WHY WAS THE UNIFORM SALES ACT

ADOPTED IN SOME STATES BUT NOT OTHERS?

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The Uniform Sales Act was an early attempt to unify American sales law. Between 1906 and 1947 it was adopted in 34 American states. Transaction cost theory suggests that states' adoption decisions should have been influenced by large manufacturing interests, neighborhood effects, and major transportation systems. Historians have also suggested that states' adoption decisions should have been influenced by whether the states' legal professions had adopted a state bar association and whether the states had been admitted to the union. This paper uses a logistic regression model to evaluate the contributions of these variables to states' adoption decisions. The results suggest that manufacturing interests, neighborhood effects, and transportation systems all played an important role in the diffusion of the Uniform Sales Act. It appears that the Act ultimately failed to diffuse across all states primarily because the southern states resisted legal unification and because most of them were not well integrated into the national transportation network.

KEY WORDS: Institutional innovation, Transaction Costs, Neighborhood Effects, Transportation Network

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INTRODUCTION

Domestic sales transactions are usually governed by Article 2 of the Uniform Commercial Code (UCC). Indeed, Karl Llewellyn, one of the architects of the UCC, considered Article 2 to be the heart and soul of modern American commercial law [Scott 2002]. This is ironic, since it is well known that some states had previously declined to adopt the Uniform Sales Act, which was a precursor to Article 2. Indeed, some states may have adopted Article 2 only because they welcomed other provisions of the UCC, especially those which address commercial payments and financing [Scott 2002].

States' apparent reluctance to codify their sales law is puzzling. The transportation improvements in the latter nineteenth century dramatically increased the potential size of manufacturing firms' markets, and significantly increased the volume of interstate trade in goods. Non-uniformities in states' sales laws should only have impeded the growth in interstate trade by exacerbating the legal uncertainties surrounding interstate sales transactions and increasing the burden on parties to protect their interests by negotiating more complex and detailed contractual safeguards. Of course, the adoption of an ill-drafted and inefficient sales code might have created an even larger impediment, but, in theory, a well-drafted and efficient sales code should have reduced the costs of transacting and facilitated interstate trade in goods.

The Uniform Sales Act represented the first serious attempt to codify and unify American sales law. Although it was drafted by Samuel Williston, who was widely regarded as one of the leading contracts scholars of his time, the Act was adopted in only 34 out of the 48 states that were members of the union by the middle of the twentieth century. This article seeks to determine why the Uniform Sales Act was adopted in some states but not others. It treats the Uniform Sales Act as an institutional innovation and uses transaction cost theory to develop various hypotheses about the factors that influenced states' adoption decisions and a discrete time hazard model to test them.

BACKGROUND

The American economy was transformed by major investments in new transportation and communication technologies in the middle of the nineteenth century [Chandler 1977]. As a national transportation network of canals and railroads developed, it significantly reduced transportation costs and dramatically increased the size of firms' potential markets. The mass-production industries emerged in response, as the business sector restructured itself to take advantage of the new opportunities and to cope with the new risks and uncertainties. The changes culminated in what many scholars have termed the "second industrial revolution," and resulted in the United States emerging as the world's preeminent economic and military power in the twentieth century [Nelson and Wright 1992].

The advent of the modern industrial economy occurred in conjunction with a host of social and political developments. The American Bar Association (ABA), for instance, was established in 1878, and the American Economic Association in 1885. Moreover, the exigencies of a modern industrial economy lent renewed vigor to pressures to rationalize the American legal system. Among these were calls to unify the states' commercial laws through the adoption of unified commercial codes. Although codification was in many ways anathema to the common law tradition in which the American legal system was rooted, pressures to codify English and American common law were hardly new.

Pressures to codify the English common law date at least as far back as the sixteenth century [Weiss 2000]. In the years prior to the English Civil War, codification began to appeal to a growing merchant class that had become dissatisfied with inconsistencies in the common law and muddled old statutes. Although English law was not formally codified in any significant respect until much later, and even then only to a very limited extent, Blackstone's commentaries helped to provide greater uniformity and relieved some of the pressures [Weiss 2000].

Interest in codification was reinvigorated by the Enlightenment. In fact, Jeremy Bentham emerged as a prominent champion of codification in the early nineteenth century [Weiss 2000].

Not surprisingly, Bentham advocated rationalizing all laws in a utilitarian legal code. Ironically, although his arguments failed, they appear to have had some influence on American thinking.

