

# ***Labour Power and Locality in the Gilded Age: The Northeastern United States, 1881-1894***

by Sari J. BENNETT\* and Carville V. EARLE\*

*The turbulent years of the 1880s marked the coming of age of American labour. Using the strike as its major weapon, labour exercised its power throughout the country, but in an uneven geographical pattern. Among small communities, labour power actually declined as population grew and the pre-industrial culture which had favoured the worker and his exercise of power was destroyed. In larger cities, however, labour found a new base for support, and its power increased. Formal labour organizations and union militancy played a very small part in this reconstitution of labour power. Of far greater significance was the convergence of the wage ratio of skilled and unskilled workers. Where the ratio narrowed, the economic interests of workers came together, a broader base for agitation was formed, and labour power, in turn, was strengthened.*

*Les années troublées de la décennie 1880 marquèrent l'éclosion du mouvement ouvrier aux États-Unis. Il utilisa la grève comme principal moyen de combat pour s'implanter dans tout le pays mais à des degrés divers selon les conditions locales et régionales. Dans les centres de moindre importance, l'exercice du pouvoir ouvrier ne résista pas à l'accroissement démographique et à la disparition des mentalités préindustrielles; dans les grandes villes par contre, il se renforça en trouvant de nouveaux appuis. Cette reprise du mouvement ouvrier ne fut guère liée au destin des organisations ouvrières et du militantisme syndical; elle le fut bien davantage à une diminution des écarts salariaux entre manœuvres et ouvriers qualifiés, qui partagèrent ainsi les mêmes conditions matérielles et les mêmes aspirations au combat.*

The history of labour in the Gilded Age, as told by Herbert Gutman, is a tale of power lost.<sup>1</sup> In this tale, modernization ripped apart the fabric of a pre-industrial culture which had long strengthened the position of the American worker and had been his base for labour power. The rise of the modern city and the rapid growth of industry created a new social environment that sharply contrasted with an older, pre-industrial America. This older America, in Gutman's view, was more congenial for the worker. Pre-industrial America, with its small towns and cities, its intimate scale of life, and its mixture of classes in all aspects of daily life, enabled

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<sup>1</sup> Herbert G. GUTMAN, "The Workers' Search for Power: Labor in the Gilded Age", in H. Wayne MORGAN, ed., *The Gilded Age: A Reappraisal* (Syracuse, N.Y.: Syracuse University Press, 1970), pp. 31-54; and his *Work, Culture and Society in Industrializing America* (New York: Vintage Books, 1977). For trenchant critiques of Gutman's work, see David MONTGOMERY, "Gutman's Nineteenth-Century America", *Labor History*, 19 (1978): 416-29; and David BRODY, "The Old Labor History and the New: In Search of an American Working Class", *Labor History*, 20 (1979): 111-26.

workers to exert influence on their own lives and the collective life of their communities. In short, the insular communities of pre-industrial America were conducive to the exercise of labour power. Modernization changed all of that. The rapid growth of large cities and industry undermined the organic social solidarity of pre-industrial America. To the detriment of the American worker, a new and more impersonal order came into being. Cities experienced a vast expansion in geographical scale accompanied by the compartmentalization of social and economic functions. Work was separated from residence; labour from capital; and class from class. Labour, ever isolated and disorganized by the new urban environment, saw its power ebb away.

The declension of labour power in industrializing America is one of Gutman's most provocative theses on the Gilded Age. Although Gutman's critics charge him with romanticizing the pre-industrial world, his perspective on labour has several virtues that outweigh these criticisms. One virtue is his recognition of the diversity of labour power during the Gilded Age and his insistence on a geographical perspective that links the nature of community with the exercise of power. No less important is Gutman's effort at identifying the community bases of worker power. He has provided an interpretation and framework that invite analytical treatment. In this paper, we test his thesis of a declension of labour power during the Gilded Age — a thesis which may be expressed in analytical language as an inverse rule: labour power in the Gilded Age stood in inverse relation to the modernization of American communities. Our results, though on occasion at variance with his inverse rule, extend rather than supplant Gutman's inverse rule.

In an earlier paper, we dissented from Gutman's inverse rule.<sup>2</sup> Instead of a linear declension of labour power, we reported a curvilinear association such that labour power declined amongst smaller cities, then inflected and increased sharply amongst larger urban communities. While Gutman's thesis offers a plausible interpretation of the declension of labour power in smaller American communities, it fails by overlooking the appreciable revival of labor power in large cities. One possible explanation of this pattern derives from the monumental study of French strikes conducted by Edward Shorter and Charles Tilly.<sup>3</sup> Having documented the power of labour in large metropolitan areas of France, they offer the explanation that such places nurtured the development of union organization and union militancy which spearheaded the labour movement. Since Gutman

<sup>2</sup> Sari BENNETT and Carville EARLE, "The Geography of Strikes in the United States: 1881-1894", *Journal of Interdisciplinary History*, 13 (1982); and their "Labor Power Lost, and Regained: The Geography of Strikes in the Northeastern United States, 1881-1894", *Department of Geography, University of Maryland Baltimore County, Geography of American Labor and Industrialization (GALI) Working Paper # 1* (1980). Two other studies of American strikes in later periods also report a scale reversal in strike behaviour: Robert N. STERN, "Intermetropolitan Patterns of Strike Activity", *Industrial and Labor Relations Review*, 29 (1976): 218-35; and P. K. EDWARDS, *Strikes in the United States, 1881-1974* (New York: St. Martin's Press, 1981), pp. 165-68.

<sup>3</sup> Edward SHORTER and Charles TILLY, *Strikes in France: 1830-1968* (London and Cambridge: Cambridge University Press, 1974).

and Shorter and Tilly emphasize the geographical variations in labour power and its nexus with labour organization and behaviour, we have chosen to isolate these issues for examination. Did the bases of labour power vary systematically among smaller and larger communities during the Gilded Age?

On the outset, one caveat is in order. Because we focus exclusively on labour's role in the exercise of power, the best we can do is to offer a partial explanation of labour power. A comprehensive interpretation of the curvilinear shift in power must allow for other factors such as the roles of capital, government and local economic conditions. Our preoccupation with labour's role, however, is consistent with the prevailing interpretation of labour power.

### I. — LABOUR POWER, MODERNIZATION AND LABOUR ORGANIZATION

We begin by reviewing our earlier findings on labour power and modernization. We then explore the role of labour organization and union militancy as the bases for the revival of labour power in large cities.

Although Gutman's thesis on labour power and modernization rests on impressionistic evidence, his argument is framed in a form suitable for an analytical test. His concepts of modernization and labour power, however, require brief clarification in order that they may be translated into statistical variables. On the matter of modernization, Gutman's meaning is confused because he merges two sorts of conceptualizations. One notion concerns industrialization and the set of cultural responses which the process triggers. Gutman superbly describes these cultural transformations — the routinization of tasks, time discipline, subordination in organizational hierarchies, as well as the accompanying changes in values; yet he does not claim that these transformations were decisive for the exercise of labour power. More critical in his view is a second component of modernization — the growth of large, socially segregated cities. It is the vast increase in geographical scale and the social isolation of modern cities which principally undermined the power of labour. The cultural changes brought on by industrialization certainly contribute to the declension of labour power, but it is geographical scale and the segregation of the working class which provide the sufficient conditions.

