Application: REStat Fellowship for NBER Summer Institute

Name: Hui Ren Tan
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University: National University of Singapore
Date of PhD: May, 2019
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Current research activity:
My research lies at the intersection of labor economics and economic history. I am currently working on three projects. The first seeks to understand why the geography of intergenerational mobility has shifted over time in the US, though the lens of migration. The second attempts to explore the impact of McCarthyism on the labor market outcomes of actors and writers in Hollywood, along with the broader impact McCarthyism had on film content and voting patterns. The third investigates whether the dramatic rise in sexual content on-screen in the US contributed to changes in people's sexual activity.

Perspective to contribute:
Existing work has documented what the geography of intergenerational mobility looks like in the US, both in the early and late 20th centuries. Historically, international mobility was higher along the coasts; today, it is higher in the Midwest. The puzzle that remains is why this change occurred. I hope my work connecting this geographic shift to migration can contribute to the research community's understanding of this dramatic change in American society.

Hope:
I have three hopes. First, I hope to learn about the wide span of work others are doing in the applied micro field. Second, I hope to be able to build connections with other researchers. Third, I hope to gain some feedback on my work through my conversations with other researchers.

Sessions of interest:
Children and family, Labor studies

Hui Ren Tan

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EMPLOYMENT

Assistant Professor, National University of Singapore — 2019 - Present

EDUCATION

Boston University

Ph.D. in Economics, 2014 - 2019

RESEARCH FIELDS

Labor Economics, Economic History

PUBLICATIONS

"How the Other Half Died: Immigration and Mortality in US Cities"

(Joint with Philipp Ager, James J. Feigenbaum, and Casper Worm Hansen)

Review of Economic Studies, 2024, 91(1): 1-44

"A Different Land of Opportunity: The Geography of Intergenerational Mobility in the Early Twentieth-Century United States"

Journal of Labor Economics, 2023, 41(1): 77-102

"Black and White Names: Evolution and Determinants"

Journal of Economic History, 2022, 82(4): 959-1002

"How Widespread are Social Network Effects? Evidence from the Early Twentieth-Century US"

Journal of Labor Economics, 2022, 40(1): 187-237

"The Return to Education in the Mid-Twentieth Century: Evidence from Twins"

(Joint with James J. Feigenbaum)

Journal of Economic History, 2020, 80(4): 1101-1142

"Did Military Service During WWI Affect the Economic Status of American Veterans?"

Explorations in Economic History, 2020, 75

"More is Less? The Impact of Family Size on Education Outcomes in the United States, 1850-1940"

Journal of Human Resources, 2019, 54(4): 1154-1181

Co-winner of the 2016 IPUMS USA Research Award, Minnesota Population Center

WORKING PAPERS

"McCarthyism, Media, and Political Repression: Evidence from Hollywood"

(Joint with Tianyi Wang)

"After Amazing Grace: Britain's Campaign to End the Slave Trade"

(Joint with Yijie Gwee)

Conditionally Accepted, **Explorations in Economic History**

Fellowships & Grants

FASS Writing Fellowship	2024
HSS Faculty Research Fellowship	2023
Inauguration Grant, National University of Singapore	2019
Startup Grant, National University of Singapore	2019 - 2024
Sokoloff Dissertation Fellowship, Economic History Association	2018 - 2019
Henry S. Newman Graduate Student Fellowship, Boston University	2017 - 2018
Summer Research Grant, Department of Economics, Boston University	2016, 2017, 2018
Dean's Fellowship, Boston University	2014 - 2015

Presentations

2025 (including scheduled)

George Mason University, Economic History Association Annual Meeting

2024

Stanford Economic History Seminar, Vanderbilt Economic History Seminar, Copenhagen Economic History Seminar, St. Gallen Research Seminar, Linnaeus Seminar

2023

Harvard Economic History Seminar, Northwestern Economic History Lunch Seminar, Mannheim Research Seminar in Economic History, Pittsburgh Applied Microeconomics Seminar, Warwick Economic History Seminar, NUS SIG, Peking Economic History Seminar, Lund Economic History Seminar, ASREC Conference, Mountain West Economic History Conference

2022

UC Davis Micro Economic History Conference, Economic History Association Annual Meeting, Northeast Labor Symposium for Early Career Economists

2020

NUS SIG

2019

Asian and Australian Society of Labor Economics Conference, Economic History Association Annual Meeting, Northwestern Seminar in Economic History, Stanford Economic History Seminar

Teaching

National University of Singapore, Department of Economics

Graduate Labor Economics (Fall 2019, 2020, 2021, 2022)

Immigration Economics (Fall 2019, 2020, 2021, 2022, 2023, Spring 2025)

Service

National University of Singapore, Department of Economics

Honors Thesis Coordinator (Fall 2022 - Present)

Research Committee Member (Fall 2020 - Spring 2022)

Graduate Program Committee Member (Fall 2019 - Spring 2020)

Professional Activities	Referee *American Economic Review, Journal of Political Economy, American Economic Journal: Applied Economics, Economic Journal, Journal of Labor Economics, Journal of Human Resources, Journal of Economic History, Explorations in Economic History, Journal of Urban Economics, Economic Inquiry, Social Science History, Singapore Economic Review*
Computer Skills	Stata, R, ArcGIS, LaTeX

NBER WORKING PAPER SERIES

MCCARTHYISM, MEDIA, AND POLITICAL REPRESSION: EVIDENCE FROM HOLLYWOOD

Hui Ren Tan
Tianyi Wang

Working Paper 32682
http://www.nber.org/papers/w32682

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
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McCarthyism, Media, and Political Repression: Evidence from Hollywood
Hui Ren Tan and Tianyi Wang
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ABSTRACT

Demagogues have existed throughout history, yet their impact on individuals and society remains little understood. 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. Hollywood was a prime target, with hundreds of professionals in the industry being accused of having communist ties or sympathies. To study the Red Scare in Hollywood, we assemble a unique collection of data on individual and film characteristics, spanning the period 1930-1970. We show that the anti-communist accusations targeted progressive personalities with dissenting views. Implementing a difference-in-differences design, we find that accused actors and screenwriters experienced a significant setback in their careers that lasted a decade or more. Beyond the effects on the accused, we also document a decline in progressive films during the McCarthy era. We provide suggestive evidence that this shift in film content made society more conservative, using newly-digitized data on movie theaters across US counties. Areas with greater movie exposure saw increased Republican support in presidential elections after the onset of the Hollywood Red Scare. Our results highlight how demagoguery can suppress civil liberties and reshape political preferences in society.

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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 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." In more recent years, the democratic backsliding witnessed across various democracies has only heightened such concerns. Despite its long-standing presence in democracies, there is little empirical evidence of how demagoguery affects individuals and 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. About 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). For decades, scholars from across the social sciences have written about this historical episode. However, the difficulty of systematically identifying individuals who were targeted and tracing their outcomes over time has limited empirical work on this front.

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. 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 anti-communist crusade in Hollywood. We do this by answering four questions. First, who were the people being accused of having communist ties and sympathies? Second, what was the impact of being accused? Third, how did the content of American films change during the anti-communist movement? Fourth, did the shift in film content affect society more broadly?

In the first part of the paper, we examine the determinants of being accused—were the anti-

communist accusations arbitrary or systematically targeted? To shed light on this, we collect novel data 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, importantly, whether a person was accused during the anti-communist crusade. In addition, we combine 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. 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 targeted more prominent and progressive personalities who had dissenting views.

The next part of our paper investigates the impact of being accused. As the accusations had no legal sanctions attached and could simply be ignored, it is unclear how the accused might be affected. 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 find that the two groups followed 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 significant decline comparable to the sample mean. This setback lasted several years through the 1950s, only fading with the demise of McCarthy. For female actors and those who did not cooperate with HUAC, the effects persisted even longer. Importantly, we show that our results are not compromised by general equilibrium effects on past costars, the control group. Like actors, accused writers were also adversely affected. Our estimates for directors, however, are imprecise, possibly because few of them were accused.

What explains the negative accusation effects? We explore this through the lens of customer and employer discrimination—was it viewers having a distaste for the accused and avoiding titles associated with them, studios distancing themselves from accused persons for fear of backlash, or both? To determine if there was a genuine popular boycott by viewers, we check if films associated with the accused have poorer box office showings post-accusations, using weekly box office data for theaters in large US cities. Because studios might strategically choose whom to include in a film to avoid controversy, we focus on films released just around the time of the accusations, minimizing opportunities for studios to respond. 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. Qualitative evidence, on the other hand, points toward employer discrimination, one driven by a fear of backlash.

Beyond the effects on the accused, was there also a change in film content during the Hollywood Red Scare? Amidst the anti-communist hysteria, contemporary observers noted a fall in the production of social problem films (Cogley, 1956a), a popular genre that often dealt with societal

issues like racism, workers' rights, and economic inequality from a progressive standpoint. Progressive films were deemed controversial during the Red Scare and were targeted by HUAC. Systematic measures of political sentiment in films, however, are not readily available, making it difficult to study the evolution in film content. To make progress, we propose a novel approach based on machine learning to quantify the progressiveness of films. We collect data on film content and combine it with word embedding, a Natural Language Processing (NLP) method that represents text as vectors to compare their similarity (Boeing et al., 2024; Di Tella et al., 2023; Kelly et al., 2021). With word embedding, we compare the similarity of each film to a set of known progressive and conservative films separately, based on their content. The difference between the two similarity measures then gives us the net progressiveness of each film. Several exercises are provided to validate our measure. We document a sharp decline in film progressiveness during the 1950s, when the anti-communist movement gained momentum. This pattern is robust to using alternative types of film content (subjects or synopses) and different ways of measuring net progressiveness. Hollywood productions were thus becoming more conservative.

The final part of our paper asks whether the decline in progressive films could, in turn, affect society more broadly. Hollywood films were immensely popular at the time, with 40 to 80 million people going to the movies each week (US Bureau of the Census, 1975). Given the wide reach of movies, any change in their content could potentially influence the hearts and minds of a large segment of society. To investigate the political implications of movies, we digitize new data on movie theaters across the country in 1940. Following Ang (2023), we construct a county-level measure of movie exposure based on the number of theaters per 1,000 residents. We then explore how movie exposure affects voting outcomes. Our analysis covers the 1932-1960 presidential elections, allowing us to capture the peak years of the Red Scare while avoiding any complications from later events, such as the political realignment of the South (Kuziemko and Washington, 2018).

Adopting a difference-in-differences approach, we find that a 1 standard deviation increase in movie exposure raised the Republican vote share by around 0.5 percentage points during the anti-communist crusade. Our regression controls for county and state-by-year fixed effects, as well as a rich set of preexisting county socioeconomic and political characteristics (including alternative media exposure) interacted with year dummies. Applying Oster's (2017) inference procedure, we calculate that any unobserved confounders must be more than 13 times as important as the observed controls to explain away our findings, a magnitude we think is unlikely. As a placebo test, we show that art film theaters, which specialized in foreign and independent films, had no effect on voting patterns. In another test, we examine Black movie theaters in the South, which screened many of the films in regular movie theaters but for Black audiences, who could not vote freely at the time—no effects on voting outcomes are observed.

To determine if the voting effects are linked to the rise in film conservativeness, we consider two exercises. First, we show that the impact on Republican support is smaller in places where preexisting attitudes were more left-leaning, consistent with the idea that left-leaning areas were more resistant to conservative film content. Second, we explore which types of films matter for vote

choices. Specifically, we distinguish between films about the *internal* threat of communism and films portraying the *external* threat of communism. The former are more in line with McCarthyism while the latter speak to the broader Cold War. We find that the effects on Republican vote share are primarily driven by internal rather than external communism films. This hints at a role for rising film conservativeness brought about by the anti-communist witch-hunt. As a whole, the evidence suggests that by influencing film content, the anti-communist movement may have shaped political preferences in America.

Our paper contributes to four strands of literature, among which are studies on political repression. Existing research has focused almost exclusively on more violent forms of repression in autocratic regimes, often examining their long-run consequences at the aggregate level. These include the Nazi persecution of Jews (Acemoglu et al., 2011; Becker et al., 2021; Waldinger, 2010, 2012), the Fascist rule in Italy (Acemoglu et al., 2022; Carillo, 2022), Stalin's terror in the USSR (Nikolova et al., 2022; Rozenas et al., 2017), 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). In contrast, we study political repression arising from demagoguery within a democracy. Our work provides some of the first empirical evidence of how demagoguery can ruin individual careers and suppress civil liberties.

This paper also relates to a large literature on McCarthyism. The significance of McCarthyism has drawn widespread attention from historians, sociologists, and political scientists through the decades (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). Yet much of this work remains qualitative, limited by the difficulty of systematically identifying the accused and tracking their outcomes. We overcome these limitations by assembling a unique dataset that allows us to quantify the impact of McCarthyism. Closely related to our study is Moser and Parsa (2022), who investigate the effects of McCarthyite persecutions on US scientists—they find a permanent reduction in scientists' productivity. In comparison, we examine the anti-communist witch-hunt in Hollywood. Given their immense popularity at mid-century, movies have the capacity to influence an even broader segment of society. We also look beyond the effects on accused individuals, developing a novel approach to measure the political sentiment of films and showing how film progressiveness evolved in the McCarthy era. We then provide the first evidence of how McCarthyism, by influencing film content, might have altered political preferences in America.

In addition, our paper ties in with the political economy of media. A 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; Djourelova 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 Pennec and Pons, 2023; Martin and Yurukoglu, 2017; Müller and Schwarz, 2023; Prat and Strömberg,

2013; Russo, 2024; Wang, 2021). Despite being a potent cultural force, movies have remained understudied, limiting our understanding of their impact. Recent work by Ang (2023) and Esposito et al. (2023) demonstrates how the movie *The 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, finding a role for traditional folklore, cultural narratives, and core values in society. We examine a crucial chapter in Hollywood history and American culture. Our study highlights how demagoguery can capture media in a democracy. We also provide the first empirical evidence of the persuasive effect Hollywood has on elections.

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.[1] Events both at home and abroad contributed to these fears. 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.[2]

[1] The First Red Scare happened in the early 20th century, spurred by the 1917 Russian Revolution and the 1919 anarchist bombings in America.

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

2.1 Key Figures

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, while speaking at Wheeling, West Virginia, he alleged 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).[3] This episode catapulted McCarthy to prominence. He was appointed chairman of the Senate Committee on Government Operations, which 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 prominent entity during the Second Red Scare was HUAC. Formed as a temporary committee of the House of Representatives in 1938, HUAC was later converted to a standing committee in 1945. Its first chairman, Martin Dies, was a conservative politician from Texas who opposed the New Deal. HUAC's stated purpose was to investigate un-American or subversive activities and propaganda (Dies, 1938). In practice, 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 criticism for its work—with a number of Klan members among its ranks, HUAC was espoused by several extremist groups but denounced as un-American by President Harry Truman. Soon, HUAC would come to Hollywood.

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 HUAC's questions—they were known as the Hollywood Nineteen.[4] The HUAC trials began on 20 October 1947, opening with testimonies from cooperative (friendly) witnesses like Walt Disney and Ronald Reagan, then President of the Screen Actors Guild. 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)

[3] The 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).

[4] The Hollywood Nineteen comprised: Herbert 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 10 of these would become the Hollywood Ten mentioned below.

witness would invoke the First Amendment to avoid answering questions on political affiliation, an investigator then listed the alleged Communist Party card number of the witness, after which HUAC cited the witness for contempt of Congress on the grounds of refusing to answer questions. These charges were upheld in the House of Representatives 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? HUAC suspended its hearings abruptly on 30 October 1947, without calling the remaining 9 unfriendly witnesses. This may have been a response to the public backlash HUAC had received for the way it conducted the trials. The apparent letup, however, was merely the calm before the storm.

Widespread accusations broke out in the early 1950s, with large numbers of people being accused of having communist ties or sympathies. The timing and scale of these accusations surprised many. 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* was a pamphlet listing the names of 151 alleged communists and communist sympathizers in the broadcast industry. With this information now made public, those named in *Red Channels* 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 individuals were subpoenaed, drawn from across the entertainment industry: motion picture, TV, radio, and even theater. To prove their innocence, 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. Given the high stakes, 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 Fall of McCarthyism

Amidst the ongoing accusations, the tide began to turn in 1954. The catalyst was a series of hearings involving the US Army and Senator Joseph McCarthy. The Army had accused McCarthy of trying to obtain 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. From February to June that year, the share of people with a favorable view of McCarthy fell from 39 to 32 percent.[5] Some 64 percent of the populace

[5]Authors' calculations from the February/March and June 1954 Gallup surveys. Besides the Army-McCarthy hearings, could other events explain the decline in McCarthy's popularity? Broadcast journalist Edward Murrow, for example, went on his TV program *See It Now* to criticize McCarthy on 9 March 1954—did this change people's perception of McCarthy? 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.

also felt that McCarthy had hurt himself by being in the hearings.[6] On 2 December 1954, the Senate voted to censure McCarthy for misconduct (Butler and Wolff, 1995). He died of alcoholism less than three 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 fortunes 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, with its functions being transferred to the House Judiciary Committee.

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 arbitrarily 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 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 that have been frequently cited by historians as 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

[6] Authors' calculation from the June 1954 Gallup survey.

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 facilitates 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.[7] Our final list comprises 130 actors, 119 writers, and 24 directors.[8] 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.

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

[8] We 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.

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. We compile these data from the AFI website. 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 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.[9]

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.[10] 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 gives the intuition on how we measure film progressiveness; Section 6 provides a more detailed description and several validation exercises. We measure film content using word embedding, a 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 compare the similarity of each movie

[9] More 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.

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

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. Differencing helps account for secular trends in the underlying data, such as changes in the number of subjects reported for each film over time. We then measure the progressiveness 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.[11]

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 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 differ, 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

[11] Patent 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.

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 association (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).[12]

To summarize, the anti-communist accusations were not arbitrary. 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.[13] 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. This section considers the effects on actors, writers, and directors.

[12] We 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 (Progressiveness + 1)/(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.

[13] It bears emphasizing that the Hollywood Ten were not jailed because of their alleged communist links, but because they refused to answer questions during the HUAC trials (contempt of Congress).

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; Aneja and Xu, 2022; Azoulay et al., 2019; Iacus et al., 2012; Voth and Xu, 2022). The characteristics we match on are: birth cohort, gender, number of titles, whether these titles were 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.

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

[14] To 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.

[15] While 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.

[16] The 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.

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:

$$Y_{it} = \sum_{j=1930}^{1970} \beta_j \; Accused_i \text{ x } I_t^j + \theta_i + \theta_t + \varepsilon_{it} \tag{2}$$

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 θs, to account for level differences across individuals and years. We use 1949 as the omitted year, just before the outbreak 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 βs before 1950 (pre-treatment period) would reinforce the validity of our control group. The βs 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 is not a mechanical artefact of the CEM approach, which matches on the *joint distribution* of predetermined characteristics rather than the *trend* in past outcomes. That there are no pretrends thus 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, this negative impact can be attributed to the anti-communist accusations. The 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.

A potential concern here is whether the post-1950 divergence might have arisen from differences in political attitudes between accused actors and their costars, an attribute we did not match on.

[17] What 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 Johnson led the Syracuse crusade from 1951, threatening to boycott the products of companies that sponsored programs featuring accused persons.

To address this, we construct an alternative matched sample where actors are further matched on whether they participated in any of the five activities opposing HUAC (Section 3.2.1). Expanding the set of matched characteristics this way allows us to compare artists with similar political leanings, but it also reduces our sample size, inducing more noise. Figure A.7 plots the corresponding event study estimates. We observe a similar narrative: accused actors suffer a setback in the early 1950s before recovering later in the decade.

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.8A 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-differences (DD) model, replacing the interaction year dummies with a post-1950 indicator. Given the fading 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.[18]

4.1.3 Interpretation

Thus far, we attributed the adverse effects in Figure 1B to the anti-communist accusations—this section provides three pieces of evidence that corroborate our interpretation.

First, we show that the negative impact on actors is a US-specific phenomenon. The anti-communist witch-hunt happened in America—there should thus be a greater impact on opportunities within the country than abroad, for those who were accused. Figures 2A and B redo the analysis but differentiate between US and foreign titles, based on the country of origin. As predicted, accused actors experience a large drop in US but not foreign titles.[19]

[18] Our results are robust to further controlling for whether an actor participated in any of the five activities opposing HUAC (Section 3.2.1), interacted with a post-1950 dummy.

[19] Anecdotally, accused stars like Larry Parks and Paul Robeson sought out opportunities overseas. That we find no *rise* in foreign titles (Figures 2B), however, suggests that the overseas engagements of accused celebrities did not compensate for their losses at home.

Second, we document how the *type* of accusation matters. Intuitively, if the loss in titles is driven by the anti-communist accusations, we should expect the effects to vary with the credibility and seriousness of the accusations. We thus separate actors whose names came up during the HUAC trials from those whose names appeared in other sources—the former may be viewed as state-affiliated accusations and the latter as non-state accusations. To the extent that state-affiliated accusations are deemed to be more credible and serious, greater weight would be attached to such claims, leading to more adverse consequences for the accused. Indeed, Figures 2C and D reveal a larger and longer-lasting setback for actors implicated in the HUAC trials.[20]

Third, we illustrate how the response of actors also makes a difference. If the setback experienced by actors is linked to the anti-communist accusations, admitting to these allegations and making amends might soften the blow of being accused. Historical accounts suggest that friendly witnesses who confessed to their alleged communist ties and cooperated with HUAC by naming names could subsequently be reemployed—influential figures in the Motion Picture Alliance and HUAC pressured studios to take these people in (Cogley, 1956b). Perhaps as a result, ex-communists and victims of rumours begged HUAC to let them testify and clear their names (Cogley, 1956b). To determine whether one's response mattered, we separate accused actors who were friendly witnesses during the HUAC trials from all other accused, the latter of which comprises accused who either refused to cooperate with HUAC or who were not called to give testimony. Figures 2E and F depict a smaller impact on friendly witnesses, one that is no longer significant after a year, consistent with historical narratives.

Together, the three exercises in this section point to the anti-communist accusations as the likely explanation for the adverse effects on actors, and not some other factor.

4.1.4 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.[21] 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.9 presents the results from an event study with non-costars as the control group.[22]

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

[21] Besides 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.