Codification pressures in the United States date to the early nineteenth century [Weiss 2000]. Many nineteenth century merchants viewed the legal profession with distrust, and suspected that the complexity of the law was a device for protecting the legal profession's monopoly King 1986]. In 1836 the Massachusetts legislature appointed Joseph Story to lead a commission on legal reform and provide recommendations about potential improvements to Massachusetts law. Although Story's commission recommended a significant amount of legal codification, nothing came of its report. This may have been because the legal reforms that it proposed threatened the livelihoods of the legal profession [Weiss 2000].

At about the same time that Story's recommendations to codify Massachusetts law failed to gain acceptance, David Dudley Field began advocating legal reform in the state of New York [Weiss 2000]. His principal concern was with the lack of accessibility to New York courts and the complexity of New York's procedural laws. His efforts manifested themselves in his famous Code of Civil Procedure -- the Field Code -- which was enacted in New York in 1851.

The Field Code was not a uniform law, but it provided a model for other states, and by 1897, 31 states and territories had enacted similar civil procedure codes. According to Friedman [1985], the Field Code was especially attractive to the western states and territories because they lacked the legal sophistication to cope with the common law of civil procedure and the legislative expertise to draft their own civil codes. They may also have lacked a legal profession that was sufficiently well-organized and influential to block the adoption of a legal code.

Field had originally advocated codifying a significant amount of substantive law as well as procedural law. In 1857, after another commission's recommendations had already failed, Field was appointed to a new commission to draft a code for New York's substantive laws. By 1865 this new commission had drafted a Penal Code, a Political Code, and a Civil Code [Weiss 2000]. Although the Penal Code was enacted in 1881, neither the Political Code nor the Civil

Code ever became law. In fact, the Civil Code was passed by both houses of the New York legislature on two occasions, only to be vetoed by the governor. According to Weiss [2000], the City of New York's bar association was the party principally responsible for blocking its adoption. Indeed, some legal scholars believe that the legal profession was generally the major obstacle to the codification of American law in the nineteenth century [Cook 1981; Hyland 1998].

Nonetheless, there were some significant legal codifications in the United States during the second half of the nineteenth century. Georgia was the first state to adopt a Civil Code in 1861 and the Dakota Territory adopted a Civil Code in 1866, well before the Dakotas achieved statehood. California adopted a Civil Code as early as 1873. In fact, according to Lang [1924], 37 states enacted Codes of Civil Procedure, 12 enacted Penal Codes, and 5 enacted Civil Codes in the second half of the nineteenth century.

On the whole, however, the codification movement in the United States in the nineteenth century was a failure. For the most part, the substantive codes that were enacted generally only provided summaries of the common law without in any way attempting to reform it [Weiss 2000]. Moreover, none of the codes that were enacted in the nineteenth century were uniform [Weiss 2000]. They thus did little or nothing to achieve legal uniformity across the states. Indeed, prior to the developments in transportation and communications and the rise of the mass-production industries in the nineteenth century, the codification movement in the United States was primarily driven by the motivation to bring coherence and rationality to the states' laws. It was only afterwards, in a society and economy in which intercourse and commerce no longer respected state boundaries, that the codification movement was more commonly driven by the motivation to achieve uniformity [Teeven 1994].

THE UNIFORM SALES ACT

The ABA was founded in 1878 in part to promote "uniformity of legislation from throughout the union." It was instrumental in establishing the National Conference of

Commissioners on Uniform State Laws (NCCUSL) in 1892 [Teeven 1994]. The NCCUSL immediately underwrote the drafting of a host of model uniform codes, including the Uniform Sales Act in 1906.

Between 1906 and 1947, 34 states enacted the Uniform Sales Act. Another 14 states chose not to enact it (Hawaii and Alaska did not become members of the union until 1959). The Act's partial success provides a natural experiment on the causes and consequences of legal codification, and may offer some more general insights into the role of legal institutions in American economic growth and development. Why was the Uniform Sales Act adopted in some states and not others? Did it lower transaction costs or increase them? What role did the legal profession play in its adoption?

