication that films associated with the accused performed worse after 1950, be it in terms of revenue (Figure 2A) or ticket price (Figures 2C and E). This contradicts the prediction under customer discrimination, suggesting that audiences were not the ones driving the negative accusation effects.

Could the null results in Figure 2 be a consequence of movie studios responding endogenously? Studios may decide to reduce the roles of accused persons or select accused personnel that are less controversial, thus avoiding a loss in viewership and revenue. To address this, we focus on films that were released around the time of the accusations, limiting the window for studios to react. We operationalize this by making two changes to the initial setup. First, we compare movies associated with those named in *Red Channels* to movies without *any* accused (from all sources). We hone in on *Red Channels* as it provides a common treatment year for a sizable number of victims, simplifying the setup. Second, we keep films released in the 5 months around the publication of *Red Channels* (2 June 1950) and change our time dimension to weeks. Having a narrow window is necessary as production timelines were short during this period in history, averaging just two months.³⁰ We find that even when studios had limited opportunities to adjust their hiring decisions, there was still no negative impact on film revenue (Figure 2B) or ticket price (Figures 2D and F).

A caveat with the box office analysis is that it only considers movies, leaving out TV shows. We thus propose an alternative test to reinforce the case against customer discrimination: comparing how the accusations affected individuals who were more and less covered in the press. Here, we focus on actors, arguably the most recognizable group for audiences. Under customer discrimination, we predict that the accusations will have a *greater* effect on stars with more coverage—intuitively, viewers would be better able to identify them and boycott their shows. To implement our analysis, we count the number of times an accused person was mentioned in newspapers between 1950-1955.³¹ These data come from Newspapers.com, an online repository of historical newspapers. We divide accused actors into those with above- and below-median coverage. Figure A.18 shows that both groups fell behind the original set of matched costars. Contrary to expectation, the impact appears to be larger for celebrities with *less* coverage, especially between 1954-1956, suggesting that customer discrimination is unlikely to explain the negative accusation effects.³²

Some of our earlier results also went against a customer discrimination story. For example, we found that writers were more badly affected than actors (Section 4.2), when the opposite would have been expected given the lower visibility of writers to audiences. In addition, we documented declines in TV but not movie titles for the accused (Sections 4.1.5 and 4.2). Had customer discrimination

³⁰Authors' calculation for films released between 1945-1955, based on the production start and end months reported in the AFI database.

³¹We deal with false positives by counting only names that were jointly mentioned with the term "communis".

³²This is even more stark when juxtaposed against the average number of titles for each group, which is higher for accused actors with more coverage.

been at play, viewers should have boycotted both types of titles so long as an accused was involved.

Finally, beyond our own analysis, we draw on research by Gallup. A Gallup survey conducted for film producers found that 85 percent of audiences could not identify an unfriendly witness from the HUAC hearings, suggesting low public awareness of alleged communist influence on films (Ceplair and Englund, 2003). Another Gallup survey was commissioned by General Foods, as recounted in Cogley (1956b). This was about actress Jean Muir, who was set to appear as Mrs. Aldrich in *The Aldrich Family* but was dropped after being accused. General Foods, which sponsored *The Aldrich Family*, hired Gallup to survey the impact of Muir’s case on consumers. Less than 40 percent of respondents had heard of Muir, of which fewer than 3 percent could connect her case to General Foods; even the staff at various General Foods sales offices had not heard of Muir. Taken together, the weight of evidence appears to go against customer discrimination.

5.2 Employer Discrimination

If not customers, were employers the ones discriminating against accused persons? Historical anecdotes offer a glimpse at the thought process of studios and their sponsors. Regarding the accused, Cogley (1956a) records lawyer Martin Gang as explaining that:

... certain organizations did have lists of names and had announced that they would picket any theatre showing pictures on which any of these names appeared. Since such picketing would result in loss of income as a result of diminished attendance, the banks had come to the decision not to lend money for the production of any pictures which used people whose names were on any of these lists. Since studios could not produce pictures without financing from banks, they were therefore unable to employ anyone on these lists.

Schrecker (2002) reports how producer Mark Goodson described the view of sponsors during the *Faulk v. AWARE* trials:

... A sponsor is in business to sell his goods. He has no interest in being involved in causes. He does not want controversy... The favourite slogan along Madison Avenue is “Why buy yourself a headache?”... between performer A who is noncontroversial, and performer B, about whom there is any kind of a cloud whatsoever, the natural instinct on a commonsense business basis is to use the noncontroversial personality.

Relatedly, Paul M. Hahn, President of the American Tobacco Company, wrote that:

When a company such as ours uses its corporate funds to sponsor a program on television or radio, it does so with but one purpose—to reach the largest possible number of the public as its audience, and to present its products to that audience in the most favorable light... it follows that we would be wasting shareholders’ funds were we to employ artists or other persons who... are likely to offend the public... we would disapprove of

employing an artist whose conduct in any respect, “political” or otherwise, has made him or is likely to make him distasteful to the public.³³

The common thread through these quotes is that studios and sponsors made a conscious decision to avoid hiring accused persons as they believed their businesses would be adversely affected by the controversy and backlash associated with such hires. The end result: fewer opportunities for accused individuals, which we documented earlier.

Were studios and sponsors responding to actual monetary losses or were their actions a pre-emptive move? Three things point to the latter. First, while there were cases of picketing by groups like the Wage Earners Committee, the Catholic War Veterans, and the American Legion (Cogley, 1956a), such acts were not widespread. Second, our results in the previous section found no evidence that films associated with accused persons suffered revenue losses. Third, radio-TV producer Charles E. Martin, testifying during the 1954 trials brought by accused actor Joe Julian against the American Business Consultants, revealed that:

... everybody in the book [*Red Channels*] has a label attached to him, and that we—our clients—we are not interested in using the people who are in the book... the policy of quarantining a ship; it’s **preventive medicine**. We quarantine everybody in the book. We cannot take any chances.³⁴ [Bold text ours]

The evidence thus suggests that studios and sponsors dropped the accused for fear of what *could* happen (potential losses) and not because of something that *did* happen (actual losses).

5.3 Other Mechanisms

Besides discrimination, are there other reasons for the negative accusation effects? Perhaps the loss of titles was due to a fall in productivity among the accused rather than studios restricting their opportunities. This productivity drop, in turn, could stem from the harassment, stress, or depression brought about by the accusations. Nonetheless, we think this is an unlikely mechanism for two reasons. First, our mortality and life expectancy analysis (Section 4.1.6) found no adverse effects on a person’s health. Second, anecdotal evidence offers little support for such a narrative. Jean Muir, whom we saw earlier, was dropped from *The Aldrich Family* because her name appeared in *Red Channels*, without any relation to health issues (Cogley, 1956b).

Alternatively, the loss of titles might simply reflect accused persons having less time for work, burdened by lawsuits and court appearances. Again, we believe this is unlikely. First, as mentioned earlier, production timelines were short at the time, averaging just two months. Second, we observed negative effects even on those who were accused but not called to court (Sections 4.1.4 and 4.2).

Putting the different pieces together, we argue that the most likely story remains a discriminatory response by studios driven by the fear of controversy and political backlash.

³³Cited from Cogley (1956b).

³⁴Cited from Cogley (1956b).