In our previous work on labour power we have found it advisable to avoid the vexed concept of modernization and, instead, focus on its components. Our reading of Gutman's work suggests that labour power was particularly responsive to the changes in city scale and segregation. Consequently, we proceeded to test whether there was an inverse relation between a community's scale or population and its labour power.

Two provisos attend our test of Gutman's inverse rule. First is the extent to which we have considered class segregation. We have assumed that community size is directly correlated with the segregation of workers.

Although we lack empirical evidence for this assumption, theory and a number of case studies tend to support it.<sup>4</sup> Until we have comparative urban indices of class segregation, we must make due with the scale or population variable.

The second proviso has to do with the geographical unit of analysis. The city or local community, of course, is the preferable unit for testing Gutman's thesis on labour power, but for practical reasons we have used the county in all of our analyses. The principal advantage of the county lies in the fact that it is the government's main unit for aggregating published census data. This access to a wide variety of data outweigh the modest gains in precision that accrue in the use of cities as geographical units.<sup>5</sup>

A second conceptual issue concerns the meaning and measurement of labour power. Power, as political scientists warn, is an elusive thing. It involves the capacity to influence others and to effect outcomes favourable to those who exercise it. Conventional measures of power, such as the careful analysis of local decisions or the subjective community evaluations of "influentials", obviously do not lend themselves to an historical study of hundreds of communities. Alternatively, we choose to measure labour power according to strike behaviour. More specifically, labour power is measured as the rate of strikes and the rate of successful strikes per 1,000 count population. In addition to the advantage of statistical comparison, these measures are perfectly consistent with Gutman's notions of labour power. As David Montgomery observes, Gutman's work has been concerned with "the question of power (who won the strike?) and that of culture (what values made people stand with or against the industrial capitalists?)".<sup>6</sup>

<sup>4</sup> Numerous studies have confirmed the compartmentalization and class segregation taking place within the large cities of late nineteenth-century America. See, for example, Peter G. GOHEEN, "Victorian Toronto, 1850 to 1900: Pattern and Process of Growth", *University of Chicago Department of Geography Research Paper No. 127* (1970); David WARD, *Cities and Immigrants: A Geography of Change in Nineteenth Century America* (New York: Oxford University Press, 1971); David GORDON, "Capitalist Development and the History of American Cities", in William K. TABB and Larry SAWERS, eds, *Marxism and the Metropolis: New Perspectives on Urban Political Economy* (New York: Oxford University Press, 1978), pp. 21-63. Although the correlation between city size and working-class segregation has often been asserted, we must alert the reader that we know of no empirical studies of this sort. Consequently, some of the unaccounted variance in our models may have to do with employment of scale as a surrogate for segregative effects.

<sup>5</sup> The principal advantage accruing from aggregating strikes into county units is the linkage with a vast body of census data. The disadvantage, of course, is the aggregation of several communities into one county unit, thereby masking local diversity. We maintain that county aggregation allows us to incorporate into our analysis certain types of communities such as small mining camp areas which if regarded as individual communities would have been too small for inclusion. As for the large counties, their populations are, generally speaking, mainly made up of a dominant large city, and consequently, the county is a more than adequate indicator of city size and labour power in the city.

<sup>6</sup> Quoted in MONTGOMERY, "Gutman's Nineteenth-Century America", p. 419. In measuring labor power, we thought it meaningless to use strike frequency or successful strike frequency since these measures are so obviously linked to scale factors such as population, manufacturing and labour force. See BENNETT and EARLE, "Labor Power Lost, and Regained"; SHORTER and TILLY, *Strikes in France*; and STERN, "Intermetropolitan Patterns

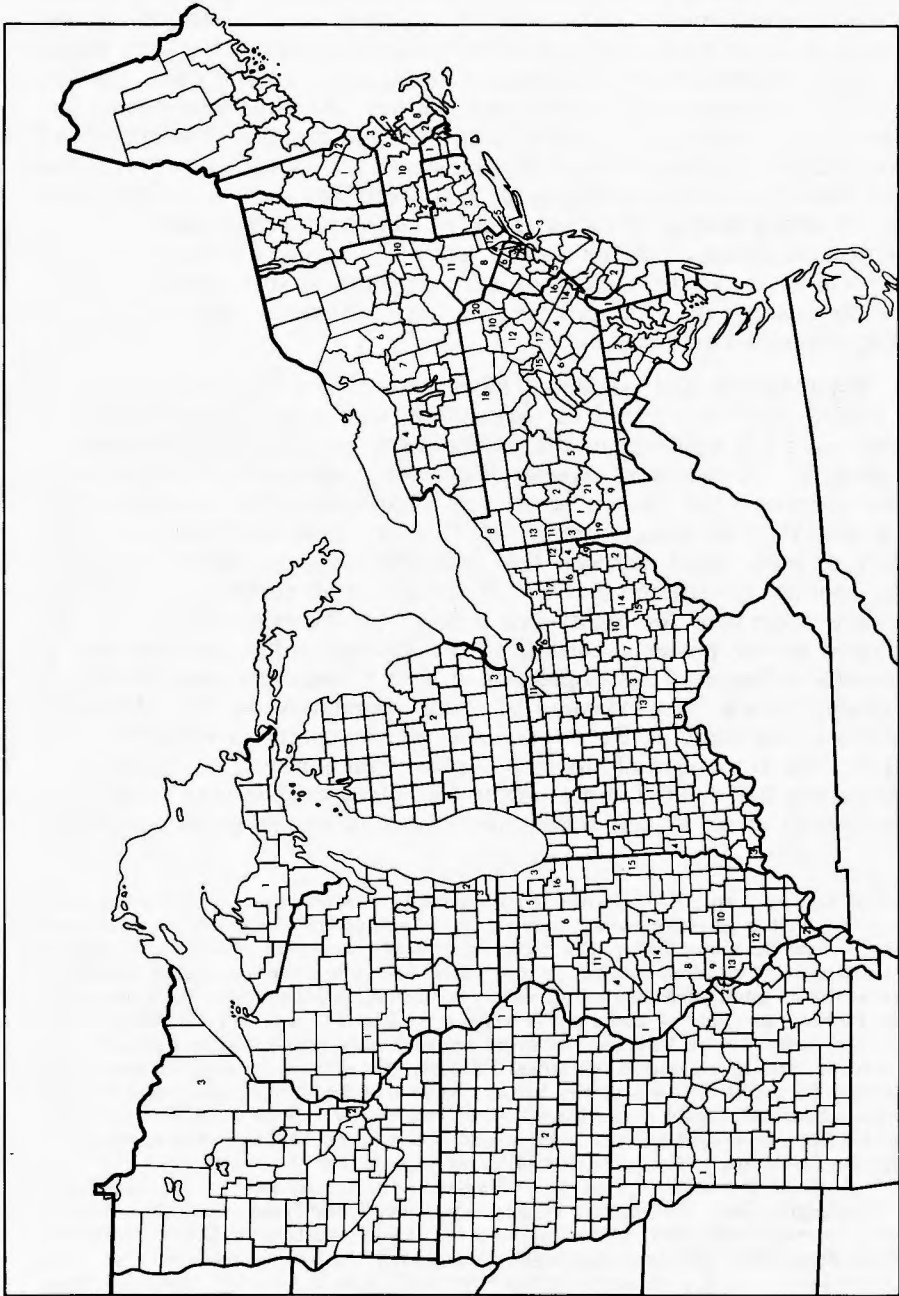
Because of power's elusive quality, the inevitable question arises as to whether strikes and their outcomes adequately measure power. We can imagine some cases in which labour was so powerful that it had no need to resort to the weapon of the strike, or others where the threat of a strike resulted in the capitulation of capital. In such cases, strikes would be a spurious indicator of labour power, but American labour historians have convincingly demonstrated that this exercise of latent labour power was, to say the least, highly unusual.<sup>7</sup> As for the accuracy of the strike record, abundant testimony on this score may be cited.<sup>8</sup> The strike research of the Bureau of Labor seems to have been scrupulous. We have accepted the Bureau's definition of a successful strike with the exception that partially successful strikes are here reported as successful. In classifying the results, the Bureau relied on local authorities and, in cases of doubt, conducted field checks.