[22] We 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

While noisier, a negative impact on accused actors can still be detected in the 1950s. 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.10 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, when 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.9). 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 0.105 more titles a year, a small benefit compared with the average treatment effect (Table 3).[23] We conclude that any bias from positive general equilibrium effects is likely to be small.

4.1.5 Heterogeneity

Does the impact of being accused vary by title type or across different subsets of actors? Figures A.11 and A.12 investigate this.

We begin by exploring if the accusation effects differ between movie and TV titles. TV production exploded right after WWII, eclipsing movies in terms of sheer quantity (Figure A.13). Despite being a more recent phenomenon, appearing on TV was not necessarily inferior to starring in movies.[24] Actors in both movies and TV could potentially earn more than the rest of society (Figure A.15), particularly by 1960—losing roles in either medium would thus represent a sizable loss of income. We find that the negative accusation effects are almost entirely driven by a decline in TV titles (Figures A.11A and B). These patterns hold across major and minor studio productions (Figures A.11C-F) as well as state-affiliated and non-state accusations (Figures A.11G-J). The

pre-1950 appearances were solely as oneself.

[23] We 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).

[24] While some initially saw TV as 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 appearing on TV (Becker, 2005). In fact, both more and less productive stars became increasingly involved with TV over time (Figure A.14).

weak impact on movie titles could partly reflect the industry's decline in the 1950s amidst growing competition from TV, a development that would have limited movie opportunities for both accused and non-accused. Another reason for the contrasting effects on movie and TV titles is 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 titles by genre, documenting comparable losses in both drama (Figure A.11K) and comedy titles (Figure A.11L).

Finally we apply our event study to various subsamples (Figure A.12). Stratifying actors by gender (female or male), nativity (US- or foreign-born), cohort (born before or after 1912), and productivity (above- or below-median number of appearances before 1950), we continue to find a negative impact on each group. These effects are broadly comparable in magnitude after accounting for the respective baseline averages. However, females actors who were accused experienced a more persistent setback that lasted well into the 1960s.

In summary, the accusation effects are primarily driven by declines in TV appearances and are widely felt across different groups of actors.

4.1.6 Alternative Outcomes

Beyond a reduction in on-screen appearances, were there other effects on accused actors? Figure A.16 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.16A).

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.16B).

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 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 (Figure A.16C), a loss that 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).[25] 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 accusa-

[25] At 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.

tions.[26] We then compare the number of titles written by each group before and after 1950, using regression (2).[27] 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.8B)—we think the events of 1954-1957 involving Joseph McCarthy may better explain the convergence. As with actors, the negative impact on writers is primarily driven by a decline in TV titles (Figure A.17); accusation effects also tend to be stronger for writers who were named during the HUAC trials than those who were accused elsewhere (Figure A.18). 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.[28] 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

[26] The 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.

[27] Unlike 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."

[28] This 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.

significant in our event study (Figure 1F). We propose two reasons for the insignificance. 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 than TV, the latter of which was driving the results for actors and writers.[29]

5 Mechanisms

What explains the negative impact of being accused? As alluded to above, this is not simply a mechanical result as the accusations have no legal sanctions and can be ignored. To unpack the underlying mechanisms, we frame our discussion in terms of customer and 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.[30] To be clear, the two forms of discrimination are linked, as viewer preferences matter to studios. Instead of trying to separate them, our aim is much simpler: to examine whether there was a genuine popular boycott by customers and to explore the motivations of employers.

5.1 Customer Discrimination

Was there a popular boycott by viewers? Some of our earlier results suggested not. 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 been at play, viewers should have boycotted both types of titles so long as an accused was involved.

More formally, to test if there was a popular boycott, 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 such productions. We evaluate this hypothesis using Gil and Marion's (2022) movie theater data. Theirs 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 investigate the link between the accusations and film performance. A potential complication here is selection bias—in response to the accusations, studios could strategically decide

[29] About 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.

[30] In 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.

to reduce the roles of accused persons or select accused personnel that are less controversial, avoiding a loss in viewership and revenue. Films that are green-lit for production despite involving accused individuals may thus be a nonrandom sample, biasing our estimates toward a null effect. We address this by focusing on films released just around the time of the accusations, minimizing the window for studios to react.

In practice, we carry out our analysis in three steps. First, we compare movies associated with those named in *Red Channels* (actors, writers, directors, or producers) to movies without *any* accused (from all sources). We hone in on *Red Channels* as it provides a common treatment date for a sizable number of victims. This simplifies the setup and allows us to narrow the time horizon to weeks rather than years. The publication of *Red Channels* was also unexpected, further limiting anticipatory responses from studios. Second, we keep films that were released 6 weeks before and after the publication of *Red Channels* (22 June 1950). Production timelines were short during this period in history, averaging just 8 weeks.[31] Our narrow window thus ensures that films released *after Red Channels* would have already been in production even *before* the accusations. Third, we run the following event study:

$$Y_{fwl\tau} = \sum_{j=18}^{30} \beta_j^{theater} Associated_{fwl} \text{ x } I_\tau^j + \theta_w + \theta_\tau + e_{fwl\tau} \tag{3}$$

where the subscripts f, w, l, and τ denote a given film, theater, city, and week (in 1950), respectively.[32] 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, $Associated$, and a set of week dummies, I. Theater and week fixed effects are also included in the θ vectors, while standard errors are clustered at the film level.

Figure 3 presents our event study estimates. We find no indication that films associated with the accused performed worse after *Red Channels* was published, be it in terms of revenue (Figure 3A) or ticket price (Figures 3B and C). This suggests that there was no popular boycott, contradicting the prediction under customer discrimination. Put differently, audiences were not the ones directly driving the negative accusation effects.

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 spon-

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

[32] Our 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.

sored *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—there was no popular boycott.

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 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 feared their businesses would be adversely affected by

[33] Cited from Cogley (1956b).

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 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).

Can the reactions of studios be interpreted as a more traditional form of taste-based discrimination? Specifically, studios might already have had a distaste for communists and were looking to purge them from their ranks, with the accusations then serving as a convenient coordinating event. In effect, the accusations solved a collective action problem where studios may have wanted to fire communist employees but did not want to lose top talent to their competitors. We think this is unlikely. As late as October 1951, leaders of the American Legion were annoyed at the movie industry's indifference toward communism—to push the industry to action, the Legion had to publicly expose the communist associations of employees in the entertainment industry (Cogley, 1956a). This suggests that studios were not discriminating in the traditional sense of having an innate distaste for a group; more likely, they were discriminating out of a fear of backlash.

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 three reasons. First, our mortality and life expectancy analysis (Section 4.1.6) found no adverse impact on a person's health. Second, the accusation effects are US-specific (Section 4.1.3), whereas a loss of productivity would have affected both local and foreign titles. Third, anecdotal evidence offers little support. Jean Muir, whom we saw earlier, was dropped from *The Aldrich Family* because her name appeared in *Red Channels*, unrelated to health issues (Cogley, 1956b).

[34] Cited from 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 4.1.3 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.

To conclude our discussion on mechanisms, we consider a simple framework. HUAC's investigations into Hollywood, the response of studios, and the negative impact on accused persons can be understood through the lens of outsourced repression (Ong, 2022), where a state mobilizes non-state entities to pursue its objectives. In our setting, HUAC is the state and studios are the non-state entities. Since the accusations have no legal repercussions, the state machinery is not directly involved in penalizing accused persons. Rather, the penalty is effected by studios, the non-state agent. The state is thus able to suppress political dissent indirectly through non-state entities. Unlike autocratic regimes where the state might directly engage with non-state agents, there is less direct engagement in the context of America's anti-communist witch-hunt. Instead, we propose that the coordinating mechanism in the US case is the climate of fear, be it the fear of controversy or backlash. Because of this fear, "cheap talk" by the state (HUAC) in the form of accusations, regardless of their truth, can elicit concrete actions from non-state entities (studios).

6 Evolution in Film Content

Beyond the negative impact on accused persons, was there also a change in film content during the McCarthy era? Ceplair and Englund (2003) and Cogley (1956a) contend that the production of social problem films fell after the Hollywood Ten trials, as illustrated in Figure A.19. These were films that often dealt with social issues from a progressive standpoint. Indeed, filmmakers were discouraged from such topics at the time. 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, industrialists, or the free enterprise system and glorifying the common man, themes that tend to be more progressive in nature (see Figure A.20 for the full list). Motivated by these historical accounts, we seek to quantify how the political sentiment of Hollywood films shifted during the anti-communist crusade, a task made difficult by the lack of consistent measures of film sentiment. To overcome this, we develop a novel approach to systematically document how film progressiveness evolved over time, combining text data on film content with machine learning methods.

6.1 Word Embedding

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, is available from the AFI database. For concreteness, Figure A.21 shows the subjects associated with Charlie Chaplin's *Modern Times* (1936), a classic social problem film. 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.

We implement our approach using the embedding model on Cohere, a leading Large Language Model (LLM) platform.[36] To validate the performance of our embedding method, we conduct two exercises. 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 4A 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 4B. Reassuringly, we find that films of the same genre are clustered into approximately similar spaces. Embedding on major subjects thus provides a reasonably accurate classification of movies.

6.2 Measuring Film Progressiveness

While word embedding allows 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.[37] Table A.7 and Figure A.22A present our benchmark progressive films and their major

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

[36] We prefer Cohere's embedding model to OpenAI's GPT. While the former is deterministic, 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.

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

subjects—these films tend to deal with racism, 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 where communism is a major subject, as reported in the AFI database—such films have 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. 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 compute the average cosine similarity between a given 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—many of our benchmark films rank highly in their respective categories (progressive or conservative). We are also able 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 be the case if the embedding process was inaccurate, giving us greater confidence in our measure.

6.3 Changing Political Sentiment of Hollywood Films

With our measure of net progressiveness, we now document how the political sentiment of American films evolved over time. Figure 5A presents the aggregate trend in net progressiveness. Two features stand out. First, there is a drop in progressiveness in the early 1940s—this likely reflects the temporary spike in movies about war and patriotism during WWII (Figure A.23). Indeed, Figure 5B shows that the dip in progressiveness can largely be accounted for by excluding such films between 1942-1944. Second, and more important, we see another drop in net progressiveness that begins around 1947, after the Hollywood Ten trials. The decline in progressiveness is particularly sharp in the early 1950s, when the anti-communist crusade was in full swing. Progressiveness then recovered somewhat in the later half of the decade with the demise of McCarthy. While part of the aggregate trend may reflect the emergence of films on communism after the 1947 trials (Figure A.24A), the content of other film types was also changing—Figure A.25 displays a similar time path even after excluding films on communism. Our results are also robust to embedding on both major subjects and synopses (Figure A.26) or using a ratio-based measure of net progressiveness (Figure A.27). Film content thus underwent a fundamental shift in the McCarthy era, particularly after 1950.

We think the decline in film progressiveness can partly be attributed to the climate of fear induced by the anti-communist witch-hunt. Intuitively, non-accused filmmakers might fear for

their own careers, having witnessed the plight of their accused colleagues. A possible response may be to play it safe by avoiding films that could attract attention from anti-communist forces (Ceplair and Englund, 2003), including films with progressive themes. 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]." Given such circumstances, 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. While we cannot completely rule out other explanations for the change in film content, the time path of film progressiveness in Figure 5 is highly suggestive, mirroring the accusation effects in Figure 1 both in the sharp initial decline during the 1950s (when widespread accusations broke out) and the subsequent recovery. Part of the change in film content may thus be driven by the anti-communist movement in America.

7 Implications for Society

Did the decline in progressive films, in turn, affect society more broadly? 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. This section explores if the fall in film progressiveness made Americans more conservative.

7.1 Setup

To carry out our analysis, we need a local measure of movie exposure that predates the anti-communist hysteria. However, no such metric is readily available. We circumvent this by digitizing novel data on movie theaters 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. Following Ang (2023), we define movie exposure as the number of movie theaters 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 higher in the Midwest and lower in the South, with considerable variation within each state.

As a first stage, we check if higher movie *exposure* translates to higher movie *viewership*. We do this using the 1950 Gallup survey, which asks respondents about movie attendance and also reports their state of residence. Reassuringly, we find that a standard deviation increase in state-level movie exposure is associated with a 4-percentage-point rise in the odds of going to the movies at least once or twice a month (Table A.10).

Next, we use a county-level event study to investigate the link between movie exposure and

societal preferences:

$$Vote_{ct} = \sum_{j=1932}^{1960} \beta_j^{movies} \; MovieExp_c \text{ x } I_t^j + \sum_{j=1932}^{1960} X_c \text{ x } I_t^j + \theta_c + \delta_{st} + \epsilon_{ct} \tag{4}$$

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 conservativeness.[38] The main explanatory variable is the interaction between movie exposure in 1940, $MovieExp$, and a vector of election year dummies, I. Additionally, X controls for a wide range of county characteristics, primarily measured before the Hollywood Ten trials: socioeconomic, political, and other forms of media exposure (radio, TV, and newspapers).[39] Each control is interacted 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 features 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. We select 1944 as the omitted year, the last presidential election before the Hollywood Ten trials in 1947, after which film progressiveness began to plateau and decline (Figure 5). Our analysis goes up till 1960—this allows us to capture the peak years of the Second Red Scare whilst avoiding any complications that may arise from later events, such as the political realignment of the South after 1963 (Kuziemko and Washington, 2018).

7.2 Baseline Effect

Figure 7 presents our estimates. Prior to the Hollywood Ten trials, voting patterns trended similarly in counties with more and less movie exposure, lending support to the parrallel trends assumption. Thereafter, one observes a shift toward Republicans, coinciding with the decline in progressive films (Figure 5) and the rise of anti-communist films (Figure A.24).[40] This effect grew through the early 1950s as film progressiveness plunged even further (Figure 5). By 1960, a standard deviation increase in movie exposure lifted the Republican vote share by 0.67 percentage points. The rise in conservatism is evident both within and outside the South (Figures A.29A and B), albeit to a greater extent in the former. As an alternative measure of movie exposure, we also consider the number

[38] Is the conservative-liberal dichotomy between Republicans and Democrats as salient in the past as it is today? Figure A.28 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 be more conservative than Democrats even during the McCarthy era.

[39] Our controls, mostly measured in 1940, include the following. (i) Socioeconomic: total population, percent urban, population density, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent owner occupied dwellings, log median value of owner occupied dwellings, percent unemployed, percent in manufacturing, log average income, and percent church members (1936). (ii) Political: average Republican vote share, average Democratic vote share, and voter turnout in the 1928-1936 presidential elections. (iii) Other forms of media exposure: percent of households with radio, percent of households with TV (1950), and log newspaper circulation per 1,000 residents. These data come from Clubb et al. (2006), Gentzkow and Shapiro (2008), Gentzkow et al. (2014), and Haines (2010).

[40] All US films on communism in our post-treatment period were anti-communist, a point we return to below.

of movie theater *seats* per 1,000 residents—similar conclusions can be reached (Figure A.29C).

While regression (4) includes a wide range of observable controls, each interacted with a full set of election year dummies, unobserved confounders might still be a concern. Nonetheless, we argue that any remaining bias may be small. First, we calculate how important unobservables must be to explain away our findings. We do this with a simple DD variant of specification (4), replacing the year interactions in the main explanatory variable with a post-1948 indicator. Table A.11 shows the DD estimate with just county and state-by-year fixed effects (column 1) and the corresponding coefficient when the full set of control-year interactions is added (column 2). The stability of the point estimates and R-squared hint at a small role for unobservables, if any. This argument can be formalized by applying Oster's (2017) inference procedure to our DD model.[41] We find that unobserved confounders must be more than 13 times as important as the observed controls to account for our results, which we think is unlikely.

Second, as a placebo check, we investigate if other types of theaters affect how people vote. To do this, we digitize the number of art and Black movie theaters from the *Film Daily* reports in 1950 and 1940, when such information is available. Art theaters primarily screened foreign or independent films. Black theaters catered to African Americans and showed both mainstream films as well as race pictures made by and for the Black community. Black citizens in the South, however, could not vote freely during our period of study (1932-1960). Art and southern Black theaters should thus have weaker effects on voting patterns, if at all. Adding these theaters to our DD regression, Table A.12 shows that neither has a significant relation with Republican votes, in contrast to our measure of movie exposure.

7.3 Interpretation

The preceding section established a robust relation between movie exposure and Republican support—can we attribute this to the decline in film progressiveness during the anti-communist movement?

To isolate the role of film conservativeness, we proceed in two steps. First, we conduct a heterogeneity analysis that exploits preexisting political attitudes across counties. Places that are more politically conservative may be more amenable to the increasingly conservative nature of films, resulting in a stronger response. Conversely, places that are more left-leaning might be more resistant to the influence of conservative films or less likely to watch such films to begin with, leading to a smaller response. We test if these patterns hold by redoing the analysis separately for counties that are more and less conservative. For our purposes, we define more-conservative counties as those without any votes for the Socialist Party in 1932. Consistent with our prediction, Figures A.30A and B reveal a larger voting effect in more-conservative areas.[42]

Second, we investigate which aspects of film conservativeness matter. To operationalize this,

[41] When implementing Oster's (2017) procedure, we compare the DD model with only county and state-by-year fixed effects against the same model with the full set of control-year interactions.

[42] Another way of defining more-conservative counties is to consider areas with no votes for Henry Wallace's Progressive Party in 1948. A drawback of this measure is that it is based on a post-treatment variable. Nonetheless, we continue to find stronger voting effects in counties with no votes for the Progressive Party (Figures A.30C and D).

we hone in on movies where "communism" or "communists" is a major subject, as reported in the AFI database. These films were predominantly anti-communist and politically conservative during our period of study. We then characterize the orientation of communism portrayed on-screen, based on film synopses. Specifically, we distinguish between (i) *internal* communism, where the movie centers on domestic communism or the communist threat within the US, and (ii) *external* communism, where the film deals with international communism or the communist threat from outside the US.[43] The former is more aligned with McCarthyism, which was primarily concerned with communist subversion within America; the latter relates more to the broader Cold War. This distinction is useful: by studying which of these film types matter for voting outcomes, we are able to shed light on whether the voting effects stem from the rise in film conservativeness induced by McCarthyism or the Cold War more generally.

Figure A.24B traces the trend in films on internal and external communism—both grew rapidly from the late 1940s. Which of these film types affected voting patterns? We study this by running another variant of regression (4), where movie exposure is now interacted with the (time-varying) percent or number of communism films, in general and by orientation. This augmented specification enables us to estimate the voting effects in places with greater movie exposure (first difference) when more films on communism are released (second difference). Table 4 presents the results. We find that the prevalence of films on communism (all types) is associated with higher Republican vote shares (columns 1 and 3). We use film synopses to check that all films on communism in our post-treatment period portrayed communism in negative light (anti-communist). Importantly, the observed associations are driven more by films about internal communism than films on external communism (columns 2 and 4). The estimates for the former are 2 to 3 times the magnitudes of the latter. These patterns suggest that the electoral results may stem, at least in part, from the rising conservativeness of films induced by the anti-communist crusade in Hollywood.

Finally, we consider if our results are driven by newsreels that were sometimes played before films in movie theaters. Nonetheless, we provide 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 find a similar effect from exposure to TV, which became an increasingly important source of news. Figure A.31 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 share; in fact, the coefficients are in the opposite direction. Third, directly controlling for newsreel theaters leaves our results unchanged. We digitize the number of newsreel theaters by locality from the 1943 *Film Daily*, the earliest issue listing these theaters.[44] This is interacted with a full set of year dummies and added to our event study. Figure A.32 continues to depict a shift toward conservatism. Taken

[43] A pair of research assistants (RAs) were independently tasked with labeling whether a film was about internal or external communism, based on the film synopsis. We kept the labels when the RAs agreed; when they disagreed, we provided the synopses to ChatGPT to help us determine the appropriate label.

[44] We check that the location and number of newsreel theaters was largely stable through the 1940s, based on later editions of *Film Daily*.

together, we conclude that newsreels are unlikely to be driving the link between movie exposure and vote share.

In summary, as film progressiveness declined, we observe a shift toward conservatism in places that were more exposed to movies. To be clear, we cannot rule out the possibility that other factors might have also contributed to the change in film content and electoral effects. Nonetheless, the evidence above suggests that at least part of the rise in Republican support during the 1950s may be attributed to the increase in film conservativeness brought about by the anti-communist crusade in Hollywood. By influencing film content, the anti-communist witch-hunt thus affected more than just the accused, reshaping political preferences across the country.

8 Conclusion

Demagogues have existed throughout history, yet empirical evidence on their impact remains limited. This paper assembles a unique collection of data to study the effects of a far-reaching episode of demagoguery in Cold War America: McCarthyism and the Red Scare 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 systematically targeted 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. This period also witnessed a change in film content, with a shift away from progressive themes. The decline in film progressiveness, 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 demagogues wield and the vulnerabilities of the public to that influence.

