

How Much Does Political Uncertainty Matter? The Case of Louisiana under Huey Long*

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Abstract

We study the role of political uncertainty on economic outcomes using the case of Huey Long's tenure as governor of Louisiana during the Great Depression. Using primary sources, we construct two well-established measures of uncertainty specifically for Louisiana: stock price volatility and newspaper mentions of uncertainty. Combining these uncertainty measures with employment data from the Census of Manufactures, we attempt to identify the effects of political uncertainty using the state of Mississippi as a control group. We find limited evidence for the significance of political uncertainty in a standard differences-in-differences framework, even when restricting our attention to border counties. We conclude that whatever political uncertainty was attributable to Huey Long mattered very little for economic outcomes.

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1 Introduction

Just as uncertainty engendered by the political process has been proposed as a cause of the current weak recovery, political uncertainty was put forward as a reason for the weak recovery from the trough of the Great Depression in 1933. This view for the Great Depression dates back to Schumpeter (1942) and has continued through Lucas (2011) in the present day. All of these authors could point to any number of policy changes in the first and second New Deals as potential sources of this uncertainty. For example, Higgs (1997) focused on the second New Deal and argued for a widespread fear that property rights were threatened. In a public lecture, Lucas (2011) emphasized the deleterious effects of political uncertainty drawing on quotes from Franklin Delano Roosevelt calling businessmen “malefactors of great wealth.” While suggestive, Lucas himself admits that well-identified quantitative evidence is lacking on the role of political uncertainty in determining economic outcomes.

While much of the focus for the Depression has been on aggregate time series variation in uncertainty, this period also provides a number of potentially useful natural experiments in the cross-section to explore the relationship between growth and uncertainty. In particular, the Depression saw the rise of a number of politicians, pundits, and policy makers at a local level who, in many cases, went well beyond the “radical” proposals and rhetoric of the Roosevelt administration. Many of the people advocating the most extreme reforms such as Father Charles Coughlin¹ never actually attained political office and, hence, had no real chance to implement the populist policies they supported. One of those people who actually gained office was Huey P. Long, who became governor of Louisiana in 1928. He continued to run the state essentially unchecked, even after being elected U.S. Senator in 1930, until his assassination in 1935. While the case of FDR’s presidency is often cited as a clear example of radical policies engendering uncertainty and retarding recovery (Higgs, 1997), we would argue that Long is potentially an even more extreme example. Roosevelt himself certainly thought so. He viewed Long as one of the two most dangerous men in America, Huey being the threat from the left and General Douglas MacArthur being the threat from the right. The president’s 1935 “left turn,” which included a sharp increase in income and wealth taxes to broaden the distribution of wealth, drew clear inspiration from Long’s “Share Our Wealth” platform (Williams, 1981, p. 836). What made Long unique was not only his policies but the way he wielded unchecked control over the state.

This paper attempts to identify changes in political uncertainty caused by particular actions of Long and to measure the effects of these changes on economic outcomes. There are two key questions in addressing the role of uncertainty. First of all, how do we measure uncertainty, which, by definition, involves unobservable beliefs over second moments of future outcomes? Second, once we have these uncertainty measure, how do we estimate the effects of uncertainty? There have been essentially two approaches taken to the first question. The first method uses *realized* second

¹Coughlin was a Catholic priest with a popular radio program at the time who pushed for a major redistribution of wealth. At his peak, his show was heard by millions of listeners all across the country, and he was an ally of other radicals like Huey Long.

moments of various economic variables to infer what uncertainty was *ex ante*. For example, a number of authors such as Romer (1990), Mathy (2014), Voth (2002), and Bloom (2009) use the *ex post* volatility of stock prices as a proxy for uncertainty. Some more recent studies like Leduc and Liu (2012) and Basu and Bundick (2012) are able to use implied volatility measures from options such as the VIX or the VOX index, but these are only available back to the 1980s. The second approach, which one might call a narrative approach, has attempted to quantify the amount of discussion of uncertainty in the popular press. For example, Alexopoulos and Cohen (2009) count the number of articles in the *New York Times* that mention economic uncertainty as an uncertainty measure. In a closely related paper, Baker et al. (2011) construct a similar measure of political uncertainty restricting attention to articles with terms involving the economy, uncertainty and policy-related terms like “taxes” and “deficits.”²

We will apply these two approaches to measure political uncertainty for the specific case of Huey Long’s Louisiana by constructing a stock price volatility measure using Louisiana-based stocks listed on the New Orleans Stock Exchange and on the New York Stock Exchange, as well as a newspaper index based on uncertainty-related articles in the New Orleans paper of record, *The Times-Picayune*. This period of history in Louisiana did not in any way lack for the possibility for unexpected and uncertain developments, ranging from the special tax Long attempted to have imposed on Standard Oil in 1929 to the takeover of a courthouse in Baton Rouge by a paramilitary organization opposed to Long in 1935. Our first finding is that, while there are spikes in the uncertainty measures relative to a national aggregate, very rarely can we identify particular political events that correspond to these spikes. This contrasts with the related literature such as the paper by Bloom (2009), which found a close correspondence between major political events like JFK’s assassination and the Cuban Missile crisis and uncertainty shocks as measured by stock volatility spikes.

The second question, putting aside the measurement of uncertainty, is how to identify the causal effects of these measured changes in uncertainty. Recessions themselves may generate increases in political uncertainty, reversing the standard direction of causality from increases in uncertainty to declines in investment and output. Pastor and Veronesi (2012) provide a formal model of precisely this direction of causality with slow growth leading to political uncertainty due to increased demands for experimentation in policy, though (Baker and Bloom, 2013) prevent evidence for the standard causal channel. It is hard not to interpret much of the New Deal as a direct response to the collapse in the aggregate economy before Franklin Delano Roosevelt’s election. Many of the policies implemented by FDR were already being debated before his election and the fact that they were actually implemented may have had more to do with the economic crisis than Roosevelt’s particular political view.

Because of this endogeneity concern, we use a difference-in-differences strategy to identify the effects of political uncertainty using the bordering state of Mississippi as a control group. The only

²They also include forecast disagreement between professional forecasters, the number of expiring tax provisions, and some other factors.

other paper that we are aware that attempts to address this endogeneity issue through natural experiments is that of Baker and Bloom (2013), which uses natural disasters, terrorism and unexpected political changes as exogenous sources of variation in uncertainty. We collect establishment-level data from the Census of Manufactures, which provide monthly employment counts. Besides providing higher frequency variation, these data allow us to examine the heterogeneity in the effect across different plant sizes and industries. They also permit the use of within state geographic variation to identify the effects by focusing on counties along the state border as in the paper by Holmes (1998).

We find little evidence that uncertainty mattered for employment in Louisiana manufacturing establishments. Estimated effects are small and insignificant. This is true whether we use the full sample or restrict our attention to border counties. This contrasts with many of the other results in this literature that find significant effects, such as in Baker and Bloom (2013) and Shoag and Veuger (2013). The latter paper uses variation in state-level policy uncertainty to explain cross-sectional variation in the employment outcome of states during the Great Recession, finding that states with higher policy uncertainty had lower employment levels. Our results are particularly striking because the treatment-control framework we use, if anything, would tend to overstate the general equilibrium effects for the reason that part of the measured “effect” may simply be a reallocation of economic activity from Louisiana across the border in Mississippi, which nets out in the aggregate.

A separate part of the literature has focused specifically on economic as opposed to political uncertainty. While political uncertainty would be driven by factors such as future tax rates, economic uncertainty instead would be generated by uncertainty over economic fundamentals like productivity or demand. For example, Romer (1990) argues that uncertainty caused by the 1929 crash stock market can explain the decline in consumer durables consumption in late 1929 and 1930. Following that work, Mathy (2011) uses a VAR approach to identify additional support for this channel. Federer and Zalewski (1994) argues for interest-rate uncertainty as a channel through which banking crises and the collapse of the international gold standard in the Depression had negative impacts on the real economy. For modern business cycles, Bloom et al. (2012) and Fernandez-Villaverde et al. (2011) find large negative effects of economic uncertainty with contrasting studies such as Born and Pfeifer (2011) finding little effect.

2 Historical Background on Long’s Political Career

Huey Long’s political ambition was evident early from early in his life when, while in high school, he openly boasted that he would ascend to the American presidency after passing through the offices of Governor and Senator of Louisiana (Williams, 1981, p. 39). After working as a traveling salesman and lawyer, in 1918, Huey Long began his political career by winning election to the Louisiana Railroad Commission³. From the beginning of his political career, Huey campaigned on a populist platform, telling crowds in his first campaign for public office that his opponent was a tool of big

³The Commission was renamed to the Louisiana Public Service Commission while Huey was a commissioner (Williams, 1981, p. 145).

business (Hair, 1991). The Railroad Commission was responsible for the regulation of oil and gas pipelines in addition to that of all public transportation in the state. Previous commissioners tended to intervene little and to acquiesce to the wishes of the businesses they regulated (Hair, 1991). Long, however, used his post to launch public, populist attacks on Standard Oil, Louisiana's largest oil company and a lifelong enemy of Long. He called the company an "octopus" and "highway bandit" (qtd. in Hair 1991, p. 92), and demanded that the incumbent governor work with the legislature to declare oil pipeline companies public utilities so they would be subject to more extensive regulation. When the governor refused, Long called him "the criminal who disgraces the gubernatorial chair" (qtd. in Hair (1991), p. 92)

In 1924, Long ran for the Democratic nomination for governor and lost. As a astute observer of Louisiana politics, he himself likely knew that he had little chance of election. The poll tax in place at the time effectively disenfranchised a key portion of Long's base, poor whites. In addition, Long had little press support and few Louisiana power brokers backed him, which all added up to a sound defeat by the incumbent governor (Hair, 1991). However, he did score a surprising third place finish, which was an indicator of his future political successes. Long ran again in 1928 with more political experience, a better developed political organization, and more favorable circumstances. Most importantly, Long increased his support in southern Louisiana by campaigning for the reelection of the Cajun and Catholic U.S. Senator Edwin Broussard (Hair, 1991). Louisiana has a historic cultural split between the northern half of the state, which is more similar to the rest of the Deep South and dominated by Protestants, and the southern half with its extensive Catholic and French influences. Huey was masterful at building broad coalitions, and despite being a Northern Protestant, drew extensive support in the Catholic South. Campaigning under the slogan, "Every man a king but no one wears a crown,"⁴ Long's campaign promises included a program to provide free textbooks for school children, and a large bond-financed road and free bridge building program.

