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**Bringing “Honest Capital” to Poor Borrowers:
The Passage of the Uniform Small Loan Law, 1907-1930**

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Abstract

The Uniform Small Loan Law (USLL) was the Russell Sage Foundation’s primary device for fighting what it viewed as the scourge of high-rate lending to poor people in the first half of the twentieth century. The USLL created a new class of lenders who could make small loans at interest rates exceeding those allowed for banks under the normal usury laws. About two-thirds of the states had passed the USLL by 1930. This paper describes the USLL and then uses econometric models to investigate the state characteristics that influenced the law’s passage. We find that urbanization and state-level economic characteristics played significant roles. So did measures of the state’s banking system. We find no evidence that party-political affiliations had any effect, which is consistent with the USLL’s “progressive” character. Finally, we find little evidence that the passage of the USLL in one state made passage more likely in neighboring or similar states. If anything, the cross-state influences were negative. Our findings suggest that the Russell Sage Foundation only imperfectly understood the political economy of the USLL, and that a different overall approach might have produced a result closer to their aims.

JEL Codes: N21, N22, I38, G21, G28, K23

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For the first forty years of its existence the Russell Sage Foundation (RSF) focused heavily on efforts to reform the conditions under which poor people obtained credit in the United States. Through lobbying, research, publications, and other efforts, the Foundation identified itself as the clearinghouse for information, the leader of several reform proposals, and the primary interlocutor for lenders and industry groups that sought to improve their industry's image. This paper focuses on the Foundation's main initiative, the Uniform Small Loan Law (USLL). A uniform law is a model bill that is introduced separately in many state legislatures; in theory, this approach can lead to every state having the same law for the matter in question. The USLL reflected two central ideas. The law's supporters thought that making small loans was inherently expensive, and that the only way to have it done by legitimate business was to allow small-loan lenders who could charge up to 3.5 percent interest per month, far in excess of the interest rates allowed under existing state usury laws. The law reflected the perception that borrowers were hurt less by high interest rates than by other features of the "loan-sharking" business, such as a lack of transparent terms.

Two-thirds of the states passed the USLL, and it formed the basis for the federal consumer credit regulations enacted in the 1960s. Many of the issues raised in connection with the USLL in the early part of the twentieth century remain with us today. States are faced with the problem of pawnshops and so-called "payday" lenders, whose interest rates seem exorbitant to people used to borrowing from a bank. Like the lenders the USLL sought to displace, contemporary providers of small loans argue that the cost of lending in this market require high interest rates to generate a competitive return on invested capital. The USLL also reflects a major divergence between the US and many European countries. In many European countries, credit cooperatives became a major part of the consumer- and small-business lending market in the late nineteenth century, and remain so today. The U.S. credit union sector is tiny in comparison to that of Germany, the Netherlands, and other European countries. The reasons for this divergence are complex and cannot be addressed fully here. But we see in the USLL's history two major

foundations, Russell Sage Foundation and the Twentieth Century Fund, making very different determinations of how to address this issue.

This paper focuses on the USLL's passage: which states passed the law, and when. After describing the USLL and the Foundation's role in drafting and pushing the measure, we develop and estimate econometric models of the law's progress through the states. The econometric analysis reflects our reading of the Foundation's rich archives, its own publications, and other contemporary writings. The larger project addresses several related issues that cannot be discussed at length here. Anderson, Carruthers, and Guinnane (2009a) studies the way the Russell Sage Foundation positioned itself as a source of expertise in the general area of credit for poor people. This paper contains more extensive narrative and archival material not reproduced here. Anderson, Carruthers, and Guinnane (2009b) addresses the broader question of why the Foundation decided to push the USLL: why, after brief involvement in other remedies described below, it focused on the uniform-law approach. The evidence on this point supports two types of motivations. One was the Foundation's understanding of the way this credit market worked; it had a purely intellectual reason to support the approach embodied in the USLL. The other set of reasons turn on the Foundation's goals as an institutional actor. The uniform-law approach was more likely to allow the RSF to make an impact in this field without a permanent commitment of resources, and without entangling it in disputes with other entities such as Edward Filene's Twentieth Century Fund.¹ A final paper (Carruthers and Guinnane 2009) studies the industry the USLL created, using lender-level data from several states to describe the size and structure of the new small-loan lenders, and using policy experiments in the late 1920s to investigate the lenders' sensitivity to the maximum interest rate.

Figure 1 displays the time-path of the USLL's passage. Although a few states passed the measure after 1930, we end our econometric investigation at that point for reasons discussed below. Figure 2 displays the states that passed the measure and when they did so. This map

¹ Anderson (2008) develops political learning theory by demonstrating how institutional conditions and political pressures contributed to the emergence and development of RSF experts' policy ideas, and discusses the implications of the USLL episode for current understandings of institutional change. A final paper in the project will use the records of state regulatory authorities to study the small-loan industry created by the USLL.

suggests strong geographic spillovers which are the subject of much econometric investigation. The present examination focuses on the process of pushing the law through the several states. A number of studies have examined the determinants of states' decision to pass a specific law or set of laws. The most comprehensive analysis of this sort is Fishback and Kantor's study of the political-economy of workmen's compensation laws (Fishback and Kantor 1998a, 2000). Our econometric approach differs from theirs, and we focus on a single legislative measure. But the spirit of the analysis is similar.

1. Credit for the Poor and the Foundation's activities

Starting in the 1890s, reformers in the U.S. came to view credit as a serious problem in causing or exacerbating poverty (see, for example, Calder (1999, pp.112-123)). In their eyes, borrowers usually sought small loans only because of financial necessity: unexpected medical expenses or interrupted income due to unemployment. The circumstances surrounding emergency borrowing threatened to drive small debtors into the hands of loansharks, and other unscrupulous lenders.²

The Foundation was established in April of 1907 in New York City. Credit for poor people was an initial concern and remained a major focus of the Foundation's efforts until World War II. During the period of its involvement, RSF tried several different approaches. The first was to publicize the problem and to enlighten potential borrowers about what they might be getting into. But most of RSF's early efforts amounted to trying to create alternative sources of credit for poor people that could drive the high-rate lenders out of business. One such source involved Remedial Loan Societies, some of which preceded the Foundation. These charitable lending institutions provided credit to poor people at rates much lower than those charged by for-profit lenders. Many of these, such as New York's Provident Loan Society, adopted a pawn-shop

² Olney (1989, 1991) shows that the Foundation under-estimated the range and extent of consumer lending in the early twentieth century. The exact purpose of such borrowing is the subject of confident assertion, but the only systematic effort to survey borrowers was, by the Russell Sage Foundation's own admission, a failure. Carruthers and Guinnane (2009) discusses what is known about the purpose of small loans.

lending model, but kept their interest rates relatively low by covering costs through donations and below-market dividends to owners.³

Given the Foundation's small size, the leaders of the department responsible for credit matters played a major role in the direction and success of RSF's efforts. Arthur Ham, the first RSF employee charged with leading its efforts on the small-loan issue, was apparently an abrasive character, but he left the Foundation in 1919 (although he remained involved in the question in other capacities.) His replacement, Walter Hilborn, was a lawyer. When he left the Foundation in 1925, RSF hired Leon Henderson, an economist and skilled political operative, to run its credit division. He had previously worked for the governor of Pennsylvania and went on to major positions under the New Deal. Henderson's assistant, Rolf Nugent, took over as the Foundation's direct for credit matters in 1934, and continued the advocacy work but showed more interest in systematic research. Nugent was seconded to the federal government and later to the United Nations' precursor, and was never replaced. When Nugent died in 1946, the RSF shut down the relevant department and discontinued all efforts in this field, but in truth the Foundation's efforts had been moribund since before 1942, when Nugent left.

RSF played an instrumental role in the early days of the U.S. credit-union movement. The Foundation's ardor for credit unions had cooled considerably by the 1920s, however. The reasons were several. One was its intellectual understanding of the small-loan problem. The philosophical, political, and economic underpinnings of the credit-union and USLL approaches are quite different. Credit unions run on a not-for-profit basis, distributing all surplus to members through higher rates on deposits, lower loan costs, or dividends on membership shares. The entire point of the Uniform Small Loan Law was to attract private capital with the promise of profits. Perhaps just as important were institutional and personal conflicts. A major problem for RSF's involvement in the credit-union field was the personality of Foundation employees and their relationship with another key figure in the credit union movement. Edward Filene's Twentieth Century Fund had staked out credit unions as its turf in the credit arena, and while the Fund tried

³ The Provident Loan Society was founded in 1894 as a project of New York's Charity Organization Society. It required a special charter from the New York state legislature. See Provident Loan Society (1944).

several times to work out a *modus vivendi* with the RSF, the relationship was awkward at best. The personal problems stemmed from repeated conflict between Roy Bergengren, who was Filene's man for the credit-union groups, and Nugent especially.⁴ But the problems were not just personalities; some at least saw credit unions as threats to for-profit small loan brokers. In 1923, a credit-union enabling act in Illinois went down to defeat because of the influence of small loan lenders.⁵

The RSF also tried to promote consumer lending by ordinary commercial banks, again with an eye to market competition that might reduce costs to borrowers. Commercial banks were late entrants into this field, in part because of legal restrictions on the lending activities of national banks. The first personal loan department in a commercial bank dates to 1924. RSF assisted several New York banks in setting up these new loan departments, providing samples of forms used by credit unions as guides to deal with small loans.⁶ It also considered various legislative measures for banks, although these ran aground on the question of whether state laws legalizing personal loans would apply to federally-chartered banks.⁷ Some banks objected to the legislation proposed by the foundation.⁸ In general and despite some effort on the part of the RSF, commercial banks were slow to make small loans to individuals.⁹

2. The Uniform Small Loan Law

The Foundation's most sustained effort in the small-loan arena went into the creation and promulgation of a uniform law to cover small-loan lenders. The RSF's involvement in the USLL

⁴ Edward Filene had hired Roy Bergengren in 1921 to work for Filene's Credit Union Extension Bureau. Bergengren had previously worked with the credit-union group in Massachusetts.

⁵ Letter from Bergengren to Coombs, April 16 1923, RAC Box 26 Folder 20. The Russell Sage Foundation's credit activities left two archives. The larger is in the Library of Congress manuscripts division. We refer to it as "LC." A smaller body of material considered too sensitive for public dissemination was deposited with the Rockefeller Archive Center in Tarrytown, NY. We refer to this as RAC.

⁶ One bank that set up a new loan department was the First National City Bank of New York, whose president, Charles Norton, joined the RSF board of trustees in 1918. See RAC 28/216 "Memoranda of Information Requested by Trustees' Committee on Small Loan Question" and *New York Times* May 13, 1928, p.134

⁷ LC 101, "Applicability of State Statues to National Banks" folder.