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Tables and Figures

Table 1: Determinants of Being Accused

	Actors (1)	Writers (2)	Directors (3)
Demographics			
Female	0.000	0.002	0.008
	(0.001)	(0.014)	(0.012)
Jew	0.002	0.013	0.006
	(0.003)	(0.017)	(0.010)
Career Profile			
Experience	0.001***	0.000	-0.001*
	(0.000)	(0.001)	(0.000)
Productivity	-0.001	-0.004	0.000
	(0.000)	(0.005)	(0.001)
Received Academy Awards nominations	0.037**	0.010	0.032
	(0.016)	(0.020)	(0.034)
Progressiveness			
Net progressiveness of films	0.012*	0.295**	0.103
	(0.007)	(0.145)	(0.124)
Past Activities			
Participated in activities opposing HUAC	0.271***	0.327***	0.278***
	(0.027)	(0.039)	(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

	Full Sample			Matched Sample		
Baseline characteristics	Accused (1)	Costars (2)	Difference (3)	Accused (4)	Costars (5)	Difference (6)
Age in 1950	41.9	43.7	-1.85**	41.5	41.6	-0.105
			(0.790)			(0.833)
Male	0.683	0.596	0.087**	0.672	0.662	0.010
			(0.043)			(0.048)
No. of titles before 1950	10.7	19.7	-8.98***	10.7	11.4	-0.649
			(1.38)			(1.51)
Titles entirely in movies before 1950	0.476	0.625	-0.149***	0.496	0.494	0.002
			(0.046)			(0.052)
Nominated for Academy Awards before 1950	0.119	0.079	0.040	0.092	0.100	-0.008
			(0.030)			(0.034)
Held other creative roles before 1950	0.135	0.069	0.065**	0.109	0.108	0.001
			(0.031)			(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)
Accused x Post-1950	-0.888***	-0.893***	-0.892***	-0.887***	-0.887***	-0.886***
	(0.285)	(0.283)	(0.283)	(0.280)	(0.279)	(0.279)
Baseline characteristics x *Post-1950*						
Cohort		Y	Y	Y	Y	Y
No. of titles			Y	Y	Y	Y
Titles entirely in movies				Y	Y	Y
Nominated for Academy Awards					Y	Y
Held other creative roles						Y
Outcome mean	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
Adj R-squared	0.216	0.220	0.220	0.227	0.228	0.228
N	26,800	26,800	26,800	26,800	26,800	26,800

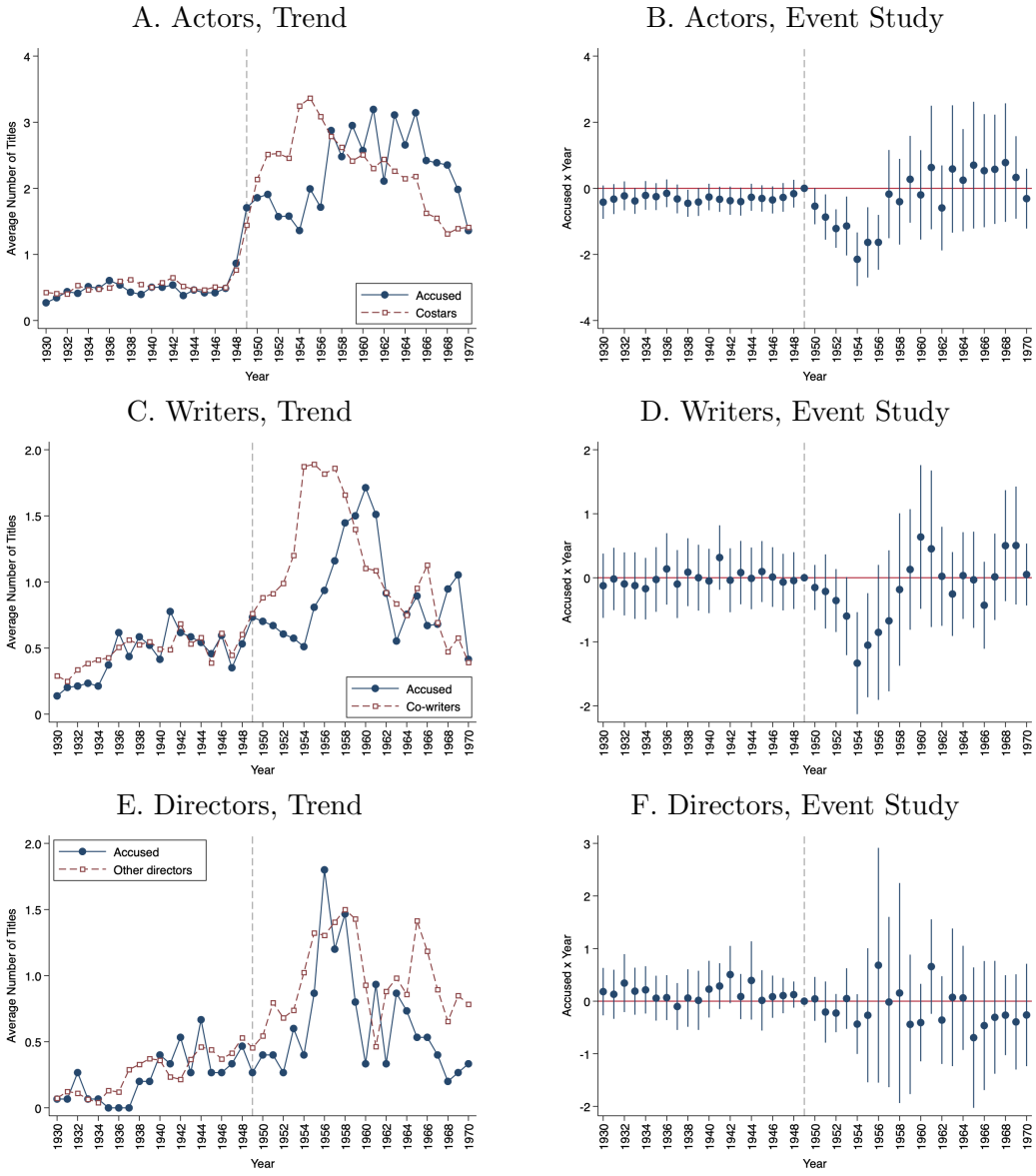
Notes - Data are from IMDb and the Academy Awards database. The sample is restricted to actors who were accused and comparable costars, matched using coarsened exact matching. The period is restricted to 1930-1954. Each cell shows the interaction coefficient from a regression of the number of titles 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. 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

	Percent of Films		Number of Films	
	(1)	(2)	(3)	(4)
Movie exposure x Communism	0.416***		0.018**	
	(0.103)		(0.007)	
Movie exposure x Non-communism			0.000	
			(0.000)	
Movie exposure x Internal communism		0.775***		0.042***
		(0.254)		(0.015)
Movie exposure x External communism		0.276***		0.024***
		(0.083)		(0.007)
County fixed effects	Y	Y	Y	Y
State-by-year fixed effects	Y	Y	Y	Y
County control-interactions	Y	Y	Y	Y
Outcome mean	42.3	42.3	42.3	42.3
Outcome SD	20.6	20.6	20.6	20.6
Adj R-squared	0.956	0.956	0.956	0.956
N	24,705	24,705	24,705	24,705

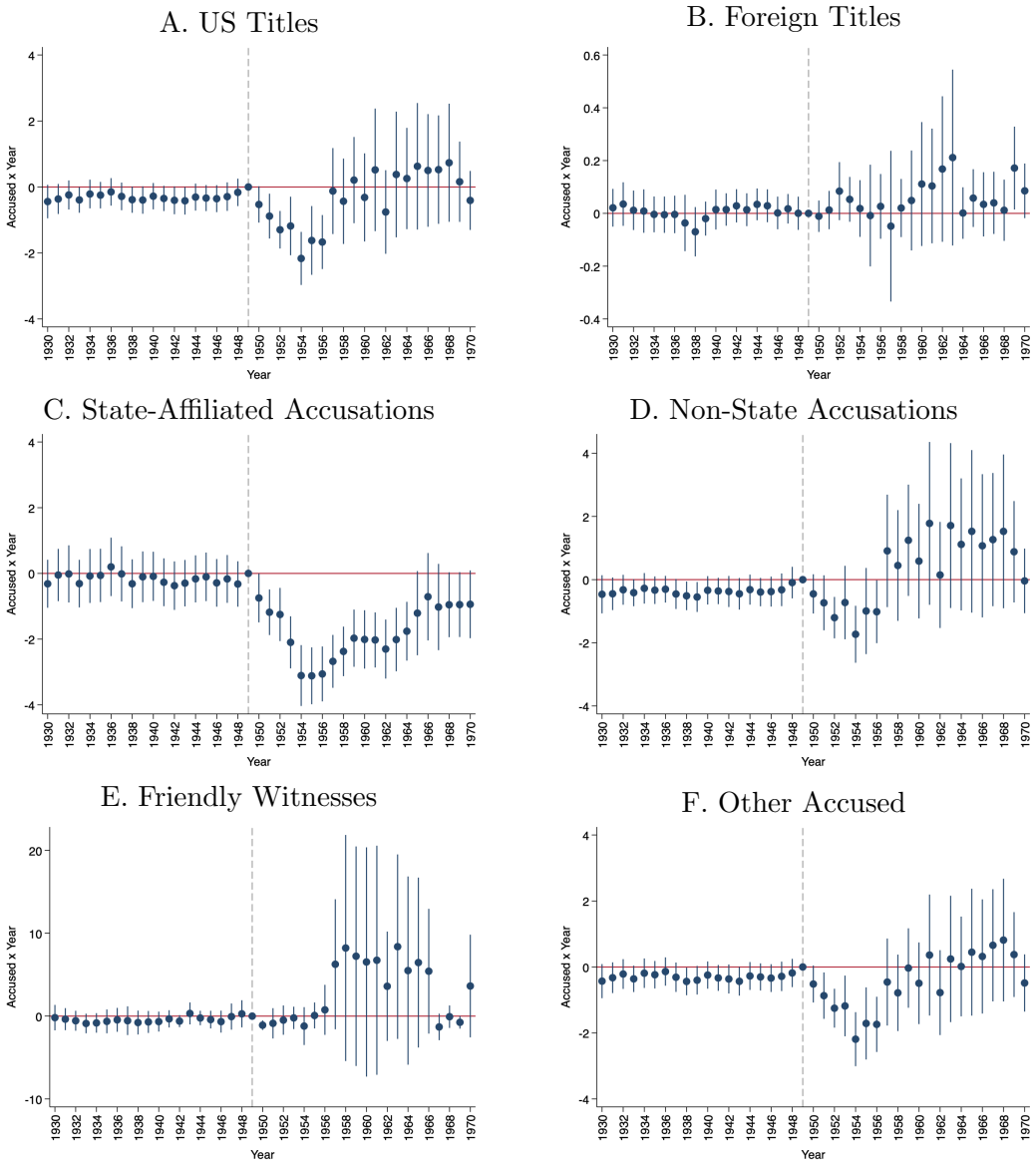
Notes - Data are from the 1940 *Film Daily Year Book*, Clubb et al. (2006), Gentzkow and Shapiro (2008), Gentzkow et al. (2014), and Haines (2010). The period is restricted to the presidential election years from 1932-1960. Each column shows the interaction coefficient(s) from a regression of the Republican vote share in a given presidential election on a measure of movie exposure (movie theaters per 1,000 residents) interacted with the percent (columns 1 and 2) or number (columns 3 and 4) of films in a given year on communism, in general (columns 1 and 3) or by orientation (internal versus external, columns 2 and 4). 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, population density, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent owner occupied dwellings, log median value of owner occupied dwellings, percent unemployed, percent in manufacturing, log average income, percent church members (1936), average past Republican and Democratic vote shares as well as 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



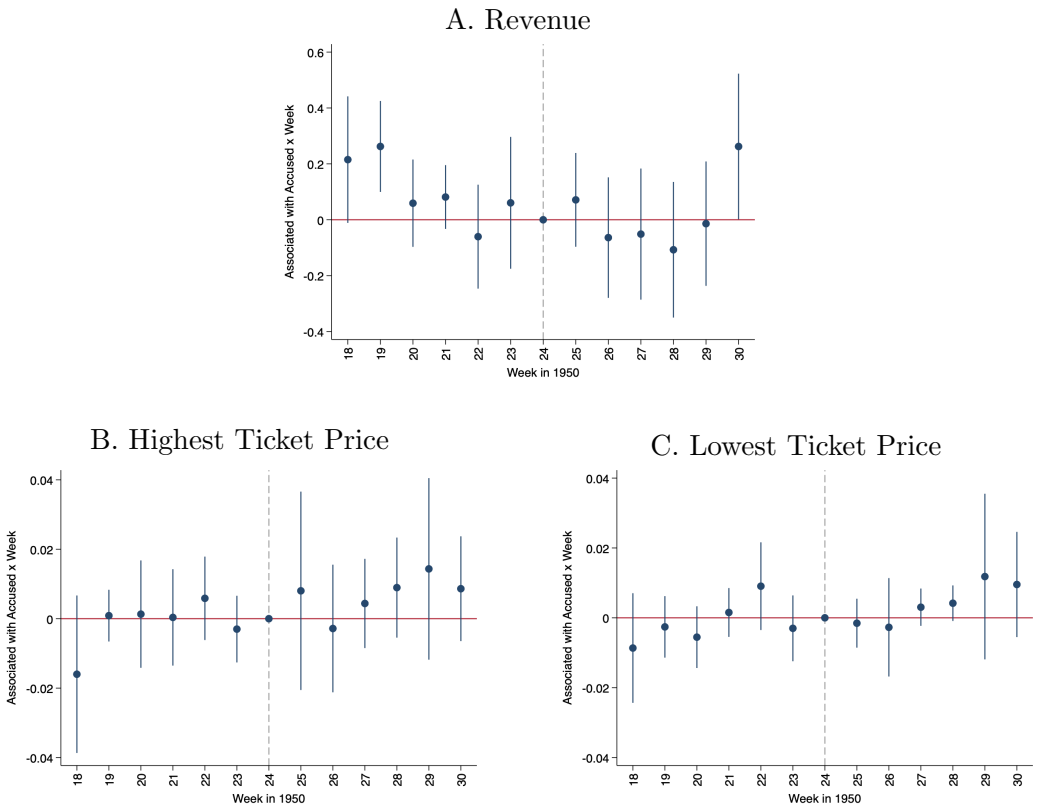
Notes - Data are from IMDb. The sample is restricted to those who were accused and comparable costars (A and B), co-writers (C and D), or non-accused directors (E and F), matched using coarsened exact matching. The period is restricted to 1930-1970. A, C, and E: Each figure shows the average number of 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: Interpreting the Adverse Effects



Notes - Data are from IMDb. The base sample is restricted to actors who were accused and comparable costars, matched using coarsened exact matching. The period is restricted to 1930-1970. A and B show the interaction coefficients from a regression of the number of US (A) or foreign (B) 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. C and D separate the accused into those whose names were mentioned during the HUAC trials (state-affiliated accusations) and those whose names appeared in other sources (non-state accusations); E and F separate the accused into friendly witnesses and all others. The sub-setting only applies to the accused, with the same control group in each case. C-F show 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. A-F: 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), 40,549 (C), 42,476 (D), 39,278 (E), and 43,747 (F) person-year observations.

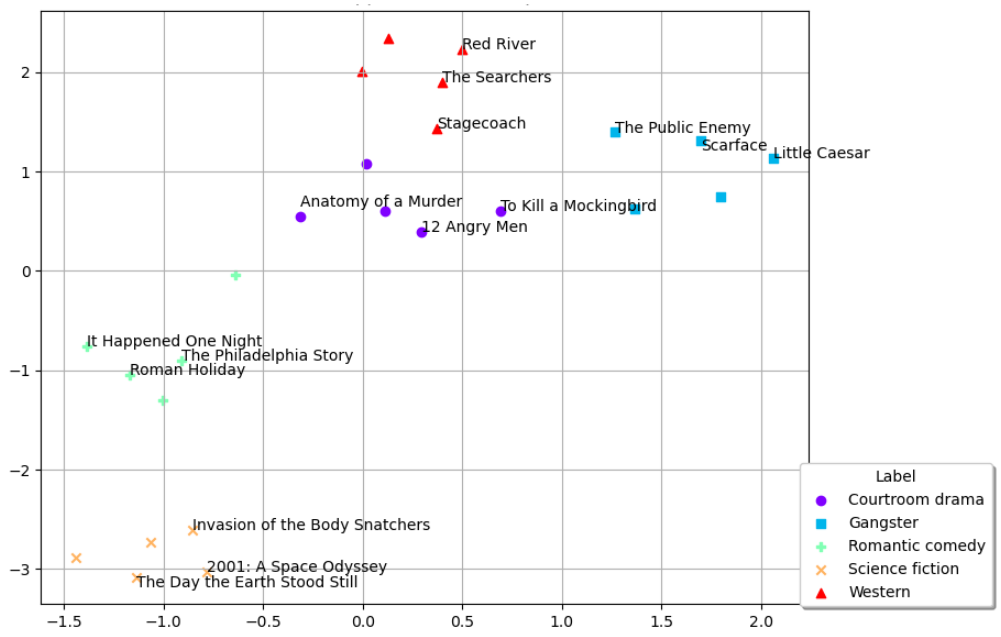
Figure 3: Impact of Accusations on Film Performance



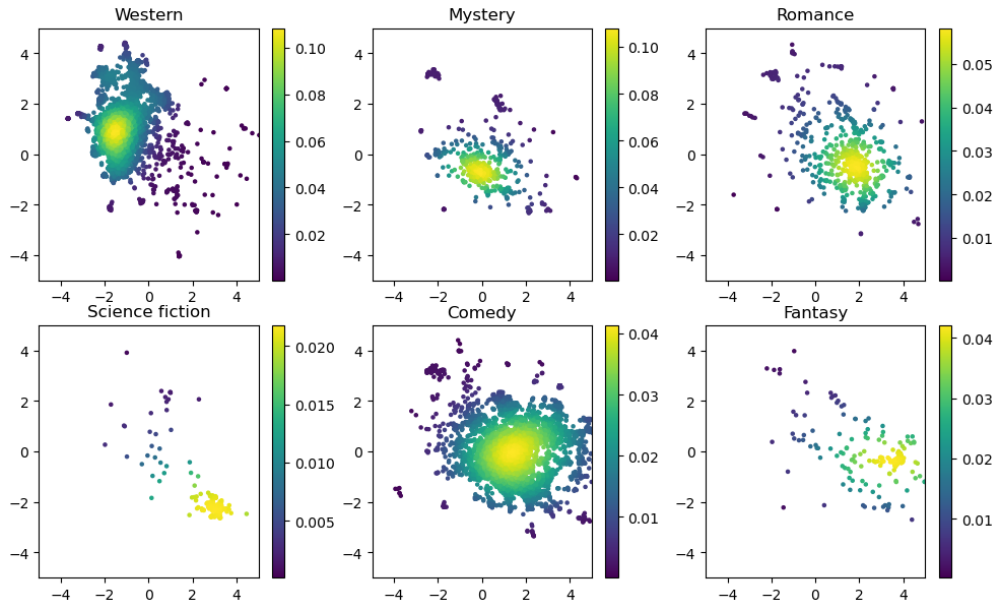
Notes - Data are from Gil and Marion (2022). The sample comprises films released 6 weeks before and after the publication of *Red Channels* (22 June 1950) that were either associated with persons (actors, writers, directors, or producers) named in *Red Channels* or were not associated with any accused. Each figure shows the interaction coefficients from a regression of the log weekly film revenue (A) or log ticket price (B and C) on an indicator for films that were associated with accused persons interacted with week dummies, controlling for theater and week fixed effects. The omitted week is week 24 in 1950 as this 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 size is 1,247 film-theater-week observations.

Figure 4: Word Embedding, Proof of Concept

A. Subset of Films Across Genres

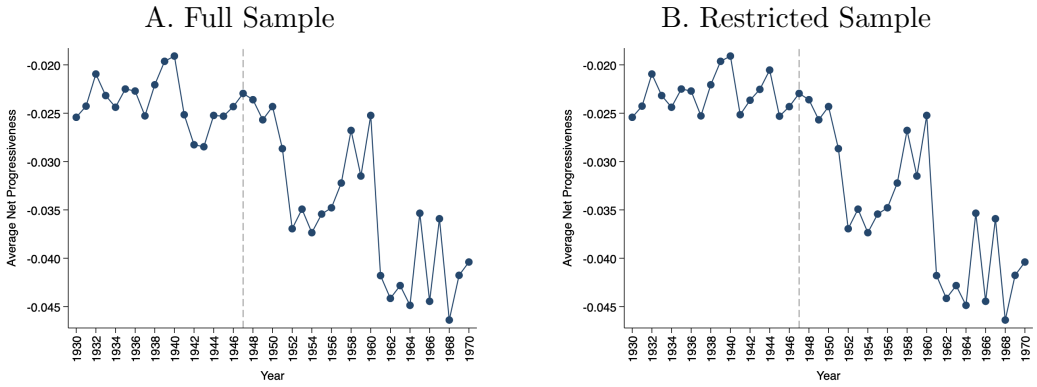


B. Full Set of Films by Genre



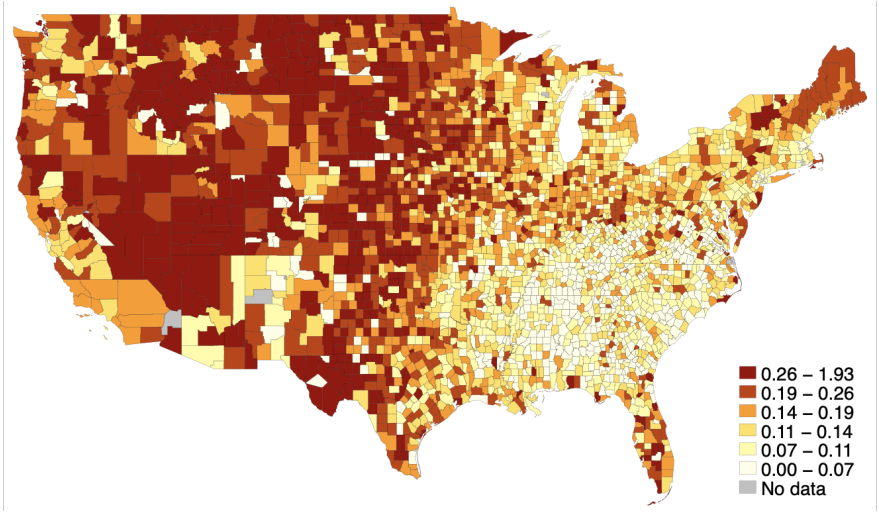
Notes - Data are from the AFI database. A: The figure shows a 2-D embedding of 25 movies from the AFI's *10 Top 10* list that were primarily released from the 1930s to 1970s and that represent five classic genres—western, gangster, courtroom drama, romantic comedy, and scientific fiction. Word embedding 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 5: Net Progressiveness of Films



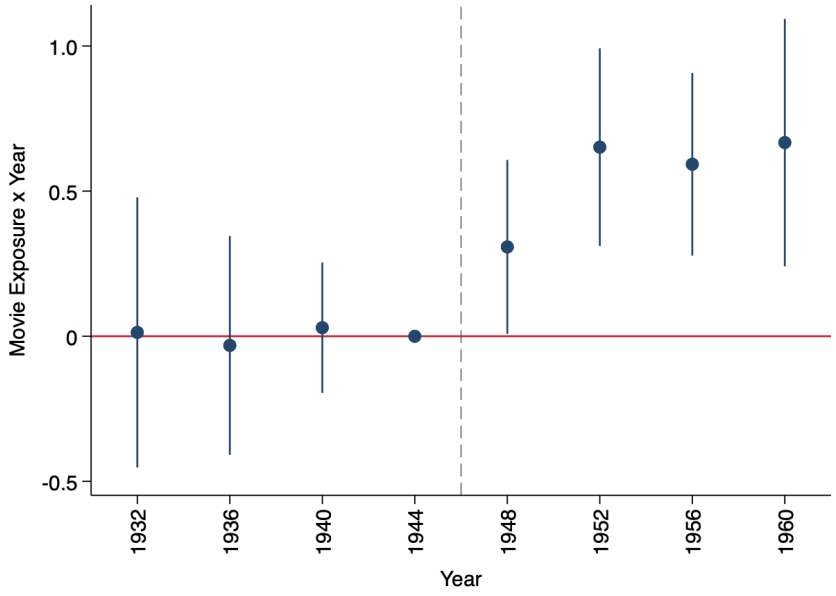
Notes - Each figure shows the average net progressiveness of American films by year. B excludes films between 1942-1944 that had war- or patriotism-related subjects. The vertical lines demarcate the year 1947, when the Hollywood Ten trials occurred.