What did we find out about labour power and community scale in the Gilded Age? We tested the association with a curvilinear regression model using 112 counties in the northeastern United States (a quadrant bounded by the states of Maine, Minnesota, Missouri and Maryland). These counties were chosen because of their intense strike activity. We designated them as strike-prone in that they experienced at least one strike in nine or more years between 1881 and 1894 (Map 1). In the aggregate, these counties constituted just eleven percent of all northeastern counties yet they accounted for eighty-five percent of the region's strikes. We measured labour power according to the rate of strikes and the rate of successful strikes per 1,000 population in 1890. Community scale, the proxy for modernization, was indicated by county population in 1890. All strike data came from the U.S. Bureau of Labor strike reports covering the years 1881-94. The regression of labour power on community scale showed that Gutman was half-right. Labour power did indeed decline with community scale, but at about 85,000 population, labour power inflected and varied

of Strike Activity", pp. 218-35. In one of our measures of labour power — successful strike rates — we include all strikes which were successful and partially successful as determined by the Federal Bureau of Labor. Our inclusion of partly successful strikes is premised on the social context of labour conflict in the Gilded Age, when even a partially successful strike would be interpreted as a moral victory for labour. Excluding the partly successful strikes from our measures of labour power would not effect the results presented here.

<sup>7</sup> Authorities on American strikes are agreed that the principal form of labour power was exerted through the use of the strike. Certainly, the strike was what Gutman has in mind when he speaks of labour power. Perhaps because of the strongly adversarial relations between labour and capital in the United States and by our lack of a socialist party, the strike has been prominent and the latent use of labour power has been of minimal significance. See EDWARDS, *Strikes in the United States*, esp. pp. 219-53.

<sup>8</sup> *Third Annual Report of the Commissioner of Labor, 1887: Strikes and Lockouts* (Washington, D.C.: Government Printing Office, 1888); and *Tenth Annual Report of the Commissioner of Labor, 1894: Strikes and Lockouts*, 2 vols (Washington, D.C.: Government Printing Office, 1896). On the comprehensive and reliable character of these data, see BENNETT and EARLE, "Labor Power Lost, and Regained"; John I. GRIFFIN, *Strikes: A Study in Quantitative Economics*, Studies in History, Economics, and Public Law, Columbia University, No. 451 (New York: Columbia University Press, 1939), pp. 15-36. David MONTGOMERY, "Strikes in Nineteenth-Century America", *Social Science History*, 4 (1980): 81-104, esp. 86.



MAP 1: STRIKE - PRONE COUNTIES, 1881 - 1894

## MAINE

1. Knox

## NEW HAMPSHIRE

1. Merrimack
2. Strafford

## MASSACHUSETTS

1. Berkshire
2. Bristol
3. Essex
4. Hampden
5. Hampshire
6. Middlesex
7. Norfolk
8. Plymouth
9. Suffolk
10. Worcester

## CONNECTICUT

1. Fairfield
2. Harford
3. New Haven
4. New London

## RHODE ISLAND

1. Providence

## NEW YORK

1. Albany
2. Erie
3. Kings
4. Monroe
5. New York City
6. Oneida
7. Onondaga
8. Orange
9. Queens
10. Rensselaer
11. Ulster
12. Westchester

## NEW JERSEY

1. Camden
2. Cumberland
3. Essex
4. Hudson
5. Mercer
6. Passaic
7. Union

## PENNSYLVANIA

1. Allegheny
2. Armstrong
3. Beaver
4. Berks
5. Cambria
6. Dauphin
7. Delaware
8. Erie
9. Fayette
10. Lackawanna
11. Lawrence
12. Luzerne
13. Mercer
14. Montgomery
15. Northumberland
16. Philadelphia City
17. Schuylkill
18. Tioga
19. Washington
20. Wayne
21. Westmoreland

## MARYLAND

1. Allegany
2. Baltimore City

## DELAWARE

1. New Castle

## DISTRICT OF COLUMBIA

## OHIO

1. Athens
2. Belmont
3. Clark
4. Columbiana
5. Cuyahoga
6. Erie
7. Franklin
8. Hamilton
9. Jefferson
10. Licking
11. Lucas
12. Mahoning
13. Montgomery
14. Muskingum
15. Perry
16. Stark
17. Summit

## MICHIGAN

1. Marquette
2. Saginaw
3. Wayne

## INDIANA

1. Marion
2. Tippecanoe
3. Vanderburgh
4. Vigo

## WISCONSIN

1. Eau Claire
2. Milwaukee
3. Racine

## ILLINOIS

1. Adams
2. Alexander
3. Cook
4. Fulton
5. Kane
6. LaSalle
7. Macon
8. Macoupin
9. Madison
10. Marion
11. Peoria
12. Perry
13. St. Clair
14. Sangamon
15. Vermillion
16. Will

## MINNESOTA

1. Hennepin
2. Ramsey
3. St. Louis

## IOWA

1. Dubuque
2. Polk

## MISSOURI

1. Jackson
2. St. Louis City

directly, and strongly, with community scale. Labour power traced out a u-shaped curve, and the scale reversal occurred after labour power hit bottom in medium-sized communities — communities that were in an early stage of industrialization and modernization.

How do we explain this scale reversal of labour power? One hypothesis, that we set out to test here, is that the bases of labour power shifted in response to community scale. Gutman's identification of the pre-industrial social structure as the base of labour power is not inconsistent for the smaller communities of our study, where labour power dwindled with increased scale and modernization. More problematic are the scale reversal and the growth of labour power in the large cities. Following Shorter and Tilly, we propose that labour reconstituted its power in the large cities on a new base — the modern medium of union organization and the mode of union militancy. As for medium-sized communities, they reported the weakest labour power. We speculate that they occupied a transitional zone between two worlds: they lacked the social integration characteristic of small, pre-industrial communities and the integrative medium of unions offered by the larger cities. These places sought, though rarely achieved, power by resort to broadly aimed, radical appeals to the working class as exemplified by the Knights of Labor and, later, the Socialist Party. This paper examines these speculations about the bases of labour power during the Gilded Age and assesses their implications for the history of the American labour movement after 1894.<sup>9</sup>

## II. — LABOUR'S BASES FOR POWER

We have already seen that population was an important variable explaining the scale reversal of labour power. A complete explanation of labour power, however, must consider the interactions of labour, capital and the state. Here we focus on the role of labour organization, or the lack of it, as a base for labour power. Although our sources constrain our choice of labour organization variables, we have drawn out three labour variables which, in addition to population, can add explanatory power to the scale reversal model of labour power. The first measure describes union militancy, or the degree to which unions initiated strike actions within a community. More precisely, this variable is measured as the number of union-ordered strikes as a proportion of all strikes reported within a county. The data appear in the federal strike reports, and we ag-