⁸ For example, LC 105, "City Bank – Washington DC" folder. Nugent, in particular, believed that commercial banks were simply afraid to admit publicly how much they would have to charge for a small loan (see RAC 24/188, "Memorandum April 27, 1943" p.6)

⁹ RAC 28/216, p.7.

involved two separate tasks: writing (in consultation with other interested parties) a model law suitable for adoption in multiple jurisdictions, and encouraging its promulgation, passage and enforcement. This particular uniform law strategy was relatively new to American politics, but was not the invention of the RSF. Starting in the 1880s, the American legal profession, acting through the newly-established American Bar Association, devised a long-term plan to codify and standardize state laws. Legal variability and uncertainty across jurisdictions were an ongoing problem. National legislation to deal with various social and economic problems was not an option because of how the U.S. constitution allocated powers between state and national government. The uniform law strategy seemed to be a way through these constraints. Promulgating law at the state level ensured constitutionality, but at the same time legal uniformity defused the problems created by multiple jurisdictions.¹⁰

One of the prime movers behind uniform laws was the National Conference of Commissioners on Uniform State Laws (NCCUSL). This group emerged from the American Bar Association in the late 1880s and was later joined in its efforts by the American Law Institute (ALI), established in 1923 (Grant (1938, p.1086)). Together, they devised canonical restatements of law and promoted model laws, eventually including the Uniform Commercial Code (Frank (1998), White (1997)). RSF correspondence suggests that the foundation tried to coordinate with the NCCUSL on laws pertaining to credit.¹¹

Regional variations existed in the adoption of uniform laws. Southern states, for example, were generally less willing to adopt uniform labor legislation, fearing that it might undercut their labor cost advantages with respect to northern states (Graebner (1977, p. 337)). The uniform law strategy generally worked better for commercial rather than social legislation. The first uniform law proposed by the NCCUSL was the Uniform Negotiable Instruments Act of 1896, adopted in thirty-eight states and territories by 1910 (Lapp 1910). This was followed by a uniform warehouse receipts act, uniform sales act, uniform bills of lading act, and so on. Indeed, by 1919 eleven of the thirteen uniform laws adopted by states were commercial in nature (Guild 1920). As

¹⁰ We discuss the reasons for the uniform law strategy at greater length in Anderson, Carruthers, and Guinnane (why).

¹¹ One letter of 17 November, 1919, was sent to a J. Hansell Merrill, appointed by the NCCUSL to consider anti-loan shark laws. See LC 4, “Anti-Loan Shark Committee” folder

a commercial law serving a social purpose, the USLL was something of a hybrid, but it was not the only uniform law that one might view as having a social purpose. There were uniform laws proposed for enabling credit unions and savings banks, for example.¹²

One feature of the uniform-law strategy seems odd for the USLL. As Smythe (2008) emphasizes for the Uniform Sales Act, there are areas of law where legal differences across states impose transactions costs on households and firms. A firm located in New Jersey, for example, might prefer that both its state and all the states in which it does business have identical laws to reduce its legal uncertainty and costs arising from inter-state sales. No such argument can be made for the USLL, at least with the same force. The larger chain lenders that formed to lend under the USLL operated in many states, and might well have preferred that the small-loan law in each state be similar. But they rarely lent across state lines, and in any case small-loan legislation was very simple. We return to this issue below.

RSF and the USLL

At first, the RSF's legislative work consisted largely of pushing state authorities to enforce existing laws. Ham was apparently enthusiastic about these "crusades" (Ham 1912). A more consistent effort entailed following legislative proposals and seeking to influence them in a particular direction. Starting in 1910, Ham was involved with state legislatures in their efforts to regulate the small loan business.¹³ A few states such as Massachusetts already had special small-loan statutes on their books, and these clearly formed the basis for the USLL. By 1913 Ham, working with the National Federation's Committee on Legislation, had worked out eight key features that all state laws should contain. The several successive drafts of the Uniform Small Loan Law (USLL) negotiated over the next decades all reflected these ideas. They included: (1) Licenses for lenders who charged more than the legal interest rate set for banks; (2) Bonds to ensure observance of the law; (3) A maximum interest rate higher than that allowed for banks (3.5% per month), coupled with a prohibition on ancillary fees; (4) Enforcement by public

¹² See Anonymous 1931 (pp.1132-33) notes that most credit-union legislation was promoted by CUNEB, so even though it was not technically uniform law it had that flavor. .

¹³ The early legislative efforts also sought to gain charters for remedial lenders; like credit unions, they did not fit comfortably into existing banking law.

officials; (5) Penalties for violation; (6) Notice to employer and to wife in the case of assignment of wages; (7) Records that can be inspected by supervision officer; (8) Borrowers to receive memorandum of transactions along with relevant sections of state law.

In all its versions the USLL defined a small loan as \$300 or less. To put this sum in perspective, in 1925 the average annual earnings of a non-farm worker were \$1,434.¹⁴ The first incarnation of RSF's Uniform Small Loan law was New Jersey's Egan Act, passed in 1914. Ham's role in passage of the Egan Act was considerable, and went beyond that of technical advisor. He drafted the legislation and helped organize support at each stage of the bill's legislative career. This pattern continued after Ham left the foundation, with revisions to the Uniform Law and efforts to pass it in all remaining states. By 1915, six states had the USLL. Then, however, political opposition to the measure grew more organized. The law passed on close votes in six more states in 1917, but failed in California.

Internal RSF documents reflect a considerable lobbying effort on the part of the foundation to secure passage. By 1929, RSF staff had made field visits to more than thirty states, meeting with legislators, staffers, and other interested parties to urge adoption of the USLL.¹⁵ When Leon Henderson was hired by the Foundation in 1925, his first act was to visit the states where the USLL was in operation. Through 1929 he was heavily involved in organizing support for the Act in the states where it was in play, and defending efforts to weaken the law in states that had enacted it earlier (Glenn *et al* (1947, pp.342-343)).

RSF staffers had a clear perception of who their opponents were. The USLL appeared not to have had a consistent party-political identification. Rather, its opponents were ad-hoc coalitions of interests representing the current small-loan lenders, rather than political parties or more formal groups. Henderson wrote to John Glenn (RSF director), in March 1927 from Topeka, Kansas, noting that "The salary buyers were very active but did not make any progress

¹⁴ Series D-780, *Historical Statistics of the United States*. To put it differently: in 1925, average hourly earnings in manufacturing industries was 64.5 cents (series D-766). Thus a USLL loan could be as much as 465 hours of earnings. In January of 2008, the average hourly earnings of a manufacturing worker were \$17.05 (Bureau of Labor Statistics website, from the Current Population Survey <http://www.bls.gov/news.release/empsit.t16.htm>). A loan equal to 465 hours of these earnings would be \$7.928.

¹⁵ RAC 28/216.

until last week when they seemed to have connected up with some Republican enemies of the Governor, who has been helping us all the time. ... There is no doubt in my mind that a big bundle of money was used against our bill.”¹⁶ In state after state, it was the RSF versus the same “loan sharks” and salary lenders that the RSF hoped to drive out of the small loan market.¹⁷

The RSF sought allies in various quarters, including among labor unions whose members were hurt when they, as delinquent borrowers, had their wages attached. Similarly, employees of large manufacturing firms appear to have been a particular target of some abusive lenders. By the 1920s such firms often paid relatively generous wages and had organized personnel departments that made it simple for lenders to attach wages, or to threaten to attach wages. Some such firms lent support to the USLL effort. Working to pass the USLL in Missouri in 1927, Henderson wrote to Glenn about both enemies and friends:

The loan sharks, particularly from St. Louis, have been doing their work quietly and we may not have located all the possible sources of opposition. On the other hand, last week representatives of the railroad brotherhoods, the state federation of labor, the attorney representing the railroads and the street car lines from Kansas City, and several others were working for us.¹⁸

The railroad’s attorney is especially interesting, and indicative of the willingness of large firms to prevent their workers from becoming entangled with loan sharks.¹⁹

The strongest alliance, however, was with the “legitimate” small-loan lenders. Over the years, RSF staff consulted multiple times with organizations like the American Industrial Lenders Association (AILA) and its successor, the American Association of Personal Finance Companies

¹⁶ RAC 24/187, 7 March 1927 letter. The term salary-buyer refers to an evasion some loan sharks used to escape usury laws; they claimed to be buying future salary payments rather than making a loan.

¹⁷ Other RSF documents refer to opposition from “loan sharks” in Kentucky and Alabama. See LC 5 “Opposition to Consumer Credit Legislation, Particularly That of Loan Sharks” folder. On Kentucky, see also the *New York Times* January 12, 1930, p.61; February 14, 1932, p. E5.

¹⁸ Box 24/Folder 187. Letter Henderson to Glenn, dated Chicago 27 March 1927.

¹⁹ The attitudes of union leaders were somewhat mixed. The Russell Sage Foundation often had national union leaders as allies on the USLL, but local union representatives sometimes took an opposing view. See, for example, the hearings on a version of the USLL for the District of Columbia. The representative of the American Federation of Labor spoke in favor of the bill (House of Representatives (1931, p.41) while the Kentucky State Federation of Labor opposed the measure (House of Representatives 1930, p.111).

(AAPFC) and with particular firms like Household Finance Corporation.²⁰ The RSF recognized that to push the loan-sharks out of credit markets, they would have to help push in legitimate lenders: "... once the small loan business is established, the support of a substantial part of the lending fraternity is vital to satisfactory revision of an existing [small loan] law."²¹ In particular, the RSF worked with the AILA and AAPFC to revise the model USLL through its multiple iterations.²² At times, RSF staff worried that the foundation worked a little too closely with so-called "industrial lenders" and ran the risk of being perceived as a mere handmaiden of the industry.

The USLL imposed several conditions on lenders, but as with most regulatory efforts the reaction was complex. Some lenders opposed the law and evaded it after its passage. Others welcomed the law, after if not before its passage, because it made lenders more respectable and made it easier for them to enforce their loan terms in court. As Robinson and Nugent pointed out, part of the difference in the lender's views of the USLL reflected the lender's efficiency. Some could never survive at any capped interest rate. Others would benefit from the USLL and actually do better:

"...while rates of profit came down under the regulation, operations were more profitable than had been anticipated because losses were reduced, costs were cut, and better borrowers came to the loan offices. Thus, while the conception of a fair interest rate held by the National Federation and the [Russell Sage Foundation's] Department of Remedial Loans was tending upward, the rate which chattel lenders were willing to accept was coming down. (P.110)

*The Logic of the USLL*²³

²⁰ RAC 3/22, p.57.