6 Beyond the Accused

Did the effects of the anti-communist witch-hunt extend beyond the accused? In the final part of our paper, we explore if there were any spillover effects on (i) *non-accused* persons within the entertainment industry and on (ii) society more broadly.

6.1 Non-Accused in the Entertainment Industry

We start with non-accused employees in the entertainment industry. Upon seeing the plight of their accused colleagues, non-accused workers might also fear for their careers. A possible response may be to play it safe by avoiding films that could attract attention from anti-communist forces, a form of self-censorship (Ceplair and Englund, 2003). What sort of films might these be? In its 1951 annual report (HUAC, 1952), HUAC claimed that it was “less interested in a film that has Communist context, where a few hundred people will come and see it” and “more interested in an ordinary John-and-Mary picture where there is only a drop of *progressive* thought in it [emphasis ours].” Writing the *Screen Guide for Americans* (1947) on behalf of the Motion Picture Alliance for the Preservation of American Ideals (MPAPAI), friendly witness Ayn Rand urged filmmakers to do away with devices commonly employed to turn films into political propaganda, such as: smearing wealth or industrialists and glorifying the common man, topics that tend to be more progressive in nature (see Figure A.19 for the full list). Against this backdrop, a person’s continued involvement in progressive films could raise suspicions. Indeed, Section 3.2.2 showed that having more progressive work increased the likelihood of being accused. Did non-accused personnel then scale back on progressive films? We refer to this response as a chilling effect.

Some historians have alluded to a chilling effect in the McCarthy era. Ceplair and Englund (2003) and Cogley (1956a), for example, suggest that the production of social problem films fell after the Hollywood Ten trials (Figure A.20). These were films that often dealt with social issues from a progressive standpoint. Schrecker (2002) writes that:

McCarthyism’s main impact may well have been in what did not happen rather than in what did—the social reforms that were never adopted, the diplomatic initiatives that were not pursued, the workers who were not organized into unions, the books that were not written, and the movies that were never filmed.

Albert Maltz of the Hollywood Ten echoed these sentiments: “One is destroyed... in order that a thousand will be rendered silent and impotent by fear.” Despite these claims, there has been no systematic attempt to test for a chilling effect. Our paper seeks to do that.

6.1.1 Measuring Film Content with Word Embedding

To investigate the chilling effect of the anti-communist crusade, we require information on how progressive a film is. However, no systematic measure of film progressiveness is readily available

for our period of study. We circumvent this by combining text data on film content with machine learning methods to quantify the progressiveness of films.

Our approach relies on word embedding. Word embedding is a NLP technique that represents the meaning of words as real-valued vectors, with similar words being closer in the vector space. What do we embed on? Given our interest in film progressiveness, we embed on the *major* subjects of films, which reflect the main themes or topics being dealt with. Information on film subjects, both major and minor, are available from the AFI database. For concreteness, Figure A.21 shows the subjects associated with Charlie Chaplin’s *Modern Times* (1936). The major subjects like class distinction, factory workers, and unemployment capture the main message of *Modern Times* (1936); the minor subjects, on the other hand, tend to be noisier, including words like cafes and department stores that are less central to the film’s key themes. We avoid such noise by focusing on just the major subjects. In theory, one could also embed on both major subjects and synopses.³⁵ However, we prefer the subject-based approach as synopses can be noisy, containing less relevant terms and names that might make films appear similar in the embedding space even if they have different underlying messages. Nonetheless, we show below that our results are robust to embedding on both major subjects and synopses.

While word embedding enables us to compare the similarity of films, we still need a set of known progressive and conservative films to serve as the benchmarks for comparison. To construct a benchmark set of progressive films, we take reference from three books on social problem films in Hollywood history written by film scholars: Mitchell (2004), Roffman and Purdy (1981), and White and Averson (1972). We use the subset of films mentioned in all three books; this gives us more confidence that the films we select are broadly agreed upon by film scholars as being progressive in nature.³⁶ Table A.7 and Figure A.22A present our benchmark progressive films and their major subjects—these films tend to deal with workers, anti-semitism, and the Great Depression, among other topics. To create a benchmark set of conservative films, we draw on the list of anti-communist films in the University of Washington’s *Red Scare Filmography*, films that may be viewed as more conservative. We focus on the subset of films that have communism as one of the major subjects; these are films with explicit anti-communist messaging. Table A.8 and Figure A.22B show our benchmark conservative films and their major subjects.

We then combine word embedding with our benchmark films to obtain a measure of relative progressiveness for each film. This is operationalized in three steps using the embedding model on Cohere, a leading Large Language Model (LLM) platform.³⁷ First, we compare each film to the benchmark set of progressive films and estimate their average cosine similarity, a measure of similarity between two vectors of an inner product space (Di Tella et al., 2023). This tells us the progressiveness of a film (P_{sim}). Second, we derive the average cosine similarity between a given

³⁵Movie scripts offer another source of text for embedding but these are not widely available for our study period.

³⁶We drop films that may be less controversial in our setting, such as films on alcoholism or juvenile crime.

³⁷We prefer Cohere’s embedding model to OpenAI’s GPT. The former is deterministic while the latter is stochastic and can thus generate different embedding output given the same input. Cohere’s embedding performance is also on par with OpenAI’s. See Reimers et al. (2023) for a comparison.

film and the benchmark set of conservative films. This gives us the conservativeness of a film (C_{sim}). Third, we calculate a film’s net progressiveness by taking the difference between the measures of progressiveness and conservativeness ($P_{sim} - C_{sim}$). We use net progressiveness rather than just progressiveness as a film can have both progressive and conservative elements. Furthermore, as alluded to earlier, differencing can help account for secular trends in the underlying text data. Table A.9 shows the top and bottom 20 films based on our measure of net progressiveness.

Finally, we provide three pieces of evidence to validate the performance of our embedding exercise. First, we examine a subset of films from the AFI’s 10 Top 10 list that are close to our study period and that represent five classic genres—western, gangster, courtroom drama, romantic comedy, and scientific fiction. We perform word embedding on the major subjects of these films and visualize them in 2-D by reducing the dimensionality of our embedding space with Uniform Manifold Approximation and Projection (UMAP). Figure 3A shows that movies of the same genre are indeed closer together. Second, we expand the scope to all movies in the AFI database, providing the corresponding 2-D plots by genre in Figure 3B. Reassuringly, we find that films of the same genre are clustered into approximately similar spaces. Word embedding thus provides a reasonably accurate classification of movies based on major subjects. Third, Table A.9 indicates that many of our benchmark films rank highly in their respective categories (progressive or conservative) when using our measure of net progressiveness. Additionally, net progressiveness also appears to capture other progressive films that are not part of our benchmark, such as *Pinky* (1949) and *No Way Out* (1950), and likewise for conservative films. This would not have been the case if the embedding process was inaccurate, giving us greater confidence in our measure.

