

Legislation, Regulation and Litigation: Demand for U.S. Legal Services in Historical Perspective*

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Abstract

Between 1970 and 1990 the U.S. legal services industry underwent a dramatic demand shift. Its employment share more than doubled and the relative wages of lawyers rose by 60%, in contrast to stability before and after. We attribute this shift to three related changes in the legal environment: a wave of new legislation and regulation broadened the scope of the law, left its application uncertain, and enlisted private lawyers to enforce it through fee-shifting. Using over a century of data, we show that lawyers' employment and compensation track all three changes. Event studies link specific statutes to increased litigation and demand for the affected fields of law. Other explanations, including lawyer quality, industrial composition, and technology, do not account for the demand shift. We estimate that legislative uncertainty accounts for roughly 13% of the demand shift—a cost of about \$23 billion in 2024 alone.

JEL classifications: J2, J3, N3, K00.

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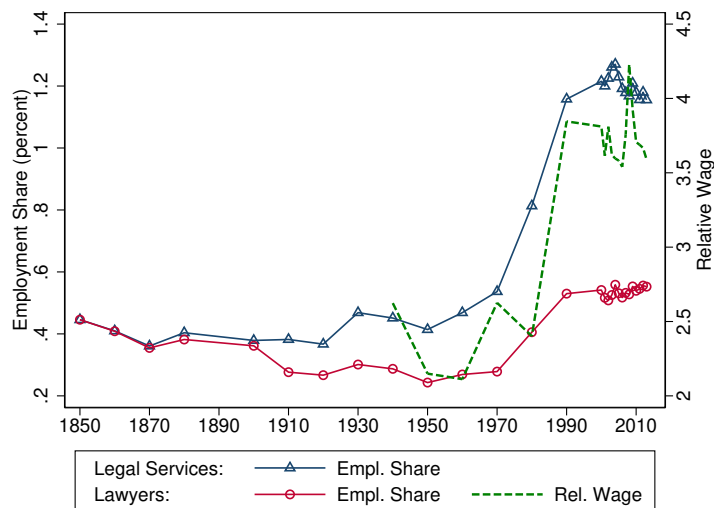
1 Introduction

Lawyers occupy a unique place in modern societies. Nearly every transaction of consequence—hiring a worker, resurfacing a road, dissolving a marriage—involves the legal system and, therefore, lawyers. The resources an economy devotes to legal services are a cost of operating under the rule of law. Whether those resources are well spent is an open question. If demand for lawyers grows because new transactions become desirable, then their fees are a price worth paying. If instead demand grows because the law has become harder to navigate, or more rewarding to fight over, then the same fees are a cost that pulls talent toward redistributive rather than productive work (Baumol, 1990; Murphy et al., 1991).

The U.S. legal services industry experienced a secular expansion in 1970–1990, more than doubling from 0.53% to 1.15% of private sector employment. As Figure 1 illustrates, this is in stark contrast to the relative stability in the employment share in the preceding 120 years—and to stability in the 35 years since. Over the same two decades, the relative wage of lawyers and law firm partners increased by 60%. The simultaneous increase in both the quantity and the price of legal services implies a relative demand shift that outpaced the growth in supply. This paper studies the determinants of this demand shift.

We argue that the increase in relative demand for lawyers is driven mainly by changes in the legal environment. Starting in the mid-1960s, the United States enacted a wave of landmark

Figure 1: Employment Shares and Relative Wages in Legal Services



Notes: Employment measured in hours, and the shares are within the private sector. The relative wage of legal services is the average wage in legal services divided by the average wage in the private sector, excluding legal services. Hours worked is sourced from the decennial Census from 1850–2000, and the American Community Survey from 2001–2015. The relative wage of lawyers series includes lawyers and partners, see Section 2.2 for more details.

legislation: social regulation covering civil rights, environmental protection, workplace safety, and consumer protection, followed by economic deregulation that dismantled agency control over prices and entry. Social regulation brought new domains of conduct within the reach of the law, while deregulation shifted authority from agencies to statutes and judicial interpretation. Much of this new legislation was written broadly, leaving key questions to be settled in court. Furthermore, rather than expanding federal enforcement capacity, Congress attached “fee-shifting” provisions to the statutes, giving private lawyers a financial incentive to enforce them. These three changes—an expansion in the *scope* of the law, an increase in its *uncertainty*, and stronger *incentives* for private enforcement—each raised demand for legal intermediation.

We provide theory and evidence linking the legal environment to demand for lawyers. Fundamentally, demand for legal intermediation arises from asymmetric information about the law—lawyers know how the law governs conduct, while most people do not (Hadfield, 2000). Demand grows with expansion of the law’s reach and with changes that make its application less predictable or that raise the returns to invoking it. Data on litigation makes this link concrete: civil cases per capita track the employment share of legal services closely over the 20th century. Whatever drove demand for lawyers operated through, or alongside, civil litigation.

To formalize these mechanisms, we extend the litigation model of Hirshleifer & Osborne (2001) with an entry stage and with a fee-shifting regime. In the model, disputes arrive with heterogeneous “merit”, which encodes how the written law interprets the grounds for litigation. Given merit, the plaintiff and the defendant choose costly effort in a legal battle. Effort per case increases with stakes and uncertainty over merit, while entry is determined by both merit and the fixed cost relative to expected gains.

The model delivers sharp predictions. An expansion of scope brings new disputes within reach of the law and operates purely on the extensive margin: more cases, with no change in effort per level of merit. An increase in uncertainty concentrates cases toward the contested middle, exactly where effort is highest (a tournament effect). This leads both sides to spend more per case on average, and draws more disputes into court. Fee-shifting lowers the plaintiff’s expected costs, as a winning plaintiff will recover fees from the defendant; this leads both sides to exert more effort in the legal battle. All three changes raise demand for lawyers’ employment, while uncertainty and fee-shifting directly affect compensation, through effort. These predictions extend to a setting that includes, in addition to litigation, transactional and defensive legal work.

We combine multiple data sources spanning 1850 to 2015 to support our hypothesis: publicly available data, administrative records, government surveys, and newly digitized directories. These data reveal two additional facts. First, a change in composition: the ratio of law firm partners

to associates dropped sharply between 1970 and 1990, consistent with an increase in the size of the market. Second, a rise in specialization: the share of lawyers reporting a specialization increased by 30 percentage points between 1972 and 1992. Together, the employment share, relative remuneration, composition and specialization of the industry underwent substantial changes during 1970–1990, in contrast to stability before and after.

We present the empirical evidence in four parts, moving from the aggregate to progressively finer variation. First, we take a historical view. We assemble century-long time series of pages of the Code of Federal Regulations (capturing scope); the cumulative count of fee-shifting statutes (capturing incentives); and the “forward amendment rate” of the U.S. Code (capturing uncertainty). The forward amendment rate measures the share of laws in force in a given year that are amended over the following decade. We developed this proxy for uncertainty on the logic that ambiguous laws, which imply uncertain merit, are the ones that are later revised. In regressions spanning more than a century we find that changes in each series predict changes in lawyers’ employment share, relative wages and partner-to-associates ratio. The pattern is consistent with what the model implies: regulation predicts employment shares but not wages, while the fee-shifting and the forward amendment series predict both.

Second, we use the universe of federal civil cases to test the scope and fee-shifting mechanisms directly, in event studies around statutory changes to existing areas of law. For example, the Civil Rights Act of 1991, which expanded the reach of employment-discrimination law, nearly doubles related case filings within five years—an increase of 15,000 cases per year. The 1975 amendment to the Lanham Act added fee-shifting to the long-standing trademark law. We find that trademark filings double after fee-shifting is allowed—but from a much smaller base, resulting in an increase of 1,000 cases per year. Both responses are the extensive margin of the model at work: expanding scope and adding fee-shifting draw new disputes into court.

Third, we exploit exposure to landmark federal legislation. States that are more exposed to the Civil Rights Act of 1964, measured by black employment share, and to the Clean Air Act of 1970, measured by manufacturing in polluted counties, experience greater growth in lawyers’ employment share after these laws were enacted.¹ For the Civil Rights Act, a standard deviation of exposure raises lawyers’ employment share by 0.12 percentage points, roughly 30% of the mean share. More-exposed states also see differential growth in the corresponding federal litigation (cases specific to civil rights or the environment) over the post-passage decades. The results provide further evidence that specific laws, instead of forces common to all states, drove the rise.

¹We also find that in Washington, D.C., the jurisdiction closest to the federal government, the legal services employment share rose from 0.8% to 4.2% between 1970 and 1990, more than five times the average state increase. This growth was in private-sector lawyers, not government lawyers.

Finally, we link laws to demand for specific types of lawyers. We digitize two sources—the Martindale-Hubbell legal directories (1931–1963) and the the Census of Services (1972–1992)—to build a novel historical panel of lawyers by city and field of practice. Here, we exploit the staggered adoption of state policies, as state legislative activity expanded in parallel with, and increasingly followed, federal legislation over this period (Angelucci et al., 2026). We find that changes in state laws raised the share of lawyers in the affected field: strict products liability in negligence and insurance law, unilateral divorce reform in domestic law, and banking deregulation in banking and corporate law.

Although a tightening in the supply of lawyers cannot explain the increase in relative employment that we document, inelastic supply of lawyers can contribute to the large increase in compensation. Entry into law is licensed, and although new law schools were established in the early 1970s, entry plateaued by the end of the decade, with law school capacity per capita roughly constant. While the bulk of the wage increase occurred between 1980–1990, after capacity (as measured by new schools) stopped expanding, our counterfactual results show that this channel is quantitatively insignificant.

We rule out a number of alternative explanations. Growth in economic activity, firm density and industrial composition do not account for the timing or magnitude of the expansion in legal services. We find no evidence of a change in lawyer quality, and individual-level wage data show that the increase in relative wages is not explained by changes in lawyers’ demographics. Information and communications technology, which reshaped demand for skill in many sectors over this period, does not appear to have played an important role in legal services. The entry of women into law, though dramatic, tracks other high-skill professions and carries no differential wage premium among lawyers. We do not find a role for changes in professional standards or an increase in political influence: in fact, the share of lawyers in Congress declined steadily over the period.

We interpret the expansion of the law as socially desirable—new rights and protections that require legal intermediation to give them effect. But it was not costless and, as our analysis suggests, the cost was amplified by the ambiguity with which the legislation was written and the government’s limited capacity to enforce it. As a final exercise, we provide two back-of-the-envelope calculations of the “excess” cost of these reforms. The first focuses on uncertainty. Under the assumption that the expansion of the law was socially beneficial but the increase in legislative ambiguity was not, we estimate that uncertainty in legislative text accounts for roughly 13% of the increase in demand for lawyers. We estimate that \$23 billion of the 2024 wage bill in legal services reflects excess costs.² The second calculation takes the increase in the quantity of legal employment as given,

²This estimate conditions on the growth in the scope of the law; without separating uncertainty from scope, the upper bound reaches \$112 billion.

but treats the increase in relative wages as an unproductive rent. This suggests a larger excess cost of approximately \$75 billion per year, reflecting a transfer from consumers to suppliers of legal services. These rents can be sustained by restricted entry into the profession.

Related literature. Economists have long asked why the U.S. has so many highly paid lawyers (Pashigian, 1977; Sander & Williams, 1989; Rosen, 1992)—but much of this literature was written in the middle of the very expansion it sought to explain. Our long-run perspective permits testing candidate explanations against more than a century of data.³ Our explanation is closest in spirit to Hadfield (2000), who attributes high legal fees to the complexity and uncertainty of the legal process. We show when and why those features of the law intensified.⁴

Lawyers are also a subject in the literature on allocation of talent. Baumol (1990) argues that “the rules of the game” determine whether talent flows to productive or unproductive activity, and Murphy et al. (1991) formalize this idea, finding that countries with more lawyers grow more slowly.⁵ We provide direct evidence on the mechanism within a single country: changes in the legal environment raised the returns to legal intermediation, and talent followed.

In the canonical framework of Katz & Murphy (1992), rising relative wages of skilled workers reflect a secular demand shift, which the literature attributes chiefly to skill-biased technological change (Acemoglu & Autor, 2011). Lawyers fit this account poorly. Their relative wages and employment share are flat or declining for most of the century, rise sharply in 1970–1990—including relative to other college graduates—and plateau after, even as skill-biased technological change continued. We show that changes in the legal and regulatory environment can be equally large and persistent drivers of demand for skilled workers in knowledge-intensive industries that are characterized by asymmetric information. Philippon & Reshef (2012) make this point for deregulation in finance, while Gottlieb et al. (2025) make the point for healthcare policy and physicians’ earnings.

We also contribute to a growing literature on the costs of legislation and regulation. Brooks & Liscow (2023) show that the same legislative wave raised the cost of building infrastructure, while Trebbi et al. (2026) find that lawyers rank among the occupations most intensively employed in regulatory compliance today. We quantify an economy-wide cost: the resources devoted to legal intermediation.⁶ These costs are, in part, the price of an enforcement choice. Litigation and

³The benefit of hindsight is not merely rhetorical. Pashigian (1977) attributes demand for lawyers to growth in real GNP, but output grows throughout our sample while the lawyers’ share does not. Sander & Williams (1989) point to corporate demand, but industry’s share of legal services income is roughly stable over the demand shift (Appendix G.1).

⁴Related recent work on the industry shows that lawyers and legal ideas shape judicial outcomes (Liu et al., 2025; Ash et al., 2026); that work takes the size of the profession as given, while we ask why it grew.

⁵This point is also made in Magee et al. (1989), although their focus is on lobbying.

⁶Legal services are a “critical input” in the sense of Dew-Becker (2023): an input to many downstream industries that is difficult to substitute, implying that the sector matters far more than its modest cost share in aggregate

regulation are substitutes for enforcing the law (Shleifer, 2005, 2010): by relying more on private litigation via fee-shifting, the U.S. shifted this cost onto the market for lawyers.

Lastly, our results offer a complementary perspective on work related to legislation and growth. Ash et al. (2025) find that legislation that adds legal provisions raises growth across U.S. states, which they interpret through a reduction in contract incompleteness. We show that the legislative expansion carried a cost in terms of employment and remuneration of lawyers. We also show that legislation written less completely—that Ash et al. (2025) associate with slower growth—is associated with more lawyers and higher remuneration. This is consistent with Giommoni et al. (2025), who estimate that Italian GDP would be 5% higher if all laws were written as clearly as the constitution.

Throughout, we take changes in the legal environment as given, measuring the consequences instead of the causes. Mulligan & Shleifer (2005) instead study the supply side of regulation itself, and argue that regulation grows with the size of the market. However, we do not find that the secular increase in legislation, regulation and litigation is associated with increases in population, GDP or globalization in 1970–1990. The literature suggests that the legal reforms that we focus on were driven by long run social processes that were exogenous to the market for lawyers (Wilson, 1980; Vogel, 1988; Derthick & Quirk, 1985) and not, for example, advocacy by the bar (Kagan, 2001; Farhang, 2010).

The rest of the paper proceeds as follows: Section 2 establishes the facts of the demand shift; Section 3 describes the changes in the legal environment and develops a theoretical framework linking them to demand for lawyers; and Section 4 presents the empirical evidence. Section 5 discusses the supply of lawyers; Section 6 rules out alternative explanations; and Section 7 quantifies the excess cost of the demand shift. Section 8 offers concluding remarks.

2 Data and Facts

We draw on several data sources to document the evolution of legal services in the U.S.⁷

Employment and Compensation. We use the following micro data: the U.S. Censuses of 1850–2000, the American Community Survey (ACS) in 2001–2015, and the Current Population Survey (CPS) in 1967–2015, all of which distinguish individuals within an industry by occupation and other demographics.⁸ We supplement the censuses and surveys with industry-level data from the Bureau

output suggests.

⁷We keep the data description to a minimum here and relegate additional details to Appendix A.

⁸We verify that the total number of lawyers (using sampling weights) in the Censuses and surveys is in line with data from the American Bar Association (ABA) from 1878 and on. The main disadvantage of these sources is the reporting of income: wages and other income are self-reported and top coded, i.e., the highest values are censored. In

of Economic Analysis (BEA) in 1929–2015. The BEA data have three main advantages over the survey data: (1) the data do not suffer from top coding and include all forms of compensation, (2) all workers are accounted for on a full-time equivalent basis, and (3) it is possible to distinguish proprietors and their income from employees and their compensation.

Specialization. Data on lawyers’ fields of specialization come from two sources: the Census of Services and the Martindale Hubbell Law Directories. The Census of Services is conducted every five years starting in 1967, but legal services firms are asked about lawyers’ fields of specialization only in 1972–1992. We digitize the Census of Services publications to track the specialization of lawyers from 1972 to 1992 at the aggregate level and for the 28 states and the District of Columbia that are surveyed.⁹ For the period of 1931–1963, we digitize the Martindale Hubbell Legal Directories, which include information on law firms’ fields of specialization, biographies of lawyers, and the clients of law firms, across the entire United States.¹⁰ This allows us to create an estimate of lawyers’ specialization, by state and year, comparable to the Census of Services.

The LSAT, Law Schools, and the Bar. We track the number of individuals that take the LSAT, Law School Enrollment and Law Degrees Awarded. Data on the LSAT come from White (1984) for 1947–1982 and then directly from the Law School Admission Council (LSAC) for 1987 and on. The American Bar Association (ABA) provides enrollment and law degree statistics.

The ABA also accredits law schools, and therefore publishes a list of ABA-approved law schools in each year. We track the tuition of top programs from Cass & Garvey (2003) and Campos (2012). We also hand collect the course offerings at Harvard Law School, from 1880–2015, directly from the archived course catalog.¹¹

Litigation Activity. We collect three historical series on litigation: civil cases filed, criminal cases filed, and civil appeal cases filed. Data on civil and criminal cases filed in U.S. district courts are from the Historical Statistics of the United States (HSUS) (1941–1999) and the Administrative Office of the U.S. Courts (2000–2015). To extend the series historically, we use data on civil appeal cases from 1893–1989, also from HSUS.¹²

The three series above track litigation in the aggregate. We use case-level data from 1970–2015 from the Federal Judicial Center’s Integrated Database (IDB). This includes all civil cases filed

addition, it is difficult to distinguish between employees and proprietors, in particular, between associate lawyers who are employees and law firm partners and sole proprietors. Although some individuals report income as business income (in addition or instead of wage income), this distinction is insufficient to characterize the status of proprietorship.

⁹See Appendix A.6 for complete details on variables construction.

¹⁰See Appendix A.7 for more details on the data collection and classification.

¹¹See “Courses of Instruction,” Harvard Law School, <https://listview.lib.harvard.edu/lists/drs-9045568>.

¹²Historical Statistics of the United States: Carter et al. (2006). Data from the Administrative Office of the U.S. Courts downloaded from <http://www.uscourts.gov/>.

in federal district courts. The case-level data include the name of the case (i.e., the two parties involved), the date and district of filing, the “nature of suit” (the category used to classify civil cases filed in federal courts) and the outcome of the dispute.

Government Legislation, Regulation, and Fee-Shifting. Our measures of government legislation and regulation come directly from the United States Code and the Code of Federal Regulations (CFR). The U.S. Code contains the general and permanent laws enacted by Congress, while the CFR contains the rules issued by federal agencies. The two are closely related: when Congress passes a law (Code), it typically delegates authority to an agency, which then writes rules to implement it (CFR).

For the CFR we use data on the number of pages in each year directly from the Federal Register Statistics, which is available starting in 1950. For the Code we use the point-in-time editions assembled by Jeong et al. (2026), which are available every six years from 1926 to 1988 and annually from 1994. These editions include the full content of the Code, from which we measure its size. We also parse the amendment history recorded in each section of the 2015 edition of the Code, which allows us to create our own measure of legal uncertainty. Data on fee-shifting statutes introduced in the Code are from Derfner & Wolf (2012).

We also analyze specific state-level legislation that affects demand for lawyers. This includes states’ adoption of strict products liability, unilateral divorce, and banking deregulation. For divorce and banking deregulation we take the adoption dates from Friedberg (1998) and Black & Strahan (2001), respectively. For strict products liability we date each state’s adoption from the state-by-state survey of the case law and statutes in Vargo (1996) (Appendix Table I10).

We use these data to establish the following facts.

2.1 The employment share of legal services more than doubled in 1970–1990

Figure 1 depicts the evolution of employment shares of legal services and lawyers in private sector employment. We juxtapose the employment share of legal services with its relative wage, which we define below in Section 2.2. The most important feature of Figure 1 is the sharp increase of employment shares from 1970 to 1990, compared to the relative stability before and after this period. The employment share of legal services more than doubles during these 20 years, from 0.53% to 1.15%, after which it remains relatively stable, at 1.2% on average. For lawyers employed in legal services, the increase is from 0.28% to 0.53%.¹³ The long run evolution of legal services’ employment

¹³These numbers change little when calculating employment shares out of total employment, including the public sector. See Figure B1(b) in the appendix. Public sector employment during 1970–1990 slightly increases from 7% to 8% of total employment, and thus has little effect on the overall pattern.

share is similar to the evolution of its wage bill share and value added share. Importantly, all these series increase significantly in the 1970–1990 period.¹⁴ In Appendix B.4 we show that within-state changes explain all of the aggregate increase in employment and wages.

2.2 Relative wages of lawyers and partners increased by 60% in 1970–1990

Figure 1 also shows that the relative wage of lawyers increased dramatically between 1970–1990. The increase is sharpest between 1980 and 1990; relative wages grew from 2.40 to 3.85. We define the relative wage of lawyers as the ratio of the average compensation among all lawyers in legal services (including partner’s income) to average wages in all other industries. To build this series we combine Census/ACS and BEA data in order to deal with two issues: (1) lawyers’ income is likely to be top-coded in the Census/ACS, and (2) partner’s income, a large portion of compensation in the profession, is not categorized as wage income. The construction exploits the fact that proprietors’ income and lawyers’ total labor compensation in legal services are recorded in the BEA, and that non-lawyers in legal services are virtually never top-coded in the Census/ACS. Appendix B.2 provides more details on the calculation of our relative wage series.

Lawyers’ relative wage also grows compared to other high-skilled workers (Appendix Figure B4(c)). In Appendix B.6 we show that the increase in lawyers’ relative wage is not explained by changes in demographics or the evolution of the skill premium. We also show that the relative wage of non-lawyers in legal services is essentially flat, which strengthens our focus on lawyers.

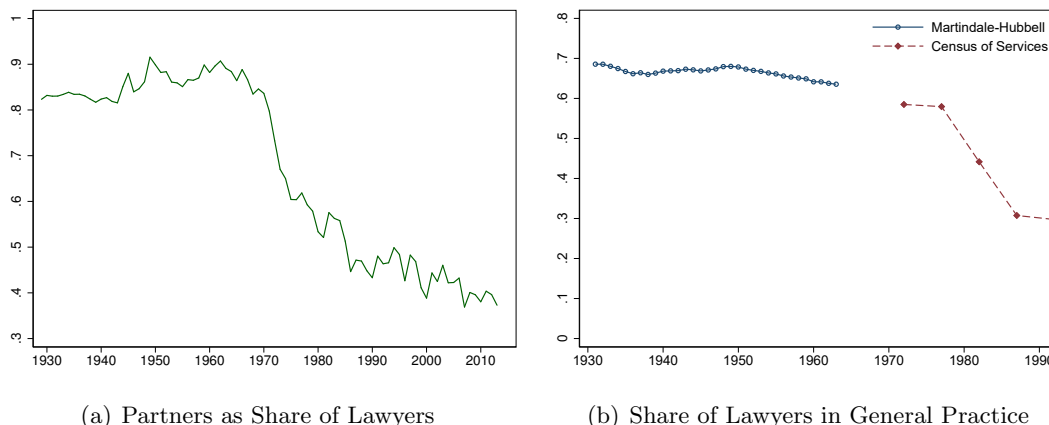
2.3 The composition of the industry changed markedly in 1970–1990

Figure 2(a) shows a marked decline in the share of law firm partners to lawyers in legal services. This ratio is stable around 0.85 until 1970, after which it drops sharply to 0.45 in 1990. After 1990 it continues to decline moderately. The implied increase in the ratio of associate lawyers to partners and sole proprietors is consistent with an increase in the scope and market for legal intermediation after 1970. Garicano & Hubbard (2007) use the 1992 Census of Services Industries to show how the size of the market is associated with a higher ratio of associate lawyers to partners in the 1992 cross section.¹⁵ The time series trend we document, coinciding with an increase in the relative size of the legal services industry, is complementary to their cross-sectional analysis.

¹⁴See Figure B1(d). The wage bill share and value added share overlap almost perfectly after 1980. The wage bill share and value added shares increase much more than the employment share in 1970–1990, commensurate with the increase in the relative wage during this period.

¹⁵In line with the information hierarchies theory of Garicano (2000), in larger markets there is a stronger incentive to delegate simpler and easier tasks to associate lawyers, leaving only the more difficult or complex tasks to partners. Garicano & Hubbard (2007) argue that their mechanism does not apply to clerical and paralegal workers in law firms due to legal limitations on the range of activities that such workers can perform. For example, they are prohibited from communicating legal advice directly to clients, which, they argue, would prevent hierarchies to expand through their level of employment.

Figure 2: Lawyers and the Composition of the Legal Industry



Notes: For (a), law firm partners are approximated by proprietors in legal services, from the BEA. Employment is in terms of full time equivalents. Panel (b) plots the share of lawyers in general practice over 1931–1992, splicing Martindale-Hubbell (1931–1963) with the Census of Services (1972–1992). See Appendix A.6 and Appendix A.7 for more information on each data source.

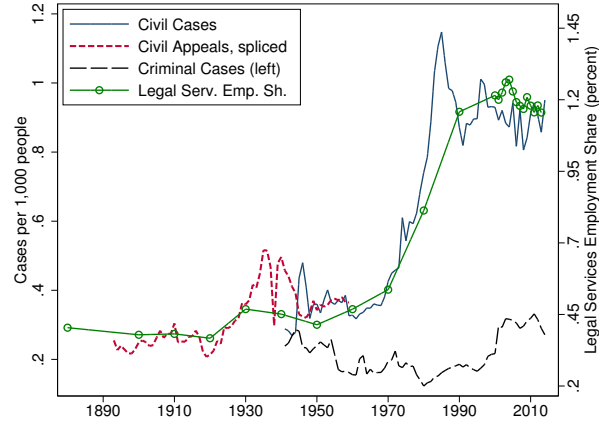
We use data from the Martindale-Hubbell Law Directories and from the Census of Services to track the specialization of lawyers from 1931 to 1992. Figure 2(b) documents that after a long period of relative stability, lawyers became much more specialized in 1977–1992: the share of generalist lawyers declined by more than half from 58.2% to 28.3%. The increase in specialization coincides with an increase in the relative size of the legal services industry. This is in contrast to relative stability in prior years: the share of lawyers in “general” law decreases by only 5 percentage points over the 32 years in the Martindale-Hubbell sample, from 68.5% in 1931 to 63.5% in 1963.

3 Demand for legal services

Demand for legal intermediation arises from information asymmetry: lawyers know how the law governs conduct, while most people do not. It follows that the market for lawyers grows with the scope of the law—as the law comes to govern a broader range of conduct, this requires more legal intermediation. How the law is written and how it is enforced also matter, because they determine how many disputes are worth pursuing and how much effort each dispute motivates.

We attribute the 1970–1990 demand shift to three changes in the legal environment, each beginning in the mid-1960s. First, an expansion in scope: a wave of legislation brought new domains of conduct within the reach of the law. Second, an increase in uncertainty: much of this legislation was written in broad, open-ended language, leaving contested questions to be settled in court. Third, a change in lawyers’ incentives: rather than expand public enforcement capacity, Congress enacted statutes to encourage enforcement by the private sector.

Figure 3: Litigation and Legal Services Employment Share



Notes: Civil cases in 1941–1999 and Civil appeals from 1893–1994 are sourced from HSUS while cases 2000–2015 are from the Administrative Office of the U.S. Courts. Cases are normalized by total population in units of 1,000 people. The Civil Appeals series is proportionally spliced so that the average value in 1950–1959 fits the average value of Civil Cases in the same period. Appendix Figure H2 plots the civil and appellate series separately (without the splice). Legal services employment share is calculated as in Figure 1.

We take these changes in the legal environment as given and argue that their timing is plausibly exogenous to the market for lawyers. Scholars attribute the wave of social regulation to the social movements of the era (Wilson, 1980), which gained traction as public trust in big business declined (Vogel, 1988). The deregulation that followed reflected bipartisan concern over regulatory capture, by economists and consumer advocates (Derthick & Quirk, 1985). The literature attributes the reliance on private enforcement to Congress’s distrust of agencies, rather than advocacy by the bar (Kagan, 2001; Farhang, 2010).

These three changes in the legal environment affected laws in the civil sphere. In Figure 3 we plot the intensity of civil litigation in U.S. federal courts alongside the employment share of legal services. The two series move together closely, while criminal cases exhibit no trend. In fact, the number of lawyers per federal case filed is relatively stable throughout the sample.¹⁶ In the remainder of this section, we document each of the three changes: scope, uncertainty, and incentives. We then develop a theoretical framework that formalizes the link between the legal environment and demand for lawyers.

¹⁶Appendix Figure H3 shows that on average 2.5 lawyers are employed for every federal case filed. While this ratio increases a bit over time, from 2.4 in 1960 to 2.86 in 2000, this trend is weak compared with the changes in employment and litigation themselves. Although these are only federal cases, it is consistent with a fixed litigation technology over the sample.

3.1 Scope: Major Legislation and Regulation

From the mid-1960s through the 1980s the federal government passed a series of landmark acts that came to be called “social regulation.” Leading examples include the Civil Rights Act of 1964, the Voting Rights Act of 1965, the National Environmental Policy Act (NEPA) of 1969, the Occupational Safety and Health Act (OSHA) of 1970, the Clean Water Act of 1972, and the Consumer Safety Act of 1972.

We argue that these acts and the resulting regulations contributed to demand for legal services. For example, the Civil Rights Act, together with the Voting Rights Act of 1965, provided unprecedented protection against discrimination, and the ability to sue violations of equal opportunities and disenfranchisement. This increased the scope of the law, and therefore the demand for legal services. In 1970, 4,926 Civil Rights related cases were filed in federal district courts. By 1990 there were 18,689 filings, an increase of almost 300% from 1970, and over 1500% from 1965.¹⁷

Another leading example is in environmental protection. By the 1960s the U.S. already had a long history of environmental legislation, concerning preservation, multi-use management plans and public health. However, these were specific and never as strong and broad as the NEPA of 1969, which Liroff (1976) considered “the most sweeping environmental law ever enacted by a United States Congress.”¹⁸ Title 40 of the Code of Federal Regulations (CFR) was introduced in 1970 with the formation of the Environmental Protection Agency (EPA), and is dedicated to the protection of the environment. Currently, Title 40 consists of 37 volumes and more than 1,200 pages of federal regulations.

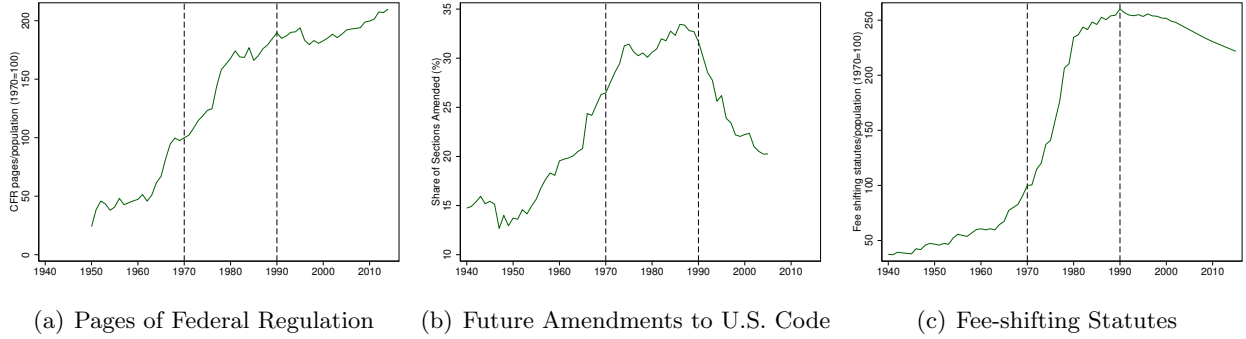
Figure 4(a) shows the overall evolution of the Code of Federal Regulations. There is a 160% increase in the length of regulatory code between 1970 and 1990; between the early 1960s and 1980 the length more than doubles.¹⁹ The 1970s and 1980s were also the era of economic deregulation, when federal controls on entry and prices were dismantled in transportation, telecommunications, finance, and utilities. However, deregulation did not remove the industries in question from the reach of the law; instead, it replaced one legal regime with another. In effect, deregulation substituted administrative control of entry and prices with complex, lengthy legal text (Kearney &

¹⁷The 1965 data point precedes the case-level data availability; we take this from an article on the effect of the Civil Rights Act on litigation from the U.S. Courts website (<https://www.uscourts.gov/data-news/judiciary-news/2014/06/09/over-two-decades-civil-rights-cases-rise-27-percent>).

¹⁸Appendix Figure H4(a) shows that before the NEPA was passed there were no “Environmental Matters” cases. In 1972, soon after NEPA was passed (and the same year as the Clean Water Act), 126 federal civil cases were filed for “Environmental Matters.” By 1992, 20 years later, that number had increased ten-fold to 1,252. We observe a similar pattern for cases filed for occupational health and safety matters in Appendix Figure H4(b). Before the OSHA was passed in 1970 this category of filings did not exist.

¹⁹We see a similar pattern with the number of words in the U.S. Code, we do not have a pages measure for that series (Appendix Figure C3(a)).

Figure 4: Federal Regulation, U.S. Code, and Fee-shifting Statutes



Notes: Figure (a) shows the number of pages in the Code of Federal Regulations (CFR), divided by the U.S. population, where we set the value in 1970 to 100. The source for CFR pages is the Federal Register Statistics (<https://www.federalregister.gov/reader-aids/federal-register-statistics>). Figure (b) shows the share of the sections of the U.S. Code in force in each year that will be amended within the next 10 years. We create this measure from the amendment histories recorded in the source credits of the 2015 edition of the U.S. Code. Figure (c) shows the cumulative introduction of legislation with fee-shifting statutes, divided by the U.S. population, where we set the value in 1970 to 100. The source for the timing of fee-shifting statutes is Derfner & Wolf (2012). For each figure, we demark 1970 and 1990 with dashed vertical lines.

Merrill, 1998). Indeed, the stock of federal regulation continued to grow throughout the deregulation era, rather than shrinking. Moreover, where an agency had previously approved prices and terms *ex ante*, firms now had to work out what conduct was permissible *ex post*, often in court: legal scholars came to describe the outcome as “regulation by litigation” (Freyer, 2010).²⁰

3.2 Uncertainty: Completeness of the Law

Much of the legislation of this era was written in broad, open-ended language. Legislation drafted this way is incomplete. Ambiguous text generates uncertainty over legal outcomes, and statutes that fail to settle matters *ex ante* are litigated, clarified, and ultimately rewritten.²¹ We develop a measure of the incompleteness of a statute by how often it is rewritten. The U.S. Code records, in each section’s source credit, the date the section was enacted and every act that subsequently amended it. From this we construct a *forward amendment rate*: the share of Code sections in force in year t that are amended at least once over the following ten years.²²

Figure 4(b) plots the series. Amendment activity is low and stable in the 1940-50s—about

²⁰We provide more details on deregulation in Appendix F.

²¹Congressional overrides of Supreme Court statutory-interpretation decisions surged over precisely this period (Eskridge Jr., 1991). The Civil Rights Act of 1991, which we study in Section 4.2, is an example: it rewrote Title VII to override a series of 1989 Supreme Court decisions. The converse also occurs—a statute whose meaning the courts settle definitively may never require amendment—so our measure understates incompleteness that is resolved entirely through precedent.

²²This is similar in spirit to Ronchi & Salvestrini (2025), who measure the quality of judicial rulings in Italian courts by whether they are “appeal-proof.” Our forward amendment rate analogously treats a section’s subsequent amendment as revealing that it failed to settle matters *ex ante*.

15% of the sections in force in each year are amended within the following decade—then rises steeply from the mid-1960s. The forward amendment rate peaks at 34% in the mid-1980s, before falling back to 20% by 2005, the last year with a complete ten-year window in the 2015 edition of the Code.²³ The intensity of revision rises even more sharply than the share, as sections can be amended multiple times. Counting amendment events, the code in force receives about 20 amendments per 100 sections in 1950, 48 per 100 in 1970, and nearly 69 per 100 at the mid-1980s peak (Appendix Figure C1).²⁴ The law on the books around 1980 was thus exceptionally unsettled: within a decade, a third of its provisions would be revised. Notably, and in contrast to the secular growth of regulation, this measure of legal uncertainty falls after 1990.

Amendments measure incompleteness *ex post*, as revealed by subsequent legislative correction; a complementary, *ex ante* measure looks at the text of the legislation itself. Ash et al. (2025) track the number of “contingent clauses” in state legislation. Contingent clauses are stipulations in the legal text, conditioning actions and outcomes and therefore reducing ambiguity in the interpretation of laws (Battigalli & Maggi, 2002; Ash et al., 2025). The share of contingent provisions is another proxy for the uncertainty in the legislation—fewer contingencies imply more ambiguity in the law.²⁵ Consistent with our forward amendment rate measure, Appendix Figure C4(b) shows that the share of contingencies in state legislation falls between 1970 and 1990—in contrast to relative stability before 1970 and after the late 1990s.

3.3 Fee-Shifting: Incentives for Plaintiff’s Lawyers

When Congress enacted major social regulation acts, there was a concern about the government’s capacity to enforce them. In order to address this, Congress enacted “fee-shifting” statutes, which allow lawyers to collect fees from the losing party if they prevail in court. This is in contrast to the status quo in the United States, the so-called “American Rule,” which dictates that lawyer fees are to be only paid by the party that hires the lawyer (Vargo, 1992). The typical fee-shifting statute stipulates that the plaintiff’s lawyer will be paid by the defendant if the plaintiff wins the case.²⁶

²³Because the window looks forward, the value at year t reflects amendments enacted through $t + 10$: the peak for the mid-1980s stock reflects revision activity concentrated between the mid-1980s and the mid-1990s.

²⁴Sections enacted in the 1970s and 1980s were amended within their first decade at two to three times the rate of earlier cohorts (Appendix Figure C2). The cohort version of the measure addresses a mechanical concern: the stock in force in the 1970s and 1980s was unusually young, and young sections are amended more often, so the forward amendment rate could rise with the age composition of the Code alone. The cohort measure compares sections at the same age, each observed over its first decade of life, and traces the same inverted U pattern.

²⁵The contingency measure is available only for state legislation; we treat it as a proxy for legislative drafting practice generally. State legislative activity expanded in parallel with federal activity—the average state introduced roughly 2,900 pages of legislation in 1970 and 4,500 pages in 1990, an increase of more than 50% (Appendix Figure C4(a))—and over the postwar period federal legislative activity increasingly predicts subsequent state legislation (Angelucci et al., 2026).