Questions such as these are far from merely a matter of historical interest. Many modern American legal scholars have been critical of Article 2 of the UCC. Some scholars have argued that it is becoming increasingly irrelevant. Indeed, the recent attempt to revise Article 2 is widely regarded as a failure and its future at this point remains unclear. Ironically, the controversy surrounding Article 2 comes at a time when many legal scholars and jurists elsewhere in the world are advocating further codification and unification of international commercial law. There are currently significant pressures within Europe to codify and unify commercial law across the entire European Union [Mattei 2002; Weiss 2000]. There are also movements at work to further the codification of commercial law on a global level [Widmer; Bennell 1999].

THE THEORY

Transaction cost theory suggests a number of hypotheses about the diffusion of the Uniform Sales Act. First, since large-scale manufacturers were involved in more inter-state sales transactions than any other parties, states with large manufacturing sectors should have been more inclined to adopt. There is strong evidence that mass-production manufacturing activities in the U.S. became concentrated within a small group of northeastern and midwestern states by the early

6

twentieth century. These states thus came to define a manufacturing core. Transaction cost theory suggests that these manufacturing core states should have been more inclined to adopt the Uniform Sales Act than other states.

States should also have been more inclined to adopt the Act the greater the proportion of their neighbors that had already adopted it. Since the purpose of commercial codification was to unify the law of sales across state lines, a state would have accomplished little by adopting the Act unless its neighbors had already adopted it. Of course, the adoption decisions might have been simultaneous. To ensure there is no simultaneity bias in the estimates, only lagged adoption decisions should be used as explanatory variables. Transaction cost theory predicts that a state should have been more inclined to adopt the Act the larger the cumulative number of neighboring states that had adopted it by the end of the previous year.

The dramatic expansion of the mass-production industries at the end of the nineteenth century was facilitated by the railroads and other major transportation systems, particularly the canals and inland waterways. By the early twentieth century the railroads had become the most important part of the transportation system. The inland waterways also remained important [Alperin 1983; Parkman 1983]. Transaction cost theory suggests that the railroads and inland waterways should have been another important contributor to the diffusion of the Uniform Sales Act. The transportation system significantly increased the volume of trade between states and non-neighboring states. States' incentives to adopt the Act should have increased whenever another state to which they were directly connected by a major railroad or inland waterway adopted the Act. Of course, since the decisions may have been simultaneous, only lagged adoption decisions should be considered in the empirical analysis. Transaction cost theory thus predicts that a state should have been more inclined to adopt the act the greater the number of prior adoptions of the Act by other states to which it was connected through the national transportation network.

Legal historians have suggested some additional hypotheses. Some have suggested that although the legal profession may have impeded legal codification in the nineteenth century, it probably encouraged codification in the twentieth century [White 1991]. Since the legal profession probably had more influence in states where it was well organized, this suggests that state bar associations may have played a role. States may have been more inclined to adopt the Act if their legal professions had organized a state bar association. Other historians have suggested that states newly admitted to the union often chose to codify laws as a way of quickly entrenching their legal institutions [Friedman 1985]. This implies that states may have been more inclined to adopt the Act if they were newly admitted to the union and wanted to establish their legal institutions quickly.

THE DATA

The dates on which various states adopted the Uniform Sales Act were taken from the Uniform Laws Annotated. Data on states' manufacturing sectors was taken from the Census Bureau's Statistical Abstract of the United States. Most of this data, of course, was collected for the Census of Manufactures. Since the Census of Manufactures was conducted somewhat sporadically in the first half of the twentieth century, this data is available only for 1904, 1909, 1914, 1919, 1921, 1923, 1925, 1927, 1929, 1931, 1933, 1935, 1937, 1939, and 1947. The dates on which states achieved statehood and state bar associations were established were taken from Martindale-Hubbell.

The core of the manufacturing sector in the U.S. was established by the end of the nineteenth century [Krugman 1991]. By virtue of their early lead, and the path dependence of economic growth and development, the core manufacturing states remained the same throughout the twentieth century [Krugman 1991]. A binary variable was thus constructed using the states that have been identified as belonging in the manufacturing core to control for the effects of

8

manufacturing interests.[1]   As an alternative, the real value added by the states' manufacturing sectors was also used to capture the effect of manufacturing interests. This was calculated by dividing the nominal value added in a state's manufacturing sector by the consumer price index for that year taken from the Historical Statistical Abstract of the United States.