<sup>9</sup> Sari BENNETT and Carville EARLE, "Socialism in America: A Geographical Interpretation of its Failure", *Political Geography Quarterly* (forthcoming, 1982). On the small town and rural appeal of socialism, see James R. GREEN, "The 'Salesmen-Soldiers' of the 'Appeal' Army: A Profile of Rank-and-File Agitators", in Bruce M. STAVE, ed., *Socialism in the Cities* (Port Washington, N.Y.: Kennikat Press, 1975), pp. 13-40; and James WEINSTEIN, *The Decline of Socialism in America: 1912-1925* (New York: Monthly Review Press, 1967). For similar results based on a thorough study of the Knights of Labor, see Jonathan GARLOCK, "A Structural Analysis of the Knights of Labor: A Prolegomenon to the History of the Producing Classes" (Ph.D. dissertation, University of Rochester, 1974).



gregate the variable for two periods: 1881-86 and 1887-94.<sup>10</sup> We hypothesize that union militancy varies directly with scale and labour power among larger cities, whereas among smaller cities these associations are random and insignificant.

A second measure of labour organization gauges the local strength of the Knights of Labor — perhaps the most successful labour organization in the 1880s owing to its appeal to the class interest of all wage-earning people. We prefer a measure of the relative strength of the Knights of Labor at its peak of influence and, hence, we use the membership of the Knights in 1883 expressed as a proportion of all manufacturing employment in 1880.<sup>11</sup> Our suspicion is that the Knights of Labor, an organization which generally speaking eschewed the use of the strike, enjoyed strength in localities where labour power was minimal or modest. The Knights' programme, thus, appealed as an alternative to the powerlessness of labour in the medium-sized communities of the Gilded Age.

A third labour variable gets at the economic interests within the labour movement. We measure the convergence or divergence of working-class interests by the local wage ratios of skilled and unskilled labour in 1880. A narrow ratio, we believe, is conducive to a convergence of working-class interests and a stimulus towards widespread labour agitation cutting across the ranks of the skilled and unskilled; a wide ratio implies a division in labour's interest and, hence, a modulation of industrial conflict.<sup>12</sup>

At this point, we can be more explicit about our hypotheses connecting labour power, scale and labour organization. The first set of issues deals with scale and unions. Our first hypothesis applies Gutman's interpretation of pre-industrial social structure as the basis for labour power in small communities, i.e., counties of less than 85,000 population. In these places, we propose that union organization and militancy were unrelated

<sup>10</sup> The division of analysis between early (1881-86) and late (1887-94) periods is based on the presupposition that organized labour, both the Knights and the trade unions, gathered strength after 1881 and therefore should have exerted more systematic influence on labour power as time progressed. The division in 1886 reflects the formation of the American Federation of Labor in that year and the peaking of Knights of Labor membership in the following year.

<sup>11</sup> KNIGHTS OF LABOR, *Proceedings of the General Assembly, 1883*; and GARLOCK, "A Structural Analysis of the Knights of Labor". 1883 was selected for several reasons: comprehensive records were available for local assemblies; the year was early enough in the 1880s to gauge initial support for the Knights; and because the later data, particularly those for 1886, were inflated by the flocking of members to the Knights after the successful railroad strike of the preceding year.

<sup>12</sup> The wage ratio of skilled and unskilled workers is calculated from data in the Weeks Report. The wages of the unskilled are represented by the daily money wages of common labourers, while the skilled are represented by the earnings of machinists. The report provides the wages for 124 urban areas. Unskilled wage data are reported for 124 cities, and skilled wages for 56 cities. Cities lacking a skilled wage were estimated by spatial interpolation from the skilled wage map. UNITED STATES CONGRESS, HOUSE OF REPRESENTATIVES, *Report on the Statistics of Wages in the Manufacturing Industries with Supplementary Reports*, by Joseph D. WEEKS, 47th Congress, 2nd Session, House Miscellaneous Doc. 43, Vol. 13, Part 20 (Washington, D.C.: Government Printing Office, 1886).

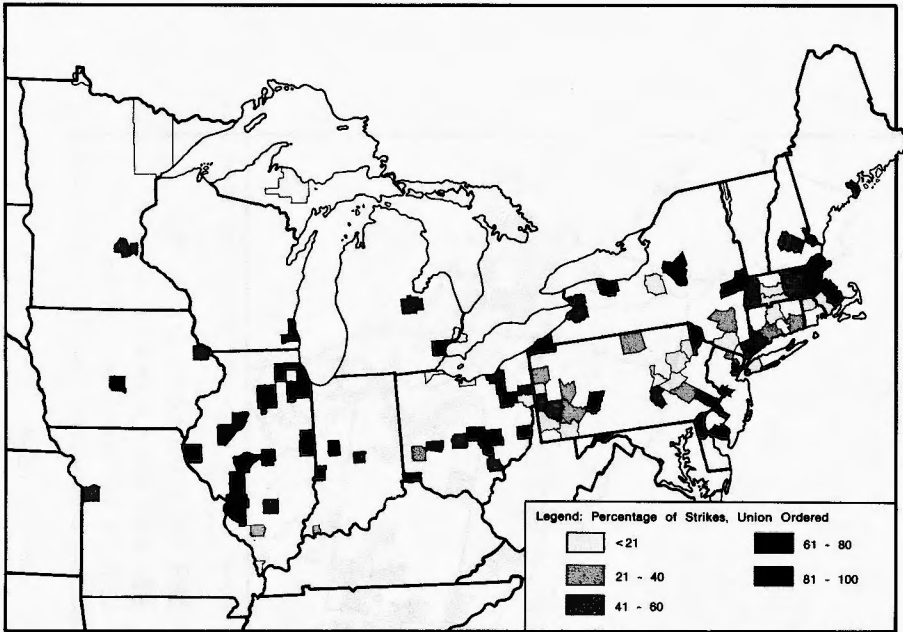
to the scale of community or to labour power. Labour's power, as Gutman argues, derived from the integrated social structure of small communities rather than from union activism. Unions may have functioned in these places, but they bore no systematic relation to the size of community nor its exercise of labour power. Our second hypothesis on union activity applies to large-scale American cities, i.e., counties having 85,000 population or more. We anticipate, following Shorter and Tilly, that labour power varies directly both with city size and union militancy. Our rationale consists in the notion that union organization and activism is a modern response to the enlarged scale of the city and its compartmentalization of the working class. Furthermore, union militancy and organization are contingent on scale in surpassing occupational thresholds for union membership. A third hypothesis concerns the nature of labour organization among communities with the weakest labour power — the communities with about 85,000 population which are transitional between pre-industrial and industrial social structures. We suspect that these communities were fertile ground for the radical, broadly based working-class organizations such as the Knights of Labor and later the Socialist Party.

A second set of hypotheses link labour organization with labour power. If unions gained strength in the large cities, did these unions then serve as a new base for labour power? We shall see that unions were less important than hypothesized, which fact compels us to look more closely at the roles played by the Knights of Labor and, especially, the wage ratio of skilled and unskilled workers. All tests are conducted with the 112 strike-prone counties discussed above (Map 1).