²⁶One of the most notable examples of a fee-shifting statute comes from the Civil Rights Attorney’s Fees Award Act of 1976, which allows the federal court to award attorney fees from the losing party to the lawyer of the plaintiff

Fee-shifting provisions respond to an asymmetry in resources between repeat-player defendants, typically well-resourced firms or government entities, and one-shot individual plaintiffs. Legislators worried that this asymmetry in resources would systematically suppress enforcement, even where the underlying merits are strong. Rather than expand administrative enforcement capacity, Congress used fee-shifting to substitute public enforcement with private litigation (Farhang, 2010). Simply put, the intent of these statutes was to facilitate provision of legal services for plaintiffs via the private sector. This increased demand for legal services.

Figure 4(c) shows that between 1970 and 1990 the number of fee-shifting statutes triples—from 58 statutes to 184. Much of the increase during this time period is due to statutes relating to consumer protection, environmental protection, civil rights or employment—i.e., in “public interest litigation.” However, we also see an increase for categories that are more commercial in nature, for example, economic regulation and intellectual property.²⁷

3.4 Theoretical framework

In order to frame the discussion, we build on Hirshleifer & Osborne (2001), who model the interaction between plaintiffs and defendants in a legal battle. We extend the model to consider entry into the litigation stage, and then use this framework to predict changes in costs and entry via three channels: (1) the scope of the law, (2) the uncertainty of the law, and (3) fee-shifting regimes.

The model is written in terms of litigation, due to its close link with legal services employment (Figure 3) and because we have rich data on litigation activity. However, litigation is only one part of legal activity. Many lawyers are engaged in transactional law: writing contracts, performing due diligence, and ensuring compliance. In Appendix D.6 we model transactional legal work as an investment the defendant can make before disputes arise. This defensive investment lowers the probability that a plaintiff can mount a successful lawsuit. The predictions for all comparative statics discussed below extend to the model that includes transactional and defensive legal work.

The model has two stages: (1) entry into litigation and (2) effort in the litigation stage, which determines costs. Both entry and effort enter the demand function for lawyers.

Effort. Define the “Litigation Success Function” (LSF) as follows:

$$\frac{\pi}{1 - \pi} = \left(\frac{L_p}{L_d} \right)^\alpha \frac{Y}{1 - Y},$$

where π is the probability that the plaintiff (p) wins, L_p is the litigation effort of the plaintiff, L_d is the litigation effort of the defendant (d), α determines the sensitivity of the outcome to effort, and

in civil rights cases. The intention was to create an incentive for attorneys to bring civil rights cases on behalf of plaintiffs.

²⁷We report more statistics on fee-shifting statutes by type in Appendix Figure H1 (panels (a) and (b)).

$Y \in [0, 1]$ is the merit of the plaintiff.²⁸ Merit encodes how the written law interprets the grounds for litigation. If $Y = 1$ then the law dictates that the defendant is surely at fault and if $Y = 0$ it dictates that the defendant is surely not at fault, i.e., there is no legal basis to sue. The cost of effort is specified as $C_i = \gamma L_i$. We think of C_i as payments to lawyers; this cost delivers C_i/γ units of effort in the legal battle.

The value of the lawsuit is a function of the probability of winning, the stakes J , and costs:

$$V_i = \pi J_i - C_i = \pi J_i - \gamma L_i, \quad i \in \{p, d\},$$

where the stakes for the plaintiff are assumed to be positive, $J_p = J > 0$, and the stakes for the defendant are negative: $J_d = -J_p$ (winning a case entails a simple transfer).

If the two parties choose effort simultaneously to maximize their respective V_i , then the symmetric Nash equilibrium level of effort is

$$L_i^* = \alpha \frac{J}{\gamma} Y(1 - Y), \quad i \in \{p, d\}.$$

Effort increases with stakes J , sensitivity to effort α , and uncertainty about merit (as Y approaches $1/2$). Costs will increase with any of these three changes, as $C_i = \gamma L_i$. Since $L_p^* = L_d^*$, it follows that in equilibrium $\pi^* = Y$, despite both sides' efforts. This is a manifestation of the rent-seeking, tournament nature of litigation.

Entry. Consider a population of potential disputes, each drawing merit Y from a distribution $G(Y)$ on $[0, 1]$. Solving backward, the plaintiff files a suit only if litigation has positive value at the equilibrium effort levels. Litigation carries a fixed cost $F > 0$ which is incurred by the plaintiff, regardless of stakes or effort, and which accrues to lawyers.²⁹

The plaintiff brings a case if the value is greater than the fixed cost of entry: $V_p^* = \pi^* J - \gamma L^* \geq F$. Using the optimal effort L^* this condition yields

$$\text{Entry condition: } Y[1 - \alpha(1 - Y)] \geq \frac{F}{J}. \quad (1)$$

The minimal entry threshold Y^* is the root of (1) with equality. The entry threshold is increasing in F and decreasing in J : high-stakes disputes clear the fixed cost easily and are litigated even at modest merit, while low-stakes disputes are filed only if merit is high. Anything that lowers F/J

²⁸The LSF has its roots in Tullock (1980). Stable equilibria in the game require $\alpha < 2$.

²⁹In general, F may capture a non-refundable retainer, an initial consultation charge, court filing fees, preliminary expert opinions, and bond requirements that may be paid to third parties (the court, the expert, a bonding company). It can also include the non-pecuniary cost of the plaintiff's own time and any reputation cost of becoming a litigant. Assuming that F (or part of it) does not accrue to lawyers does not change the comparative statics that we study.

expands the set of disputes litigated.³⁰

Total Demand. Total demand for legal services in litigation is proportional to the number of cases filed times the average effort per case (see Appendix D.2):

$$\text{Total demand} \propto \underbrace{[1 - G(Y^*)]}_{\text{extensive margin}} \times \underbrace{[\mathbb{E}[L^*(Y) \mid Y \geq Y^*] + F]}_{\text{intensive margin}}. \quad (2)$$

Since $C_i = \gamma L_i$, total costs on lawyers are also proportional to the right hand side of (2).

3.5 Changes in the Legal and Regulatory Environment

We examine the three changes of interest—scope, uncertainty, and fee-shifting—through the lens of the model.

Scope. The law maps each potential dispute into merit. An expansion in the scope of the law brings new disputes within the law’s reach. A dispute that the law does not cover has no legal basis, $Y = 0$, no matter the harm. The proportion of disputes with zero merit corresponds to a mass point of G at $Y = 0$, G_0 .³¹ An expansion of scope lowers G_0 , moving disputes out of this mass point, so that they draw positive merit, which we show in Figure 5(a). Since this does not change the entry threshold Y^* , the result is an increase in the mass of disputes with $Y \geq Y^*$, increasing filings.³²

Uncertainty. High uncertainty arises when the law does not clearly characterize disputes. Through the lens of the model, this occurs when more disputes carry intermediate merit, near $Y = 1/2$, where the variance of outcomes is highest. We model an increase in legislative uncertainty as a concentration of the probability mass $G(Y)$ toward $1/2$.³³

Because equilibrium effort $L^*(Y)$ is maximized at $Y = 1/2$, concentrating G toward $1/2$ raises average effort per filed case (the intensive margin). Figure 5(b) provides a graphical illustration (here $Y \sim \text{Beta}(b, b)$ with b rising from 2 to 3).³⁴ Provided that the entry threshold lies below the contested middle, this moves mass above Y^* , raising filings (the extensive margin).³⁵ In this case

³⁰Appendix D.2 derives Y^* in closed form and characterizes its comparative statics.

³¹A simple way to model this is $G(Y) = G_0 \cdot \mathbf{1}\{Y \geq 0\} + (1 - G_0) \cdot \tilde{G}(Y)$, where $\tilde{G}(Y)$ is a CDF on $[0, 1]$.

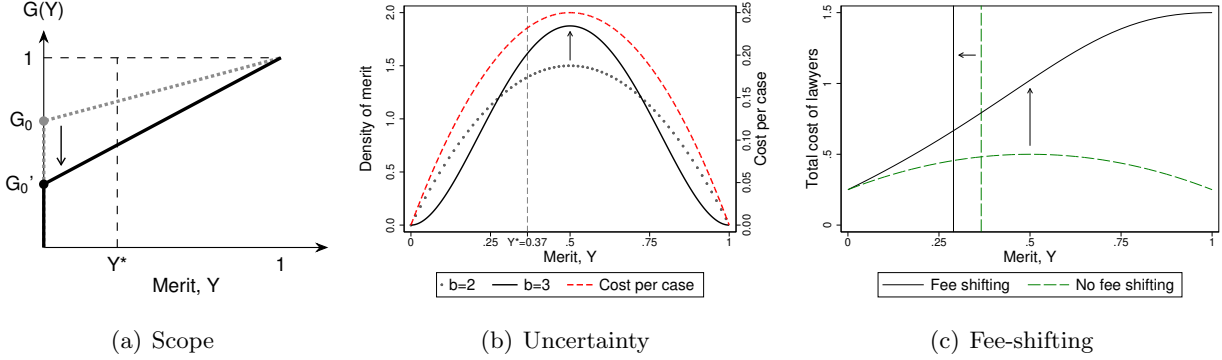
³²See Appendix D.3 for more details.

³³A convenient parameterization is $G(Y) = \text{Beta}(b, b)$, symmetric about $1/2$, with $b \geq 1$ indexing uncertainty: $b = 1$ is uniform, and as b increases more mass is concentrated around $1/2$. More generally, an increase in legislative uncertainty is a mean-preserving concentration of G toward $1/2$.

³⁴In Appendix Table D1 we quantify the cost consequences with a numerical example: moving from $b = 1$ to $b = 6$ raises the average cost per litigated case by 29%.

³⁵This holds whenever $F/J < (2 - \alpha)/4$, so that meritorious, closely contested disputes are litigated rather than deterred. See Appendix D.3 for the derivation. An asymmetric change in the distribution—moving merit from $Y > 1/2$ to $Y = 1/2$, without changing $Y < 1/2$ —could also lead to an increase in effort without a change in entry.

Figure 5: Model Predictions



Notes: Panel (a) shows an increase in the scope of the law, through a change in the distribution of merit, $G(Y)$. Increasing the scope moves mass out of $G(0)$. Panel (b) shows an increase in the uncertainty in the law, through a change in the shape of $G(Y)$. Merit is distributed $\text{Beta}(b, b)$, and a higher b concentrates disputes toward $Y = 1/2$. We show that as Y concentrates toward $1/2$ more high-effort (cost) cases are filed. Costs are shown in the red dashed line and the entry threshold is $Y^* = 0.37$ (Appendix D.4). Panel (c) compares equilibrium payments to lawyers in the symmetric case with no fee-shifting (dashed green) to their payments with fee-shifting (solid black); vertical lines denote respective values of Y^* (Appendix D.5). For (b) and (c) we assume $\alpha = 0.5$ and $F/J = 0.25$.

an increase in uncertainty raises both the number of cases and the cost per case.

Fee-Shifting. We extend the model to allow for fee-shifting in Appendix D.5. This changes the payoff structure, since the defendant pays the plaintiff's fees if the plaintiff wins:

$$\begin{aligned} V_p &= \pi(J + F) - (1 - \pi)\gamma L_p \\ V_d &= -\pi(J + F) - \gamma L_d - \pi\gamma L_p. \end{aligned}$$

The fixed cost, F , is still paid up front by the plaintiff in case she decides to sue, but will be reimbursed by the defendant if the plaintiff prevails. The equilibrium is no longer symmetric: the plaintiff's effort exceeds the defendant's by a factor of $1/(1 - \pi) > 1$.³⁶ The plaintiff exerts more effort than under the American rule (the status quo, where each party pays their respective legal fees) and the defendant responds in kind, raising total costs. The additional effort for the plaintiff increases her probability of winning, which reduces her expected expenditure on lawyers and increases it for the defendant.

Effort and total cost per case rise relative to the American rule at every level of merit (the intensive margin). Figure 5(c) shows how costs change with the merit of the plaintiff, Y . With the parametrization used in Figure 5(c), moving from the 25th to the 50th percentile of merit raises total payments to lawyers by about 14% under the American rule and by about 70% under fee-shifting. Fee-shifting also expands entry because the plaintiff now bears only a fraction $(1 - \pi)$

³⁶Compared to the symmetric model, where $\alpha < 2$ ensures stability of equilibrium, the fee shifting extension requires $\alpha < 1$.

of her costs, her value of litigation rises and the entry threshold falls.³⁷ Both margins increase total costs spent on lawyers.

The theoretical results show that by increasing predicted payments to plaintiffs, fee-shifting statutes created an incentive for private sector lawyers to represent plaintiffs. This increased entry of plaintiffs into litigation and increased total costs. Indeed, when fee-shifting statutes were debated in Congress, opponents voiced concerns over an increase in legal costs, calling it a “bonanza to the legal profession” (Diamond, 1983).

4 Empirical Evidence

We present the empirical evidence in four parts, moving from broad aggregates to progressively finer variation. We begin with the aggregate time series, relating lawyers’ employment and compensation to our three measures of the legal environment over more than a century. We then exploit variation arising from litigation responses to specific statutory changes, cross-state differences in exposure to federal legislation, and, finally, state policies that shift demand for specific fields of law. As the variation narrows, identification sharpens—at each step we trade coverage of the aggregate demand shift for a tighter link between specific changes in the legal environment and demand.

4.1 Historical Regressions

Figure 4 suggests that the timing of major legislation and regulation, the uncertainty inherent in the new legislation, and the attached fee-shifting statutes, align with the structural change we observe in the legal services industry. We confirm this with a set of historical regressions.

Empirical Strategy. We fit prediction regressions, where we regress future changes in the outcomes of interest on past changes in the legal environment:

$$\Delta y_t = \alpha + \beta \Delta x_{t-5} + \varepsilon_t, \quad (3)$$

where Δy_t are changes from t to $t+5$ and Δx_{t-5} are changes from $t-5$ to t . We compute Newey-West standard errors that allow for autocorrelation up to 5 lags and are robust to heteroskedasticity.³⁸ All of the series are normalized to have mean 0 and standard deviations of 1. The regulation and fee-shifting series are cumulative stocks, so we use them in changes. The forward amendment rate (Figure 4(b)) is different: it is already a flow. We therefore use its lagged level: the forward

³⁷Fee-shifting expands entry when α is below a certain threshold α^* . The threshold α^* increases with the ratio F/J and is never below 0.618 for any ratio $F/J > 0$. For example, $\alpha^* \approx 0.88$ when $F/J = 0.2$, so unless F/J is very low, this condition is not very restrictive. We discuss the characterization of α^* in Appendix D.5.

³⁸The results are robust to using 4 or 6 year lags instead of 5 years (for both variables construction and standard error calculation).

amendment rate in $t - 5$ measures the change in amendments between $t - 5$ and t , and is used to predict changes in y between t and $t + 5$.

Results. Table 1 presents the results of estimating Equation (3). All three historical series are positively correlated with our outcomes of interest. These correlations are almost always statistically significant. In contrast, other control variables (i.e., measures of taxes, innovation, and economic activity) are not consistently associated with these outcomes.³⁹

Panel A shows the results for employment shares and composition of lawyers. A standard deviation increase in federal regulation predicts a 0.4 standard deviation increase in lawyers’ employment shares over the next five years. A standard deviation increase in the cumulative fee-shifting statutes predicts an even larger effect—0.7 standard deviation increase in lawyers’ employment shares. The increase in uncertainty, as measured by the forward amendment rate, is positively correlated, though not statistically significant.⁴⁰ The large effects on quantity of lawyers are consistent with our claim that changes in the legal environment made for a larger market for lawyers. The composition results (Columns (4)-(6) of Panel A) show similar results—a standard deviation increase in any of the legal-environment variables predicts a 0.3-0.4 standard deviation increase in lawyers per partner. This is consistent with the market-size mechanism of Garicano & Hubbard (2007) discussed in Section 2.3: as changes in the legal environment expand the market for legal services, partners leverage their expertise over more associates.

Panel B in Table 1 shows the relative wage outcomes, which also show positive correlations for fee-shifting and uncertainty. The pages of federal regulation show a small and insignificant effect on wages, consistent with the theoretical framework. Meanwhile fee-shifting and uncertainty, which have a clear link with total cost in the model, exhibit a strong effect on wages. A standard deviation increase in fee-shifting is followed by a 0.7 increase in lawyers’ relative wage in the next 5 years, while a standard deviation in the forward amendment rate is similarly followed by a 0.6 standard deviation in wages (Panel B, Columns (2) and (3)).⁴¹

The robust relationship between these series provides suggestive evidence that changes in the legal and regulatory environment from the mid-1960s through the 1980s led to a major demand shift for legal services. But these are aggregate correlations. In the rest of this section we sharpen the identification, exploiting variation across individual statutes and states.

³⁹See Appendix Table I1 for the coefficient estimates. Appendix Table I2 adds civil litigation as a predictor and Table I3 uses legal services industry outcomes (instead of only lawyers within).

⁴⁰Consistent with the theoretical framework, which predicts a larger increase in effort than entry.

⁴¹The magnitudes for relative wage that include proprietors income are slightly smaller in magnitude, but qualitatively similar. Proprietors’ income is measured with more noise than wages: it mixes returns to labor and ownership and is reported less consistently across sources. See Appendix B.3 for how we construct the partner income series.

Table 1: Historical Regressions

<i>Panel A: Employment and Composition</i>						
	Δ Lawyer Emp. Share _t			Δ Associates per Partner _t		
	(1)	(2)	(3)	(4)	(5)	(6)
Δ Federal Regulation Pages _{t-5}	0.404*** (0.113)			0.377** (0.153)		
Δ Fee Shifting Statutes _{t-5}		0.712*** (0.113)			0.356** (0.141)	
Forward Amendment Rate _{t-5}			0.275 (0.235)			0.317** (0.131)
R-squared	0.64	0.59	0.23	0.17	0.14	0.11
Observations	54	91	91	54	80	80
<i>Panel B: Compensation</i>						
	Δ Rel. Wage _t			Δ Rel. Wage (with income) _t		
	(1)	(2)	(3)	(4)	(5)	(6)
Δ Federal Regulation Pages _{t-5}	0.118 (0.098)			0.039 (0.239)		
Δ Fee Shifting Statutes _{t-5}		0.674*** (0.101)			0.484** (0.191)	
Forward Amendment Rate _{t-5}			0.648*** (0.196)			0.335 (0.237)
R-squared	0.63	0.58	0.55	0.39	0.43	0.35
Observations	54	69	69	54	69	69

Notes: This table reports the estimates of Equation 3. The dependent variables are changes in lawyers' employment shares, ratio of associate lawyers to law firm partners, or relative wages from t to $t + 5$; predictive variables are in changes from $t - 5$ to t . The predicted variables (federal regulation pages, fee shifting statutes, and forward amendment rate) are standardized. In Panel B Δ Rel. Wage (with income)_t is the relative wages of lawyers including proprietors' income. Each specification also controls for changes in the top marginal tax rate, top corporate tax rate, firms per capita, and patent application intensity, whose coefficients are suppressed here (reported in Appendix Table I1). Standard errors are Newey-West with up to five lags and robust to heteroskedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

4.2 Legislation and Litigation Activity

We use case-level data from district courts to study the relationship between legislation and litigation activity directly. The objective of this exercise is to identify the relationship between the changes in the law and demand for lawyers, as proxied by litigation. Litigation provides a useful setting because it is easy to measure: cases are filed, categorized, and can be linked to specific legislation. Figure 3 shows the change in litigation activity in the aggregate, and Appendix Table H1 shows the change in litigation by type.

Federal civil cases are linked to legislation through “nature of suit” codes. These codes are generally created only after a statute is passed. Therefore, by definition, the litigation activity will

not exist before the law is created. Instead, we study instances in which an existing area of law was substantially changed, and ask how litigation responded. We take two case studies in this spirit, which relate to two different changes of interest: scope and fee-shifting.

Empirical Strategy. Our empirical strategy is an event study at the nature of suit level.⁴² We track the number of cases brought under a treated suit type, relative to untreated control suit types, before and after a reform enacted in year t^* :

$$Y_{nt} = \sum_{\substack{\tau=-6 \\ \tau \neq -1}}^{12} \beta_{\tau} [\text{Treated}_n \times \mathbb{1}\{t = t^* + \tau\}] + \theta_n + \gamma_t + \epsilon_{nt}, \quad (4)$$

where Y_{nt} is the number of cases filed in federal court under nature-of-suit code n in year t , Treated_n is an indicator for the treated nature-of-suit code(s), and $\mathbb{1}\{t = t^* + \tau\}$ indicates that year t is τ periods from the reform year t^* . We include fixed effects for the filing year, γ_t , and nature of suit, θ_n . The coefficients of interest, $\{\beta_{\tau}\}_{\tau=-k}^m$, measure the difference in filings between treated and control cases τ years relative to the reform.

Expansion of Scope. We return to the Civil Rights Act, one of the landmark statutes behind the aggregate expansion of scope. We study its 1991 amendment, which strengthened anti-discrimination employment law: Title VII of the Act, originally enacted in 1964, was expanded in response to a series of 1989 Supreme Court decisions that had narrowed its reach.⁴³ The 1991 Act falls just after our 1970–1990 window, but it is the cleanest scope expansion the data allow us to study: the design requires a substantial change to an existing area of law, with enough pre-period filings to establish trends.⁴⁴

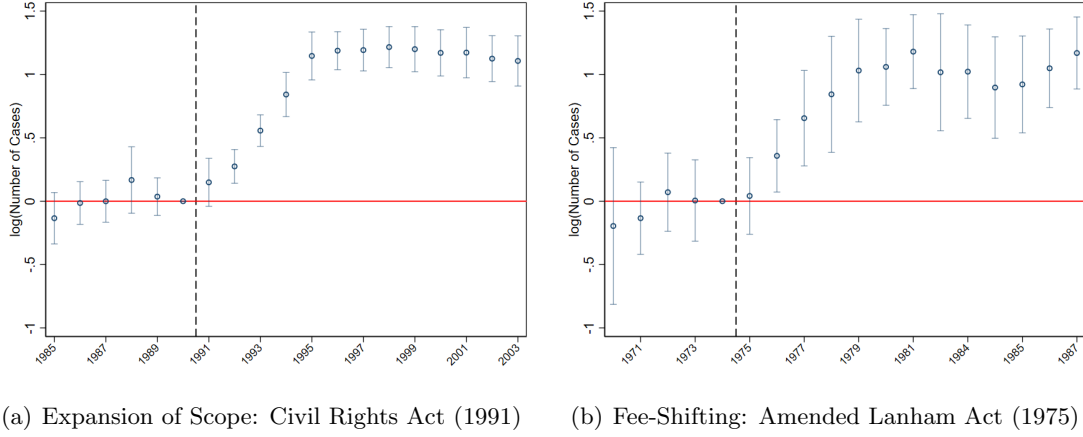
Three major changes were made with the 1991 expansion: broader liability, broader remedies, and broader scope. In short, it made it easier for plaintiffs to challenge employment practices, added compensatory and punitive damages and the right to a jury trial, and extended protection to the full employment relationship rather than only the hiring contract. We can translate these three changes through the lens of our model. Expanded coverage means that disputes previously without legal basis ($Y = 0$) now draw positive merit from G , expanding its support. Stronger liability shifted mass in G toward higher Y , tilting merit toward plaintiffs. Finally, the increase in

⁴²The original data is at the case level, and each case i is associated with a district, d , nature of suit, n , and filing date (year), t . For the purposes of the analysis we aggregate the case to the nature of suit-year level, nt , as that will be the variation in the policy change.

⁴³Most notably *Wards Cove Packing Co. v. Atonio*, 490 U.S. 642 (1989), and *Patterson v. McLean Credit Union*, 491 U.S. 164 (1989).

⁴⁴The exercise identifies the response of litigation to an expansion of the law’s scope, while the timing of the aggregate demand shift is established by the historical regressions in Table 1.

Figure 6: Legislation and Litigation Activity



Notes: The figure reports the event-study estimates for equation (4). In both panels the outcome is $\log(\text{number of cases})$ filed in year t and nature-of-suit n (Appendix Figure H5 shows the results in levels) and coefficients measure the difference in filings between treated and control nature of suit codes, before and after the reform. In Panel (a) the reform is the Civil Rights Act of 1991, and the treated code is “Civil Rights: Employment.” In Panel (b) the reform is the Lanham Act of 1975, and the treated code is “Trademark.” Both specifications include nature-of-suit and filing-year fixed effects, and are estimated on a balanced panel of codes. Bars show 95% confidence intervals. The source of the data is the Federal Judicial Center Integrated Database.

the potential damages and the right to a jury trial raised the stakes J .⁴⁵

In the event study (Equation 4), the treated code is “Civil Rights: Employment” and the reform year is $t^* = 1991$. All other nature of suit codes are used as a control. Figure 6(a) shows that employment-discrimination filings increase substantially after 1991, almost doubling within five years of enactment. This is an increase of roughly 15,000 cases within five years (Appendix Figure H5(a)). The increase alone makes up about 6% of total 1996 case filings, accounting for nearly a quarter of the total growth in filings over those five years.⁴⁶ As predicted in the model, increasing the scope of the law increases demand for legal services.

Shifting the mass of G toward higher merit should also produce better outcomes for plaintiffs. Indeed, we find that settlement rates and plaintiff win rates both rise after 1991 (Appendix Figure H6). Relative to control codes, the plaintiff win rate increased by 4-8 percentage points.

The Effect of Fee-Shifting. The Lanham Act was passed in 1946, and serves to govern trademark law in the United States. It allows the owners of federally registered trademarks to pursue civil remedies for trademark infringement and dilution. In July 1975, an attorney fees provision was added to the Lanham Act, in order to allow fee-shifting in “exceptional cases”.⁴⁷ This is in

⁴⁵The Act also expanded existing fee-shifting by making expert-witness fees recoverable, overriding *West Virginia University Hospitals, Inc. v. Casey*.

⁴⁶In 1991 there were 207,700 cases filed, in 1996 there were 272,700.

⁴⁷This was in response to the *Fleischmann Distilling Corp v. Maier Brewing Co.* (1967) Supreme Court Case, which ruled that attorney’s fees could not be awarded in cases under the Lanham Act without explicit statutory

contrast with most other fee-shifting statutes, which are introduced with the original legislation, therefore making it difficult to separate the effect of the legislation from the effect of fee-shifting itself.

We estimate the effect of the 1975 amendment on trademark litigation using the same event-study specification in Equation (4), now with Trademark_n (nature of suit 840) as the treated indicator and reform year $t^* = 1975$. As before, the coefficients of interest $\{\beta_\tau\}$ measure the difference in case filings between trademark cases and control cases τ years relative to the addition of fee-shifting. We use the period 1969-1987; six years before the provision and twelve years after.⁴⁸

Our control group is other federal commercial litigation: patent cases (nature of suit 830) and securities cases (nature of suit 850). These are natural comparisons for trademarks. All three are disputes between sophisticated, typically corporate, repeat-player litigants, and all are high-stakes relative to ordinary civil litigation. Their filing volumes are driven by the same broad forces, for example, the growth of commerce and firms, which our year fixed effects absorb. Only the treatment differs: the Lanham Act’s fee provision was added in 1975, whereas patent and securities laws’ fee-shifting provisions were unchanged.⁴⁹

Figure 6(b) shows the results—trademark litigation more than doubles after the addition of the fee-shifting statute, an increase of roughly 1,000 cases per year, with no differential pre-trend (Appendix Figure H5(b)). This estimate pertains to a single fee-shifting statute. Recall that dozens of federal fee-shifting statutes were enacted between 1970 and 1990, spanning both public-interest and commercial areas of law (Appendix Figure H1). If even a fraction of these statutes generated responses of this magnitude, the cumulative effect on litigation—and on the demand for plaintiffs’ lawyers—would be substantial, consistent with the historical regressions.

Fee-shifting also changes how cases resolve, though the model does not give a clear prediction—effort increases but so does entry. We cannot study outcomes around the Lanham amendment itself due to poor data quality on case outcomes pre-1978. However, we compare fee-shifting to American-rule case types in aggregate over 1978–2015. We find that fee-shifting case types settle substantially more, yet do not win more often in court. This is consistent with fee-shifting drawing marginal cases into litigation; while the higher settlement rate is consistent with the greater fee exposure it places on defendants (Appendix H).

authorization.

⁴⁸Our data starts in 1970, but we also observe the filing date. Therefore we have the majority of cases filed in 1969 in the 1970+ caseload data.

⁴⁹Patent law has allowed fee-shifting since 1946. Some securities provisions permit it too, but these are discretionary, rarely awarded, and, crucially, unchanged in 1975.

4.3 Exposure to Federal Legislation

Having tied specific statutes to litigation, we now ask whether the demand for lawyers rose most where exposure to federal legislation was greatest. If federal legislation and regulatory decisions were important drivers of the increase in the demand for legal services, then we would expect to see a differential effect in locations with more exposure to the federal government. We probe this by exploiting cross-state variation in exposure to specific federal legislation. Then we analyze the trajectory of lawyers geographically close to the federal government, in Washington, D.C.

Empirical Strategy. We estimate a difference-in-differences regression that exploits the passage of a major piece of federal legislation and cross-sectional variation in states’ exposure to it. In other words, we compare the demand for lawyers in states with more or less pre-period exposure to the legislation, before and after its passage:

$$y_{st} = \beta \text{Exposure}_s \times \text{Post}_t + \lambda_s + \gamma_t + \varepsilon_{s,t}. \quad (5)$$

Our main outcomes of interest, y_{st} , are the employment share and relative wages of lawyers in state s and time t ; results using outcomes for legal services are similar (Appendix Table I4). Exposure_s is a standardized, pre-period measure of state s ’s exposure to the legislation, and Post_t is an indicator for the years following its passage. We include state (λ_s) and time (γ_t) fixed effects and cluster the standard errors at the state level. We study two landmark federal policies: the Civil Rights Act of 1964 and the Clean Air Act of 1970.

The Civil Rights Act (1964). The Civil Rights Act of 1964 outlawed discrimination based on race, color, religion, sex, or national origin. The Equal Employment Opportunity Commission was formed in 1965 to administer and enforce the discrimination laws put forth in the Civil Rights Act, as well as the Equal Pay Act of 1963. Further, the Civil Rights Act of 1968 was meant to expand the Civil Rights Act of 1964, to prohibit housing discrimination and enable the enforcement of housing rights.⁵⁰ Together, these acts substantially increased the scope of the law.

For the Civil Rights Act (CRA), we measure “ Exposure_s ” as the state’s black employment share measured in 1960 (before the legislation was introduced).⁵¹ Post_t turn is equal to 1 after 1964 and is zero otherwise. Table 2, Column (1), shows the baseline result. The lawyer employment share is increasing differentially in states with a higher share of black employment, after the passage of the CRA. A standard deviation increase in pre-period black employment share is associated with

⁵⁰ As a by-product, the Civil Rights Act created the basis for class action lawsuits; see Miller (1978). Class action lawsuits are called this because they are about violation of rights of a class of people. This concept did not exist before the Civil Rights Act. See also Hensler (2001) and Miller (1979).

⁵¹ Appendix Figure I1(a) maps the cross-state variation in this exposure measure.

Table 2: Federal Legislation and State-level Demand for Lawyers

	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Lawyer Employment Share_{st}</i>					
Black Emp. Share _{s,1960} × Post _t	0.115* (0.064)	0.182** (0.089)			0.176*** (0.058)
CAA Non-Attainment _{s,1970} × Post _t			0.050 (0.042)	0.101 (0.089)	0.104** (0.046)
Controls		×		×	×
Observations	343	343	343	343	343
Within R-sq.	0.189	0.240	0.036	0.076	0.318
<i>Panel B: Relative Wage of Lawyers_{st}</i>					
Black Emp. Share _{s,1960} × Post _t	0.040 (0.085)	0.002 (0.121)			-0.008 (0.073)
CAA Non-Attainment _{s,1970} × Post _t			0.020 (0.099)	0.215 (0.145)	0.224 (0.140)
Controls		×		×	×
Observations	337	337	337	337	337
Within R-sq.	0.001	0.002	0.000	0.031	0.032

Notes: The table reports the estimates of Equation 5. Alaska and Hawaii are excluded, so the sample is the 48 states and DC for the period 1940–2000, and observations are decennial. Panel B loses six state-year cells with no sampled wage-earning lawyers in 1950. Both exposure measures are standardized, so coefficients can be interpreted as standard deviation of exposure. The outcome in Panel A is the employment share of lawyers in legal services, in percent; it averages 0.39 over 1970–2000 and 0.44 over 1980–2000. The outcome in Panel B is the relative wage of lawyers in legal services; it averages 0.186 over 1970–2000 and 2.15 over 1980–2000. Controls include Jim Crow × Post in Columns (2) and (5) and manufacturing employment share × Post in Columns (4)–(5). Standard errors are clustered by state. * p < 0.1, ** p < 0.05, *** p < 0.01.

a 0.12 increase in the employment share of lawyers post-CRA, about 30% of the mean.

In Column (2) we include a control for “Jim Crow” states in the post-CRA period.⁵² We include this interaction in order to control for the legacy of segregation and discrimination in these states that may lead to differential trends in black employment and differential responses to civil rights legislation (Johnson & Robbins, 2001; Hornbeck & Naidu, 2014). The baseline effect is now slightly stronger and more precisely estimated. Figure 7(a) shows the event study estimates: lawyer employment shares in more-exposed states evolve similarly before the Civil Rights Act and diverge only after its passage.⁵³

⁵² “Jim Crow states” are those that segregated schools by law prior to Brown v. Board of Education. Historically, all states had some “Jim Crow” laws. The list of states that fall under this definition are AL, AR, DC, DE, FL, GA, KY, LA, MD, MO, MS, NC, OK, SC, TN, TX, VA and WV.

⁵³ A joint Wald test cannot reject that the pre-event coefficients are zero ($p = 0.31$ in the baseline specification). Appendix Figure I2(a) reports the corresponding estimates and pre-trend diagnostics from the event-study estimator of Freyaldenhoven et al. (2021).

The Clean Air Act (1970). The Clean Air Act of 1970 (CAA) established uniform national air-quality standards. Counties whose air quality violated the new standards were designated “non-attainment” status and polluters (firms) in those counties faced a far more demanding legal environment than those in attainment counties (Greenstone, 2002). The statutory language was new and untested, and air quality became a legal burden. Emission limits and compliance schedules had to be negotiated with regulators, permits for plants had to be applied for, and federal enforcement actions had to be defended. The legislation also authorized private parties to enforce emission limits directly against firms and agencies, with fee-shifting for prevailing plaintiffs.⁵⁴

The new regulations applied with full force in non-attainment counties, while firms in attainment counties were largely unaffected. This across-county variation in regulatory stringency has been used to study the effects of the regulation on various outcomes in environmental economics (Greenstone, 2002; Chay & Greenstone, 2005; Isen et al., 2017); we use it here to study the demand for lawyers.⁵⁵ We follow the literature and measure Exposure_s as the share of the state’s 1970 manufacturing employment located in non-attainment counties.⁵⁶ Because states with more manufacturing overall might see different trends in lawyer demand for reasons unrelated to the CAA, we also control for manufacturing employment share times Post_t , so that identification comes from where manufacturing was out of compliance rather than from how industrial the state was.

Columns (3)–(5) of Table 2 report the results. The baseline coefficient is 0.05 and imprecisely estimated; it doubles once we control for the state’s overall manufacturing exposure and becomes statistically significant once we control also for the black employment share. A one standard deviation increase in nonattainment exposure is associated with a 0.10 percentage point increase in the lawyer employment share after 1970—about a quarter of the mean employment share, up from roughly 13% at the imprecise baseline. Figure 7(b) shows the corresponding event study.⁵⁷

The Effect on Litigation and Relative Wages. Appendix Table I5 traces the litigation channel directly: relative to the 1970s, more-exposed states see differential growth in federal filings over the post-passage decades.⁵⁸ Panel B of Table 2 repeats the analysis with the relative wage

⁵⁴Basic terms like what counted as a “source” or an adequate control technology had to be worked out plant by plant, through administrative proceedings and litigation (Melnick, 1983).

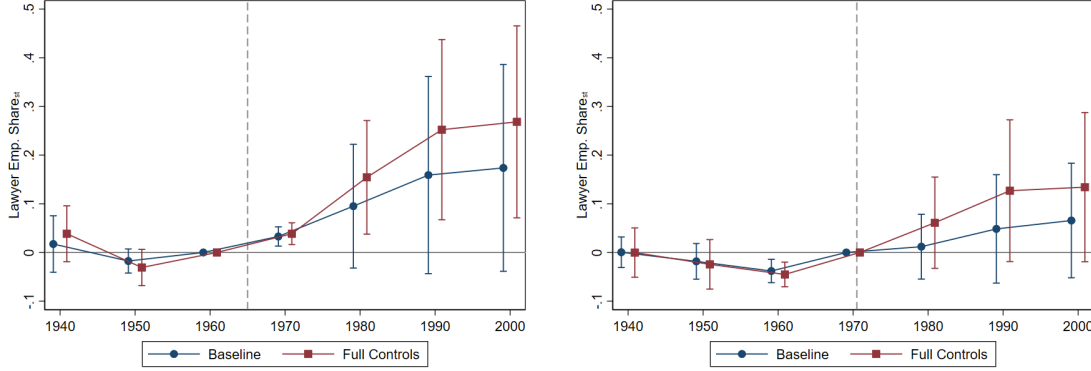
⁵⁵The Clean Water Act of 1972 (CWA), the other landmark environmental statute of the era, is less suited to this design. Appendix I.2.1 constructs a CWA exposure measure—the share of manufacturing near navigable waters—and shows the results.

⁵⁶Because the EPA did not maintain county-level designation records in the early years, we follow this literature and impute the initial designations from the EPA’s raw monitor data: a county is non-attainment if any monitor in 1970–71 violated the federal particulates standards (an annual geometric mean above $75 \mu\text{g}/\text{m}^3$, or a second-highest daily reading above $260 \mu\text{g}/\text{m}^3$).

⁵⁷There is no evidence of differential pre-trends: a joint Wald test cannot reject that the pre-event coefficients are zero ($p = 0.48$ in the baseline specification; $p = 0.69$ with the full set of controls), and Appendix Figure I2(b) reports the corresponding Freyaldenhoven et al. (2021) event-study estimates.

⁵⁸Unfortunately the case-level litigation data starts in 1970, so we do not have a pre-period to use as a control.