6.1.2 Empirical Analysis

With our measure of net progressiveness, we then investigate if the anti-communist witch-hunt had a chilling effect on film content. We start at the aggregate level, documenting how the content of Hollywood films has changed over time. Figure 4A presents the trend in net progressiveness. Two features stand out. First, there is a drop in progressivity in the early 1940s—this likely reflects the temporary spike in movies about war and patriotism during WWII (Figure A.23). Indeed, Figure 4B shows that the dip in progressiveness can largely be accounted for by excluding such films between 1942-1944. Second, and more importantly, we see another drop in net progressiveness that begins around 1947, after the Hollywood Ten trials. The initial decline in the late 1940s may be due to the emergence of films on communism in the wake of the trials (Figure A.24A). However, a much larger decline in progressivity occurred in the early 1950s, when the anti-communist crusade was in full swing. Progressivity then recovered somewhat in the later half of the decade with the fall of McCarthy. Similar patterns are observed with the ratio-based measure of net progressiveness (Figure A.25). The aggregate data thus hint at a chilling effect on film content.

To estimate the chilling effect more formally, we focus on the response of writers and directors, people who may have more influence over film content.³⁸ We divide non-accused writers and

³⁸We recognize that writers and directors do not have *complete* control over film content—any production would

directors based on the net progressiveness of their films between 1930-1949, the same variable used as a predictor in Section 3.2. Those with above-median scores were involved in more progressive films before 1950 and might thus be more afraid of attracting HUAC’s attention, despite not being accused themselves—they could scale back on progressive films. These form our treated group. In contrast, filmmakers with below-median scores may be less fearful and react less strongly, if at all. These serve as our control group. We then compare the content of films associated with our treated and control groups using an event study:

$$NetProgressiveness_{it} = \sum_{j=1930}^{1970} \beta_j^{chilling} Treated_i \times I_t^j + \theta_i + \theta_t + u_{it} \quad (4)$$

where the subscripts i and t denote a non-accused writer or director and the year, respectively. The outcome, *NetProgressiveness*, is the average net progressiveness of films associated with a person each year. The main explanatory variable is the interaction between an indicator for our treated group, *Treated*, and year dummies, I . Also included are individual and year fixed effects, the θ s.

Figure 5 presents evidence of a chilling effect.³⁹ Figures 5A and C trace the raw trends in net progressiveness, separately for the treated and control groups. The two groups had broadly similar trajectories before 1950, allaying concerns over their comparability. Around 1950, we see a drop in net progressiveness for the treated group, while the control group continues along its original path. Figures 5B and D then show the corresponding estimates from regression (4). For both writers and directors, the event study coefficients tend to hover around 0 before 1950 but turn negative and significant after 1950. That is, we find a scale back in progressive films as the anti-communist witch-hunt begins to take flight. This effect is persistent, lasting through the 1960s. To check if the dip in progressivity during WWII might have distorted our analysis, we re-run regression (4) but exclude all filmmakers who were involved in movies about war or patriotism between 1942-1944. Figure A.27 displays similar results, but with cleaner pretrends and sharper post-treatment effects. Our findings also hold when net progressiveness is measured by embedding on both major subjects and synopses, as Figure A.28 indicates. Finally, to rule out other potential confounders, Table A.10 presents a simple DD version of our analysis, controlling for individual pre-treatment characteristics interacted with a post-1950 indicator—we continue to observe a chilling effect.

How should we interpret the results in Figure 5? First, does the chilling effect reflect a fall in the *number* of films being made or a change in the *composition* of films? Figure A.29 estimates regression (4) with a different outcome: the number of films associated with a person each year—no differential trends are detected before or after 1950. Filmmakers were thus changing the composition of their work rather than reducing output. Second, are the effects driven by a fear of being attacked by anti-communist forces or a loss of more progressive partnerships as accused filmmakers are excluded from the industry? We think the latter is unlikely. Even after the anti-communist witch-

require the approval of studio heads, who might be keen to avoid controversy. Nevertheless, writers and directors still have some influence on film content. The plot, in particular, originates with the writer.

³⁹Figure A.26 provides the corresponding results with the ratio-based measure of film progressiveness.

hunt ended and accused personnel returned, the scale-back in progressive films persisted (Figure 5), suggesting that fear may have played a bigger role.

In summary, the anti-communist movement not only penalized the accused but also affected non-accused filmmakers—those previously involved in more progressive work scaled back on progressive films. Unlike the direct effect on the accused, the chilling effect on non-accused employees persisted long after the anti-communism hysteria, perhaps reflecting the scarring effect of years under a regime of fear.

6.2 Rest of Society

Did the decline in progressive films induced by the anti-communist crusade affect society more broadly? In particular, did it make Americans more conservative? As noted previously, movies had a wide reach at mid-century, attracting some 40 to 80 million attendees each week; changes in film content could thus shape the hearts and minds of a large segment of society. Such an effect, if any, may be stronger in areas that are more exposed to movies.

To carry out our analysis, we need a local measure of movie exposure that predates the anti-communist hysteria. However, no such measure is readily available. We thus digitize data on movie theater capacity from the 1940 *Film Daily Year Book*. *Film Daily* was a *de facto* census of US movie theaters published annually from 1918-1969. For each theater, *Film Daily* reports the theater name, location (town), and seat capacity. We collect these data for all movie theaters across the US in 1940, a total of 2,915 theaters. We then map the location of each theater to the corresponding county and define movie exposure as the number of movie theater seats per 1,000 residents in a county, standardized to have mean 0 and standard deviation 1. Figure 6 shows how movie exposure varies across the country—it is greater in the Midwest and lower in the South.

As a first stage, we check if higher movie *exposure* translates to higher movie *viewership*. Drawing on the 1950 Gallup survey, we find that a standard deviation increase in state-level movie exposure is associated with a 6-percentage-point rise in movie attendance (in the past week) and a 7-percentage-point jump in the odds of going to the movies at least twice a month (Table A.11). These magnitudes are large at around 17 to 18 percent of the respective outcome means.

Next, we use a county-level event study to investigate if changes in film content might have reshaped preferences in society:

$$Vote_{ct} = \sum_{j=1932}^{1972} \beta_j^{movies} MovieExp_c \times I_t^j + \sum_{j=1932}^{1972} X_c \times I_t^j + \theta_c + \delta_{st} + \epsilon_{ct} \quad (5)$$

where the subscripts c , s , and t denote the county, state, and Presidential election year, respectively. Our outcome, $Vote$, is the Republican vote share in a given Presidential election, which we use to proxy for conservatism.⁴⁰ The main explanatory variable is the interaction between movie

⁴⁰Is the conservative-liberal dichotomy between Republicans and Democrats as salient in the past as it is today? Figure A.30 plots the distribution of DW-NOMINATE scores (Lewis et al., 2024) for members of the 80th to 85th Congress, covering the period 1947-1959 when anti-communism was at its peak. We find that Republicans tended to

exposure in 1940, *MovieExp*, and a vector of election year dummies, I . Additionally, X controls for the socioeconomic and political characteristics of a county as well as exposure to other media types (radio, TV, and newspapers), primarily measured before the Hollywood Ten trials.⁴¹ We interact each of these controls with election year dummies to allow for differential effects by year. Also included are county and state-by-year fixed effects, θ and δ , to account for time invariant county characteristics and common shocks across counties in a given state. The β^{movies} coefficients then capture how the relation between movie exposure and Republican vote share has evolved over time. Because the aggregate decline in progressive films reflects both the emergence of anti-communist films (from 1947) and the chilling effect on filmmakers (from 1950), we select 1944 as the omitted year, the last Presidential election before 1947.

