Declining union density in Mexico, 1984–2000

*Since the mid-1980s, Mexico has witnessed
a significant decline in unionization; changing industry,
occupation, and demographic worker characteristics
account for only about one-fourth of the decline, while structural
and institutional changes account for three-fourths.*

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Unions have experienced membership setbacks in a number of countries since 1984. In Mexico, union density has declined for the labor force as a whole, and also across a wide spectrum of industries and occupations. Only a small proportion of the decline is accounted for by changes in industry, occupation, and demographic characteristics. Most of the decline is attributable to the changing structural/institutional context within which unions organize new workers and retain existing members, which could include, for example, changing government policies and increasing employer resistance to unions.

This article examines the union density situation in Mexico, using individual workers' responses to a nationally representative series of household surveys. This approach allows *active* union representation to be measured. Workers who self-report being union members are less likely to be a party to protection contracts — that is arrangements in which employers pay unions a fee (often unbeknownst to workers) for explicitly failing to represent labor's interests at the worksite. Labor scholars have argued that protection contracts have been on the rise in recent years in Mexico.

The data

This article derives weighted estimates of the proportion of the labor force affiliated with a union for various years from 1984 to 2000, both in the aggregate and by industry, occupation, and proximity to the border with the United States. Data are from the National Survey of Household Income and Expenditures (Encuesta Nacional de Ingresos y Gastos de los Hogares — or ENIGH) — a national sample of households, stratified by population size of locality, with sampling weights that make estimates drawn from the sample nationally representative.[1] The data contain a number of useful worker characteristics, including whether workers are affiliated with a union in their principal job, their monthly pay and average weekly hours worked at this job, their industry and occupation, educational level, and demographic characteristics such as age and gender. To make meaningful inter-temporal comparisons, this article uses detailed industry and occupation categories that are consistent across all years.[2]

Restricting the sample in a number of ways ensures the reliability and meaningfulness of the estimates, and particularly the union/nonunion comparisons. This study excludes workers under age 16, those who did not work at all in the month prior to the date the survey was taken, the self-employed, business owners, and those working for cooperatives, working for family businesses, or working without compensation. Also excluded are workers with more than one

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job, because information is available on union status only for the primary job in 1984 and 1989. Certain sectors (farming, livestock, forestry, hunting, and fishing) and certain occupations (domestic servants, vendors with no fixed or stable establishment, and agricultural occupations) that are traditionally "beyond the pale" of unionization in Mexico are also excluded; workers in these sectors and occupations are typically considered part of Mexico's "informal" — that is, unregulated — labor force.[3]

Changing union density

For the "formal" sector labor force as a whole, union density declined from just over 30 percent in 1984 to just under 20 percent in 2000. (See chart 1.) (If the "informal" sector workers are included, the numbers are 26 percent and 17 percent respectively.[4]) The biggest and steadiest decline was a 9-percentage-point decline from 1984 to 1994, with an approximate leveling-off thereafter. The trend is geographically similar if considering only those states that do not share a border with the United States. The trajectory for the border states is more variable, beginning at 26 percent in 1984, initially dropping slightly and then spiking to 29 percent (above the na-

tional level of 25 percent) in 1992, and following a similar pattern as (but declining faster than) the national trajectory thereafter.[5] For most of the period studied, union density along the border was lower than in the interior, and thus rapid job growth in this region of the country might be expected to contribute to the aggregate decline in unionization.

Interestingly, unionization generally declined across all sectors. (See chart 2.) By far the most dramatic is the sharp and steady decline in union density in the transportation, mail, shipping, and warehousing sector, a 38-percentage-point drop over this period. The mining, electricity, water, and gas transmission industry also experienced a rather significant (14-percentage-point) decline in union density early in the period, between 1984 and 1994, but witnessed a large spike from 1996 to 1998 and a sharp drop again between 1998 and 2000, arriving at 47-percent union density by the end of the decade. Union density declined 10 percentage points in manufacturing, 8 percentage points in the service sector, and 5 percentage points in the commercial sector. The construction sector, after a substantial increase to 9-percent union density by 1989, then dropped 7 percentage points over the 1990s.