Figure 7: Exposure to Federal Legislation Across States



(a) Civil Rights Act and Black Employment Shares (b) Clean Air Act and CAA Non-Attainment

Notes: The figure reports event-study versions of Equation 5, where the exposure measure is interacted with census-year indicators instead of a single post indicator. The outcome is the employment share of lawyers in the state, in percent, constructed from the decennial Census, 1940–2000. In each panel, the baseline series corresponds to the specification of Column (1) (in (a)) or Column (3) (in (b)) of Table 2, and the full-controls series to that of Column (5), with each control interacted with the census-year indicators. Bars show 95% confidence intervals; standard errors are clustered by state. Appendix Figure I2 reports the corresponding estimates and pre-trend diagnostics from the event-study estimator of Freyaldenhoven et al. (2021).

of lawyers as the outcome. The model predicts the wage response should be the strongest for the Clean Air Act: the regulation spurred high-stakes disputes over untested statutory language, uncertainty-intensive work for which effort is highest. Civil-rights litigation, by contrast, became standardized relatively quickly, as courts developed structured frameworks for adjudicating discrimination claims.⁵⁹

The estimates are consistent with this prediction, although they not as strong as the employment effects. For the Civil Rights Act, the wage coefficient is a noisily estimated zero. For the Clean Air Act, where we expect to see an affect, a standard deviation increase in exposure is associated with a 0.22 higher relative wage (a 12% increase), but it is also not statistically significant. This may be because regulatory work created by the Clean Air Act was concentrated in a small segment of each state’s legal activity, so even a substantial wage response is diluted across all lawyers in the state. It may also be because wages in related fields, such as corporate law, are set at a national rather than a state level (the “Cravath system”).⁶⁰

Demand for Lawyers in Washington, D.C. Finally, we compare the change in legal services and lawyers’ employment shares in Washington, D.C. to those shares’ evolution in other states.

⁵⁹ *McDonnell Douglas Corp. v. Green*, 411 U.S. 792 (1973).

⁶⁰ The “Cravath system”, pioneered by Cravath, Swaine & Moore in the early 20th century, has large firms hire directly from law schools and pay a standardized salary set by graduation cohort rather than by individual bargaining or local market conditions. Top-of-market associate pay is thus effectively set nationally (Galanter & Palay, 1991).

All states experienced an increase in legal services' employment share between 1970 and 1990: the mean increase was 0.57 percentage points with a standard deviation of 0.42. In Washington, D.C. the increase of legal services' employment share between 1970 and 1990 was 3.33 percentage points, over five times the average increase (Appendix Figure I3). In the aggregate, the employment share of legal services increased from 0.53% to 1.15% from 1970 to 1990. In Washington, D.C. the legal employment share increased from 0.82% to 4.15%. In this period of major federal social regulation and deregulation, lawyers were attracted to the federal capital in greater intensity than to any other state, by a wide margin.

The significant increase in lawyers and legal employment in Washington D.C. does not include lawyers in government. In 1970, there were roughly equal numbers of lawyers in government and the private sector in Washington.⁶¹ By 1990, there were 2.3 lawyers in the private sector for every lawyer in government (Figure I3(c)).⁶² The differential effect in D.C. is suggestive of the role of federal legislation in driving demand for lawyers. Fee-shifting statutes that accompanied the federal legislation had, by design, the effect of increasing the demand for private sector lawyers, instead of expanding the employment of lawyers in government.

4.4 State-level Legislation and Fields of Law

We now turn to study legislation that we can link to a field of law. We exploit the staggered adoption of state laws that map cleanly onto a field of practice, allowing us to study how legislation increases the demand for a specific type of lawyer. This yields direct evidence on how changes in the legal environment reshape the composition of demand for legal services, not merely its level.

We study Negligence, Insurance, Domestic, Banking, and Corporate Law, which are the fields that experienced the largest increases in the 1972–1992 period (Table B4). We extend the Census of Services panel with data from the digitized Martindale Hubbell directory in 1952–1963, allowing for a 40-year period of study (1952–1992).⁶³ The majority of the policy changes that we study occur in the 1960–1980 period, as shown in Appendix Figure I5.

We use these data to study policy changes at the state-level. The empirical approach is a two-way fixed-effects design:

$$y_{fst} = \beta \text{Policy}_{fst} + \theta X_{st} + \lambda_s + \gamma_t + \varepsilon_{fst}. \quad (6)$$

Our primary outcome of interest y_{fst} is the share of lawyers in state s practicing in field f in year

⁶¹Per the 1970 Census, there were 4,800 lawyers employed in government and 4,500 lawyers employed in the private sector, of which 3,900 were in legal services and 600 in industry.

⁶²Per the 1990 Census, there were 3,941 lawyers in government in D.C., 7,604 in legal services, and 1,412 in industry.

⁶³Forty years, but with a gap in 1964–1971, and in the years between the census of services survey years.

t .⁶⁴ We regress this on the timing of policy adoption for a policy that affects demand for field f . Therefore, Policy_{fst} changes from zero to 1 when the policy is enacted in state s and time t , and remains at 1 for all years after. We control for the total number of lawyers in the sample and potentially other related policies in X , and include state (λ_s) and year (γ_t) fixed effects. We cluster standard errors at the state level.

Our policies of interest, which we can clearly link to fields of law, are product liability, unilateral divorce, and banking deregulation. We describe each policy and the results in-kind.

Strict Products Liability. Strict products liability holds a manufacturer liable for injuries caused by a defective product regardless of negligence.⁶⁵ The doctrine was codified in a 1965 model code provision that state courts widely adopted.⁶⁶ Strict products liability was part of a broader consumer-protection movement of the 1960s and 1970s, which also produced landmark federal legislation such as the National Traffic and Motor Vehicle Safety Act (1966) and the Consumer Product Safety Act (1972).⁶⁷

By lowering the plaintiff’s burden of proof and expanding the set of recoverable injuries, strict products liability should raise the returns to bringing suit and therefore increase demand for lawyers, particularly those practicing negligence (personal injury) law on the plaintiff side. In terms of the model, lowering the plaintiff’s burden of proof shifts the merit distribution G toward higher Y (tilting outcomes toward plaintiffs), while expanding the set of recoverable injuries raises the stakes J .⁶⁸ Priest (1991) argues that this expansion of liability also had large effects on insurance markets: by effectively making manufacturers insurers of product risk, it destabilized liability-insurance markets. This should therefore increase the demand for insurance lawyers, who handle coverage disputes and insurer-side litigation. We use the timing of states’ adoption of strict products liability to test whether expanding manufacturer liability is associated with increases in the share of lawyers practicing negligence law and insurance law within a state.

⁶⁴We prefer shares to lawyer counts because sampling variation can move the measured number of lawyers in a state across waves for reasons unrelated to the demand for lawyers. Shares net out this state-year measurement variation.

⁶⁵An injured consumer needs only to show that the product was defective and caused harm, not that the manufacturer failed to exercise due care.

⁶⁶The 1965 provision is §402A of the “Restatement of Torts, Second”. The Restatements are model formulations of common-law rules drafted by the American Law Institute. These laws become binding only as each state’s courts (or, occasionally, its legislature) adopt them. States adopted §402A in turn over the following two decades; Vargo (1996) surveys this process, and Appendix Table I10 reports the adoption dates. California was the first state to adopt strict products liability, in 1963; 21 states had adopted it by 1970, and 36 by 1975.

⁶⁷In this respect, strict products liability is close in spirit to the social regulation we study in Section 3: by broadening the grounds for liability and easing injured parties’ access to the courts, it expanded the scope of the law.

⁶⁸Products liability is a change to tort law, which Waldfogel (1995) identifies as the most uncertainty-intensive area of litigation: structurally estimating a selection model across contract, property, and tort cases, he finds outcome uncertainty highest for torts, whose legal standards are the least clearly understood. In terms of our model this is precisely the region where effort per case—and hence the demand for lawyers—is greatest, which may help explain the large estimated negligence and insurance responses.

Table 3, Columns (1)-(4), show the results. Columns (1) and (3) report the effect of strict products liability on the negligence and insurance shares in isolation, while Columns (2) and (4) additionally control for the other state policies we study. These controls guard against the estimate reflecting a spurious correlation between the timing of products-liability adoption and other contemporaneous state reforms.⁶⁹ Strict products liability increases the share of lawyers practicing negligence law (for the plaintiff side) by about 1.3 percentage points. The average state over the sample has 4.5 percent of lawyers in negligence law, therefore this corresponds to a nearly 30% increase in the share of negligence lawyers in the state. The results show a similar magnitude for insurance lawyers, at about 1.6 percentage points, or over a third of the baseline insurance share. Appendix Figure I6 reports the corresponding event studies for the plaintiff-negligence and insurance shares: both show no evidence of a differential pre-trend and step up to positive, largely significant effects after adoption.⁷⁰

Unilateral Divorce. Unilateral divorce, which allows one spouse to dissolve a marriage without the other’s consent, was adopted differentially across states starting in the late 1960s, and throughout the 1970s and early 1980s. There is evidence that the divorce rate increased as a result, at least immediately following this legislation (Friedberg, 1998; Wolfers, 2006). This would increase demand for lawyers due to the nature of the divorce procedure. Specifically, it should increase demand for lawyers practicing domestic law. We use data on the timing of the adoption of unilateral divorce laws to test whether lowering the barriers to divorce is associated with an increase in the share of lawyers practicing domestic law in the state.

Table 3, Columns (5) and (6), show the results. The share of lawyers practicing domestic law increased by about 0.4 percentage points after the passage of unilateral divorce, which translates to an over 20% increase in domestic law share, off a baseline of 1.8%. The event study in Appendix Figure I6(c) shows no differential pre-trend and a positive shift after adoption, though the post-adoption bins are estimated less precisely than for products liability.

Banking Deregulation. Before the mid-1970s banks in most states were restricted in which markets they could operate, both within and across states. Banking deregulation allowed banks to

⁶⁹ Also, because shares sum to one by construction, a reform that expands one field mechanically compresses the others, so the controls also net out these movements.

⁷⁰ Appendix Table I7 further shows that the negligence effect is concentrated on the plaintiff side. Strict products liability raises the plaintiff-negligence share but has no significant effect on the defendant-side or total negligence share which is consistent with the doctrine’s expansion of plaintiff-side litigation. We also estimated the cohort-robust group-time difference-in-differences estimator of Callaway & Sant’Anna (2021) for each of the field outcomes (Appendix Table I9). The point estimates are directionally consistent with the results above—positive for every field-policy pair—but imprecise. This is a demanding specification for our data: with only five Census of Services cross-sections, an eight-year gap (1964–1971) between the annual and the cross-sectional sources, and few never-treated states, the group-time estimator has little clean group-time variation to exploit.

Table 3: State Legislation and Fields of Law

	Negligence		Insurance		Domestic		Banking + Corporate	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Strict Products Liability _{st}	1.320*** (0.441)	1.353*** (0.399)	1.556* (0.787)	1.614** (0.700)		0.113 (0.134)		0.467 (1.172)
Unilateral Divorce _{st}		-0.270 (0.510)		0.429 (0.691)	0.465** (0.185)	0.473** (0.221)		-0.851 (1.031)
Multibank Holding _{st}		0.900 (0.669)		1.253* (0.705)		-0.163 (0.277)	1.660 (1.028)	1.793* (1.009)
Intrastate Branching, M&A _{st}		-0.790** (0.384)		0.126 (0.631)		0.014 (0.263)	1.973** (0.857)	1.711* (0.881)
Observations	493	493	493	493	493	493	493	493
Within R-sq.	0.073	0.112	0.059	0.094	0.048	0.055	0.065	0.075
Mean dep. var.	4.505	4.505	4.433	4.433	1.771	1.771	12.283	12.283

Notes: This table reports the estimates of equation 6, over a sample of 29 states observed annually in the Census of Services. The outcome is at the share of lawyers in that state and field, in percentage terms. The sample years are 1972, 1977, 1982, 1987, and 1992 (Census of Services) and annually 1952–1963 (Martindale Hubbell). State-level legislation dates come from Vargo (1996) (strict products liability), Black & Strahan (2001) (banking deregulation), and Friedberg (1998) (unilateral divorce). DC and MD are excluded: the composition of lawyers there trends differentially due to their proximity to the federal government. Appendix Table I8 reports the results including them. Appendix Figure I6 reports the corresponding event studies. Standard errors are clustered by state. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

expand more easily. We study two types of legislation related to the banking industry. The first permitted multibank holding companies, letting a single holding company own several separately chartered banks within a state; the second allowed intrastate branching through merger, so that a bank could expand within a state by acquiring existing banks and converting them into branches.⁷¹

Each of these reforms set off waves of holding-company formation, bank mergers and acquisitions, and the associated regulatory applications and chartering. These tasks are performed by lawyers who practice banking and commercial law. Intrastate branching through merger also raises demand for corporate lawyers to handle the mergers, acquisitions, and reorganizations through which firms combine. We combine the two fields, (reported separately in the Census of Services) into one, and study the effect of banking deregulation on the “Banking + Corporate” share. Table 3, Columns (7)-(8), report the results. When states adopt multibank holding companies the demand for banking and corporate lawyers increases, though the estimates are noisy, at around 1.66-1.8 percentage points. The effect is positive and slightly more precisely estimated for the adoption of intrastate branching via M&A, at 1.7-2.0 percentage points. The baseline share of banking and corporate lawyers in a state is 12.3%, so each policy change implies a roughly 15% increase in related lawyers’ employment.

⁷¹Further deregulation included unrestricted intrastate branching, allowing banks to open new offices anywhere in the state; and interstate banking, allowing out-of-state holding companies to acquire banks across state lines. We include these two policies as controls in the banking regressions.

Taken together, these results show that the legal environment shapes not just how many lawyers there are, but what type of lawyer is in demand. In each case the staggered timing of a reform predicts a rise in the related field of law. This suggests that changes in the law changed the composition of lawyers, not only the total number.

5 Supply of Lawyers

To this point, we have focused demand for legal services in the United States. In this section, we consider the supply side.

5.1 Becoming a Lawyer and Practicing Law in the U.S.

Law is a licensed profession. In order to practice law in the U.S. one must take the Law School Admission Test (LSAT), enroll in a law school accredited by the American Bar Association (ABA), complete the three-year Juris Doctor degree (J.D.), and pass the bar examination of the state in which they intend to practice.⁷²

This process took its current form over the first half of the twentieth century. Between 1850 and 1920 law schools were few, and most lawyers instead “read law” under a practicing attorney. The ABA was founded in 1878 and published its first accreditation standards in 1921, when it also began publishing a list of approved law schools (American Bar Association, 2020). Over the same period, law schools replaced the undergraduate LL.B. with the postgraduate J.D., and automatic admission to the bar upon graduation gave way to the written bar exam.

Restriction of supply by ABA accreditation and state bar examinations is widely recognized as a barrier to entry. However, between 1950 and 2000 law school accreditation is relatively stable: there are about 0.7 law schools per million residents of the U.S., with a mild downward trend. Importantly, this barrier did not tighten at the onset of the demand shift and is virtually the same in 1970 and in 1990. There is, however, some variation in our period of interest. Twenty ABA-approved schools were added in the early 1970s, but after 1975 entry stalls: only six schools are added in the 1980s, schools per capita decline, while enrollment per school is flat (Appendix Figure G5). Fluctuations in the number of LSAT takers throughout the 1970s and 1980s (Appendix Figure G6) barely affect enrollment.⁷³ In Section 7 we show that if capacity at law schools continued to

⁷²There are limited ways around this. An out-of-state attorney can be admitted for a single case. Many states also grant “admission on motion,” which waives the examination for attorneys who have practiced for several years and are licensed in a state that extends the same courtesy. Since 2011, states adopting the Uniform Bar Examination accept each other’s bar scores, but a lawyer must still be admitted separately in each state.

⁷³We also plot law school tuition, and law school “relative cost” in Appendix Figure G7. We do not see any differential trend in law school tuition in 1970–1990, or post 1990. We compute a measure of the “relative cost” of law school, which is equal to tuition plus the average wage of college graduates divided by the expected wage of

expand at pace post-1975, equilibrium wages would only be 1% lower in 1990.⁷⁴

We know that the wages of lawyers increased, as the demand shift we document in the paper was not met by an expansion of supply. Next we study the wage premium for lawyers, and how that evolved during our period of interest.

5.2 Lawyers' Wage Premium

We use individual level wage data from the CPS to calculate the wage premium for lawyers and its' evolution over time using rolling Mincer wage regressions (see Appendix B.6). Appendix Figure B7(a) shows that neither changes in observable demographic characteristics of lawyers, nor changes in the overall skill premium, explain the large increase in the relative wage of lawyers. The rise in the wage premium for lawyers is consistent with larger industry rents, as well as potential changes in fields of specialization from less to more lucrative fields. The figure also shows that the relative wage of non-lawyers in legal services is essentially flat.

We also investigate whether the trend in lawyers' wage premium is consistent with barriers to entry. Appendix Figure B7(b) shows that the evolution of the wage premium for incumbent lawyers (over age 30) is similar to the overall trend. In contrast, lawyers under age 30 (entrants) do not see an increase in their wage premium until 1985, after which their wage premium catches up with that of the incumbents.⁷⁵

The timing of the wage premium for young lawyers coincides with changes in their share of lawyer employment. The share of lawyers under age 30 increases from 14% in 1967–69 to 32% in 1979–81, before declining back to 14% in 1994–1996 (Appendix Table B5). Once the share of young lawyers returns to its earlier level in 1994, their wage premium is indistinguishable from that of the older lawyers. This pattern is consistent with variation in barriers to entry. As documented above in Section 5.1, relative supply expanded in the 1970s, before contracting in the 1980s to a level similar to that in 1970. Increased entry—potentially in response to the rising overall wage premium in the profession—could have depressed wages for entrants. As entry subsequently declined, the wage premium for younger lawyers increased.

However, barriers to entry alone have difficulty explaining why these changes did not also affect the wage premium for incumbent lawyers. One possibility is that entrants were willing to accept lower initial wages in return for higher wages later in their careers, consistent with complex rent

lawyers; assuming that agents use only current information, we proxy the latter by the average wage in that year. This relative cost of law school decreases steadily from 1960 to 1990, and stabilizes from 1990 to 2015.

⁷⁴This implies that the stagnation of law-school capacity after the late 1970s is not a quantitatively important explanation for the larger rise in lawyers' relative wages in the 1980s compared to the 1970s, although it is consistent with it.

⁷⁵This is consistent with Sander & Williams (1989), who do not find increases in starting salaries for lawyers in large and elite New York law firms before 1984–86, which is the end of their sample.

sharing arrangements within law firms (Rubens & Silveira, 2026). The difference does not appear to reflect changes in labor supply; we do not see an increase in hours worked by lawyers in this period, in total or by age (Appendix Figure B8). In sum, the timing of the young-lawyer wage premium is consistent with entry conditions affecting the relative wage path of entrants, but inconsistent with barriers to entry alone driving the overall increase in lawyers' wage premium.

6 Alternative explanations

Other factors may have contributed to the rise in demand for legal services. We explore the potential importance of technology, economic activity, innovation, changes in lawyer quality, changes in industry standards, gender, and political influence. Overall, we find no evidence supporting these alternative explanations.

Technology. Legal services is an information-intensive industry, thus the ICT revolution may have contributed to its expansion and internal organization. Using Fixed Assets tables from the BEA, we compute the relative ICT intensity in legal services versus the rest of the private sector. Appendix Figure G1(a) displays this measure, where we see that legal services increased their relative ICT intensity starting only in 1995, whereas beforehand there is no trend. This implies that ICT cannot be an important factor driving demand for legal services.

Industry composition. We ask whether changes in the composition of industries or in their legal services intensity can help explain the increase in the observed share of legal services. In order to assess this, we use a simple accounting model that attributes industry output to demand for final goods (including net exports) coming from households, the government and investment via input-output linkages (Leontief, 1936). We fix the input structure and value-added intensities of the economy in 1970 and apply this to final goods demand in 1990. This gives us counterfactual shares in GDP that are driven by changes in industrial composition.⁷⁶

We apply this exercise to data from the BEA Industry Accounts. The GDP share of legal services increases by 0.7 percentage points from 1970 (0.7 percent) to 1990 (1.4 percent). We find that change in industry composition accounts for only 23% of the increase in legal services share in GDP. The remainder is driven by within-industry increases in intensity of legal intermediation.

Using the same data and methodology we study changes in the composition of users (or “destinations”) of legal services as inputs. We find that overall, industries increase their share of legal services output by only 1.3 percentage points from 1970 (56.4%) to 1990, while the share of legal

⁷⁶See Appendix G.1 for more details.

services paid directly by households and the government drops by 1.3 percentage points.⁷⁷ The increase in industry as buyers of legal services explains little of the rise in legal services value added share, in contrast to claims by Sander & Williams (1989) and by Hadfield (2000).

Firm density. For a given economy size, more firms means more activity occurs between firms rather than within them, and such activity requires legal intermediation.⁷⁸ We use data from U.S. Census Business Dynamics Statistics (BDS) (1977–2014) and from the HSUS (1857–1983) on the number of firms and normalize this by total population. Appendix Figure G1(b) displays the number of firms per capita. Overall, after the secular increase in the number of firms per capita in 1857–1880, we do not document a pattern that could help explain the rise in demand for legal services. We also do not find evidence of a persistent correlation between firms per capita and the legal services outcomes of interest in Table 1. Even if the number of firms does not correspond to our indicators of legal services, market structure might. However, recent figures from Kwon et al. (2024) imply that corporate concentration has steadily increased over the last 100 years, with no change in trend starting around 1970.

Financial complexity. As documented in Appendix G.1, finance is one of the highest legal-services intensity sectors. However, the share of finance in U.S. GDP does not match well the evolution of legal services: it increases steadily since 1950 (Philippon, 2015). Nor does variation in “complex finance” within the sector (e.g., investment banking, which is more law-intensive than retail banking) match well: it declines from 1970 to 1980, and then increases with no break after 1990 (Philippon & Reshef, 2012). Variation in initial public offerings or mergers and acquisitions does not match the increase in legal services employment share and wages, either (Appendix Figure G2). IPOs experience a large increase post-1990, and then fall again, stabilizing in the 2000s. There are multiple merger booms through the 20th century, and then activity accelerates post 1990, also after the demand shift we document.

Innovation. Innovation, as captured by patenting activity, can potentially contribute to demand for legal services through demand for intellectual property protection (IPR). However, this is not a major source of the demand shift. Our tabulation of the Census of Services shows that the share of IPR (“Patent”) lawyers is quite small, rising only modestly from 1.7 percent in 1972 to 1.9 percent in 1992. Moreover, as shown in Appendix Figure G1(c), patent applications show no trend from 1930 to 1990, increasing sharply afterwards—which does not correlate well with employment and

⁷⁷Industries that increased most include retail, finance, insurance, real estate, health, food services, computers and electronics, chemicals.

⁷⁸Economic activity that occurs within the boundary of firms does not require legal intermediation; this is part of the Coasian rationale for the existence of firms, which can economize on such transaction costs.

remuneration of lawyers overall (we do not have separate wage data by field of specialization).

Quality. A rise in lawyer quality could explain higher relative wages. However, there is no evidence that applicant quality, as measured by Law School Admission Test (LSAT) scores, increased in our period of interest (Wightman, 2000). Instead, some scholars have found a decline in law school applicant quality in the 1980s (Vernon & Zimmer, 1987).⁷⁹

Another way to gauge variation in quality is to examine the ratio of LSAT takers to enrolled students in law schools. Unless the difference between LSAT takers and enrollment is due solely to residual low quality candidates, then when this ratio is high we expect selectivity to be higher too. We use data from several sources to build the ratio of LSAT takers to enrollment.⁸⁰ This ratio increases from 0.32 in 1948 to 3 in 1970 as the LSAT became the established entry exam, after which it fluctuates around 3 for the rest of the sample (Appendix Figure G6(a)).⁸¹ This does not suggest an increase in quality in 1970–1990.

We then examine the ratio of law degrees awarded to the cohort enrolled three years before (a J.D. law degree typically takes three years). We expect this ratio to be smaller when schools screen graduates more intensively. We find that this ratio increases from 0.5 for the 1948 enrollment cohort to a bit less than 0.9 for the 1972 cohort, after which it fluctuates around that value for the rest of the sample (Appendix Figure G6(b)). By this metric, quality has decreased, not increased from the 1950s to 1972, after which it has remained stable. We conclude that quality—thus measured—is not a major source of the rise in relative wages for lawyers.

Finally, we do not find that changes in degree requirements for taking the bar exam and becoming a practicing lawyer are an important factor in explaining the evolution of the relative wage of lawyers. Starting in the beginning of the 20th century, U.S. law schools gradually stopped offering undergraduate LL.B. law degrees, and instead offered a post-graduate degree, typically a J.D. degree (or LL.M., especially for foreign lawyers).⁸² However, the process of the J.D. becoming the official requirement to taking the bar exam was gradual, starting long before 1970, and did not accelerate at that moment in time.⁸³

These measures of quality pertain to the flow of lawyers when they enter the profession. Even if

⁷⁹Due to changes in the scale of grades, grading systems and changes in the contents of the LSAT, it is not possible to build meaningful time series that span our sample.

⁸⁰We combine data on the number of LSAT takers from White (1984) for 1947–1982, the Manhattan Review (LSAT Prep Courses & Tutoring) for 1950, 1961, 1970, 1980 and 1985, and the Law School Admission Council (LSAC) for 1987 and on. We have data from the American Bar Association (ABA) on enrollment.

⁸¹The increase in this ratio to 1970 is largely driven by the number of schools that joined LSAC and, thus, accepted the LSAT as their yardstick for admission.

⁸²This change followed the movement for the “scientific study of law” at Harvard, during the 19th century.

⁸³In addition, given roughly 40 years of work, a 3-year delay in starting to practice law cannot explain the magnitude of the increase in the relative wage as a compensating differential.

quality was trending upwards from 1960, it would have taken many years for this trend to materialize in the stock of lawyers. Taking into account cohorts over time, our micro-level regressions reported in Section B.6 rule out a simple story of quality upgrading.

Industry standards. State bar associations uphold strict guidelines dictating the acceptable behavior of lawyers. Until 1977, these guidelines included a prohibition on advertising, and violation of the regulation could result in disbarment. This changed with the Supreme Court Ruling in *Bates v. the State Bar of Arizona* (1977). The Court ruled that advertising was a form of free speech and therefore protected by the First Amendment. Olson (1991) argues that this deregulation of legal advertising had a role in explaining the “litigation explosion.” We collect data on advertising post-*Bates* to probe this hypothesis.

Appendix Figure G3 shows a muted response to this change in policy, as measured by the average number of lawyers’ advertisements in 4 major newspapers across the United States.⁸⁴ The timing suggests that the advertising response in the immediate wake of *Bates* could not explain the increase in employment share and relative wages we observe in 1980, however it is possible that advertising continued to increase demand for legal services, inducing entry. The role of advertising on compensation is less straightforward. Examples in Appendix Figure G4 show that lawyers advertised the fees for their services. While a first-mover advantage could make advertising lucrative—as it apparently did for the Legal Clinic of Bates & O’Steen—the proliferation of advertising would lead to tougher price competition, which would suggest a wage effect in the opposite direction.⁸⁵

Another dimension in which industry standards have evolved is in the prevalence of contingent fee arrangements. These are arrangements used by lawyers to attract business, and imply that the lawyer that represents the plaintiff receives a share of the stakes if the case prevails, but nothing if it does not. Contingent fees can increase access to justice, while at the same time increase lawyers’ incomes, thereby giving incentives for entry (Painter, 1995; Helland & Klerman, 2024).⁸⁶ Since such contingent fee arrangements are private contracts, no representative statistics exist on their prevalence, let alone consistent time series. Therefore, it is difficult to assess whether the prevalence of contingent fees increased particularly in 1970–1990. Contingent fees are more prevalent in some fields of the law in the United States, such as insurance and negligence, which have increased their shares of litigation activity in 1972–1992 (Table B4), as well as in class action lawsuits.⁸⁷

⁸⁴Our hand-collected sample of newspaper advertisements covers the immediate post-period, from 1977–1982. The newspapers in the sample went from containing no advertisements for legal services to about 5 to 15 ads per issue.

⁸⁵Testimony from Bates indicates how lucrative this business was; *What’s up with all the ads for law firms?*, Planet Money, 2024, <https://www.npr.org/2024/10/04/1203595460/lawyers-ads-law-groups-commercials-banned>.

⁸⁶Some research has modeled how contingent fees affect lawyers’ effort (Danzon, 1983; Kritzer et al., 1985). Another strand of literature debates the potential ethical aspects of contingent fees, such as conflicts of interest between lawyer and client and litigation stirring (“client-getting” or “ambulance chasing”) (Molitero, 2002).

⁸⁷A more recent, and related phenomenon is litigation finance. However, this started increasing its prevalence in

Women in law. The share of women enrolled in law school rose dramatically from under 10% in 1970 to almost 50% in 2000 (Katz et al., 2023). A differential increase of women into the field of law could potentially explain part of the increase in the share of lawyers, although this does not explain the contemporaneous increase in the relative wage. Appendix Figure G8(a) shows that while indeed the share of women employed as a lawyer increased between 1970 and 1990, it continued to grow on the same trend post-1990. Moreover, the share of women employed in other high-skill professions (doctors, engineers, scientists) exhibits the same pattern. Wage premia regressions show that female and male lawyers receive a similar wage premium (Appendix Figure G8(b)). This is consistent with data from LSAT scores: women do not exhibit significantly different distributions of grades compared to men.⁸⁸

Political influence. A final hypothesis that we consider is that a change in the political influence of lawyers led to the demand shift for their services. We examine the share of lawyers in Congress, and we do not find any change between 1970–1990. In fact, the number of lawyers in Congress decreased over this period (Appendix Figure G9). That is not to say that lawyers in Congress cannot be influential in shaping the legislation that we study—Bonica (2020) shows that lawyer-legislators are significantly more likely to support fee-shifting statutes and other bills that support the profession. However, we do not find an increase in influence, as measured by the share of legislators that are also lawyers, during this period.

7 Excess costs

In this section we quantify two components of the demand shift that might represent a cost to society. The first is the uncertainty of the new legislation, which raised the effort required to resolve each dispute, even where the underlying law was beneficial. The second is rent: the possibility that lawyers’ pay rose by more than was needed to draw them into the profession, which can be generated by restrictions on entry into law. We provide a back-of-the-envelope calculation for each.

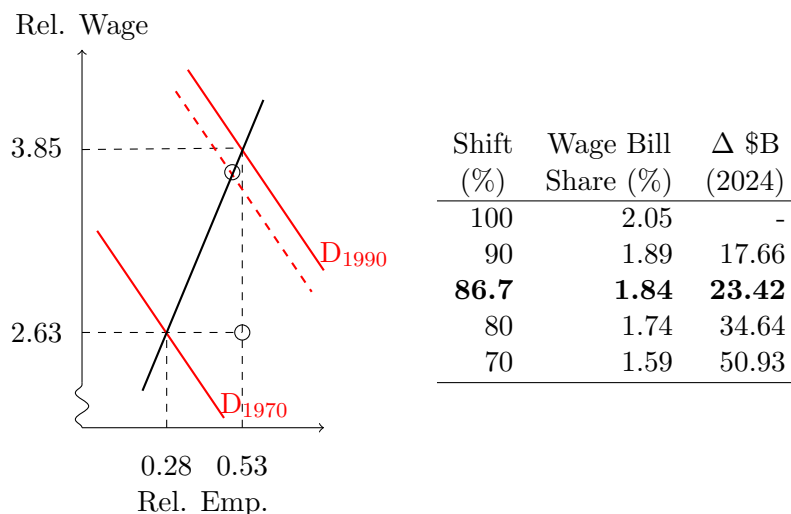
7.1 Excess costs due to uncertainty of the law

What is the cost of increased uncertainty in the law? The assumption underpinning this exercise is that the increase in the scope of the law is socially beneficial—civil rights, environmental protections, etc.—but the increase in uncertainty is not. We predict counterfactual levels of employment and wages of lawyers absent this uncertainty, with a simple back-of-the-envelope exercise.

the United States only after 2000, long after our period of interest (“A Brief History of Litigation Finance”, in *The Practice*, September/October 2019, The Center on the Legal Profession, Harvard Law School).

⁸⁸Women score on average slightly below men, but this difference is very small in comparison to the standard deviation of test scores.

Figure 8: Counterfactual Demand for Lawyers



Notes: The graph on the left shows the relative supply and demand for lawyers. The observed relative wage and relative employment from the data are plotted as the 1970 and 1990 equilibria. The dashed red line shows the counterfactual demand curve that we derive in our back-of-the-envelope exercise; see Appendix Table C1. The open circles mark counterfactual points: (0.50, 3.69) is the equilibrium under the calibrated demand shift, and (0.53, 2.63) holds the relative wage at its 1970 level with employment at its 1990 level (the rent benchmark). The table on the right shows how the counterfactual demand shift translates into changes in the wage bill share and dollars (\$2024B). The results for the calibrated demand shift are highlighted in bold.

The exercise requires two inputs: the relative supply curve for lawyers, which lets us predict counterfactual equilibria, and the share of the demand shift attributable to uncertainty. For lawyers' relative labor supply curve we start with the two years of interest from our time series: 1970 and 1990. In 1970, the relative employment share of lawyers was 0.28 and their relative wage was 2.63. In 1990, the employment share was 0.53 and the relative wage was 3.85. We assume that the relative labor supply curve is linear and did not change over this 20 year period—the only change was a shift of the demand curve.⁸⁹ Under this assumption, we can trace out the supply curve between the two observed equilibria. This is shown in the diagram in Figure 8.

Attributing a portion of the demand shift between 1970 and 1990 to an increase in uncertainty is a larger challenge. Our measure of uncertainty over this period is the forward amendment rate of the U.S. Code. Because demand responds to the uncertainty of the law already on the books, we lag the amendment rate ten years, so the relevant change for the 1970–1990 outcome window is the rise from 32 to 64 amendments per 100 sections between 1960 and 1980. Appendix Table C1 reports regressions, in levels, of employment shares on the lagged amendment rate. Conditional on the pages of federal regulation—our measure of the scope of the law—each additional amendment per 100 sections raises lawyers' employment share by 0.0011 percentage points, so the rise in the

⁸⁹This assumption is consistent with the supply side documented in Section 5: law schools per capita were essentially unchanged between the two years, at 0.72 per million in 1970 and 0.70 in 1990 (Appendix Figure G5(b)).

amendment rate accounts for 0.034 percentage points, or 13%, of the observed 0.25 percentage-point increase in the employment share (12% for the legal services industry).⁹⁰ Taking the net-of-scope estimate, we calibrate a counterfactual demand shift that is 86.7% of the observed shift between 1970 and 1990, which is shown in Figure 8 with the dashed red demand curve. Given the labor supply curve, the calibrated shift implies a new equilibrium at (0.50, 3.69).

How does this counterfactual equilibrium translate into levels of employment and wages? In 1990, the wage bill share of lawyers in legal services was 2.05% of the total wage bill.⁹¹ In the counterfactual, this is reduced to 1.84%, a 10% decrease. Given the total wage bill in 2024, this is a decrease of \$23 billion in a single year. Assuming reallocated lawyers earn the same wage elsewhere and other prices are fixed, this \$23 billion is the annual social cost of misallocating talent to law.

We repeat this exercise for the legal services industry (instead of only the lawyers within). We predict a counterfactual demand shift for legal services that is 87.7% of the observed shift in 1990, resulting in a new wage bill share of 2.61%, a decrease of \$27 billion in 2024.⁹²

Expanding Supply. Section 5 documents how the ABA restricts entry into the legal profession. Admissions are rationed: there are roughly three LSAT takers per enrollee and the number of accredited law schools per capita have declined since the 1940s (Appendix Figures G6(a) and G5(b)). During our period of interest, schools per capita rise to a local peak in 1975, after which supply, in per capita terms, begins to contract again. We quantify the role of the supply restriction by considering a counterfactual in which schools per capita remain at the 1975 peak.

In each year from 1976 we scale up the entering law school class to match the per capita ratio in 1975. We assume that each cohort graduates three years later and remains in the workforce, so the counterfactual operates on the flow of new lawyers and cumulates slowly into the stock. This calculation adds roughly 14,000 lawyers (from the counterfactual larger graduation cohorts in 1979–1990) to the 1990 stock of 578,000, an increase of 2.4 percent. This leads to a new relative employment share of 0.54, which intersects the demand curve at a relative wage of 3.80, about 1 percent below its observed level. Even if accreditation had kept pace with population growth through our period of interest, equilibrium outcomes would have changed only slightly.

⁹⁰Without conditioning on scope, the amendment rate accounts for 72% of the demand shift. An elasticity (log-log) specification yields a smaller net-of-scope attribution of 3–5%. The levels estimates are statistically significant for both outcomes and stable across lag choices for the scope control, and they line up with an alternative attribution based on the share of contingent provisions in state legislation—an ex ante text measure of statutory ambiguity (Appendix Figure C4)—which implies roughly 9–12%.

⁹¹In 1990, there were approximately 578,000 lawyers with an average wage of \$119,000. The counterfactual implies a new level of 542,000 lawyers with an average wage of \$114,000.

⁹²At the industry level, which includes all legal support staff, relative wages are lower but employment shares are higher: the equilibrium was at (0.54, 2.06) in 1970 and at (1.16, 2.45) in 1990. This implies a wage bill share of 2.85% in 1990 (instead of 2.05% for lawyers). Appendix Table C1 shows that each additional amendment per 100 sections raises the legal services employment share by 0.0024 percentage points, conditional on the pages of federal regulation.

7.2 Excess costs due to rents

We next assess to which degree the increase in total remuneration in legal services in 1970–1990 is in excess of what would be needed to motivate workers in that sector to provide the required output—i.e., rents. Underlying this calculation is the idea that lawyers and other legal practitioners were already efficiently incentivized in 1970 to provide optimal effort, and that to the extent that the desired quantity of legal intermediation increased, it could be provided with the same incentives.⁹³

We take employment growth as given and hold the relative wage at its 1970 level, with an adjustment for the college premium:

$$\text{excess}_{\text{WBsh}_{legal}^{1990}} = \text{WBsh}_{legal}^{1990} - \text{Nsh}_{legal}^{1990} \cdot rw_{legal}^{1970+} = 0.007,$$

where WB denotes wage bill, Nsh denotes employment share, rw denotes relative wage of legal services to the aggregate average wage, and rw_{legal}^{1970+} accounts for the rise in the aggregate college premium (see Appendix Section C.2 for details). The calculation implies that legal services' wage bill was 0.7 percentage points in excess of 1970. Comparing this to the actual $\text{WBsh}_{legal}^{1990}$, which was 1.74 percent, we have an excess payment of 41% to legal services employees (lawyers and non-lawyers together). We perform a similar calculation for law firm partners' incomes, and calculate an excess payment of 39% to proprietors in legal services.

We use the total wage bill WB^{1990} and total proprietors' income INC^{1990} in the private sector to calculate the dollar value implication of $\text{excess}_{\text{WBsh}_{legal}^{1990}}$ and of $\text{excess}_{\text{INCsh}_{legal}^{1990}}$ as follows:

$$\text{EXCESS}_{legal}^{1990} = \text{excess}_{\text{WBsh}_{legal}^{1990}} \cdot \text{WB}^{1990} + \text{excess}_{\text{INCsh}_{legal}^{1990}} \cdot \text{INC}^{1990} = \$31.1\text{bn}$$

in 1990 alone, and \$75 billion per year in 2024 prices. This calculation does not take into account potential cost in terms of misallocation of talent, since it assumes that employment and quantities are fixed at equilibrium levels. Instead, it represents a transfer of income from consumers to suppliers of legal services. If the ABA freely granted accreditation, schools would enter when rents were positive, and in the long run the wage would be competed down and we would have seen even greater relative employment in legal services. In that case, the supply restriction is an additional cost, akin to inefficiency in monopolized markets.