Since the emergence of a national transportation network obviously influenced the potential for growth in interstate trade, it may also have played a role in states' decisions about whether to adopt the Uniform Sales Act.   Binary variables were therefore constructed to indicate whether the states were connected to other states through one of the fifteen consolidated railroad systems in the early twentieth century identified in The Routledge Historical Atlas of the United States Railroads [Stover 1999].[2]   Two additional binary variables were created to indicate whether the states were connected to other states through either the Mississipi river or the Great Lakes – the two most important inland waterways of the early twentieth century[3] [Alperin 1983; Parkman 1983].

Since the binary variables alone were not sufficient to capture the effects of adoptions by other states that belonged to shared transportation systems, these binary variables were used to construct two other types of variables.   One was used to attempt to capture a national

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[1] The core manufacturing states were identified as Connecticut, Illinois, Indiana, Massachusetts, New Jersey, Ohio, Pennsylvania, and Rhode Island based on information provided by the U.S. Department of State at http://usinfo.state.gov/products/pubs/geography/map4.htm visited on March 29, 2008 and data from the Census of Manufactures.

[2] These included systems identified as the New York Central, Chicago Northwestern, Erie, Southern, Pennsylvania, Baltimore & Ohio, Chesapeak & Ohio, Union Pacific, Southern Pacific, Illinois Central, Great Northern, Northern Pacific, Burlington, Missouri Pacific, and Rock Island [Stover 1999].

[3] The Great Lakes states included Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin, and the Mississippi river states included Arkansas, Illinois, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Tennessee, and Wisconsin.

transportation network effect. This was constructed to show for each state the number of other states directly connected through any one of the seventeen transportation systems that had adopted the Uniform Sales Act by the end of the previous year. The other was an attempt to capture the effects of regional transportation networks. This involved separating the seventeen major railways and inland waterways into seven regional networks and then constructing a variable to show for each state the number of other states directly connected through the regional network that had adopted the Uniform Sales Act by the end of the previous year. [4]

Finally, a variable was constructed to capture the effects of adoptions of the Uniform Sales Act by neighboring states. One of the hazards in constructing a variable such as this was that it risked being highly correlated with the transportation network variables. Most states were connected to other states by at least one of the major railroads or inland waterways. Thus, an adoption of the Act by a neighboring state could also have been an adoption by a state belonging to a shared transportation system. To isolate pure neighborhood effects, therefore, a variable was constructed to show the number of adoptions by neighboring states that were not directly connected through any of the seventeen major transportation systems by the end of the previous year.

THE METHOD

This paper uses hazard methods to evaluate which, if any, of the variables most strongly influenced the diffusion of the Uniform Sales Act. There are two basic approaches to hazard

[4] The Northeastern network included the Baltimore & Ohio, Chesapeake & Ohio, Pennsylvania, Erie, New York Central, Burlington, and Rock Island Railroads and the Great Lakes inland waterway; the North/Midwestern network included the Great Northern, Northern Pacific, and Chicago Northwestern Railroads; the Mississippi river network included the Illinois Central Railroad and the Mississippi river inland waterway; the Union Pacific, Missouri Pacific, Southern, and the Southern Pacific Railroads were all separate and distinct enough to constitute their own regional networks.

analysis: one assumes that the data are generated in continuous time and the other assumes they are generated at discrete intervals. The data for this study were measured at discrete intervals and so this paper reports the results of discrete time hazard estimations using a logistic specification.[5] The logistic model provides estimates that are similar to the Cox regression model [Allison 1982; Jenkins 1995] in continuous time hazard models. Indeed, as the hazard rate becomes small, the logistic model converges to the proportional hazard model [Jenkins 1995]. One of the advantages of the logistic model is that it always constrains the probability of an event to lie in the unit interval [Allison 1982]. The estimates are thus more efficient than those based on specifications which do not constrain the probability of an event to lie in the unit interval.

THE RESULTS

Table 1 presents the results of logistic regressions on the Uniform Sales Act using the number of prior adoptions by neighbors not connected through the transportation network and the number of prior adoptions by other states directly connected through the national transportation network as explanatory variables. The odds ratios for all the variables are all statistically significant at the 90% level of confident except for the binary variable indicating whether a sate bar association had been formed. The sizes of the odds ratios are interesting. The odds ratio for the pure neighborhood effect, for instance, indicates that the prior adoption of the Uniform Sales Act by a neighbor that was not connected through a major railroad or inland waterway increased the likelihood of adoption during any year by almost 80%. The odds ratio for the transportation network effect indicates that the prior adoption of the Act by another state that was directly connected by a major transportation system increased the likelihood of adoption by more than 12%. By comparison the neighborhood effect appears very large, but since states were generally

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[5] The method required dropping observations in each state after the adoption of the employment doctrine that was being used as the dependent variable.