Figure 7 presents our event study estimates. Prior to the Hollywood Ten trials, voting patterns trended similarly in counties with more and less movie exposure. Thereafter, one observes a shift toward Republicans, coinciding with the initial decline in progressive films (Figure 4) and the rise in anti-communist films (Figure A.24B). This effect grew through the early 1950s as non-accused filmmakers scaled back on progressive work (Figure 5). At its peak in 1956, a standard deviation increase in movie exposure increased the Republican vote share by 0.578 percentage points. The effect then weakened after 1956 with the fall of McCarthyism. Our results suggest that the change in film content made society more conservative. We observe this rise in conservatism both within and outside the South (Figures A.31A and B), albeit to a greater extent in the former. For robustness, we also consider the number of movie theaters per 1,000 residents as an alternative measure of movie exposure—similar conclusions can be reached (Figure A.31C).

Do the voting effects reflect the influence of the anti-communist witch-hunt or the Cold War more generally? Put differently, if not for the anti-communist crusade, would the Cold War alone have the same impact on American society? To shed light on this, we hone in on movies with “communism” or “communists” as their major subjects, drawing on the AFI database. We characterize these films along two dimensions based on how communism is portrayed: attitude and orientation. In terms of attitude, communism can either be portrayed negatively (anti-communist), positively (pro-communist), or in more neutral tones. In terms of orientation, communism may be portrayed as *internal*, where the movie centers on domestic communism or the communist threat within the US; or *external*, where the film deals with international communism or the communist threat from outside the US. A pair of research assistants (RAs) were tasked with labeling these dimensions for each film independently, based on the film synopsis. We kept the labels when the RAs agreed; when they disagreed, we provided the synopsis to ChatGPT to help us determine the appropriate label. Figure A.24B traces the trend in films with negative and neutral depictions of communism (no

be more conservative than Democrats even during the McCarthy era.

⁴¹The full set of controls, mostly measured in 1940, includes: total population, percent urban, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent unemployed, percent owner occupied dwellings, log median value of owner occupied dwellings, average past Republican vote shares and voter turnout in Presidential elections (1928-1936), percent of households with radio, percent of households with TV (1950), and newspaper circulation. These data come from Clubb et al. (2006), Gentzkow and Shapiro (2008), Gentzkow et al. (2014), and Haines (2010).

films were found to be pro-communist), while Figure A.24C does the same for films on internal and external communism. The double stratification allows us to categorize each film on communism in any combination of attitude (anti-, pro-, or neutral) and orientation (internal or external). We then re-run regression (4) but now interact movie exposure with the number or share of films in a given category. Because McCarthyism propagated a negative view of communism in America, we would expect anti-communist films on internal communism to have the strongest association with Republican vote share if our electoral results are indeed driven by the anti-communist witch-hunt.

Table 4 reveals which films matter. As a sanity check, we first show that the prevalence of films on communism (all types) is associated with higher Republican vote shares (column 1). This is driven more by anti- rather than neutral portrayals of communism (column 2), and by internal rather than external communism (column 3). Anti-communist films also matter more when they are about internal communism (column 4), while neutral films do not seem to matter regardless of the orientation of communism being depicted (column 5). These patterns suggest that the voting effects in Figure 7 stem from the anti-communist witch-hunt rather than the broader Cold War.

A remaining concern is whether the relation between movie exposure and Republican vote share is driven by changes in film content or by newsreels that were sometimes played before films in movie theaters. If cinema newsreels covered WWII or the Cold War, they could subtly alter societal preferences in favour of Presidential candidates with military backgrounds. This is particularly salient for the 1948-1956 elections where the winners (Harry S. Truman and Dwight D. Eisenhower) were war veterans while their competitors (Thomas E. Dewey and Adlai Stevenson II) were not. We propose three reasons why newsreels are not the main driver. First, the practice of showing cinema newsreels had diminished significantly with the proliferation of TV in the 1950s (Fielding, 2006). Second, if newsreels mattered, we should expect to see a similar pattern from exposure to TV, which became an increasingly important source of news. Figure A.32 shows the TV-exposure-year interactions that were part of the controls in regression (4)—areas more exposed to TV do not exhibit an increase in Republican vote shares; in fact, the coefficients are in the opposite direction. Third, had cinema newsreels been the underlying mechanism, we would predict similar effects across movie types. Yet the exercise in Table 4 indicates that the impact on Republican vote share is specific to certain films.

To summarize, as film progressivity declined, we find a distinct shift toward conservatism in places that were more exposed to movies. By influencing the content of films, the anti-communist witch-hunt was thus able to shape political preferences in America.

7 Conclusion

Demagogues have existed throughout history, yet empirical evidence on their impact remains limited. This paper assembles a unique collection of novel data to study the effects of a far-reaching episode of demagoguery in Cold War America: the anti-communist witch-hunt in Hollywood. From the late 1940s through 1950s, hundreds of people in the entertainment industry were accused of

having communist ties or sympathies. These accusations were not random but systematic, targeting prominent and progressive personalities with dissenting views. Actors and screenwriters who were accused suffered a setback in their careers that lasted for a decade or longer. Beyond the accused, the anti-communist hysteria also had a chilling effect on film content and freedom of expression, as non-accused filmmakers avoided progressive topics. The decline in progressive films, in turn, made society more conservative.

Our paper provides the first empirical evidence of how demagoguery can affect civil liberties and democratic norms. McCarthyism not only jeopardized individual careers but also stifled dissent and freedom of thought, reshaping political preferences in society. While set during the Cold War, our findings offer more general insights on the substantial influence that demagogues wield and the vulnerabilities of the public to that influence.

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Figures and Tables

Table 1: Determinants of Being Accused

	Actors (1)	Writers (2)	Directors (3)
Demographics			
Female	0.000 (0.001)	0.002 (0.014)	0.008 (0.012)
Jew	0.002 (0.003)	0.013 (0.017)	0.006 (0.010)
Career Profile			
Experience	0.001*** (0.000)	0.000 (0.001)	-0.001* (0.000)
Productivity	-0.001 (0.000)	-0.004 (0.005)	0.000 (0.001)
Received Academy Awards nominations	0.037** (0.016)	0.010 (0.020)	0.032 (0.034)
Progressiveness			
Net progressiveness of films	0.012* (0.007)	0.295** (0.145)	0.103 (0.124)
Past Activities			
Participated in activities opposing HUAC	0.271*** (0.027)	0.327*** (0.039)	0.278*** (0.067)
Outcome mean	0.004	0.044	0.011
Outcome SD	0.060	0.206	0.104
Adj R-squared	0.187	0.175	0.181
N	30,665	2,049	1,831

Notes - Data are from the AFI database and the Academy Awards database. The sample comprises actors (column 1), writers (column 2), or directors (column 3) with at least one film title between 1930-1949. Each column shows the coefficients from a regression of an indicator for those who were accused (from around 1950 onward) on the set of characteristics in the leftmost column (measured between 1930-1949). Robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 2: Accused Actors versus Costars, Balance Test