By the year 2000, the mining, electricity, water, and gas

Chart 1. Union density in Mexico as a whole, and by proximity to U.S. border, 1984–2000
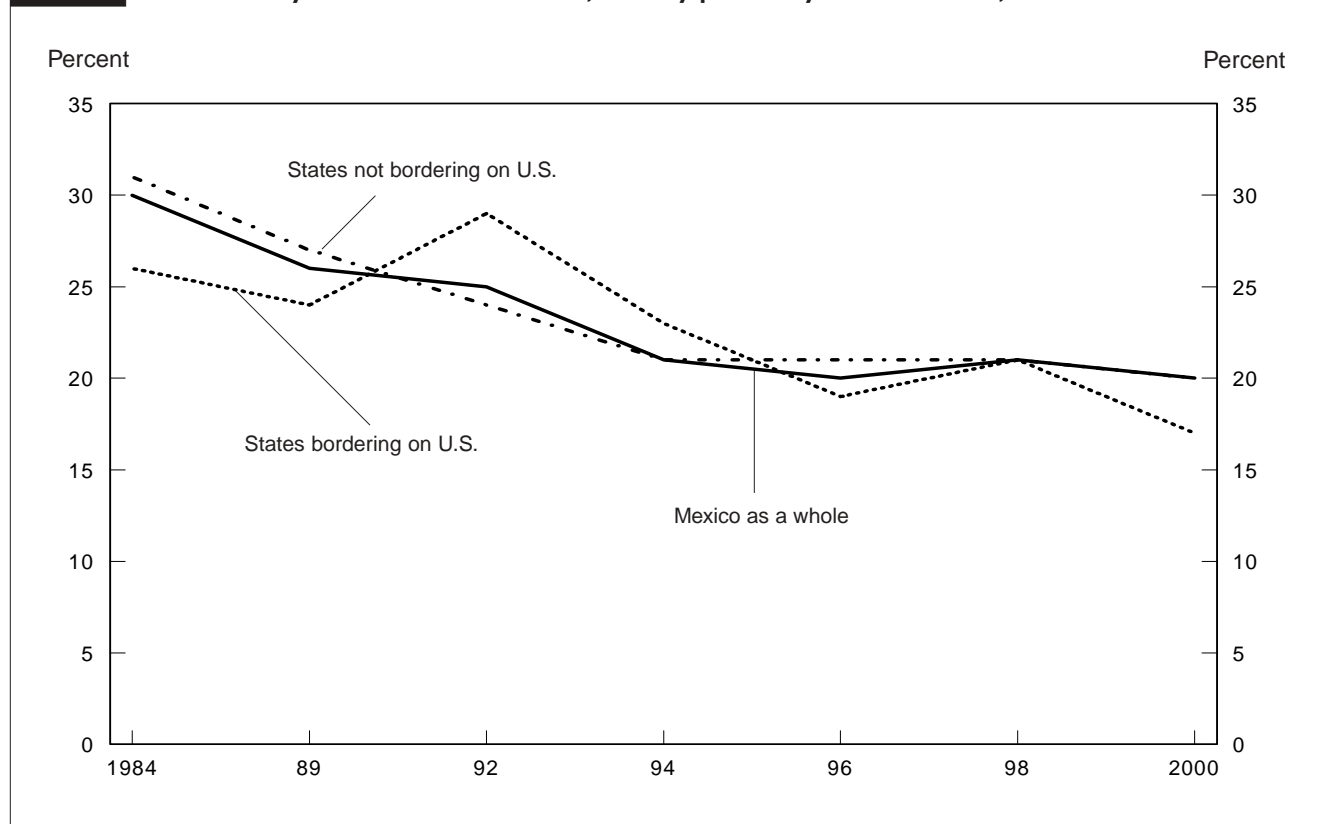
transmission sector was still, by far, the most unionized sector, with 47-percent union density, and the commercial and construction sectors continued to have, by far, the lowest union density, at merely 3 percent and 2 percent, respectively. Among the three sectors in the middle, transportation, mail, shipping, and warehousing went from the top to the bottom position, and services remained well above (by 10 percentage points) manufacturing, but both still with substantial union densities of 29 percent and 19 percent, respectively.
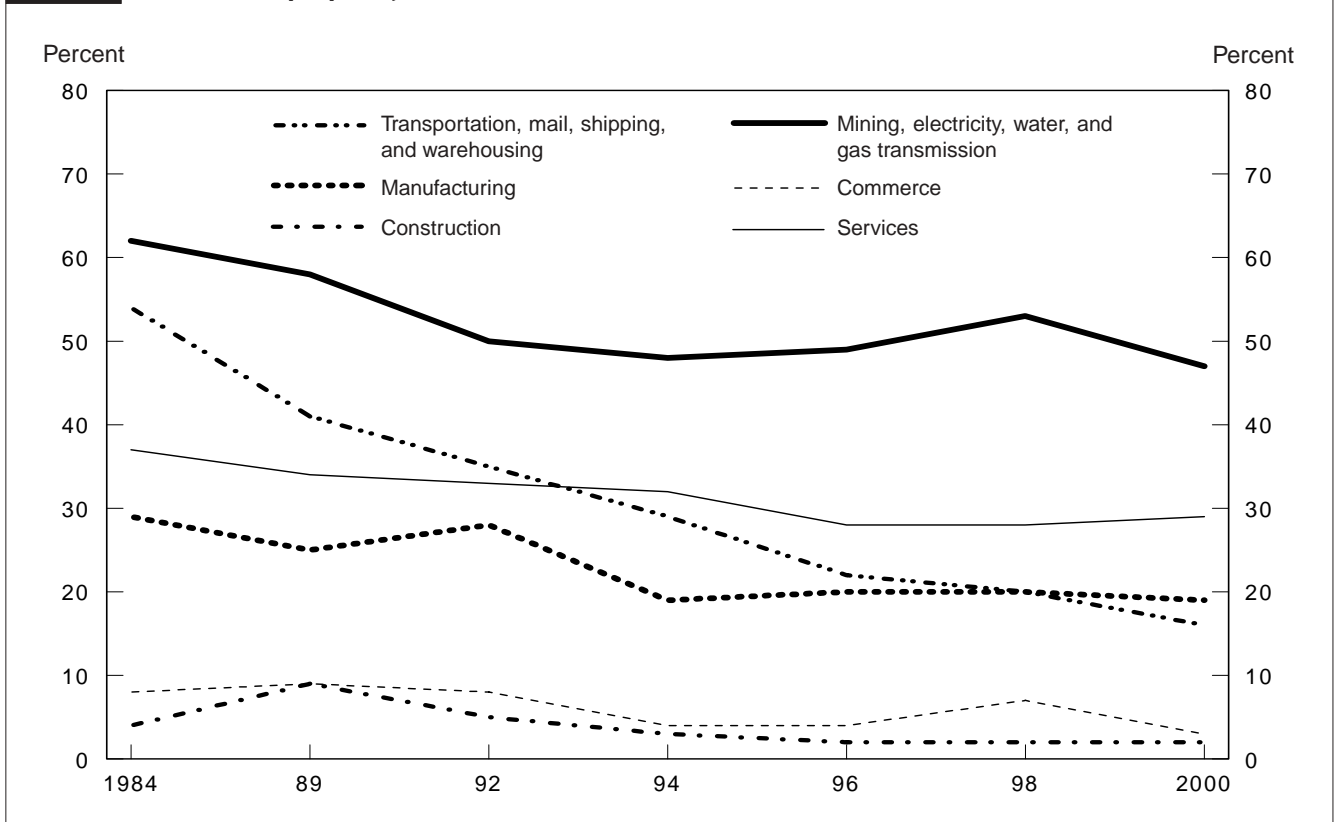
Education workers (that is, teachers at all levels of instruction) are by far the most highly unionized occupation in Mexico, with an initial union density of 73 percent and an 8-percentage-point decline in union density between 1984 and 2000. (See chart 3.) Technicians maintained a distant second place despite a 21-percentage-point decline. Just beneath teachers and technicians is a large cluster of other occupations, all showing a general declining trend over the period, ranging between 19 percent and 35 percent union density in 1984, and ending between 8 percent and 23 percent union density in 2000. Again, the general trend among these two occupations was a period of steepest decline in the 1980s and early to mid-1990s, with a tendency to level off or even recover slightly thereafter, and then sometimes drop slightly