Almost immediately after becoming governor, he began consolidating political power by firing political opponents and forcing state employees to make monthly contribution to his political machine (White, 2006). Furthermore, while Long did not invent the idea of patronage to amass power, he did perfect its use into an art form. His system of patronage began with his first legislative session as governor. To assemble enough votes to pass his free textbook and road building bills at least 16 legislators were given "deadhead" jobs on the state payroll. Those legislators already on the payroll were told to "get right" or risk losing their job (Hair, 1991). Like Oscar Allen, appointees were required to sign undated letters of resignation to be brought out in case they deviated from Huey's wishes. A system of "deducts" required state employees to contribute part of their salary to his political machine. The Long machine had his own "octopus" which extended its reach by demanding kickbacks from state contractors. One Long opponent said to Huey, "Maybe you've heard of this book. It's the Constitution of the State of Louisiana." Long replied, "I'm the Constitution

⁴Long popularized the phrase, though it originated with another populist Democrat: William Jennings Bryant (Williams, 1981, p. 262)

around here now.” (Schlesinger, 2003, p. 47)

Some of Long’s earliest actions as governor would have had the potential to foment uncertainty. For example, he forced a tax on Standard Oil through the legislature that nearly led him to be impeached in 1929. In response, businessmen sought assurances from Long that they would not be effectively expropriated. A sizable chemical company was seeking to construct a chemical plant in Louisiana but was fearful that it would be subject to an occupational tax. On July 18th, a group of prominent industrial and business leaders addressed a public letter to Huey requesting his support in ending the “political disturbances” in the state. To this end, they requested that Long pledge to not enact an occupational tax during his tenure among other demands. At least in this case, Long was willing to compromise and agreed to their demands in exchange for support of Long’s legislative program and an end to impeachment proceedings against him (Williams, 1981, p. 424).

After only two years in office as governor, Long won a seat in the U.S. senate. However, rather than move to Washington and vacate the governor’s seat in Louisiana, Long decided to postpone becoming senator until a loyal successor could be installed. In the 1932 gubernatorial primary, Long backed his hand-picked replacement Oscar Allen rather than Paul Cyr, the incumbent lieutenant governor and a bitter Long foe. Allen won a landslide victory, aided by significant vote fraud in some parishes, the equivalent of counties elsewhere in the United States. For example, St. Bernard parish delivered 3,152 votes to Allen and zero votes to the two other candidates, despite having only 2,194 registered voters (Hair, 1991). With Oscar Allen as governor of Louisiana, Long was able to maintain and even increase his power in the state after taking up his position in the U.S. Senate. Allen essentially took orders from Long (White, 2006; Williams, 1981), and Long probably forced Allen to give him a signed, undated letter of resignation in case his loyalty ever wavered (Hair, 1991). Earl Long, Huey’s brother and future governor, described Allen’s obedience thusly: “A leaf once blew in to Allen’s office and fell on his desk. Allen signed it.” (Schlesinger, 2003, p. 58) Huey continued to occupy the governor’s office when in Baton Rouge and sometimes made appearances on the floor of the legislature. On one occasion the legislature passed forty-four of Huey’s bills in twenty-two minutes (Schlesinger, 2003, p. 58).

Williams, in his seminal Long biography, goes so far as to compare Long to a *caudillo*, a term reserved for leaders of South and Central American banana republics (Williams, 1981, p. 185). Like Napoleon, whose biography was a favorite of Huey’s (Williams, 1981, p. 21,34), Huey would crown himself with the royal nickname “Kingfish,” a telling choice reflecting Long’s monarchical ambitions (Williams, 1981, p. 313). Huey had long respected and admired the political skill of Henry Clay Warmoth, the carpetbagger governor of Reconstruction Louisiana who wielded absolute power to pass progressive legislation over the objection of the Louisiana elites. (Williams, 1981, p. 184-185) The parallels with Long’s political career are unambiguous. Leading contemporary fascist thinkers like Lawrence Dennis saw Long as an ideal candidate to lead an authoritarian America (Schlesinger, 2003, p. 77). Huey’s own brother, Julius Long, put it best: “The people... have become a howling, lawless mob. ... A human life is not safe, and neither is his property.” (Schlesinger, 2003, p. 48)

This consolidation of power reached its zenith in 1934 when Long reduced the power of local governments. This particularly affected New Orleans, which was dominated by the Old Regulars, a ring of sheriffs and other New Orleans leaders who were the most stubborn and persistent Long opponents (Williams, 1981). He passed a tax on newspapers, which he called a “tax on lying.” In 1934, Long strengthened the Bureau of Criminal Identification, an agency empowered to make warrantless arrests throughout Louisiana (Hair, 1991). In early 1935, in reaction to Long’s consolidation of power, a coalition including a former Louisiana governor and the mayor of New Orleans organized a paramilitary organization, the Square Deal Association, to oppose the Kingfish (Hair, 1991). They took over a courthouse in Baton Rouge in January 1935, leading Long to call out the National Guard and impose martial law, under which Baton Rouge newspapers were prohibited from criticizing the state government (White, 2006). This was not the first time the National Guard had to be called in to restore order. In 1931, the incumbent lieutenant governor declared himself governor, arguing that Long had given up his seat when he was elected U.S. Senator. In response, Long mobilized the National Guard to defend the capitol and Governor’s mansion from being seized. When martial law was declared, the Long government infringed on the right to bear arms, muzzled press criticism of the state government, and limited the right to assemble (Williams, 1981, p. 787). Even after the spasm of violence in 1935, Long continued his assault on the press with a state printing board that could withhold “official printer” status from newspapers. He also created a new board of election supervisors to watch polls, essentially guaranteeing the election of Long’s chosen candidates regardless of their actual popular support (Hair, 1991).

Long, at the time of his assassination in 1935, controlled the legislative, judicial, and executive branches of the state of Louisiana in an unprecedented dominance of one state’s government in the history of America (Williams, 1981, p. 6). Even the Old Regulars who controlled New Orleans, stubborn and durable opponents of Long’s, had been brought under Huey’s thumb just before he was assassinated (Williams, 1981, p.853). His rhetoric and nearly dictatorial control over the state seemed at times almost intended to frighten business and generate uncertainty about future policy. He dubbed the wealthy “parasites,” and as a U.S. senator the first bill he proposed was a national “Share the Wealth” program that would impose a confiscatory tax that would cap incomes at \$1 million and wealth at \$5 million (Hair, 1991). Interestingly, newspapers emphasized that it was his complete and unchecked political control rather than his actual implemented policies *per se* that caused uncertainty for business. For example, from the *Wall Street Journal* of 12/16/1935, p. 15:

Although Louisiana’s fiscal policies in the past decade or so have not caused the state any financial embarrassment and have actually been more conservative than those of some other states, the uncertainty which Senator Long’s political control engendered has cost the state considerable money in additional interest charges on its debt.

At the height of Long’s public works program, more construction workers were employed in Louisiana than in any other state, and about one-tenth of all construction workers in the country were employed in Louisiana. (Williams, 1981, p. 547). The free schoolbooks, which were provided to children at both public and private schools, were funded by a tax on natural resource production.

(Williams, 1981, p. 308)

His reign came to an abrupt halt when Carl Weiss, enraged that his father-in-law would lose his judgeship due to the Long's gerrymandering, shot and killed Long on September 10, 1935 as he walked through the Louisiana state capitol. Without a strong figure to fill his shoes, the public quickly realized that Louisiana politics would return to the status quo ex-ante. The *Chicago Tribune*⁵ (9/11/35, p. 1) reported:

[T]onight there were indications that the one-man empire carved out of a supposedly Democratic commonwealth is crumbling; crumbling because there was only one Huey Long; only one dictator. And now there appears to be no lieutenant strong enough to lift the scepter the dead hand let fall. . . . Various boards and commissions composed of elected members, are expected to revert to the established democratic practice of individual expression, now that they are free again.

The *New York Times* (9/11/35, p. 16) quoting from *The Sun (Ind. Rep.)* summarized the situation:

The death of Huey Long should have important political consequences. In Louisiana, where the Senator has dominated the State in as bold a manner as ever was observed in American politics, his passing from the scene means a struggle among his followers to hold his power, but none of his adherents possesses the ability or the nerve of the dictator who has just succumbed to the bullet of an assassin. Possibly with Long out of the way the forces which have vainly struggled to restore Louisiana to a genuine republican form of government will be able to push forward to victory.

The situation was even more succinctly summarized by the *New York Times* (9/29/35, p. E7) who published an article entitled "Louisiana Sees Wane of the Dictatorship."

3 Measuring Political Uncertainty

There is a slight ambiguity in the use of the term "political uncertainty" and the channel by which it is supposed to affect economic outcomes. An increase in "political uncertainty" in the form of a mean preserving spread in the distribution of, say, possible tax rates tomorrow can depress investment and employment today through the option value of waiting. While this is how much of the modern literature on the topic has used this term, others writing about the Depression such as Lucas or Higgs seem to go further. Not only did Roosevelt increase the spread of possible tax rates, the increase in political uncertainty from Roosevelt was also an increase in the probability of the very worst outcomes. One may want to interpret this latter type of uncertainty as a form of a "news shock" (Beaudry and Portier, 2004) which should affect expected stock returns.

Separately identifying these two different types of uncertainty, let alone the news shocks themselves, is incredibly challenging. For now, following the literature, we think of political uncertainty

⁵It is important to keep these quotes in perspective given the well-known Republican slant of the *Tribune*.

shocks as changes in the dispersion in expected economic outcomes due to changes in governmental policies *holding fixed* the expected level effect of the policy. In reality, we would argue that increases in dispersion over future outcomes tend to be associated with negative news shocks as well. In this case, significant effects of “uncertainty” shocks may actually be evidence for news shocks instead. Insignificant effects are much more meaningful implying that both pure uncertainty shocks and news shocks are limited in their impact.