Baseline characteristics	Full Sample			Matched Sample		
	Accused (1)	Costars (2)	Difference (3)	Accused (4)	Costars (5)	Difference (6)
Age in 1950	41.9	43.7	-1.85** (0.790)	41.5	41.6	-0.105 (0.833)
Male	0.683	0.596	0.087** (0.043)	0.672	0.662	0.010 (0.048)
No. of titles before 1950	10.7	19.7	-8.98*** (1.38)	10.7	11.4	-0.649 (1.51)
Titles entirely in movies before 1950	0.476	0.625	-0.149*** (0.046)	0.496	0.494	0.002 (0.052)
Nominated for Academy Awards before 1950	0.119	0.079	0.040 (0.030)	0.092	0.100	-0.008 (0.034)
Held other creative roles before 1950	0.135	0.069	0.065** (0.031)	0.109	0.108	0.001 (0.036)
N	126	1,757	1,883	119	953	1,072

Notes - Data are from IMDb and the Academy Awards database. The table compares the baseline characteristics of accused actors against their costars. Columns 1 and 4 show the average characteristics of accused actors; columns 2 and 5 give the corresponding averages for costars; while columns 3 and 6 present the respective differences between accused actors and costars. The matched sample comprises accused actors and costars who can be matched using coarsened exact matching, based on the characteristics in the leftmost column (replacing age in 1950 with birth cohort). These characteristics are measured between 1930-1949. Other creative roles refer to the following positions: writer, director, or producer. Robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 3: Average Impact of Being Accused

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Accused x Post-1950	-0.888*** (0.285)	-0.893*** (0.283)	-0.892*** (0.283)	-0.887*** (0.280)	-0.887*** (0.279)	-0.886*** (0.279)	0.159 (0.339)
Accused x Post-1950 x Year							-0.348*** (0.108)
<i>Baseline characteristics x Post-1950</i>							
Cohort		Y	Y	Y	Y	Y	Y
No. of titles			Y	Y	Y	Y	Y
Titles entirely in movies				Y	Y	Y	Y
Nominated for Academy Awards					Y	Y	Y
Held other creative roles						Y	Y
Outcome mean	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Outcome SD	2.90	2.90	2.90	2.90	2.90	2.90	2.90
Adj R-squared	0.216	0.220	0.220	0.227	0.228	0.228	0.229
N	26,800	26,800	26,800	26,800	26,800	26,800	26,800

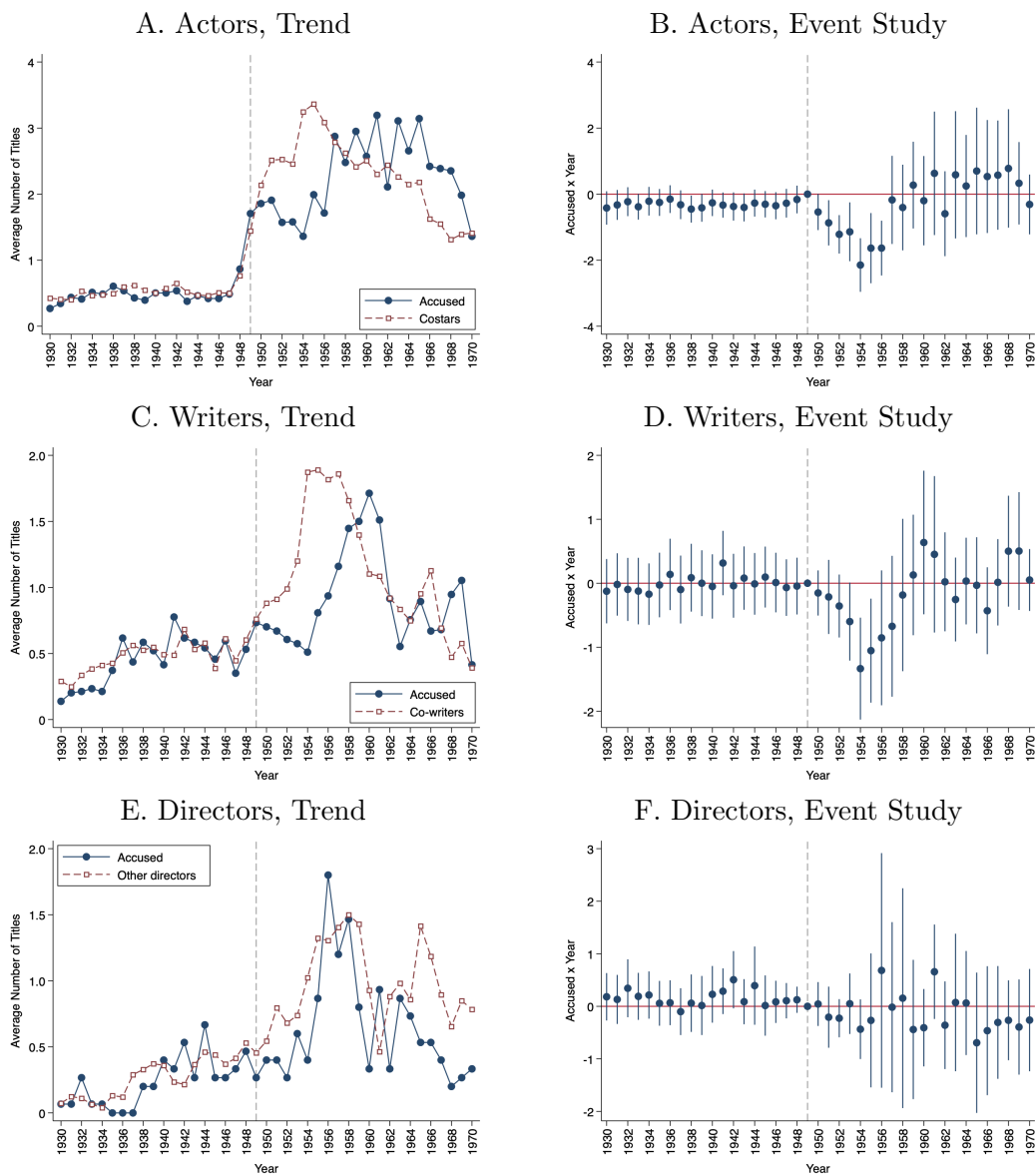
Notes - Data are from IMDb and the Academy Awards database. The sample is restricted to actors who were accused and comparable costars, matched using coarsened exact matching. The period is restricted to 1930-1954. Columns 1-6: Each cell shows the interaction coefficient from a regression of the number of titles associated with an actor on an indicator for being accused interacted with an indicator for the period from 1950, controlling for individual and year fixed effects. Columns 2-6 further control for interactions between the baseline characteristics used for matching and the post-1950 indicator. Column 7 follows column 6 but adds a triple interaction between the indicator for being accused, the post-1950 indicator, and the year. Standard errors clustered at the individual level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 4: Impact of Movie Exposure on Republican Vote Share, by Film Type