Figure 6: Movie Exposure in 1940



Notes - Data are from the 1940 *Film Daily Year Book*. The figure shows the number of movie theaters 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 1932-1960. 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 theaters 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, population density, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent owner occupied dwellings, log median value of owner occupied dwellings, percent unemployed, percent in manufacturing, log average income, percent church members (1936), average past Republican and Democratic vote shares as well as 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 24,705 county-year observations.

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Table A.1: Overlap Between Sources of Names

	Vaughn (1996)	*Red Channels*	*American Legion Magazine*	*Sign*
Vaughn (1996)	132	22	31	8
Red Channels	22	79	31	26
American Legion Magazine	31	31	99	14
Sign	8	26	14	39

Notes - The table shows the overlap between four sources that contain the names of those associated with communism or the communists: the HUAC trials as compiled in Vaughn (1996), *Red Channels: The Report of Communist Influence in Radio and Television*, the *American Legion Magazine*, and *Sign* magazine.

Table A.2: Determinants of Being Accused, Probit Model

	Actors (1)	Writers (2)	Directors (3)
Demographics			
Female	0.000	0.006	0.000
	(0.000)	(0.010)	(0.002)
Jew	0.001*	0.007	0.002
	(0.001)	(0.010)	(0.002)
Career Profile			
Experience	0.000***	0.001	0.000
	(0.000)	(0.001)	(0.000)
Productivity	0.000	-0.003	-0.002
	(0.000)	(0.005)	(0.002)
Received Academy Awards nominations	0.001**	0.005	0.005
	(0.001)	(0.011)	(0.004)
Progressiveness			
Net progressiveness of films	0.011**	0.260*	0.033
	(0.005)	(0.143)	(0.036)
Past Activities			
Participated in activities opposing HUAC	0.007***	0.099***	0.015**
	(0.001)	(0.012)	(0.007)
Outcome mean	0.004	0.044	0.011
Outcome SD	0.060	0.206	0.104
Pseudo R-squared	0.431	0.242	0.378
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 marginal effects from a probit 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). The marginal effects are estimated at the mean value of all variables in the regression. Standard errors computed using the delta method are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.3: Determinants of Being Accused, Logit Model

	Actors (1)	Writers (2)	Directors (3)
Demographics			
Female	0.000	0.001	0.001
	(0.000)	(0.009)	(0.001)
Jew	0.001	0.006	0.002
	(0.001)	(0.008)	(0.002)
Career Profile			
Experience	0.000***	0.000	0.000
	(0.000)	(0.001)	(0.000)
Productivity	0.000	-0.003	-0.002
	(0.000)	(0.005)	(0.002)
Received Academy Awards nominations	0.001*	0.004	0.004
	(0.001)	(0.008)	(0.003)
Progressiveness			
Net progressiveness of films	0.008*	0.253**	0.027
	(0.004)	(0.117)	(0.034)
Past Activities			
Participated in activities opposing HUAC	0.006***	0.078***	0.013***
	(0.001)	(0.009)	(0.005)
Outcome mean	0.004	0.044	0.011
Outcome SD	0.060	0.206	0.104
Pseudo R-squared	0.427	0.242	0.376
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 marginal effects from a logit 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). The marginal effects are estimated at the mean value of all variables in the regression. Standard errors computed using the delta method are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.4: Determinants of Being Accused, Restricted Sample

	Actors (1)	Writers (2)	Directors (3)
Demographics			
Female	-0.001	0.003	0.018
	(0.001)	(0.019)	(0.019)
Jew	0.009	0.014	-0.003
	(0.006)	(0.022)	(0.010)
Career Profile			
Experience	0.000*	-0.002	-0.001
	(0.000)	(0.001)	(0.001)
Productivity	-0.001	-0.004	0.000
	(0.000)	(0.006)	(0.001)
Received Academy Awards nominations	0.033**	0.003	0.040
	(0.016)	(0.021)	(0.032)
Progressiveness			
Net progressiveness of films	0.056	0.514	0.378
	(0.036)	(0.345)	(0.323)
Past Activities			
Participated in activities opposing HUAC	0.319***	0.346***	0.245***
	(0.032)	(0.042)	(0.077)
Outcome mean	0.008	0.057	0.010
Outcome SD	0.087	0.232	0.100
Adj R-squared	0.225	0.186	0.186
N	13,233	1,484	1,094

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) who were active for at least two years 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 A.5: Determinants of Being Accused, Ratio-Based Measure of Progressiveness

	Actors (1)	Writers (2)	Directors (3)
Demographics			
Female	0.000	0.002	0.008
	(0.001)	(0.014)	(0.012)
Jew	0.002	0.013	0.006
	(0.003)	(0.017)	(0.010)
Career Profile			
Experience	0.001***	0.000	-0.001*
	(0.000)	(0.001)	(0.000)
Productivity	-0.001	-0.004	0.000
	(0.000)	(0.005)	(0.001)
Received Academy Awards nominations	0.037***	0.010	0.032
	(0.016)	(0.020)	(0.034)
Progressiveness			
Net progressiveness of films	0.016*	0.399**	0.148
	(0.010)	(0.197)	(0.167)
Past Activities			
Participated in activities opposing HUAC	0.271***	0.327***	0.278***
	(0.027)	(0.039)	(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). Compared with the baseline regression in Table 1, a ratio-based measure of net progressiveness is used here: (Progressiveness + 1)/(Conservativeness + 1). Robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.6: Impact of Being Accused, Non-Career Outcomes

	Annual Mortality (1)	Life Expectancy (2)	Permanent Migration (3)
Accused x Post-1950	-0.010		
	(0.011)		
Accused		2.57*	0.062*
		(1.39)	(0.033)
Individual fixed effects	Y		
Year fixed effects	Y		
Birth cohort fixed effects		Y	Y
Outcome mean	0.998	75.0	0.056
Adj R-squared	0.105	0.030	0.022
N	26,425	1,057	831

Notes - Data are from IMDb. The sample is restricted to actors who were accused and comparable costars, matched using coarsened exact matching. Column 1: The period is restricted to 1930-1954. The cell shows the interaction coefficient from a regression of an indicator for whether a person was alive in a given year on an indicator for being accused interacted with an indicator for the period from 1950, controlling for individual and year fixed effects. Standard errors clustered at the individual level are in parentheses. The unit of observation is a person-year. Columns 2 and 3: Each cell shows the coefficient from a regression of life expectancy (column 2) or an indicator for whether one migrated away from the US permanently (column 3) on an indicator for being accused, controlling for birth cohort fixed effects. Robust standard errors are in parentheses. The unit of observation is a person. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.7: Benchmark Progressive Films

Year	Film	Major Subjects
1933	Wild Boys of the Road	Adolescents, Hoboes, Poverty, The Depression, Unemployment
1936	Modern Times	Class distinction, Factory workers, Orphans, Prison life, Romance, The Depression, Tramps, Unemployment
1937	Black Legion	Factory workers, Secret societies, Terrorism, Xenophobia
1939	Confessions of a Nazi Spy	Espionage, German Americans, German Navy, Investigations, Nazism, US Federal Bureau of Investigation
1939	...One Third of a Nation...	Fires, Landlords, New York City-Bowery, Safety, Tenement-houses
1940	The Grapes of Wrath	Family life, Migrant workers, Poverty, The Depression
1940	The Mortal Storm	Antisemitism, National Socialism, Political prisoners, Political refugees, Religious persecution
1941	Sullivan's Travels	Hoboes, Impersonation and imposture, Mistaken identity, Motion picture directors
1947	Crossfire	Antisemitism, Investigations, Murder, Police detectives, Veterans
1947	Gentleman's Agreement	Antisemitism, Engagements, Impersonation and imposture, Jews, Reporters, Transformation
1949	Lost Boundaries	African Americans, Physicians, Racial impersonation, Racism
1949	Home of the Brave	African Americans, Combat, Psychosomatic illness, Racism, World War II

Notes - The table shows the benchmark set of progressive films and their corresponding major subjects as indicated in the AFI database.

Table A.8: Benchmark Conservative Films

Year	Film	Major Subjects
1939	Ninotchka	Communists, Duty, Paris, Romance, Russians, Transformation
1948	The Iron Curtain	Communism, Espionage, Igor Gouzenko, Ottawa, Russia Secret Service, World War II
1949	The Red Menace	Communism, Political corruption, Veterans
1950	Conspirator	Communism, England, Espionage, Love, Marriage, Traitors
1950	Guilty of Treason	Budapest, Cardinal József Mindszenty, Communists, Foreign correspondents, Religious persecution
1950	I Married a Communist	Blackmail, Communism, Employer-employee relations, Jealousy Newlyweds, Romance
1951	I Was a Communist for the FBI	Communism, Investigations, Patriotism, Pittsburgh, Slovene Americans, Undercover operations, US Federal Bureau of Investigation
1951	The Whip Hand	Biological warfare, Communists, Nazis, Reporters, Sabotage, Spies
1951	Savage Drums	Brothers, Communists, Kings, Spies, Treason, Treaties
1952	Atomic City	Atomic bomb, Atomic scientists, Children, Communists, Espionage, Kidnapping, US Federal Bureau of Investigation
1952	Big Jim McLain	Communism, Hawaii, Investigations, Patriotism, HUAC
1952	The Steel Fist	Communism, Courage, Freedom of speech, Revolutionaries, Romance, Self-sacrifice
1952	Walk East on Beacon	Boston, Communists, Espionage, Investigations, Scientists, Spies, US Federal Bureau of Investigation
1952	My Son John	Communists, Conscience, Fathers and sons, Investigations, Mothers and sons, Patriotism, Religion, Traitors
1953	Man on a Tightrope	Boundaries, Circus performers, Circuses, Communism, Czechoslovakia, Escapes
1954	Prisoner of War	Communists, Korean War, Prisoners of war, Torture, Undercover operations
1955	Trial	Communists, Lawyers, Mexican Americans, Racism, Trials
1957	Jet Pilot	Air pilots, Communism, Foreign agents, Jet planes, Military officers, Romance, Russians, US Air Force

Notes - The table shows the benchmark set of conservative films and their corresponding major subjects as indicated in the AFI database.

Table A.9: Ranking of Films by Net Progressiveness

Top 20		Bottom 20	
Film	Score	Film	Score
Wild Boys of the Road (1933)*	0.149	Conspirator (1950)*	-0.238
Lost Boundaries (1949)*	0.130	The Steel Fist (1952)*	-0.219
Mr. Skitch (1933)	0.108	Savage Drums (1951)*	-0.211
Heroes for Sale (1933)	0.107	Jet Pilot (1957)*	-0.209
We Work Again (1937)	0.105	Russia (1937)	-0.205
Native Son (1951)	0.103	My Son John (1952)*	-0.201
The Grapes of Wrath (1940)*	0.100	Inside Russia (1941)	-0.195
Sullivan's Travels (1941)*	0.097	The Bamboo Prison (1955)	-0.195
Así Es La Vida (1930)	0.092	Panic in the City (1968)	-0.195
No Way Out (1950)	0.091	Target Hong Kong (1953)	-0.194
Come Back, Africa (1960)	0.089	We'll Bury You! (1962)	-0.193
House on the Sand (1967)	0.089	Silk Stockings (1957)	-0.189
Home of the Brave (1949)*	0.088	The Iron Petticoat (1956)	-0.189
Yes Sir, Mr. Bones (1951)	0.087	Two Before Zero (1962)	-0.187
Modern Times (1936)*	0.086	The Iron Curtain (1948)*	-0.185
Pinky (1949)	0.085	Ninotchka (1939)*	-0.185
Strange Victory (1948)	0.083	This Is Russia (1958)	-0.184
Alias Mary Dow (1935)	0.083	Operation Manhunt (1954)	-0.184
Dead End (1937)	0.081	Big Jim McLain (1952)	-0.183
...One Third of a Nation... (1939)*	0.079	Walk East on Beacon (1952)*	-0.182

Notes - The table shows the top and bottom 20 films in terms of net progressiveness. Films with higher net progressiveness scores are relatively more progressive. Films with an asterisk belong to the benchmark set of progressive (Table A.7) or conservative (Table A.8) films.

Table A.10: Relation Between Movie Exposure and Viewership

	Went to the movies at least once a month (1)	Went to the movies at least twice a month (2)
Movie exposure	0.038**	0.043**
	(0.019)	(0.018)
Controls		
Individual-level controls	Y	Y
Region fixed effects	Y	Y
Outcome mean	0.605	0.412
Outcome SD	0.489	0.492
Adj R-squared	0.129	0.111
N	1,168	1,168

Notes - Data are from the May 1950 Gallup survey. Each cell shows the coefficient from a regression of an indicator for individuals who went to the movies at least once (column 1) or at least twice a month (column 2) on a state-level measure of movie exposure (movie theaters per 1,000 residents). Individual-level controls include: gender, age, race, education attainment, occupation, and city size. Standard errors clustered at the state level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.11: Average Impact of Movie Exposure on Republican Vote Share

	(1)	(2)
Movie exposure x Post-1948	0.505***	0.553***
	(0.171)	(0.147)
County fixed effects	Y	Y
State-by-year fixed effects	Y	Y
County control-interactions		Y
Outcome mean	42.3	42.3
Outcome SD	20.6	20.6
Adj R-squared	0.944	0.956
N	24,705	24,705

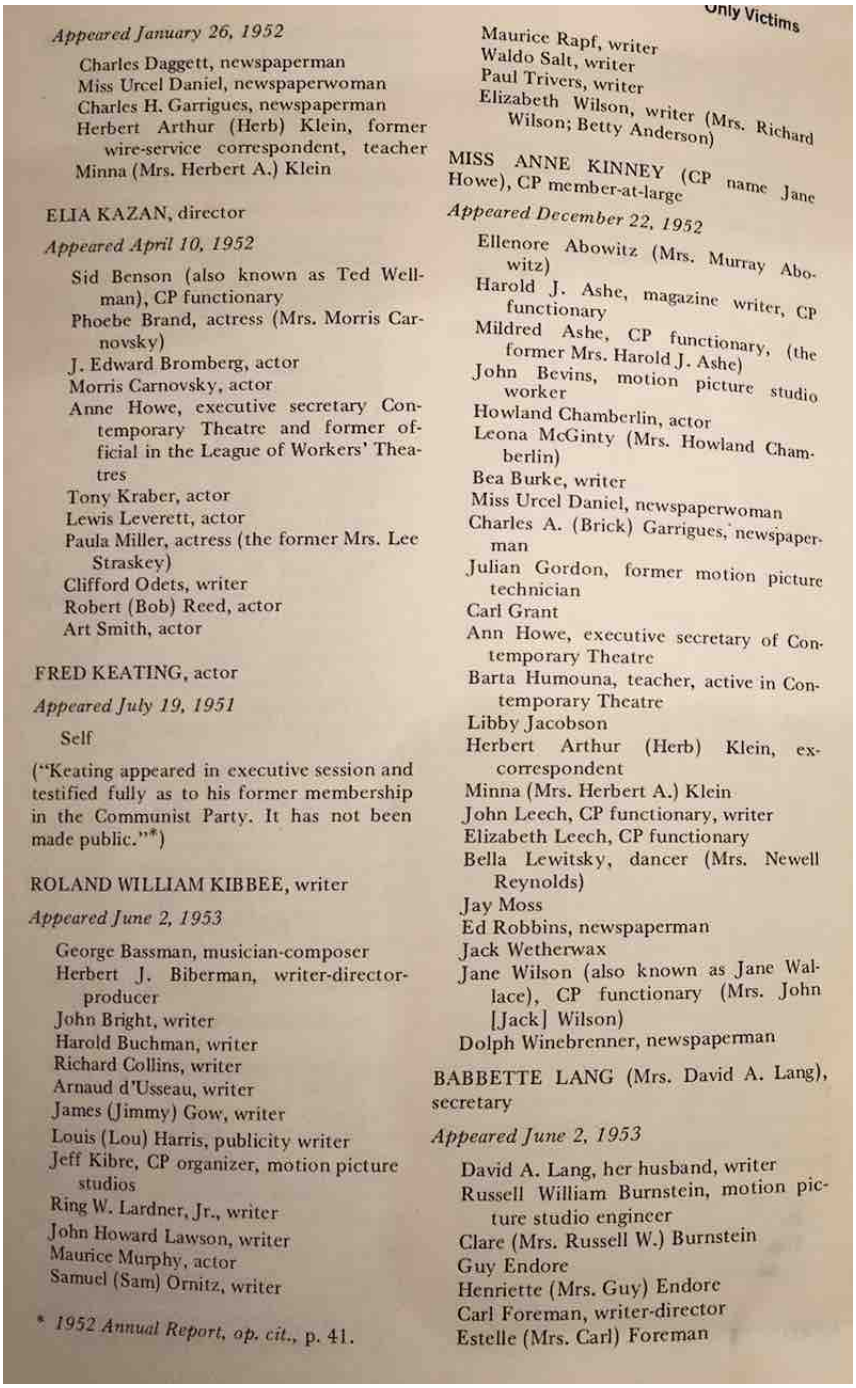
Notes - Data are from the 1940 *Film Daily Year Book*, Clubb et al. (2006), Gentzkow and Shapiro (2008), Gentzkow et al. (2014), and Haines (2010). The period is restricted to the presidential elections from 1932-1960. Each cell shows the interaction coefficient from a regression of the Republican vote share in a given presidential election on a measure of movie exposure (movie theaters per 1,000 residents) interacted with a post-1948 indicator, controlling for county and state-by-year fixed effects. Column 2 also controls for interactions between year dummies and the following county characteristics (mostly measured in 1940): total population, percent urban, population density, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent owner occupied dwellings, log median value of owner occupied dwellings, percent unemployed, percent in manufacturing, log average income, percent church members (1936), average past Republican and Democratic vote shares as well as 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. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.12: Average Impact of Movie Exposure on Republican Vote Share, Placebo Tests

	Art Theaters			Black Theaters		
	(1)	(2)	(3)	(4)	(5)	(6)
Movie exposure x Post-1948	0.553***		0.553***	0.672**		0.765***
	(0.147)		(0.148)	(0.317)		(0.274)
Other movie theater exposure x Post-1948		-0.046	-0.046		0.052	0.008
		(0.070)	(0.065)		(0.286)	(0.306)
Outcome mean	42.3	42.3	42.3	26.0	26.0	26.0
Outcome SD	20.6	20.6	20.6	20.0	20.0	20.0
Adj R-squared	0.956	0.956	0.956	0.932	0.932	0.932
N	24,705	24,705	24,705	8,996	8,996	8,996

Notes - Data are from the 1940 and 1950 *Film Daily Year Book*, Clubb et al. (2006), Gentzkow and Shapiro (2008), Gentzkow et al. (2014), and Haines (2010). Columns 4-6 are restricted to the South. The period is restricted to the presidential elections from 1932-1960. Each cell 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 theaters per 1,000 residents) or other movie theater exposure (art theaters per 1,000 residents in columns 2-3 and Black theaters per 1,000 residents in columns 5-6) interacted with a post-1948 indicator, controlling for 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, population density, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent owner occupied dwellings, log median value of owner occupied dwellings, percent unemployed, percent in manufacturing, log average income, percent church members (1936), average past Republican and Democratic vote shares as well as 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 A.1: Sample Page from Vaughn (1996)



Only Victims

Appeared January 26, 1952

Charles Daggett, newspaperman
Miss Urcel Daniel, newspaperwoman
Charles H. Garrigues, newspaperman
Herbert Arthur (Herb) Klein, former wire-service correspondent, teacher
Minna (Mrs. Herbert A.) Klein

ELIA KAZAN, director

Appeared April 10, 1952

Sid Benson (also known as Ted Wellman), CP functionary
Phoebe Brand, actress (Mrs. Morris Carnovsky)
J. Edward Bromberg, actor
Morris Carnovsky, actor
Anne Howe, executive secretary Contemporary Theatre and former official in the League of Workers' Theatres
Tony Kraber, actor
Lewis Leverett, actor
Paula Miller, actress (the former Mrs. Lee Straskey)
Clifford Odets, writer
Robert (Bob) Reed, actor
Art Smith, actor

FRED KEATING, actor

Appeared July 19, 1951

Self

("Keating appeared in executive session and testified fully as to his former membership in the Communist Party. It has not been made public."*)

ROLAND WILLIAM KIBBEE, writer

Appeared June 2, 1953

George Bassman, musician-composer
Herbert J. Biberman, writer-director-producer
John Bright, writer
Harold Buchman, writer
Richard Collins, writer
Arnaud d'Usseau, writer
James (Jimmy) Gow, writer
Louis (Lou) Harris, publicity writer
Jeff Kibre, CP organizer, motion picture studios
Ring W. Lardner, Jr., writer
John Howard Lawson, writer
Maurice Murphy, actor
Samuel (Sam) Ornitz, writer

* *1952 Annual Report, op. cit.*, p. 41.