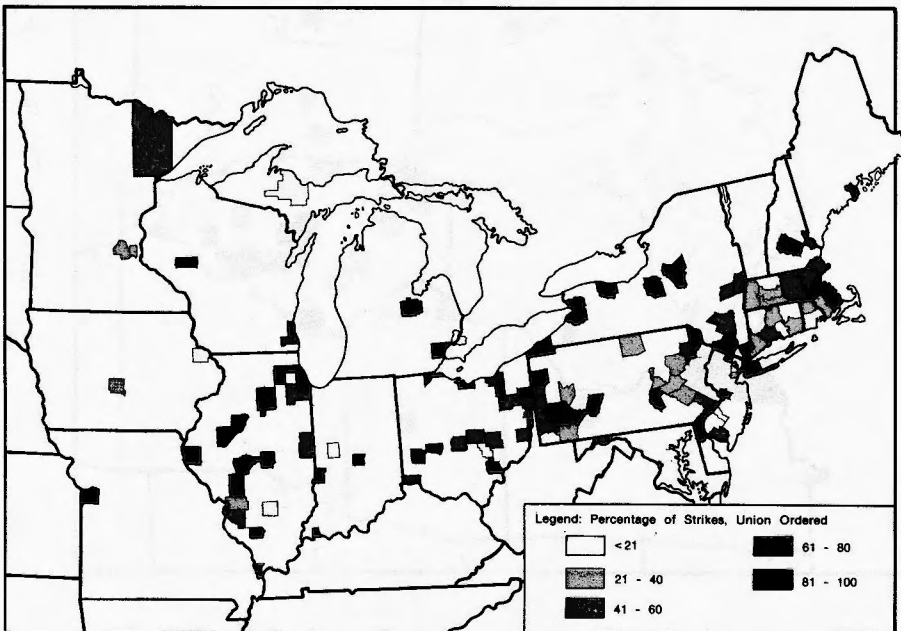
### III. — REVISING THE HYPOTHESES: REGIONAL EFFECTS

Our tests of the relationships between community scale and union militancy yield mixed results. Among the smaller communities for the years 1881-86, scale and union militancy are, as predicted, unrelated ( $r = -.008$ ). Such a finding gives added weight to Gutman's notion that labour in small communities drew support from bases other than unions, namely from the nature of the pre-industrial social structure. The random association between union militancy and scale suggests the modest importance of unions among small communities. As for the second hypothesis connecting unions with the size of large cities, the correlation coefficient has predicted the sign but the relationship is very weak ( $r = +.298$ ). This modest association casts doubt on the applicability of the Shorter-Tilly thesis for the Gilded Age. Union militancy does not seem to accelerate with the growth of large American communities.

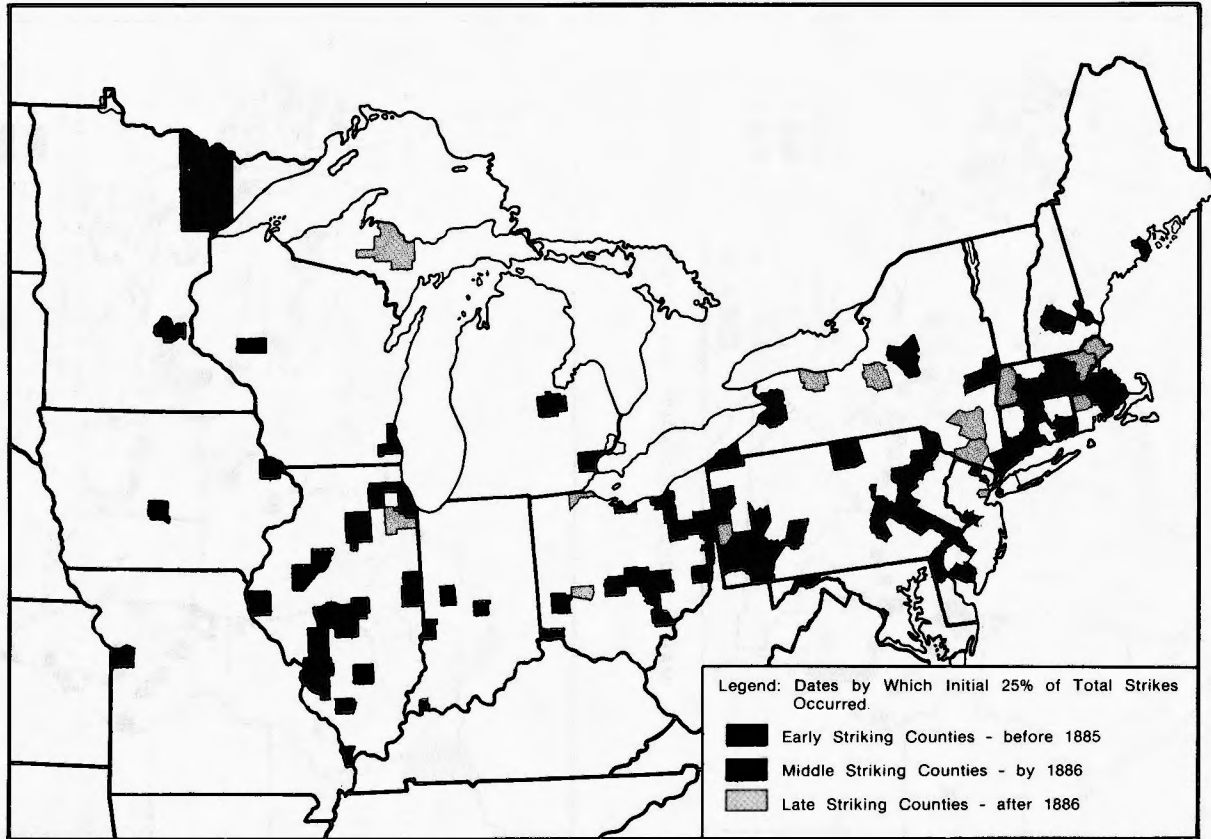
The weak links between city size and trade unions takes on a new look if we consider regional differences in the northeastern quadrant of the United States. Maps 2 and 3, portraying the geography of union militancy, illustrate a geographical division between the older East and the Midwest. Map 2 highlights the activism of unions in the Midwest during the first half of the 1880s. In the Midwest, south of the latitude of Milwaukee,



MAP 2: UNION MILITANCY, 1881 - 1886



MAP 3: UNION MILITANCY, 1887 - 1894



MAP 4: TIMING OF STRIKES, 1881 - 1894

nine of every ten counties reported that union-ordered strikes amounted to forty percent or more of all strikes between 1881 and 1886; the East, by contrast, just six of ten counties. Again in the Midwest, six of ten counties reported that unions ordered sixty percent or more of the strikes in the same period; for the East, just four of ten counties. The militancy of midwestern trade unions was sapped somewhat between 1887 and 1894, yet the region along with New York and eastern Massachusetts remains prominent (Map 3).

The Midwest stands out on another score — the prominence of industrial conflict during the first half of the 1880s. Map 4 documents the timing of strikes according to the dates when a county registered twenty-five percent or more of its initial strikes, and it is evident that strike actions flared up earliest (before 1886) in the Midwest. By contrast, in the older East industrial conflict smouldered until about 1885.