again from 1998 to 2000. An interesting exception is the case of professionals, who saw a steady rise in union density from 1984 to 1994, and a steady decline thereafter.
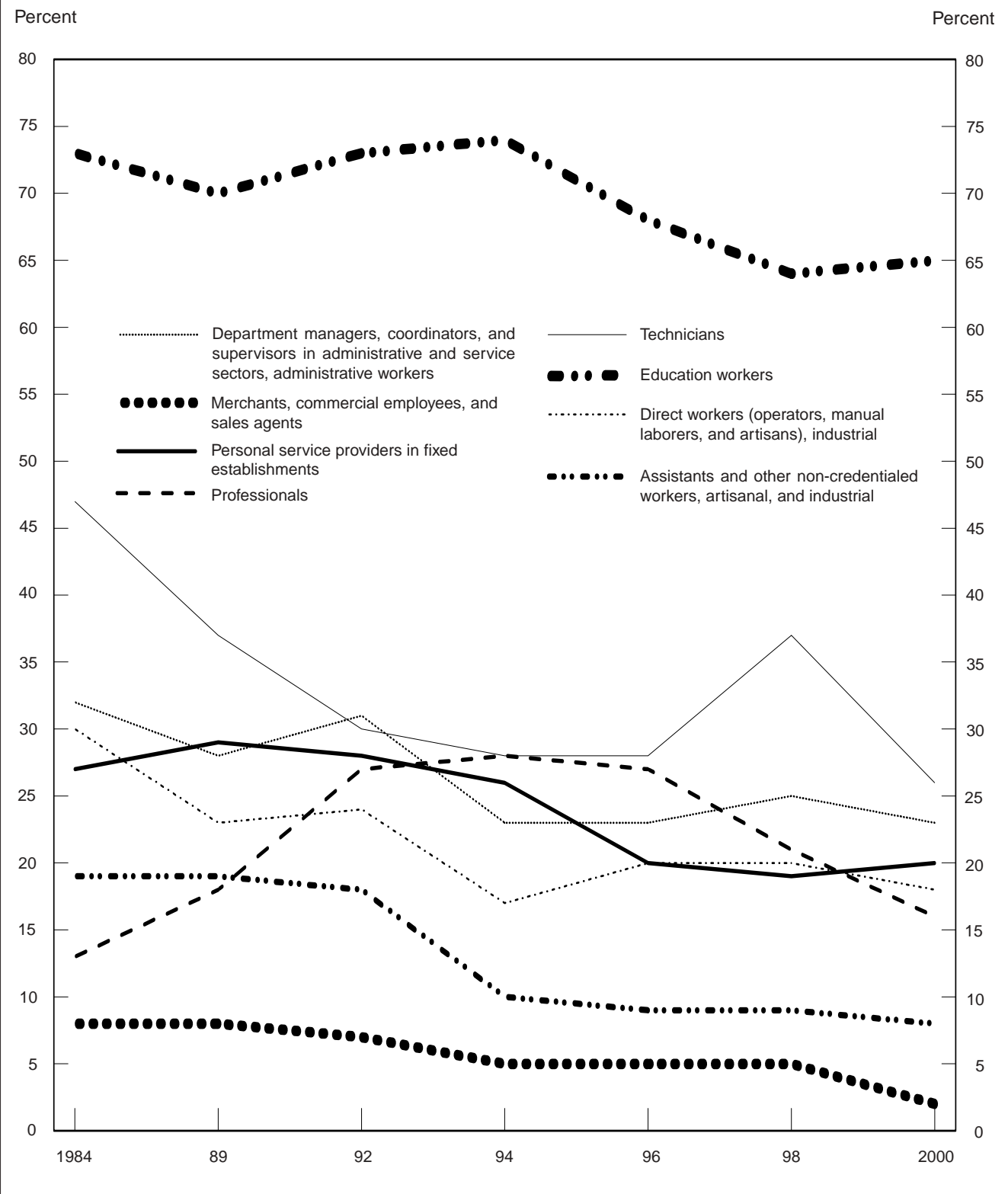
Sample sizes become small, and density estimates therefore become less reliable, in the analysis of more detailed industry categories. However, to give a sense of the overall tendency of the entire period, table 1 shows the union density for more detailed industry categories at the beginning and end of the period. A similar, downward-trending trajectory of union density is seen in almost every case, though not without notable exceptions.