11

connected to far more other states through the transportation network than were by virtue of being neighbors, the overall significance of the transportation network may have been much greater.

The results in Table 1 also suggest that manufacturing interests may have been particularly important. States in the manufacturing core were more than six times as likely to adopt the Uniform Sales Act during any year as states that were not in the manufacturing core.[6] In addition, it appears that states that were not yet admitted to the union were more than seven times as likely to adopt the Act as states that were already members of the union. It is worth noting, however, that this effect is entirely due to the early adoption of the Act by Arizona. Arizona adopted the Uniform Sales Act in 1907, as soon as it became available for adoption, even though it was only admitted to the union in 1912. No other state adopted the Act before it became a member of the union. Although the size and significance of the "not in the union" variable is entirely due to Arizona it is difficult to imagine any other reason why Arizona would have adopted the Act so early. It did not have any manufacturing sector to speak of until much later, and it adopted the Act earlier than any of its neighbors or any of the states to which it was directly connected through the transportation network.

One factor that the regression results reported in Table 1 did not control for was a "southern" effect. A number of authors have suggested that the southern states resisted the unification of their sales laws until they faced the treat of federal legislation, which would, of course, have preempted their state laws [Armstrong 1991]. A binary variable to indicate whether the states were southern was thus added to the model.[7] The regression results are reported in

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[6] None of the main results were dramatically altered by using the real value added by the manufacturing sector instead of a binary variable for the core manufacturing states, although in some regressions coefficients that were statistically significant become statistically insignificant.

[7] The "south" was defined according to the definition used by the Library of Congress, which includes all states south of the Mason-Dixon line and Ohio River from the western Texas border to the Atlantic Ocean.

Table 2. As these results indicate, the southern states were significantly less likely to adopt the Uniform Sales Act than the non-southern states. The inclusion of the southern binary variable, however, also significantly affected the estimates of the other coefficients. Both the pure neighborhood effect and the transportation network effect remained statistically significant (at the 90% level of confidence) and quantitatively significant (the prior adoption of the Act by a neighbor that was not connected through the transportation network increased the likelihood of adoption in any year by well over 40% and the prior adoption of the Act by a state directly connected through the transportation network increased the likelihood of adoption by over 10%).

Simply adding a binary variable to the model to control for a southern effect may not be enough. The southern states may not have responded to the adoptions of the Uniform Sales Act by their neighbors or by other states to which they were directly connected through the transportation network in the same ways as the non-southern states. Additional variables were therefore created to evaluate whether the neighborhood effects, transportation network effects and state bar effects were different in the southern states than the non-southern states. The southern binary variable was dropped from the model. The results are shown in Table 3. It is striking that in the southern states neither the pure neighborhood effect nor the transportation effect was statistically significant but in the non-southern states the effects were both statistically and quantitatively significant. In the non-southern states the prior adoption of the Uniform Sales Act by a neighbor that was not directly connected through the transportation network increased the likelihood of adoption in any year by more than 50% and the prior adoption by a state that was directly connect through the transportation network increased the likelihood of adoption by more than 11%. Although the establishment of a state bar was not statistically significant in either the

Thus, it included Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

southern or non-southern states, it decreased the likelihood of adoption in the southern states and increased the likelihood of adoption in the non-southern states.

To allow for a more nuanced evaluation of the role that the transportation system played in the diffusion process, the transportation network was broken down into its component parts. Based on the overlap in their routes, it was possible to identify seven distinct regional parts of the national transportation network. In some cases the regional network consisted of a single railroad, in others it consisted of several partially overlapping railroads and waterways. These regional networks were used to create seven new variables to indicate for each state the number of other states within the same regional transportation network that had adopted the Uniform Sales Act by the end of the prior year. These seven variables were added to the original model and the national transportation network variable was dropped.