The spatial patterns underline a regional schism in union militancy and strike behaviour; furthermore, these geographical patterns argue strongly for divergent processes at work in the East and the Midwest. The schism implies that we should, for purposes of statistical analysis, separate the two regions. Henceforth, we examine labour behaviour with respect to two regions, the East and the Midwest, and two scales, communities smaller and larger than 85,000 population.

The regional partitioning of our analysis produces several interesting results. Table 1 presents the correlation matrices for the six variables within four groups (county size and region). Regional divergence in labour activity is particularly evident in the early years, 1881 to 1886. Our initial hypothesis of a direct relationship between union militancy and scale is borne out in the large cities of the Midwest ( $r = +.78$ ) but not in the large eastern cities ( $r = -.17$ ). As for the smaller cities, we hypothesized a random relationship between scale and unions. Once again, the Midwest fits the model ( $r = +.18$ ) and the East is perverse, reporting a modestly negative correlation ( $r = -.32$ ). The latter result is of interest because it implies that union militancy weakened among medium-sized communities in the East while gaining strength amongst the smaller communities.

What of the later years, 1887 to 1894? With the formation of the American Federation of Labor in 1886 and the rapid decline of the Knights of Labor after 1887, a reasonable expectation would be a strengthening of the unions in all regions and communities. The correlation matrix, however, cautions against exaggerating the role of unions and their militancy. In large midwestern cities, the correlation between scale and unions weakened, falling from nearly 0.8 to 0.6; the eastern cities, meanwhile, reported a modest strengthening from .17 to .32. As for the smaller communities, those in the Midwest reported the steadiest improvement as the correlation coefficient rose from .18 to .43. The singular exception to this pattern of modest links between scale and union militancy occurs in the small eastern communities. There, the coefficient fell from  $-.32$  to  $-.46$ .

Table 1. — ZERO ORDER CORRELATIONS, STRIKE-PRONE COUNTIES, 1881-1886 AND 1887-1894.

	<i>County Population, 1890</i>		<i>Wage Ratio Skilled/Unskilled, 1880</i>		<i>Knights of Labor Membership, 1883</i>		<i>Union Militancy*</i>		<i>Strike Rate/1,000 Population</i>		<i>Success Rate of Strikes/1,000 Population</i>
<i>A) Midwest Counties (N = 37) with &lt; 85,000 Population</i>											
	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>
County Population	1.000										
Wage Ratio Skilled/Unskilled, 1880	-.364	-.242	1.000								
Knights of Labor Membership, 1883	-.419	-.235	.078	.057	1.000						
Union Militancy*	.178	.425	-.160	-.211	-.190	.001	1.000				
Strike Rate/1,000 Population	-.533	-.264	.407	.048	.267	.362	-.248	-.314	1.000		
Success Rate of Strikes/1,000 Population	-.430	-.227	.456	-.016	.345	.346	-.068	-.249	.837	.874	1.000
<i>B) Midwest Counties (N = 13) with &gt; 85,000 Population</i>											
	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>	<i>1887-94</i>	<i>1881-86</i>
County Population	1.000										
Wage Ratio Skilled/Unskilled, 1880	-.233	-.208	1.000								
Knights of Labor Membership, 1883	.159	.246	-.253	.276	1.000						
Union Militancy*	.783	.556	-.182	-.079	-.187	.057	1.000				
Strike Rate/1,000 Population	.603	.446	-.565	-.269	.069	-.348	.381	.126	1.000		
Success Rate of Strikes/1,000 Population	.686	.532	-.582	-.195	-.013	-.211	.570	.097	.947	.944	1.000

## C) East Counties (N = 21) with &lt; 85,000 Population

County Population	1.000										
Wage Ratio Skilled/Unskilled, 1880	.115	-.185	1.000								
Knights of Labor Membership, 1883	.093	-.214	.565	.349	1.000						
Union Militancy*	-.318	-.455	.157	.388	-.332	.133	1.000				
Strike Rate/1,000 Population	-.492	.062	-.150	-.346	.108	-.104	-.568	-.035	1.000		
Success Rate of Strikes/1,000 Population	-.495	.071	-.150	-.352	.220	-.266	-.595	.041	.986	.797	1.000

## D) East Counties (N = 41) with &gt; 85,000 Population

County Population	1.000										
Wage Ratio Skilled/Unskilled, 1880	-.216	-.224	1.000								
Knights of Labor Membership, 1883	-.057	-.042	.518	.498	1.000						
Union Militancy*	.167	.305	-.217	-.294	.094	.104	1.000				
Strike Rate/1,000 Population	.194	.649	-.103	-.440	-.240	-.217	.046	.195	1.000		
Success Rate of Strikes/1,000 Population	.214	.707	-.058	-.394	-.283	-.182	.105	.285	.959	.969	1.000

\* Union militancy is defined as percentage of union-ordered strikes.

In sum, the modest positive correlations between modernization (scale) and union militancy provide very weak support for the Shorter-Tilly thesis stressing the beneficent role of cities for unions and labor power. Furthermore, at least among the small eastern communities, union militancy among the smaller places seems to have been more significant than allowed by Gutman's thesis, particularly after 1886.

Union militancy, though not strongly linked with scale effects, may nonetheless have exerted significant effects on strikes and labour power. The correlation matrices for 1881-86 report a split decision. The coefficients of union militancy and labour power were direct in large midwestern cities, random in small midwestern and large eastern communities, and negative among small eastern places. The results suggest a geographical continuum of union influence on labour power. Union militancy amplified labour power in the large midwestern cities; it made little difference in small midwestern and large eastern places; and it exerted detrimental effects in small eastern places.

In the later period, 1887 to 1894, these correlation bonds between unions and labour power deteriorated. In each of the four region-size classes, unions offered a very weak prediction of strike rates or success rates. Precisely when trade unions flourished and the American Federation of Labor was founded, the impact of union militancy on the exercise of power was systematically reduced. The upshot of our analysis so far is that during the first modern period of labour protest, unions were not simply and directly associated with modernization (scale), nor were unions particularly important determinants of labour power. What is more, the systematic effects of union militancy on labour power seem to have declined markedly after 1886.

#### IV. — ALTERNATIVE EXPLANATIONS OF LABOUR POWER IN THE GILDED AGE

The prevailing interpretations of industrial conflict in the Gilded Age do not square with the preceding analysis. Gutman's thesis of a declension of labour power fails to explain the revival of labour power in large cities. Similarly, the Shorter-Tilly model specifying the association between metropolitanization, unions and power finds even less support. If unions and union militancy did not constitute the principal base of labour power in the milieu of the modern city, then what did?

We attempt to answer this question through the use of multiple regression techniques. More specifically, we focus on the determinative effects of four variables — population, union militancy, the Knights of Labor, and the wage differential between skilled and unskilled workers — upon labour power. These four independent variables thus focus on labour's organizational component. The dependent variable, labour power, is measured by the strike rate for the period examined (Table 2). In the first period, 1881-86, the model identifies population as significant in all four regressions. Union organization, as our earlier analysis suggested, is



insignificant except in small eastern cities where the effect is negative. In addition, one other variable, the wage differential is significant (at the twenty-percent level and less) in large midwestern cities. Its inverse association with labour power suggests that a narrowing ratio of wages produced a convergence of class interest, a broadening of the labour front, and consequently an increase in labour power. The analysis thus suggests the role of wage differentials and class solidarity as determinants of labour power in large cities.