A major issue with measuring uncertainty is that these expectations over possible future outcomes cannot be directly observed and must be inferred. For this reason, several measures have been developed as proxies for the true underlying level of uncertainty. Bloom (2009) outlines several such measures including the cross-sectional standard deviation of firm profit growth, firm-level stock returns, industry-level productivity growth, and disagreement in GDP forecasts by professional forecasters. We will focus on stock price volatility and newspaper mentions of the word “uncertainty.” Using stock prices has the feature that first moment changes in prices may control for a part of the news shock potentially correlated with uncertainty shocks.

3.1 Realized Stock Volatility

The idea of using stock price volatility to measure uncertainty traces back to Schwert (1989). We construct a stock price index for the New Orleans Stock Exchange (NOSE) using stock quotes compiled from New Orleans’ *The Times-Picayune* newspaper from 1922 through 1937. Quotes are available on trading days during the workweek excluding holidays with prices quoted for both the morning and the afternoon. The NOSE listed mainly Louisiana stocks, but did cross-list some stock with major operations elsewhere in the South. We have attempted to separate these two groups as presumably the Louisiana-based corporations would be more sensitive to Long’s policies and rhetoric. The list of stocks traded on the NOSE are listed in Table 1 as well as whether we classified them as a Louisiana company. A company was classified as primarily Louisiana-based by using Moody’s reports which discuss the primary business of these companies and their locations. If both morning and afternoon bid or ask quotes were present, we used the average bid or ask spread. If only one of the sessions was present, we used that quote only. The bid and ask spreads were then averaged to get the price for that stock.⁶ Stock returns were then calculated as the log difference between stock prices *ex dividend*, and the overall index is a equal-weighted average of individual stock’s returns.⁷ Stock volatility is then calculated as the monthly standard deviation of daily returns.

The charts of both the level and the volatility of all stocks and Louisiana-based stocks on the New Orleans Stock Exchange are shown in Figures 1 and 2. Major uncertainty-related events related to Huey P. Long are highlighted as well. If Long’s policies affected the expected level of profits, then equity prices should fall at times of anti-business policies, while equity prices should rise after

⁶If any bids or asks were missing, the values were interpolated from values that were available.

⁷Unfortunately, it is difficult to gather information on dividends to calculate volatility in stock *returns* as well as information on market capitalization to construct a weighted market index for volatility.

Long's assassination as new information about the end of his political dominance is incorporated into stock prices. If there is more uncertainty about future policies, than this political uncertainty should be reflected in higher stock volatility, as shown in Bloom (2009) and Baker et al. (2011). So volatility should be higher under Huey's reign. We find no clear evidence that on average, stock returns were lower and volatility higher for Louisiana during Long's tenure. If anything, volatility appears to drift lower during his time in office. This is unaffected if we restrict attention to the index of stocks with a major presence in Louisiana.

Longer run changes in the level or volatility of returns may not be particularly informative of changes in uncertainty and instead large increases or "spikes" in returns may provide the best way to identify political uncertainty. So to examine this, we have labeled the volatility graph with some key events. These include January 1924 when Long finished a surprisingly strong third place but did lose the gubernatorial election; January 1928 when Long won the Democratic primary for governor; April 1929 when Long was impeached; October 1931 when Vice Governor Cyr declared himself governor sparking a political crisis; February 1934 when Long announced his "Every Man a King" program; January 1935 when "Square Dealer" groups armed themselves and threaten to unseat Long; and September 1935 when Long is assassinated. It is possible to identify spikes (negative and positive) for the first two events, but after that, none of the other events line up with anything at all. Again this is unaffected if we look at the volatility measure based on the set of stocks with major presences in Louisiana.

Several Louisiana companies were listed on the New York Stock Exchange during this period. Using data from the Center for Research in Security Prices (CRSP), whose data reaches back to 1926, daily listings are available for these stocks. As the volume on stocks listed on the New Orleans Stock Exchange is much lower than those listed in New York. We focus on the Louisiana Oil Refining Corporation (LORC). By virtue of being both an oil company (and thus a prime target for the Kingfish) as well as being located in Louisiana (and thus within Long's grasp), any effect from political uncertainty resulting from Huey's policies should be observable in LORC's stock behavior. Standard Oil of New Jersey (SONJ), which was the branch of Standard Oil active in Louisiana, was also listed on the NYSE. While this made them a target of Long's, the effect of Long's policies may not be as noticeable due to SONJ's extensive operations outside of Louisiana. Most of the movements in these equity prices is clearly from a common factor and not from being located in Louisiana and subject to Long's political uncertainty. Chart 3 shows the volatility of these three Louisiana-sensitive stocks divided by the stock volatility of the overall S& P 500 index, a broad-based equity index for the NYSE with the same major events as above shown.⁸ Volatility for these stocks is generally the same or lower than for the aggregate stock market, while if Huey's policies really generated uncertainty for these corporations, their stock prices should have been more volatile. Also, the events do not seem to drive up volatility for these Louisiana-sensitive stocks relative to the overall stock market, so again we do not find an uncertainty effect using

⁸Volatility here is the monthly standard deviation of daily stock returns. The S & P 500 did not exist at the time, but CRSP constructs a similar index using the S & P 500 methodology.

Louisiana-based stocks on the New York Stock Exchange.

3.2 Newspaper Index

Our second measure is an index of uncertainty mentions in newspapers which was proposed by Alexopoulos and Cohen (2009) and extended by Baker and Bloom (2013) to focus on political uncertainty. The original index used the number of mentions of either the words “economic” or “economy” and “uncertain” or “uncertainty” to quantify sentiment regarding economic uncertainty. This measure was modified to measure political uncertainty by Baker et al. (2011) through the addition of other terms such as “Congress,” “legislation,” “White House,” “regulation,” “Federal Reserve,” or “deficit.” We construct a similar measure using the New Orleans *Times Picayune*, the newspaper of record for the state of Louisiana. We performed a Boolean search for “economic” or “economy” and “uncertain” or “uncertainty,” which then yields article counts per month. The number of articles are then divided by the total days in that month to obtain an average number of newspaper hits per month.

Due to the large amount of high-frequency movements in the data, a Baxter-King filter (Baxter and King, 1999) is applied to smooth the data and to ensure stationarity in the data.⁹ Because of possibly different terminology used to describe the economy of the time, we also constructed a newspaper uncertainty index using “commerce” or “commercial” rather than “economic” or “economy” is used for comparison. Figure 4 plots these two series using “economic” or “commercial” in conjunction with “uncertainty” as the key word. The period when Huey is in power between the black lines do see somewhat elevated uncertainty, but uncertainty does not fall significantly after Huey’s unexpected demise in 1935. Furthermore, it would be difficult to relate the spikes in newspaper mentions to any of the events we highlighted in discussing the stock price measure. The newspaper uncertainty measures seem to be measuring something similar to the stock volatility measures as they have a correlation of 0.43 at a monthly frequency.

Given that *The Times Picayune* reports on national issues as well as local issues, uncertainty at the national level may be driving the increase in uncertainty mentions in the newspaper. To address this concern, we performed a similar search using the *New York Times* to derive a baseline level of uncertainty for the aggregate US economy. Figure 6 plots both of these series and shows most convincingly the relative effect of Huey Long in generating political uncertainty in Louisiana. While the Louisiana uncertainty index does rise during the early 1930s, the national index also rises at the same time, reflecting general national uncertainty in the early 1930s (Mathy, 2011). The Louisiana paper of record was reporting on uncertainty, but it was not uncertainty stemming from Huey Long’s policies. If anything, given that *The Times Picayune* was also a rabid Long opponent, it would be more likely to report on events casting Long’s actions in a less than flattering light.

Finally, we constructed another index based on additional terms related to either Long or his policies using terms related to the uncertainty events we have outlined above. As reported in Figure 5, the first measure adds in the requirement that one of the terms “tax,” “oil,” “impeachment,”

⁹Following the recommendations of Baxter and King (1999), the band is between 18 and 96 months.

“Share our Wealth,” or “Square Deal” must be present alongside the baseline terms. The second specification again uses the economic uncertainty terms but now adds in either “Huey” or “Long” or “Kingfish” to see if Huey Long is mentioned in conjunction with uncertainty. The third specification uses the terms from the first specification with the commercial terms replacing the economic terms in the boolean search to see if commercial terms rather than economic terms generate different results. Again, black lines denote the period of Huey’s tenure. Results here seem broadly similar to the other measures though the number of mentions does seem to decline after the Huey’s assassination, though this may be due to fewer mentions of Huey after his death.

4 Estimating the Effects of Political Uncertainty

4.1 Empirical Specification

We use establishment-level data from the Census of Manufactures (CoM) for 1929, 1931, and 1935.¹⁰ The most pressing issue in working with these records is the coverage of establishments. For Mississippi and Louisiana, we have cross-checked our totals with the published Census volumes with very good correspondence. In other work for Mississippi (Hansen and Ziebarth, 2014), the lists of businesses have been compared to records of the credit rating agency Dun & Bradstreet with excellent coverage. Our particular dependent variable, which allows us to measure any effects at a fairly high frequency, is monthly employment of wage earners. Every establishment was asked to report the “Number of wage earners who worked during any part of a week of normal activity in each month, preferably the week ended nearest the 15th day of the month.”