	(1)	(2)	(3)	(4)	(5)
Panel A: Percent of Films (%)					
Movie exposure x % Communism	0.252** (0.104)				
Movie exposure x % Anti-communism		0.262*** (0.102)			
Movie exposure x % Neutral communism		-0.131 (0.527)			
Movie exposure x % Internal communism			0.509** (0.233)		
Movie exposure x % External communism			0.172* (0.088)		
Movie exposure x % Anti-internal communism				0.556** (0.236)	
Movie exposure x % Anti-external communism				0.171* (0.094)	
Movie exposure x % Neutral-internal communism					-0.325 (1.09)
Movie exposure x % Neutral-external communism					0.177 (0.966)
Adj R-squared	0.944	0.944	0.944	0.944	0.944
N	32,697	32,697	32,697	32,697	32,697
Panel B: Number of Films (#)					
Movie exposure x # Communism	0.022*** (0.007)				
Movie exposure x # Non-communism	0.000 (0.000)				
Movie exposure x # Anti-communism		0.025*** (0.008)			
Movie exposure x # Neutral communism		0.021 (0.071)			
Movie exposure x # Internal communism			0.030*** (0.013)		
Movie exposure x # External communism			0.023** (0.008)		
Movie exposure x # Anti-internal communism				0.029** (0.013)	
Movie exposure x # Anti-external communism				0.023*** (0.009)	
Movie exposure x # Neutral-internal communism					0.001 (0.194)
Movie exposure x # Neutral-external communism					-0.036 (0.082)
Adj R-squared	0.944	0.944	0.944	0.944	0.944
N	32,697	32,697	32,697	32,697	32,697

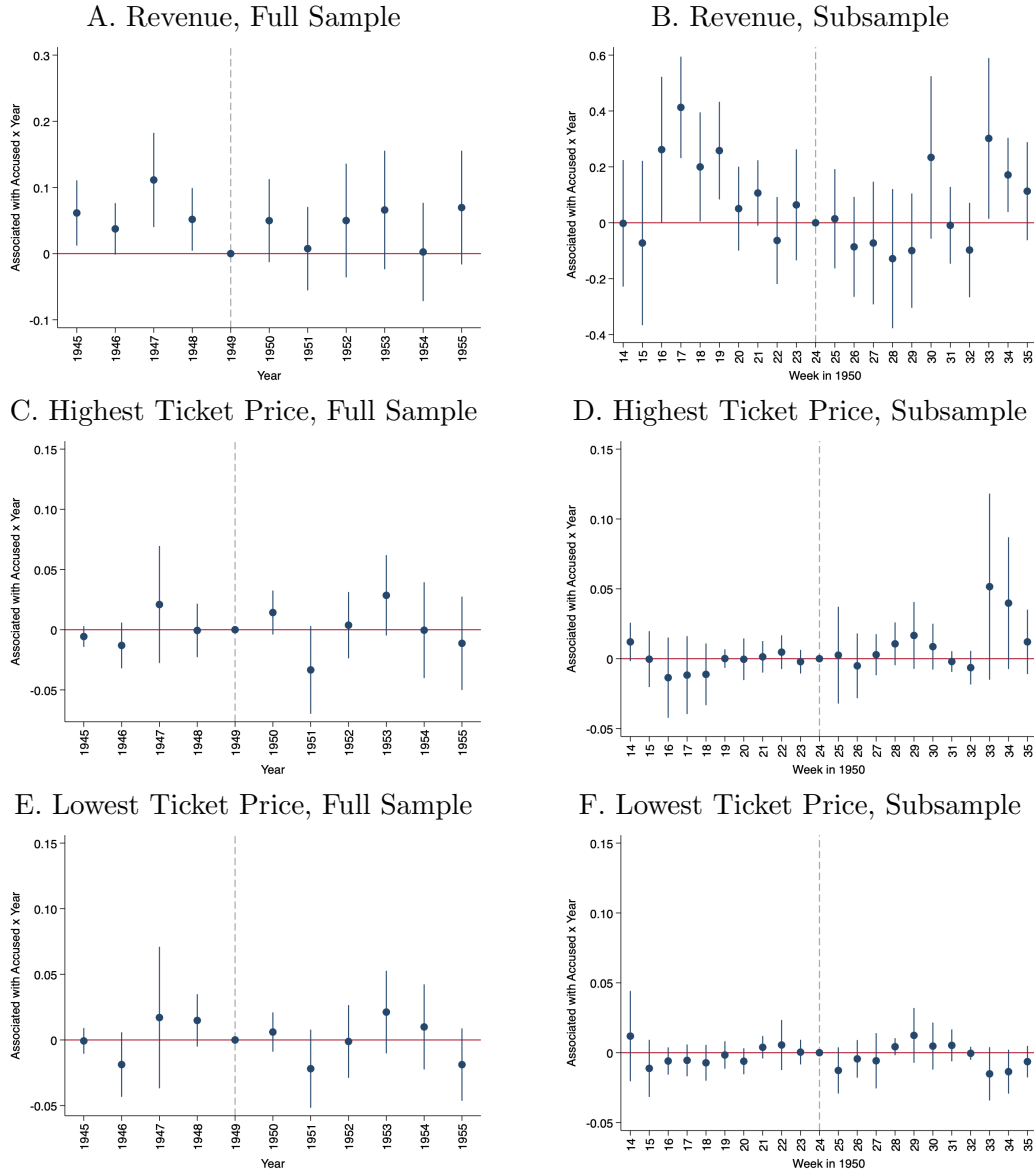
Notes - Data are from the 1940 *Film Daily Year Book*, [Clubb et al. \(2006\)](#), [Gentzkow and Shapiro \(2008\)](#), [Gentzkow et al. \(2014\)](#), and [Haines \(2010\)](#). The period is restricted to the Presidential election years from 1932-1972. Each column shows the interaction coefficient(s) from a regression of the Republican vote share in a given Presidential election on a measure of movie exposure (movie theater seats per 1,000 residents) interacted with measures of films on communism in each attitude (anti- versus neutral) and orientation (internal versus external) combination, where the film measure is either the percent of all films in a given year (Panel A) or the number of films (Panel B). Films on internal communism center on domestic communism and the communist threat within the US; films on external communism focus on international communism and the communist threat from outside the US. Each regression includes county and state-by-year fixed effects, as well as interactions between year dummies and the following county characteristics (mostly measured in 1940): total population, percent urban, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent unemployed, percent owner occupied dwellings, log median value of owner occupied dwellings, average past Republican vote shares and voter turnout in Presidential elections (1928-1936), percent of households with radio, percent of households with TV (1950), and log newspaper circulation per 1,000 residents. Standard errors clustered at the state level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Figure 1: Impact of Being Accused



Notes - Data are from IMDb. The sample is restricted to those who were accused and comparable costars (A and B), co-writers (C and D), or non-accused directors (E and F), matched using coarsened exact matching. The period is restricted to 1930-1970. A, C, and E: Each figure shows the average number of titles associated with an individual in a given year, separately for the accused and the corresponding control group. B, D, and F: Each figure shows the interaction coefficients from a regression of the number of titles associated with an individual on an indicator for being accused interacted with a set of year dummies, controlling for individual and year fixed effects. The omitted year is 1949. 95 percent confidence bands are displayed, based on standard errors clustered at the individual level. The sample sizes are 43,952 (A and B), 18,573 (C and D), and 6,765 (E and F) person-year observations.