⁹³The simple counterfactual is that relative wage remains at 1970 levels (2.63), and relative employment at 1990 levels (0.53).

8 Conclusion

The legal services industry underwent remarkable changes between 1970 and 1990: the employment share of legal services more than doubled and the relative wage of lawyers increased by 60%. We trace this expansion to three changes in the legal environment: a broadening of the law's scope, a rise in its uncertainty, and a shift toward private enforcement through fee-shifting. Our empirical results are consistent with the theoretical predictions that we develop. Increases in federal regulation predict increases in lawyers' employment but not in their wages, while fee-shifting and legal uncertainty predict both. Litigation rises after specific expansions of scope and introductions of fee-shifting. And the adoption of particular state laws predicts demand for the corresponding fields of practice: products liability for negligence and insurance lawyers, unilateral divorce for domestic-relations lawyers, and banking deregulation for banking and corporate lawyers.

Are the resources a society devotes to legal services well spent? Our evidence is mixed. Part of the rise in demand reflects a genuine expansion of the law: citizens gained new rights, and giving effect to those rights required legal intermediation. But we also identify costs, which take several forms. The uncertainty embodied in broadly written legislation raised the cost required to resolve each dispute. Fee-shifting statutes, though justified as a way to make legislation effective, likewise raised the cost per case litigated. A further cost arises from the allocation of talent, as more able individuals are absorbed into legal intermediation, litigation, and the prevention of litigation.

While our findings suggest social costs, we do not measure the social benefit of changes in the legal environment. We cannot say, for example, what would have followed had the government enforced the new laws itself rather than enlisting private lawyers. We also do not explain why the law changed so much in this period; we take the changes as given and examine the consequences. These are important questions for future work. What we do show is that how a society writes its laws is itself an economic decision, one that shapes the allocation of talent and the cost of the rule of law.

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Appendix

A Data

A.1 BEA

The BEA reports statistics on legal services in SIC 8111 in 1929–2000; from 1998 and on it uses NAICS 5411. This leaves three years of overlap, that can be used to gauge any differences between the two systems of industry classification. Comparing SIC 8111 and NAICS 5411 legal services indicates that the SIC 8111 is a proper subset of NAICS 5411, and that industries were added to the latter. These additional industries (in NAICS 5411 and not in SIC 8111) include more lower paid jobs, e.g. paralegal services, notaries, title agents. The following crosswalk table illustrates this, which is based on <https://www.census.gov/eos/www/naics/concordances/concordances.html>.

SIC	Title (and note)	NAICS	Title
8111	Legal Services	5411	Legal Services
8111	Legal Services	541110	Offices of Lawyers
	-Null Set for U.S.-	541120	Offices of Notaries
6541	Title Abstract Offices	541191	Title Abstract and Settlement Offices
7389	Business Services, NEC (process services, patent agents, notaries public, paralegal services)	541199	All Other Legal Services

The relevant BEA series come from the National Income and Product Accounts (NIPA) tables and the Industry Economic Accounts. The NIPA tables, which cover the years 1929 to 2015, have series of employment and income by industry. These data, which are aggregated to the industry level, are sourced from administrative data from state unemployment insurance (UI) programs. We use the following series from the NIPA tables:

1. (Table 6.2) Compensation of Employees by Industry (*NW*): Compensation measures the total income both wages and salaries and supplements to wages and salaries earned by employees in return for contributing to production during an accounting period.
2. (Table 6.5) Full-Time Equivalent Employees by Industry (*FTE*): Full-time equivalent employees equals the number of employees on full-time schedules plus the number of employees on part-time schedules converted to a full-time basis. The number of full-time equivalent employees in each industry is the product of the total number of employees and the ratio of average weekly hours per employee for all employees to the average weekly hours per employee on full-time schedules.
3. (Table 6.8) Persons Engaged in Production by Industry (*FTE2*): Equals the number of full-time equivalent (FTE) employees plus the number of self-employed persons. Unpaid family workers are not included. The number of self-employed persons in a given industry is calculated by subtracting the FTE number from FTE2.

4. (Table 6.12) Nonfarm Proprietors' Income by Industry (NW_{prop}): Nonfarm proprietors' income measures the income before deducting income taxes, of sole proprietorships, partnerships, and other private nonfarm businesses that are organized for profit but that are not classified as corporations. Sole proprietorships are businesses owned by a single individual. Partnerships include most associations of two or more of: individuals, corporations, non-corporate organizations that are organized for profit, or of other private businesses. Other private businesses are made up of tax-exempt cooperatives, including credit unions, mutual insurance companies, and rural utilities providing utility services and farm marketing and purchasing services.

The BEA Industry Economic Accounts is the source of the Value Added data series. This series starts in 1947, but the value added of legal services is not reported separately until 1963. The value added of an industry, also referred to as gross domestic product (GDP)-by-industry, is the contribution of a private industry or government sector to overall GDP. The components of value added consist of compensation of employees, taxes on production and imports less subsidies, and gross operating surplus. Value added equals the difference between an industry's gross output (consisting of sales or receipts and other operating income, commodity taxes, and inventory change) and the cost of its intermediate inputs (including energy, raw materials, semi-finished goods, and services that are purchased from all sources).

A.2 Census

The Census microdata is extracted from IPUMS USA. The sample starts in 1850 and ends in 2000, after which we rely on data from the American Community Survey (ACS, see description below). A 5% sample of the decennial census is used in 1900, 1930, 1980, 1990 and 2000. A 1% sample is used in all other years. There is no 1890 observation because a 1921 fire destroyed most of the 1890 records.

We limit the sample to employed individuals. This is used to create three series by industry, occupation and education level: employment, hours worked per week, and income from wages. The employment series starts in the first year of our data, but income and hours worked is not recorded until 1940.

We need to identify lawyers and the legal services industry, in order to track the evolution or their wages and employment with respect to the rest of the economy. Lawyers can be classified in three types: Lawyers in legal services, Lawyers in government, and Lawyers in other private industries. Non-lawyers in legal services are categorized as "clerical", "paralegal", and "other". Paralegals were not listed as an occupation before 1980, so they would be included in our "clerical" group pre-1980. This includes all occupations classified as: "Clerical and Kindred", "Office and Administrative Support", "Office Machine Operators", "Secretaries", and "Clerical Occupations".

A.2.1 Legal services in 1940

We notice an anomaly in legal services employment in 1940. There is a significant increase in the share of legal services employment from 1930 to 1940 and an even greater decrease from 1940 to 1950. There was no corresponding increase or decrease in the number of lawyers in legal services. We attribute the peak in legal services employment in 1940 to a classification error, specifically an error in how some occupations were classified. For example, in 1940 there are 169 "Artists and Art

Teachers” in legal services. There were 3 “Artists and Art Teachers” in the legal services industry in 1930 and 1950 combined.

As a first step in correcting this error, we re-classify occupations that clearly should not be in legal services. This includes “Artists and Art Teachers” and “Dancers”. After re-classifying occupations that don’t belong to legal services there is still a spike in the 1940 employment share, albeit smaller than before. In the second step we identify the particular occupations that are driving this increase in employment share. We follow the following steps to do this:

1. Calculate each occupation’s share of legal service employment, by year.
2. Calculate the percent increase in that share between 1930 and 1940, and between 1940 and 1950.
3. Identify an “outlier” as an occupation whose share both:
 - (a) increases by more than 100% between 1930 and 1940, and
 - (b) decreases by more than 50% between 1940 and 1950.
4. Calculate the fraction of each occupation that will remain in legal services, based on the average of their 1930 and 1950 values.
5. Take weighted totals for hours, employment, and wage bill, for 1940 and the identified “outliers” in legal services.
6. Use the fraction calculated in step 4 to split hours, employment and wage bill between legal and non-legal (and within legal between clerical and other) from step 5.

A.3 American Community Survey (ACS)

The American Community Survey (ACS) microdata is extracted from IPUMS USA. The sample starts in 2001 and ends in 2015. The ACS is a 1-in-100 national random sample of the population. Just as with the decennial census data, we limit the sample to employed individuals. This is used to create three series by industry, occupation and education level: employment, hours worked per week, and income from wage. For more details on the ACS see https://ofm.wa.gov/sites/default/files/public/legacy/pop/acs/ofm_acs_user_guide.pdf and <https://ofm.wa.gov/washington-data-research/population-demographics/american-community-survey>.

A.4 Census/ACS series

We create one series for analysis with the decennial censuses (until 2000) and the ACS (from 2001), calling it “Census/ACS”. It should be noted that there is one major difference between the Census and the ACS. This difference arises because the decennial census uses “point of time” estimates while the ACS uses “period” estimates. This means that data collection for the decennial census targets a specific point in time whereas ACS data are collected continuously.

While decennial census enumeration lasts from around mid-March to late August, most of the data is collected around the April 1st time period and, for all practical purposes, represents the characteristics of the population as of April 1st in the decennial census year. The 2005 ACS, for example, contains data collected from January to December 2005. Certain questions, of course,

refer to previous years data. For example, the Census captures income from the previous calendar year while the ACS captures income from the previous 12 months. That means that the 2005 ACS income data reflect income received between January 2004 and November 2005, depending on when the individual was surveyed.

A.4.1 Hours worked

There are three different “hours worked” questions recorded in the IPUMS microdata, depending on the year of the survey. We use all three to create the hours worked series. “Hours worked last week” is recorded, as a continuous variable, in 1940, 1950, 1980, and 1990. “Hours worked last week” is recorded in intervals in 1940, 1950, 1960, 1970, 1980 and 1990. “Usual hours worked per week” is recorded, as a continuous variable, from 1980 to 2015. In the years in which we only have weekly hours worked as an intervalled variable (1960, 1970) we assign the midpoint of the recorded interval to each individual.

A.4.2 Business income

The Censuses and the ACS report business income, which, in principle, would include the income of law firm partners in legal services. These data are top coded in a similar fashion as wage data (see below), but with different thresholds. We experimented with building income series for lawyers and for law firm partners using these data. Unfortunately, the business income data are not very informative. This is because the incidence of top coding is high, especially in early years, and because we suspect that business income beyond the top coding threshold is much more skewed than labor income. One useful piece of information that we do get from the business income data is that it corroborates the V-shape evolution of proprietors’ income in legal services from the BEA (a drop from 1973 to 1982 and then a sharp increase until 1990), shown in Figure B3(c).

A.4.3 Top coding for wage income data

Table A1 reports top code thresholds and top coded wages for wage income data in the Census (1940–2000) and in the ACS (2001 and onwards). In 1940–1980 respondents’ wages above these thresholds are reported at the threshold. In later years wages above the top code thresholds are reported as state median of wages above threshold (1990) or state mean of wages above threshold (2000 and on). From 2000 there is state-level variation in top code reporting, and from 2003 the top code threshold itself varies by state (99.5th percentile within the state).

Table A2 reports the percent of employees that are top coded and their corresponding unadjusted wage bill share in the Censuses (1940–2000) and in the ACS (2001 and onwards). The unadjusted top coded wage bill share sums all top coded wages, and then divides by the total wage bill.

Table A1: Top code thresholds and values in U.S. Censuses and ACS

Year	Top code wage threshold	Top code wage value
1940	\$5,001	\$5,001
1950	\$10,000	\$10,000
1960	\$25,000	\$25,000
1970	\$50,000	\$50,000
1980	\$75,000	\$75,000
1990	\$140,000	State median of wages above threshold*
2000	\$175,000	State mean of wages above threshold*
2001-2002	\$200,000	State mean of wages above threshold*
2003-	99.5th Percentile in State	State mean of wages above threshold*

Notes: 1940-2000 are U.S. Census years, 2001 and on are American Community Survey (ACS) years. *Top coded wage value is the state median or mean of values strictly greater than the corresponding top code wage threshold. For example, in 1990 an individual's wage that was originally reported as being greater than \$140,000 was coded as the median over values strictly greater than \$140,000 within that individual's state of residence.

Table A2: Top coded employees and share of wage bill that is top coded

Percent of top-coded workers						Percent of wage bill that is top coded, before adjustment				
	Private Sector	Legal Services	Non-lawyers in Legal Services	Lawyers in Legal Services	Lawyers in Private Sector	Private Sector	Legal Services	Non-lawyers in Legal Services	Lawyers in Legal Services	Lawyers in Private Sector
1940	0.05	0.11	0.07	0.15	1.15	0.34	0.81	0.50	1.18	2.56
1950	0.68	2.04	0.15	3.72	15.99	3.64	12.72	0.73	29.23	33.29
1960	0.27	0.65	0	1.14	4.99	2.02	6.40	0	12.40	13.27
1970	0.18	0.49	0	0.94	3.76	1.55	4.96	0	9.18	11.22
1980	0.44	1.80	0.04	3.56	4.81	2.91	11.70	0.36	18.94	12.68
1990	0.62	3.64	0.15	7.79	8.37	5.80	22.65	1.45	33.41	23.98
2000	1.06	4.68	0.45	9.93	16.43	10.86	30.68	4.94	43.56	44.51
2001	0.84	4.33	0.43	9.49	13.02	9.04	28.13	4.29	41.03	36.53
2002	0.86	4.62	0.33	10.67	14.72	9.03	29.73	3.52	43.91	41.21
2003	0.90	4.91	0.45	11.14	15.30	8.39	28.27	4.19	40.76	37.66
2004	3.32	13.06	1.71	27.51	45.11	18.47	46.87	9.58	66.54	71.90
2005	0.92	4.93	0.44	10.84	16.23	9.06	28.50	4.59	40.30	39.80
2006	0.90	5.56	0.49	12.16	14.99	8.99	31.41	5.06	43.68	35.77
2007	0.91	5.09	0.37	10.81	15.21	9.27	29.27	3.72	40.61	38.81
2008	0.88	5.67	0.39	12.07	14.56	9.05	32.03	4.11	43.85	38.58
2009	0.95	6.00	0.46	12.57	16.20	9.24	31.68	4.42	43.07	40.15
2010	1.19	7.26	0.68	15.08	20.15	10.31	35.37	6.06	47.96	45.67
2011	1.17	6.99	0.44	14.31	20.87	10.35	33.94	4.04	45.88	47.82
2012	1.18	6.27	0.45	12.81	21.75	10.42	31.67	3.72	43.43	47.35
2013	1.19	7.02	0.65	13.96	19.21	11.09	35.11	5.86	46.73	45.47

Notes: The table reports the percent of employees that are top coded and their corresponding unadjusted wage bill share in the Censuses (1940-2000) and in the ACS (2001 and onwards). The unadjusted top coded wage bill share sums all top coded wages, and then divides by the total wage bill.

A.5 Current Population Survey (CPS)

We use the Annual Social and Economic supplement to the Current Population Survey (March), which reports annual income and work variables for the previous year. Here, 1967–2015 correspond to surveys carried out in 1968–2016. For complete details on the CPS see Flood et al. (2017), or web page <https://cps.ipums.org/cps/>. From these data we use only the employment data in Figure B1(a).

A.6 Census of services, states-fields sample

We created a “states-fields” sample of lawyers by state and fields of specialization using the Census of Services. The Census of Services is conducted every five years starting in 1967, but legal services firms are asked about lawyers fields of specialization only in 1972–1992. We combine this with employment data from the Censuses. The 1970 and 1990 Census data are used for 1972 and 1992 employment numbers, respectively. Here we provide details on how we constructed the “states-fields” sample.

- The Census of Services reports the number of lawyers in the USA, and their numbers in the USA by field. The Census of Services also reports numbers of lawyers (total and by field) for MSAs with enough respondents. Not all MSAs are reported. This implies that the total lawyer counts for all MSAs is less than the total for the United States from the same source.
 - We take into account a small number of changes in definitions of MSA over time in CO, NY and WI. In order to use as much information as possible, we split MSAs when necessary. For example, in NY we have “Buffalo” in 1972–1987, but “Buffalo-Niagara Falls” in 1987 and 1992. We use the Buffalo share of lawyers in “Buffalo-Niagara” in each field in 1987 to extrapolate the Buffalo numbers from the “Buffalo-Niagara Falls” total in 1992. The same is done for Denver-Boulder in CO, and Milwaukee-Racine in WI.
- We aggregate MSA level data up to the state-level. For example, lawyers in New York = Lawyers in Buffalo + Lawyers in New York City + Lawyers in Albany. Some states have only one MSA. The total number of states is 28 plus the district of Columbia (DC), and are listed here: AL, AZ, CA, CO, CT, DC, FL, GA, IL, IN, KY, LA, MA, MD, MI, MO, NC, NJ, NY, OH, OK, OR, PA, TN, TX, UT, VA, WI. Overall, the state-fields sample contains 51% of the total number of lawyers in the United States. See Table A3 in the appendix for the list of MSAs and their mapping to states.
- Here is the list of fields, with the share of each field across states in the total for the field in the USA (pooling across 1972 and 1992) in the resulting sample: banking and commercial (55%), corporate (69%), criminal (48%), domestic relations (40%), insurance (49%), patent/trademark/copyright (77%), real estate (52%), tax (67%), wills/estate planning/probate (46%), negligence (50%). We aggregate a handful of tiny fields into a category called “other” (63%). Finally, there are lawyers that are classified as “general practice” (40%).
- We merge into the state-fields sample state-level employment the Census. In doing so, we use only the employment of the specific MSAs underlie the state-fields sample from the Census of Services. Using the New York example, Employment in NY = Employment in Buffalo + Employment in New York City + Employment in Albany.

Table A3: Sample for Field Decompositions

State No.	State	MSA
1	AL	Birmingham
2	AZ	Phoenix
3	CA	Los Angeles-Long Beach
	CA	Sacramento
	CA	San Francisco-Oakland
4	CO	Denver-Boulder
5	CT	Hartford
6	DC	Washington
7	FL	Jacksonville
	FL	Orlando
8	GA	Atlanta
9	IL	Chicago
10	IN	Indianapolis
11	KY	Louisville
12	LA	New Orleans
13	MA	Boston
14	MD	Baltimore
15	MI	Detroit
16	MO	Kansas City
	MO	St. Louis
17	NC	Charlotte-Gastonia
18	NJ	Newark
19	NY	Albany-Schenectady-Troy
	NY	Buffalo
	NY	New York
	NY	Rochester
	NY	Syracuse
20	OH	Cincinnati
	OH	Cleveland
	OH	Columbus
21	OK	Oklahoma City
	OK	Tulsa
22	OR	Portland
23	PA	Philadelphia
	PA	Pittsburgh
24	TN	Memphis
25	TX	Dallas-Fort Worth
	TX	Houston
	TX	San Antonio
26	UT	Salt Lake City-Ogden
27	VA	Norfolk-Virginia Beach-Portsmouth
28	WI	Milwaukee

Notes: This is the set of MSAs for which we have data on field of law in both 1972 and 1992. There are 42 MSAs and 27 states plus the District of Columbia. These states make up the sample for the decomposition in Table B3.

A.7 Martindale Hubbell Directory

The *Martindale–Hubbell Law Directory* is a biographical directory of U.S. lawyers and law firms. The combined *Martindale–Hubbell Law Directory* first appeared in 1931 as a two-volume set and was revised and published annually thereafter, growing into the standard nationwide reference on the American bar (Martindale-Hubbell, 1931). The directories have two parts: a broad geographic roster that aims to list every admitted attorney by city (with name and address), and a set of professional listings that firms buy and compose themselves. We use the latter, because it has information on the practice area of each firm.

We digitized the firm listings for 1931–1963 (Martindale-Hubbell, 1931). Each entry lists a firm (or an individual practitioner), its location, the names and short biographies of the firm’s members and associates, and a description of the firm’s areas of practice. The resulting sample contains 224,921 firm-year listings across 40,974 distinct firms. For each listing we count lawyers as the sum of members and associates recorded in the biographical text; solo practitioners listed under a firm name but without individual bios are counted as one lawyer. The number of lawyers in the digitized sample grows from about 9,800 in 1931 to about 53,000 in 1963.

The directory was primarily used to help lawyers and their business clients locate counsel in other cities, which made a detailed listing most valuable to firms seeking out-of-town commercial and corporate referrals. Corporate and commercial listings are accordingly over-represented in the Martindale–Hubbell sample, and we treat it as informative about the relative composition of practice and its evolution over time rather than as a representative cross-section of the profession in any single year. The sample covers a growing share of practicing lawyers. Table A4 compares the digitized sample to the number of lawyers in the legal-services industry from the decennial Census of Population: coverage rises from roughly 7% in the early 1930s to nearly 30% by 1960.

Table A4: Digitized Martindale–Hubbell Sample vs. Census Lawyer Counts

Year	MH sample (lawyers)	Lawyers in legal services (Census)	Sample coverage
1931	9,779	132,468	7%
1940	15,075	129,355	12%
1950	24,906	133,873	19%
1960	43,834	157,863	28%

Notes: “MH sample” is the number of lawyers (members plus associates) in the digitized Martindale–Hubbell firm listings. “Lawyers in legal services” is the count of employed lawyers in the legal-services industry from the decennial Census of Population (1930, 1940, 1950, 1960); the 1931 sample figure is compared to the 1930 Census. Coverage is the ratio of the two.

Classification of Fields We classify each listing into a field of practice from its free-text practice-area description. The description is first parsed into “law-type” tokens, and each token is mapped to a field through a crosswalk. We choose the field categories to align with those of the Census of Services, so that the two sources can be compared directly. Table A5 lists the fields and representative keywords. We discard purely procedural or venue descriptors (i.e., “federal,” “state,” “appellate,” “chancery,” “litigation”) which describe where or how a firm practices rather than in what field. A listing is classified as general practice in two cases: when none of its remaining tokens map to a substantive field, or when it mentions “general law” and five or more fields. We interpret the breadth of listing five or more fields to reflect a general practice rather than genuine specialization.

Table A5: Martindale–Hubbell Practice-Area Fields and Keywords

Field	Representative practice-area keywords
Corporate	corporation, corporate, business, partnership, merger, contract, securities
Banking & commercial	banking, bank, commercial, mercantile, savings, credit, secured
Insurance	insurance, casualty, surety, fire, life, liability, subrogation, indemnity
Real estate	real estate, real property, land, title, mortgage, zoning
Wills, estates & probate	probate, trust, estate planning, inheritance, guardianship, wills
Tax	tax, taxation, income, revenue, assessment
Patent	patent, trademark, copyright
Criminal	criminal
Domestic relations	domestic, family, divorce
Negligence	negligence, tort, personal injury, malpractice, medical, motor vehicle, damages
Government & regulatory	administrative, municipal, public utility, commerce, commission, interstate
General practice	“General Practice,” “Practice in all Courts,” or venue-only terms

Notes: Fields are assigned by mapping atomic practice-area tokens to categories aligned with the Census of Services. A firm may appear in more than one field. The Census of Services splits negligence into plaintiff- and defendant-side practice; the Martindale–Hubbell practice-area text does not distinguish the two, so “negligence” here is the combined field.

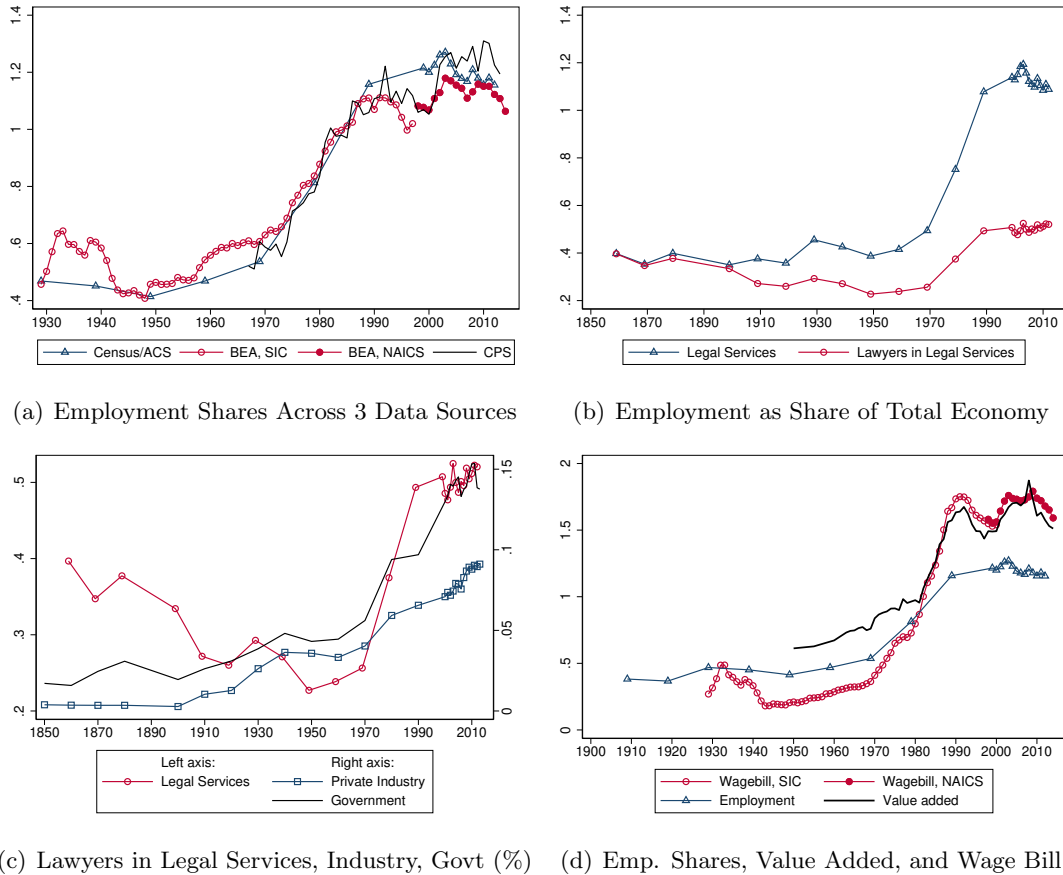
B Calculation of Series of Interest

In this appendix we provide details on the calculation for each series we reference in Section 2.

B.1 Employment Shares

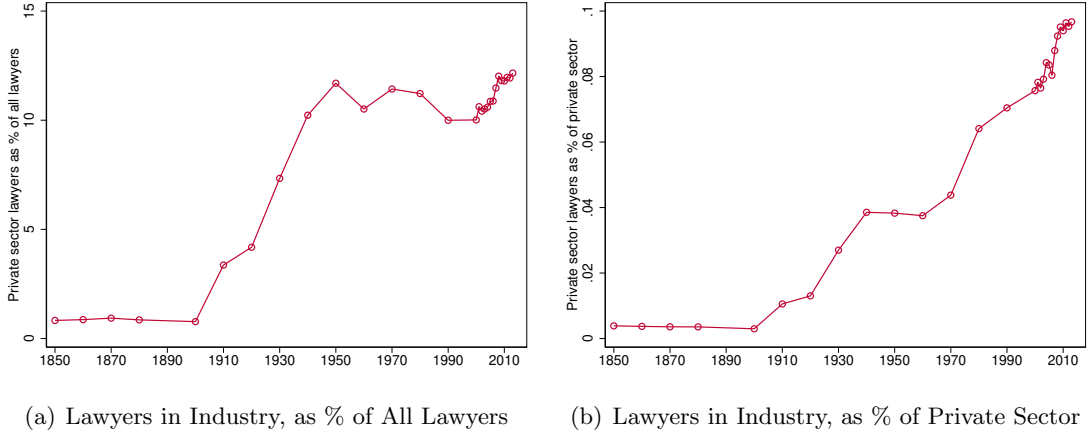
We show that employment shares of legal services is consistent across definitions, and the phenomenon is specific to lawyers in legal services, as opposed to industry or government lawyers (Figures B1 and B2).

Figure B1: Employment Shares of Legal Services, Additional Series



Notes: In (a) we compare employment shares using Census, BEA, and CPS data. BEA series are employment shares in terms of full-time equivalents, using the *persons engaged* labor concept, which includes proprietors 1929–2015. The CPS series is in terms of hours shares, 1967–2013. In (b) we show employment measured in hours, and shares are within the entire economy (in Figure 1 these are shares in the private sector). Employment is sourced from the decennial Census from 1850–2000, and the American Community Survey from 2001–2015. The legal services series is the total employment in the legal services industry, as a share of the total employment in the economy, including the public sector. The lawyers in legal services series is the total employment of lawyers in the legal services industry, as a share of the total employment in the economy, including the public sector. In (d) we show the employment share in legal services against the wage bill and value added shares in the industry, from the BEA.

Figure B2: Employment Shares of Lawyers in Private Industry



Notes: Employment is sourced from the decennial Census from 1850–2000, and the American Community Survey from 2001–2015.

B.2 Relative wages of Lawyers and partners in Legal Services

We start by defining the relative wage of legal services as the ratio of the average labor compensation among all employees in legal services to that in the other industries, $w_{nonlegal}$: $\omega_{legal} = \frac{w_{legal}}{w_{nonlegal}}$. Here, we rely on BEA data to construct full-time equivalent wage series. Figure B3(a) shows that ω_{legal} drops from 1.13 in 1933 to 0.67 in 1943, after which it increases at a moderate rate until 1975, when it reaches the same level as in 1933. From 1980 to 1990 the relative wage in legal services increases sharply from 1.10 to 1.82, after which it remains approximately stable. Relative wage data based on Censuses and the ACS broadly agree with this evolution; see Figure B4(a). Note that ω_{legal} includes only wage income, not business income, and does not take into account law firm partners and other proprietors; we address this below.

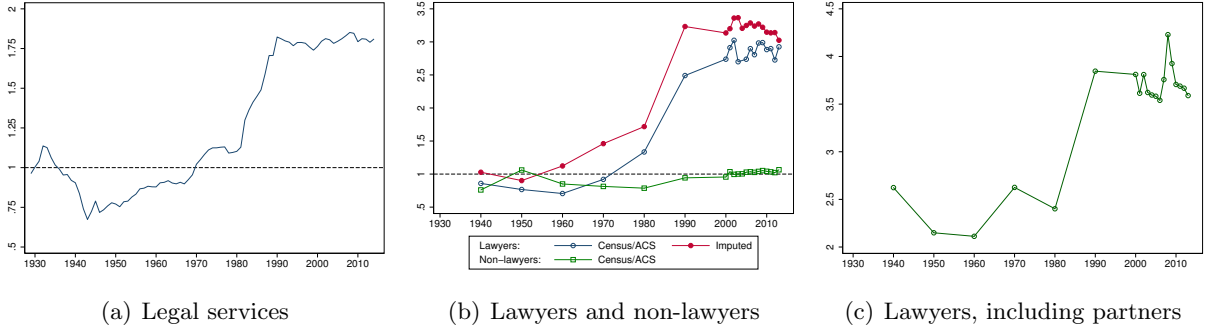
We define the relative wage of lawyers within legal services, $\omega_{lawyer|legal}$, as the ratio of the average labor income among all lawyers within legal services to $w_{nonlegal}$. We compute $\omega_{lawyer|legal}$ in two ways. First, we use Census and ACS data for both the numerator and denominator, denoted $\omega_{lawyer|legal}^{Cen/ACS}$:

$$\omega_{lawyer|legal}^{Cen/ACS} = \frac{w_{lawyer|legal}^{Cen/ACS}}{w_{nonlegal}^{Cen/ACS}}. \quad (7)$$

When doing so we make a simple top-coding adjustment. We multiply top-coded wages by 1.5 in 1940–2002. From 2003 we do not adjust top coded wages in the ACS, which reports all wages up to the 99.5th percentile by state of residence; above this threshold wages are coded as the state mean of wages above the state-specific 99.5th percentile. We drop 2004 because it is an extreme outlier in terms of the number of top-coded wage observations. See Appendix A for more information on top coding in the censuses and ACS.

The second methodology is designed to address top coding in the Census wage data. Here, we combine Census/ACS data with BEA data to impute the relative wage of lawyers. The average

Figure B3: Relative Wages for Legal Services, Lawyers and Law Firm Partners



Notes: The relative wage of legal services (in (a)) is the average wage in legal services divided by the average wage in the private sector, excluding legal services. This series uses BEA data on compensation of employees and full-time equivalent employment. The relative wage of lawyers and non-lawyers within legal services (in (b)) uses Census/ACS data on wages, relative to the average wage in the rest of the private sector. Relative wages of lawyers and law firm partners in legal services (in (c)) are imputed. The imputation uses the average wage and employment shares of non-lawyers employed in legal services from the Census/ACS together with the employment and average income of all persons engaged in legal services using BEA data.

wage in legal services can be written as

$$w_{legal} = \lambda w_{lawyer|legal} + (1 - \lambda) w_{nonlawyer|legal} , \quad (8)$$

where λ is the employment share of lawyers within legal services. We use Census/ACS data to compute the average wage of non-lawyer employees in legal services $w_{nonlawyer|legal}^{Cen/ACS}$, because we know that non-lawyers' wages are very rarely top-coded. Only 0.45% of non-lawyers in legal services report wages that are top coded compared to 11% for lawyers; as above, we multiply top-coded wages by 1.5 in 1940–2002, and make no adjustments from 2003 and on. We also know the employment share of lawyers within legal services from the Census/ACS, $\lambda^{Cen/ACS}$. Then, we use the BEA data to compute the average wage in legal services w_{legal}^{BEA} , which does not suffer from top-coding. Rearranging Equation (8) and using the series above we have:

$$\omega_{lawyer|legal}^{imputed} = \frac{w_{lawyer|legal}^{imputed}}{w_{nonlegal}^{BEA}} = \frac{w_{legal}^{BEA} - (1 - \lambda^{Cen/ACS}) w_{nonlawyer|legal}^{Cen/ACS}}{\lambda^{Cen/ACS}} \cdot \frac{1}{w_{nonlegal}^{BEA}} , \quad (9)$$

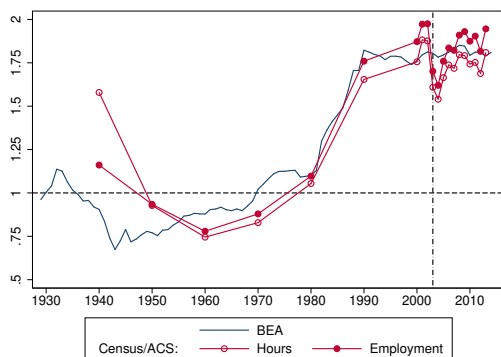
where $w_{nonlegal}^{BEA}$ is average non-legal services wages using the BEA data. One caveat with this approach is that the wage concept in the BEA data is labor compensation, while in the Census/ACS data several elements of compensation may not be represented. We have no way of correcting for this. Therefore, the accuracy of Equation (9) relies on the assumption that the share of missing compensation items in the $w_{nonlawyer|legal}^{Cen/ACS}$ series is small.

Figure B3(b) shows that relative wages of lawyers, using both methodologies, increase in 1960–1980, and then increase more sharply in 1980–1990. From 2000 and on both series are relatively flat, $\omega_{lawyer|legal}^{Cen/ACS}$ at around 2.85 and $\omega_{lawyer|legal}^{imputed}$ at around 3.2. Figure B3(b) also shows that there are hardly any relative wage gains for non-lawyers. Finally, we compute $\omega_{partners|legal}$ using BEA data on proprietors' income within legal services. Appendix Figure B5(a) shows that $\omega_{partners|legal}$ drops from 1929 to 1950, remains flat until 1960, and then increases almost linearly, except for

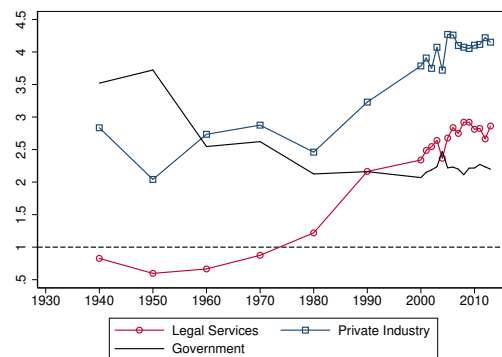
one big drop during 1978–1986. This is not driven by the number of proprietors, but by a drop in proprietors income, which is a pattern that we see across industries and is not specific to partners in the legal services industry (see Appendix Figure B5(b)). Using IRS data, both Sander & Williams (1989) and Rosen (1992) also find a drop in the proprietors’ income in legal services around the same time that we do in the BEA data. In Figure B3(c) we incorporate proprietors’ income into $\omega_{lawyer|legal}^{imputed}$: we add proprietors’ income to the numerator of ω_{legal}^{BEA} and take into account all persons engaged in the denominator, rather than just employees. We find that this series mimics the lawyers’ relative wage series in Figure B3(b), but at a much higher level, reflecting the higher compensation of partners.

It is reassuring that these two series, using different methodologies and data, agree with each other so well. Differences in denominators make it possible for both $\omega_{lawyer|legal}^{imputed}$ and $\omega_{nonlawyer|legal}^{cen/ACS}$ in Figure B3(b) to be above ω_{legal} in Figure B3(a) in early years. For example, in 1940 $\omega_{lawyer|legal}^{imputed} = 1.05$, $\omega_{nonlawyer|legal}^{cen/ACS} = 1.28$, and $\omega_{legal} = 0.9$. The reason is that denominator in $\omega_{nonlawyer|legal}^{cen/ACS}$ is $w_{nonlegal}^{cen/ACS}$, whereas in ω_{legal} it is $w_{nonlegal}^{BEA} > w_{nonlegal}^{cen/ACS}$. Since $\omega_{lawyer|legal}^{imputed}$ does not suffer from top coding, it is higher than $\omega_{lawyer|legal}^{Cen/ACS}$, which applies an imperfect top coding correction. The series are closer at the end of the sample, when top coding in $\omega_{lawyer|legal}^{Cen/ACS}$ becomes less restrictive. Figure B4 shows further robustness across samples.

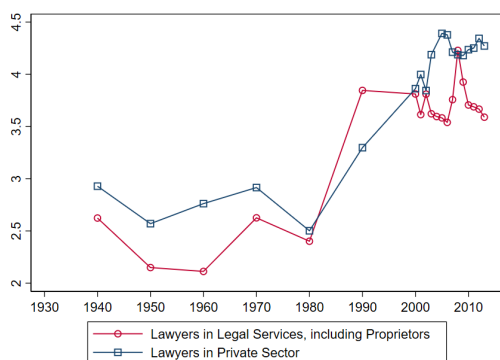
Figure B4: Relative Wages of Legal Services, Additional Series



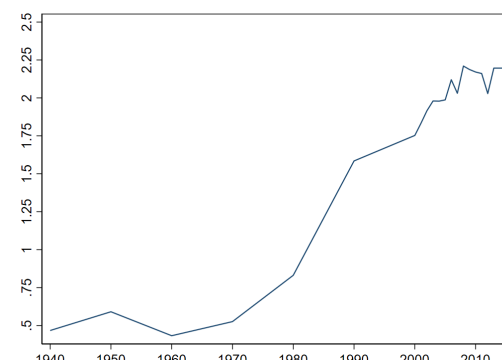
(a) Relative Wages Across 3 Data Sources



(b) Legal Services, Industry, and Govt



(c) Including Proprietor Income



(d) Lawyers Relative to College Graduates

Notes: In (a), all series are relative to non-legal services private sector. BEA relative wage series uses data on compensation of employees and full-time equivalent employment. Until 1997 data based on SIC; from 1998 data based on NAICS. Census/ACS series use data on wage bills and either hours worked (hourly relative wage, comparable to using FTE), or employment for observations that report non-missing wage bill information. Top coded wages are multiplied by 2 until 2002, inclusive; no adjustment is made from 2003 and on. The vertical dot-dashed line indicates the year 2003. In (b), wages of lawyers across sectors are relative to total non-lawyer wages. In (c) we include proprietors income. In (d), wages of lawyers are relative to college-graduate wages.