We estimate a diff-in-diff specification that uses Mississippi as a control group.¹¹ Both states share a long border and are fairly similar in the structure of their economies and level of development at the time. Both Mississippi and Louisiana were predominantly rural states with underdeveloped manufacturing sectors, some fishing related industry, and a long common border. Mississippi was slightly more rural and slightly lower income, but the differences do not seem important. For example, Mississippi had an income per person in 1929 of \$286, while Louisiana had an income per capita of \$414, both far below the American average of \$700 U.S. Department of the Census (2003). Besides these economic similarities, these states share similar average temperature patterns though Louisiana has a rainy period from May to July not present in Mississippi. We estimate pooled cross-sections and write employment for plant i in industry k at time t in state s as

$$\log E_{ist} = \beta_0 + \beta_1 Uncertainty_{st} + \sum_{s,t} \gamma_{st} LA_s * Month_t + \sum_t \delta_t Year_t + \sum_k \omega_k Industry_{i,k} + \epsilon_{ikst} \quad (1)$$

where $Uncertainty_{st}$ is a Louisiana specific uncertainty measure and $\sum_k \omega_k Industry_{i,k}$ is a full set of industry controls. We experiment with normalizing these uncertainty measures by a national

¹⁰Ziebarth (2013a) provides an extended discussion of the source.

¹¹Ziebarth (2013b) collected all the establishment data for Mississippi for a separate project on the effects of bank failures.

measure of uncertainty. In this baseline setting where we do not normalize by an aggregate series, if there were common changes in uncertainty in Mississippi and Louisiana (or other aggregate shocks for that matter), they will be captured by the full set of common year dummies $\sum_t \delta_t Year_t$. We also include state specific seasonal trends $\sum_{s,t} \gamma_{st} LA_s * Month_t$ to control for possible differences in the agricultural cycles of the two states. We also report results using $\Delta \log E_{ist}$ as the dependent variable. We have also run this specification aggregating to the quarterly level to smooth out some of high frequency fluctuations potentially due to measurement error with little effect on the estimated effects, so we do not report these results here. We report robust standard errors while clustered standard errors at the year-month-state level are basically no different.

There are two key issues in the interpretation of these regressions. First, to interpret this estimates as a causal, a crucial assumption is that the control group is not affected by the treatment. While impossible to completely rule out, the available evidence suggests that Long had little influence in Mississippi and certainly no power comparable to that which he wielded in Louisiana. A secret poll conducted in 1935 by the Roosevelt administration to assess popular support for Long found that only 10.5 percent of respondents in Mississippi said they would vote for Long rather than President Roosevelt or a Republican candidate for president. This was only slightly higher than the national average of 7.4 percent and far below Long’s 36.1 percent support in Louisiana (Amenta et al., 1994). At the same time, Long did intervene in the business of other states. Announcing that he was going to “invade Arkansas,” Huey campaigned for the successful campaign of Hattie Caraway, the first female governor of Arkansas (Williams, 1981, p. 583-593). He also proposed some programs intended to cover the whole south. The one example is Long’s “drop-a-crop” program that would have suspended cotton planting for a whole year. The idea, whose inspiration came from Chapter 25 of Leviticus, was to aid farmers by inducing a reduction in supply that would increase prices so much that revenue would actually increase. Though South Carolina passed such a bill, it ended up falling flat when Texas, a major producer of cotton, refused to join the scheme which required coordination among major producers. If these policy proposals actually had uncertainty effects on surrounding states particularly Mississippi, then this would tend to bias the estimated effects of uncertainty towards at zero.

The second key question is interpreting the magnitude of the effects. We construct a variety of measures for uncertainty that are *specific* to Louisiana. Due to data limitations, we cannot construct such measures for Mississippi, so we implicitly assume that changes in uncertainty in Mississippi are driven by changes in the aggregate national measure of uncertainty. This is done explicitly as we use a normalized measure of uncertainty for our independent variable. The question, then, is whether this is a reasonable assumption when, in fact, Mississippi at this time was also governed by a strong populist, Theodore Bilbo. If it is not, then perhaps a null effect is a reflection of the fact that the relative changes in uncertainty we attempt to identify in Mississippi are not particularly large relative to the high level of uncertainty in both of these states governed by people engaged in a number of policy innovations.

We would argue that there is good reason to view Huey Long’s Louisiana as special and ex-

treme case characterized by more absolute control and a more arbitrary decision making process, which meant that businessmen had little sense of what the future held and little recourse against the caprices of the Louisiana government. Bilbao was a progressive and populist like Long, who characterized his program of infrastructure and education as “bricks and books.” However, Bilbo was effectively blocked by the conservative Mississippi legislature and lost election in 1932 after an ineffective term as governor (Brinkley, 1983, p. 218-9). The contrast to Huey could not be more stark, with long’s total control of Louisiana celebrated by his supporters and decried by his opponents. A similar case can be seen in other Southern governors like Eugene Talmadge of Georgia, another popular Southern governor. While the Talmadge administration did manage to lower state licensing fees, property taxes, and railroad and utility rates, this was combined with sharp budget cuts, sizable reductions in state services, a militant aversion to labor unions, and a friendly relationship with business interests in the state, which makes for a stark contrast with the Long program (Brinkley, 1983, p. 216-7).

There are other issues common to diff-in-diff designs in general. First, by focusing on a bordering state, there is the potential for overstating the aggregate effect of uncertainty as potentially some of the employment losses for Louisiana translate into employment gains for Mississippi. This is also a problem for those who attempt to estimate fiscal multipliers using local variation in government spending such in Fishback and Kachanovskaya (2011) and Nakamura and Steinsson (2014). In these cases the concern would be that the estimated effect would be biased downward as some of the spending would “leak out” into other areas. In addition, there is the perennial question of the quality of the control group. Is Mississippi in the 1930s really the counterfactual for Louisiana without Huey Long? One approach to this is to consider an even more narrow set of treatment and control establishments by focusing only on the border counties of Louisiana and Mississippi. While the main specification controls for potential seasonal differences across the states due to differences in temperature or planting cycles between the state, one may still worry about different seasonal patterns at the sub-state level. By focusing on border counties, this would eliminate any unobserved locational fixed effects or trends by assuming that the underlying physical environment is smooth at the border (Holmes, 1998). While focusing on border counties may potentially address how representative the control is, this may exacerbate the overestimation of general equilibrium effects with establishments in Louisiana right on the border most likely to migrate to adjacent counties across the border.

5 Results

5.1 Baseline Results

The baseline results are reported in Table 2. In the top panel, we use stock price volatility as our measure of uncertainty. We include a control for the average return to isolate the effects of changes in second moments. In the first three columns, we use the level of employment as the dependent variable and second three take the dependent variable as the first difference of log employment. The

various specifications experiment with different numbers of lags of the mean return and volatility. Note that for the specification in first differences, we drop any plants who close and see their employment fall to zero. The bottom panels of Table 2 are the results for two newspaper indexes as reported in Figure 4 that we created based on different key words: (1) “economic uncertainty” and (2) “commercial uncertainty.” We have also tried the other measure reported in Figure 5 that had terms more closely related to Huey Long with very little difference in the results. For ease of interpretation, we center and scale each uncertainty measure so that they have a mean of 0 and a standard deviation of 1.

We find very little evidence for the effects of political uncertainty on employment outcomes. Using the stock measure, not only are the point estimates close to zero, the standard errors are also relatively small suggesting a one unit change has at most a few percentage point effects in either direction. This is true in the levels specification as well as in the first differences specification. When we turn to the newspaper measures in the bottom two panels, we again find fairly limited effects. There are some negative effects of the commerce measure, but this is at odds with the *positive* measured effect of the economic newspaper index. Furthermore, if we turn to the effects on changes in log employment, there are very small effects that are precisely estimated. Somewhat oddly, the positive effects of the economic index are persistent over time with both the first and second lags entering positively.

These results are entirely consistent with the overall patterns of state-level income and employment for Louisiana relative to Mississippi or other bordering states. Figure 7 plots estimates of per capita income where we normalize income levels in 1929 to 100. If anything, Louisiana appears to do slightly better during the downturn when Long held political control and the (minor) gap is only closed after Long’s assassination. This pattern is essentially unchanged when we consider the state-level employment estimates from Wallis (1989) in Figure 8, as Louisiana and surrounding the states performing similarly.

5.2 Border Counties

We now restrict attention to the set of counties that make up the border of Louisiana and Mississippi.¹² Results are reported in Table 3, where we report the same set of specifications as the baseline results. The panel estimations follow the baseline specifications with the different measures of uncertainty. Even after restricting attention to the border counties, effects are still statistically indistinguishable from zero with larger standard errors due to the smaller sample size. The commerce measure does enter negatively but this is not very robust to the number of lags. Furthermore, when we use the change in employment, the commerce measure of uncertainty is positively correlated with employment growth, which casts doubt on the negative effects of uncertainty in the first place.

¹²These include the following counties for Mississippi: Issaquena, Warren, Claiborne, Jefferson, Adams, Wilkinson, Amite, Pike, Walthall, Marion, Pearl River, and Hancock. For Louisiana, these are the parishes of East Carroll, Madison, Tensas, Concordia, West Feliciana, East Feliciana, St. Helena, Tangipahoa, Washington, and St. Tammany.

5.3 An Industry with Local Demand: Manufactured Ice

An additional worry in using the border states and counties is the fact that many manufacturing plants produce tradeable goods, which may lead to a downward bias in the estimate. Many Mississippi plants may have their main customers in Louisiana and vice versa. If the effect of uncertainty works through dampening consumer demand as in Romer (1990), then the effects of Long may not be localized to Louisiana businesses but spillover to Mississippi businesses with consumers in Louisiana. On the other hand, if the effects of uncertainty are in the form of depressed investment and hiring because of, for example, worries about higher taxes, then this potential worry does not seem very pressing. Louisiana businesses should be directly affected by the uncertainty engendered by Long and Mississippi plants should not be. This difficulty arises in other cases such as in estimating the effects of bank failures using local variation. If the main channel through which bank failures mattered is consumer demand, though, then there is no reason to expect the effects to be concentrated locally.

One approach to this problem is to sort industries by how tradeable their output is and then examine the estimated uncertainty effect across industries. However, it is difficult to develop a general measure of tradeability for the various manufactured products without information on shipments. Instead we will study one particular industry, manufactured ice, for which demand is quite localized. There are other canonical “local” industries like cement, which unfortunately are not numerous enough in either state to provide precise estimates. On the other hand, canonical “national” industries like automobile manufactures are not represented either. If the effects of uncertainty are small even for this industry, this suggests that these spillover effects from demand are not driving the small estimated uncertainty effect in the whole population.