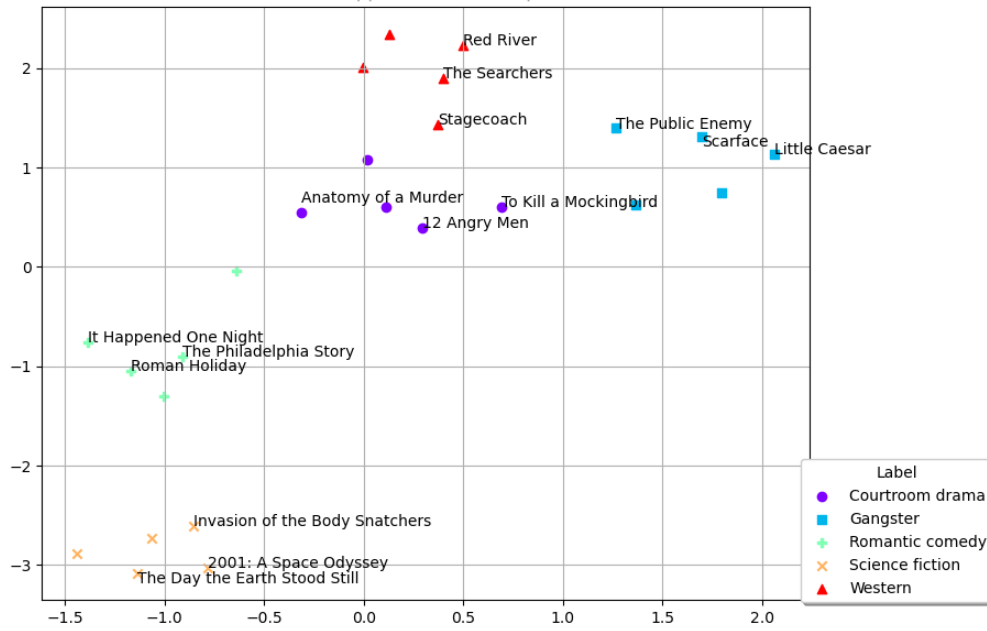
Figure 2: Impact of Accusations on Film Performance



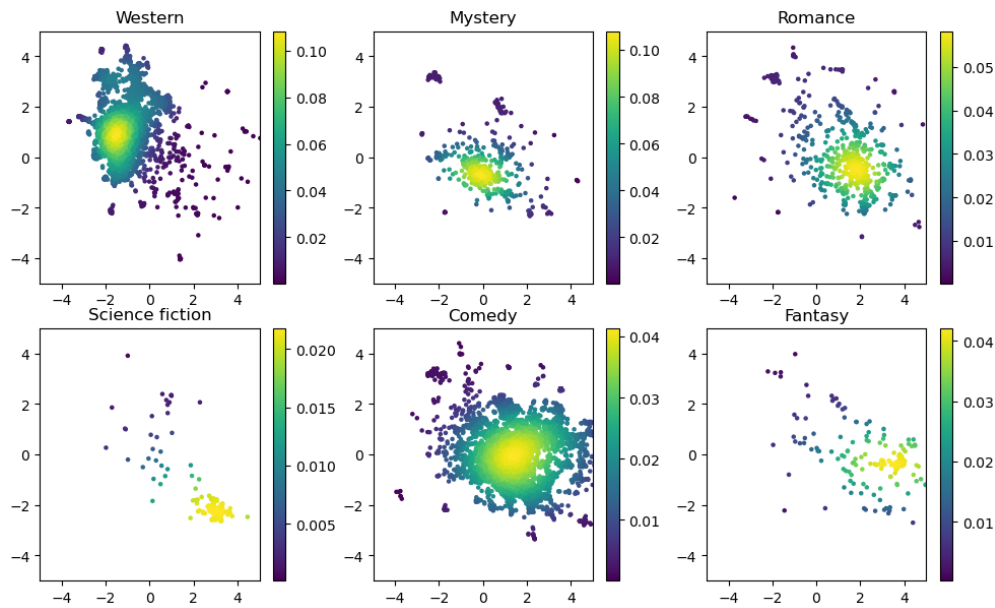
Notes - Data are from [Gil and Marion \(2022\)](#). The full sample comprises films released between 1945-1955 (A, C, and E), while the subsample looks at films released in the 5 months of 1950 (April to August) around the publication of *Red Channels* (22 June 1950) that were either associated with persons named in *Red Channels* or were not associated with any accused (B, D, and F). Each figure shows the interaction coefficients from a regression of the log weekly film revenue (A and B) or log ticket price (C-F) on an indicator for films that were associated with accused persons (actors, writers, directors, or producers) interacted with year (A, C, and E) or week (B, D, and F) dummies, controlling for theater and year (A, C, and E) or week 24 in 1950 (B, D, and F) fixed effects. The omitted period is 1949 (A, C, and E) or week 24 in 1950 (B, D, and F), the latter of which is the week of 14 June 1950, the week before *Red Channels* was published. 95 percent confidence bands are displayed, based on standard errors clustered at the film level. The sample sizes are 66,679 (A, C, and E) and 2,139 (B, D, and F) film-theater-week observations.