Table 2. — MULTIPLE REGRESSIONS, STRIKE-PRONE COUNTIES, 1881-1886 AND 1887-1894.<sup>1</sup>

<i>A) Midwest Counties (N = 37) with &lt; 85,000 Population</i>		
	1881-86	1887-94
Intercept = .378		
County Population, 1890	-.368*	-.203
Wage Ratio Skilled/Unskilled, 1880	.145	-.096
Knights of Labor Membership, 1883	.025	.338**
Union Militancy <sup>2</sup>	-.092	-.038
Multiple R	.479	.416
Multiple R <sup>2</sup>	.230	.173
<i>B) Midwest Counties (N = 13) with &gt; 85,000 Population</i>		
Intercept = .275		
County Population, 1890	.487**	.667*
Wage Ratio Skilled/Unskilled, 1880	-.323***	-.298
Knights of Labor Membership, 1883	.149	-.611*
Union Militancy <sup>2</sup>	.207	-.366***
Multiple R	.823	.792
Multiple R <sup>2</sup>	.678	.624
<i>C) East Counties (N = 21) with &lt; 85,000 Population</i>		
Intercept = .445		
County Population, 1890	-.650*	.062
Wage Ratio Skilled/Unskilled, 1880	.028	-.415***
Knights of Labor Membership, 1883	.217	.094
Union Militancy <sup>2</sup>	-.501*	.146
Multiple R	.671	.378
Multiple R <sup>2</sup>	.450	.138
<i>D) East Counties (N = 41) with &gt; 85,000 Population</i>		
Intercept = .172		
County Population, 1890	.369*	.576*
Wage Ratio Skilled/Unskilled, 1880	-.047	-.268*
Knights of Labor Membership, 1883	-.097	-.089
Union Militancy <sup>2</sup>	.032	.035
Multiple R	.410	.720
Multiple R <sup>2</sup>	.170	.520

<sup>1</sup> The dependent variable is the strike rate per 1,000 population.

<sup>2</sup> Union militancy is defined as percentage of union-ordered strikes.

\* Coefficients significant at the 5% level; \*\* at the 10% level; \*\*\* at the 20% level.

In addition, the regressions offer further support for Gutman's contention that among the smaller communities, power varied inversely with population and that labour organizations such as the Knights of Labor or trade unions were relatively unimportant. Note that among small communities, none of the labour organization variables were significantly related to power save for union militancy in the East. And in that case, power waned as union militancy increased. Power in small communities thus derived from other sources; in all probability, these sources seem to have been those of scale and social structure identified by Gutman.

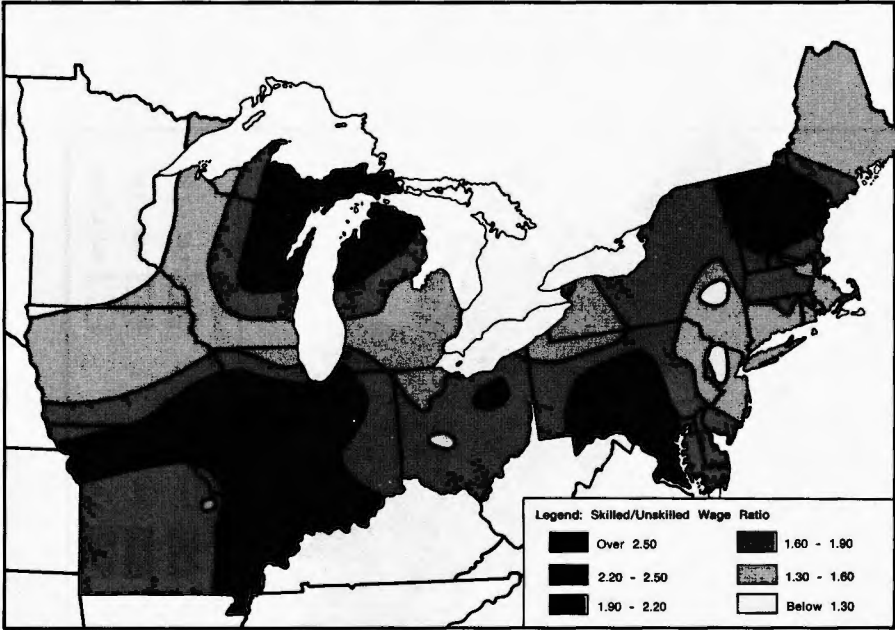
The regressions for the later period, 1887-94, highlight the nexus between scale, wage differentials and labour power. In the large midwestern cities, the level of explanation ( $r^2$ ) remains about the same as in the earlier period, with the important variables being population and, negatively, the Knights of Labor. The equation underlines the impotence of labour organization as a factor for labour power. Indeed, both the presence of the Knights of Labor and a high rate of union militancy are negatively associated with power. On the other hand, labour power continues to be associated with a convergence of wage ratios and class interest. As for the large eastern cities, the contrast in the early and late regressions is remarkable. In these cities, the level of explanation improves from about seventeen to over fifty percent and this change reflects the effects of two variables — population and the wage ratio. The wage ratio, in particular, assumes an importance that it did not have in the years 1881-86. As in the Midwest in this earlier period, a narrowing wage ratio translates into increased labour power. Meanwhile, labour organizational variables exert insignificant, random effects, despite the expansion of the trade unions and the American Federation of Labor.

Finally amongst the smaller communities of the East and Midwest, the multiple regression equations are insignificant for the later period. Furthermore, the inverse relationship between scale and labour power which is significant for 1881 and 1886 is insignificant for the years 1887-94. The model performs slightly better in the Midwest where the strength of the Knights of Labor contributed to a modest gain in labour power.

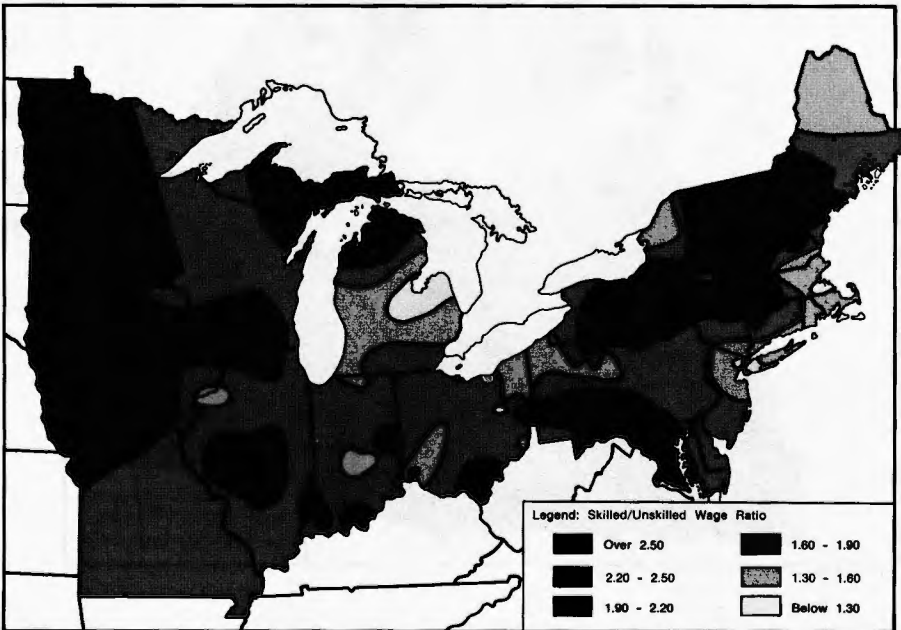
What does all of this mean for the American labour movement and labour power during the Gilded Age? Several things we believe. First, Gutman's thesis of a declension of labour power consequent on modernization cannot be disproved, provided his inverse rule is restricted to communities of less than 85,000 population. Particularly during the early 1880s, scale is consistently the most important variable and the effects of labour organization or class interest are insignificant. After 1886, the importance of scale diminishes as does the significance of the regression equations. More closely associated with labour power in these small places are the presence of the Knights of Labor in the Midwest and convergent wage ratios in the East. Second, the Shorter-Tilly hypothesis specifying metropolitanization and labour organization as the determinants of labour power cannot be sustained. Union militancy does not account for the reconstitution of labour power in large American cities. Although we do detect an increase of union militancy with increasing city size, we also find that