Maurice Rapf, writer
Waldo Salt, writer
Paul Trivers, writer
Elizabeth Wilson, writer (Mrs. Richard Wilson; Betty Anderson)

MISS ANNE KINNEY (CP name Jane Howe), CP member-at-large

Appeared December 22, 1952

Ellenore Abowitz (Mrs. Murray Abowitz)
Harold J. Ashe, magazine writer, CP functionary
Mildred Ashe, CP functionary, (the former Mrs. Harold J. Ashe)
John Bevins, motion picture studio worker
Howland Chamberlin, actor
Leona McGinty (Mrs. Howland Chamberlin)
Bea Burke, writer
Miss Urcel Daniel, newspaperwoman
Charles A. (Brick) Garrigues, newspaperman
Julian Gordon, former motion picture technician
Carl Grant
Ann Howe, executive secretary of Contemporary Theatre
Barta Humouna, teacher, active in Contemporary Theatre
Libby Jacobson
Herbert Arthur (Herb) Klein, ex-correspondent
Minna (Mrs. Herbert A.) Klein
John Leech, CP functionary, writer
Elizabeth Leech, CP functionary
Bella Lewitsky, dancer (Mrs. Newell Reynolds)
Jay Moss
Ed Robbins, newspaperman
Jack Wetherwax
Jane Wilson (also known as Jane Wallace), CP functionary (Mrs. John [Jack] Wilson)
Dolph Winebrenner, newspaperman

BABBETTE LANG (Mrs. David A. Lang), secretary

Appeared June 2, 1953

David A. Lang, her husband, writer
Russell William Burnstein, motion picture studio engineer
Clare (Mrs. Russell W.) Burnstein
Guy Endore
Henriette (Mrs. Guy) Endore
Carl Foreman, writer-director
Estelle (Mrs. Carl) Foreman

Notes - The figure shows a sample page from Vaughn (1996). The names in upper case are the cooperative (friendly) witnesses, while the names below each of them are the persons whom the friendly witnesses named as communists.

Figure A.2: Sample Page from *Red Channels*

STELLA ADLER
Actress, Director

	Reported as:
American Committee for Protection of Foreign Born	Signer. Open Letter to President Truman condemning the Justice Department's deportation drive. *The Lamp*, published by American Committee for Protection of Foreign Born, 6/48, p. 3. Sponsor, United Nations in America dinner. *House Un-Am. Act. Com., Appendix 9*, p. 348. Member, New York City. *Daily Worker*, 12/9/36, p. 4.
Civil Rights Congress	Signer. Statement in defense of Gerhart Eisler. *Daily Worker*, 2/28/47, p. 2.
Friends of the Abraham Lincoln Brigade	Entertainer. *Daily Worker*, 2/9/38, p. 7.
International Labor Defense	Member, National Committee. Letterhead, Christmas, '39. *House Un-Am. Act. Com., Appendix 9*, p. 834. Sponsor, Summer Milk Drive, '39. *Equal Justice*, 6/39, p. 7; *House Un-Am. Act. Com., Appendix 9*, p. 844. Supporter. Chicago, Illinois. *Daily Worker*, 6/20/36, p. 4.
League of Women Shoppers	Sponsor. *House Un-Am. Act. Com., Appendix 9*, p. 1006. Sponsor, New York Chapter. Letterhead, 10/28/48.
New York League of Women Shoppers	Sponsor. Letterhead, 1/25/40.
National Wallace for President Committee	Member. Press release, 3/23/48.

(References to organizations listed begin page 161.)

Notes - The figure shows a sample page from *Red Channels: The Report of Communist Influence in Radio and Television.*

Figure A.3: Sample Page from the *American Legion Magazine*



Did The Movies Really Clean House?

(Continued from page 13)

the Academy of Motion Picture Arts and Sciences, namely Jose Ferrer and Judy Holliday.

The Academy, with some two thousand members who are professionally employed in the film industry, is controlled by a solid bloc of four hundred. Despite the well-known extensive and substantial aid which both Jose Ferrer and Judy Holliday have rendered communist front organizations, they were awarded the Academy's highest recognition. Obviously, the Academy's controlling members are entirely indifferent to shocking communist-front-aid records like those of Jose Ferrer and Judy Holliday when they select the recipients of the "Oscars." Let it be underlined that this happened in 1951, not 1941.

"Oh yeah? And just how many boy friends do you think you'd have had if your father hadn't operated that still back in the hills?"

AMERICAN LEGION MAGAZINE

(2) As of April 12, 1951, the Voice of Freedom Committee – a notorious communist front which was thoroughly exposed a long time ago by Fulton Lewis, Jr., in his radio broadcasts – was passing out printed matter which contained the names of Jose Ferrer and Judy Holliday, even including one piece which bore what purported to be facsimiles of their signatures. Dorothy Parker, named as a communist party member in sworn testimony, is head of the Voice of Freedom Committee.

Other Hollywood celebrities whose names appeared on the 1951 roster of the Voice of Freedom Committee were Stella Adler, E. Y. Harburg, Zero Mostel, Edward G. Robinson and Sam Wanamaker.

(3) In all the history of Congress, no other committee has ever been the target of such abuse as that which has been heaped upon the Committee on Un-American Activities. As a sample of this abuse let us review an advertisement in *Variety*, the bible of the entertainment world, in its issue of October 29, 1947. One hundred sixteen persons from the motion picture and theatrical world declared in that advertisement that they were "disgusted and outraged" by the hearings which were then being conducted by the Committee on Un-American Activities on the subject of the communist infiltration of Hollywood. They added: "We hold that these hearings are morally wrong because: Any investigation into the political beliefs of the individual is contrary to the basic principles of our democracy." Whatever their motives or whatever their degree of ignorance, there is no dodging the fact that the signers of the *Variety* advertisement were "fronting" for the Hollywood communists.

The true character of the communist conspiracy with all its ugliness was well known long before these "big-name" entertainers made their attack on the Committee on Un-American Activities. For them to attempt to conceal the nature of that conspiracy by describing it simply as a set of "political beliefs" indicated one of two things: abysmal ignorance of communism or willful connivance with it.

There were really "big names" from the motion picture world affixed to the declaration of that *Variety* advertisement. Among them were Louis Calhern, Norman Corwin, Paul Draper, Jose Ferrer, Henry Fonda, Ava Gardner, John Garfield, Paulette Goddard, Moss Hart, Van Heflin, Lillian Hellman, Paul Henreid, Katharine Hepburn, Judy Holliday, John Houseman, Marsha Hunt, John Huston, Garson Kanin, George S. Kaufman, Elia Kazan, Gene Kelly, Philip Loeb, Myrna Loy, Aline MacMahon, Burgess Meredith, Arthur Miller, William Morris, Jr., Sono Osato, Herman Shumlin, Donald Ogden Stewart, Deems Taylor, Cornel Wilde and William Wyler.

Hundreds of motion picture celebrities have taken emphatic *and* public stands which were either out-and-out pro-communist or which had the effect of aiding and abetting the communist conspiracy. With very few exceptions, these same celebrities have *not* taken a similarly emphatic and public stand *against* the communist menace, even to this very day in 1951. No large group of them has taken a full-page advertisement in *Variety* to tell the American people that communism is *not* simply a set of "political beliefs," that it is on the contrary a malignant force which menaces the very existence of this nation, and that it is the solemn duty of the Congress of the United States to investigate and expose this menace. If these film celebrities want to reverse their 1947 stand and assure the American people that Hollywood has really cleaned house, they are, of course, at liberty to take another full-page advertisement in *Variety* in an attempt to undo their original mischief.

(4) When the fate of the Hollywood Ten went before the Supreme Court of the United States in October, 1949, a group which called itself "Cultural Workers in Motion Pictures and Other Arts" presented to the Court a brief *Amici Curiae* in the cases of John Howard Lawson and Dalton Trumbo. Two hundred eight persons from the motion picture industry signed this

UNCLE WALTER

IT SMELLS GRAND

SNIFF A WHIFF— IT SMELLS RIGHT JOLLY!

IT PACKS RIGHT

CUT TO PACK JUST RIGHT, BY GOLLY!

IT SMOKES SWEET

A MERRY SMOKE— Sir Walter Raleigh!

IT CAN'T BITE!

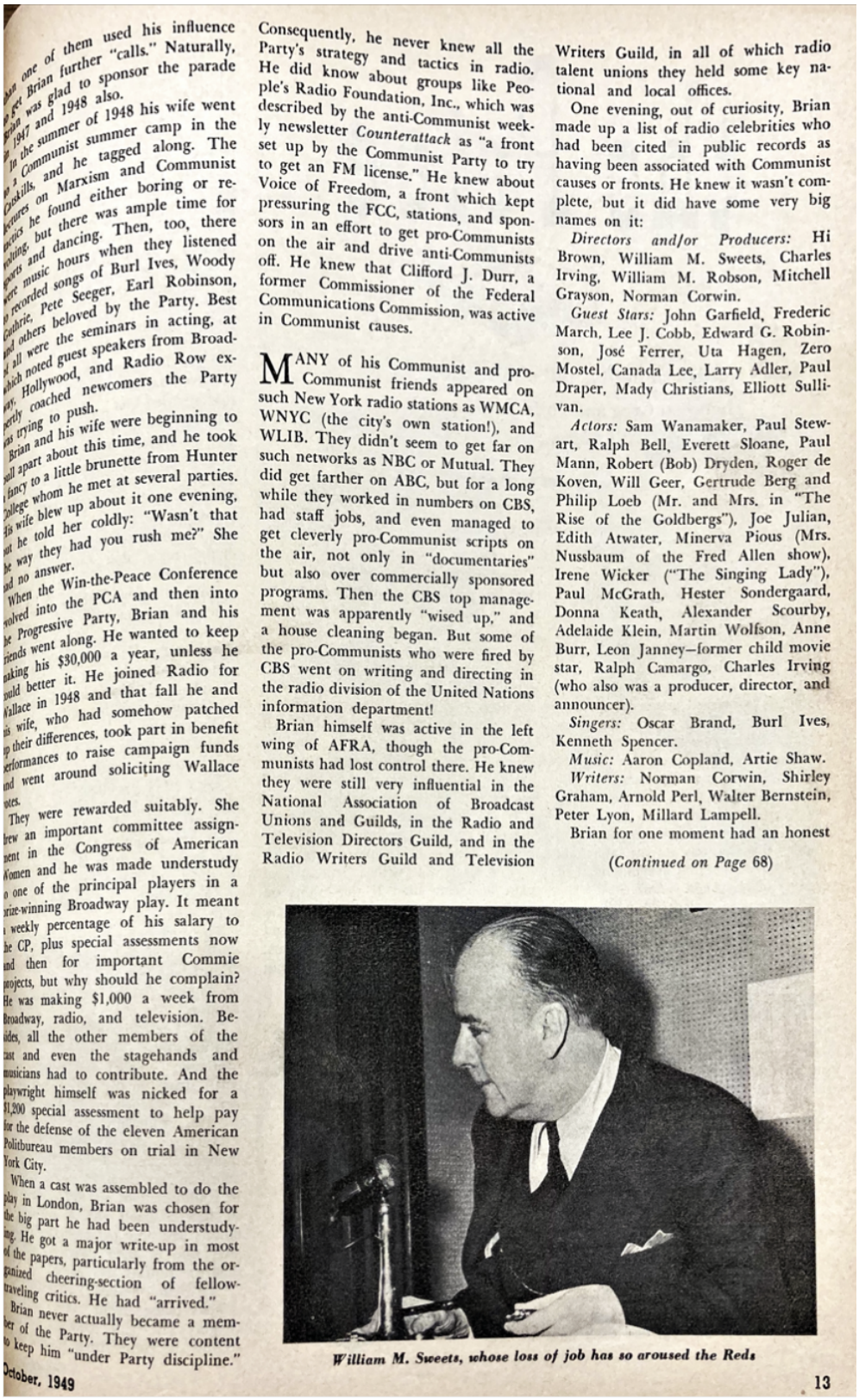
Merry Xmas!

SIR WALTER RALEIGH

SIR WALTER RALEIGH'S BLEND OF CHOICE KENTUCKY BURLEYS IS EXTRA-AGED TO GUARD AGAINST TONGUE BITE. THE LARGE SIZE CANISTER OF SIR WALTER RALEIGH— IN A BEAUTIFUL YULETIDE PACKAGE— MAKES THE PERFECT CHRISTMAS GIFT!

Notes - The figure shows a sample page from the article "Did the Movies Really Clean House?" in the December 1951 issue of the *American Legion Magazine*.

Figure A.4: Sample Page from *Sign*



...one of them used his influence ...get Brian further "calls." Naturally, ...Brian was glad to sponsor the parade ...1947 and 1948 also.

...the summer of 1948 his wife went ...Communist summer camp in the ...Catskills, and he tagged along. The ...lectures on Marxism and Communist ...topics he found either boring or re...volting, but there was ample time for ...sports and dancing. Then, too, there ...were music hours when they listened ...to recorded songs of Burl Ives, Woody ...Guthrie, Pete Seeger, Earl Robinson, ...and others beloved by the Party. Best ...of all were the seminars in acting, at ...which noted guest speakers from Broad...way, Hollywood, and Radio Row ex...pertly coached newcomers the Party ...was trying to push.

Brian and his wife were beginning to ...pull apart about this time, and he took ...a fancy to a little brunette from Hunter ...College whom he met at several parties. ...His wife blew up about it one evening, ...but he told her coldly: "Wasn't that ...the way they had you rush me?" She ...had no answer.

When the Win-the-Peace Conference ...evolved into the PCA and then into ...the Progressive Party, Brian and his ...friends went along. He wanted to keep ...making his $30,000 a year, unless he ...could better it. He joined Radio for ...Wallace in 1948 and that fall he and ...his wife, who had somehow patched ...up their differences, took part in benefit ...performances to raise campaign funds ...and went around soliciting Wallace ...votes.

They were rewarded suitably. She ...drew an important committee assign...ment in the Congress of American ...Women and he was made understudy ...to one of the principal players in a ...prize-winning Broadway play. It meant ...a weekly percentage of his salary to ...the CP, plus special assessments now ...and then for important Commie ...projects, but why should he complain? ...He was making $1,000 a week from ...Broadway, radio, and television. Be...sides, all the other members of the ...cast and even the stagehands and ...musicians had to contribute. And the ...playwright himself was nicked for a ...$1,200 special assessment to help pay ...for the defense of the eleven American ...Politbureau members on trial in New ...York City.

When a cast was assembled to do the ...play in London, Brian was chosen for ...the big part he had been understudy...ing. He got a major write-up in most ...of the papers, particularly from the or...ganized cheering-section of fellow-...traveling critics. He had "arrived."

Brian never actually became a mem...ber of the Party. They were content ...to keep him "under Party discipline." Consequently, he never knew all the Party's strategy and tactics in radio. He did know about groups like Peo...ple's Radio Foundation, Inc., which was described by the anti-Communist week...ly newsletter *Counterattack* as "a front set up by the Communist Party to try to get an FM license." He knew about Voice of Freedom, a front which kept pressuring the FCC, stations, and spon...sors in an effort to get pro-Communists on the air and drive anti-Communists off. He knew that Clifford J. Durr, a former Commissioner of the Federal Communications Commission, was active in Communist causes.

MANY of his Communist and pro-Communist friends appeared on such New York radio stations as WMCA, WNYC (the city's own station!), and WLIB. They didn't seem to get far on such networks as NBC or Mutual. They did get farther on ABC, but for a long while they worked in numbers on CBS, had staff jobs, and even managed to get cleverly pro-Communist scripts on the air, not only in "documentaries" but also over commercially sponsored programs. Then the CBS top manage...ment was apparently "wised up," and a house cleaning began. But some of the pro-Communists who were fired by CBS went on writing and directing in the radio division of the United Nations information department!

Brian himself was active in the left wing of AFRA, though the pro-Com...munists had lost control there. He knew they were still very influential in the National Association of Broadcast Unions and Guilds, in the Radio and Television Directors Guild, and in the Radio Writers Guild and Television Writers Guild, in all of which radio talent unions they held some key na...tional and local offices.

One evening, out of curiosity, Brian made up a list of radio celebrities who had been cited in public records as having been associated with Communist causes or fronts. He knew it wasn't com...plete, but it did have some very big names on it:

Directors and/or Producers: Hi Brown, William M. Sweets, Charles Irving, William M. Robson, Mitchell Grayson, Norman Corwin.

Guest Stars: John Garfield, Frederic March, Lee J. Cobb, Edward G. Robin...son, José Ferrer, Uta Hagen, Zero Mostel, Canada Lee, Larry Adler, Paul Draper, Mady Christians, Elliott Sulli...van.

Actors: Sam Wanamaker, Paul Stew...art, Ralph Bell, Everett Sloane, Paul Mann, Robert (Bob) Dryden, Roger de Koven, Will Geer, Gertrude Berg and Philip Loeb (Mr. and Mrs. in "The Rise of the Goldbergs"), Joe Julian, Edith Atwater, Minerva Pious (Mrs. Nussbaum of the Fred Allen show), Irene Wicker ("The Singing Lady"), Paul McGrath, Hester Sondergaard, Donna Keath, Alexander Scourby, Adelaide Klein, Martin Wolfson, Anne Burr, Leon Janney—former child movie star, Ralph Camargo, Charles Irving (who also was a producer, director, and announcer).

Singers: Oscar Brand, Burl Ives, Kenneth Spencer.

Music: Aaron Copland, Artie Shaw.

Writers: Norman Corwin, Shirley Graham, Arnold Perl, Walter Bernstein, Peter Lyon, Millard Lampell.

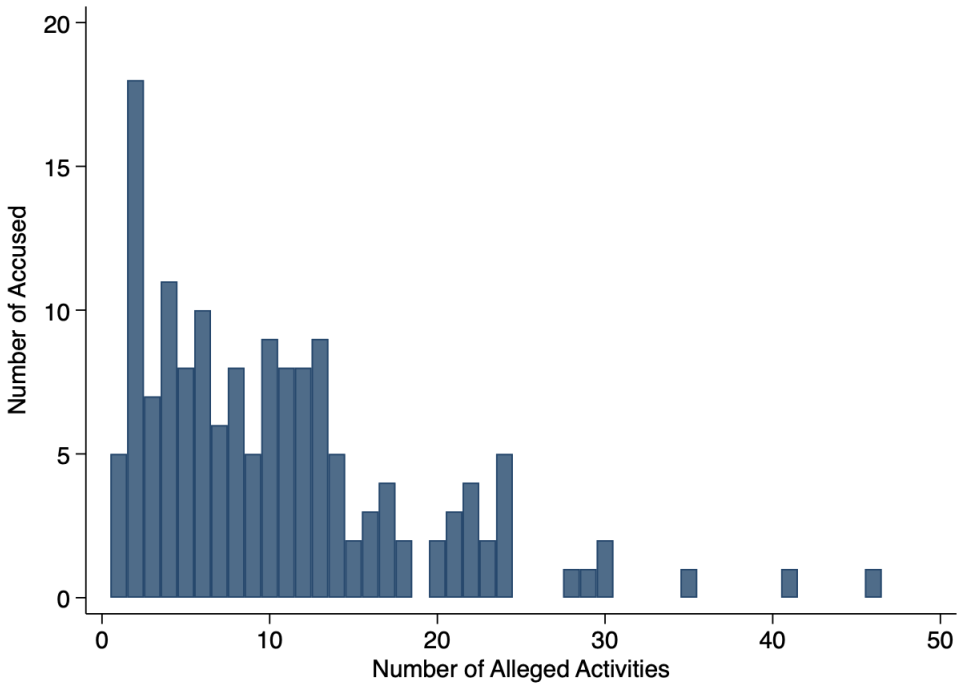
Brian for one moment had an honest

(*Continued on Page* 68)

William M. Sweets, whose loss of job has so aroused the Reds

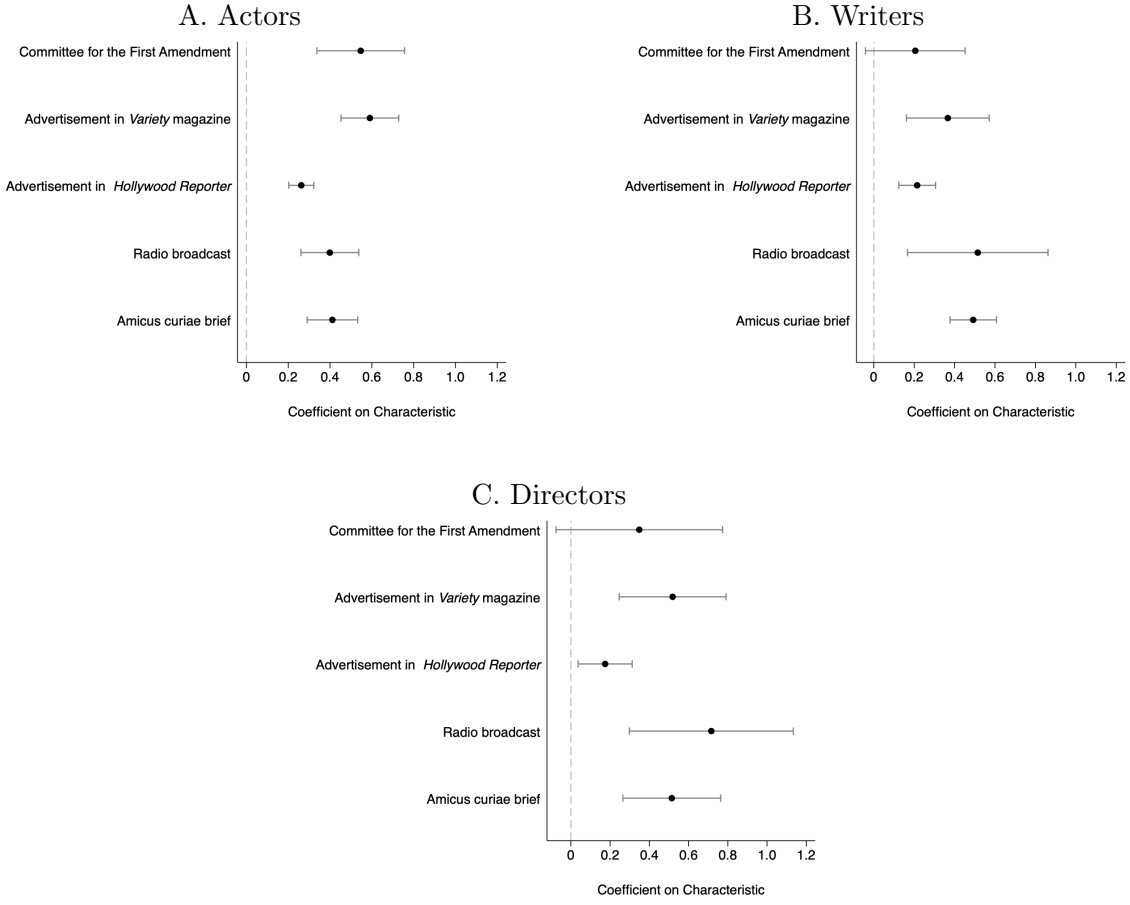
Notes - The figure shows a sample page from the article "Red Fronts in Radio" in the October 1949 issue of *Sign* magazine.