Figure 3: Proof of Concept: Word Embedding

A. Subset of Films Across Genres

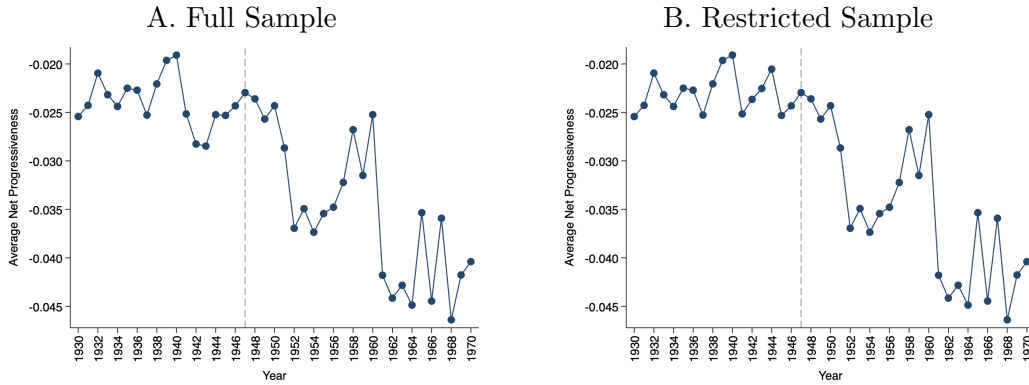


B. Full Set of Films by Genre



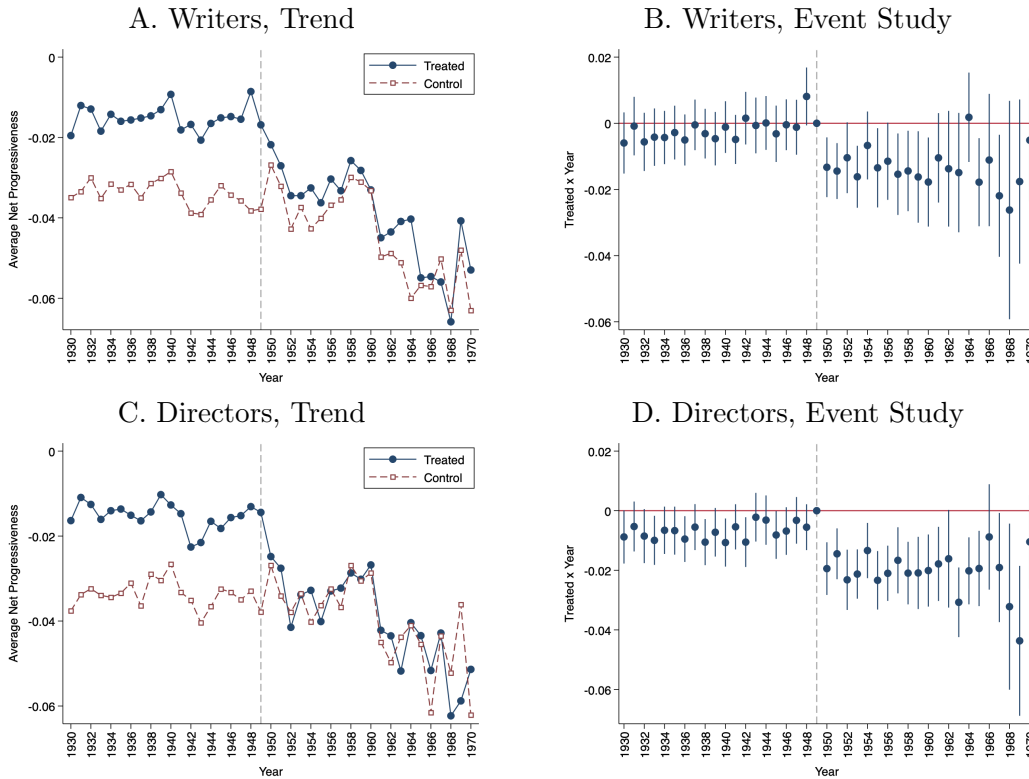
Notes - Data are from the AFI database. A: The figure shows the 2-D embedding of 25 movies from the AFI's Top 10 list that were primarily released from the 1930s to 1970s and that represent five classic genres—western, gangster, courtroom drama, romantic comedy, and scientific fiction. Word embedding is performed on the major subjects of these films. The dimensionality of the embedding space is reduced with Uniform Manifold Approximation and Projection (UMAP). Films of the same genre tend to be closer together. B: The figure provides the corresponding 2-D plots for all movies, by genre. Lighter shades indicate a higher density of films. Films of the same genre tend to be clustered in similar spaces.

Figure 4: Net Progressiveness of Films



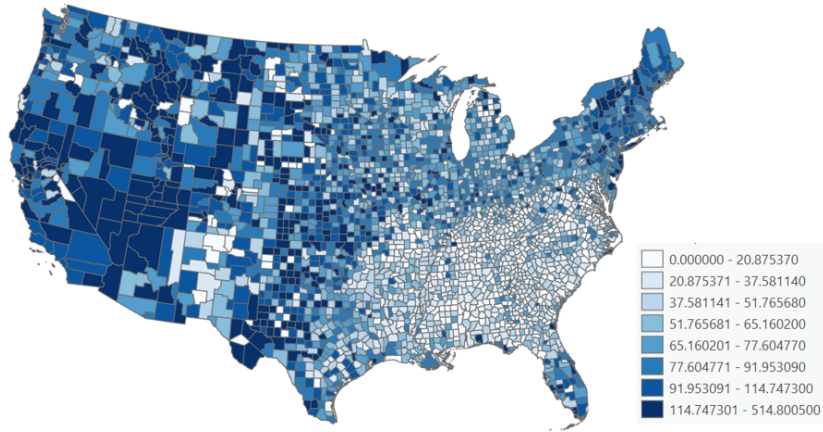
Notes - Each figure shows the average net progressiveness of American films by year. B excludes films between 1942-1944 that had war- or patriotism-related subjects. The vertical line demarcates the year 1947, when progressivity begins to decline steadily.

Figure 5: Chilling Effect on Film Content



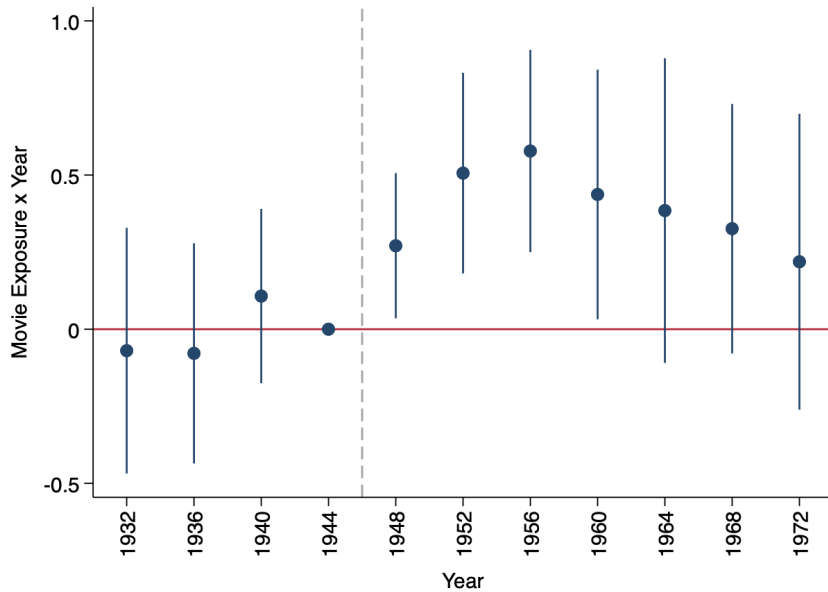
Notes - Data are from the AFI database. The sample is restricted to non-accused writers (A and B) and directors (C and D). The period is restricted to 1930-1970. A and C: Each figure shows the average net progressiveness of films associated with an individual each year, separately for those with above- (treated) and below-median (control) net progressiveness before 1950. B and D: Each figure shows the interaction coefficients from a regression of the net progressiveness of films associated with an individual in a given year on an indicator for having an above-median net progressiveness score before 1950 (treated) interacted with a set of year dummies, controlling for individual and year fixed effects. The omitted year is 1949. 95 percent confidence bands are displayed, based on standard errors clustered at the individual level. The sample sizes are 11,962 (A and B) and 11,465 (C and D) person-year observations.

Figure 6: Movie Exposure in 1940



Notes - Data are from the 1940 *Film Daily Year Book*. The figure shows the number of movie theater seats per 1,000 residents in each county.

Figure 7: Impact of Movie Exposure on Republican Vote Share



Notes - Data are from the 1940 *Film Daily Year Book*, [Clubb et al. \(2006\)](#), [Gentzkow and Shapiro \(2008\)](#), [Gentzkow et al. \(2014\)](#), and [Haines \(2010\)](#). The period is restricted to the Presidential elections from 1932-1972. The figure shows the interaction coefficients from a regression of the Republican vote share in a given Presidential election on a measure of movie exposure (movie theater seats per 1,000 residents) interacted with year dummies. The regression includes county and state-by-year fixed effects as well as interactions between year dummies and the following county characteristics (mostly measured in 1940): total population, percent urban, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent unemployed, percent owner occupied dwellings, log median value of owner occupied dwellings, average past Republican vote shares and voter turnout in Presidential elections (1928-1936), percent of households with radio, percent of households with TV (1950), and log newspaper circulation per 1,000 residents. The omitted election year is 1944. 95 percent confidence bands are displayed, based on standard errors clustered at the state level. The sample size is 33,998 county-year observations.