MAP 5: WAGE DIFFERENTIALS, 1880



MAP 6: WAGE DIFFERENTIALS, 1865



MAP 7: WAGE DIFFERENTIALS, 1872

the relationship between unions and power was equivocal. Population obviously plays a consistently important role in labour power, but we cannot yet claim to know the reasons for this. Our results tell us that union organization probably is not one of these reasons. More promising as an explanation of labour power in the Gilded Age seems to be the rather abstract concept of the wage ratio of skilled and unskilled workers.

The wage ratio, as noted earlier, serves as a measure of the economic interest of skilled and unskilled workers. A narrow ratio implies a convergence of economic interest, while a wide ratio suggests that skilled workers will act to maintain their own privileged position, and they would dissociate from a broad labour movement. A narrow wage ratio, thus, would seem to create an environment favourable for the labour movement, as both skilled and unskilled workers pressed their demands for better wages and working conditions.

But if our speculations on the wage ratio and the convergence of class interests as a base for labour power are correct, then a great deal more needs to be known about the geography of the wage ratio. Map 5 presents the spatial distribution of the wage ratio in 1880. Two areas of low ratios stand out on the map, one in the Midwest from western Ohio to Illinois and north into Wisconsin and Michigan, and the other along the Atlantic seaboard from Boston to Philadelphia. In fact, these two areas arrived at similar positions from very different starting points, as Maps 6 and 7 illustrate. In the Midwest, wage ratios converged very rapidly between 1865 and 1880; by contrast, seaboard wage ratios were consistently narrow during this period.

We believe that these two trends may help explain the very early and active labour movement that developed in large midwestern cities — Chicago, recall, was in the forefront of labour unrest in the early 1880s. The rapid narrowing of the wage ratio and the convergence of class interests seem a plausible explanation for midwestern union activism and labour power. As the labour movement gained momentum, propelled onward by the Midwest, it appears that strike activity then began to flourish in the large cities of the East — in precisely those areas that had long been accustomed to a narrow wage ratio. Put another way, the rapid change in wage structures in the Midwest between 1865 and 1880 helped spark labour unrest. And once aflame, industrial conflict and labour power spread to the eastern cities where wage structures resembled those of the Midwest.

## V. — IMPLICATIONS FOR THE LABOUR MOVEMENT IN THE GILDED AGE

Labour came of age during the turbulent 1880s, and American workers exercised power by using the strike as their chief weapon. Labour power, however, varied greatly from one community to another; more precisely, we documented a systematic relationship between scale and labour

power. Among small communities, labour power declined with increasing community size; among larger communities, the pattern was reversed. In this essay, we have explored the variable bases of labour power in these two types of communities. We do not pretend to have offered a complete explanation of labour power; that would require far more attention to the role of capital, the state and economic conditions. Our aims have been more modest. We have explicitly limited our attention to the organizational components within the ranks of labour — components which have been regarded as decisive by students of the labour movement.

The Gutman thesis of a declension of labour power during the course of modernization receives partial confirmation. Labour power did indeed decline with an increase in community size, but that pattern applies *only* in smaller communities (less than 85,000 population) and *principally* in the period 1881-86. In the later years, 1887 to 1894, Gutman's inverse rule weakens and the bases for labour power shift to the Knights of Labor in the Midwest and a convergent wage ratio in the East. Our models, therefore, do not offer robust support for Gutman's modernization thesis.

Our tests of the revival of labour power among large cities have been couched in the hypothesis proposed by Edward Shorter and Charles Tilly. They specified a close positive link between the organization and militancy of unions and local labour power. We concluded the contrary: the process of modernization (scale) seems to have encouraged union organization and militancy, but in turn unions had very little to do with the exercise of labour power. The decisive factor turns out to have been the wage ratio of skilled and unskilled labour — a measure of the convergence or divergence of the economic interests of workers. Labour power gained strength when the wage ratio narrowed and worker interests converged. This convergence contributed significantly to the explanation of midwestern labour power before 1886 and in the East between 1887 and 1894. Of the several organizational components, the class interests of labour far surpassed the role of formal organization into the Knights of Labor or into trade unions.

The declension of labour power with modernization turned out to be a far more complex process than the one envisioned by Herbert Gutman. Labour power was indeed reconstituted in the larger cities of the north-eastern United States. The base for the reconstitution, however, was less the role of union organization and militancy, as we initially posited, and more the effect of converging wage ratios and economic interests among workers. Labour power in the modern metropolis seems then to have rested on a broad base of skilled and unskilled agitation, directed both by unions and by unorganized workers. Eventually these two groups went their own ways, leaving us to puzzle out the strategy of the trade unionists which disentangled their fate from the fate of workers at large. Perhaps later, after 1894, union militancy and labour power achieved the synchronization which Shorter and Tilly suggest.<sup>13</sup> Such an identity, however, was

<sup>13</sup> It seems clear that by 1894, the geography of formal labour organization was not decisively linked with labour power, despite the importance of trade unions at this time. Nor is there any evidence from our analyses hinting at an increased significance in the role of

not evident in the Gilded Age — not even after 1886 when the rapid growth of trade unions and the formation of the American Federation of Labor lead us to expect a welding together of unions and labour power. The source of labour power lay elsewhere. For a moment, in the turbulent 1880s and early 1890s, the class interests and actions of big-city workers came into alignment, and these places formed the epicentre that shook the foundations of American society.<sup>14</sup>

unions after 1886. Precisely when union militancy became synchronized with labour power requires further study during the critical years after 1894 and into the Progressive Era. Leo Wolman noted some years ago the pressing need for a geographic study of labour unions. "The essential character of the American labor movement", he wrote, "cannot ... be properly appreciated until its sectional (geographical) distribution is accurately and fully measured." Leo WOLMAN, *The Growth of American Trade Unions, 1880-1923* (New York: National Bureau of Economic Research, 1924), p. 25.

<sup>14</sup> Our geographical analysis leads us to the conclusion that labour economics, and particularly local labour markets, were very important in explaining strike behaviour. We disagree sharply with David Snyder who, based on time series analysis of strikes, concludes that politics were more important than economics. A disaggregated analysis, we believe, will reassert the importance of economic indicators such as the wage ratio of skilled and unskilled labour. David SNYDER, "Early North American Strikes: A Reinterpretation", *Industrial and Labor Relations Review*, 30 (1976-77): 325-41. A case for economic determinants of American strikes is persuasively put forth by Edwards, *Strikes in the United States*.