Table 4 reports the regressions for establishments in the ice industry. For the sake of brevity, we only report the contemporaneous correlations. Including more lags as in the previous specifications did not change the results, and the results for this test are entirely consistent with those of the full sample. Most of the estimate effects for the various measures at different lags are negative, except again for the economic newspaper measure. As before, none of these are statistically significant and, in the case of the changes in log wage earners as the dependent variable, this does not appear to be a case of underpowered tests. We conclude from these results that the overall null effect is not due to spillovers in demand leading to declines in employment in both states.

5.4 Effects Across Establishment Size

We now consider whether the effects of uncertainty differed by plant sizes. Theory does not provide a prediction of any heterogeneity in the effect of uncertainty between plants of differing sizes. However, if employment adjustment costs are increasing in plants size, then we would expect larger negative effects for the largest establishments. Furthermore, the narrative evidence suggests that, if anything, Long’s policies and rhetoric were aimed at the largest plants. On this basis we would expect the largest effects, if any, to be found among this group. We sort plants into size quartiles based on their January employment levels by industry. These quartiles are calculated yearly so the

set of large plants may differ from year to year as well.

Results with our preferred specification are reported in Table 5. Each column corresponds to a quartile of the employment distribution going from smallest to largest and the rows to the different measures of uncertainty. For now, we only report the results with the contemporaneous measures of uncertainty and ignore possible lagged effects. Somewhat surprisingly, the null effect reported earlier is not due to a composition bias of positive and negative effects for different size quartiles. All quartiles appear to be unaffected by these changes in uncertainty. As discussed earlier, there are various *ex post* rationalizations for why particular quantities would be affected and others not, and so the fact that none are affected we take as particularly powerful evidence against the view that uncertainty matters. It is important to emphasize again that the effects are not only small but precisely estimated across the three separate measures of uncertainty.¹³

6 Conclusion

In American history, the Great Depression stands out as both an economic disaster and the high tide of policy experimentation. If political uncertainty mattered somewhere or sometime, it should have mattered in the Depression. Many accounts of policy uncertainty in the Depression have focused on the case of FDR’s New Deal which was truly ambitious and experimental, and thus to critics of the New Deal, uncertain. However, it is difficult to disentangle the multitude of factors that combined to create the Depression from the, perhaps inevitable, policy changes attempting to mitigate the Depression.

Rather than focusing on the aggregate time series as a source for identification, we considered a particular “natural experiment” on the effects of local policy uncertainty generated by the near absolute rule of Huey Long over the state of Louisiana in the 1930s. Using uncertainty measures specific to Louisiana, we tested for the effect of political uncertainty using monthly employment data from the Census of Manufactures with the state of Mississippi serving as a control. Overall, we find little effect on manufacturing employment in Louisiana from uncertainty. These are particularly striking results as Long’s tenure presents something of a worst case scenario when it comes to policy uncertainty. The results seem to cast some doubt on the effects of the relatively more ideologically moderate FDR who did not operate with anything close to the near absolute power that Long exercised over Louisiana.

Perhaps the focus on political uncertainty has been misplaced. Instead the focus should be on the crony capitalism often associated with uncertain times. There are certainly cases of patronage benefiting the largest establishments in Louisiana during Long’s reign. Moss of the Union Indemnity Company was an early Long donor, as he had a major bonding business with the Louisiana state government which would benefit from Long’s massive public works program. Long most loyal backer was Robert S. Maestri, a major New Orleans landowner and one of the wealthiest men in

¹³We would have liked to also conduct the analysis for particular industries such as oil refining, which was a major Long target. However, much of the oil refined in Mississippi would be shipped from Louisiana and so would not serve as an effective control.

the city (Williams, 1981, p. 97, 252-253). Or consider the case of the shrimp industry. In 1932, the Louisiana legislature considered a bill limiting working hours for women to 8 hours a day. This was the sort of legislation that Huey typically supported. In this case, however, Long had the bill killed, since one his supporters owned a large shrimp-packing establishment which would have suffered from the limitation on working hours (Hair, 1991; Sanson, 2006). “ All over the state Huey had supporters like the Fishers[owners of several major companies involved in furs, fishing, shrimping, and canning] or Savoie[a family which dominated Assumption parish both economically and politically]. In Madison parish there was J.B. (“Jeff”) Snyder, judge, feudal overlord, patron of authors, “king of the river”: in Ouachita, Print M. Atkins, wealthy and respected banker; in Iberville, Calvin K. Schwing, state senator and owner of rich lumber and oil lands; in East Baton Rouge, Justin C. Daspit and Elmo Badley, scions of oil and aristocratic families.” (Williams, 1981, p. 261)

Future research should attempt to extend this line of research by studying other examples from the Great Depression. The case of Father Coughlin, a Long ally and virulent demagogue, is one potential example. However, Coughlin never had any political power, which contrasts with Huey’s increasingly unfettered control over the state of Louisiana. While the combination of a local leader with a radical program and the same level of unchecked power may not be found in any historical figure outside of Huey Long, similar examples using a treatment-control framework are a useful method to constructively advance the literature on political uncertainty. Other work on the specific case of Long should consider more closely the value of political ties. In particular, the unexpected assassination of Long in 1935 provides a potentially very valuable case study to place along side the work of Baker et al. (2014) on the assassination of President McKinley and that of Jones and Olken (2009) on attempted assassinations of leaders more generally.

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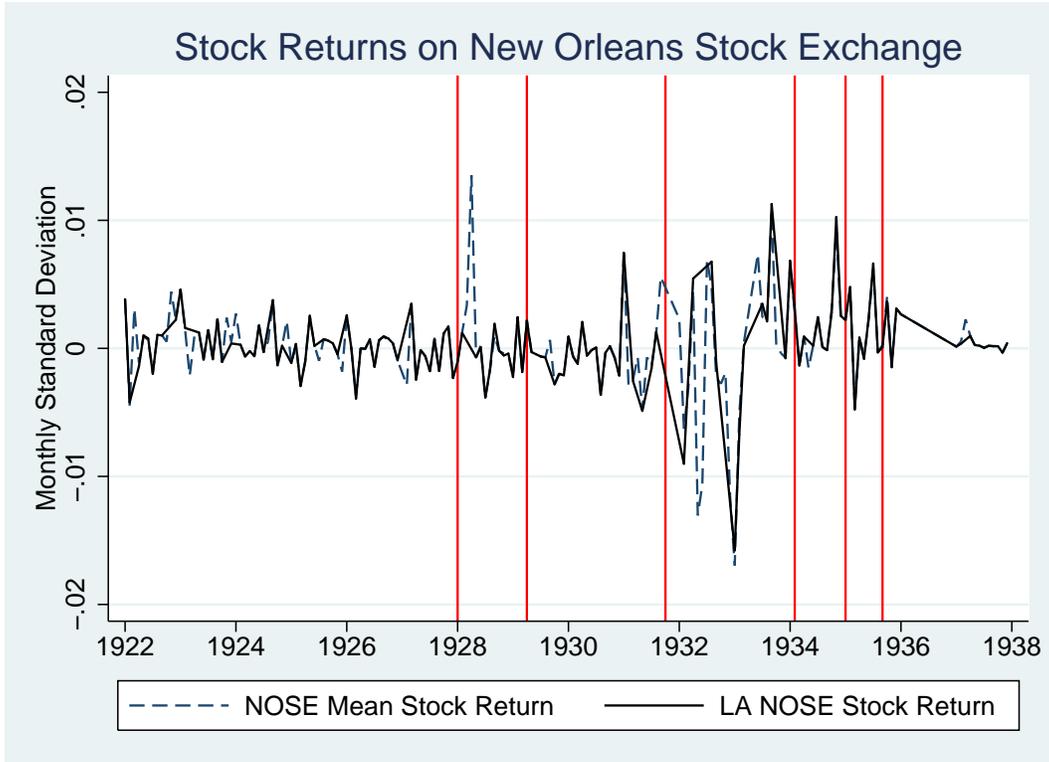


Figure 1: Monthly return on New Orleans Stock Exchange, calculated as the log difference between the NOSE stock index between one month and the previous month. Red lines denote major uncertainty events. These include Huey’s 1918 election to the public service corporation, Long’s surprisingly strong showing in the 1924 Louisiana gubernatorial election, Long’s successful election as governor in 1928, The Long impeachment of 1929, the political crisis of 1931 when the Lieutenant Governor Cyr declared himself governor, the 1934 announcement of Long’s radical “Share the Wealth” platform, the 1935 Square Deal crisis, and Huey’s 1935 assassination. Source: New Orleans Times Picayune, author’s calculations.

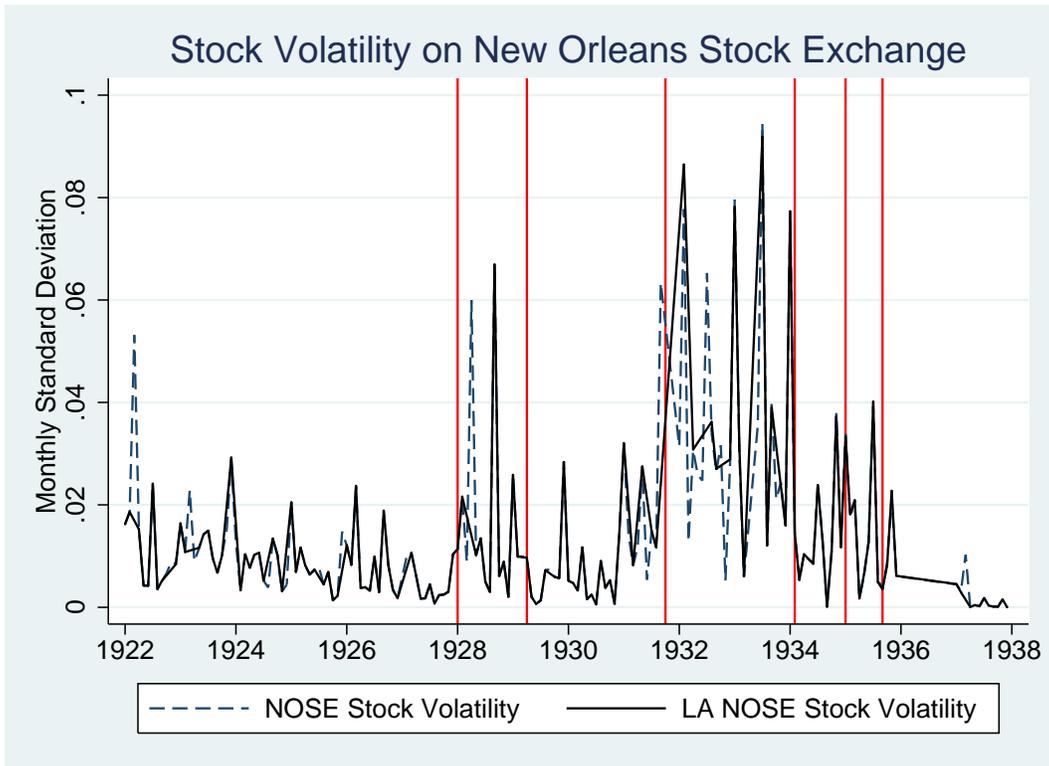


Figure 2: Monthly stock index volatility is calculated as the monthly standard deviation of daily log returns for NOSE index. Louisiana stocks refer to the stock index which is only composed of Louisiana companies. Red lines denote major uncertainty events. Source: New Orleans Times Picayune, author's calculations.