²¹ RAC 24/188, p.1-2. Elsewhere, RSF staff noted that: "One of the greatest influences for improvement in the small loan field is the national association of lenders which now numbers four or five hundred members" (RAC 24/187)

²² This collaboration is documented in RAC 27/207.

²³ RAC Box 25 Folder 193

The core logic of the USLL was unusual for its time, and often put the Foundation at odds with both potential allies and those the law ostensibly would assist. Bergengren's dismissive characterization of the RSF as the "42 percent foundation" (3.5% monthly interest roughly equals 42% annual interest) is only one example of the political problems this approach entailed. Much of Nugent's later research focused on estimating lender costs, and thus whether the 3.5 percent rate was necessary, but at first it had little empirical support. Arthur Ham agreed to the rate in a compromise struck in 1916 as part of a deal with a lender's group. That group, the AAPFC, favored a law that allowed a maximum of 3 percent per month plus fees. Ham insisted that the fees be forbidden, and reached a compromise by agreeing to the higher rate. With the Foundation's detailed research, however, officials such as Nugent were firmly convinced that a lower rate would simply drive legitimate lenders out of the business.²⁴ He also believed that encouraging entry would foster competition and so squeeze out any excess profits that might exist at the maximum rate. The ceilings imposed by state law varied across state and over time, but were rarely higher than 6 percent per annum. RSF personnel had also concluded that much of the harm done by small loans did not reflect the costs *per se*, but the lack of transparency. Lenders had devised a large and complicated set of devices whereby they could conceal the total cost of the loan from the borrower. The underlying logic of the USLL was, then, simple and direct: in return for stating charges clearly and simply, as an interest rate only, the lender would be allowed to charge an interest rate much higher than that allowed to a bank.

Once adopted, this logic was defended aggressively and tenaciously against all comers. In some cases RSF bitterly opposed lenders who claimed to be helping poor people, but who were charging fees and using other devices that might be interpreted as efforts to conceal the true cost of their loans. One example of this type of lender was the so-called Morris Plan banks. These

²⁴ The foundation's first effort in the credit field was to support empirical studies. Over time, the research program grew more general and elaborate. Nugent convinced several large chain lenders, most notably Household Finance, to share internal data and later to provide additional data in a format suggested by him. He also collected the reports of most state authorities responsible for consumer lending. Nugent and his assistants used this data for several purposes, but worksheets in the Library of Congress files suggest that his main concern was to estimate the costs of making small loans as a way of dealing with questions of the maximum interest rate allowable under the Uniform Small Loan Law. The paper on the new industry mentioned above discusses these cost issues in detail.

lenders were quite successful for a period.²⁵ The Russell Sage Foundation initially viewed the Morris Plan as anathema because at first the Plan used additional charges, and made their loans at a discount, in effect driving the loan's total cost above 15 percent per annum. The Foundation was always hostile to the Morris Plan and similar ideas. Nugent, for example, freely acknowledged that 15 percent was still cheaper than most similar loans, but he objected strenuously to what he saw as the Morris Plan's refusal to be frank about its charges.²⁶

The USLL's high maximum rate created political problems. Interest rates of 3.5 percent per month sounded bizarre to many at the time, and defending it on some occasions led to the charge that the Foundation was simply a front for high-rate lenders. In several state legislatures RSF was asked to explain its connection to lender's organizations; was it simply an industry group? The Kentucky State Federation of Labor was not alone in claiming that the Foundation was simply a front for small-loan lenders (House of Representatives 1930, p.111). In others, the claim was made that the Russell Sage Foundation was simply continuing the activities of its namesake, who died long before the Foundation was established.²⁷

Privately, Nugent acknowledged that the RSF's approach lacked full intellectual coherence. Some lending costs are fixed costs; advertising to make a \$100 loan is not less costly

²⁵ Mushinski and Phillipps (2007) detail the operations of the Morris Plan lenders.

²⁶ In 1915, for example, H.M. Barksdale of Wilmington DE wrote to the Foundation asking its opinion of the Morris Plan. Barksdale had been approached to invest in a Morris Plan entity. John Glenn wrote back for the Foundation that "I am convinced that Morris, himself, is either a crook or crazy." (RAC Box 26 Folder 198, Letters dated October 26 and October 27 of 1915. In 1917, Robert W. deForest, the Foundation's Vice President, wrote at the direction of the Foundation trustees to Clark Williams, then president of the Industrial Finance Corporation, which was the main Morris Plan bank.. De Forest objected to Williams' public claims that the Morris Plan was similar to the Provident Loan Society, noting "A remedial loan society loans at a rate of interest clearly defined and easily understood by borrowers. The Provident Loan Society of New York loans on pledges at a rate of one per cent per month, or one-half of one per cent. or any period less than half a month, and makes no other charge. A Morris Plan bank loans at a rate of interest which can only be determined by calculation and which, in our opinion, is not easily understood by borrowers or co-makers. It is certainly not understood by many newspapers who call it lending at six per cent." Williams' reply to de Forest made the point indirectly; he had to correct the Foundation's understanding of the interest rate charged on Morris Plan loans. RAC Box 25 Folder 191. Letter from Williams dated May 28, 1917; reply dated March 27, 1917.

²⁷ Russell Sage himself was a financier notorious for his aggressive tactics; but by the time of the Foundation's creation he was long dead. His widowed established the Foundation. Even those who acknowledged this fact liked to draw connections from Sage to the USLL. Mercer G. Johnston's colorful testimony on the USLL included the statement that "An institution is the lengthened shadow of a man, and the Russell Sage Foundation is the lengthened shadow of Russell Sage, popularly described at the time of his death as "the village skinflint writ large... Since [1916] the foundation has been the militant propaganda agency and lobby for a loan shark trust..." (House of Representatives 1931, pp.49-53).

than advertising to make a \$300 loan. Insisting that the rates be identical for these two loans meant either that the larger loans subsidized the smaller, or that there was opportunity for other lenders to skim off the borrowers seeking larger loans. RSF for many years opposed any system that would recognize this problem either by allowing the lender to charge a fee on a smaller loan, or by charging a higher interest rate on a smaller loan. Only in 1934 is there any evidence of flexibility on this point. In a letter to the Edgar F. Fowler of the American Association of Personal Finance Companies, Nugent noted that RSF was proposing a substantial change in the USLL, this time allowing higher rates for smaller loans.²⁸ Until then the Foundation had always viewed transparency as so important that it would sacrifice other goals, and put itself in politically awkward positions, to preserve it.

Loans made under the USLL were significant, but never loomed large as a proportion of total consumer credit in the U.S. Nugent (1934) estimated the volume of outstanding small-loan debt from the admittedly imperfect reports available to him. According to Nugent, at the end of 1932 total debts outstanding under the USLL were \$258 million, or about 860,000 loans at the \$300 maximum. The United States had 124.8 million people in that year. The \$258 million outstanding under the USLL compares to total short-term household debt of \$14.4 billion in that year. Short-term cash loans alone were \$1.7 billion; the USLL had made only a small dent in this aspect of consumer lending.²⁹

3. Passage of the law

Why did some states pass the USLL early, others late, and still others not at all? To understand the law's acceptance we estimate an econometric model of time to passage, using the forty-eight then-extant states and the period 1906-1930 as our observations. We begin with the first year such a measure was introduced in a state legislature, and we end with 1930 because the Great Depression significantly altered the political climate in which the USLL was discussed.

²⁸ RAC Box 27/Folder 208, letter Nugent to Fowler, 21 December 1934. "Our studies of the costs of lending are now sufficiently complete for us to draw relatively accurate conclusions as to the desirability of a graduated rate. This evidence is supplemented by the experience of several states which now have graduated rates."

²⁹ Nugent's own estimates are reported in Table III of his paper.

Several states either repealed the USLL entirely during the Depression, or dramatically reduced the maximum rate allowed. The Depression experience is important in our larger project, but including years after 1930 in the econometric analysis here would, in our judgment, confuse issues.³⁰

Drawing on a variety of sources, we construct time-varying measures of state characteristics to test whether they played a role in the law's passage.³¹ Our model is a reduced-form that reflects the balance of two forces. To the extent that credit in a particular state was viewed as a problem, it means that RSF would be able to gather allies and convince the state to pass the USLL. But the extent of problematic lending also implies that some interests were willing to expend effort and money opposing the USLL; that is, we cannot say, *a priori* which way a powerful pre-USLL lending market will affect the law's passage.

From our earlier discussion we can divide the characteristics of states that might explain passage into three groups:

(1) *Social and economic*: The Foundation thought that high-rate lenders were most prevalent in urban areas, and that they picked in particular on the poor and on industrial workers whose firms could garnish wages. One might also suspect that African-Americans, immigrants, and others reluctant to seek the protection of the law would also be targets. Additionally, we consider the Foundation's potential allies, including the large manufacturing firms noted earlier.

(2) *Financial*: RSF itself did not, so far as the archives reveal, think that financial institutions such as banks played a direct role in favoring or opposing the USLL. But changing legal usury rates directly impinged on their business. One could also ask about credit unions: the existence of credit unions might siphon off some of the support needed

³⁰ Nugent (1936) discusses the effect of these maximum interest rate reductions. They led, as one would expect, to large reductions in the number of licensed lenders in operation, and to a concomitant reduction in lending. In our current research on the industrial organization of licensed small-loan lenders, we find that independent lenders in relatively rural areas were the most vulnerable to the rate cuts.

³¹ Appendix B lists details for the data sources.

to pass the USLL. Finally, the diagnosis at the heart of the USLL was that “financial repression” forced small-loan lending underground by making it impossible for lenders to cover their costs with clear terms. We can ask whether “financial repression” as measured by the difference between rates allowed by usury laws on the one hand, and banks on the other, affected the USLL’s passage.

(3) *Political*: The USLL was a classic Progressive measure, and as such might have been most popular in states with that political tradition. Sometimes the RSF archives make clear that the USLL was being used as a pawn in a larger party-political struggle; we should ask whether the partisan identity of the governor and legislatures matter. Our discussion has also demonstrated the importance of the RSF’s tactical alliances with trade unions and other groups.