An in-depth, institutional analysis of each sector would offer specific insights into the move towards lower unionization rates. For example, Mexico's declining unionization in the transportation, mail, shipping, and warehousing sector may be partly accounted for by the deregulation of the industry and the tremendous growth of private shipping services, which typically lack active unions. These changes may not only have increased the number of nonunion jobs in the sector, but also simultaneously, by displacement, caused a reduction in the absolute numbers or growth of jobs in the more heavily unionized, public shipping sector. However, the existence of a secular decline across almost every industrial

Chart 2. Union density by major sector, 1984–2000

Chart 3. Union density in selected occupations, 1984–2000

Percent   Percent

Legend:
- Department managers, coordinators, and supervisors in administrative and service sectors, administrative workers
- Merchants, commercial employees, and sales agents
- Personal service providers in fixed establishments
- Professionals
- Technicians
- Education workers
- Direct workers (operators, manual laborers, and artisans), industrial
- Assistants and other non-credentialed workers, artisanal, and industrial

Years: 1984, 89, 92, 94, 96, 98, 2000

Table 1. Union density by detailed industry category, 1984–98

Industry category	Year	
	1984	1998
Mining and petroleum extraction	0.50	0.49
Food products, beverages, and tobacco	.35	.18
Textiles, apparel, and leather products	.28	.16
Wood and wood products	.12	.12
Paper, paper products, and printing	.19	.16
Chemical substances, petroleum and coal derivatives, plastics, and rubber	.43	.28
Non-metallic mineral products (excluding petroleum derivatives)	.21	.14
Basic metal industry	.50	.26
Metal products, machinery, and equipment	.27	.25
Other manufacturing industries	.32	.13
Electricity, water, and gas transmission	.65	.57
Construction	.04	.02
Wholesale commerce	.11	.08
Retail commerce	.08	.06
Restaurants and hotels	.09	.09
Transportation and communications	.54	.20
Insurance and financial services	.33	.20
Real estate leasing and administration	.00	.00
Other services	.15	.06
Public administration, defense, and health	.37	.29
Education, research, social service doctors, and civil and religious associations	.65	.57

and occupational category suggests that there is an underlying, systemic explanation for the general decline of unionization in Mexico.[6]

Accounting for the decline

The decline in union density may be the result of two broad forces. On the one hand, rates of unionization may change due to changes in the industrial, occupational, or geographical composition of jobs in the economy, or to changes in the education, age, and gender composition of workers in the labor force ("compositional changes"). Alternatively, the decline in union density may be the result of systemic institutional changes, such as changing support for unions by government actors or a changing desire for, or resistance to, unions by workers or employers ("institutional changes").