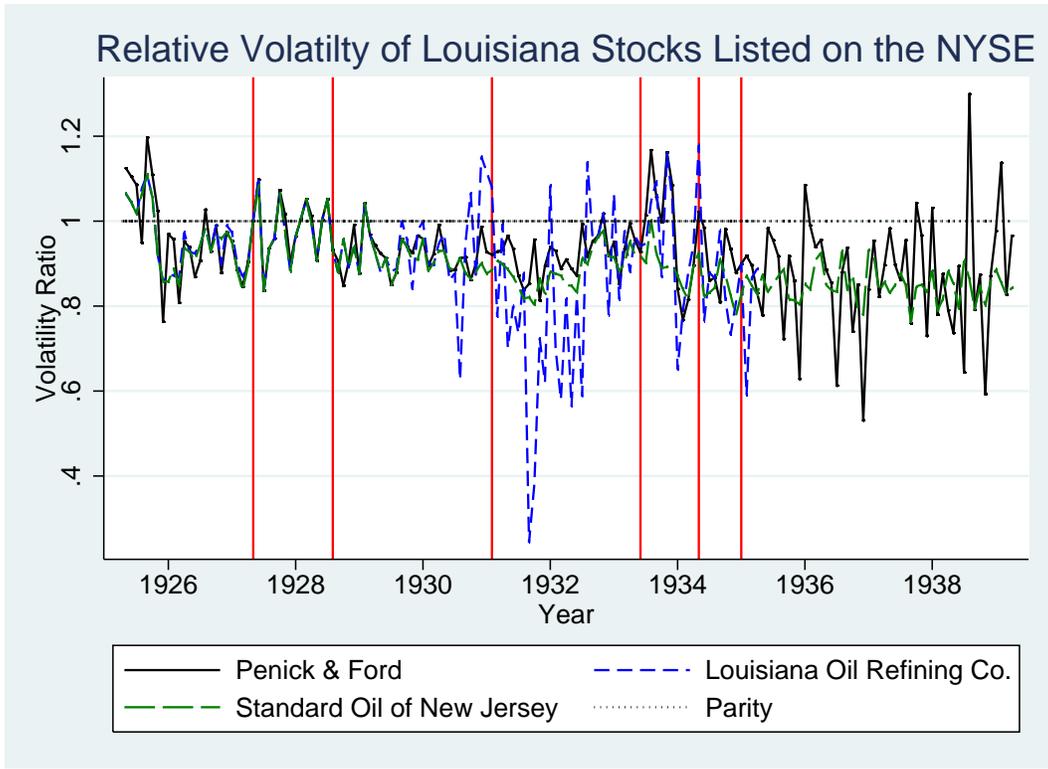


Figure 3: Louisiana Oil Refining Company and Penick & Ford are major Louisiana-based companies, and SONJ is the Standard Oil company that operates in Louisiana. Stock volatility is calculated as the monthly standard deviation of the daily log return. The graph shows the ratio of the stock volatility of these corporations with the overall volatility of the Standard and Poor's 500 index, with parity marked with a dashed line. Red lines denote major uncertainty events. Source: CRSP, Author's calculations

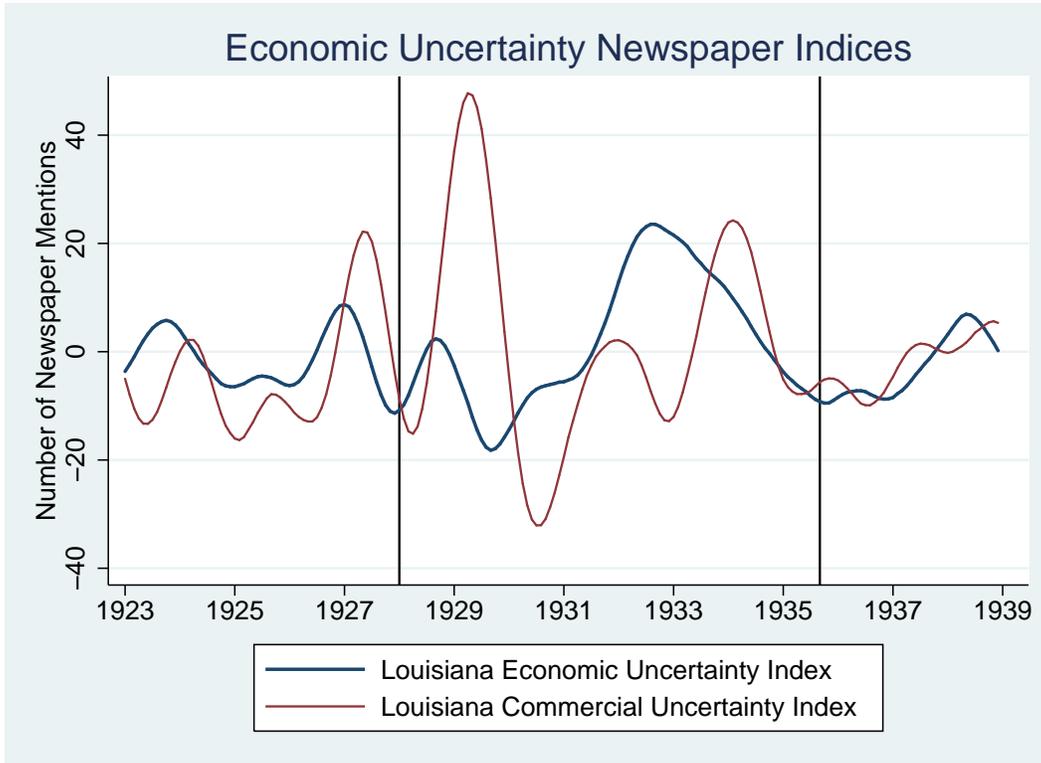


Figure 4: The Louisiana Economic Uncertainty Index is formed using the number of monthly article mentions of either the words “economic” or “economy” and “uncertain” or “uncertainty” in the NOTP. The Louisiana Commercial Uncertainty Index replaces the economic terms with the commercial terms “commerce” or “commercial”. The series are smoothed using a Baxter-King band-pass filter. Black lines indicate Huey’s tenure as governor or senator. Source: New Orleans Times Picayune.

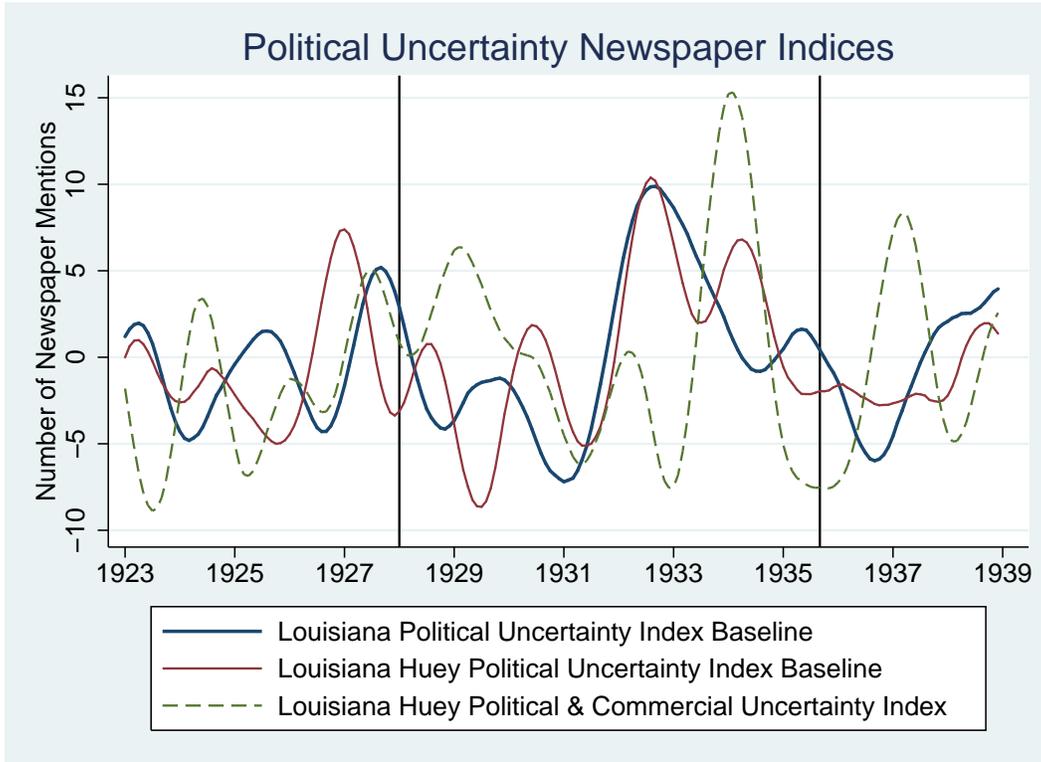


Figure 5: The Louisiana Political Uncertainty Index is formed using the number of monthly article mentions of either the words “economic” or “economy” and “uncertain” or “uncertainty” as well as the terms “tax” or “oil” or “impeachment” or “Share our Wealth” or “Square Deal” in the NOTP. The Louisiana Huey Political Uncertainty Index is formed using the number of monthly article mentions of either the words “economic” or “economy” and “uncertain” or “uncertainty” as well as the terms “Huey” or “Long” or “Kingfish” in the NOTP. The Louisiana Huey Political & Commercial Uncertainty Index is formed using the number of monthly article mentions of either the words “commerce” or “commercial” and “uncertain” or “uncertainty” as well as the terms “Huey” or “Long” or “Kingfish” in the NOTP. Black lines denote Huey’s tenure as governor. Source: New Orleans Times Picayune.