The logistic regression results are shown in Table 4. These suggest that the transportation system may have had a much greater effect on the diffusion of the Uniform Sales Act in some regions of the country than in others. It is notable, for instance, that the Southern and Southwestern regional transportation networks appeared to have had little effect, if any. The Union Pacific railroad and the North/Midwestern network, on the other hand, which served as the major east-west transportation systems from the northwestern part of the country to the midwest, appeared to have a significant effect of the diffusion of the Act. The prior adoption of the Uniform Sales Act by another state directly connected by the Union Pacific Railroad increased the likelihood of a state's adoption by more than 200%. The prior adoption of the Act by another state directly connected through the North/Midwestern network increased the likelihood of a state's adoption by more than 20%. The Missouri Pacific Railroad also appeared to have a quantitatively significant effect, although the effect was not statistically significant.

The Northeastern network appeared to have a smaller effect on the diffusion of the Act. The prior adoption of the Act by another state directly connected through the Northeastern network increased the likelihood of a state's adoption by less than 2%. Moreover, the effect was

not statistically significant. This was somewhat surprising. The core manufacturing states are heavily concentrated in the northeast and midwest. For obvious reasons, so were the major turn-of-the-century railroad systems. Because they were so well serviced by major railroads, the core northeastern and midwestern manufacturing states were directly connected to more states through the transportation network than states in other regions. Thus, the adoption of the Uniform Sales Act by any other single state may have been of less importance to them than it would have been to some states in other regions, such as the northwest or southwest, which were not nearly as well connected through the transportation network.

The Mississippi river network is perhaps the most complex, since it includes both southern and non-southern states.   The prior adoption of the Act by another state directly connected through the Mississippi river network increased the likelihood of a state's adoption by about 12%. Since the regional transportation networks that included primarily southern states did not appear to have an effect on the diffusion of the Act, the Mississippi river effect may have been different for the southern Mississippi river states than the non-southern ones.

In this more nuanced model the pure neighborhood effect is even more pronounced. The prior adoption of the Act by a neighbor not directly connected through a major transportation system increased the likelihood of a state's adoption in any year by more than 100%. A state's membership in the manufacturing core also had a pronounced effect. It increased the likelihood of adoption in any year by more than ten times. A state's non-admission to the union increased the likelihood of adoption in any year by more than nine times.

To account for the distinctive attitude of the southern states towards legal unification, new variables were created to distinguish between the Mississippi river transportation network effects in the southern and non-southern states. These were added to the model in place of the single Mississippi river network variable.   The variables that were previously created to distinguish between the southern and non-southern states' pure neighborhood and state bar effects were also added to the model.

The results are shown in Table 5. What is most striking about these is that the Mississippi river transportation network effect is both quantitatively and statistically more significant in the southern states than in the non-southern states. The prior adoption of the Uniform Sales Act by another state directly connected through the Mississippi river network increased the likelihood of a southern state's adoption by more than 22% and the effect was statistically significant at almost the 95% level of confidence. The prior adoption of the Act by another state directly connected through the Mississippi river network increased the likelihood of a non-southern state's adoption, on the other hand, by less than 6% and the effect was statistically insignificant. None of the other results were dramatically different than one might have expected based on the previous results.

The Mississippi river network effect is perplexing upon first impression, but may actually help to clarify some of the results. The non-southern states that were part of the Mississippi river transportation network included some states that were also part of the Northeastern transportation network. The quantitative and statistical significant of the Mississippi river network in the non-southern states was comparable to the quantitative and statistical significance of the Northeastern network. The Mississippi river transportation network also happened to include the only two southern states that adopted the Uniform Sales Act – Arkansas and Tennessee. This may help to explain why these two southern states adopted the Uniform Sales Act when the south otherwise appeared to resist legal unification so strongly. They may have been more invested in inter-state commerce than the other southern states because of their involvement in the Mississippi river transportation network.

CONCLUSIONS

The results of this study suggest that manufacturing interests, neighborhood effects, and transportation systems all played an important role in the diffusion of the Uniform Sales Act. The core manufacturing states were at least three times as likely to adopt the Act in any year as other

16

states and the effect was statistically significant at the 90% level of confidence in all of the estimations. The prior adoption of the Act by a neighboring state that was not directly connected through a major railroad or inland waterway increased a non-southern state's likelihood of adopting the Act by at least 44% and the effect was statistically significant in all of the estimations. The prior adoption of the Act by a state that was directly connected through the national transportation network increased the likelihood of adoption by at least 10%. This effect was statistically significant at the 90% level of confidence in the non-southern states but it was not statistically significant in the southern states. When the national transportation network was broken down into regional networks some of the results were surprising but they offered some useful insights. The prior adoption of the Act by a state that was directly connected through the Union Pacific railroad, for instance, increased the likelihood of a state's adoption by more than three times. This may explain why some western and midwestern states that had such small manufacturing sectors adopted the Act so early. The Mississippi river network effect was quantitatively and statistically more significant in the southern states than the non-southern ones. This may help explain why two of the southern states adopted the Act when the others did not.