The success of the labor movement in Mexico has been linked historically to its alignment with the Institutional Revolutionary Party, which held power for most of the 20th century.[7] State and federal labor authorities can exert substantial influence over both the union registration process and contractual relations between unions and employers. Beginning with the shift in Mexico's development strategy in the 1980s, unions fell into disfavor among influential members of the Institutional Revolutionary Party. As a consequence, union organizing and maintenance of membership may well have become more difficult in the 1980s and 1990s.

The authors have found no direct evidence for decreased union support among Mexican workers during this period.

If the ability of unions to win key contract demands had decreased, this might have led to diminished support for unions among workers; however, in separate analyses, little evidence was found of changing union relative wage effects over the period, and only a moderate, but significant, reduction in the ability of unions to standardize wages and level the wage structure through collective bargaining.[8]

The growing prevalence of protection contracts and "ghost unions" cited by labor scholars in Mexico suggests that, in recent decades, employers may have become less willing to deal with workers as an organized force, and more effective at co-opting the formal structure of unions to avoid having to deal with organized workers. Thus, there is at least some evidence to suggest that unions are facing greater difficulty in organizing new members and perhaps retaining existing members in recent years.

To begin an exploration of the relative importance of "institutional changes" versus "compositional changes" in accounting for the decline in union density over this period, table 2 shows the changes in both union density and employment share by industry, occupation, demographic and human capital characteristics, and geographical categories. In nearly every category, union density declined, and typically by large amounts — between 5 percentage points and 15 percentage points or more; this suggests that a change in the overall institutional climate for organizing and retaining union members is likely to be responsible for declining union density.

Further evidence against the importance of compositional effects is found in a second feature of the results. Holding union density constant at 1984 levels, the direction of some of the compositional changes is consistent with a decline in union density, but the direction of others suggests a rise in union density. For example, the share of employment in the highly unionized mining, electricity, water, and gas industry declined by 2 percentage points, thereby suggesting a decline in overall union density; however, the moderate-union-density services sector saw its share of employment rise by 3 percentage points, tending to produce the opposite effect. Similarly, the shift in employment in favor of border states would account for some of the decline in union density, as would, in general, the shift in employment away from the capital zone, yet the shift in favor of urban areas points to an increase in union density, as does the shift in favor of female employment. Thus, while the examination of these descriptive statistics makes clear the importance of the decline of within-group union density in accounting for the overall decline in union density, the case for "compositional changes" is weaker, and ultimately inconclusive on the basis of these descriptive tables.

In separate research, the changing union density over this period is decomposed into "institutional" and "compositional" forces following the statistical technique found in

Table 2.	Change in union density and employment share by industry and occupation, demographic and human capital characteristics, and geographical classifications, 1984–98