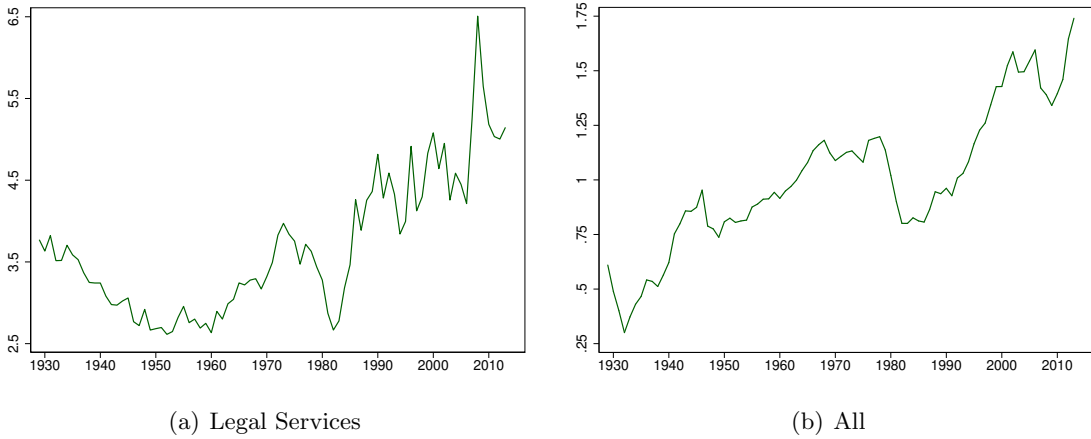
B.3 Relative income for Partners

Relative income for partners (proprietors) within legal services is defined as:

$$\omega_{partners|legal} = \frac{w_{partners|legal}}{w_{nonlegal}} . \quad (10)$$

The numerator of $w_{partners|legal}$ is proprietors income within legal services. Its denominator is the difference between full time equivalent employment of “persons engaged” and “employees”. Here, we use BEA data on wages and proprietor’s income.

Figure B5: Relative income of proprietors in the private sector



Notes: Total proprietors’ income in the private sector is divided by their full time equivalent employment (FTE) to obtain their income per FTE. This is divided by the average wage in the private sector, which is equal to labor compensation divided labors’ FTE. Source: BEA. Series splits in 1997 as industry classification changes from SIC to NAICS. In this case, the splicing changes virtually nothing, as the SIC and NAICS series are almost equal in the years in which they overlap.

B.4 Decompositions

We now consider the contribution of compositional changes across states. State bar examinations are barriers to mobility of lawyers across state borders. This makes states a natural unit of observation, because changes in lawyers’ employment within a state are likely mostly driven by new entry, and much less by mobility across states.

We decompose the changes in aggregate employment shares into between and within state changes using the following exact decomposition formula:

$$\Delta S = \underbrace{\sum_i \Delta n_i \bar{s}_i}_{\text{Between}} + \underbrace{\sum_i \bar{n}_i \Delta s_i}_{\text{Within}} , \quad (11)$$

where ΔS is the aggregate change in the employment share of legal services over the period and i denotes a state. The first sum, “Between”, captures the importance of compositional changes in state sizes, Δn_i , whereas the second sum, “Within”, captures the importance of within-state changes in employment shares, Δs_i . $\bar{s}_i$ is the average employment share of legal services within

state i during the period and $\bar{n}_i$ is the average employment share of state i .

Table B1 reports the results. The main takeaway is that factors that specifically affect demand for legal services and lawyers, and not economic activity in general, play an important role in explaining the aggregate changes. In particular, in 1970–1990, within-state changes account for virtually 100% of the aggregate changes. This may arise due to state-specific forces or federal-level changes that affect state-specific intensities. In contrast, factors that affect relative state sizes (employment), while keeping the proportion of lawyers fixed, are not important. Similarly, we find that within-state changes in relative wages matter much more than changes in the composition of states’ relative size.

Table B1: Decompositions of changes in employment shares across states

Period	A. Legal Services					B. Lawyers				
	Change	Between, %		Within, %		Change	Between, %		Within, %	
1880-1910*	-0.023	-0.001	5	-0.022	95	-0.105	-0.001	1	-0.104	99
1910-1930	0.079	0.015	19	0.064	81	0.021	0.008	38	0.013	62
1930-1950	-0.069	0.005	-7	-0.073	107	-0.066	0.003	-4	-0.068	104
1950-1970	0.107	-0.002	-2	0.109	102	0.029	-0.001	-5	0.031	105
1970-1990	0.584	-0.007	-1	0.591	101	0.237	-0.006	-2	0.243	102
1990-2010	0.026	-0.009	-36	0.035	136	0.011	-0.007	-62	0.018	162

Notes: The table reports decompositions of the Change in aggregate employment shares across states, using equation (1). We use employment of legal services and lawyers in legal services as a share of total employment in the economy. Change = Between + Within. The % are the percent of Between or Within in Change. *The Census of 1890 is not available. Sources: authors’ calculations based on data from U.S. Censuses (1880-2000) and American Community Surveys (2010).

B.4.1 Decomposition of wages

We perform the following decomposition of relative wages:

$$\Delta\omega = \underbrace{\sum_i \Delta n_i \bar{\omega}_i}_{\text{Between}} + \underbrace{\sum_i \bar{n}_i \Delta \omega_i}_{\text{Within}}, \quad (12)$$

where $\Delta\omega$ is the aggregate relative wage change of either legal services ω_{legal} or lawyers $\omega_{lawyer|legal}$ over some period. The first sum, Between, captures the importance of compositional changes in state sizes, whereas the second sum, Within, captures the importance of within-state changes in employment share. We also apply the decomposition (12) for ω_{legal} where i denotes occupations. Proprietors’ income is not reported at the state-level, so we cannot perform the decomposition (12) for $\omega_{partners|legal}$. Despite similar appearance, the components of (12) are different from those in (11), and we list them for the case of state-decomposition of ω_{legal} . Here Δn_i is the change in state i ’s share of total legal services employment, $\bar{\omega}_i$ is the average relative wage of legal services within state i relative to the aggregate $w_{nonlegal}$, $\bar{n}_i$ is state i ’s average share of total legal services employment, and $\Delta \omega_i$ is the change in the relative wage of legal services within state i relative to the aggregate $w_{nonlegal}$. Table B2 reports the results.

Table B2: Decompositions of changes in relative wages

A. Legal Services: Occupations					
Period	Difference	Between, %		Within, %	
1940-1950	-0.140	-0.013	10	-0.127	90
1950-1960	-0.141	0.004	-3	-0.145	103
1960-1970	0.102	0.000	0	0.101	100
1970-1980	0.189	-0.023	-12	0.212	112
1980-1990	0.586	-0.029	-5	0.615	105
1990-2000	0.094	-0.012	-13	0.107	113
2000-2010	0.140	0.038	27	0.103	73

B. Legal Services: Geography, across states					
Period	Difference	Between, %		Within, %	
1940-1950	-0.141	0.025	-18	-0.167	118
1950-1960	-0.140	-0.008	6	-0.131	94
1960-1970	0.102	0.002	2	0.100	98
1970-1980	0.189	0.003	2	0.186	98
1980-1990	0.586	0.008	1	0.577	99
1990-2000	0.094	-0.008	-8	0.102	108
2000-2010	0.140	-0.001	-1	0.141	101

C. Lawyers: Geography, across states					
Period	Difference	Between, %		Within, %	
1940-1950	-0.087	0.028	-33	-0.115	133
1950-1960	-0.065	0.013	-20	-0.079	120
1960-1970	0.214	-0.001	-1	0.216	101
1970-1980	0.415	0.014	3	0.401	97
1980-1990	1.156	0.014	1	1.142	99
1990-2000	0.247	0.005	2	0.242	98
2000-2010	0.131	0.009	7	0.122	93

Notes: The table reports decompositions of the Change in relative wages of legal services (panel A and B) or relative wages of lawyers in legal services (panel C), using equation (2). We use top-coded wages, using the 1.5 top coding adjustment in all years pre-2003. Relative wages are relative to non-legal wages in the private sector. Panel A decomposes relative wage in legal services over legal services employment shares of occupations. There are four occupations we consider: Lawyers, Clerical Workers, Paralegals, and Other. Other encompasses everyone not in the first 3 classifications. Panels B and C decompose relative wages over states. Change = Between + Within. The % are the percent of Between or Within in Change. Sources: authors' calculations based on data from U.S. Censuses (1940-2000) and American Community Surveys (2010).

B.4.2 Decomposition of fields

We perform the following decomposition of Lawyers' fields:

$$\Delta F = \underbrace{\sum_i \Delta n_i \bar{f}_i}_{\text{Between}} + \underbrace{\sum_i \bar{n}_i \Delta f_i}_{\text{Within}}, \quad (13)$$

where ΔF is the aggregate change in the share of lawyers in a given field in the U.S. from 1972 to 1992, i denotes a state, Δn_i is the change in the employment share of lawyers (regardless of field) in that state, $\bar{f}_i$ is the average field share of lawyers within state i during the period, $\bar{n}_i$ is the average lawyer share of state i , and Δf_i is the change in the field of law share within state i . The first sum captures the contribution of changes in the share of total lawyers in a state (the “between” share), whereas the second sum captures the importance of within-state changes in field of law share (“within”). Table B3 reports the results, and Table A3 describes the sample underlying the field decompositions.

Table B3: Decomposition of changes in fields of law across states, 1972-1992

Field	Difference	Between, %		Within, %	
Banking	0.019	0.000	2.1	0.018	97.9
Corporate	0.016	-0.006	-38.2	0.023	138.2
Criminal	0.011	0.000	2.5	0.011	97.5
Domestic	0.007	0.000	1.7	0.007	98.3
Insurance	0.035	0.002	5.0	0.033	95.0
Negligence	0.049	0.000	-0.9	0.049	100.9
Patent	0.000	0.000	53.0	0.000	47.0
Real Estate	0.007	0.000	4.5	0.007	95.5
Taxation	-0.003	-0.001	16.0	-0.003	84.0
Wills	-0.023	-0.002	7.1	-0.021	92.9
Other	0.130	0.002	1.6	0.128	98.4
General	-0.249	0.004	-1.5	-0.253	101.5

Notes: These are calculating using MSA totals of lawyers by field from the Census of Service Industries. The MSA level data are aggregated to the state-level. The sample is limited to include only MSAs which were included in the Census publication in 1972 and 1992. We end up with 42 MSAs over 28 states (see Appendix Table A3 for a list of the MSAs and states). This means that the differences in 1972 and 1992 shares (ΔF) will not exactly match the changes we would calculated if we used the U.S. total data (Table 3). More details on the data source and construction of the sample are included in Appendix A.

B.5 Composition of industry

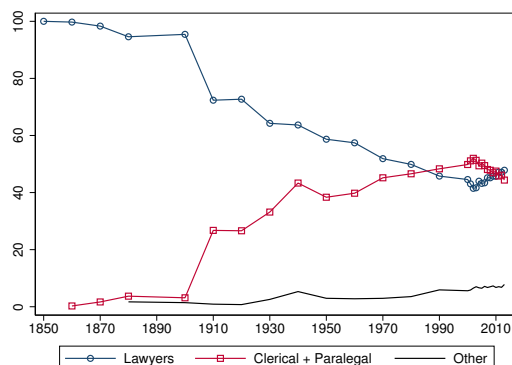
Before 1900, legal services were provided virtually only by lawyers (Figure B6). After 1900 the share of lawyers in legal services drops, first sharply to 72% in 1910, and then more gradually until it reaches 41% in 2002. The sharp drop in lawyers’ share within legal services and the commensurate rise of the share of clerical and paralegal staff in 1900–1910 coincides with the rapid diffusion of early ICTs (Yates, 2000), but there is no large change between 1970–1990.

Table B4 shows that the largest contributors to the increase in specialization between 1972–1992 are Negligence, Insurance, Banking, Corporate, and Domestic Law. The other categories, which are not listed in the table, include Governmental, Environmental, Real Estate, Patent, Criminal, Taxation and Wills. Taxation and Wills are the only categories to experience a decrease in this period. Meanwhile Governmental and Environmental Law emerge as categories during the period (Governmental in 1977 and Environmental in 1992)—the Census only reports categories with at least 1% market share, otherwise it is delegated to “Other”. As in Section B.4, we can decompose the changes in field shares into compositional changes in state employment of lawyers, and within-state changes in employment shares of each field. Across the U.S., lawyers became increasingly

specialized, and increases in any given field are not driven by compositional changes across states (Appendix Table B3).

Finally, we examine the industry composition of lawyers' employment, between legal services, industry and government. Appendix Figure B1(c) illustrates that most lawyers are employed in legal services, and that the evolution of their employment shares is different from those of lawyers in industry and in government.

Figure B6: Lawyers within Legal Services (%)



Notes: Employment in the legal services industry is sourced from the decennial Census from 1850–2000, and the American Community Survey from 2001–2015.

Table B4: Share of Lawyers by Field, 1972–1992

% Field	1972	1977	1982	1987	1992	Δ
General	58.5	58.0	43.4	30.3	28.3	-30.2
Specialized	41.5	42.0	56.6	69.7	71.7	30.2
<i>Specialization (ranked by change)</i>						
Other	6.6	7.7	12.4	15.4	18.2	11.7
Negligence	7.1	7.0	9.9	12.7	13.4	6.2
Insurance	2.0	2.1	3.5	4.9	5.9	3.9
Banking	2.8	2.3	3.5	5.3	4.5	1.8
Corporate	6.5	5.8	7.1	9.1	8.0	1.5
Domestic	1.1	1.7	2.2	2.7	2.6	1.5

Notes: The table reports percent shares from U.S. totals of lawyers by field from the Census of Service Industries; General and Specialized sum to 100, and the fields of specialization sum to the share of Specialized. Only fields whose share rose by at least 1.5 percentage points over 1972–1992 are shown, ordered by the size of the change.

B.6 Mincer regressions

The CPS's rich demographics let us ask whether changes in the composition of lawyers—gender, age, location—explain the aggregate rise in relative wages. This does not include non-wage income, and wages are top-coded; this will lead us to underestimate lawyers' wage premium, given that lawyers' wages are more likely to be top-coded than most other occupations. We deal with top-coding as explained earlier in this section (multiplying by 1.5 through 2002).

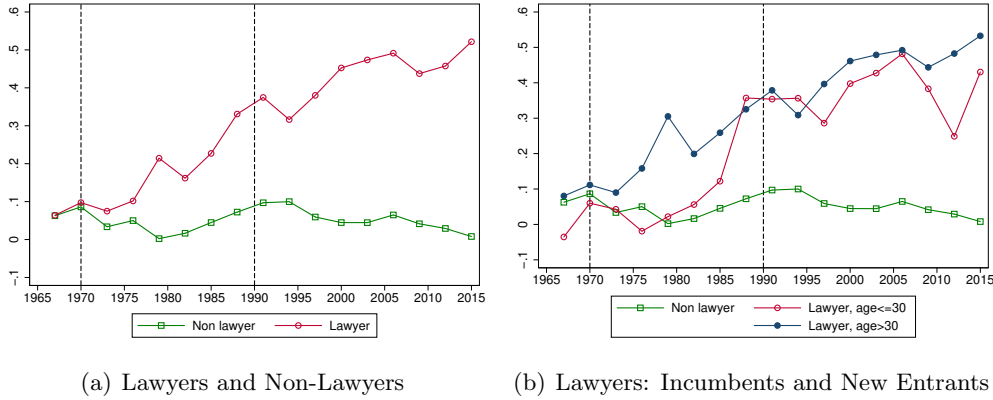
We estimate the following regression, separately for each three-year period:

$$\ln w_{it} = \alpha_t \cdot \mathbb{1}_{it}^{\text{lawyer|legal}} + \beta_t \cdot \mathbb{1}_{it}^{\text{non-lawyer|legal}} + x'_{it}\gamma_t + \varepsilon_{it}, \quad (14)$$

where w is the annual wage, $\mathbb{1}_{it}^{\text{lawyer|legal}}$ is a dummy for individuals employed as lawyers in legal services, and $\mathbb{1}_{it}^{\text{non-lawyer|legal}}$ is a dummy for non-lawyers employed in legal services. The vector x_{it} includes dummies for education levels, race, urban, gender, marital status, Metropolitan Statistical Area (MSA), industry, and experience and experience squared. As in much of the literature, we use the age minus the implied number of years of education minus 6 to gauge potential labor market experience. The coefficients on demographics can vary over time (γ_t), which captures, among other things, changes in returns to education.

Figure B7(a) shows the wage premia for lawyers (α_t) and non-lawyers (β_t) in legal services. The wage premium for lawyers increases from 0.1 to 0.4 over the period of 1970 to 1990. Neither changes in observable demographic characteristics of lawyers, nor changes in the overall skill premium explain the large increase in the relative wage of lawyers. There is no trend for non-lawyers in legal services, consistent with the aggregate series, which uses a different data source.

Figure B7: The Wage Premium for Lawyers



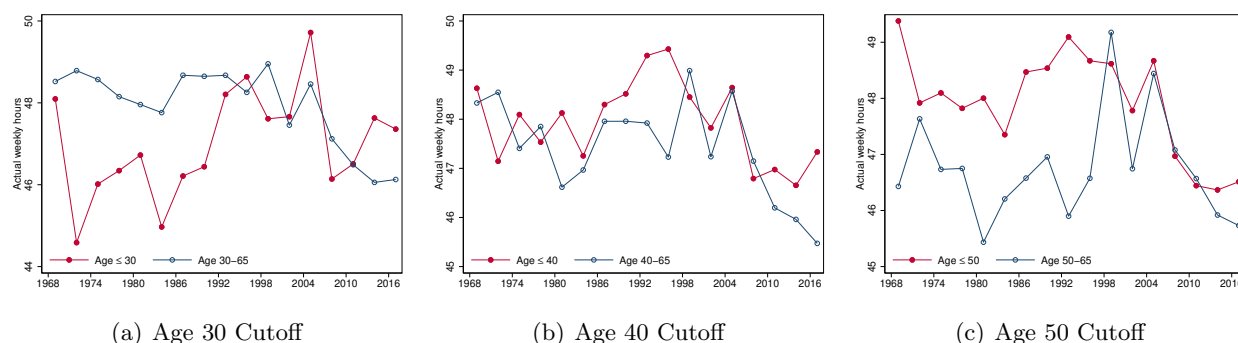
Notes: The figure displays the estimates of the wage premia for lawyers and non-lawyers in legal services (a), and the wage premia for lawyers above and under 30 years old (b). These two figures show the coefficients, α_t and β_t , from estimating equation (14) for each three year period, t (we pool data for consecutive three-year periods to attain better precision). The dependent variable is $\log(\text{annual wages})$. Source: CPS March Annual Supplement, 1968–2017.

Table B5: New Entrants by Year

Years	Share of Lawyers (%)	
	Age > 30	Age ≤ 30
1967-69	86.44	13.56
1970-72	74.24	25.76
1973-75	68.21	31.79
1976-78	68.56	31.44
1979-81	68.15	31.85
1982-84	74.62	25.38
1985-87	77.33	22.67
1988-90	79.93	20.07
1991-93	82.49	17.51
1994-96	85.41	14.59
1997-99	85.19	14.81
2000-02	85.89	14.11
2003-05	89.32	10.68
2006-08	91.94	8.06
2009-11	89.50	10.50
2012-14	89.38	10.62
2015-17	88.94	11.06
Total	84.80	15.20

Notes: This table presents the share of lawyers by age. The year is the year of income accrual. These shares help interpret Figure B7(b), which shows how the wage premia evolve for young lawyers. Source: CPS March Annual Supplement, 1968-2017.

Figure B8: Hours Worked Per Lawyer



Notes: Each panel plots the mean number of hours worked last week for lawyers (occ1950 = 55), by age group, using the March CPS. Observations are grouped into non-overlapping three-year cells, and the sample is restricted to employed lawyers aged 65 or younger who were at work in the reference week, 1968–2016. Panels (a), (b), and (c) split lawyers at ages 30, 40, and 50, respectively. Source: CPS March Annual Supplement, 1968-2017.

C Legislative Uncertainty and the Demand for Lawyers

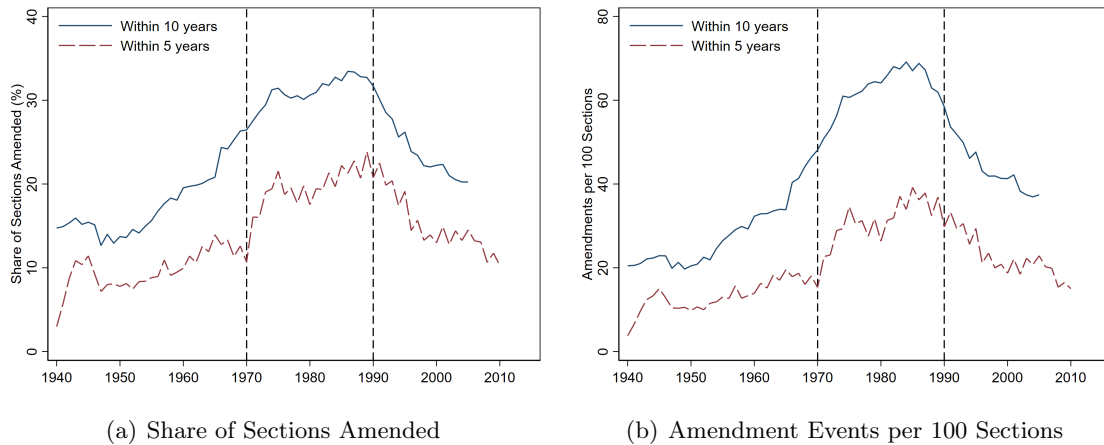
This appendix describes the construction of our measures of the uncertainty of the law, and reports the corresponding figures. It then shows how we use the uncertainty measure to calibrate our counterfactual.

C.1 Measures of Legislative Uncertainty

The forward amendment rate. The U.S. Code records, in each section’s source credit, the date the section was enacted and every public law that subsequently amended it. We parse the source credits of the 48,738 sections of the 2015 edition of the Code. Each section is dated by its year of enactment, which allows us to reconstruct, for every year t , the stock of sections in force. Sections repealed before 2015 are not observed and wholesale recodifications of the code reset enactment dates (this is relevant for Titles 11, 17, and 49).

For the stock of sections in force in year t , we count subsequent amendments, excluding amendments to sections enacted after t , so that the measure describes the law already on the books at t . We compute two versions. The *share* version is the share of sections in force in year t that are amended at least once within the following five or ten years. The *events* version counts amendment events per 100 sections in force, so a section amended three times contributes three events; it captures the intensity of revision, not only its incidence. The ten-year series end in 2005 and the five-year series in 2010, so that every window is complete within the 2015 edition. Figure C1 displays all four series. Amendment activity is low and stable between 1940-1960, rises steeply from the mid-1960s, peaks in the mid-1980s, and falls back thereafter. The ten-year share version is the series used in the main text (Figure 4(b)); but we use the 5-year forward share for the 5 year prediction regressions (Table 1).

Figure C1: Forward Amendment Rate of the U.S. Code: Five- and Ten-Year Windows



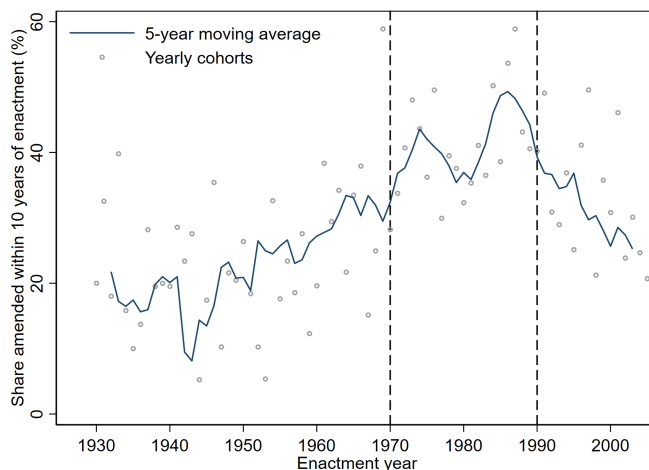
Notes: This figure shows the forward amendment rate of Figure 4(b) for both five- and ten-year windows. In panel (a), the series is the share of the sections in force in year t that are amended at least once in the following five or ten years. In panel (b), the series is the number of amendment events in the following five or ten years per 100 sections in force in year t , so a section amended three times contributes three events. Amendments to sections enacted after year t are excluded. The ten-year series ends in 2005 and the five-year series in 2010, so that every window is complete in the 2015 edition. Dashed vertical lines mark 1970 and 1990.

The cohort measure. The forward amendment rate is computed on the stock of law in force, so its level partly reflects the age composition of the Code: young sections are amended more often, and the legislative boom made the stock of the 1970s and 1980s unusually young. The cohort version of the measure holds age fixed. For the sections enacted in each year t (the enactment cohort), we compute the share amended at least once within ten years of enactment, so that every cohort is observed over the same first decade of life; the series is censoring-safe through the 2005 cohorts. Figure C2 plots the yearly cohorts together with a cohort-size-weighted centered five-year moving average. The cohort series traces the same inverted U as the stock-based series, peaking for the cohorts enacted in the mid-1980s.

Size and complexity of the U.S. Code. Figure C3 puts the amendment measure in context, using the point-in-time editions of the Code assembled by Jeong et al. (2026). The size of the Code—words and sections per capita—grows steadily over the whole period, and its linguistic complexity (entropy, and the corresponding perplexity) moves comparatively little after 1980. Length and linguistic complexity are markers of specification rather than of ambiguity—highly specified law is long and intricate, like the tax code, while open-ended law is often short—so the flat complexity series indicates that the post-1980 expansion of the Code did not come with commensurately more detailed drafting. It is the unsettledness of the law, rather than the size or language of the statutes, that varies over the 1970–1990 window.

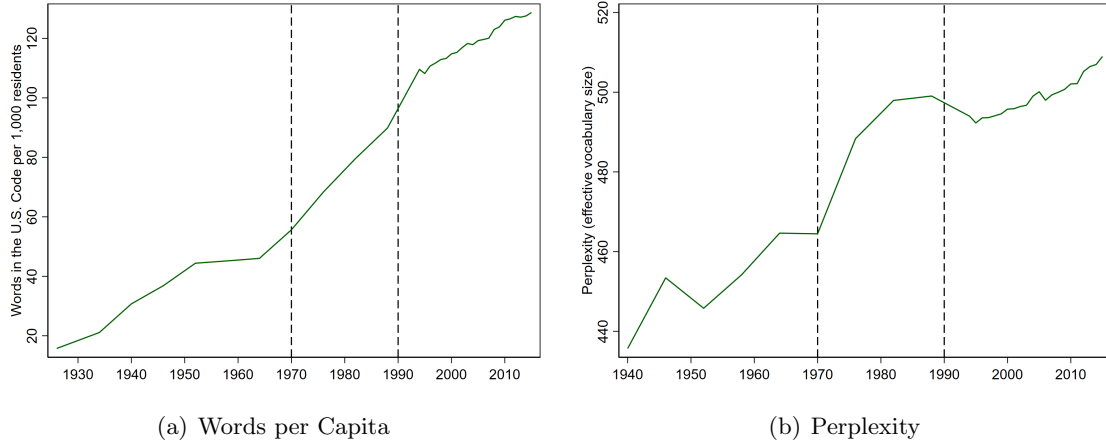
Completeness in State legislation. Figure C4 reports the corresponding measures for state legislation, from the replication data of Ash et al. (2025): the volume of legislation introduced (pages per state and year), and the share of contingent provisions in the legal text, our ex ante measure of statutory ambiguity—fewer contingencies imply a less complete, more ambiguous law.

Figure C2: Amendment of the U.S. Code by Enactment Cohort



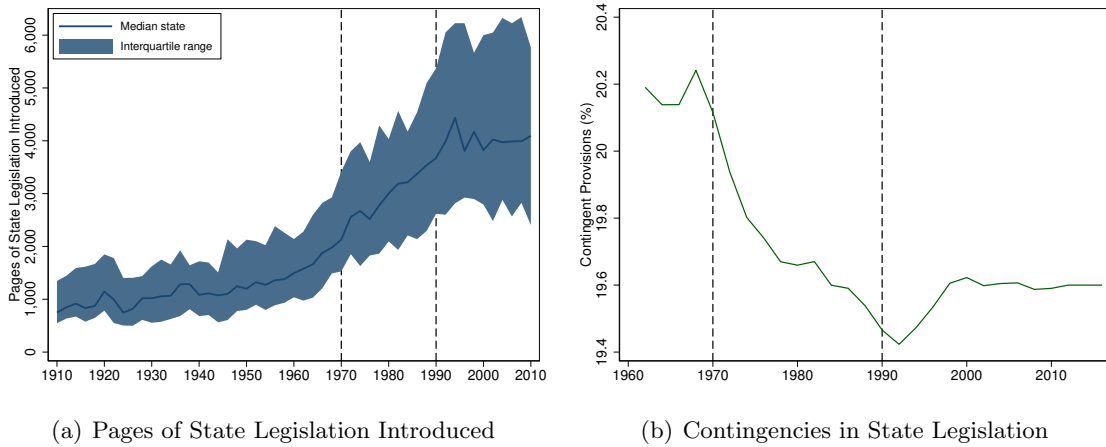
Notes: For the sections of the U.S. Code enacted in each year (the enactment cohort), the figure shows the share amended at least once within ten years of enactment. Hollow circles are yearly cohorts; the solid line is a cohort-size-weighted centered five-year moving average (pooling cohorts $t - 2$ to $t + 2$). Unlike the forward amendment rate of Figure C1, which is computed on the stock of law in force, the cohort measure compares sections at the same age, so it is unaffected by changes in the age composition of the Code. The series is censoring-safe through the 2005 cohorts of the 2015 edition. Dashed vertical lines mark 1970 and 1990.

Figure C3: Size and Complexity of the U.S. Code



Notes: Series are computed from the point-in-time editions of the U.S. Code assembled by Jeong et al. (2026); editions are six-yearly from 1926 to 1988 and annual from 1994. Panel (a) shows the total word count of the Code per 1,000 residents. Then, we compute the linguistic entropy of the Code—the word-count-weighted mean across titles of the Shannon entropy of each title’s word distribution—the language complexity measure of Katz & Bommarito (2014). Panel (b) shows the corresponding perplexity (2^H), the number of equally likely words that would generate the same uncertainty; it is a monotone rescaling of entropy. Dashed vertical lines mark 1970 and 1990.

Figure C4: State Legislation: Volume and Contingent Provisions



Notes: Panel (a) shows the pages of legislation introduced per state and year: the solid line is the median state and the shaded band is the interquartile range across states. The average state introduced 2,914 pages in 1970 and 4,528 pages in 1990. Panel (b) shows the share of “contingent” legal provisions in state legislation. The source for both panels is the replication data of Ash et al. (2025), which measures contingent provisions from 1968–2016 and contingencies per sentence from 1962–2014; we splice the two series and use the spliced series before 1968 to extend the sample. Dashed vertical lines mark 1970 and 1990.

C.2 Uncertainty and the Counterfactual

Table C1 reports regressions, in levels, of employment shares on the lagged amendment rate, estimated annually over 1960–2013. Conditional on the pages of federal regulation, each additional amendment per 100 sections raises lawyers’ employment share by 0.0011 percentage points. An elasticity (log-log) specification yields a smaller net-of-scope attribution of 3–5%. The levels estimates are statistically significant for both outcomes and stable across lag choices for the scope control, and they line up with an alternative attribution based on the share of contingent provisions in state legislation, which implies roughly 9–12%.

Table C1: Uncertainty of the Law and Demand for Lawyers

	Emp. Share, Lawyers (%)			Emp. Share, Legal Services (%)		
	(1)	(2)	(3)	(4)	(5)	(6)
Forward Amendment Rate _{(t-10,t]}	0.0057*** (0.0011)		0.0011*** (0.0003)	0.0150*** (0.0028)		0.0024*** (0.0004)
Federal Regulation Pages p.c.t-10		0.0018*** (0.0001)	0.0016*** (0.0001)		0.0049*** (0.0001)	0.0044*** (0.0001)
R-squared	0.61	0.97	0.98	0.60	0.98	0.99
Observations	54	54	54	54	54	54

Notes: The table shows the relationship, in levels, between the forward amendment rate of the U.S. Code and employment shares, estimated annually over 1960–2013. The outcome variable is the employment share of lawyers in legal services in Columns (1)–(3) and the employment share of the legal services industry in Columns (4)–(6), in percent of private employment. The Forward Amendment Rate is the rate shown in Figure 4(b), lagged 10 years, so that the amendment window is fully realized before the outcome is measured. Federal Regulation Pages is pages of federal regulation per capita, our measure of the scope of the law, also lagged 10 years to be consistent with the amendment rate. These coefficients calibrate the counterfactual demand shifts in Figure 8: Columns (3) and (6) provide the net-of-scope attribution and Columns (1) and (4) the upper bound. An elasticity (log-log) specification yields net-of-scope coefficients of 0.048 (s.e. 0.035) for lawyers and 0.074 (s.e. 0.029) for legal services, implying an attribution of 3–5%. * p<0.1, ** p<0.05, *** p<0.01.

In order to compute rw_{legal}^{1970+} we start by writing the average wage in legal services as in equation (8), a weighted average of lawyers’ and non-lawyers’ wages, and adjust the wage of lawyers for the aggregate growth rate in college wages from 1970 to 1990 (about 6 percent in the data), denoted g . Then $rw_{legal}^{1970+} = \frac{\lambda w_{lawyer|legal}^{1970(1+g)} + (1-\lambda)w_{nonlawyer|legal}^{1970}}{w_{total}^{1970}} = \left[g\lambda_{legal}^{law} \left(w_{legal}^{law,1970} / w_{legal}^{1970} \right) + 1 \right] rw_{legal}^{1970}$.

For proprietors, the calculation is:

$$\text{excess}_{\text{INCsh}_{legal}^{1990}} = \text{INCsh}_{legal}^{1990} - \text{SELFsh}_{legal}^{1990} \cdot z_{legal}^{1970} = 0.04,$$

where INCsh is proprietors’ income share in total proprietors’ income in the private sector, SELFsh is self employment, and z is the ratio of average income of self employed in legal services relative to the average income of self employed in the private sector. The calculation implies that proprietors’ income in legal services was 4 percentage points in excess of 1970. Comparing this to the actual $\text{INCsh}_{legal}^{1990}$, which was 10.3 percent, we have an excess payment of 39% to proprietors in legal (all of which we assume are lawyers).

D Litigation model

In this Appendix we provide more details on the model (Section 3.4). We start by summarizing the setup in Hirshleifer & Osborne (2001), highlighting the results that we build upon. In Section D.2 we provide the closed-form solution for the entry condition used in the text, in Section D.3 we go through the model predictions for scope and in D.4 we do the same for an increase in uncertainty. In Section D.5 we solve the model for the fee-shifting regime. Finally, in Section D.6 we extend the model to include a stage where defendants can make a defensive legal investment before the litigation game.

D.1 Setup and the “American rule” benchmark

A risk-neutral Plaintiff (p) and Defendant (d), with common knowledge of all parameters, choose litigation efforts L_p and L_d at cost $C_i = \gamma L_i$, $i \in \{p, d\}$. The value of the lawsuit is $V_i = \pi J_i - C_i$, where $J_p = J > 0$, $J_d = -J$, and π is the probability that the plaintiff wins, determined by the Litigation Success Function

$$\frac{\pi}{1 - \pi} = \left(\frac{L_p}{L_d} \right)^\alpha \frac{Y}{1 - Y}, \quad (15)$$

which is equivalent to

$$\pi = \frac{L_p^\alpha Y}{L_p^\alpha Y + L_d^\alpha (1 - Y)}.$$

Under the American rule, where each side pays its own legal fees, the Nash equilibrium is symmetric: $\pi = Y$ and $L_p = L_d = \alpha (J/\gamma) Y(1 - Y)$. Total cost for society is therefore $2\alpha JY(1 - Y)$ (the stakes J is a transfer), and the equilibrium values of the lawsuit are $V_p = JY [1 - \alpha(1 - Y)]$ and $V_d = -JY [1 + \alpha(1 - Y)]$. Stability of the equilibrium requires $\alpha < 2$ (Tullock, 1980).

D.2 Entry into litigation

We start by formalizing the entry stage of the model in Section 3.4. There is a mass of potential disputes, which we normalize to 1. It is useful to distinguish three probabilities: (1) the “natural” probability that a conflict in fact hurts the plaintiff; (2) the merit $Y \in [0, 1]$, which is how the letter of the law interprets that probability—the probability that the court rules for the plaintiff absent any effort; and (3) the probability π that the plaintiff wins once equilibrium litigation effort is taken into account, through the LSF. The law is the mapping from conflicts into merit, and we describe the resulting distribution of merit across potential disputes by a CDF $G(Y)$.

The entry threshold. Entering litigation carries a fixed cost $F > 0$, incurred regardless of stakes or effort. Using the equilibrium value of the lawsuit for the plaintiff under the American rule, the plaintiff sues if and only if

$$V_p = JY [1 - \alpha(1 - Y)] \geq F,$$

i.e., if and only if $\alpha Y^2 + (1 - \alpha)Y - f \geq 0$, where $f \equiv F/J$. The economically relevant root is

$$Y^* = \frac{-(1 - \alpha) + \sqrt{(1 - \alpha)^2 + 4\alpha f}}{2\alpha}. \quad (16)$$

All disputes with $Y \geq Y^*$ are litigated, i.e., a proportion $1 - G(Y^*)$ of potential disputes. The threshold has the following properties:

1. Y^* is increasing in F and decreasing in J . If $F = J$ then $Y^* = 1$ regardless of α , so we require $F < J$ (i.e., $f < 1$) for an interior threshold. Priest & Klein (1984) estimate total litigation costs to be around one third of the stakes, so fixed costs alone are well below J .
2. Y^* is increasing in α . To see this, define $S \equiv \sqrt{(1 - \alpha)^2 + 4\alpha f}$ and write $Y^* = (\alpha - 1 + S)/(2\alpha)$. Differentiating,

$$\frac{\partial Y^*}{\partial \alpha} = \frac{S - 1 + \alpha - 2\alpha f}{2\alpha^2 S},$$

whose sign is that of $S - (1 - \alpha + 2\alpha f)$. Both terms are positive, and squaring gives $S^2 - (1 - \alpha + 2\alpha f)^2 = 4\alpha^2 f(1 - f) > 0$ for $0 < f < 1$. Intuitively, when the outcome is more sensitive to effort, the plaintiff anticipates a more expensive legal battle, which raises the merit required to make suing worthwhile.