Several scholars have pursued similar agendas, seeking to explain the timing of a state law’s passage. Our efforts are most similar to those of Fishback and Kantor (1998a, 2000), who studied the adoption of workmen’s compensation laws in the first half of the twentieth century.³² Fishback and Kantor (1998a) modeled passage of state-level workmen’s-compensation legislation as a function of state-level economic, population, and political characteristics. Some of the variables we use here come directly from their study. The sources for the others are provided in Table 1, which also provides descriptive statistics. Like Fishback and Kantor, we experimented with several classes of econometric models, including limited-dependent variable panel models. We concluded that the best approach is to model passage as a discrete waiting-time process, which is also Fishback and Kantor’s preferred approach.³³ This approach can be thought of as estimating a binary logit model where the dependent variable is one if the state passed the law in that year. We treat each of the states as “born” without the USLL, and “dying” when they pass the

³² Other studies that use similar methods include Mahoney (2003), who investigates the passage of state-level securities regulation, and Smythe (2005)’s analysis of the passage of the Uniform Sales Act

³³ These models go by a variety of names; “hazards model,” “event-history analysis,” “failure analysis,” “duration analysis.” They are all the same, regardless of the name. Lee (2009) provides a more technical exposition of the models discussed in this section.

USLL. Some states never passed the USLL. This form of right-truncation poses no problems to this type of model.³⁴

We must restrict ourselves to very parsimonious models, because the sample size is so small. In addition, several candidate explanatory variables were strongly co-linear, making it possible to include only one in our models. Our approach throughout has been to consider a wide variety of specifications, but we focus here on those that tell us most about the historical process of the USLL's passage. To preserve degrees of freedom we estimate a series of splines, which allows a flexible modeling of time-patterns without introducing dummy variables for each year.

Dating the passage of the USLL is less simple than it sounds. RSF was clear when a state had passed "its" law, but less clear about what it viewed as acceptable alternatives. (Even though it was a "uniform law," most legislatures made at least small changes to the RSF's version.) We located two distinct and different accounts of which states passed the law when. All results below reflect our effort to date the law most consistently with the Foundation's later view. Fortunately, re-estimating our main specifications using the most different, sensible set of dates does not alter the general character of what we find. Appendix A explains the discrepancies about dates and how we resolved them. Our dataset consists of observations for the forty-eight extant states for the period 1906-1930.³⁵

We worked hard to contend with two other, distinct issues. The first is a central feature of Smythe (2008)'s analysis of the Uniform Sales Act. As he stresses, the reduction of transactions costs the law could achieve mattered most if neighboring states also passed the Uniform Act. This kind of logic cannot have much force with the USLL, but one can think of other ways in which

³⁴ The model rests on Efron (1988), which demonstrates that the model is essentially adding covariates to a Kaplan-Meier estimator. We include every state-year pair in our dataset, although some state legislatures did not have a session every year. Some scholars who have used methods similar to ours (for example, Mahoney (2003)) exclude state-year pairs in which the legislature did not meet. We do not follow him because in a few states the USLL was passed in a special session called for other purposes. That is, in our view a state could always have a legislative session, and that fact that it did not means it simply had no pressing business to conduct. The year splines we use have the effect of combining years with no passage with the previous year, which accommodates Mahoney's concern.

³⁵ The complicated cases described in Appendix A all turn on whether some earlier bill was close enough to the USLL for the Foundation to accept it as a substitute. In one version of our econometric models we tested for whether the presence of an earlier such bill made it more or less difficult to pass the actual USLL. One could imagine, for example, that "close enough" would make it unattractive for the Foundation's allies to push the actual USLL. We do not find any evidence that the existence of an earlier bill affects the USLL's chances of passage.

the passage of the USLL in one state could depend on passage of the law in “neighboring” states.³⁶ A legislative campaign in one state may focus attention on an issue in another. In other cases, spillovers from media outlets (such as newspapers and the radio) would mean the residents of one state could follow the debate as it unfolded in another state. More subtly, the RSF seemed to believe that once some states had passed the USLL, others would want to pass because they wanted to show that they, too, were progressive states. And sometimes the USLL’s passage in one state directly affected its neighbors; when one state adopted the USLL its neighbors saw an influx of high-rate lenders who lent across state lines. Our approach to the spatial dependence issue is a variant on the approach most commonly used in the literature.

We also attempt to deal with the issue of unobserved heterogeneity among the states that affected their chances of passing the law. Unobserved heterogeneity in waiting-time models can produce spurious duration-dependence and, because it is like omitting a relevant regressor, can bias all coefficient estimates. There is no simple, robust way to contend with the problem. We try two econometric approaches. The first is a variant on the semi-parametric approach suggested by Heckman and Singer (1984). The second makes a functional-form assumption to make the model more tractable. They produce similar results in our application.

We begin with the simplest specifications. Table 1 reports means and standard deviations for our variables, and provides their sources. Table 2 reports the models that reflect, after considerable experimentation, the best use of the limited sample. We have four main covariates: manufacturing, large firms, urbanization, and banks. To account for the time-path of passage we use a series of exclusive and exhaustive splines, as noted earlier. To ease interpretation of the splines we estimate our models without constant terms. Columns (1) and (2) in Table 2 report two different models, while columns (3) and (4) report marginal effects, evaluated at the means of the right-hand side variables, instead of model coefficients. Wald tests reject the exclusion of the splines (chi-square = 52.6, $p < .001$).

³⁶ Fishback and Kantor (1998a, p.xx) note that a similar issue came up with workman’s compensation laws. They adopt an econometric test of these “contagion effects” that is similar to one approach we discuss below.

The models reported in Table 2 conform to some expectations, but also contain some surprises.³⁷ The RSF focused its discussion and research on urban areas, and most observers thought that such populations were most at risk from abusive lending. Thus the importance of urbanization confirms our expectation. Foundation staff would also not be surprised at the effect of large firms, for the reason noted early. The negative effect on the manufacturing wages points to an interesting feature of economic activity at the time. We are controlling for large firms, so the manufacturing variable picks out states like Utah, Colorado, or Wyoming, where earnings in the manufacturing sector were high but there were few very large firms. The Foundation's archives on discussions in Colorado suggest that its efforts were met there with a combination of hostility to "eastern" ideas and an incorrect claim that the 3.5 percent interest rate would apply to bank loans. The character of this reaction is similar to the hostility from agricultural interests that arose in states such as Nebraska. There, farmers dependent on bank credit feared the USLL would raise their borrowing costs. We experimented with alternative specifications that would focus on population density, or the importance of farming to the state economy. None of these entered the model or had much impact on the manufacturing wage variable.

The effect of banks requires some discussion. The measure used here is the total liabilities of state-chartered banks. Virtually any measure of state-chartered banks produces similar results (number of banks, average size of state-chartered banks, capital of state banks, etc.). No measure of *nationally*-chartered banks has a significant influence in the model. We have no direct evidence of banks of any type directly involving themselves in lobbying against, or for, the USLL, and are somewhat surprised at the distinction between the state and national banks. A hint as to the mechanism at work here comes from a variable we could not leave in the model. The USLL was motivated by the idea that problems in the small-loan market reflected unrealistic usury caps. We defined two different "financial repression" measures, both as the difference between the average interest charged by state-chartered banks and the maximum rate allowed

³⁷ Formal tests show that Oregon qualifies as an outlier in a narrow econometric sense. This reflects the fact that Oregon was one of two states that passed the law in 1913. Its score value for that year is nearly one, while in earlier years it is very small. On the other hand, Oregon's exclusion from the analysis does not appreciably affect goodness-of-fit statistics, and does not materially affect the coefficients of interest. So we elected to keep it in the models reported here.

under state law.³⁸ The financial repression measures are highly collinear with our banking variable, and enter the model with a positive sign: the closer the actual rate to its maximum, the more likely the USLL's passage. The repression variables work precisely as the RSF staff would have predicted.

Two channels for bank concern suggest themselves, although given the silence from the archival record these interpretations are speculative. The minimum capitalization for federal banks was much larger than for state-chartered banks in this period, so the latter were usually much smaller and more common in relatively remote areas. Our state-bank variable may show that in such areas, state banks either played an indirect role in the lending the USLL intended to drive out (perhaps by financing those in the high-rate loan business). State banks might also have feared the alternative investment possibility inherent in the USLL; more likely, they took a hard line on anything that might affect the usury laws that gave them an advantage in the competition for household deposits.³⁹ Mahoney's (2003) results for the adoption of state-level securities regulations ("Blue-Sky Laws") in our period suggest a complementary interpretation. He found that state banks effectively lobbied to prevent regulatory provisions that would enable securities salesmen to compete for savings that would otherwise end up as bank deposits. (For more discussion of the political forces Mahoney stresses, see Macey and Miller (1991). Something like this may be at work with the USLL.

Equally interesting for the models reported in Table 2 are the variables we tried but found not to have any real influence on the USLL's passage. The parsimonious models we report do not reflect lack of potential variables. Simple regional dummies had no influence when used as regressors (regional effects do arise in the spatial correlation, as we discuss below). We experimented with additional demographic controls, such as the proportion of a state's population that was foreign-born, African-American, or illiterate. Others were measures of the state's party-political affiliation; in our models, it does not matter whether the governor or legislature was Republican or Democratic. We also sought to ask whether states with a strong Progressive tradition favored the USLL. The answer is no, at least judging by the proxies we employ. These

³⁸ Most states had two different maximum rates, one for banks and another for private contracts.

³⁹ Rockoff (2003) surveys the development of usury laws in the U.S. to 1900.

include several permutations of the proxies used by Fishback and Kantor (1998a), including a state's passage of certain key Progressive measures, and votes for Theodore Roosevelt in the 1912 presidential election.⁴⁰ We also asked whether the presence of credit unions in a state affected the USLL's fate. We were not sure whether this effect would be positive or negative; the effect might be positive if credit unions and the USLL were addressing the same problem, but negative because of the friction between credit-union leaders and the Foundation. In any case, this measure had no appreciable impact in our models.⁴¹

One might also wonder whether the business conditions obtaining in a state during the time the USLL was under discussion would affect the chance of passage. Legislators in a state experiencing a downturn might come under pressure to "do something" for those affected by high-rate lending; on the other hand, they might just as well find it difficult to experiment with something as radical as the USLL while their constituents faced economic distress. Our attempts to explore the impact of economic conditions on USLL passage were constrained by the lack of annual, state-level measures of unemployment, GNP, or a similar conventional yardstick. We experimented with two proxies. The first comes from the annual, state-level measures of business failures collected by Dun's and printed in the annual *Statistical Abstract of the United States*.⁴² The second is changes in the number of banking offices as implied by the figures reported by the Federal Reserve's *All-Bank Statistics*. Neither proxy is perfect; the former because business failures do not necessarily tell us much about unemployment or reduced personal incomes, the latter for similar reasons. In both cases we used up to three lags, to allow political decisions to respond slowly. Neither set of proxies played a significant role in our regressions, and we do not report them here.⁴³

⁴⁰ The "Progressive index" we use is described by Fishback and Kantor (2000, p.111). The index consists of the number of measures a state has passed from a list of laws favored by progressives.