Characteristics	1984		1998		Change, 1984–98[1]	
	Union density	Employment share	Union density	Employment share	Union density	Employment share
Industry and occupation						
Total	0.30	1.00	0.21	1.00	−0.09	0.00
Industry (aggregate)						
Mining, electricity, water, and gas transmission	.62	.04	.53	.02	−.08	−.02
Manufacturing	.29	.26	.20	.26	−.09	.00
Construction	.04	.10	.02	.08	−.02	−.02
Commerce	.08	.14	.07	.16	−.02	.02
Transportation, communication, shipping, and warehousing	.54	.07	.20	.05	−.33	−.02
Services	.37	.39	.28	.42	−.09	.03
Occupation						
Technicians	.47	.05	.37	.05	−.10	.00
Education workers	.73	.05	.64	.06	−.09	.00
Arts, performance, and sports workers	.73	.01	.13	.01	−.60	.00
Functionaries and directors	.21	.03	.13	.03	−.09	.00
Supervisors	.35	.03	.19	.03	−.16	.00
Direct workers and industrial	.30	.27	.20	.23	−.10	−.04
Assistants, artisanal, and industrial	.19	.09	.09	.11	−.10	.02
Department managers, supervisors in administrative/ service sectors, and administrative workers	.32	.19	.25	.17	−.08	−.02
Merchants, commercial employees, and sales agents	.08	.08	.05	.11	−.03	.02
Personal service providers in fixed establishments	.27	.09	.19	.09	−.08	−.01
Conductors and assistant conductors	.23	.05	.15	.05	−.08	.00
Workers in protection, security, and Armed Forces	.27	.02	.16	.04	−.11	.01
Professionals	.13	.02	.21	.04	.08	.01
Demographic and human capital						
Sex						
Female	.38	.30	.25	.34	−.12	.04
Male	.27	.70	.18	.66	−.09	−.04
Age (in years)						
16–25	.22	.34	.10	.33	−.12	−.02
26–35	.30	.33	.21	.32	−.09	−.01
36–45	.42	.18	.31	.20	−.11	.02
46–55	.35	.10	.31	.10	−.03	.00
56–65	.41	.04	.25	.04	−.16	.00
66–75	.16	.01	.07	.01	−.08	.00
75 and older	.00	.00	.15	.00	.15	.00
Highest level of education completed						
None	.21	.23	.11	.13	−.10	−.11
Primary	.30	.33	.16	.24	−.15	−.09
Secondary	.31	.24	.21	.34	−.09	.10
Preparatory	.42	.12	.25	.18	−.17	.06
College	.40	.07	.32	.10	−.08	.03
Graduate	.12	.00	.46	.01	.34	.01
Geographic classifications						
States not bordering the U.S.	.31	.81	.21	.80	−.11	−.01
States bordering the U.S.	.26	.19	.21	.20	−.05	.01
North-West[2]	.19	.09	.19	.09	.00	.01
North	.29	.08	.21	.09	−.09	.01
North-East	.30	.09	.28	.09	−.02	.00
Center-North	.28	.08	.15	.09	−.13	.01
West	.27	.10	.22	.11	−.05	.02
Center	.26	.06	.24	.08	−.01	.02
Gulf-Center	.39	.05	.23	.07	−.16	.02
Pacific-South	.24	.03	.24	.04	.00	.01
Yucatan Peninsula	.26	.03	.23	.03	−.02	.01
Capital Zone	.34	.39	.18	.18	−.16	−.21
Rural (population less than 2500)	.25	.14	.12	.07	−.13	−.07
Urban (population greater than or equal to 2500)	.31	.86	.21	.93	−.10	.07

[1] Figures for changes do not always equal the difference in reported levels due to rounding.

[2] Regional definitions are those used in Fernando Herrera and Javier Melgoza, "Evolución Reciente de la Afiliación Sindical y la Regulación Laboral en México," in Enrique de la Garza and Carlos Salas, eds., *La Situación del Trabajo en México, 2003* (Mexico City, Plaza y Valdés, 2003) and are as follows: **North-West**: Baja California Norte, Baja California Sur, Sinaloa, and Sonora; **North**: Chihuahua, Coahuila, and Durango; **North-East**: Nuevo León and Tamaulipas; **Center-North**: Aguascalientes, Guanajuato, Querétaro, San Luis Potosí, and Zacatecas; **West**: Colima, Jalisco, Michoacán, and Nayarit; **Gulf-Center**: Veracruz and Tabasco; **Pacific-South**: Chiapas, Guerrero, and Oaxaca; **Yucatán Peninsula**: Campeche, Quintana Roo, and Yucatán; **Capital Region**: Federal District (D.F.) and Mexico State.

Due to an ambiguity in coding, it was not possible to classify 12 percent of employees by region in 1998. Thus, the shares of employment by region do not sum to 1 for that year. The shares follow a similar pattern when the unclassified workers are removed from the sample.

Henry S. Farber's analysis of the decline in union density in the United States.[9] In particular, the 1984 data is used to estimate a union status probit regression with the following explanatory covariates: a set of 20 industry and 12 occupation categorical variables, age, age squared, a gender dummy, a set of categorical variables indicating level and type of educational attainment (including technical school), an indicator for location in a rural or urban zone, and an indicator variable for whether the person lives with 1 or more family members who are in a union.