Total cost. In the symmetric Nash equilibrium each litigated case costs $2\alpha JY(1 - Y) + F$, so total litigation costs are proportional to

$$\begin{aligned} TC &\propto \underbrace{[1 - G(Y^*)]}_{\text{extensive margin}} \cdot \underbrace{E[2\alpha JY(1 - Y) \mid Y \geq Y^* + F]}_{\text{intensive margin}} \\ &= 2\alpha J \int_{Y^*}^1 Y(1 - Y) dG(Y) + F \int_{Y^*}^1 dG(Y), \end{aligned}$$

which is the expression for total cost in equation (2) of the main text.

We now provide details on the predictions that arise from our three institutional changes of interest: scope, uncertainty, and fee-shifting.

D.3 Expansion of the scope of the law

A dispute over conduct that the law does not cover has no legal basis. In other words, merit $Y = 0$, no matter the harm, and no amount of effort can win the case. We represent the reach of the law by a mass point G_0 at $Y = 0$:

$$G(Y) = G_0 \cdot \mathbf{1}\{Y \geq 0\} + (1 - G_0) \cdot \tilde{G}(Y), \tag{17}$$

where $\tilde{G}(Y)$ is a CDF on $[0, 1]$. It is straightforward to show that if $\tilde{G}(Y)$ is a CDF and Y has support $[0, 1]$, then $G(Y)$ is also a CDF. An expansion of the scope of the law is a reduction in G_0 , with the mass redistributed over $(0, 1]$. Since Y^* does not depend on G , the reduction in G_0 strictly increases $1 - G(Y^*)$ as long as $Y^* > 0$, i.e., when $F > 0$. Total cost rises through the extensive margin.

D.4 Increase in uncertainty

We model uncertainty as a concentration of G toward $Y = 1/2$, where merit is most uncertain. A convenient parameterization is the symmetric beta distribution, $\text{Beta}(b, b)$, $b > 0$, where

$$g(Y) = \frac{1}{\beta(b, b)} [Y(1 - Y)]^{b-1}.$$

with mean and mode $1/2$ and variance $1/[4(2b + 1)]$, which is decreasing in b . Here

$$\beta(b, b) = \frac{\Gamma(b + b)}{\Gamma(b)\Gamma(b)}$$

and $\Gamma(z)$ is the gamma function. When $b = 1$, Y is distributed uniform; a higher b concentrates merit toward the contested middle. We consider here $b \geq 1$, but the results extend to other admissible values of b .

Uncertainty raises entry (the extensive margin) as long as the entry threshold lies below the contested middle, $Y^* < 1/2$. From (16), $Y^* < 1/2$ requires $\sqrt{(1 - \alpha)^2 + 4\alpha f} < 1$, i.e., $\alpha(\alpha + 4f - 2) < 0$, and thus

$$f < \frac{2 - \alpha}{4}, \quad (18)$$

which is the condition in the footnote in Section 3.4. Since $0 < \alpha < 1$, the bound varies between $1/4$ and $1/2$, so $f < 1/4$ suffices for any α . We note again that Priest & Klein (1984) estimate total litigation costs to be around one third of the stakes, so the share of fixed costs in stakes (f) is likely substantially lower than $1/4$.

Given $Y(1 - Y)g(Y; b, b) = [\beta(b + 1, b + 1)/\beta(b, b)]g(Y; b + 1, b + 1)$ and $\beta(b + 1, b + 1)/\beta(b, b) = b/[2(2b + 1)]$, we can derive the total cost under the Beta distribution:

$$TC = 2\alpha J \cdot \frac{b}{2(2b + 1)} [1 - I_{Y^*}(b + 1, b + 1)] + [1 - G(Y^*)]F,$$

where $I_Y(a, b)$ is the regularized incomplete beta function; average cost per litigated case is $EC = TC/[1 - G(Y^*)]$, and similarly $E[Y | Y \geq Y^*] = \frac{1}{2} [1 - I_{Y^*}(b + 1, b)] / [1 - G(Y^*)]$.

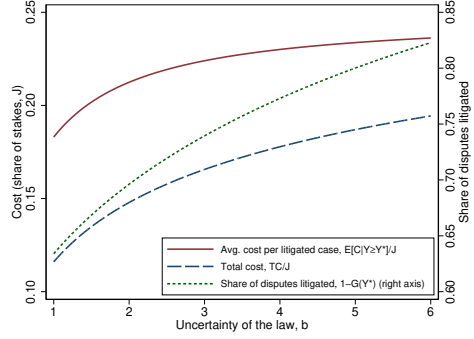
Table D1 evaluates these expressions at $\alpha = 0.5$ and $f = 0.25$ (this gives $Y^* = 0.37$), normalizing $J = 1$. The right panel plots the table's series. As uncertainty rises, more disputes are litigated, each litigated case is costlier on average, and total litigation costs rise. At the same time, the average merit of litigated cases ($E[Y | Y \geq Y^*]$) falls: uncertainty draws relatively weak cases into court, lowering the average quality of litigated cases. Figure 5(b) illustrates the mechanism: a higher b moves the mass of disputes above the entry threshold Y^* and toward $Y = 1/2$, exactly where the cost per case, $2\alpha JY(1 - Y)$, is greatest.

D.5 Asymmetric fee-shifting in favor of the plaintiff

In general, fee-shifting in the U.S. is asymmetric, in favor of the plaintiff. This is in the spirit of the motivation of the fee-shifting statutes, which were enacted to help plaintiffs mount a case. This depends on the fee-shifting statute, and there can be exceptions for extreme cases. For example, according to the civil rights fee-shifting statute the plaintiff pays for the legal fees of the defendant "if the litigation is unreasonable, frivolous, or meritless".

Table D1: Legislative uncertainty: entry, costs, and case quality

b	$1 - G(Y^*)$	$E[C Y \geq Y^*]$	TC	$E[Y Y \geq Y^*]$
1	0.633	0.091	0.340	0.683
2	0.696	0.106	0.386	0.616
3	0.739	0.112	0.409	0.584
4	0.772	0.115	0.423	0.566
5	0.800	0.117	0.434	0.553
6	0.822	0.118	0.442	0.544



(a) Simulated outcomes

(b) Entry and costs

Notes: Merit is distributed $\text{Beta}(b, b)$; a higher b means a more uncertain legal environment. In Panel (a) $1 - G(Y^*)$ is the share of disputes litigated; EC is the average cost per litigated case net of the fixed cost (for the plaintiff) and TC is total litigation costs including the fixed cost, both as a share of the stakes J ; the last column is the average merit of litigated cases. Panel (b) plots the series from (a): the average cost per litigated case, $E[C|Y \geq Y^*]$, and total litigation costs per potential dispute (both as a share of J), and the share of disputes litigated, $1 - G(Y^*)$ (right axis), as the merit distribution concentrates toward $1/2$. Parameters: $\alpha = 0.5$, $F/J = 0.25$, so $Y^* = 0.37$.

We extend the model to include fee shifting, where all plaintiff costs—both effort costs and fixed costs—are reimbursed by the defendant if the plaintiff wins. Here stability of the equilibrium requires $\alpha < 1$. We then compare the equilibrium to the symmetric baseline model without fee shifting (the “American rule”).

The plaintiff’s problem. After the fixed cost F is sunk, which can only be recuperated if the plaintiff wins, the plaintiff chooses L_p to maximize

$$V_p = \pi(J + F) - (1 - \pi)\gamma L_p.$$

The first-order condition yields

$$L_p = \frac{J + F}{\gamma} \frac{\alpha\pi}{1 - \alpha\pi}. \quad (19)$$

The defendant’s problem. The defendant chooses d to maximize

$$V_d = -\pi(J + F) - \pi\gamma L_p - \gamma L_d.$$

The defendant pays their own legal costs, γL_d , with certainty. If they lose, which occurs with probability π , they pay the stakes, J , plaintiff’s fixed costs, F , and plaintiff’s legal fees γL_p . The first-order condition yields

$$L_d = \left(\frac{J + F}{\gamma} + L_p \right) \alpha\pi(1 - \pi) \quad (20)$$

Using (19) in (20) gives

$$L_d = \frac{J + F}{\gamma} \frac{\alpha\pi}{1 - \alpha\pi} (1 - \pi).$$

Expected costs (expenditure on lawyers) for the plaintiff and the defendant are given, respec-

tively, by:

$$\begin{aligned} C_p(\pi) &= (1 - \pi)[\gamma L_p(\pi) + F] = \gamma L_d(\pi) + (1 - \pi)F \\ C_d(\pi) &= \gamma L_d(\pi) + \pi[\gamma L_p(\pi) + F] = \gamma L_p(\pi) + \pi F. \end{aligned}$$

The (expected) expenditure on lawyers of each side to the dispute C_i are equal to the *adversary's* variable costs on lawyers γL_{-i} plus the probability that they do not prevail times the fixed cost. Total costs as a function of π are:

$$TC(\pi) = C_p(\pi) + C_d(\pi) = \gamma L_p(\pi) + \gamma L_d(\pi) + F,$$

which is the same expression as in the symmetric case, only with different values for L_i . Since π is a monotone function of merit, all equilibrium outcomes, in particular L_p and L_d , are functions of the primitive Y .

A few results emerge:

1. The plaintiff applies more effort than the defendant, by a factor of $1/(1 - \pi) > 1$.
2. The probability that the plaintiff wins is greater than in the case with no fee-shifting. Using $L_d = L_p(1 - \pi)$ in (15) gives the LSF

$$\frac{\pi}{1 - \pi} = \left(\frac{1}{1 - \pi} \right)^\alpha \frac{Y}{1 - Y},$$

which implies that $\pi > Y$ for any $\pi \in (0, 1)$ and $\alpha < 1$ because $(1/(1 - \pi))^\alpha > 1$. An alternative way to write the LSF is

$$\pi(1 - \pi)^{\alpha-1} = \frac{Y}{1 - Y},$$

the root of which gives $\pi(Y)$. It is straightforward to verify that $\pi'(Y) > 0$, $\pi(0) = 0$ and $\pi(1) = 1$.

3. The plaintiff exerts more effort compared to the case with no fee-shifting (except at $Y = 0$): since $\pi > Y$,

$$L_p = \frac{J + F}{\gamma} \frac{\alpha\pi}{1 - \alpha\pi} > \frac{J + F}{\gamma} \alpha\pi > \frac{J + F}{\gamma} \alpha Y (1 - Y) > \underbrace{\frac{J}{\gamma} \alpha Y (1 - Y)}_{\text{American rule effort}}.$$

4. The defendant exerts more effort compared to the case with no fee-shifting, except when merit is very high. See Figure D1(b) below.
5. Total cost for society for a given level of merit is higher than in the case with no fee-shifting. See Figure D1(c) below.
6. The plaintiff's effort L_p increases with her claim's merit Y . With $L_d = L_p(1 - \pi)$, the LSF can be written as $Y/(1 - Y) = \pi(1 - \pi)^{\alpha-1}$, whose right side is strictly increasing in π

(its derivative is $(1 - \pi)^{\alpha-2} (1 - \alpha\pi) > 0$), so π is increasing in Y . From (19), $dL_p/d\pi = \alpha(J/\gamma) / (1 - \alpha\pi)^2 > 0$. Hence L_p increases with Y . See Figure D1(b) below.

7. Effort for the defendant L_d is hump-shaped in the plaintiff's merit Y . Differentiating L_d with respect to π ,

$$\frac{dL_d}{d\pi} = \alpha \frac{J + F}{\gamma} \frac{1 - 2\pi + \alpha\pi^2}{(1 - \alpha\pi)^2},$$

which is positive for small π and negative for large π . Since π is increasing in Y , defendant effort is hump-shaped in merit. Effort peaks at the economic root of $\alpha\pi^2 - 2\pi + 1 = 0$.

8. While the plaintiff's effort increases with merit and the defendant's effort exhibits a hump-shape, the expected costs paid to lawyers by each party exhibit the opposite pattern. As the plaintiff's merit increases, her additional effort increases costs, but also increases her chances of winning the case and not paying lawyer fees. Eventually, this reduces her expected expenditure on lawyers to zero at $Y = 1$, since at that point $\pi = 1$. In contrast, the defendant's costs increase monotonically with merit. See Figure D1(d) below.

Entry. Entry increases if $V_p(Y)$ increases around the cutoff Y^* for the American rule, triggering a reduction in Y^* . Fee-shifting expands entry when α is below a certain threshold α^* . The threshold α^* increases with the ratio F/J and is never below 0.618 for any ratio $F/J > 0$. For example, $\alpha^* \approx 0.88$ when $F/J = 0.2$. When $\alpha > \alpha^*$ fee shifting may actually reduce $V_p(Y)$ compared to the American rule for a range of relatively low values of Y . The reason for this is that when α is high and plaintiff merit is low the defendant's response has a strong effect on the probability that the plaintiff wins. While this is not enough to overturn the result that π always increases when moving to the fee shifting regime, the plaintiff's costs for obtaining this in equilibrium may rise more than the expected gain if she wins. This is a manifestation of the inefficiency in tournaments.

We characterize α^* , which is a value of α for which Y^* is equal in the symmetric case and in the fee shifting regime, by solving a system of equations for a specific value of f . Equation (21) defines Y^* in the symmetric case. Equation (22) defines $\pi^* = \pi(Y^*)$ in the fee shifting regime, which is the probability of winning at the entry threshold Y^* with fee shifting; it is derived by setting $V_p = F$ in the fee shifting regime. Equation (23) is the LSF with fee shifting. If Y^* in the symmetric case and $\pi(Y^*)$ in the fee shifting regime solve (23), then we know that Y^* is the same in both the symmetric case and in the fee shifting regime.

$$\alpha Y^2 + (1 - \alpha)Y - f = 0 \tag{21}$$

$$\pi - \frac{f}{1 - \alpha + f} = 0 \tag{22}$$

$$\pi(1 - \pi)^{\alpha-1} - \frac{Y}{1 - Y} = 0 \tag{23}$$

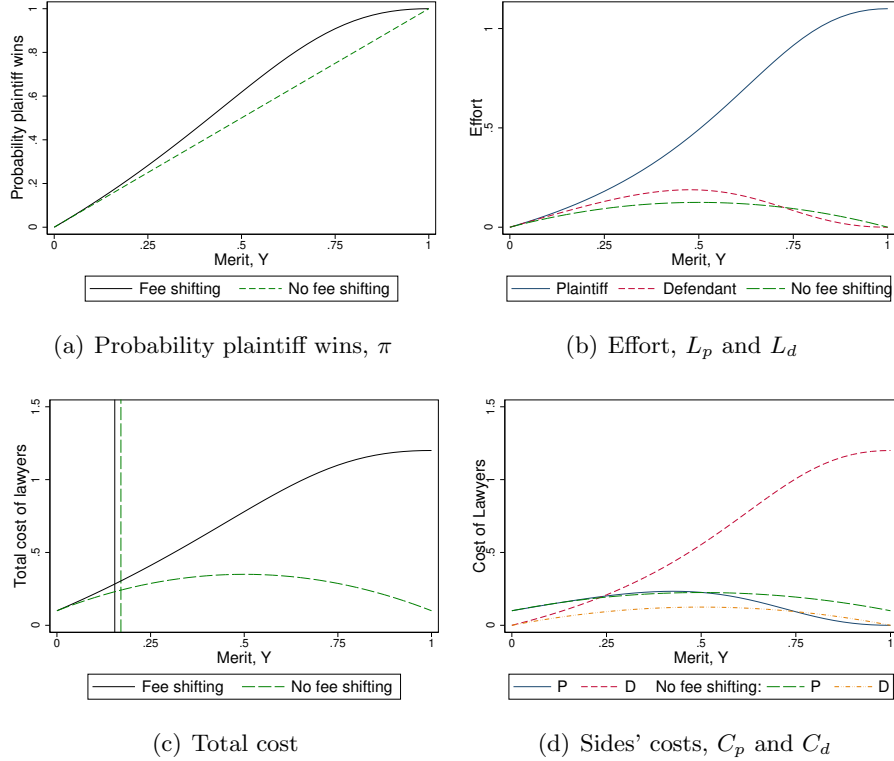
There are three unknowns in equations (21)–(23): Y^* , π^* and α^* . We use this property to solve for the remaining unknown α^* following these steps (for a fixed value of f): First, solve (21) for $Y^*(\alpha)$; the root is given by (16). Second, solve (22) for $\pi^*(\alpha)$. Third, search for α that solves (23) for $Y^*(\alpha)$ and $\pi^*(\alpha)$. The α that solves (23) is α^* . Table D2 reports values of α^* , Y^* and $\pi^*(\alpha)$ by f that were obtained by this algorithm. Our numerical exercises illustrate that, given a value of f , when $\alpha > \alpha^*$ V_p drops for a range of Y and, therefore, Y^* increases.

Table D2: Values of α^* , Y^* and $\pi^*(\alpha)$ by f

f	α^*	Y^*	$\pi^*(\alpha)$
0.001	0.6192	0.0026	0.0026
0.01	0.6293	0.0258	0.0263
0.05	0.6759	0.1228	0.1336
0.1	0.7380	0.2312	0.2762
0.2	0.8815	0.4138	0.6279
0.25	0.9852	0.4963	0.9440

Numerical illustrations. Figure D1 illustrates the equilibrium outcomes of the model, where we normalize $\gamma = 1$ and $J = 1$, and assume $F = 0.1$, $\alpha = 0.5$. The figure shows how the outcomes of interest change, as we discussed above. Under fee-shifting (compared to without) (a) the probability that the plaintiff wins is greater; (b) effort is higher for the plaintiff than for the defendant and is always higher than her effort in the case with no fee-shifting, but when merit is high, the defendant makes less effort than in the case with no fee-shifting; (c) the total cost of the lawsuit is greater and the entry cutoff is lower; (d) the cost of the lawsuit for the sides in the lawsuit follow the effort of the opposite side, with the additional fixed cost is split (in expectation) across sides according to the probability to win.

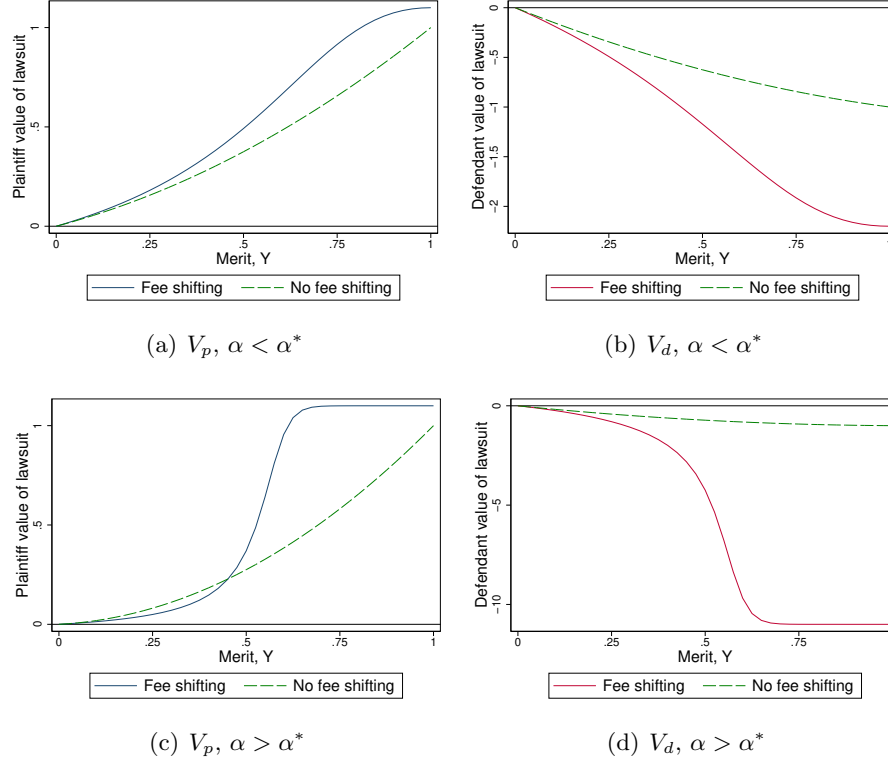
Figure D1: Numerical results of fee-shifting model



Notes: Numerical solution of the model with asymmetric fee-shifting in favor of the plaintiff, compared to the case with no fee-shifting (the “American rule”). In panel (c) vertical lines denote the entry cutoff Y^* . In panel (d) “P” indicates the plaintiff and “D” indicates the defendant. Parameters: $\alpha = 0.5$, $\gamma = 1$, $J = 1$, $F = 0.1$.

Figure D2 reports the value of the lawsuit for the plaintiff, V_p . In panel (a) we use the same parameters of Figure D1, where $\alpha < \alpha^*$. These illustrate that fee shifting increases the value of suing for the plaintiff. In panel (c) we increase α to 0.9. As shown in Table D2, $\alpha^* = 0.738$ with $f = 0.1$. The figure illustrates that, for a range of merit, the value of suing for the plaintiff under fee shifting may be lower than under the American rule regime when $\alpha > \alpha^*$. This underpins the counterintuitive effect on entry for high levels of α .

Figure D2: Numerical results of fee-shifting model—value of lawsuit



Notes: Numerical solution of the model with asymmetric fee-shifting in favor of the plaintiff, compared to the case with no fee-shifting (the “American rule”). Fixed parameters: $\gamma = 1$, $J = 1$, $F = 0.1$. For these parameters $\alpha^* = 0.738$. In panels (a) and (b) $\alpha = 0.5$, whereas in panels (c) and (d) $\alpha = 0.9$.

D.6 Extension to Transactional and “Defensive” Legal Activity

The analysis so far is *ex post*: a dispute exists, and we ask whether it is litigated and how hard it is fought. But much of the demand for legal services is *ex ante*—precautionary investment that potential defendants make before any dispute arises, in order to reduce their exposure to future litigation. This can include retaining in-house counsel, drafting contracts, investing in regulatory compliance (Trebbi et al., 2026), and building documented human resources procedures. We model this as an investment stage that precedes the litigation game.

Consider a potential defendant that chooses investment e before disputes arise. Defensive investment lowers the probability that a potential dispute has any merit. We model this in a way

that is reminiscent of the expansion of scope:

$$G(Y; e) = q(e) \cdot \mathbf{1}\{Y \geq 0\} + [1 - q(e)] \cdot \tilde{G}(Y), \quad (24)$$

where $\tilde{G}(Y)$ is a CDF on $[0, 1]$, $q(e)$ is the mass at zero merit, $1 - q(e) = \text{Prob}(Y > 0)$, and

$$q' > 0, \quad q'' < 0, \quad q(0) \in [0, 1), \quad \lim_{e \rightarrow \infty} q(e) < 1.$$

Greater defensive investment e increases the likelihood that a dispute has no grounds for litigation, while concavity of $q(e)$ captures diminishing returns to this effort. It is straightforward to show that if $\tilde{G}(Y)$ is a CDF and Y has support $[0, 1]$, then $G(Y; e)$ is also a CDF for any e .

Defensive investment takes place before the nature draws merit Y and before the plaintiff decides whether to sue (if $Y \geq Y^*$). Because the litigation subgame, including plaintiff selection, is unaffected by e , we can use the results from the analysis of that subgame without modification. Evaluated at the symmetric equilibrium ($\pi = Y$, $\gamma L_d = \alpha JY(1 - Y)$) we have

$$V_d(Y) = -YJ - \alpha JY(1 - Y).$$

Since disputes with merit $Y < Y^*$ are never filed, the defendant's expected loss (negative of the expected value of V_d) conditional on the merit draw belonging to $(0, 1]$, is

$$ELoss_d(Y^*) = \int_{Y^*}^1 [YJ + \alpha JY(1 - Y)] \tilde{g}(Y) dY.$$

Notice that $ELoss_d(Y^*)$ does not depend on $q(e)$. Thus, the defendant chooses e to minimize

$$ke + [1 - q(e)]ELoss_d(Y^*),$$

where, for simplicity, we use a constant cost k of defensive investment e (k may be equal to γ , or not). The first order condition with respect to e implies

$$q'(e^*) = \frac{k}{ELoss_d(Y^*)}.$$

Concavity ensures that this is indeed a minimum.

Given the concavity of $q'(e)$, it is straightforward to verify that an increase in the cost of defensive effort k lowers optimal effort e^* . More importantly for us, an increase in expected losses $ELoss_d(Y^*)$ increases optimal effort e^* . Thus, anything that increases expected losses—including an increase in uncertainty, or a shift towards fee shifting—increases optimal defensive effort. This is also true when the scope of the law increases, as shown immediately.

Expansion of the scope of the law. To analyze how an increase in the scope of the law affects defensive investment, suppose that $\tilde{G}(Y)$ in (17) follows $\tilde{G}(Y) = G_0 \cdot \mathbf{1}\{Y \geq 0\} + (1 - G_0) \cdot \bar{G}(Y)$, and again $\bar{G}(Y)$ is a CDF on $[0, 1]$. Using this in (24) gives

$$\begin{aligned} G(Y; e) &= q(e) \cdot \mathbf{1}\{Y \geq 0\} + [1 - q(e)] \cdot [G_0 \cdot \mathbf{1}\{Y \geq 0\} + (1 - G_0) \cdot \bar{G}(Y)] \\ &= [q(e)(1 - G_0) + G_0] \cdot \mathbf{1}\{Y \geq 0\} + [1 - q(e)](1 - G_0) \cdot \bar{G}(Y). \end{aligned}$$

This modifies the defendant's problem to choosing e to minimize

$$ke + [1 - q(e)](1 - G_0)ELoss_d(Y^*),$$

where the integral $ELoss_d(Y^*)$ is computed with respect to $\bar{G}(Y)$ instead of $\tilde{G}(Y)$. As above, since losses at $Y = 0$ are nil, the first part of $G(Y; e)$ does not show in the objective. The FONC with respect to e changes to

$$q'(e^*) = \frac{k}{(1 - G_0)ELoss_d(Y^*)}.$$

An expansion of scope reduces G_0 . This increases expected losses, here $(1 - G_0)ELoss_d(Y^*)$, where $ELoss_d(Y^*)$ does not change—and thus increases optimal effort e^* due to the concavity of $q(e)$.

Total costs. We now evaluate whether total costs, including defensive investments, increase. First, consider an increase in uncertainty, where $\tilde{G}(Y)$ is the Beta(b, b) distribution and b increases. Total cost is now given by

$$TC^{\text{def}} = ke^* + [1 - q(e^*)]TC(Y^*, b),$$

where $TC(Y^*, b)$ is the conditional expectation of legal costs (net of the stakes J , which is just a transfer) which we computed in Sections D.2 and D.4. The derivative of the last expression with respect to b is

$$\frac{dTC^{\text{def}}}{db} = k \frac{de^*}{db} - q'(e^*) \frac{de^*}{db} TC(Y^*, b) + [1 - q(e^*)] \frac{dTC(Y^*, b)}{db}.$$

Using the FONC for e to substitute for $q'(e^*)$ in the last expression we obtain

$$\frac{dTC^{\text{def}}}{db} = k \frac{ELoss_d(Y^*, b) - TC(Y^*, b)}{ELoss_d(Y^*, b)} \frac{de^*}{db} + [1 - q(e^*)] \frac{dTC(Y^*, b)}{db} > 0.$$

The last term is positive since $dTC(Y^*, b)/db > 0$, as shown in Section D.4, and $q(e^*) < 1$. The concavity of $q(e)$ and the FONC w.r.t. e imply that $de^*/db > 0$. The term multiplying de^*/db is positive because $k > 0$ and $ELoss_d(Y^*, b) - TC(Y^*, b) > 0$ for any Y^* and b . The proof for the last statement is as follows. For any $Y \in [0, 1]$ we have

$$-V_d(Y) = J[Y + \alpha Y(1 - Y)] = \underbrace{[JY - \alpha JY(1 - Y)]}_{=V_p(Y)} + 2\alpha JY(1 - Y),$$

Multiplying the last equality by $\tilde{g}(Y)$ and integrating over the filing region $[Y^*, 1]$ we have

$$ELoss_d(Y^*, b) = \int_{Y^*}^1 V_p(Y) \tilde{g}_c(Y) dY + TC(Y^*, b) - [1 - \tilde{G}(Y^*)]F.$$

Rearranging this yields

$$ELoss_d(Y^*, b) - TC(Y^*, b) = \int_{Y^*}^1 [V_p(Y) - F] g_c(Y) dY > 0.$$

The strict inequality arises due to the entry condition, which implies $V_p(Y) \geq F$ for every $Y \geq Y^*$, with equality only at the single point $Y = Y^*$ and a strict inequality for $Y > Y^*$. Thus, the

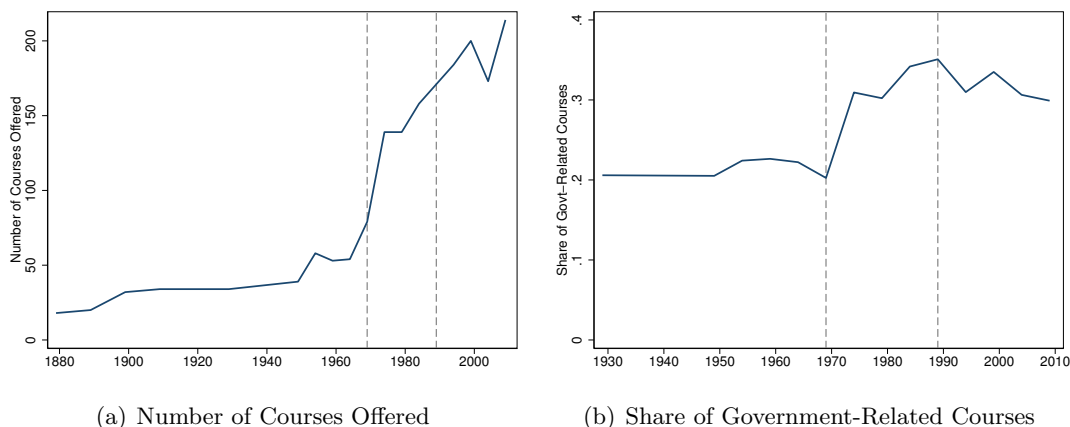
total expenditure on lawyers, including defensive investments TC^{def} , rises with uncertainty, here captured by an increase in b .

In fact, the result that $ELoss_d(Y^*) - TC(Y^*) > 0$ is general, as long as there is an entry condition for the plaintiff. This implies that *any* institutional change that increases both e^* and total costs net of defensive investment TC will also increase total costs inclusive of defensive investment TC^{def} . As shown above in this section, an expansion in scope increases e^* ; as shown in Section D.3 an expansion in scope also increases TC . So an expansion in scope increases TC^{def} . A change from symmetry to the fee shifting regime also increases TC^{def} : as shown in Section D.5 (panels (b) and (d) in Figure D2) $ELoss_d(Y^*)$ increases and, therefore, e^* ; TC also increases, as shown in Section D.5 (panel (c) in Figure D1).

E Legal Education Responds to Legal Environment

Independent evidence of the law’s expanding scope comes from legal education. We digitize the Harvard Law School course catalog from 1880 to 2010 and classify each course into one of ten fields. We assign each course to a field following the catalog’s own subject groupings, using a large language model to classify courses from their titles and descriptions. Government-related law comprises public law, economic regulation, and social regulation. Two patterns stand out. The number of distinct courses offered held near 35 for most of the twentieth century, then rose sharply after the mid-1960s—from about 55 in 1964 to 138 a decade later, and over 200 by 2010 (Figure E1(a)). This is not driven by enrollment, which were roughly flat over the sample. J.D. enrollment was 1,596 in 1930, 1,607 in 1960, 1,784 in 1970, and 1,733 in 2010, so the rise reflects more courses per student rather than more students. At the same time, the composition of the curriculum shifted: the share of courses in government-related law—public law, economic regulation, and social regulation—held near 20% through the 1960s, then rose to 35% between 1970 and 1990 (Figure E1(c)). Harvard Law retooled its curriculum toward precisely the fields that the social regulation of the era expanded. Harvard’s curriculum has long been a model for U.S. legal education, so its offerings track the field more broadly (Stevens, 1983).

Figure E1: Harvard Law School Course Offerings



Notes: Courses offered at Harvard Law School, hand-collected from the archived “Courses of Instruction” catalog. Panel (a) is the total number of distinct courses offered, 1880–2010. Panel (b) is the share of courses in government-related law, which we categorize as any courses related to public law, economic regulation, and social regulation. Dashed vertical lines mark 1970 and 1990.

F Economic deregulation

While the link between new legislation and demand for legal services is clear, it may be less straightforward to think about economic *de*-regulation increasing demand. It has been argued that “deregulation” is a misnomer: deregulation does not imply that there is no public regulation of an industry; instead, it introduces a different legal framework (Kearney & Merrill, 1998), i.e., deregulation is a change in the regulatory environment. When an industry is regulated, the regulator’s role is simple: to control entry, review prices, and control the type or amount of product or service offered. When the industry becomes deregulated the role of the regulator changes to maximizing competition between providers. However, deregulation does not imply *laissez faire*. Rather, deregulation involves a change from clear limits on actions to a regime with a new set of rules that dictate and characterize the permissible actions of competitors.

The deregulation regime in the U.S. began in the 1970s and persisted through the 1980s and early 1990s. The consensus at the time was that regulation of prices and entry was keeping prices artificially high. After deregulation, many legal scholars decried the pattern of “regulation by litigation,” arguing that the practical outcome of deregulation is often more regulation, sometimes by way of litigation. Friedman (1981) warned of this in the beginning of the deregulation regime. With the benefit of hindsight, Freyer (2010) summarizes the issue: “The deregulation movement partially limited private actions. Yet the unintentional result was to increase reliance upon private actions for enforcement of regulatory goals in business sectors where administrative or political oversight of business self-regulation was ineffective.”

Economic deregulation events at the federal level affected transportation (air, rail, trucking), telecommunications (cable television, phone), financial services (banking, securities) and utilities (electric, gas, oil) industries. While the social regulation legislation discussed in the last subsection was passed in the late 1960s through the mid-1970s, economic deregulation events followed through the 1970s and 1980s, after which they became much less frequent, with only the Telecommunications Act of 1996 and the Gramm-Leach-Bliley Act of 1999 taking place in the 1990s. See Table F1 for a detailed timeline, with the act or event name, date, and affected industry. The federal regulatory regime, as measured by pages of regulations per-capita, only increases during this period of deregulation (Figure 4(a)).

In short, deregulation can increase both the number of regulations that need to be taken into account and the complexity of the regulatory environment, therefore increasing uncertainty over legal outcomes. In contrast, when there was a regulator approving prices of each firm, there was little confusion over what price or terms may be allowed. Consider the regulation of the airline industry. Prior to the passage of the Airline Deregulation Act of 1978, the airlines had to file their tariffs with the regulator (the Civil Aeronautics Board). A few years after the deregulation act, the Civil Aeronautics Board was abolished and the airlines were able to charge whatever rates they would like. Using the Federal Judicial Center Integrated Database, we track the number of cases litigated that involve an airline as one of the parties. There is a prolonged period of high litigation activity in the industry during the 5-10 years following deregulation; litigation activity doubled after the Airline Deregulation Act. In one high profile example, *American Airlines v. Wolens* (1995) disputed whether airline practices constituted a breach of contract. Of course, there are still regulations that apply to airlines: there are 741 results when one searches ‘airline’ in the current version of the Code of Federal Regulations. Deregulation did not bring an end to litigation in the industry, in fact it led to a significant increase.

Table F1: Timeline of Legislative Acts and Deregulation Events

Event	Date	Industry
Civil Rights Act	1964	Social Regulation
Voting Rights Act	1965	Social Regulation
Fair Housing Act	1968	Social Regulation
National Environmental Policy Act	1969	Social Regulation
Federal Communications Commission (FCC) Court Decisions	late 1960s-mid 1970s	Telecommunications
Occupational Health and Safety Act	1970	Social Regulation
Clean Water Act	1972	Social Regulation
Consumer Safety Act	1972	Social Regulation
CAB Liberalization of Entry and Discount Fare Experiments	mid 1970s	Airlines
Securities Acts Amendments	1975	Brokerage
Hart-Scott-Rodino Antitrust Improvements Act	1976	Antitrust
Execunet Decision	1977	Telecommunications
Airline Deregulation Act	1978	Airlines
Natural Gas Policy Act	1978	Natural Gas
ICC Liberalization of Truck Rates	late 1970s	Trucking
ICC Liberalization of Rail Rates and Contracting	late 1970s	Railroads
FCC Rulemakings and other Regulatory Proceedings	late 1970s	Cable Television
Decontrol of crude oil and refined products	starts in 1979	Petroleum
Motor Carrier Reform Act	1980	Trucking
Staggers Rail Act	1980	Railroads
Depository Institution Deregulation and Monetary Control Act	1980	Banking
Regulatory Flexibility Act	1980	Small Business
AT&T Settlement	1982	Telecommunications
Garn-St. Germain Depository Institutions Act	1982	Banking
Cable Television Deregulation Act	1984	Cable Television
FERC Order 1985	1985	Electric
Bus Regulatory Reform Act	1989	Bus
Americans with Disabilities Act	1990	Social Regulation
Civil Rights Act	1991	Social Regulation
FERC Order 1992	1992	Electric
Energy Policy Act	1992	Electric/Natural Gas
Telecommunications Act	1996	Telecommunications
FERC Order 1996	1996	Electric
Cramm-Leach-Bliley Act	1999	Banking

Notes: This is a timeline for the legislative acts and deregulation events discussed in Section 3 and Appendix F. The sources for the deregulatory events are Kearney & Merrill (1998) and Winston (1998).

G Alternative Explanations

G.1 Changes in Industry Composition

We build on the Leontief (1936) accounting model. The vector of value added by industry can be expressed as

$$v = V \cdot X = V(Ax + f) = v \cdot L \cdot f,$$

where V is a diagonal matrix of value-added intensities in gross output, x the vector of gross output by industry, A is the square matrix of input intensities, f is the vector of final good production (demanded by households, the government, gross investment, changes in inventories, and net exports), and $L = (I - A)^{-1}$ is the Leontief inverse matrix. We compute a counterfactual value added vector as

$$\hat{v}^{1990} = V^{1970} \cdot L^{1970} \cdot f^{1990}$$

and compare the GDP shares arising from $\hat{v}^{1990}$ to those in the 1990 data. $\hat{v}^{1990}$ combines the structure of production in 1970 (input-output relationships and value added intensities) with demand for final goods in 1990. This generates a counterfactual vector of value added per industry that is consistent with the observed changes in demand, had the structure of production remained as in 1970. For example, the sum of the elements in $\hat{v}^{1990}$ (as well as in the true v^{1990}) is equal to the sum of the elements in f^{1990} ; the former is equal to GDP from the production approach, while the latter—from the expenditure approach.