⁴¹ The variable we used was simply the number of credit unions in operation in a state-year. This data was reported by the Bureau of Labor Statistics, but the reports stress the imperfect reporting of the information. We know of at least one instance where the credit-union people blame the USLL for generating forces that blocked passage of enabling laws for credit unions.

⁴² The Dun's data are described in the appendix. We used two distinct sets of proxies from this source: the proportion of all businesses that failed in a given year, and the liabilities of all failed businesses normalized by the state's population.

⁴³ The business-failure proxy has one effect: its inclusion reduces the impact of the state banking variable. This multicollinearity seems natural; bank liabilities are at some level endogenous to current economic

A final possible influence we attempted to investigate was the role of religion. The archival record does not suggest that either clergy or institutional churches were involved in these discussions on either side. Nonetheless, we thought it worth considering whether either the prevalence of organized church members in general, or the relative weight of specific denominations played any role in the USLL's fate. Scholars of religion in the United States face the problem that the U.S. census does not ask questions about religious profession, so the available information on this subject is indirect and subject to considerable error. In any case, we could not find any role for religion in the USLL's passage.⁴⁴

Spatial correlation

Referring back to Figure 1, the geographic pattern of the USLL's passage invites explanations that stress the effect of one state's actions on its neighbors. To investigate the importance of such effects, Table 3 takes specification (2) from Table 2 and adds to this basic model several measures of spatial correlation. We reproduce the baseline model as specification (1) in Table 3. For this issue, our strategy again was to experiment with a wide variety of possible channels of influence. This model augments the regressors in the standard logit model to include a term $\rho W_i Y_{t-1}$, where ρ is our spatial correlation coefficient, W_i is the i -th row of a (48x48) row-normalized weighting matrix W , and Y_t is a vector of zero-one variables that are one if state i has passed the USLL by year t . The W matrix itself is time-varying in some of our specifications. In this approach, ρ is estimated as one would estimate any other coefficient. The W matrix can be thought of as assigning the distance dimension to the relationship between states. We experimented with several different specifications of the W matrix. In our model, as in most, the matrix W must be *pre*-specified; it cannot be estimated because of the size of our dataset relative to the size of W . The most natural version of W is also the most widely used; element i,j of the (unnormalized) W is unity if state i and state j are neighbors. This approach makes sense if we

conditions.

⁴⁴ These data have been used in a number of recent papers, but we are very skeptical about what they measure. Given our emphasis on change over time, the time-series dimension of the data are especially important. Taken at face value, the data imply implausibly large fluctuations in the number of congregants of some religions in some states. These fluctuations seem to us more consistent with serious errors in data collection than with actual social changes.

think the spatial dependence reflects overlapping newspaper markets or direct market effects as high-rate lenders flee one state for its neighbor. But other possible causes of spatial dependence require a different W matrix. States may be more influenced by states that are *similar* than they are by states that are near them.

Many studies ask whether two states influence one another if they share a common border. This model, reported in Table 3, specification (2), does not seem to work for the USLL.⁴⁵ This seems to rule out influences that operate directly, such as spillovers in newspaper markets that bring the debates of one state to its neighbors, or lenders operating across state borders. Our next specifications all work off indirect effects such as learning or political influence. We ask if the probability that a state passes the USLL depends on whether states of similar population sizes have already passed the measure. This version of W amounts to saying that a small state is more influenced by actions take in other small states than by those in large states. This approach, reported as specification (3), suggests a statistically significant but *negative* effect. (All of our spatial correlations are negative; we return to this.) Specification (4) shows that if we allow only northern states to affect northern states, and only southern states to affect southern states, then there is considerable cross-state influence, again negative. This result suggests that Northern states care what other Northern states do, but ignore the decisions of Southern states, and vice-versa. Finally, specification (5) uses the Fishback-Kantor progressive laws index to devise a measure of a state's "Progressive" culture. The idea here is that states might be most influenced by the USLL's passage in states that have a similar Progressive (or "un Progressive") political culture. These spatial correlations are large in magnitude as well; the marginal effect for specification (4) is -.04.

Why are these correlations negative? In many discussions of cross-state influence, the presumption is that such influence has to be positive, that if state 1 passes a law then its influence will be to make state 2 more likely to pass the measure. But there is no reason these effects have to be positive. Several channels suggest why the cross-state effects for the USLL would be negative. The Foundation clearly thought that its political opponents grew in strength over time.

⁴⁵ Fishback and Kantor (1998a) specify the spillover effects similarly, and also find that their role is slight.

Opponents might have mobilized their efforts in response to USLL passage in similar states. Our results imply, for example, that potential opponents were more alarmed by the USLL's passage in a state of similar size to their own.⁴⁶ The same would apply to the specification that assumes only southern states influence southern states. Opponents in Mississippi, this result implies, did not worry when Illinois passed the USLL in 1917, but grew worried when Georgia did the same in 1920.

Table 3 shows that some of our regressors are sensitive to the inclusion of the spatial correlation terms. The bank variable is only marginally significant in any case, and in models (2) and (3) is not, at conventional significance levels. The manufacturing variable is even more sensitive to the specification of W ; especially in (4), where we use the north/south divide to construct W , the manufacturing effect nearly disappears. This sensitivity of the regressors to W illustrates a point not always appreciated in the literature. We are interested in ρ for its own sake, for what it tells us about the process of passing the USLL. But leaving it out introduces a form of omitted variables bias. This observation cuts two ways. As Table 3 implies, we might over-emphasize the importance of a given factor if we fail to account for spatial correlation. On the other hand, the many studies that report strong spatial correlations might be finding the opposite problem: that, under the right conditions, the spatial correlation term might itself be biased through the exclusion of some important regressor.⁴⁷

Unobserved heterogeneity

The models reported in Tables 2 and 3 are discrete hazards models. Our final econometric investigation adds to these models an effort to grapple with a problem that is potentially quite serious. This “waiting-time” specification assumes that the discrete model is an approximation to a continuous-time model that treats the instantaneous probability (or hazard rate) that a state first passes the USLL in year t as

⁴⁶ We experimented with other specifications of W , including weighted averages of population and sharing a border. The results reported in Table 3 convey the flavor of alternative results.

⁴⁷ Lee (2009) makes this point formally, using a simple model and evaluations with Monte Carlo experiments.

$$h_i(t | v) = h_0(t) \exp(X'_{i,t} \beta + \rho W'_i Y_{t-1}) v_i \quad (1)$$

Where $h_i(\cdot)$ is the probability that a state passes the law, given that it has not yet done so (the discrete hazard rate); t is years since 1906; X is the matrix of covariates, with i indexing states, and t indexing years. β is a parameter vector to estimate, and v is an “error term” that corresponds to the factor generating the unobserved heterogeneity. The baseline hazard (h_0) does not have to be specified, so long as the implicit proportional-hazards assumption holds. The spatial correlation terms $\rho W'_i Y_{t-1}$ are as before.

Table 4 reports two illustrative but simple specifications. Column (1) reports a version of the waiting-time model that incorporates the method suggested by Heckman and Singer (1984). This model was difficult to estimate, which is often the case. Here the distribution of unobserved traits is assumed to be approximated by a discrete number of mass points. The model estimates the location of the two mass points as well as the probability that a state is at one of those points. Our results suggest that our small number of covariates do a good job of controlling for most of the heterogeneity. We cannot introduce the splines in the models reported here; when we try, the model reports that nearly all states are of the “high probability” type, on other words, the model does not report much unobserved heterogeneity. Note that the covariates we report in Table 4, column (1) have the same signs as in earlier specifications, although neither the urbanization nor the bank variable is statistically significant. The model reported in column (1) implies that a state has a sixty-five percent probability of being a “high type” (more likely to pass the law), and that the “low type” is very unlikely to pass the law (-4.35 is very large relative to the index function evaluated at the means of the regressors).

We also estimated a version of equation (1) in which the unobserved heterogeneity is assumed to have a gamma distribution. Table 4 reports that model as (2). This approach yields more tractable estimation, but is sensitive to the assumption about the gamma distribution. The gamma-heterogeneity model implies different results; here the variance of the heterogeneity function (2.147) is small relative to that found in the Heckman-Singer approach. We cannot reject

the null hypothesis that the variance is zero, which implies there is no unobserved heterogeneity. The signs of the estimated slopes remain the same as with the Heckman-Singer model.

Interestingly, the models with unobserved heterogeneity corrections imply that there is no spatial correlation at all. This finding reinforces the comment made earlier. Unobserved heterogeneity's effects in a waiting-time model are very much like omitted variables bias. Comparing the estimates reported in Tables 3 and 4 also suggests that some of the variation identified as spatial correlation in the Table 3 specifications is akin to unobserved heterogeneity.

Lobbying: the Foundation's impact on state legislatures

None of the models discussed here account for the RSF's own efforts. Using the archival files we can easily document that in most cases where the USLL was in active contention, members of the Foundation's staff helped to coordinate the lobbying efforts in favor of the bill. Often these efforts took the form of letters, or telephone calls (still expensive in those days) or telegrams. Foundation staff also travelled to meet with their political allies and to discuss the measure with state legislators.

For thirty-four states we can document the number of calls and visits to a particular state in connection with the USLL. We can also document calls and visits made in connection with other matters, but archived in such a way was to end up with the Foundation's material on credit matters (that is, we are sure that other RSF departments also had contact with state legislators; the contacts we document had something to do with credit in general, if not with the USLL.) Fifty-five percent of the states that passed the USLL received at least one visit from a RSF staff member in the year the measure passed. About thirty percent received at least one visit in the year before the law passed. The Foundation's efforts did not always lead to immediate success; about half of all states visited did not pass the USLL for at least two years.

Why not introduce measures of the RSF's activities as regressors in the models above? These are most certainly endogenous variables, and we both know of no useful instruments and would be forced to rely on experimental methods for instrumenting in the discrete-hazard framework. The strategy discussions memorialized in the archives suggest a strong interest in the

cost/benefit ratio: the Foundation only sent staff to help when it thought there was a good chance the law would pass, and its efforts would be important to the victory. Given this motivation, all we could test was the RSF's ability to correctly figure which states were most likely to be amenable to its persuasion. We already know that was very good.