Based on these findings, a tentative answer to the central question raised in this paper can be phrased as follows: The core manufacturing states led the way toward legal unification. One state appeared to adopt the Act early as a way of quickly entrenching its laws. Other states were encouraged to adopt the Act when their neighbors or other states to which they were directly connected through major transportation systems also adopted it. On the whole, the southern states appeared to resist legal unification. Only two southern states adopted the Act and they appear to have done so primarily because they were both parts of a particularly important regional transportation network.

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TABLE 1

Logistic Regressions with the Uniform Sales Act as the Dependent Variable

Number of observation = 393

Log likelihood = -103.8243

	Odds Ratio	Std. Error	z
Pure neighbor effect	1.79832	.3643185	2.90
Transportation network	1.120828	.0657252	1.95
Manufacturing core	6.283425	3.09024	3.74
Bar established	.8787641	.3854465	-0.29
Not a member of the union	7.022508	8.281482	1.65

TABLE 2

Logistic Regressions with the Uniform Sales Act as the Dependent Variable

Number of observations = 393

Log likelihood = -103.8243

	Odds Ratio	Std. Error	z
Pure neighbor effect	1.442551	.2966259	1.78
Transportation network	1.103374	.0625855	1.73
Manufacturing core	3.215099	1.660821	2.26
Bar established	1.219652	.5560795	0.44
Not a member of the union	3.729628	4.50334	1.09
Southern state	.1917929	.1117398	-2.83

TABLE 3

Logistic Regressions with the Uniform Sales Act as the Dependent Variable

Number of observations = 393

Log likelihood = -103.8243

	Odds Ratio	Std. Error	z
Pure neighbor effect (non-south)	1.514124	.3166121	1.98
Pure neighbor effect (south)	.7669585	.8660912	-0.23
Transportation network (non-south)	1.115761	.0651481	1.88
Transportation network (south)	1.102037	.174458	0.61
Manufacturing core	3.294757	1.738466	2.26
Bar Established (non-south)	1.575887	.7752771	0.92
Bar Established (souh)	.3582644	.277524	-1.33
Not a member of the union	3.964376	4.788145	1.14

TABLE 4

Logistic Regressions with the Uniform Sales Act as the Dependent Variable

Number of observation = 393

Log likelihood = -82.706662

	Odds Ratio	Std. Err.	z
Pure neighbor Effect	2.087216	.4805667	3.20
Northeastern network	1.01451	.0383767	0.38
North/midwestern network	1.208955	.0940194	2.44
Mississippi river network	1.123094	.0872255	1.49
Union Pacific Railroad	3.78254	1.228895	4.09
Missouri Pacific Railroad	4.85726	6.567207	1.17
Southern Railroad	.3457534	.3087677	-1.19
Southwestern network	1.003166	.2729807	0.01
Manufacturing| Core	10.75325	6.824383	3.74
Bar established	1.463835	.8887676	0.63
Not a member of the union	9.744873	11.80217	1.88

TABLE 5

Logistic Regressions with the Uniform Sales Act as the Dependent Variable

Number of observation = 393

Log likelihood = -81.098108

	Odds Ratio	Std. Err.	z
Pure neighbor effect (non-south)	1.827749	.4584396	2.40
Pure neighbor effect (south)	.605227	.7619596	-0.40
Northeastern network	1.014548	.0383013	0.38
North/midwestern network	1.183256	.0925362	2.15
Mississippi river network (non-south)	1.055038	.1922272	0.29
Mississippi river network (south)	1.22526	.1290785	1.93
Union Pacific Railroad	3.632475	1.203246	3.89
Missouri Pacific Railroad	4.736985	6.834805	1.08
Southern Railroad	.3568508	.3489312	-1.05
Southwestern Network	9056232	.2632241	-0.34
Manufacturing Core	6.671639	4.625163	2.74
Bar established (non-south)	2.025262	1.388688	1.03
Bar established (south)	.6651022	.587192	-0.46
Not a member of the union	6.641146	8.288326	1.52