We use the Input-Output “use” tables from the Bureau of Economic Analysis’ (BEA) Industry Accounts. Consistent with other tabulations from the BEA, the GDP share of legal services was 0.7 percent in 1970 and 1.4 percent in 1990. Using $\hat{v}^{1990}$ we find that the counterfactual GDP share of legal services in 1990 is 0.86 percent. Thus, changes in industry composition account for 23 percent $(= (0.86 - 0.7)/0.7)$ of the rise of legal services’ GDP share.

We use the same data to analyze changes in which industries absorb the (gross) output of legal services, including households and other final uses. The Input-Output tables report for each industry, and for legal services in particular,

$$x_{legal} = \sum_j Z_{legal}^j + f_{legal},$$

where x_{legal} is (gross) output of legal services, Z_{legal}^j is the output of legal services that is used by industry j (including legal services), and f_{legal} is the output of legal services that is purchased by final users, including households, the government, etc. (Dividing Z_i^j by x_j gives the elements in the i row in A above.) Dividing through by x_{legal} we have

$$\sum_j \frac{Z_{legal}^j}{x_{legal}} + \frac{f_{legal}}{x_{legal}} = \sum_j b_{legal}^j + b_{legal}^{final} = 1,$$

where b_{legal}^j is the share of legal services output that is purchased by industry j , and b_{legal}^{final} is the share legal services output that is purchased by households, the government, etc.

Comparing these share over time reveals that overall, industries have only modestly increased

their importance as clients of legal services: $\sum_j b_{legal}^j$ increased by only 1.3 percentage points, from 56.4 in 1970 to 57.7 in 1990. The industries that increased their share in legal services output the most (in percentage points) are:

Table G1: Top 10 industries increasing their share of legal services output

Industry	$b_{legal,1970}^j$	$b_{legal,1990}^j$	Δ
Retail trade	1.2	6.9	5.8
Real estate	3.1	5.6	2.5
Hospitals and nursing and residential care facilities	0.6	2.5	1.9
Insurance carriers and related activities	1.0	2.7	1.7
Ambulatory health care services	1.3	2.8	1.5
Food services and drinking places	0.4	1.5	1.1
Securities, commodity contracts, and investments	0.4	1.5	1.1
Computer and electronic products	0.4	1.4	1.0
Other transportation and support activities	0.2	1.1	0.9
Chemical products	0.7	1.5	0.8

We can use again the same data to investigate which industries increased their legal services input intensity the most. This is captured by the elements in the legal services row in the A matrix for each industry j :

$$a_{legal,j} = Z_{legal}^j / x_j.$$

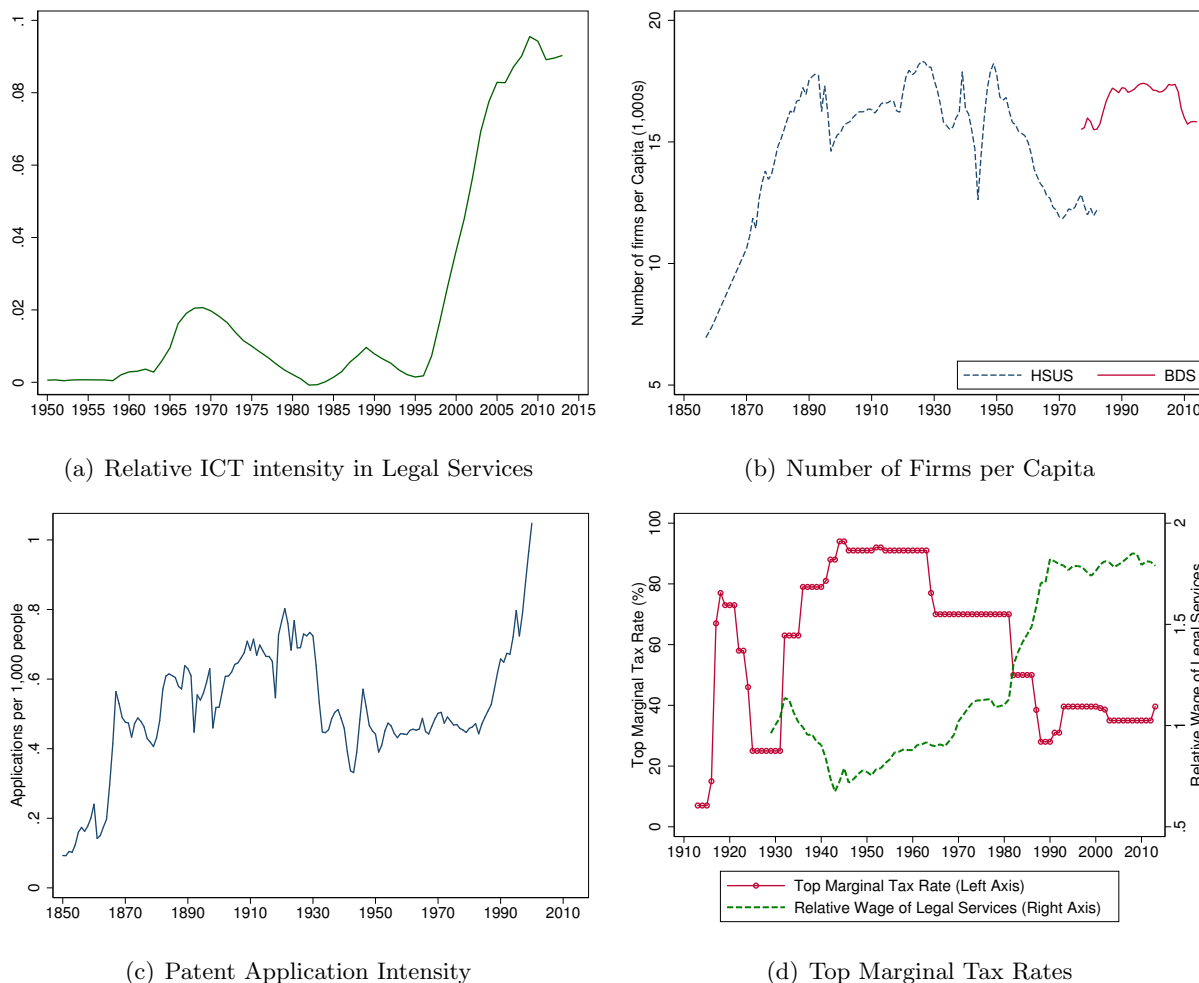
Comparing these $a_{legal,j}$ over time reveals that almost all industries increased their intensity of legal services inputs. The industries that increased their intensity of legal services input the most (in percentage points) are:

Table G2: Top 10 industries increasing their intensity of use of legal services input

Industry	$a_{legal,1970}^j$	$a_{legal,1990}^j$	Δ
Other transportation and support activities	0.20	2.11	1.91
Waste management and remediation services	0.32	2.04	1.72
Data processing, internet publishing, and other information services	0.00	1.44	1.44
Securities, commodity contracts, and investments	1.02	2.33	1.31
Retail trade	0.13	1.31	1.18
Insurance carriers and related activities	0.40	1.18	0.78
Hospitals and nursing and residential care facilities	0.36	1.10	0.74
Publishing industries, except internet (includes software)	0.37	1.09	0.72
Air transportation	0.09	0.81	0.72
Food services and drinking places	0.12	0.72	0.60

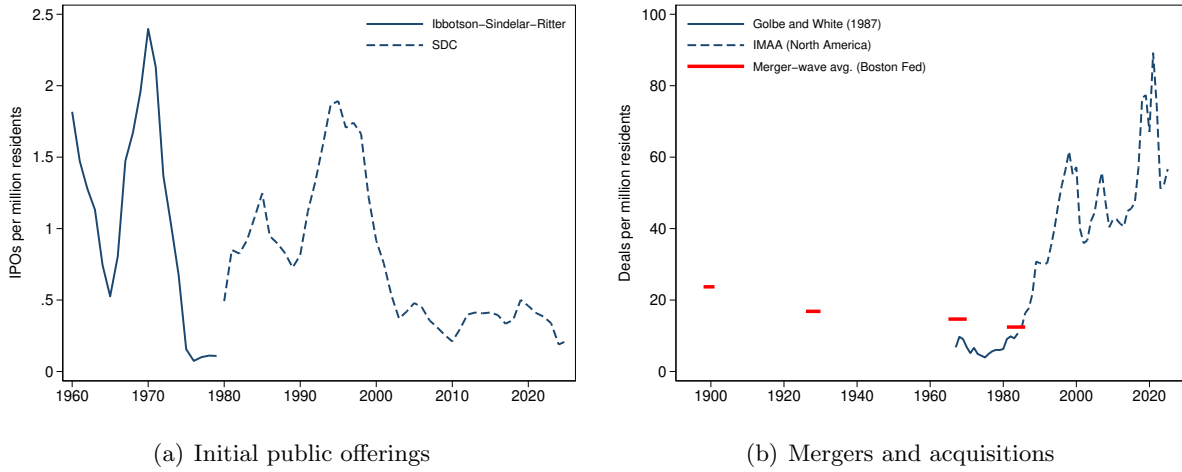
G.2 Figures

Figure G1: Alternative Explanations



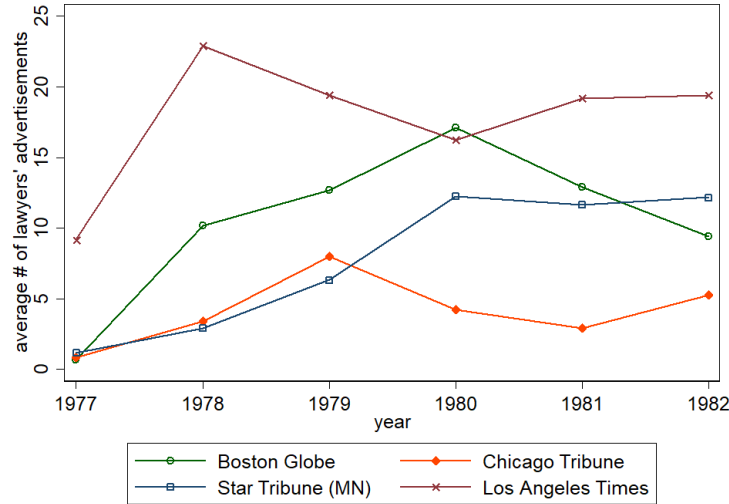
Notes: Information and Communications Technology (ICT) intensity is calculated using data from the Bureau of Economic Analysis fixed assets tables. ICT intensity is measured as a share in the total capital stock. Relative ICT intensity of legal services is the ICT intensity of legal services, divided by the ICT intensity in total. All measured in constant 2009 prices. Number of firms in 1857–1983 is from the Historical Statistics of the United States (HSUS), and in 1977–2014 is from the U.S. Census’ Business Dynamics Statistics (BDS). The number of firms in the HSUS are originally collected by the firm Dun & Bradstreet. Both firm counts are normalized by total U.S. population. Patent application intensity reports number of utility and design patent applications (source: U.S. Patent Office) divided by U.S. population in thousands. The top marginal tax rate series is the top marginal rate that applies to married couples filing jointly (source: U.S. Internal Revenue Service, IRS). The relative wage in legal services is the same as in Figure 1 and Figure B3(a)).

Figure G2: Financial-Market Activity per Capita



Notes: Panel (a) plots the number of U.S. initial public offerings as a five-year centered moving average from Ritter (2026). This splices historical data collected by Ritter and others (1960–1979, solid) with the SDC-based modern series. Panel (b) plots the number of mergers and acquisitions: U.S. domestic mergers digitized from Golbe & White (1987) (1967–1984, solid) spliced with IMAA/Capital IQ counts of announced North American deals (1985–2025, dashed, see <https://imaa-institute.org/mergers-and-acquisitions-statistics/united-states-ma-statistics/>). Red segments mark the average annual number of mergers during the four documented merger waves (1898–1901, 1926–1930, 1965–1970, 1981–1986), as documented by Ravenscraft (1987).

Figure G3: The Evolution of Legal Advertising Post-Bates



Notes: This figure shows the average number of legal advertisements in 4 newspapers, over a span of 6 years. We collect the data manually. For each newspaper, we sample the third week of January, April, July, and November. We take two days from that week, Wednesday and Saturday. Then we record the number of advertisements for lawyers that day. Figure G4 shows examples of these advertisements. Source: [Newspapers.com](https://www.newspapers.com).

Figure G4: Examples of Legal Advertisements

LAWYERS

Uncontested No Fault prepared for hearing with Attorney consultation

DIVORCE \$79
Uncontested — Attorney Representation

DIVORCE \$119
Drafted & filed

INCORPORATION \$99

SIMPLE WILL \$29
Personal

BANKRUPTCY \$169

R.E. CLOSING FR. \$129

CIVIL LITIGATION
CRIMINAL ACTIONS
Adoption, Name Change, Probate of Estates at low cost. Fees do not include court costs.
Call for appointment.

PRINCE & COOPERSTEIN
6 Beacon St., Boston 523-7525
56 Dudley St., Cambridge 491-1360

Legal Services

FREE CONSULTATION

Bankruptcy	From \$250
Civil Cases	From \$15
Criminal Actions	From \$50
Divorce Actions	From \$250
Eviction Actions	From \$60
Immigration Actions	From \$300
Job or Auto Claims	From 20%
Real Estate Closing	From \$125
Social Security Claims	From \$50
Traffic Court	From \$15
Will Preparation	From \$60
Pre-Paid Legal	From \$25/Mo.

768-8020

L. Jeffries, Atty. 9am-9pm

CHAPTER 13
WAGE EARNER PLAN
Pay 100% of your bills, in lower payments under court supervision
Fee Includable in Payments
Office Hours:
Daily 9:30-5:30; Sat 9:30-5:30

LAW OFFICES
ASHER FEREN
120 W. Madison (312) 346-3727

46 Attorneys/Legal Services

AVOID BANKRUPTCY
U.S. Court "Wage Earner Plan" extends time to pay (3-4 yrs), reduces pymts & stops garnishments & repossessions.
R. Nadler, Attorney 227-7873 (also bankruptcy—terms avail)

BANKRUPTCY
Jack Prescott, Attorney since 1951, will file your personal bankruptcy with initial payment of only \$50. U.S. Clerk Fee For attorney fee call 633-2757.

ATTORNEY
Divorce \$135, Wills, Property, Bankruptcy, Corp. work, Misdemeanors, Personal injuries.
David A. Brandell W 933-2406
Weekends & eves. H-452-2918

Divorce-Wills-Legal Services
OPEN TODAY 1-3PM
PAUL HORVICK 588-6126

DAVID J. KELLY, ATTY
1st consultation free, 544-6356

MENCHAMICE

ATTORNEYS & LEGAL SERVICES 1080

EVICIONS—\$60+COST uncontested
DRUNK DRIVING—\$175
DIVORCE \$150+COST uncontested
Franklin J. Slater Atty. 213/380-1756

\$90 Divorces Basic + Cost
Harold L. Myers, Atty. 213/245-5034

IMMIGRATION—ATTY
25 yrs. exp. William J. Zumwalt
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Immigration-Consult Attorney
NEVILLE ASHERSON 213/278-9362

● **HURT ON THE JOB?**—Workers comp. & social security lawyer. Free info.—Art Warren 213/657-5949

★ **CRIMINAL CASES.** Free consultation. Steven Solomon-Atty. 213/465-2550

MANN law clinic—consult \$15
Reasonable fees 213/477-8251 24 hrs.

IMMIGRATION & BUSINESS LAW
Edward N. Morris, Atty. 213/467-1431

(a) Boston Globe

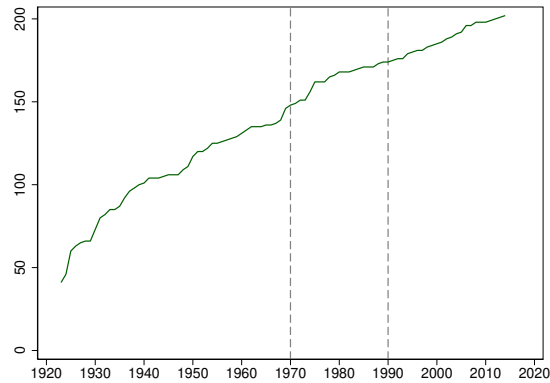
(b) Chicago Tribune

(c) Star Tribune (MN)

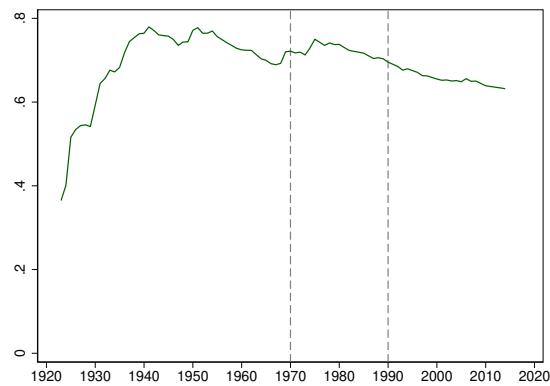
(d) Los Angeles Times

Notes: This figure shows examples of legal advertisements in the 1977-1982 period (immediately after the ABA changed their policy on legal advertising. Source: Newspapers.com.

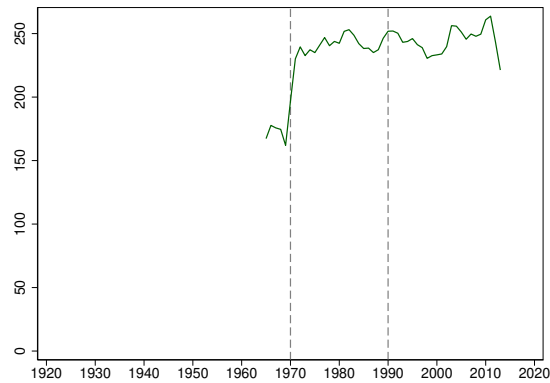
Figure G5: ABA-Accredited Law Schools and Enrollment



(a) Number of Schools



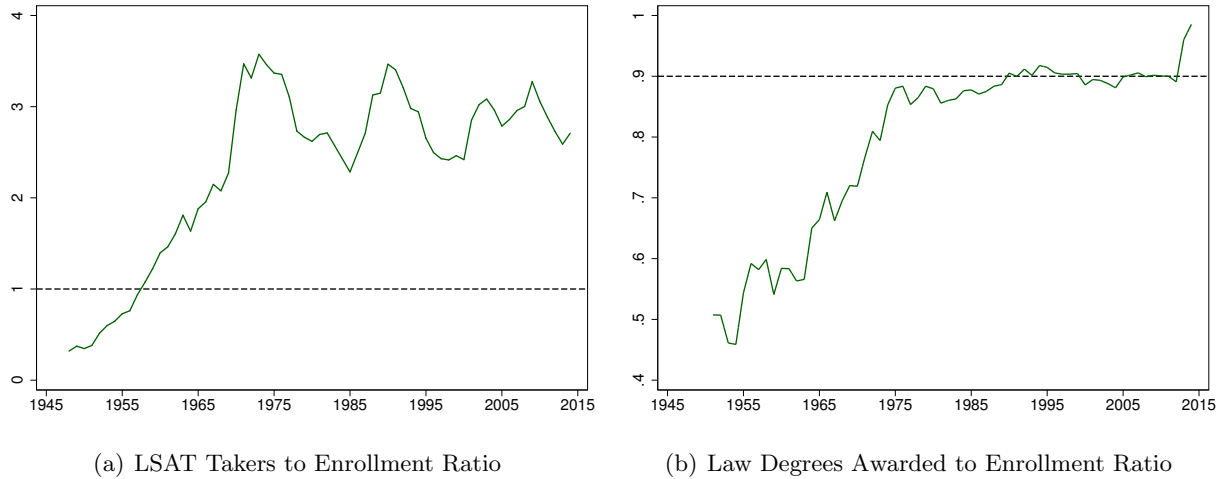
(b) Schools per Million People



(c) First-Year Enrollment per Law School

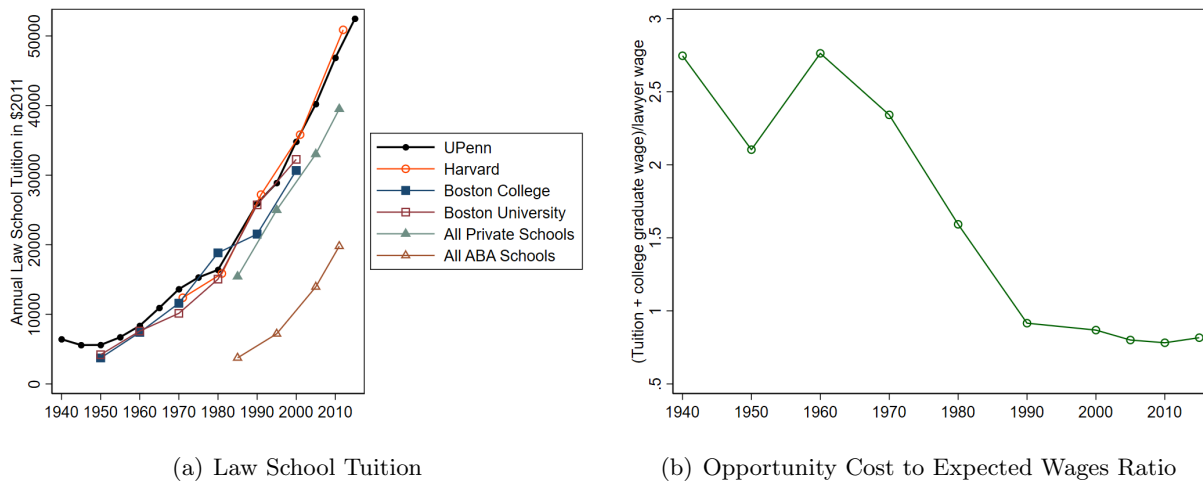
Notes: Panel (a) reports the number of ABA-approved law schools, from the American Bar Association (ABA). Panel (b) reports ABA-approved law schools per million people; population is from the U.S. Census Bureau (Historical Statistics of the United States before 1952, FRED after). Panel (c) reports first-year J.D. enrollment per ABA-approved law school; the ABA enrollment series begins in 1965. The jump from about 160 enrollees in 1969 to 230 in 1971 likely reflects coverage of the ABA enrollment series, not real enrollment, nor the number of schools. Dashed vertical lines mark 1970 and 1990.

Figure G6: LSAT Takers, Enrollment and Law Degrees Awarded



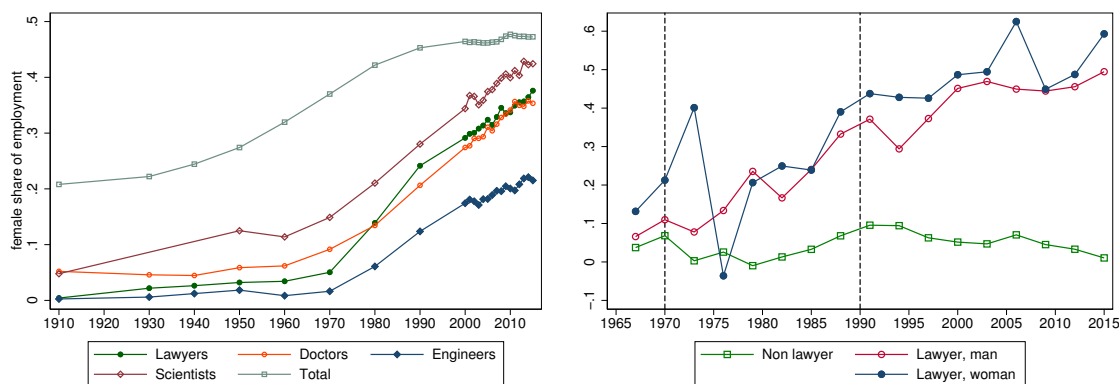
Notes: Panel (a) reports the ratio of Law School Admission Test (LSAT) takers to enrolled students in law schools. Panel (b) reports the ratio of law school degrees awarded to the cohort enrolled three years before (years denote year of enrollment). Data on the number of LSAT takers are from the following sources: White (1984) for 1947–1982, the Manhattan Review (LSAT Prep Courses & Tutoring) for 1950, 1961, 1970, 1980 and 1985, and the Law School Admission Council (LSAC, which administers the LSAT from 1982) for 1987 and on. Data on enrollment and degrees awarded are from the American Bar Association (ABA).

Figure G7: Law School Tuition and Relative Cost



Notes: Panel (a) shows the annual law school tuition across a set of law schools that we can find data. Tuition is normalized to 2011 dollars. Panel (b) shows the “relative cost” of law school. We calculate the opportunity cost of one year of law school as Tuition + the average wage for a college graduate in year t . Then, we divided it by expected wages, as approximated by the average wage for a lawyer in year t . We use UPenn law school tuition rates, because this is the longest coverage we have on tuition. UPenn tuition rates come directly from the school archive (<https://archives.upenn.edu/exhibits/penn-history/tuition/>). The other tuition series come from academic papers (Cass & Garvey, 2003; Campos, 2012). Wages of lawyers and college graduates from the Census and ACS.

Figure G8: Women in Law

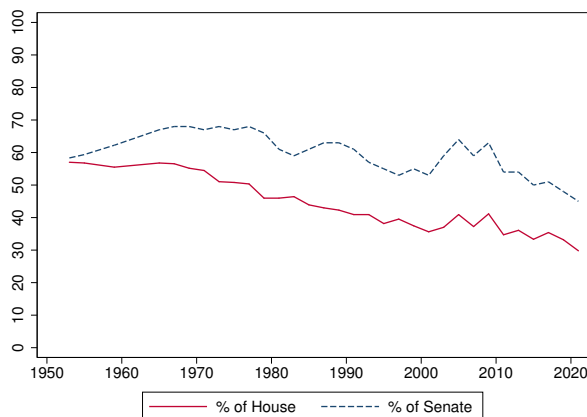


(a) Share of Female Lawyers

(b) Wage Premium for Female Lawyers

Notes: Panel (a) shows the share of lawyers that are women, compared to total employment and other high-skilled professions (doctors, natural scientists, and engineers). Source: U.S. Census and ACS. Panel (b) displays the estimates of the wage premium for male and female lawyers, and for non-lawyers. The figure shows the coefficients from estimating equation (14) for each three year period, t , where we include a coefficient α_t^{male} for male lawyers in legal services and α_t^{female} for female lawyers in legal services, and β_t captures, as before, the wage premium for non-lawyers working in legal services. The estimates are noisy in the first few years because there are so few female lawyers in the CPS sample; before 1979 less than 10% of lawyers in the sample are female. The dependent variable is $\log(\text{annual wages})$. Source: CPS March Annual Supplement, 1968-2017.

Figure G9: Lawyers in Congress



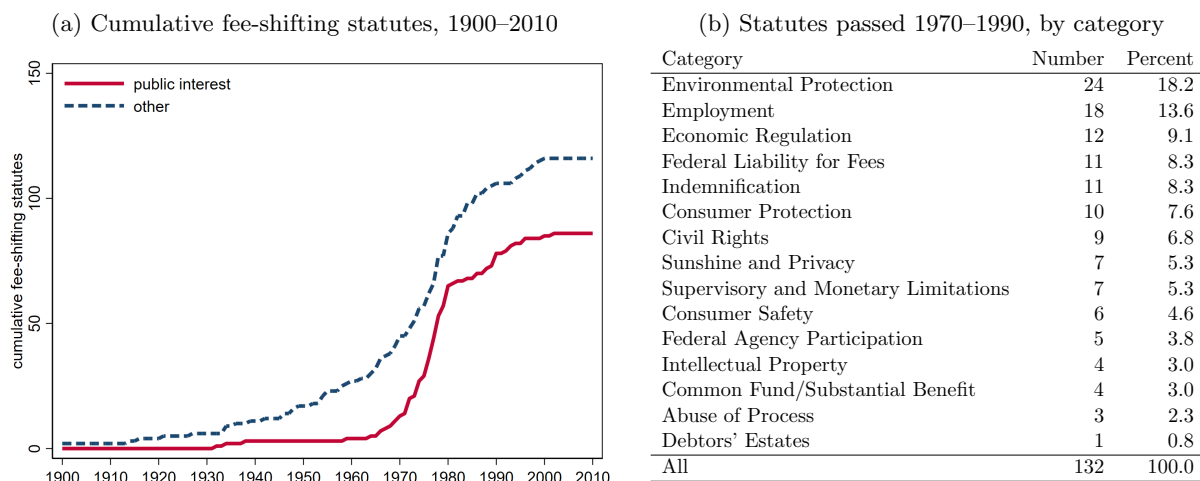
Notes: This figure shows the percentage of members of the U.S. congress—house representatives and senators—that are trained as lawyers. Source: Brookings Institution's *Vital Statistics on Congress*.

H Fee-Shifting and Litigation Outcomes

H.1 Descriptives on Fee-Shifting

Figure H1 shows the increase in fee-shifting statutes over time, by category (i.e., the type of law fee-shifting was assigned to).

Figure H1: Fee-shifting statutes by type

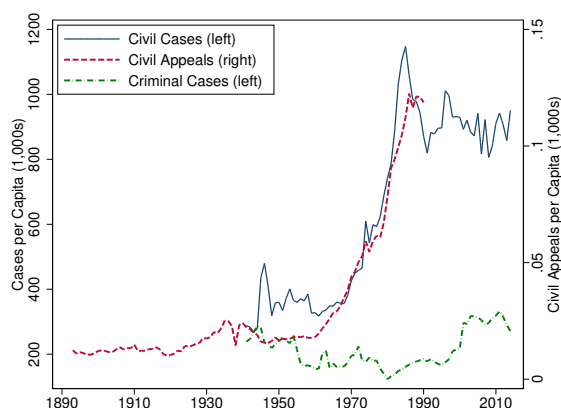


Notes: The classification of fee-shifting statutes and the timing of their passage are from Derfner & Wolf (2012). Panel (a) plots the cumulative number of statutes, separating those in “public interest” litigation categories—such as consumer protection, consumer safety, environmental protection, civil rights, and employment—from all others. Panel (b) reports the number and percent of statutes passed between 1970 and 1990 in each category; the public-interest categories account for about half of the total.

H.2 Descriptives on Litigation

Figure H2 shows the evolution of civil cases and civil appeals, on separate axes.

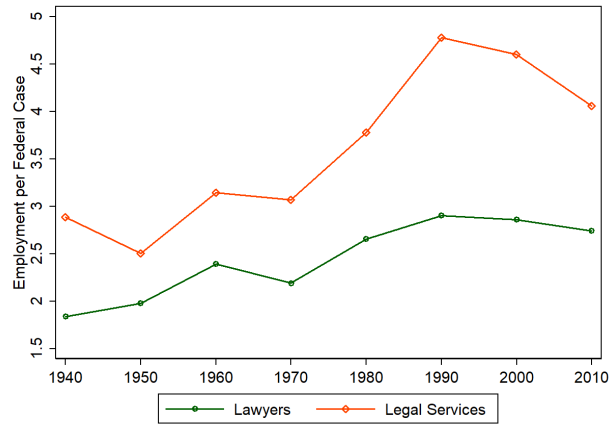
Figure H2: Litigation Intensity



Notes: This replicates Figure 3, but without splicing civil cases and civil appeals. Cases are normalized by total population in units of 1,000 people.

Figure H3 is the number of lawyers in the U.S. as a share of the number of federal cases filed, from 1940-2015. Table H1 shows the broad categories of civil cases between 1970 and 1990 (there are about 90 nature of suit codes in total, this aggregates them to broader categories). Figure H4 shows how the litigation activity for certain categories evolved after the passage of landmark social regulation.

Figure H3: Lawyers per Federal Case Filing



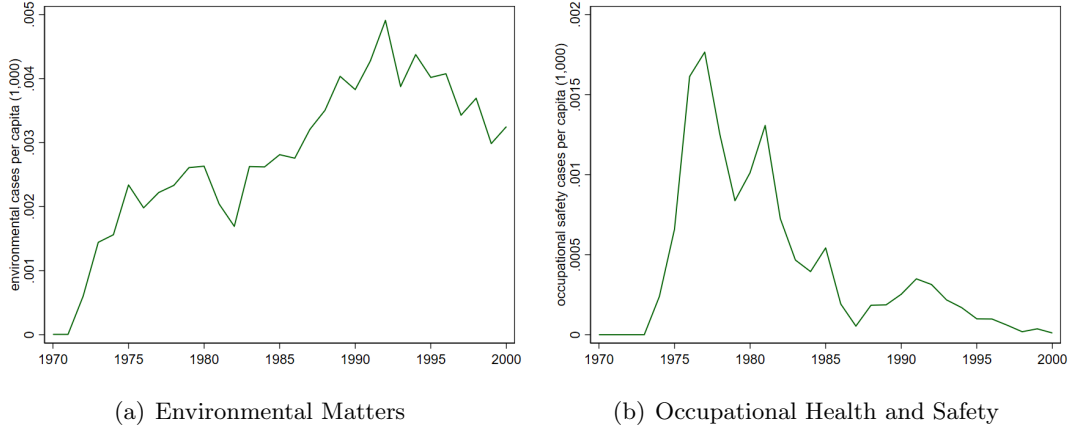
Notes: Cases include both civil and criminal. Cases in 1941–1999 are sourced from the Historical Statistics of the United States. We use the case filings in 1941 for 1940. Cases in 2000–2015 are from the Administrative Office of the U.S. Courts. The Lawyers series is total employment of Lawyers, per the decennial census, including lawyers in legal services, private industry and government.

Table H1: Nature of Suit in Civil Cases: 1970-1990

Category	% of Civil Cases		
	1970	1990	Δ
Civil Rights	5.52	9.13	3.61
Prisoner Petitions	17.92	20.80	2.88
Labor	4.66	6.71	2.05
Social Security	1.86	3.18	1.33
Real Property	3.61	4.39	0.78
Property Rights	2.46	2.65	0.18
Contracts	20.16	20.13	-0.03
Other Statutes	15.66	14.02	-1.64
Torts	28.06	18.98	-9.08

Notes: The table shows the per-capita civil filings, by nature of suit, in 1970 and 1990. The source of the data is the Federal Judicial Center Integrated Database. The nature of suit are defined by the federal court, and the plaintiff is required to choose a nature of suit when they file. There are 12 primary categories, as well as an “Other Statutes” catch-all. We include categories with less than 2% of the share of cases with the “Other Statutes” category (this includes Bankruptcy, Federal Tax, Immigration, and Penalty/Forfeiture).

Figure H4: Civil Case Filings and Social Regulation

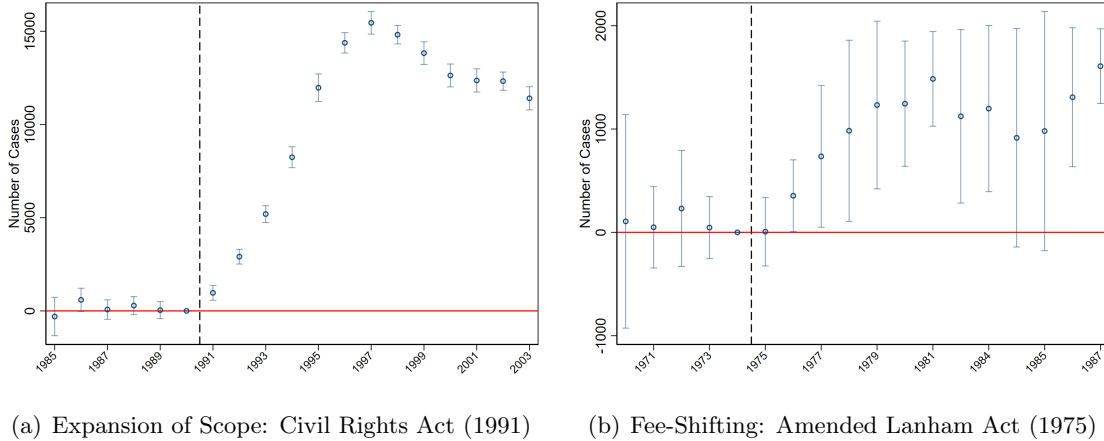


Notes: The figure shows the per-capita civil filings for two specific nature of suits that we can link to federal legislation: “Environmental Matters” and “Occupational Health and Safety.” The year is the year the case was filed. The source of the data is the Federal Judicial Center Integrated Database.

H.3 Additional Results

The event studies of Section 4.2 concern the extensive margin—how many cases are brought. Figure H5 repeats that analysis in levels.

Figure H5: Legislation and Litigation Activity, in Levels



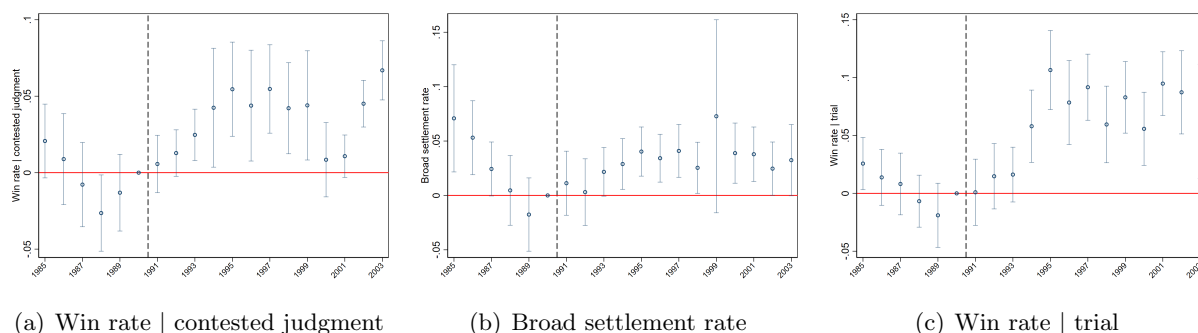
Notes: This figure shows the levels (number of cases) versions of Figure 6. Source: Federal Judicial Center Integrated Database.

Settlement and Judgment Outcomes We now turn to the intensive margin: how cases resolve. In order to study the outcome of a case, we condition on the case being contested, defining the merits win rate as the plaintiff’s share of judgments reached on the merits (disposition by pre-trial motion, directed verdict, or trial), and separately measure the settlement rate. The IDB’s “judgment for plaintiff” field, taken over all terminated cases, is not a win rate. Roughly half of all

plaintiff judgments are entered by default and a sixth by consent, and fewer than one in ten follows a trial.

These disposition fields are only reliably populated from 1978 onward, so all outcome analysis begins in 1978. We revisit the effect of the Civil Rights Act of 1991 on case outcomes. Figure H6 shows that, off flat pre-trends, all three rise after 1991: the settlement rate and the win rate—conditional both on a contested judgment and on trial—increase modestly and persistently. A scope expansion that broadens liability and remedies strengthens the underlying cases, so plaintiffs both settle more and win more when they litigate. In terms of the model of Section 3.4, scope expansion shifts the merit distribution G upward, while fee-shifting lowers the entry threshold Y^* ; the two channels therefore make opposite predictions for the average merit of litigated cases—which is what we find.