4. Conclusions

The RSF devoted considerable effort and resources to the USLL over multiple decades. This effort reflected in part the kind of resources the RSF could deploy. A foundation could not deliver votes or other forms of political muscle, nor could it spend tens of millions of dollars, but it could deliver expert knowledge and a legal template. Key elements in the RSF's diagnosis of the situation were born out as passage came sooner in more urbanized states with large firms. Our results suggest two limits to what the Foundation was able to do, however. The econometric models we report suggest that a state's receptivity to the USLL reflected features that were fairly "deep" characteristics of its economy and social organization. The Foundation could not plausibly change a state's urbanization rate, for example, nor could it hope to wait until its state banks weakened. In addition, the "spillover" logic of a uniform-law approach finds no support whatsoever in our analysis. We do find some spillovers, but they are negative.

Appendix A: Dating passage the USLL

The USLL went through several drafts. Some states passed legislation that was originally modeled on the USLL, but changed during the process of legislative compromise. This raises the question of how we “date” the passage of the USLL. In both semi-official publications and the LC archives, there are sometimes conflicting accounts given for a particular state. Discrepancies in dating could affect the econometric estimates reported in this paper, since the date of passage is the dependent variable. In this appendix we discuss the apparent reasons for the discrepancies and describe how we resolved them.

We can divide actual state legislation into three categories, which correspond roughly to how the various RSF reports considered the matter. One would be states that never passed anything that dealt directly with small loans. In other cases, states passed a law that the foundation admitted dealt with small loans, but perhaps not in a way RSF saw as reflecting acceptance of the basic ideas of the USLL. Finally, many states passed laws that the RSF saw as so close to the USLL that the foundation had no objection beyond minor quibbles. Most of our problem states reflect the difficulty of distinguishing these two types. A slightly different problem arises with six states that had USLL-type laws on the books prior to the first draft of the USLL, in 1916. These include Massachusetts, Oregon, New Jersey, Ohio, Pennsylvania, and Michigan (Robinson and Nugent 1935, p.188). At some level, these cannot be USLL states because their laws predated the foundation’s interest in the matter, and more specifically, the first draft of the Act, which dates to 1916. Thus if we are interested in the foundation’s influence we cannot call these laws “USLL.” On the other hand, if we are interested more in the forces that led a state to pass a law with these provisions, then we have to call these laws the USLL, since they reflect the theory underlying the USLL and because RSF experts were actually involved in drafting early laws in Massachusetts and New Jersey. Since our emphasis in the paper is less on the Foundation than on the passage of this law, we have included such “pre-RSF” states in our analysis.

For reasons explained earlier in the paper, we limit our econometric work to the period 1930 and before. Thus we need not concern ourselves with states that passed the USLL after 1930; for our purposes, they do not count as an “event” in the relevant period. We located three carefully worked-out analyses of extant state law in the mid 1930s. F.B. Hubachek authored a pamphlet entitled *Recent Small Loan Legislation: Current Citations—Small Loan Laws*.⁴⁸ The foundation itself published two books that also consider the subject. Gallert, Hilborn, and May (1932, pp. 114-130) summarize extant law as of 1932. Nugent and Robinson (1935, Table 6) summarizes laws in force as of May 1, 1934.⁴⁹ Hubachek (1934, p.4) pu

As the years have gone by it has become increasingly difficult to prepare this list [citations to current Small Loan Laws] in the form originally adopted because there have been so many new small loan laws and so many amendments of old ones that the situation is complex where it was once simple. It has become increasingly difficult to make accurate general references to “Uniform Small Loan Laws” because the several small loan laws are now so divergent in form and substance. Some of the older laws have been emasculated by amendment although they present the superficial appearance of the Uniform Small Loan Law. Small loan laws passed many years ago now seem archaic by comparison with the recently enacted versions.

Hubachek’s date is *the first year a state passed small loan legislation*. In some cases, his dates reflect a state that passed small loan legislation and later amended its laws to reflect the USLL. Conflicts between his dates and sources that deal with the USLL alone are not surprising. But we cannot ignore the apparently different points of view of Robinson and Nugent on the one hand, and Gallert, Hilborn, and May, on the other. All worked at one time or another for RSF, and all remained actively involved in the questions of small-loan lending. And their works were published only a few years apart. These two sources disagree on ten states. What follows is the reasons for the apparent disagreement. As this makes clear, in many cases GHM provide, in their narrative of the legislative history, a strong reason to reject the position they state in their tables!

Alabama: Robinson and Nugent did not view this as reflecting the USLL ideas because the law applied only in places with more than 200,000 people, and because it capped the interest rate at 8 percent per annum. It is hard to see why Gallert, Hilborn, and May (GHM) classified this as a USLL state. In commenting on the Alabama law, GHM p. 108 say “such legislation was, of course, useless.” The USLL itself had been rejected by a House Committee of the State Legislature.⁵⁰

Arizona: RN say the 1919 legislation “contains the essential provisions” of the USLL. This is a weaker endorsement than for the other states they conclude have measures that “Approximate Uniform Law”. There are no details provided. GHM p. 100 answer the puzzle: Arizona passed the “Ideal Small Loan Law,” which RSF did not like, but conceded it reflected the main ideas of the USLL. This is essentially a quibble, and we date the law to 1919.

California: The disagreement turns on the 1909 California act, which is similar to the USLL but restricts

⁴⁸ This pamphlet was published in Washington by the American Association of Personal Finance Companies in 1934. Our copy comes from the LC Archive, Box 189

⁴⁹ These works all consider the District of Columbia, which we omit from our analysis on the grounds that it did not, and does not, control local legislation¹⁸⁹.

⁵⁰ *Mobile Register*, July 22, 1927 (LC Document 205).

interest to 2 percent per month.⁵¹ This interest rate was much lower than RSF ever accepted as useful. California passed the actual USLL in 1939.

Colorado: The puzzle here is why GHM thought it was the USLL. The law allowed an interest maximum of 1 per cent per month, and allowed the lender to charge a \$1 inspection fee up to four times a year. These two provisions are basic violations of all the Nugent et al preached. GHM p. 108 again criticize the bill enacted as “not an advanced piece of legislation.” Colorado did not pass the USLL until 1943.⁵²

Kentucky: its 1934 USLL was passed after GHM published.

New Hampshire: The 1917 law allowed inspection fees; for a loan over \$50, the lender could charge up to \$2, three times per year. Ham had written to the Chair of the State Committee on the Judiciary, expressing concern over the bill’s amendment in committee to allow these fees and to reduce the interest rate to 3 percent per month.⁵³ Presumably this is why RN reject the New Hampshire law as the USLL. The puzzle is why GHM think this is the USLL; they even discuss all these discrepancies on pp. 99-100. Perhaps they were relying on an internal RSF tabulation dated June 30, 1926, that clearly lists New Hampshire as having passed the USLL or a similar law in 1917 (LC 188).

New Jersey: the discrepancy here is of a different nature. RN are calling the Eagan law passed in 1914 a version of the USLL (which is was, since it was actually the model for the USLL). GHM seem to be focusing on the 1932 law as the restoration of the USLL. We cannot see any reason to reject the model as an example of the USLL.

Oregon: According to GHM, a 1911 law dealt with small loans in some way. The state passed a measure in 1913 that reflects some features of the (later) first draft of the USLL. The bill allowed a maximum interest rate of 3 percent per month, but coverage was limited to loans of \$30 or less.⁵⁴ A later measure, passed in 1915, more nearly resembled the USLL except in permitting fees. An internal RSF memo prepared in 1943 for the *World Almanac* lists Oregon as passing the USLL in 1913 (LC 191), but an earlier document compiled in 1926 lists the date as 1915 (LC 188).

Pennsylvania: Both sources agree, in their tables, that the 1915 law was in fact a USLL measure. The disagreement is over an earlier, 1909 law, which GHM do not mention. RN p.120 deepen the confusion by stating that in 1917, Pennsylvania amended the 1915 act to conform closely to the USLL, implying that the 1915 act did not conform! (p. 120). We know that Ham had reservations about the 1915 law, because it permitted fees.

There remains room for judgment calls. We handled the situation as follows. First, where RN and GHM agree, we simply use their dates. This accounts for 39 (including MO) of the 48 states in our sample. Second, Kentucky’s law dates from 1934, so we consider it as such. We assign Arizona a date of 1919, because the quibble there is not important to our concerns. This leaves us with the seven states listed in Table A1. For four of these states, a reasonable assessment could go either way. We performed an informal sensitivity test, re-running each of the models reported in Table 2, Column (2) by changing the date for the USLL *for one state at a time*. In the cases of Oregon and Pennsylvania, the small change in dates made almost no difference at all. For California and New Hampshire, the date changes the magnitude of point estimates but not their sign or statistical significance.

Table A1: Discrepancies between RN and GHM in the dating of the USLL

State	RN says	GHM says	We use
Alabama	No USLL, ever	1927 law is USLL	No USLL
California	No USLL, ever	1909 law is USLL	1909; 1939*
Colorado	No USLL, ever	1919 law is USLL	1943
New Hampshire	No USLL, ever	1917 law is USLL	1917*, No USLL
New Jersey	1914 law is USLL	First date it at 1932	1914
Ohio	1913 law like the USLL	1911 is like USLL	1911, 1913*
Oregon	1913 law is USLL; mentions 1931 revision	1931 is first USLL	1913, 1915*
Pennsylvania	1909 law is quasi-USLL	First mention is 1915 revision of 1909 law	1915*, 1917

⁵¹ “History and resume of money lending laws of the state of California,” LC 263

⁵² *Rocky Mountain News*, February 5, 1943, LC 296.

⁵³ Letter from Ham to Hon. Marcel Theriault, March 23, 1917, LC 1269

⁵⁴ *Portland Oregonian*, February 19, 1913, LC 2639.

Appendix B: Sources of data

This appendix provides the sources for the data used in our econometric analysis. The sources for the year of passage information are listed in Appendix A. For most other variables, we relied on Fishback and Kantor's information, available from their website. This data underlies their work on the passage of the workmen's compensation legislation (Fishback and Kantor 1998a, 2000). Some of the variables we use were constructed (by Fishback and Kantor) by linear interpolation between two dates. This was notably the case for measures taken from the decennial census of the United States.

Other variables we constructed ourselves from a variety of sources. Our measure of state banking liabilities comes from the Federal Reserve's All-Bank Statistics. (We use Mark Flood's digital files, available as ICPSR study number 2393). We thank Scott Redenius for putting us onto the source and helping us to extract the variables we needed. Some of our weighting matrices are based on states sharing a border; we constructed those by eyeballing a map.

The data on commercial failures were obtained from the annual editions of the Statistical Abstract of the United States, from 1906 to 1931. The tables on commercial failures reprinted data originally reported in Dun's Review, a New York publication of the credit rating agency that preceded today's Dun and Bradstreet. Since the 19th-century, Dun had specialized in reporting numbers of bankruptcies around the country and so its numbers were used in the Statistical Abstract.