Figure A.5: Distribution of Alleged Subversive Activities in *Red Channels*



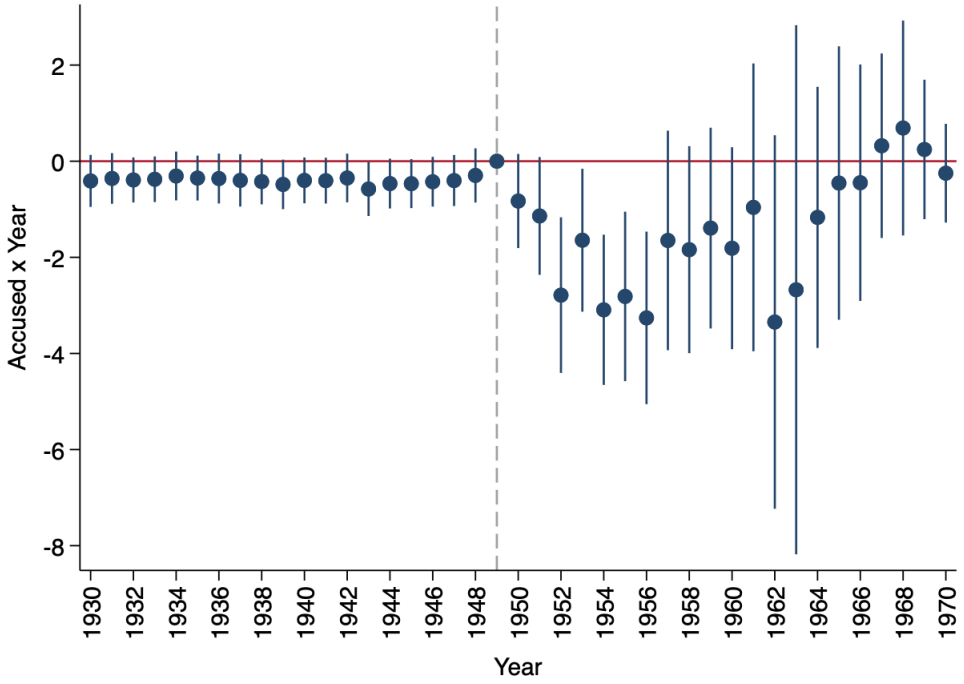
Notes - The figure shows the distribution of alleged subversive activities for all 151 individuals who were named in *Red Channels: The Report of Communist Influence in Radio and Television*.

Figure A.6: Past Activities Affect the Likelihood of Being Accused



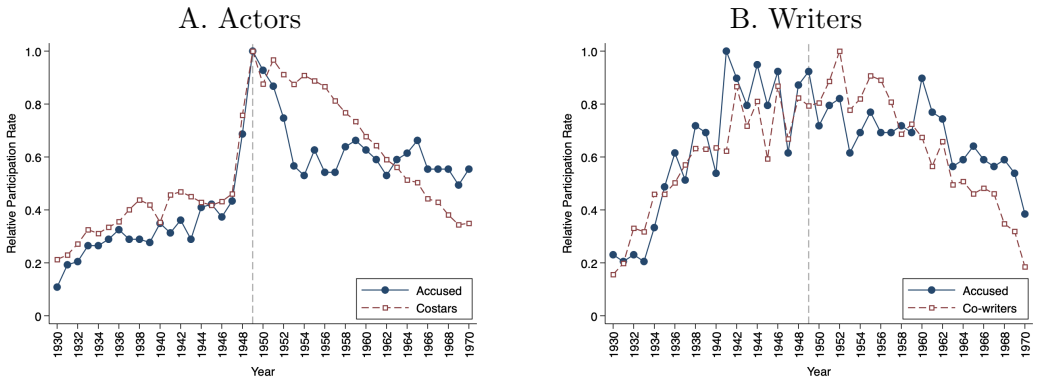
Notes - Data are from the AFI database and the Academy Awards database. The sample comprises actors (A), writers (B), or directors (C) with at least one film title between 1930-1949. Each marker shows the coefficient from a regression of an indicator for those who were accused (from around 1950 onward) on an indicator for participating in a given activity listed along the y-axis (measured before 1950), controlling for a person's demographic traits and career profile. A separate regression is run for each activity. 95 percent confidence bands based on robust standard errors are displayed. The sample sizes are 30,665 (A), 2,049 (B), and 1,831 (C) observations.

Figure A.7: Impact of Being Accused, Alternative Matched Sample



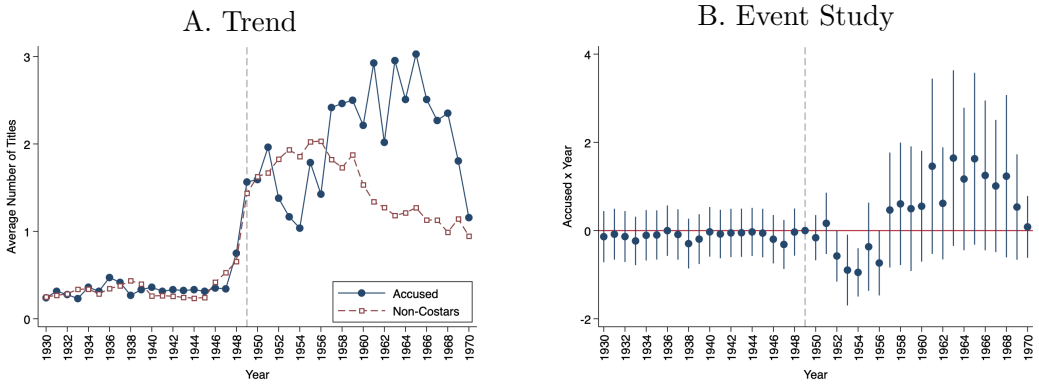
Notes - Data are from IMDb. The sample is restricted to actors who were accused and comparable costars, matched using coarsened exact matching. Compared with the baseline in Figure 1, accused actors and their costars are matched along an additional characteristic: whether a person participated in an activity opposing HUAC. The period is restricted to 1930-1970. The 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 size is 26,650 person-year observations.

Figure A.8: Relative Participation Rate



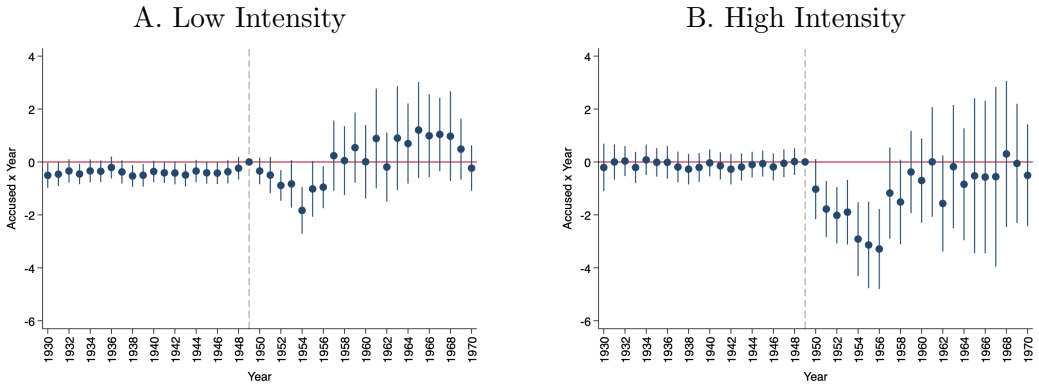
Notes - Data are from IMDb. The sample is restricted to those who were accused and comparable costars (A) or co-writers (B), matched using coarsened exact matching. The period is restricted to 1930-1970. Each figure shows the share of persons with at least one title in a given year relative to the peak share, which may be viewed as the relative participation rate in the entertainment industry, separately for the accused and the corresponding control group. The underlying sample sizes are 43,952 (A) and 18,573 (B) person-year observations.

Figure A.9: Impact of Being Accused, Non-Costars as the Control Group



Notes - Data are from IMDb. The sample is restricted to actors who were accused and comparable non-costars, matched using coarsened exact matching. The period is restricted to 1930-1970. A: The figure shows the average number of titles associated with an individual in a given year, separately for accused actors and non-costars. B: The 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 size is 381,136 person-year observations.

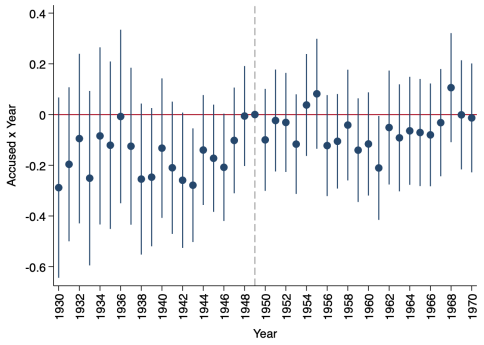
Figure A.10: Impact of Being Accused, by Intensity of Past Associations



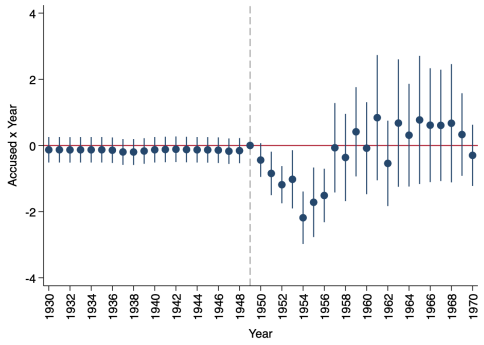
Notes - Data are from IMDb. The base sample is restricted to actors who were accused and comparable costars, matched using coarsened exact matching. The period is restricted to 1930-1970. Costars in A appeared with a future-accused actor in exactly one title before 1950 (low intensity of past associations); costars in B appeared with a future-accused actor in more than one title before 1950 (high intensity of past associations). The same treated group (accused) is used in each case. 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 31,078 (A) and 17,753 (B) person-year observations.

Figure A.11: Impact of Being Accused, by Title Type

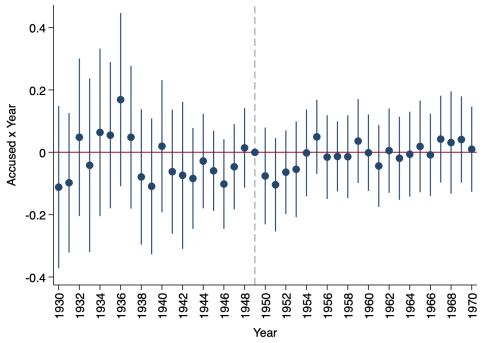
A. Movies



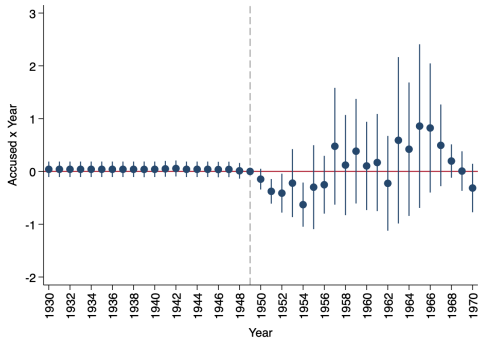
B. TV



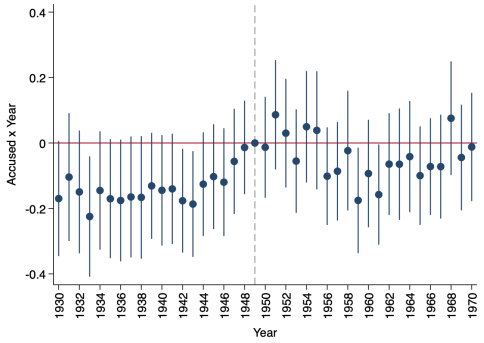
C. Movies, Major Studios



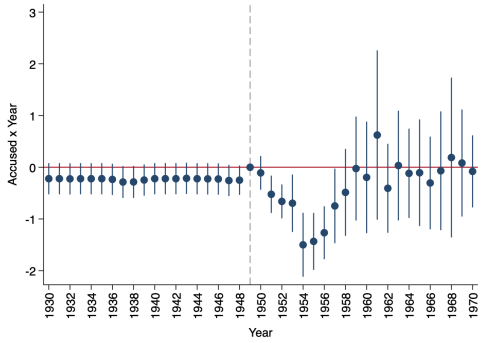
D. TV, Major Studios



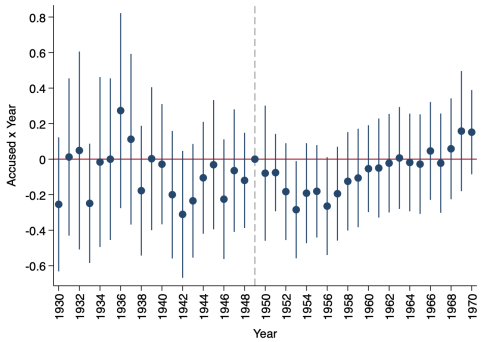
E. Movies, Minor Studios



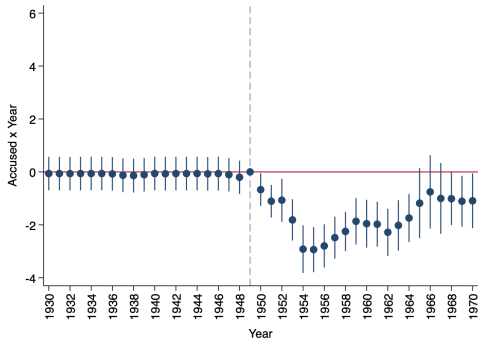
F. TV, Minor Studios



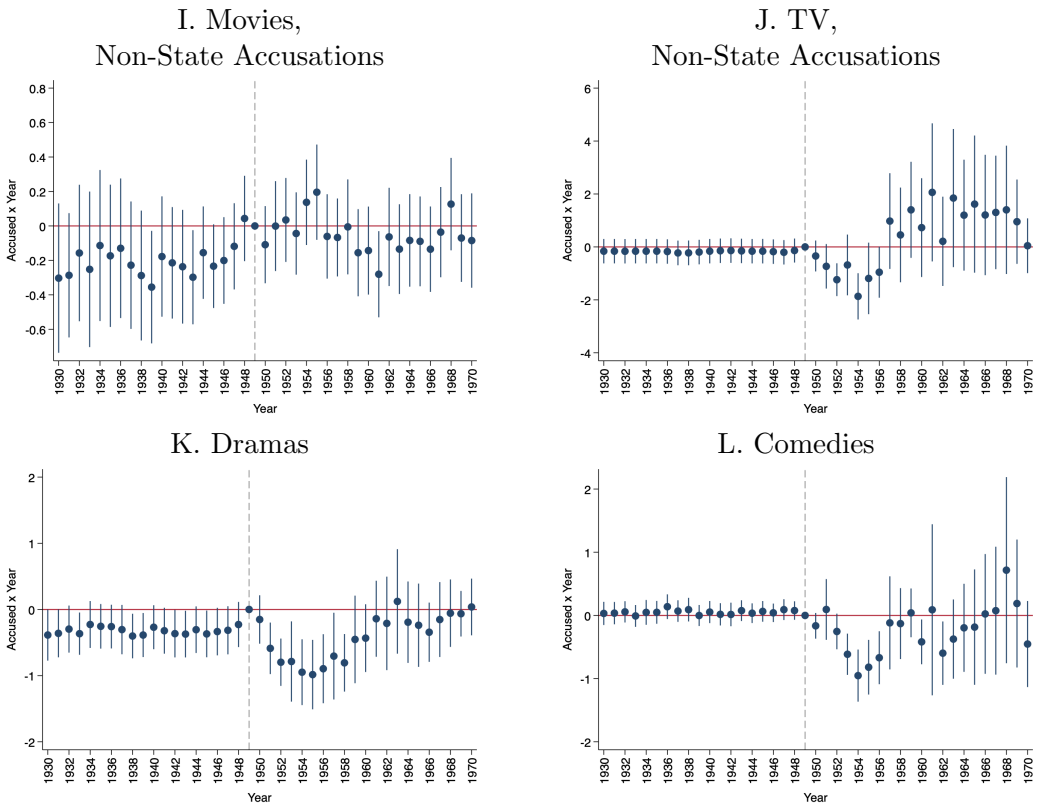
G. Movies, State-Affiliated Accusations



H. TV, State-Affiliated Accusations

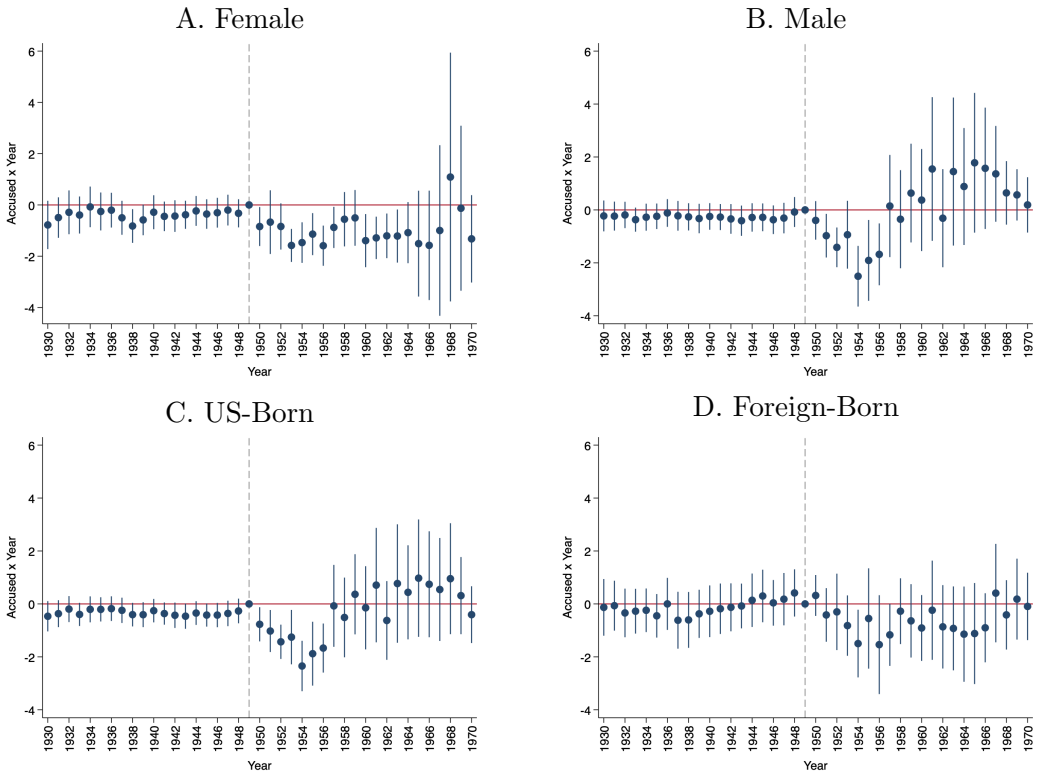


Impact of Being Accused, by Title Type (Continued)

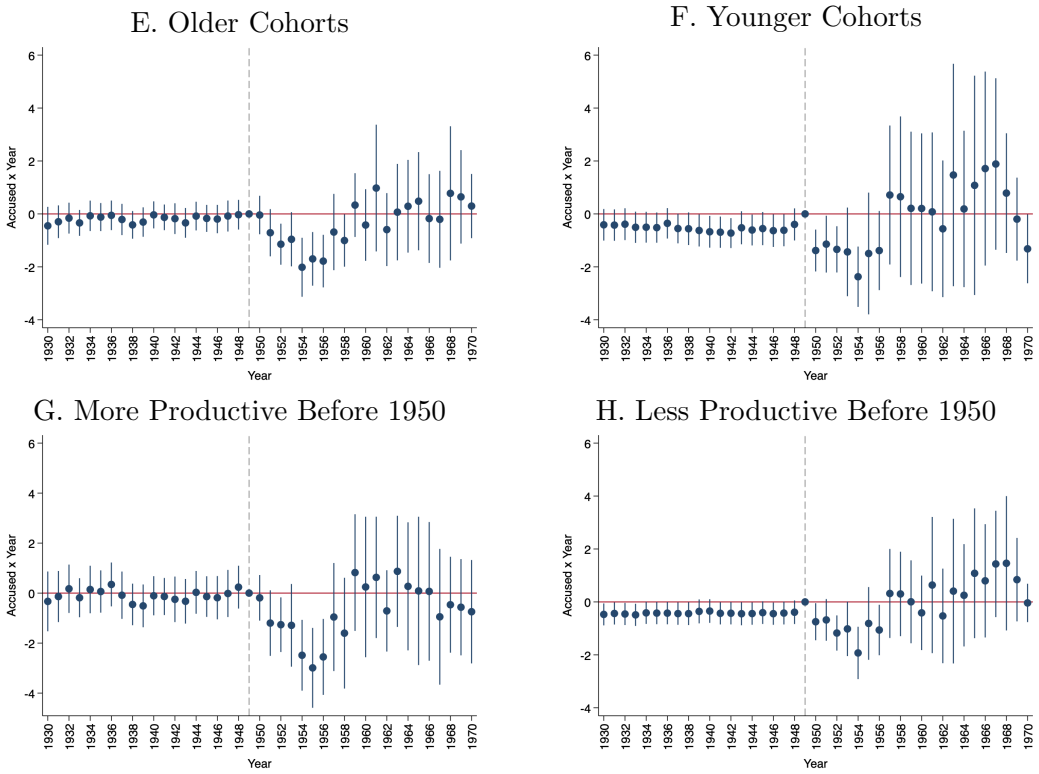


Notes - Data are from IMDb. The base sample is restricted to actors who were accused and comparable costars, matched using coarsened exact matching. For G-J, accused actors are divided into those whose names were mentioned during the HUAC trials (state-affiliated accusations) and those whose names were not (non-state accusations), while the set of costars remains the same throughout. The period is restricted to 1930-1970. Each figure shows the interaction coefficients from a regression of the number of titles associated with an individual (the type of which is specified in the subtitles) on an indicator for being accused interacted with a set of year dummies, controlling for individual and year fixed effects. Major movie studios are: Metro-Goldwyn-Mayer, Warner Brothers, Columbia, Universal, Paramount, RKO, Twentieth Century, and United Artists; Major TV studios are: CBS, NBC, and ABC. The omitted year is 1949. 95 percent confidence bands are displayed, based on standard errors clustered at the individual level. The sample sizes are 40,549 (G and H), 42,476 (I and J), and 43,952 (all other cases) person-year observations.