Figure H6: The Civil Rights Act of 1991 and Case Resolution



Notes: Event-study estimates (equation (4)) around the 1991 Civil Rights Act, comparing Civil Rights: Employment cases (nature of suit 442) to stable American-rule contract and tort control codes, by filing year, with nature-of-suit and year fixed effects and robust standard errors. Panels (a) and (c) are the plaintiff win rate conditional on a contested judgment and on trial; panel (b) is the broad settlement rate. Source: Federal Judicial Center Integrated Database.

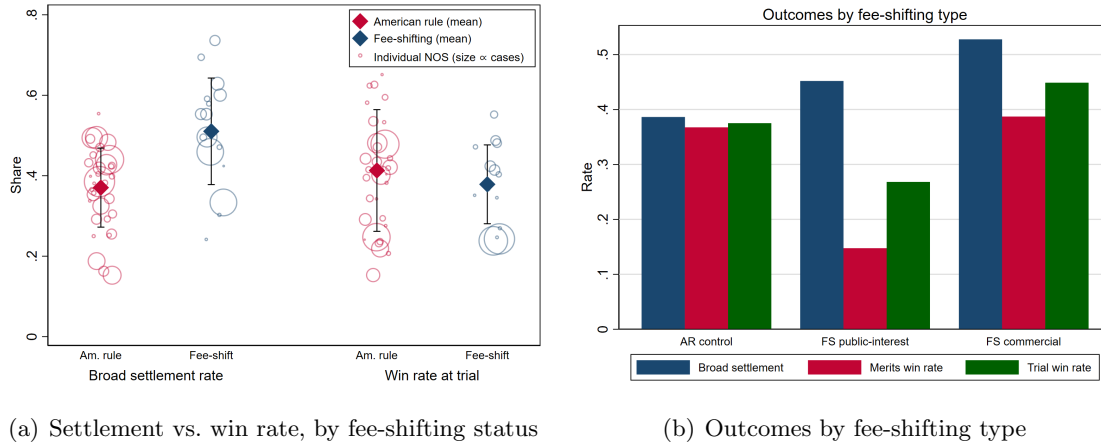
Fee-Shifting We find that fee-shifting is associated with substantially more settlement—about seven percentage points on a broad settlement measure—but not with a higher plaintiff win rate; if anything, the merits win rate is modestly lower (Figure H7(a)). Settlement is not in our model, where every filed case is litigated to judgment, but the model’s cost structure points to how it should operate. Litigation costs are a pure joint loss to the parties, so there are always gains from settling. Those gains are larger under fee-shifting, where total costs per case more than double, and largest in high-merit cases, where the defendant’s exposure to the plaintiff’s fees is greatest.

The pattern is not uniform. In Figure H7(b) we split fee-shifting into public-interest statutes (civil rights, labor, ERISA, environmental) and commercial statutes (antitrust, RICO, and intellectual property). The low-win result is entirely a public-interest phenomenon: those plaintiffs win on the merits only about 15% of the time, while commercial fee-shifting cases win more than American-rule cases and settle the most. Fee-shifting operates as two regimes: a high-volume, low-win, settlement-prone public-interest bar and a high-stakes commercial bar.

A final piece of evidence isolates the effect of fee-shifting rules. In *Buckhannon Board & Care Home v. West Virginia* (2001), the Supreme Court abolished the “catalyst theory,” holding that a plaintiff’s lawyer can only recover fees from the defendant if the case is resolved through judgement (instead of settled). This weakened the value of a private settlement in fee-shifting cases, while

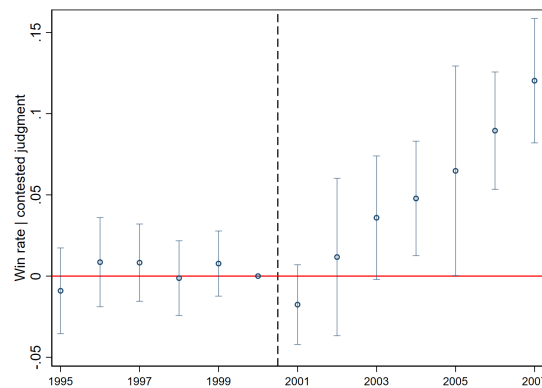
leaving American-rule cases untouched. We compare fee-shifting to American-rule case types before and after 2001, dating cases by their termination since the rule binds at resolution. The merits win rate in fee-shifting cases rises by about five percentage points on average and grows to roughly twelve points by 2007, off a flat pre-trend (Figure H8). The rise is robust to dropping any single case type, is concentrated in the years when post-*Buckhannon* filings come to dominate terminations, and appears precisely in the public-interest case types where the catalyst theory had been used, while being absent in commercial cases. Once a voluntary settlement no longer secured fees, plaintiffs pursued the merits judgments in order to secure the fee-shifted payments.

Figure H7: Fee-Shifting and Case Resolution



Notes: Federal civil terminations, 1978–2015, at the nature-of-suit level. Panel (a) plots the broad settlement rate against the plaintiff win rate conditional on trial, each nature-of-suit code one observation, for fee-shifting versus American-rule case types. Panel (b) reports the broad settlement rate, merits win rate, and trial win rate for American-rule controls, public-interest fee-shifting, and commercial fee-shifting case types. Source: Federal Judicial Center Integrated Database.

Figure H8: The *Buckhannon* Decision (2001) and the Merits Win Rate



Notes: The figure shows the difference-in-differences comparing fee-shifting to American-rule case types, by termination year. Specifically, this is an event study for the merits win rate around the 2001 *Buckhannon* decision, with nature-of-suit and calendar-year fixed effects and standard errors clustered by nature of suit. Source: Federal Judicial Center Integrated Database.

I Additional Figures and Robustness for Section 4

I.1 Section 4.1

Table I1: Employment Shares, Relative Wages, and Associate Lawyer Intensity: Full Specification

	<i>Panel A: Employment and Composition</i>					
	Δ Lawyer Emp. Share _t			Δ Associates per Partner _t		
	(1)	(2)	(3)	(4)	(5)	(6)
Δ Federal Regulation Pages _{t-5}	0.404*** (0.113)			0.377** (0.153)		
Δ Fee Shifting Statutes _{t-5}		0.712*** (0.113)			0.356** (0.141)	
Forward Amendment Rate _{t-5}			0.275 (0.235)			0.317** (0.131)
Δ Top Marg. Tax Rate _{t-5}	-0.300 (0.185)	-0.141 (0.123)	-0.172 (0.186)	-0.109 (0.259)	-0.041 (0.164)	-0.155 (0.143)
Δ Top Corp. Tax Rate _{t-5}	0.321** (0.128)	-0.109 (0.131)	-0.213 (0.201)	0.379* (0.207)	-0.045 (0.130)	-0.007 (0.143)
Δ Firms per Capita _{t-5}	0.480*** (0.100)	-0.005 (0.087)	0.077 (0.136)	0.095 (0.130)	-0.113 (0.103)	-0.119 (0.096)
Δ Patent Application Intensity _{t-5}	-0.360*** (0.101)	0.123 (0.083)	-0.233 (0.176)	0.112 (0.115)	0.193 (0.160)	-0.077 (0.127)
R-squared	0.64	0.59	0.23	0.17	0.14	0.11
Observations	54	91	91	54	80	80
	<i>Panel B: Compensation</i>					
	Δ Rel. Wage _t			Δ Rel. Wage (with income) _t		
	(1)	(2)	(3)	(4)	(5)	(6)
Δ Federal Regulation Pages _{t-5}	0.118 (0.098)			0.039 (0.239)		
Δ Fee Shifting Statutes _{t-5}		0.674*** (0.101)			0.484** (0.191)	
Forward Amendment Rate _{t-5}			0.648*** (0.196)			0.335 (0.237)
Δ Top Marg. Tax Rate _{t-5}	-0.380** (0.150)	-0.259 (0.289)	-0.218 (0.199)	-0.604*** (0.153)	-0.487* (0.249)	-0.438* (0.228)
Δ Top Corp. Tax Rate _{t-5}	0.274** (0.118)	-0.059 (0.226)	-0.133 (0.207)	0.386** (0.153)	0.104 (0.309)	-0.030 (0.305)
Δ Firms per Capita _{t-5}	0.654*** (0.106)	-0.032 (0.149)	-0.082 (0.104)	0.349** (0.157)	-0.083 (0.103)	-0.094 (0.088)
Δ Patent Application Intensity _{t-5}	-0.437*** (0.113)	0.103 (0.106)	-0.449*** (0.163)	-0.292 (0.211)	0.102 (0.215)	-0.285 (0.214)
R-squared	0.63	0.58	0.55	0.39	0.43	0.35
Observations	54	69	69	54	69	69

Notes: This table repeats Table 1, reporting the coefficients on the control variables, which are suppressed there. The dependent variables are changes in lawyers' employment shares, the ratio of associate lawyers to law firm partners, or relative wages from t to $t + 5$. The predictive variables are in changes from $t - 5$ to t ; the forward amendment rate enters as the lagged level. All of the series are normalized to have mean 0 and standard deviations of 1. All standard errors are computed using Newey-West with up to five lags and are robust to heteroskedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table I2: Employment Shares, Relative Wages, and Associate Lawyer Intensity: Civil Litigation

<i>Panel A: Employment and Composition</i>		
	Δ Lawyer Emp. Share _t	Δ Associates per Partner _t
	(1)	(2)
Δ Civil Cases per Capita _{t-5}	0.545*** (0.126)	0.485*** (0.088)
R-squared	0.41	0.22
Observations	91	80
<i>Panel B: Compensation</i>		
	Δ Rel. Wage _t	Δ Rel. Wage (with income) _t
	(1)	(2)
Δ Civil Cases per Capita _{t-5}	0.674*** (0.113)	0.467*** (0.143)
R-squared	0.66	0.46
Observations	69	69

Notes: This table repeats the specifications of Table 1 using civil litigation as the predictive variable. Civil cases are civil cases filed in U.S. district courts per capita beginning in 1950, spliced with civil appeals filed per capita before 1950. All standard errors are computed using Newey-West with up to five lags and are robust to heteroskedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

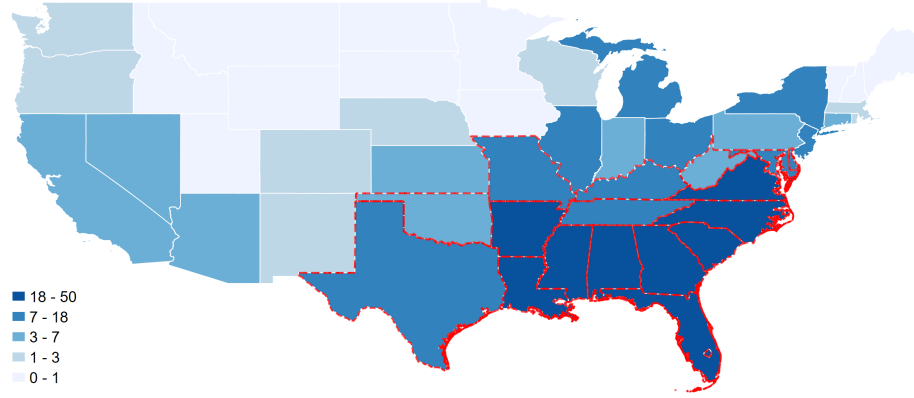
Table I3: Employment Share and Relative Wages of Legal Services

	Δ Legal Services Emp. Share _t			Δ Legal Services Rel. Wage _t		
	(1)	(2)	(3)	(4)	(5)	(6)
Δ Federal Regulation Pages _{t-5}	0.156* (0.087)			-0.121 (0.191)		
Δ Fee Shifting Statutes _{t-5}		0.763*** (0.105)			0.082 (0.216)	
Forward Amendment Rate _{t-5}			0.403* (0.204)			0.310* (0.164)
R-squared	0.73	0.67	0.30	0.27	0.38	0.43
Observations	54	91	91	41	67	67

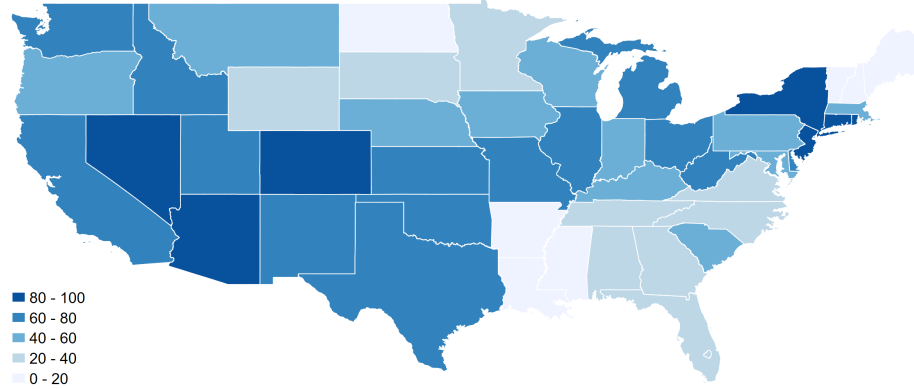
Notes: This table repeats the specifications of Table 1 for legal services industry outcomes. The dependent variables are changes from t to $t + 5$ in the employment share of the legal services industry (Columns 1–3) and in the relative wage of the legal services industry, including proprietors' income (Columns 4–6). All standard errors are computed using Newey-West with up to five lags and are robust to heteroskedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

I.2 Section 4.3

Figure I1: Cross-State Variation in Exposure to Federal Legislation



(a) Black Employment Share, 1960 (%)



(b) CAA Non-attainment Exposure, 1970 (%)

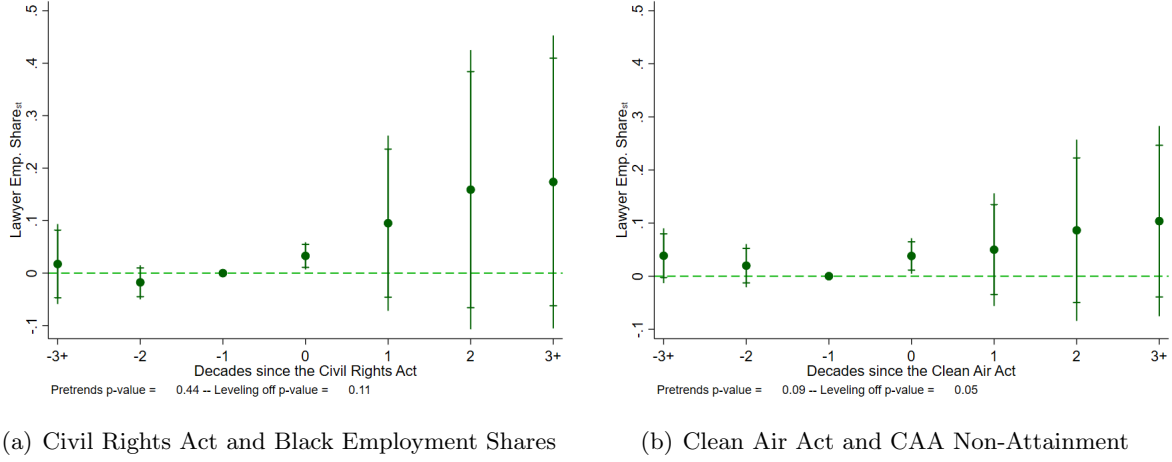
Notes: Panel (a) maps state's Black employment share in the 1960 Census, in percent of total state employment; states outlined with a dashed red border are Jim Crow states, defined as states that segregated schools by law prior to Brown v. Board of Education. In (b), maps the share of the state's 1970 manufacturing employment located in imputed TSP-non-attainment counties, in percent.

Table I4: Federal Legislation and State-level Demand for Legal Services

	Legal Svcs. Emp. Share _{st}		Rel. Wage, Lawyers in Legal Svcs. _{st}		Rel. Wage, Legal Svcs. Industry _{st}	
	(1)	(2)	(3)	(4)	(5)	(6)
Black Emp. Share _{s,1960} × Post _t	0.284** (0.138)	0.274*** (0.088)	0.002 (0.121)	-0.008 (0.073)	-0.025 (0.129)	-0.033 (0.086)
CAA Non-Attainment _{s,1970} × Post _t		0.168** (0.069)		0.224 (0.140)		0.150* (0.083)
Controls	×	×	×	×	×	×
Observations	343	343	337	337	340	340
Within R-sq.	0.222	0.299	0.002	0.032	0.004	0.037
Mean dep. var.	0.803	0.803	1.865	1.865	1.299	1.299

Notes: This table replicates Table 2, but uses the legal services industry outcomes, instead of restricting to lawyers within legal services. * p< 0.1, ** p<0.05, *** p<0.01.

Figure I2: Exposure to Federal Legislation: Event Studies with Pre-Trend Diagnostics



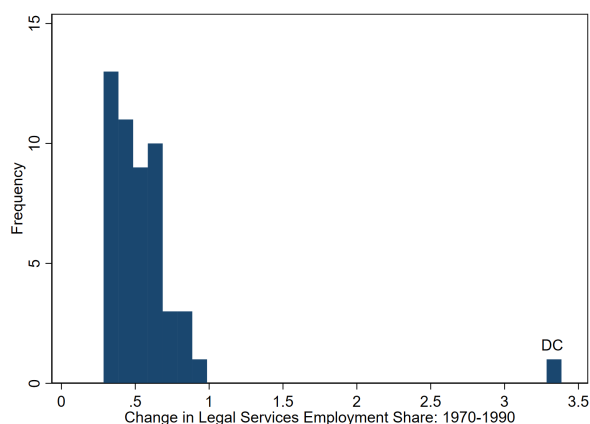
Notes: The figure reports the baseline event studies of Figure 7—the specifications of Columns (1) and (3) of Table 2—re-estimated with the panel event-study estimator of Freyaldenhoven et al. (2021) (the `xtevent` package). Event time is in decades: event time 0 is 1970, and the coefficient at event time -1 (1960) is normalized to zero, so in (b) the reference period is 1960 rather than 1970 as in Figure 7(b). The endpoints, labeled $-3+$ and $3+$, accumulate all decades at or beyond that event time. The pre-trends p-value is from the joint Wald test that the pre-event coefficients are zero; the leveling-off p-value tests whether the post-event coefficients have stabilized.

Table I5: Federal Legislation and Litigation in the States

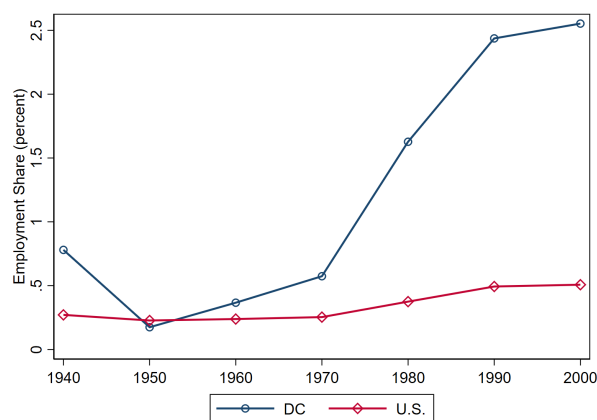
	Civil Rights Filings _{st}				Environmental Filings _{st}			
	Levels		asinh		Levels		asinh	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black Emp. Share _{s,1960} × 1980s	2.389 (1.476)	3.685* (2.113)	-0.011 (0.032)	-0.005 (0.047)				
Black Emp. Share _{s,1960} × 1990s	6.307* (3.513)	9.447* (5.005)	0.005 (0.038)	0.010 (0.054)				
CAA Non-Attainment _{s,1970} × 1980s					0.029 (0.026)	0.020 (0.047)	0.023 (0.019)	0.003 (0.030)
CAA Non-Attainment _{s,1970} × 1990s					0.126 (0.078)	0.264* (0.156)	0.066** (0.025)	0.105** (0.041)
Controls		×		×		×		×
Mean Dep. Var.	9.76	9.76	2.69	2.69	0.41	0.41	0.34	0.34
Observations	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519
Within R-sq.	0.261	0.313	0.001	0.001	0.020	0.053	0.018	0.035

Notes: This table examines litigation related to federal legislation: civil rights filings (nature-of-suit codes 440–444, Columns 1–4) and environmental filings (nature-of-suit code 893, Columns 5–8). Within each outcome, the first two columns use the level of per-capita filings and the last two its inverse hyperbolic sine. The levels coefficients measure differential absolute growth in filings, the asinh coefficients approximately differential proportional growth. Cases are assigned to the state of the district court where they are filed; the source of the case data is the Federal Judicial Center Integrated Database. Exposure measures are as in Table 2. Because the case data begin in 1970, there is no pre-passage period; the exposures are instead interacted with 1980s and 1990s indicators, so coefficients measure the differential growth of filings in more-exposed states relative to the 1970s. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

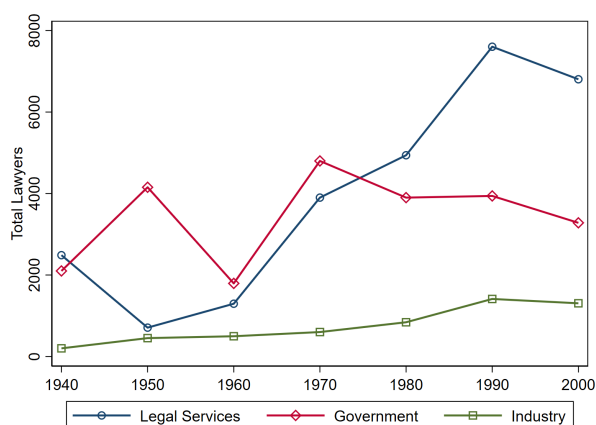
Figure I3: Lawyers in Washington, D.C.



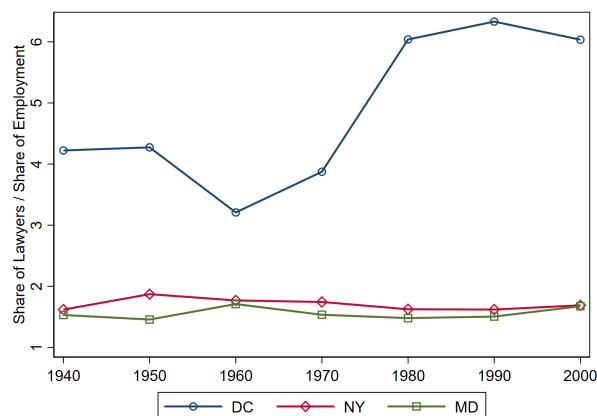
(a) State-Level Changes in Emp. Share



(b) Employment Share of Lawyers in Legal Services



(c) Number of Lawyers, by Type



(d) Lawyer Share by Employment Share in DC, NY, MD

Notes: Figure (a) presents the change in the share of legal services employment in each state, from 1970 to 1990. While all of the states experienced increases in the legal services employment share, DC is a clear outlier. Figure (b) presents the share of employment in DC that is employed as lawyers in legal services. As a reference, the employment share of lawyers in legal services in the entire U.S. is also included. Figure (c) compares the total employment of lawyers in DC by “type” (legal services, government, and industry). Finally, Figure (d) shows the comparative advantage of lawyers in DC: the share of lawyers in DC over the share of lawyers in the United States. The next two top states, by this measure, are NY and MD.

I.2.1 The Clean Water Act

We construct a state-level exposure measure capturing a state's exposure to the Clean Water Act: the share of the state's 1970 manufacturing employment located within 50 km of a navigable water—major interstate rivers, the Great Lakes, and the coastline—since plants near navigable waters are the direct dischargers subject to federal permitting. Waterway geography from Natural Earth (10m river centerlines, lakes, and coastline); county centroids from the Census gazetteer; county manufacturing employment in 1970 from the BEA. The exposure measure is standardized. Because the CWA passed in October 1972, after the 1970 census enumeration, the post period begins with the 1980 census. Even where the CWA binds, its institutional design gives it less scope to raise the demand for lawyers than the Clean Air Act. Its largest instrument was a subsidy, and its enforcement generated little of the uncertainty that drives legal effort in our framework. So we would expect smaller effects of the CWA on lawyer demand.

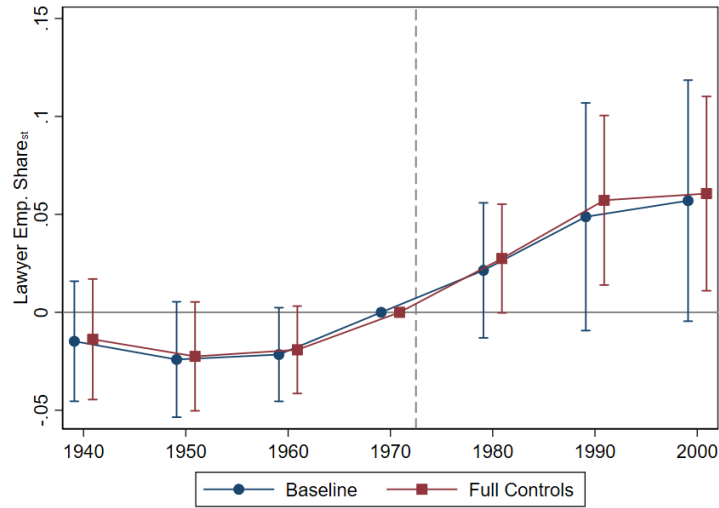
Table I6 reports the results for the specification of equation (5). States with exposure to navigable-water are differentially increasing in lawyer employment share. However, the event study in Figure I4 suggests that states with manufacturing near navigable water were already gaining lawyer employment share steadily between 1950 and 1970, and the post-1972 estimates simply continue that trajectory. Allowing exposed states their own linear trend eliminates the estimate entirely (Column 3). Census-division-by-year fixed effects, which absorb regional trends, cut the effect by a third (Column 4). The CAA estimate, by contrast, survives both tests (Columns 5–6).

Table I6: The Clean Water Act and Lawyer Employment: Exposure Measures and Diagnostics

	Lawyer Emp. Share _{st}					
	(1)	(2)	(3)	(4)	(5)	(6)
CWA Navigable-Water Exp. _{s,1970} × Post _t	0.058** (0.027)	0.065** (0.025)	0.043 (0.031)	0.041** (0.016)		
CAA Non-Attainment _{s,1970} × Post _t					0.065** (0.026)	0.150*** (0.054)
Controls		×	×	×	×	×
Exposure × Trend			×		×	
Division × Year FE				×		×
Observations	343	343	343	343	343	343
Within R-sq.	0.047	0.332	0.335	0.384	0.326	0.345

Notes: Levels difference-in-differences with state and year fixed effects; standard errors clustered by state. All exposure measures are standardized. CWA navigable-water exposure is the share of the state's 1970 manufacturing employment within 50 km of a major interstate river, Great Lake, or the coastline. CAA non-attainment exposure as in Table 2. The CWA post period begins in 1980 (the Act passed in October 1972); the CAA post period begins in 1970, as in the main text. Controls: manufacturing employment share × Post, Black employment share × Post, and Jim Crow × Post. * p< 0.1, ** p<0.05, *** p<0.01.

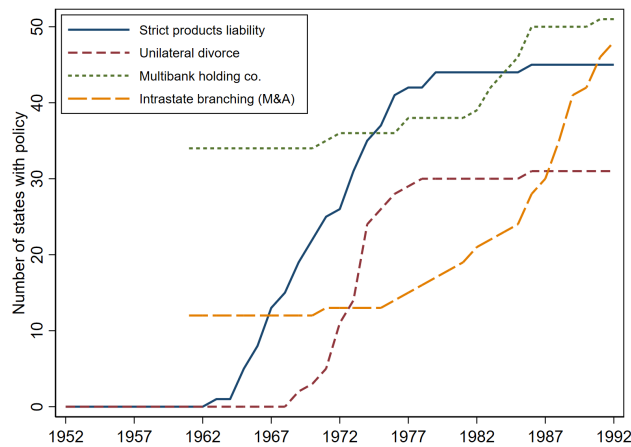
Figure I4: The Clean Water Act and Lawyer Employment Share: Event Study



Notes: Event-study version of equation (5) for the navigable-water exposure measure (standardized), interacted with census-year indicators; the omitted year is 1970 and the dashed line marks the passage of the Clean Water Act (October 1972). The full-controls series adds manufacturing employment share, Black employment share, and Jim Crow indicators interacted with census-year indicators. Exposed states trend upward already between 1950 and 1970, and the post-1972 estimates continue that pre-existing trajectory. Bars show 95% confidence intervals; standard errors are clustered by state.

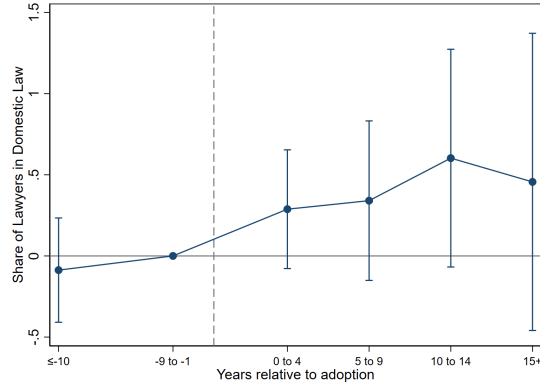
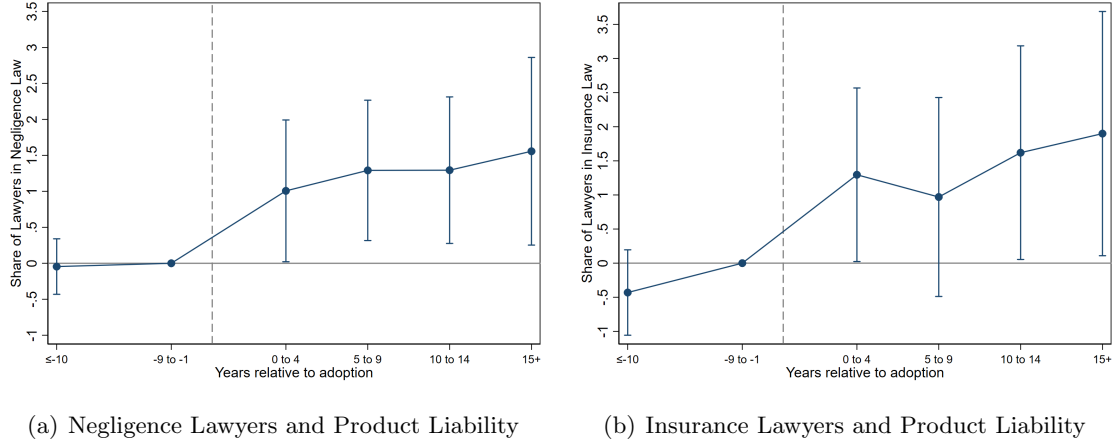
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Figure I5: Timing of state-level policy adoption



Notes: Each series reports the number of states with the respective policy, by year. Strict products liability dates come from Vargo (1996), unilateral divorce from Friedberg (1998) and Wolfers (2006), and the banking deregulation series, which start in 1961, are from Mengle (1990) and Black & Strahan (2001).

Figure I6: Event Studies for State-Level Field Results



Notes: Binned event studies of the field share on years relative to policy adoption, with state and year fixed effects and standard errors clustered by state (DC and MD excluded). Relative time is pooled into bins because of the 1964–71 gap between the Martindale-Hubbell and Census of Services samples and the five-year spacing of the latter; the -9 to -1 bin is the omitted reference and the ≤ -10 (Martindale-Hubbell) bin is the pre-trend check. Bars are 95% confidence intervals.

Table I7: Strict Products Liability and Negligence Lawyers,

	Plaintiff Negligence Share _{st}		Defendant Negligence Share _{st}		Negligence Share _{st}	
	(1)	(2)	(3)	(4)	(5)	(6)
Strict Products Liability _{st}	1.320*** (0.441)	1.353*** (0.399)	0.444 (0.551)	0.473 (0.580)	1.750* (0.983)	1.819* (0.924)
Observations	493	493	493	493	493	493
Within R-sq.	0.073	0.112	0.007	0.020	0.039	0.068
Mean dep. var.	4.505	4.505	5.354	5.354	9.676	9.676

Notes: Two-way (state and year) fixed-effects regressions of the field share on the policy indicator and the total number of lawyers; standard errors clustered by state; DC and MD excluded. Columns (1)–(2) use the plaintiff-side negligence share, (3)–(4) the defendant-side share, and (5)–(6) total negligence; within each pair, the second column adds controls for other contemporaneous state legislation. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table I8: State Legislation and Fields of Law: Including DC and Maryland

	Field of Law Share _{st}			
	(1) Negligence	(2) Insurance	(3) Domestic	(4) Banking + Corp.
<i>State legislation:</i>				
Strict Products Liability _{st}	0.949* (0.496)	1.483* (0.759)		
Unilateral Divorce _{st}			0.470** (0.193)	
Multibank Holding _{st}				1.531 (1.034)
Intrastate Branching, M&A _{st}				1.756** (0.841)
Observations	527	527	527	527
Within R-sq.	0.036	0.058	0.056	0.060
Mean dep. var.	4.450	4.290	1.758	12.317

Notes: This table repeats the baseline specifications of Table 3 without excluding DC and MD. Two-way (state and year) fixed-effects regressions of the field share on the policy indicator and the total number of lawyers; standard errors clustered by state. * p<0.1, ** p<0.05, *** p<0.01.

Table I9: State Legislation and Fields of Law: Callaway–Sant’Anna Estimates

	(1) Negligence	(2) Insurance	(3) Domestic	(4) Banking + Corp.
ATT	0.810 (0.579)	0.869 (1.473)	0.394 (0.313)	1.427 (1.132)
Treatment	Prod. Liab.	Prod. Liab.	Unil. Divorce	Multibank Hold.
Observations	391	391	115	30

Notes: The table reports average treatment effects on the treated from the staggered-adoption estimator of Callaway & Sant’Anna (2021): group-time effects are aggregated with the “simple” aggregation, using not-yet-treated states as controls. Negligence and insurance use the full sample; domestic and banking + corporate use the Census of Services window (1972 onward), so states treated before 1972 are excluded. Standard errors clustered by state; DC and MD excluded. * p<0.1, ** p<0.05, *** p<0.01.

State	Year	Leading case or statute
Alabama	1976	<i>Casrell v. Altec Indus.</i> , 335 So.2d 128
Alaska	1969	<i>Clary v. Fifth Ave. Chrysler</i> , 454 P.2d 244
Arizona	1968	<i>O.S. Stapley Co. v. Miller</i> , 447 P.2d 248
Arkansas	1973	1973 Ark. Acts No. 111 (statute)
California	1963	<i>Greenman v. Yuba Power Prods.</i> , 377 P.2d 897
Colorado	1975	<i>Hügel v. Gen. Motors</i> , 544 P.2d 983
Connecticut	1965	<i>Garthwait v. Burgio</i> , 216 A.2d 189
D.C.	1970	<i>Cottom v. McGuire</i> (approx.; no distinct point)
Florida	1976	<i>West v. Caterpillar Tractor Co.</i> , 336 So.2d 80
Georgia	1968	Ga. Code Ann. §51-1-11 (statute)
Hawaii	1970	<i>Stewart v. Budget Rent-A-Car</i> , 470 P.2d 240
Idaho	1974	<i>Shields v. Morton Chem. Co.</i> , 518 P.2d 857
Illinois	1965	<i>Suvada v. White Motor Co.</i> , 210 N.E.2d 182
Indiana	1973	<i>Ayr-Way Stores v. Chitwood</i> , 300 N.E.2d 335
Iowa	1970	<i>Hawkeye-Sec. Ins. v. Ford Motor Co.</i> , 174 N.W.2d 672
Kansas	1976	<i>Brooks v. Dietz</i> , 545 P.2d 1104
Kentucky	1965	<i>Dealers Transp. v. Battery Distrib.</i> , 402 S.W.2d 441
Louisiana	1971	<i>Weber v. Fidelity & Cas. Co.</i> , 250 So.2d 754
Maine	1973	Me. Rev. Stat. tit. 14, §221 (statute)
Maryland	1976	<i>Phipps v. Gen. Motors Corp.</i> , 363 A.2d 955
Minnesota	1967	<i>McCormack v. Hanksraft Co.</i> , 154 N.W.2d 488
Mississippi	1966	<i>State Stove Mfg. Co. v. Hodges</i> , 189 So.2d 113
Missouri	1969	<i>Keener v. Dayton Elec. Mfg. Co.</i> , 445 S.W.2d 362
Montana	1973	<i>Brandenburger v. Toyota Motor Sales</i> , 513 P.2d 268
Nebraska	1971	<i>Kohler v. Ford Motor Co.</i> , 187 N.W.2d 601
Nevada	1966	<i>Shoshone Coca-Cola v. Dolinski</i> , 420 P.2d 855
New Hampshire	1969	<i>Elliott v. Lachance</i> , 256 A.2d 153
New Jersey	1965	<i>Santor v. A&M Karagheusian</i> , 207 A.2d 305
New Mexico	1972	<i>Stang v. Hertz Corp.</i> , 497 P.2d 732
New York	1973	<i>Codling v. Paglia</i> , 298 N.E.2d 622
North Dakota	1974	<i>Johnson v. Am. Motors Corp.</i> , 225 N.W.2d 57
Ohio	1977	<i>Temple v. Wean United</i> , 364 N.E.2d 267
Oklahoma	1974	<i>Kirkland v. Gen. Motors Corp.</i> , 521 P.2d 1353
Oregon	1967	<i>Heaton v. Ford Motor Co.</i> , 435 P.2d 806
Pennsylvania	1966	<i>Webb v. Zern</i> , 220 A.2d 853
Rhode Island	1971	<i>Ritter v. Narragansett Elec. Co.</i> , 283 A.2d 255
South Carolina	1974	S.C. Code Ann. §15-73-10 (statute)
South Dakota	1973	<i>Engberg v. Ford Motor Co.</i> , 205 N.W.2d 104
Tennessee	1967	<i>Olney v. Beaman Bottling Co.</i> , 418 S.W.2d 430
Texas	1967	<i>McKisson v. Sales Affiliates</i> , 416 S.W.2d 787
Utah	1979	<i>Hahn v. Armco Steel Co.</i> , 601 P.2d 152
Vermont	1975	<i>Zaleskie v. Joyce</i> , 333 A.2d 110
Washington	1969	<i>Ulmer v. Ford Motor Co.</i> , 452 P.2d 729
West Virginia	1979	<i>Morningstar v. Black & Decker</i> , 253 S.E.2d 666
Wisconsin	1967	<i>Dippel v. Sciano</i> , 155 N.W.2d 55
Wyoming	1986	<i>Ogle v. Caterpillar Tractor Co.</i> , 716 P.2d 334
<i>Never adopted:</i> Delaware, Massachusetts, Michigan, North Carolina, Virginia		

Table I10: Year of Adoption of Strict Products Liability, by State

Notes: Each state's year of first adoption of strict products liability under §402A of the Restatement (Second) of Torts, together with the leading adopting decision (or statute). Both are taken from Vargo (1996), whose Part III surveys the case law and statutes of every state. We read that survey state by state and record the identified decision or statute and its year. Four states adopted by statute rather than by judicial decision and five states never adopted §402A over our sample period.