Finally, we mention in the text that we constructed a measure of the number of credit unions in existence in a state, and use that as a proxy for the demand for small loans. This measure is based on the Labor Department's statistics. We are not very confident in the accuracy of the underlying source; the Department had trouble getting complete reports from the states.

Abbreviations:

AAPFC: American Association of Personal Finance Companies (previously the AILA)
AILA: American Industrial Lenders Association
ALI: American Law Institute
CUNEB: Credit Union National Extension Bureau
HFC: Household Finance Corporation
LRB: Legal Reform Bureau
NCCUSL: National Conference of the Commissioners on Uniform State Laws
RSF: Russell Sage Foundation
USLL: Uniform Small Loan Law

References:

Manuscript Collections:

Library of Congress:

The records of Russell Sage's Department of Remedial Loans are all held in the Library of Congress manuscripts division. They are organized by boxes only. LC x means "Library of Congress collection Box x."

Rockefeller Archives Center:

Some office correspondence was kept after the material was given to the Library of Congress on the grounds that it contained sensitive materials. This material is organized by folders within boxes, so RAC x/y means Rockefeller Archives Center collection Box x/Folder y.

Credit Union National Association Archives, Madison, WI.

Letters of Roy F. Bergengren 1921-1937 Box B2A/01; and Filene correspondence 1925-32 B4A/03. Referenced with the prefix: CUNA-A.

Published Sources:

Abbott, Andrew. 1988. *The System of Professions: An Essay on the Division of Expert Labor*. Chicago: University of Chicago Press.

Alchon, Guy. 1985. *The Invisible Hand of Planning: Capitalism, Social Science, and the State in the 1920s*. Princeton: Princeton University Press.

Amenta, Edwin. 1998. *Bold Relief: Institutional Politics and the Origins of Modern American Social Policy*. Princeton: Princeton University Press.

Anderson, Elisabeth, 2008. "Experts, ideas, and policy change: the Russell Sage Foundation and small loan reform, 1909-1941." *Theory and Society* 37:271-310.

Anderson, Elisabeth A., Bruce G. Carruthers and Timothy W. Guinnane, 2009a. "Expert Jurisdiction and Social Problems: the Russell Sage Foundation and Credit for Poor People in early twentieth century America." Working paper.

Anderson, Elisabeth A., Bruce G. Carruthers and Timothy W. Guinnane, 2009b. "Why the Uniform Small Loan Law? The Russell Sage Foundation, political and administrative feasibility, and the regulation of consumer credit markets in the United States, 1900-1940." Working paper.

Anonymous. 1931. "Credit Union Legislation," *Harvard Law Review* 44(7): 1131-1135.

Calder, Lendol, 1999. *Financing the American Dream: A Cultural History of Consumer Credit*. Princeton: Princeton University Press.

Carruthers, Bruce G. and Timothy W. Guinnane, 2009. "An industry created by statute: Entry and Exit of Small-Loan Lenders in the United States before World War II.

Easterly, Michael, 2005. "Mortgaging the Future: 'Loan Sharks' and the Origins of Consumer Credit." PhD dissertation (in progress), Department of History, UCLA.

Efron, Bradley, 1988. 'Logistic Regression, Survival Analysis, and the Kaplan-Meier Curve'. *Journal of the American Statistical Association* 83(402): 414-425

Fishback, Price V. and Shawn Kantor, 1998a. "The Adoption of Workers' Compensation in the United States, 1900-1930." *Journal of law and Economics* 41:305-342.

Fishback, Price V., and Shawn Everett Kantor. 1998b. The political economy of workers' compensation benefit levels, 1910-1930. *Explorations in Economic History* 35, (2) (April 1998): 109-139,

Fishback, Price V. and Shawn Kantor, 2000. *A Prelude to the Welfare State: the Origins of Workers' Compensation*. Chicago: University of Chicago Press.

Frank, John P. 1998. "The American Law Institute, 1923-1998," *Hofstra Law Review* 26: 615-639.

Glenn, John M., Lilian Brandt, and F. Emerson Andrews, 1947. *Russell Sage Foundation 1907-1946*, 2 vols. New York: Russell Sage Foundation.

Graebner, William. 1977. "Federalism in the Progressive Era: A Structural Interpretation of Reform," *Journal of American History* 64: 331-357.

Grant, J.A.C. 1938. "The Search for Uniformity of Law," *American Political Science Review* 32: 1082-1098.

Guild, Frederic H. 1920. "Uniform Legislation," *American Political Science Review* 14: 458-460.

Ham, Arthur H., 1912. "The Campaign Against the Loan Shark." New York: Russell Sage Foundation.

Heckman, James, and Burton Singer, 1984. "A Method for Minimizing the Impact of Distributional Assumptions in Econometric Models for Duration Data." *Econometrica*, 52(2):271-320

- Hironaka, Ann. 2002. "Changing Meanings, Changing Institutions: An Institutional Analysis of Patent Legislation," *Sociological Inquiry* 72: 108-131.
- Holmes, George K. 1892. "Usury in Law, in Practice and in Psychology," *Political Science Quarterly* 7: 431-467.
- Horwitz, Morton J. 1977. *The Transformation of American Law, 1780-1860*. Cambridge: Harvard University Press.
- House of Representatives, 1930. "Small Loans in the District of Columbia." Hearings before the subcommittee on judiciary of the committee on the District of Columbia. Seventy-first Congress. Washington: Government Printing Office.
- House of Representatives, 1931. "Credit Unions and Small Loans." Hearings before the committee on the District of Columbia. Seventy-first Congress. Washington: Government Printing Office.
- Jacobs, Meg. 1999. "Constructing a New Political Economy: Philanthropy, Institution-Building, and Consumer Capitalism in the Early Twentieth Century," pp.101-118 in Lagemann ed.
- Johnson, Gerald W. 1948. *Liberal's Progress*, New York: Coward-McCann.
- Lagemann, Ellen Condliffe ed. 1999. *Philanthropic Foundations: New Scholarship, New Possibilities*. Bloomington IN: Indiana University Press.
- Lagemann, Ellen Condliffe. 1989. *The Politics of Knowledge: The Carnegie Corporation, Philanthropy, and Public Policy*. Middletown Connecticut: Wesleyan University Press.
- Lapp, John A. 1910. "Uniform State Legislation," *American Political Science Review* 4: 576-581.
- Lee, Yoonseok, 2005. "Grouped mixed proportional hazards models with spatial dependence." Working paper, department of economics, University of Michigan.
- Macey, Jonathan R. and Geoffrey P. Miller, 1991. "Origin of the Blue Sky Laws." *Texas Law Review* 70(2): 347-397.
- Mahoney, Paul G., 2003. "The Origins of the Blue-Sky Laws: A Test of Competing Hypotheses." *Journal of Law and Economics* 46:229-251.
- Meyer, John W. and Brian Rowan. 1977. "Institutionalized Organizations: Formal Structure as Myth and Ceremony," *American Journal of Sociology* 83: 340-363.
- Michelman, Irving S., 1966. *Consumer finance: a case history in American business*. New York: F. Fell.
- Mushinski, David and Ronnie J. Phillipps, 2007. "The Role of Morris Plan Lending Institutions in Expanding Consumer Microcredit in the United States." In Glenn Yago, James R. Barth, and Betsey Zeidman, eds., *Entrepreneurship in Emerging Domestic Markets: Barriers and Innovation*. New York: Springer.
- National Federation of Remedial Loan Associations, 1912. *Bulletin 1:1*.

- Neifeld, M.R., 1939. *Personal Finance Comes of Age*. New York: Harper and Brothers.
- Novak, William J. 1996. *The People's Welfare: Law and Regulation in Nineteenth-Century America*. Chapel Hill: University of North Carolina Press.
- Nugent, Rolf, 1934. "Small Loan Debt in the United States." *The Journal of Business* VII(1):1-21.
- Nugent, Rolf, 1936. "Three Experiments with Small Loan Interest Rates." *Harvard Business Review* pp.35-46.
- Nugent, Rolf, 1939. *Consumer credit and economic stability*. New York: Russell Sage Foundation.
- Olney, Martha L. 1989. "Credit as a Production-Smoothing Device: The Case of Automobiles, 1913-1938," *Journal of Economic History* 49: 377-391.
- Olney, Martha L., 1991. *Buy now, pay later: advertising, credit, and consumer durables in the 1920s*. Chapel Hill : University of North Carolina Press.
- Provident Loan Society, 1944. *Fifty Years of Remedial Lending*. New York.
- Robinson, Louis N., and Rolf Nugent, 1935. *Regulation of the Small Loan Business*. New York: Russell Sage Foundation.
- Rockoff, Hugh, 2003. "Prodigals and Projectors: An Economic History of Usury Laws in the United States from Colonial Times to 1900." NBER Working paper No. 9742
- Rodgers, Daniel T. 1982. "In Search of Progressivism," *Reviews in American History* 10: 113-132.
- Russell Sage Foundation, 1935. *Sixth Draft of the Uniform Small Loan Law*. New York: Russell Sage Foundation.
- Sealander, Judith. 1997. *Private Wealth and Public Life: Foundation Philanthropy and the Reshaping of American Social Policy from the Progressive Era to the New Deal*. Baltimore: Johns Hopkins University Press.
- Skocpol Theda. 1992. *Protecting Soldiers and Mothers: The Political Origins of Social Policy in the United States*. Cambridge, MA: The Belknap Press of Harvard Univ. Press
- Smythe, Donald J., 2008. "Transaction Costs, Neighborhood Effects, and the Diffusion of the Uniform Sales Act, 1906-1947." *Review of Law and Economics* 4(1): article 16
- Wassam, Clarence W., 1908. *The Salary Loan Business in New York City*. New York: Charities Publication Committee.
- White, G. Edward. 1997. "The American Law Institute and the Triumph of Modernist Jurisprudence," *Law and History Review* 15: 1-47.