Figure A.12: Impact of Being Accused, by Subsample

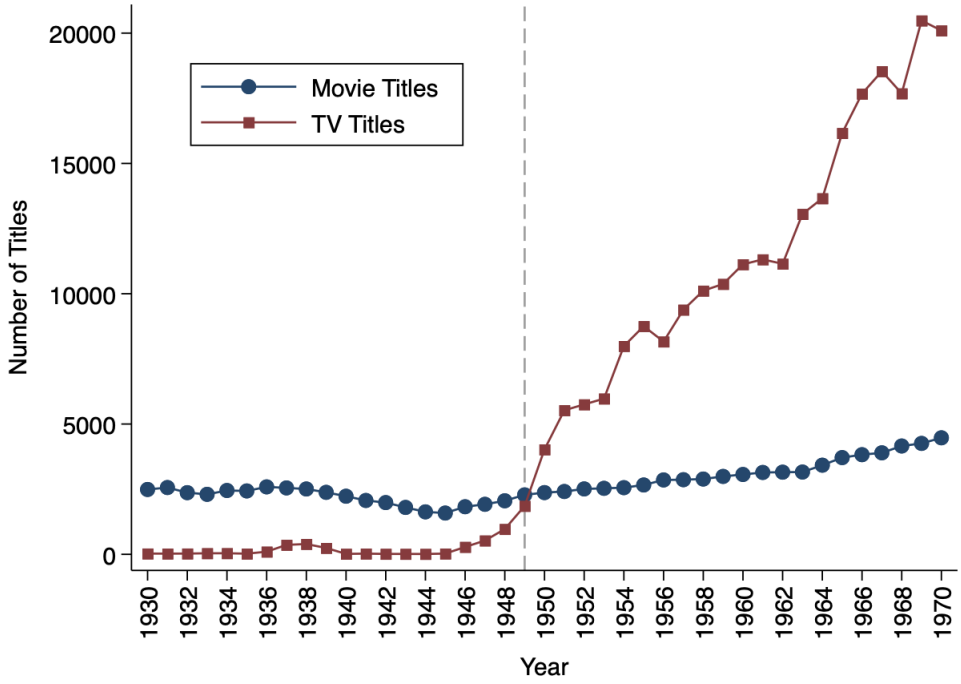


Impact of Being Accused, by Subsample (Continued)



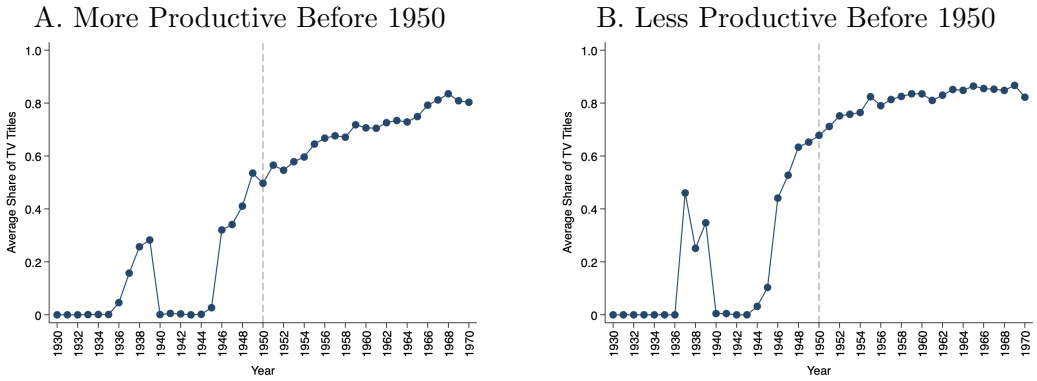
Notes - Data are from IMDb. The base sample is restricted to actors who were accused and comparable costars, matched using coarsened exact matching. Each figure then focuses on a subset of individuals, as given in the subtitles. Older cohorts refer to those born before 1912, and vice versa for younger cohorts. Productivity is measured by the total number of titles before 1950. The period is restricted to 1930-1970. 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 size ranges from 9,266 (D) to 34,563 (C) person-year observations.

Figure A.13: Trajectory of Movie and TV Production



Notes - Data are from IMDb. The period is restricted to 1930-1970. The figure shows the number of movie and TV titles released each year. The dashed vertical line demarcates the year 1949, just before the outbreak of widespread accusations.

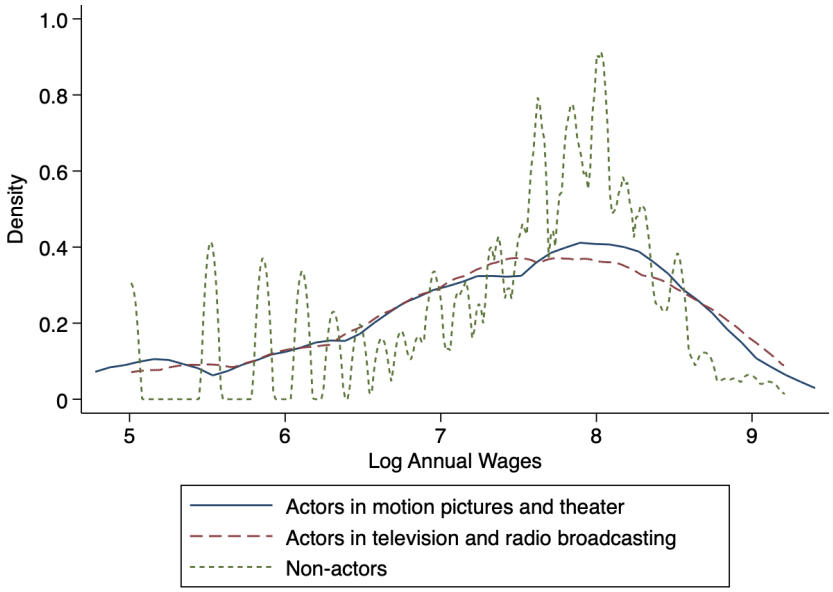
Figure A.14: Share of TV Titles, by Productivity



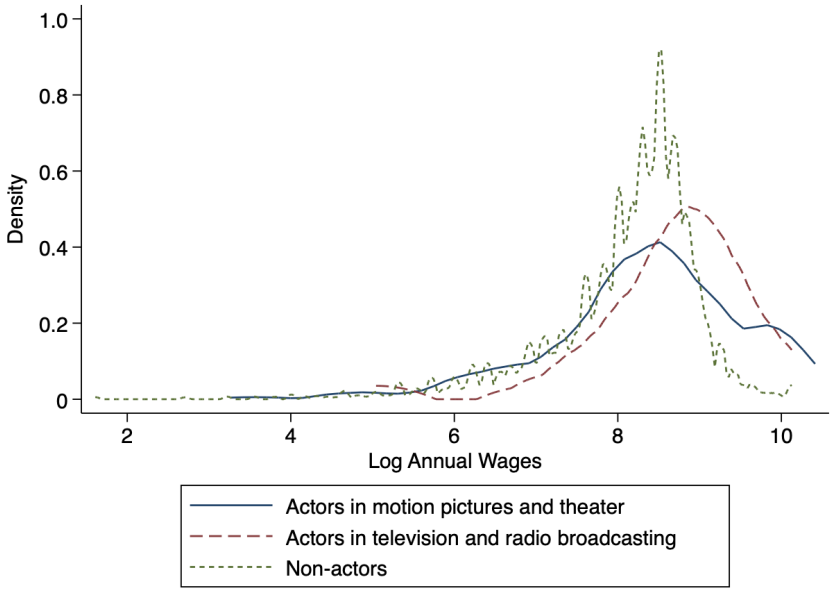
Notes - Data are from IMDb. The sample is restricted to actors who did not costar with a future-accused actor before 1950. The period is restricted to 1930-1970. Each figure shows the average share of TV titles associated with an individual, separately for those with above- (A) and below-median (B) productivity as measured by the total number of titles before 1950.

Figure A.15: Wage Density, by Occupation

A. 1950

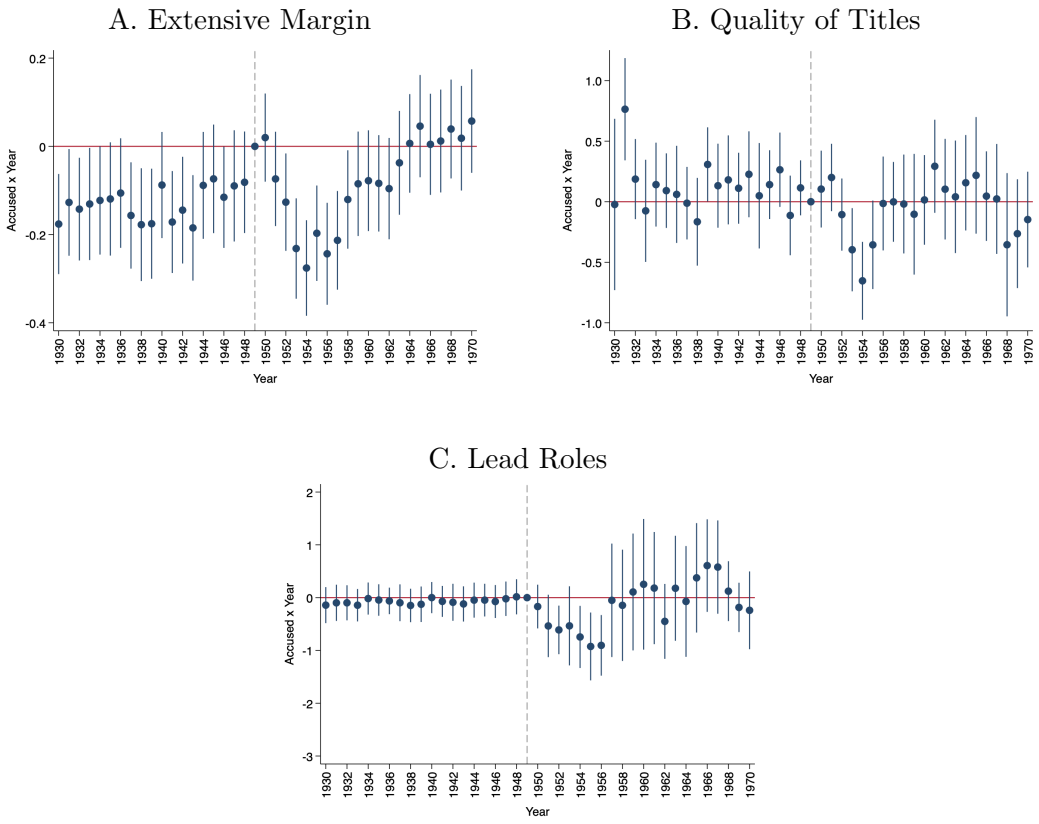


B. 1960



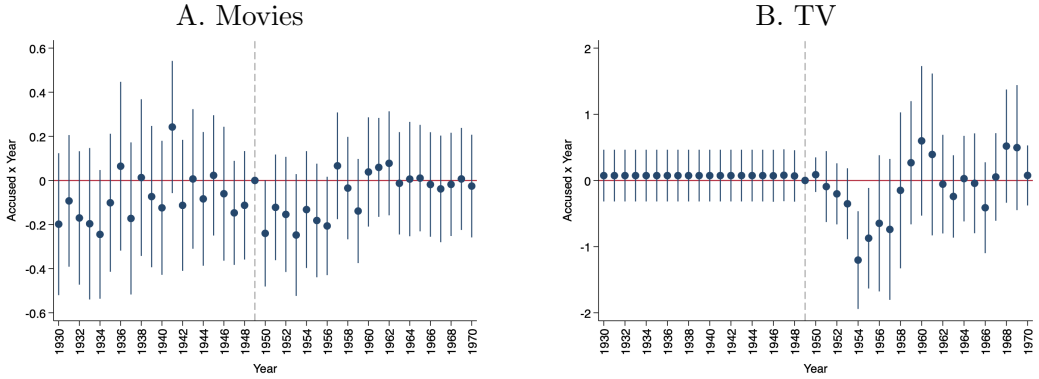
Notes - Data are from the 1950 full count census and the 1960 5 percent IPUMS sample (Ruggles et al., 2021). The sample is restricted to whites aged 18-65 with positive wages. Each figure shows the wage density plots for three groups: (i) actors in motion pictures and theater, (ii) actors in television and radio broadcasting, as well as (iii) non-actors. Sample weights are used when constructing the density plots for 1960.

Figure A.16: Impact of Being Accused, Alternative Career Outcomes



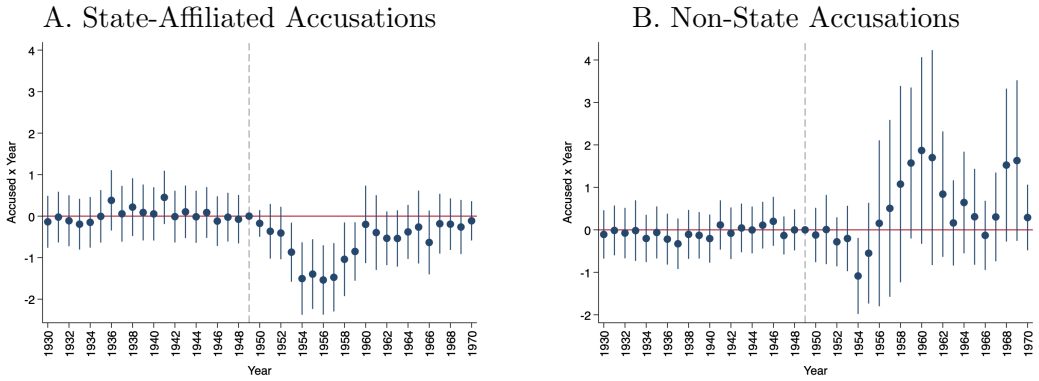
Notes - Data are from IMDb. The base sample is restricted to actors who were accused and comparable costars, matched using coarsened exact matching. The period is restricted to 1930-1970. Each figure shows the interaction coefficients from a regression of a given outcome associated with an individual on an indicator for being accused interacted with a set of year dummies, controlling for individual and year fixed effects. The outcomes are: an indicator for whether one had any titles in a given year (A), the average audience ratings for one's titles (B), and the number of lead roles one had (C). 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 C) and 10,358 (B) person-year observations.

Figure A.17: Impact of Being Accused for Writers, by Title Type



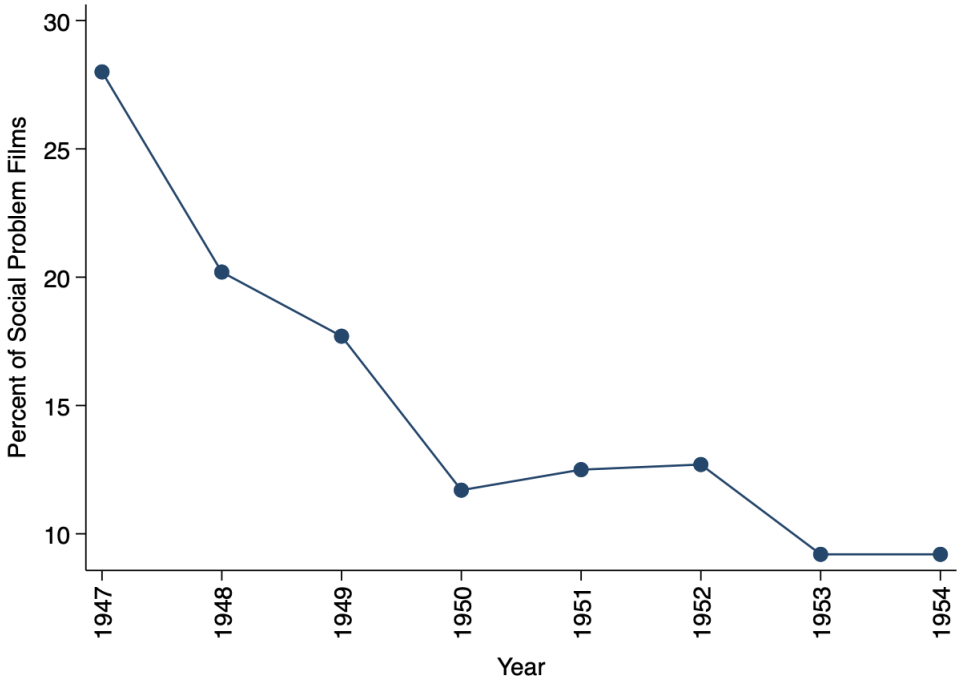
Notes - Data are from IMDb. The sample is restricted to writers who were accused and comparable co-writers, matched using coarsened exact matching. The period is restricted to 1930-1970. Each figure shows the interaction coefficients from a regression of the number of movie (A) or TV (B) titles associated 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 size is 18,573 person-year observations.

Figure A.18: Impact of Being Accused for Writers, by Accusation Type



Notes - Data are from IMDb. The base sample is restricted to writers who were accused and comparable co-writers, matched using coarsened exact matching. Accused writers are divided into those whose names were mentioned during the HUAC trials (A) and those whose names were not (B). The set of co-writers is the same in both cases. The period is restricted to 1930-1970. 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. The sample sizes are 17,015 (A) and 16,277 (B) person-year observations.

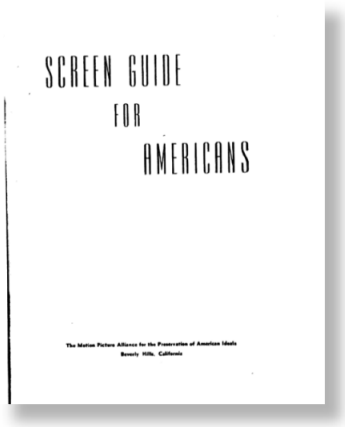
Figure A.19: Trend in Social Problem Films



Notes - Data are from Cogley (1956a). The figure shows the percent of feature-length motion pictures approved by the Production Code Administration where the predominant classification was "social problems and psychological."

Figure A.20: Ayn Rand's *Screen Guide for Americans* (1947)

1. **Don't Take Politics Lightly.**
2. **Don't Smear the Free Enterprise System.**
3. **Don't Smear Industrialists.**
4. **Don't Smear Wealth.**
5. **Don't Smear the Profit Motive.**
6. **Don't Smear Success.**
7. **Don't Glorify Failure.**
8. **Don't Glorify Depravity.**
9. **Don't Deify "The Common Man."**
10. **Don't Glorify the Collective.**
11. **Don't Smear an Independent Man.**
12. **Don't Use Current Events Carelessly.**
13. **Don't Smear American Political Institutions.**



Notes - The figure shows the 13 recommendations in Ayn Rand's *Screen Guide for Americans* (1947) along with the front page of the publication.

Figure A.21: Film Subjects in the AFI Database, Example

SUBJECT

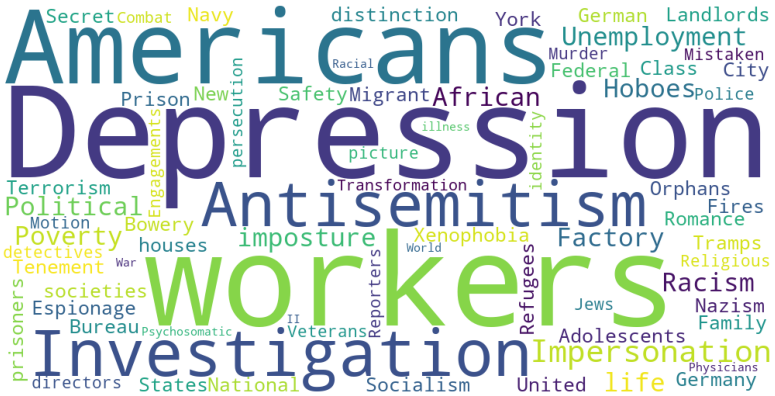
Subject (Major):		
Class distinction	Factory workers	Orphans
Prison life	Romance	The Depression, 1929
Tramps	Unemployment	

Subject (Minor):		
Arrests	Cafés	Cocaine
Dancers	Department stores	Hunger
Inventions	Mechanics	Mistaken identity
Nervous breakdown	Police	Radicalism
Roller-skating	Waiters	

Notes - The figure shows the major and minor subjects of the film *Modern Times* (1936), as indicated in the AFI database.

Figure A.22: Major Subjects of Benchmark Films

A. Progressive Films

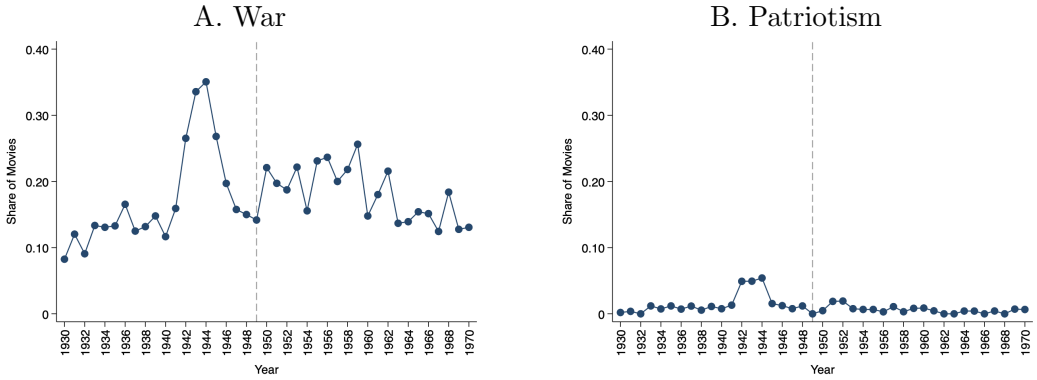


B. Conservative Films



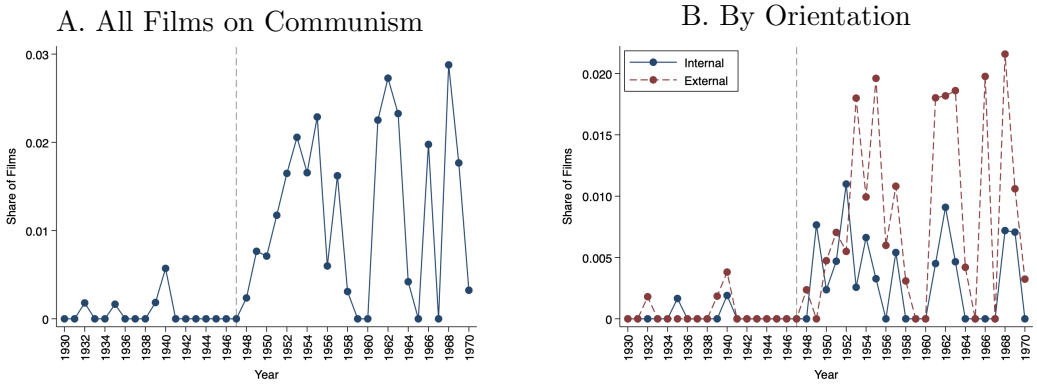
Notes - Each figure shows a word cloud of the major subjects of the benchmark set of progressive (A, Table A.7) or conservative (B, Table A.8) films, as indicated in the AFI database.