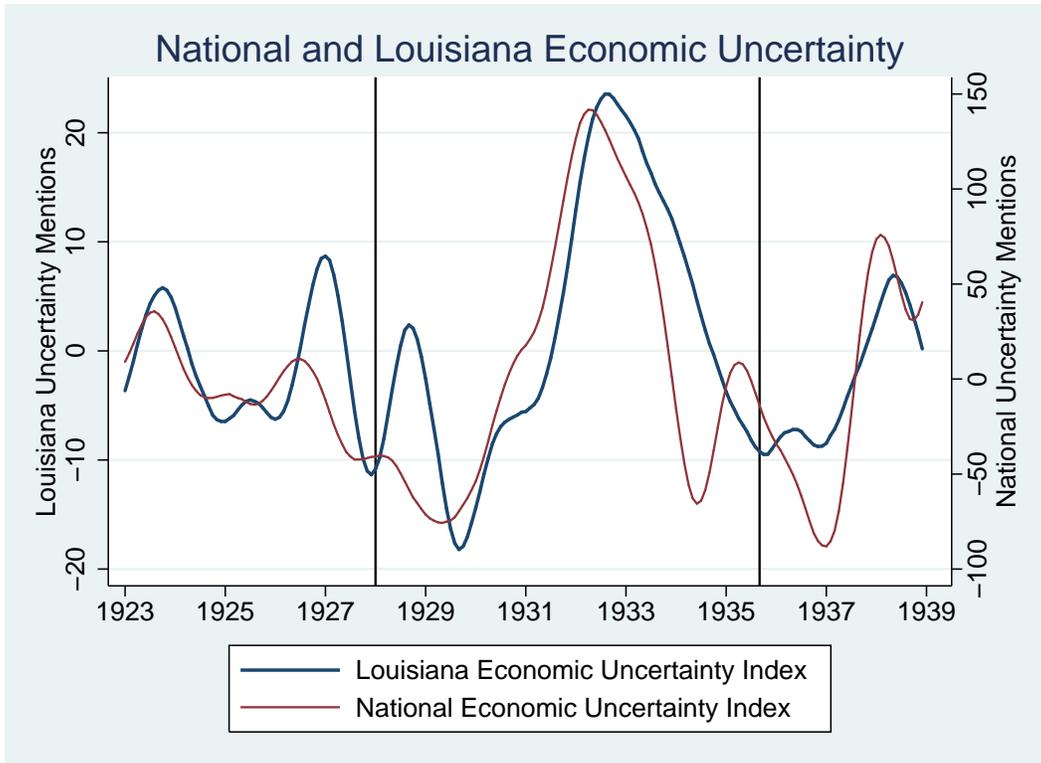


Figure 6: The Louisiana Economic Uncertainty Index is formed using the number of monthly article mentions of either the words “economic’ or “economy” and “uncertain” or “uncertainty” in the NOTP. The National Economic Uncertainty Index uses the same search terms but searching the New York Times. The series are smoothed using a Baxter-King band-pass filter. Black lines denote Huey’s tenure as governor. Source: New Orleans Times Picayune and The New York Times.

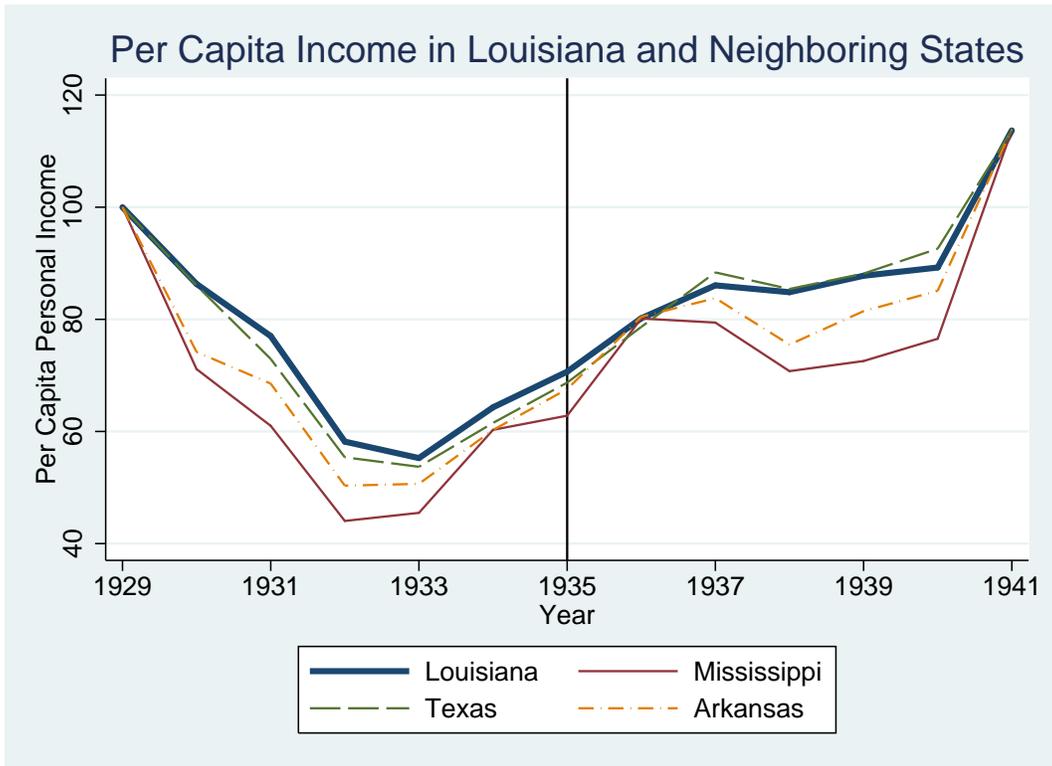


Figure 7: Personal Income per Capita in Louisiana and neighboring states to 1929 values as 100. Note: Black line refers to the Long assassination year. Source: BEA NIPA.

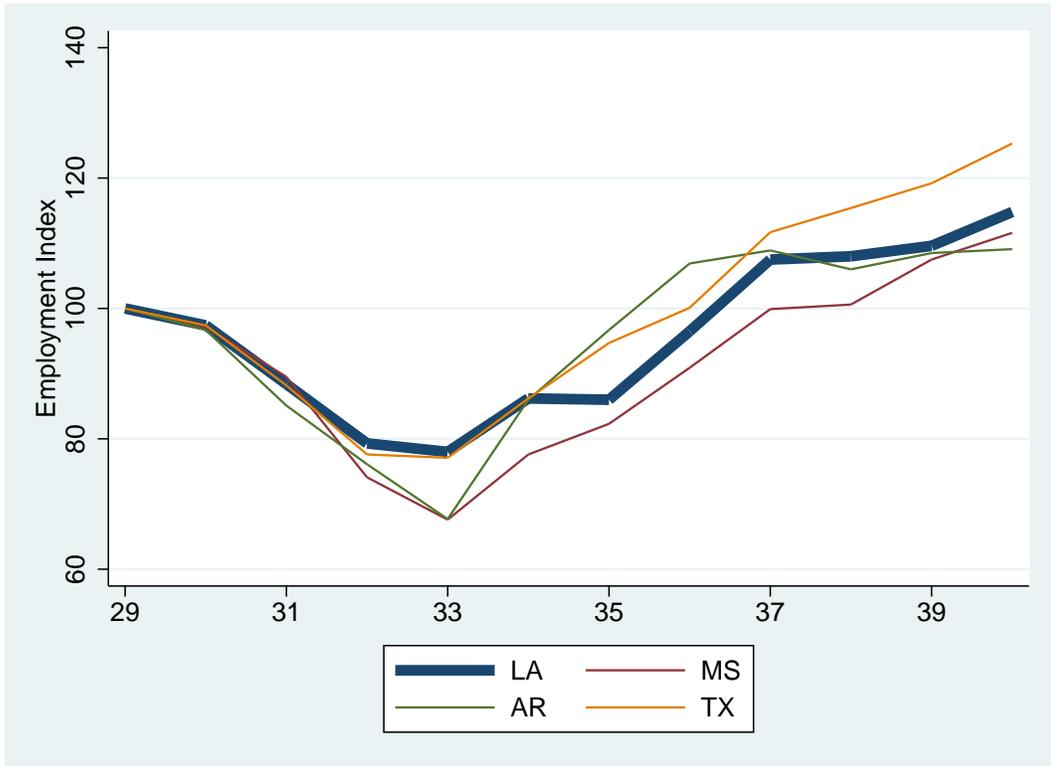


Figure 8: Non-agricultural Employment Indexes normalized to 1929 values for Louisiana and surrounding states from Wallis (1989).

Table 1: Stock Listings on the New Orleans Stock Exchange and whether the listed company had operations primarily in Louisiana.