Figure 1: Kaplan-Meier survivor function

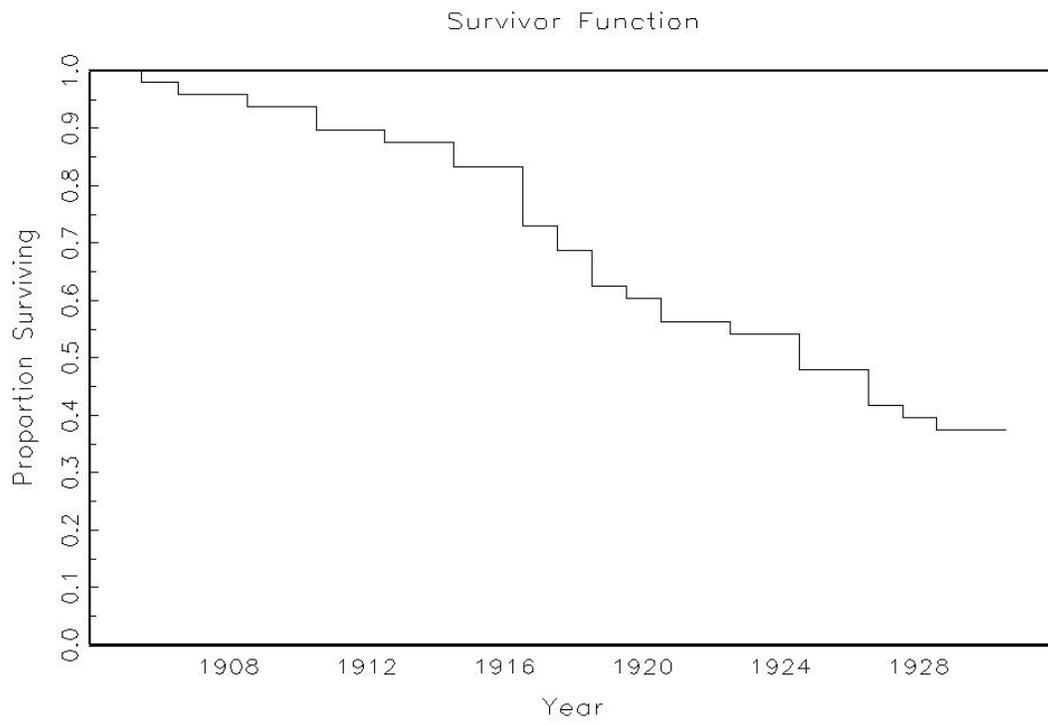
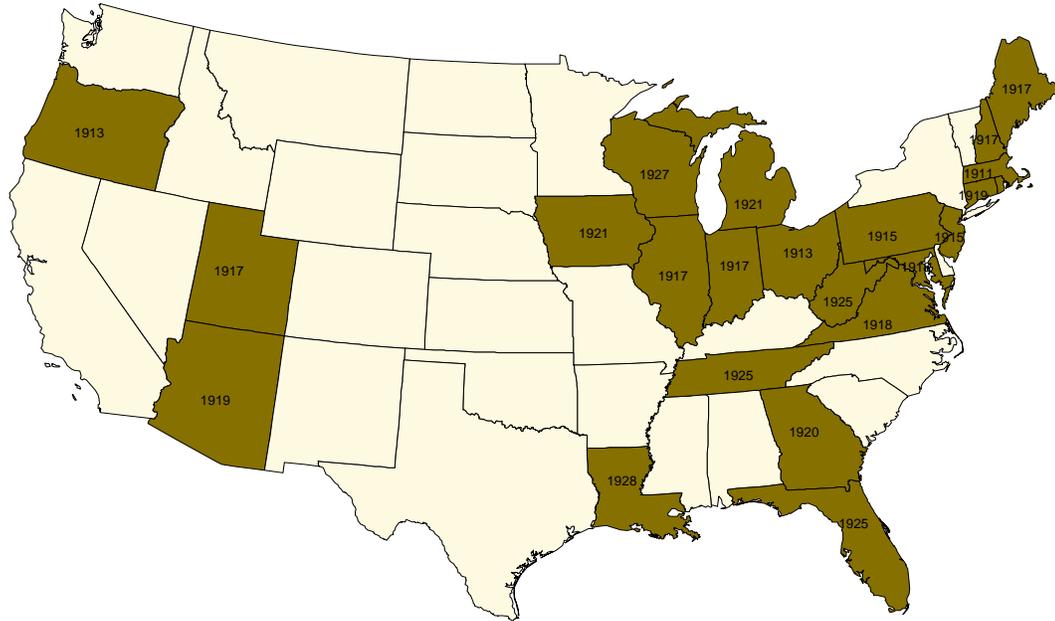


Figure 2: States that passed the USSL prior to 1930, and the year in which they did



Note: We restrict passage of the USSL to the period ending in 1930. Several states passed a version of the law in the 1930s and 1940s. Rhode Island passed the USSL in 1923.

Table 1: Sources and descriptive statistics

Variable	Definition	Mean (std. dev.)	Source
Manufacturing	Ratio of state manufacturing annual earnings to U.S. manufacturing earnings, 1899, 1904, 1909, 1914, 1919, 1921, 1923, 1925, 1927, 1929, 1931 and interpolations in between.	.99 (.23)	Interpolation between census years; from F & K
Large firms	Percentage of Value Added in Establishments with More than \$1 million in value added for years 1904, 1909, 1914, 1919, 1929, 1939 with straight-line interpolations for years in between	.43 (.19)	Interpolation between census years; from F & K
Urban	Percentage of state's residents resident in cities of more than twenty-five hundred persons	.41 (.21)	Interpolation between census years; from F & K
State banks	Average state bank liabilities	1.58 (2.88)	Federal Reserve's All-Bank Statistics

Note: F & K is Fishback and Kantor (2000), as posted to the web at <http://uaeller.eller.arizona.edu/%7Efishback>

Table 2: Basic models for the USLL's passage

	(1)	(2)	(3)	(4)
Man. earnings	-7.137 (-6.590)	-2.489 (-1.721)	-0.0711 (-3.722)	-0.0185 (-1.821)
Large firms	1.756 (1.572)	3.009 (1.198)	0.0175 (1.722)	0.0223 (1.215)
Urbanization	6.124 (2.780)	6.533 (2.832)	0.0610 (3.065)	0.0485 (2.322)
Banks	-0.293 (-1.220)	-0.317 (-1.644)	-0.00292 (-1.375)	-0.00235 (-1.731)
1906-11		-7.005 (-4.693)		-0.0592 (-2.126)
1912-13		-5.144 (-3.721)		-0.0123 (-2.492)
1914		-5.142 (-3.300)		-0.00946 (-2.389)
1915		-5.158 (-3.184)		-0.00942 (-2.430)
1916-17		-4.261 (-3.019)		-0.0108 (-2.352)
1918		-4.384 (-2.469)		-0.00878 (-2.428)
1919		-4.405 (-2.916)		-0.00871 (-2.473)
1920		-4.931 (-2.230)		-0.00884 (-2.436)
1921		-4.190 (-2.621)		-0.00850 (-2.439)
1922-23		-5.551 (-3.488)		-0.0107 (-2.518)
1924-25		-4.380 (-2.557)		-0.00971 (-2.434)
1926-27		-5.469 (-3.328)		-0.0101 (-2.422)
1928-30		-5.716 (-3.003)		-0.0117 (-2.415)
log lik	-104.0	-88.11	-104.0	-88.11

Notes: There are 950 observations. See Table 1 for variable definitions and descriptive statistics. T-statistics in parentheses. Columns 1 and 2 report logit coefficients, columns 3 and 4 marginal effects.

Table 3: Spatial correlation

	(1)	(2)	(3)	(4)	(5)
Manufacturing earnings	-2.489 (-1.721)	-2.415 (-1.709)	-2.023 (-1.390)	-0.791 (-0.610)	-1.888 (-1.192)
Large firms	3.009 (1.198)	3.617 (1.247)	3.324 (1.306)	3.884 (1.645)	2.612 (1.045)
Urbanization	6.533 (2.832)	6.604 (2.909)	7.098 (3.013)	7.657 (3.018)	7.256 (3.071)
Banks	-0.317 (-1.644)	-0.280 (-1.424)	-0.296 (-1.433)	-0.335 (-1.669)	-0.338 (-1.732)
1906-11	-7.005 (-4.693)	-7.466 (-5.241)	-8.043 (-5.417)	-9.805 (-5.344)	-7.890 (-4.499)
1912-13	-5.144 (-3.721)	-5.496 (-3.932)	-6.112 (-4.409)	-7.696 (-4.360)	-5.912 (-3.578)
1914	-5.142 (-3.300)	-5.462 (-3.699)	-6.048 (-3.995)	-7.333 (-4.406)	-5.825 (-3.383)
1915	-5.158 (-3.184)	-5.461 (-3.348)	-5.984 (-3.752)	-7.185 (-4.208)	-5.717 (-3.233)
1916-17	-4.261 (-3.019)	-4.583 (-3.282)	-4.984 (-3.690)	-6.139 (-4.257)	-4.606 (-3.027)
1918	-4.384 (-2.469)	-4.673 (-2.646)	-4.611 (-2.865)	-5.625 (-3.856)	-4.239 (-2.323)
1919	-4.405 (-2.916)	-4.699 (-3.127)	-4.439 (-3.206)	-5.363 (-4.310)	-4.218 (-2.740)
1920	-4.931 (-2.230)	-5.135 (-2.366)	-4.982 (-2.385)	-5.682 (-3.133)	-4.650 (-2.036)
1921	-4.190 (-2.621)	-4.347 (-2.687)	-4.207 (-2.874)	-4.746 (-3.534)	-3.912 (-2.363)
1922-23	-5.551 (-3.488)	-5.698 (-3.516)	-5.484 (-3.598)	-5.799 (-4.444)	-4.998 (-3.013)
1924-25	-4.380 (-2.557)	-4.550 (-2.549)	-4.327 (-2.760)	-4.544 (-3.377)	-3.687 (-2.053)
1926-27	-5.469 (-3.328)	-5.627 (-3.297)	-5.136 (-3.303)	-5.008 (-3.277)	-4.629 (-2.614)
1928-30	-5.716 (-3.003)	-5.858 (-3.053)	-5.348 (-2.929)	-5.023 (-2.651)	-4.729 (-2.376)
W matrix: border		-0.846 (-0.776)			
W matrix: population			-2.761 (-2.154)		
W matrix: northern				-6.639 (-1.722)	
W matrix: progressive index					-3.263 (-1.648)
log lik	-88.11	-87.78	-85.15	-86.63	-86.49

Note: there are 950 observations. See Table 1 for variable definitions and descriptive statistics.

Table 4: Models with unobserved heterogeneity

	Heckman-Singer model		Gamma frailty	
	Est.	T-Ratio	Est.	T-Ratio
Urbanization	2.641	1.56	3.462	1.43
Large firms	6.242	3.4	7.568	2.31
Banks	0.165	1.1	-0.092	-0.43
Man. earnings	-7.604	-6.35	-8.29	-5.36
Location of type 2 (type one = 0)	-4.356	-2.79		
Prob. of type 1	.650	5.90		
Prob. of type 2	.350	3.17		
Gamma variance			2.147	1.59
Log-likelihood		-100.214		-101.735