Figure A.23: Films Related to War and Patriotism



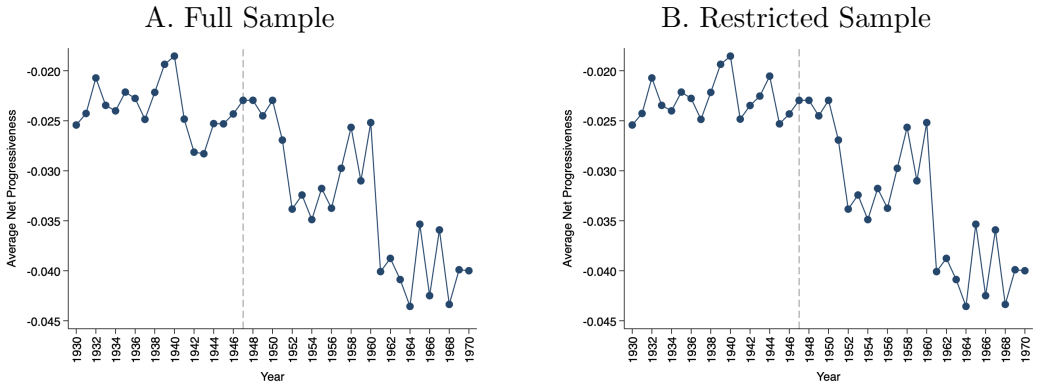
Notes - Data are from the AFI database. Each figure shows the share of American films with war- (A) or patriotism-related (B) subjects each year.

Figure A.24: Films on Communism



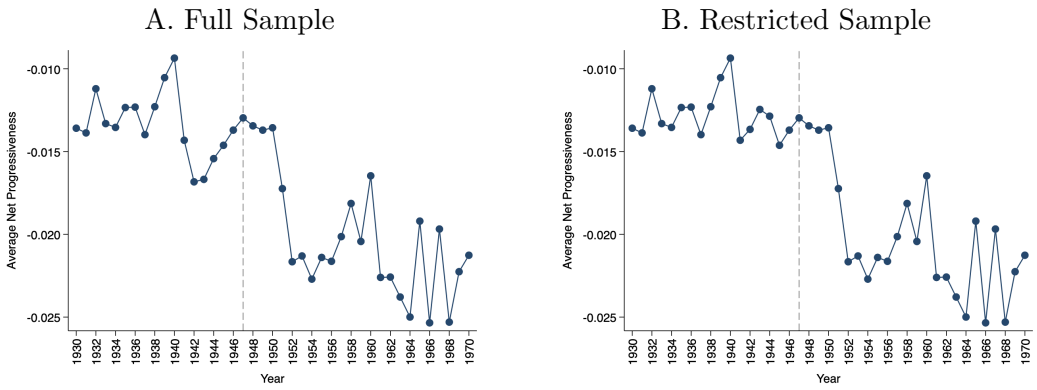
Notes - Data are from the AFI database. Each figure shows the share of American films on communism, as a whole (A) or by orientation (internal versus external communism) (B).

Figure A.25: Net Progressiveness of Films, Excluding Films on Communism



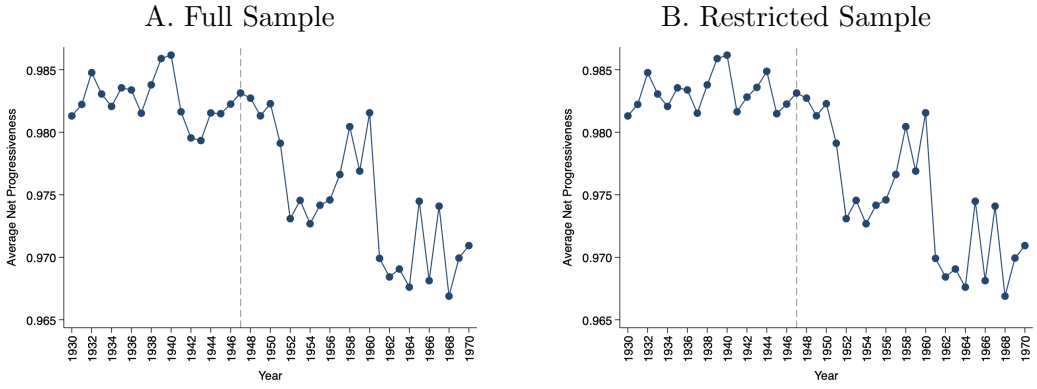
Notes - Each figure shows the average net progressiveness of American films by year, excluding films on communism. B further excludes films between 1942-1944 that had war- or patriotism-related subjects. The vertical lines demarcate the year 1947, when the Hollywood Ten trials occurred.

Figure A.26: Net Progressiveness of Films, Embedding on Major Subjects and Synopses



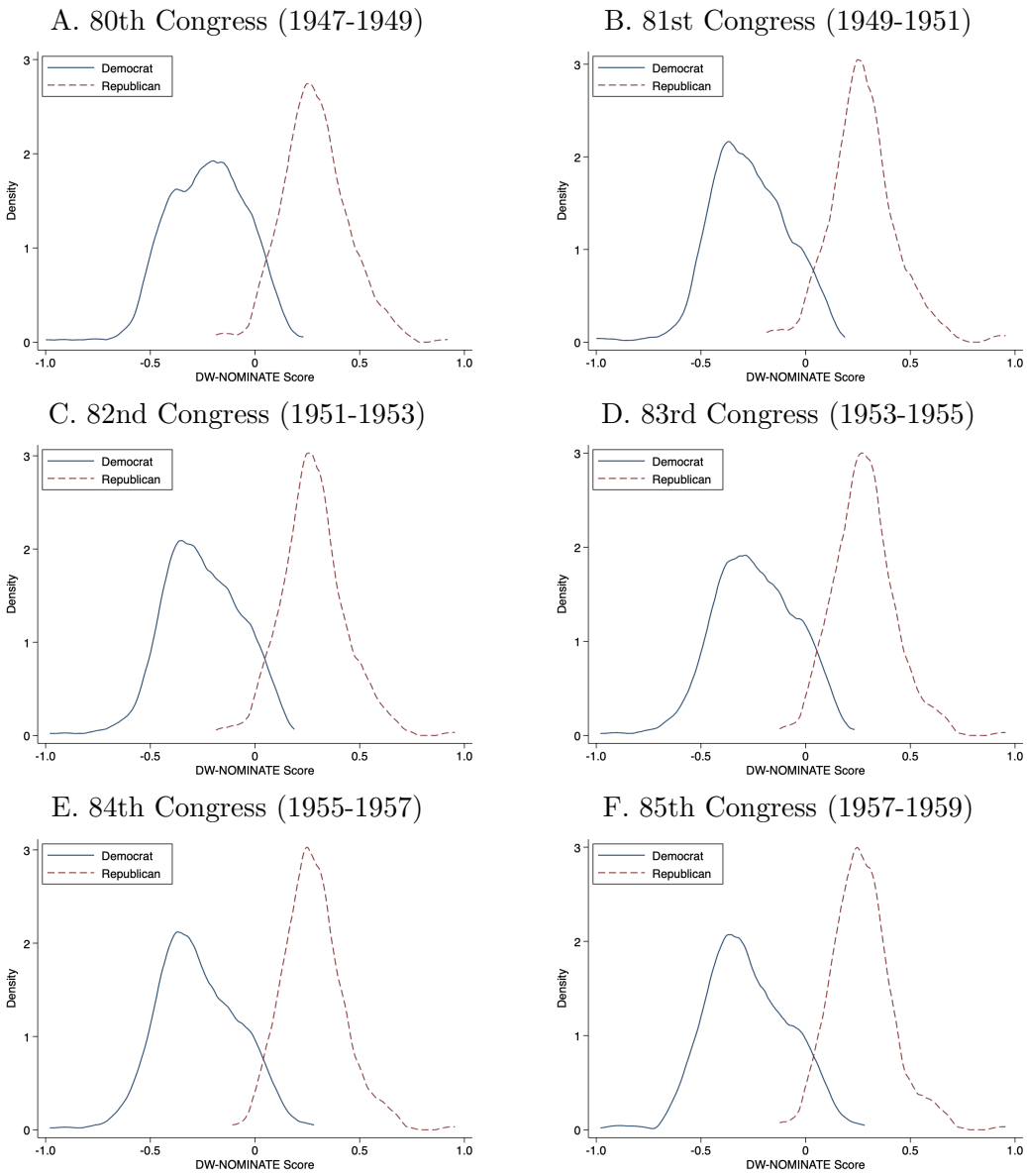
Notes - Each figure shows the average net progressiveness of American films by year, where the measure of net progressiveness is constructed by embedding on both major subjects and synopses. B excludes films between 1942-1944 that had war- or patriotism-related subjects. The vertical lines demarcate the year 1947, when the Hollywood Ten trials occurred.

Figure A.27: Net Progressiveness of Films, Ratio-Based Measure



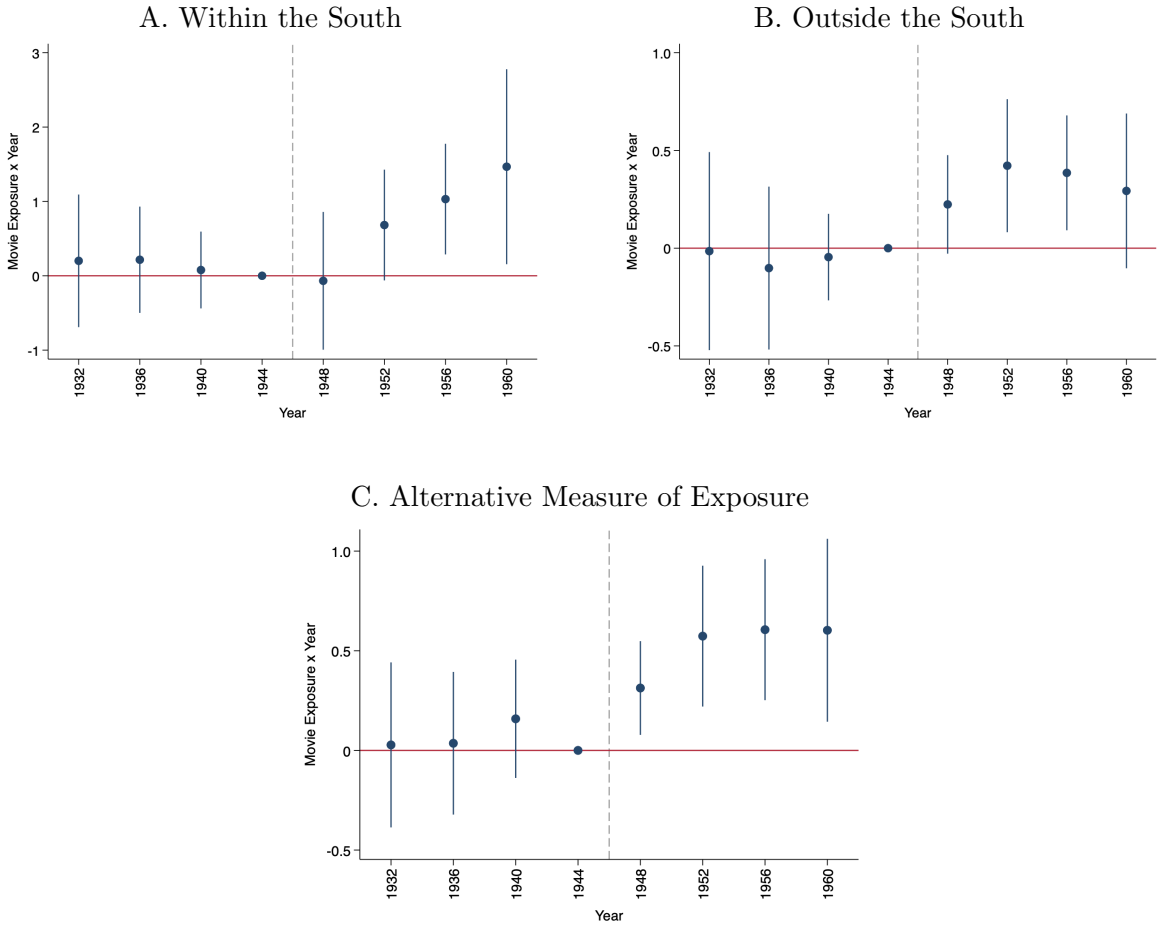
Notes - Each figure shows the average net progressiveness of American films by year, using a ratio-based measure of net progressiveness: (Progressiveness + 1)/(Conservativeness + 1). B excludes films between 1942-1944 that had war- or patriotism-related subjects. The vertical lines demarcate the year 1947, when the Hollywood Ten trials occurred.

Figure A.28: Political Leanings, Members of Congress



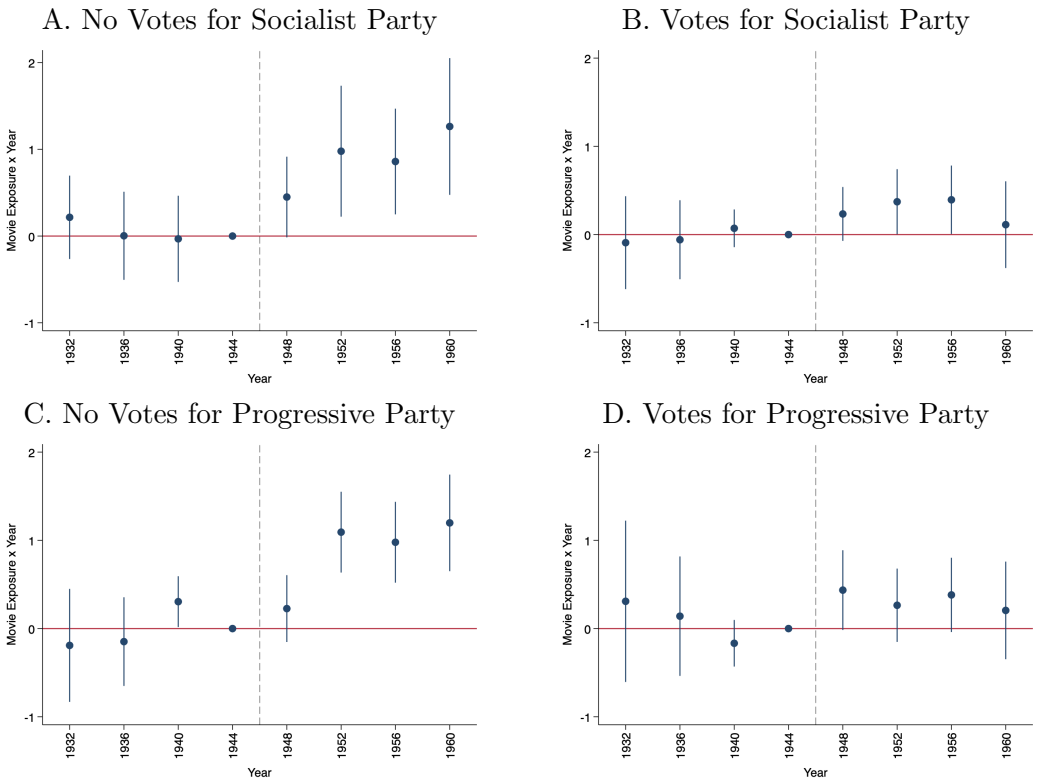
Notes - Data are from Lewis et al. (2024). Each figure shows the distribution of the first dimension of DW-NOMINATE scores for members of Congress, separately for Democrats (solid line) and Republicans (dashed line). Higher scores indicate more conservative ideologies.

Figure A.29: Impact of Movie Exposure on Republican Vote Share, Additional Analysis



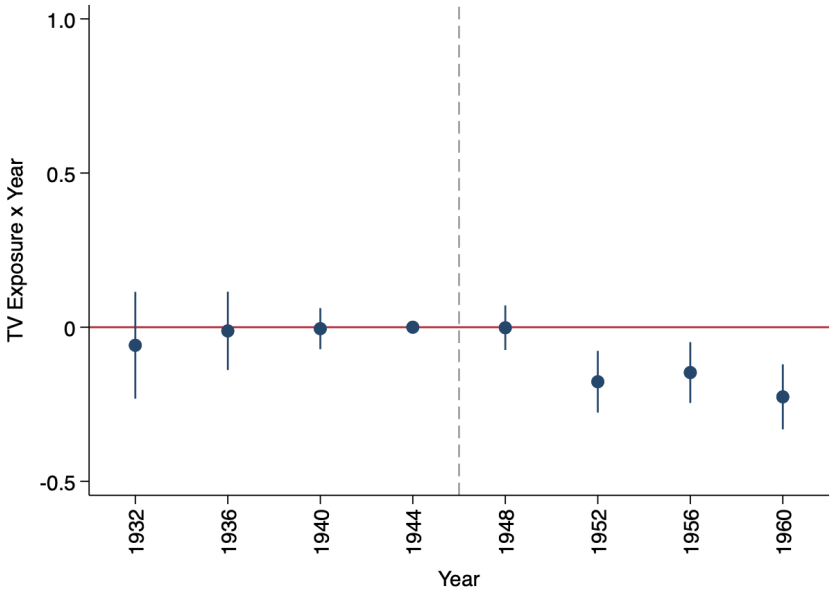
Notes - Data are from the 1940 *Film Daily Year Book*, Clubb et al. (2006), Gentzkow and Shapiro (2008), Gentzkow et al. (2014), and Haines (2010). A is restricted to counties in the South while B is restricted to counties outside the South. The period is restricted to the presidential election years from 1932-1960. Each 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 theaters per 1,000 residents (A and B) or movie theater seats per 1,000 residents (C)) 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, population density, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent owner occupied dwellings, log median value of owner occupied dwellings, percent unemployed, percent in manufacturing, log average income, and percent church members (1936), average past Republican and Democratic vote shares as well as 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 sizes are 8,996 (A), 15,709 (B), and 24,705 (C) county-year observations.

Figure A.30: Impact of Movie Exposure on Republican Vote Share, by Conservativeness



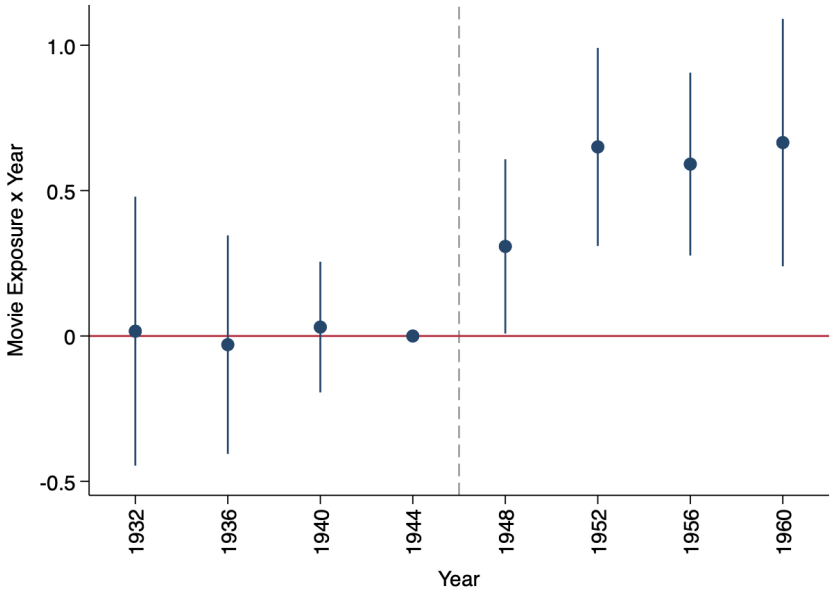
Notes - Data are from the 1940 *Film Daily Year Book*, Clubb et al. (2006), Gentzkow and Shapiro (2008), Gentzkow et al. (2014), and Haines (2010). The period is restricted to the presidential elections from 1932-1960. A is restricted to counties with no votes for the Socialist Party in 1932, while B is restricted to counties with votes for the Socialist Party in 1932. C is restricted to counties with no votes for the progressive Party in 1948, while D is restricted to counties with votes for the Progressive Party in 1948. Each 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 theaters 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, population density, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent owner occupied dwellings, log median value of owner occupied dwellings, percent unemployed, percent in manufacturing, log average income, percent church members (1936), average past Republican and Democratic vote shares as well as 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 sizes are 11,747 (A), 12,912 (B), 16,317 (C), and 8,104 (D) county-year observations.

Figure A.31: Impact of TV 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 election years from 1932-1960. The figure shows the interaction coefficients from a regression of the Republican vote share in a given presidential election on the percent of households with TV (measured in 1950) 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, population density, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent owner occupied dwellings, log median value of owner occupied dwellings, percent unemployed, percent in manufacturing, log average income, percent church members (1936), average past Republican and Democratic vote shares as well as voter turnout in presidential elections (1928-1936), percent of households with radio, log newspaper circulation per 1,000 residents, and movie theaters 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 24,705 county-year observations.

Figure A.32: Impact of Movie Exposure, Controlling for Newsreel Theaters



Notes - Data are from the 1940 and 1943 *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 1932-1960. 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 theaters 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, population density, percent male, percent Black, percent aged 60 and over, percent with a college degree, percent owner occupied dwellings, log median value of owner occupied dwellings, percent unemployed, percent in manufacturing, log average income, percent church members (1936), average past Republican and Democratic vote shares as well as voter turnout in presidential elections (1928-1936), percent of households with radio, percent of households with TV (1950), log newspaper circulation per 1,000 residents, and the number of newsreel theaters per 1,000 residents (1943). 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 24,705 county-year observations.