Louisiana companies	Non-Louisiana Companies
American Liberty Bank and Trust Company	American Bank and Trust Company
Brown's Velvet Ice Cream	American Cities
Canal Bank	Birmingham Railway Light and Power Co.
Canal Commercial Trust and Savings Bank	Coca-Cola Chicago Bottling
Charles A. Kaufman Company	Commercial Credit
Citizens Bank and Trust Company of Louisiana	International Railways of Central America
Cloverland Dairy	Kansas City Public Service
D. H. Holmes	Little Rock Railway & Electric
Elmer Candy	Memphis St. Railroad
Equitable Real Estate Company	Mortgage Realty
Friscoville Realty Company	National Building and Loan
Gillican-Chipley	National Power & Light
Hibernia Bank and Trust	National Realty
Hortman-Salmen	Pan American Life Insurance
Hunter Canal Company	Standard Fruit
Insurance Securities Company Inc.	Wesson Oil
Interstate Trust and Bank	
Jefferson Lake Oil	
Johnson Iron Works	
Lafayette	
Lane Cotton Mill	
Liberty Bank and Trust	
Louisiana Navigation Company	
Louisiana Sugar Exchange	
Maison Blanche	
Marine Bank and Trust	
Mortgage and Securities	
New Orleans Auction Exchange	
New Orleans Bank and Trust	
New Orleans Board of Trade	
New Orleans Brewing Company	
New Orleans Cold Storage	
New Orleans Cotton Exchange	
New Orleans Country Club	
New Orleans Land Company	
New Orleans Public Service	
New Orleans Railway & Light	
New Orleans Stock Exchange	
New Orleans Stock Yards	
Penick and Ford	
Securities Sales of Louisiana	
Suburban Realty	
Union Indemnity	
Whitney Bank	

	Log Wage Earners			Log Change in Wage Earners		
	(1)	(2)	(3)	(4)	(6)	(6)
<i>A: Stock Return Volatility Measure</i>						
Mean	9.564*	11.41	34.66***	-0.896	-0.867	0.365
	(5.398)	(6.948)	(7.396)	(0.911)	(0.749)	(0.859)
Volatility	0.0110	0.0140	0.00705	-0.00137	-0.00047	-0.00556***
	(0.0139)	(0.0165)	(0.0176)	(0.00190)	(0.00163)	(0.00107)
Lag Mean		7.178	6.185		-0.161	0.809*
		(4.628)	(6.954)		(0.591)	(0.457)
Lag Volatility		0.0172	0.0207		-0.00115	-0.00316**
		(0.0144)	(0.0181)		(0.00159)	(0.00127)
2nd Lag Return			12.17*			-0.879
			(6.638)			(0.600)
2nd Lag Volatility			0.0563***			-0.00191
			(0.0176)			(0.00178)
Observations	72187	66023	59843	65306	65306	59177
Adjusted R^2	0.437	0.436	0.435	0.011	0.011	0.016
<i>B: "Economic" Newspaper Measure</i>						
Economic Measure	0.0321***	0.0240**	0.0214*	-0.00370**	-0.00292*	-0.00406***
	(0.0116)	(0.0112)	(0.0117)	(0.00149)	(0.00146)	(0.00115)
Lag Economic Measure		0.0298**	0.0217		-0.00289*	-0.00231
		(0.0145)	(0.0141)		(0.00148)	(0.00165)
2nd Lag Economic Measure			0.0277**			0.000327
			(0.0134)			(0.00127)
Observations	75443	69279	63099	68522	68522	62393
Adjusted R^2	0.439	0.438	0.437	0.014	0.014	0.019
<i>C: "Commerce" Newspaper Measure</i>						
Commerce Measure	-0.0373***	-0.0213	-0.0207	0.00296	0.00359*	0.00359
	(0.0117)	(0.0134)	(0.0149)	(0.00181)	(0.00211)	(0.00230)
Lag Commerce Measure		-0.0307**	-0.0176		-0.00137	-0.000146
		(0.0140)	(0.0138)		(0.00185)	(0.00196)
2nd Lag Commerce Measure			-0.0238			-0.00218
			(0.0145)			(0.00167)
Observations	75443	69279	63099	68522	68522	62393
Adjusted R^2	0.439	0.438	0.437	0.014	0.014	0.019

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 2: Effects of uncertainty using the full sample of plants in Louisiana and Mississippi. Panel A uses the stock volatility measure controlling for mean returns. Panel B uses our newspaper index searching for the key word “economic.” Panel C uses the newspaper index searching for the keyword “commerce.” Standard errors are clustered at the year-month level. All of the uncertainty measures have been demeaned and scaled to result in a series with a standard deviation of 1. So the coefficients for the uncertainty effect are comparable across uncertainty measures. All regressions include industry and year fixed effects as well as state specific seasonal trends.

	Log Wage Earners			Log Change in Wage Earners		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>A: Stock Return Volatility Measure</i>						
Mean	23.22 (16.98)	28.50 (20.70)	81.72*** (17.05)	3.659 (3.059)	4.768 (3.517)	0.796 (4.198)
Volatility	0.0225 (0.0468)	0.0383 (0.0542)	0.0179 (0.0498)	-0.00466 (0.00887)	-0.00239 (0.00885)	0.00873 (0.00960)
Lag Mean		17.32 (15.49)	10.21 (20.56)		1.218 (2.636)	2.592 (2.188)
Lag Volatility		0.0474 (0.0464)	0.0705 (0.0547)		-0.0187* (0.00976)	-0.0115 (0.00771)
2nd Lag Mean			34.81* (18.45)			9.338*** (3.292)
2nd Lag Volatility			0.114** (0.0484)			-0.0183* (0.00956)
Observations	4530	4148	3766	4088	4088	3710
Adjusted R^2	0.587	0.585	0.584	0.008	0.009	0.011
<i>B: "Economic" Newspaper Measure</i>						
Economic Measure	0.113*** (0.0294)	0.0821*** (0.0300)	0.0670** (0.0315)	-0.0163*** (0.00658)	-0.0134* (0.00745)	-0.0112 (0.00826)
Lag Economic Measure		0.0953** (0.0417)	0.0672 (0.0414)		-0.00874 (0.00845)	-0.0148 (0.00896)
2nd Lag Economic Measure			0.0891** (0.0391)			0.0127 (0.00803)
Observations	4671	4289	3907	4229	4229	3851
Adjusted R^2	0.597	0.596	0.595	0.010	0.010	0.010
<i>C: "Commerce" Newspaper Measure</i>						
Commerce Measure	-0.136*** (0.0294)	-0.0717* (0.0359)	-0.0597 (0.0388)	0.0134 (0.00932)	0.0193* (0.00979)	0.0224* (0.0125)
Lag Commerce Measure		-0.109*** (0.0385)	-0.0627 (0.0384)		-0.0118 (0.00867)	-0.00971 (0.00931)
2nd Lag Commerce Measure			-0.0869** (0.0409)			-0.00902 (0.0102)
Observations	4671	4289	3907	4229	4229	3851
Adjusted R^2	0.597	0.596	0.595	0.009	0.009	0.009

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Effects of uncertainty restricting attention to plants in counties on the border of Louisiana and Mississippi. Panel A uses the stock volatility measure controlling for mean returns. Panel B uses our newspaper index based on “economic” terms. Panel C uses the newspaper index based on “commercial” terms. Standard errors are clustered at the year-month level. All of the uncertainty measures have been demeaned and scaled to result in a series with a standard deviation of 1. So the coefficients for the uncertainty effect are comparable across uncertainty measures. All regressions include industry and year fixed effects as well as state specific seasonal trends.

	Log Wage Earners	Log Change in Wage Earners
Stock Volatility	0.00345 (0.0206)	-0.00660 (0.00904)
Economic Newspaper	0.0480*** (0.0117)	-0.00568 (0.00603)
Commerce Newspaper	-0.0403*** (0.0131)	0.0117 (0.00890)

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Effects of uncertainty restricting attention to plants in the manufactured ice industry, a non-tradeable product. For each uncertainty measure, we estimate the contemporaneous effect. All of the uncertainty measures have been demeaned and scaled to result in a series with a standard deviation of 1. So the coefficients for the uncertainty effect are comparable across uncertainty measures. All regressions include year fixed effects and state specific seasonal trends.

	Log Wage Earners			Log Change in Wage Earners				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>A: Stock Return Volatility Measure</i>								
Mean	-1.369 (1.868)	-0.808 (1.566)	0.0692 (0.783)	-0.196 (1.040)	-0.505 (1.774)	-0.371 (0.830)	0.804 (0.656)	-0.0916 (0.515)
Volatility	-0.00522 (0.00757)	-0.0104* (0.00610)	-0.00338 (0.00323)	0.000863 (0.00539)	-0.000554 (0.00455)	0.000821 (0.00427)	-0.00628** (0.00255)	-0.00189 (0.00192)
Observations	19250	14596	13941	14378	17166	13200	12661	13191
Adjusted R^2	0.694	0.919	0.914	0.790	0.064	0.011	0.062	0.111
<i>B: "Economic" Newspaper Measure</i>								
Economic	-0.000481 (0.00706)	-0.00498 (0.00611)	-0.00485 (0.00380)	0.0000659 (0.00720)	0.00164 (0.00585)	-0.00295 (0.00309)	-0.00507 (0.00357)	-0.000197 (0.00346)
Observations	19294	14652	13974	14436	17210	13254	12694	13249
Adjusted R^2	0.695	0.919	0.914	0.790	0.064	0.011	0.063	0.110
<i>C: "Commerce" Newspaper Measure</i>								
Commerce	-0.00754 (0.00519)	-0.00900 (0.00558)	-0.00236 (0.00371)	0.0106* (0.00563)	0.000900 (0.00379)	0.00517 (0.00315)	0.00796*** (0.00289)	0.00549 (0.00470)
Observations	19294	14652	13974	14436	17210	13254	12694	13249
Adjusted R^2	0.695	0.919	0.914	0.790	0.064	0.011	0.063	0.110
Employment size quartile	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Effects of uncertainty across quantiles of plant size as measured by employment in January of given year. Panel A uses the stock volatility measure controlling for mean returns. Panel B uses our newspaper index based on “economic” terms. Panel C uses the newspaper index based on “commercial” terms. Standard errors are clustered at the year-month level. All of the uncertainty measures have been demeaned and scaled to result in a series with a standard deviation of 1. So the coefficients for the uncertainty effect are comparable across uncertainty measures. All regressions include industry and year fixed effects as well as state specific seasonal trends.