The estimated coefficients from this regression represent the difficulty or ease that unions experienced in organizing and retaining union workers in 1984, and thus reflect the institutional context within which unions operated during the period. Substituting the individual characteristics, industry, occupation, and geographical information on workers from the 1998 data into the 1984 estimated probit regression, union density in 1998 can be predicted under the counterfactual assumption that the institutional context for union organizing remained the same in 1998 as it was in 1984. The difference between this "counterfactual" union density and the actual 1984 union density is then interpreted as that part of changing unionization from 1984 to 1998 accounted for by compositional changes in the various job and labor force characteristics.[10] The difference between the actual 1998 union density and this counterfactual measure gives the part of the change from 1984 to 1998 accounted for by institutional changes.[11]

The results of this exercise are as follows:

	Year	
	1984	*1998*
Actual union density	0.303	0.208
Counterfactual union density using 1984 coefficients	–	.280

Based on this analysis, of the 9.5-percent decline in union density in Mexico, the change in industry, occupation, and demographic composition explains only 2.3 percentage points, while changes in the estimated coefficients of the model explain 7.2 percentage points. In other words, slightly less than one-fourth (24 percent) of the decline in union density is due to changes in job and labor force compositional characteristics, while just over three-fourths (76 percent) of it is due to structural and institutional changes in the ability of unions to organize and retain members.

TRAJECTORIES OF UNION DENSITY — in the aggregate and by industry, occupation, and proximity to the border with the United States — reveal that, in nearly every category, Mexico has experienced a substantial decline in unionization since 1984. For the formal sector labor force as a whole, the decline is from 30 percent to 20 percent — a fall of about one-third. Moreover, changing industry, occupation, and demographic worker characteristics account for only about one-fourth of this decline; the remaining three-fourths are accounted for by structural and institutional changes in the ability of unions to organize and retain workers. □

Notes

[1] INEGI. *Encuesta nacional de ingresos y gastos de los hogares, 1989, 1984*. (Aguascalientes, Mexico, Instituto Nacional de Estadísticas, Geografía e Informática, 1992). ——. *Encuesta nacional de ingresos y gastos de los hogares, 1992, 1994, 1996*. (Aguascalientes, Mexico, Instituto Nacional de Estadísticas, Geografía e Informática, 1998). ——. *Encuesta nacional de ingresos y gastos de los hogares, 1998, 2000*. (Aguascalientes, Mexico, Instituto Nacional de Estadísticas, Geografía e Informática, 2000).

[2] Because of the change between 1998 and 2000 in the industrial classification system in Mexico (from the Clasificación Mexicana de Actividades y Productos or CMAP to the Sistema de Clasificación Industrial de América del Norte or SCIAN [NAICS in English]), it was not possible to make the detailed industry categories for 2000 consistent with those of previous years. Thus, for comparisons between 2000 and previous years, we rely on more aggregate industry categories.

[3] Certain of these exclusions are similar to those used by Fernando Herrera and Javier Melgoza to construct a sample representing the "unionizable population of the industrial sector" (PSSI representing the name in Spanish). See Fernando Herrera and Javier Melgoza, "Evolución Reciente de la Afiliación Sindical y la Regulación Laboral en México," in Enrique de la Garza and Carlos Salas, eds., *La Situación del Trabajo en México, 2003* (Mexico City, Plaza y Valdés, 2003). However, they further restrict their PSSI sample to the industrial sector, arguing that the service sector has enjoyed high and relatively stable union density in Mexico. (Our estimates below measure the degree of that relative stability.) They also, usefully, analyze trends in both the economically active population (PEA) and the PSSI, raw numbers of unionized workers and union densities, overall and by gender, age group, region, industry, and occupation, as well as both raw numbers of unionized workers and union densities for both the PEA and the PSSI.

[4] The informal sector is a large percentage of the labor force in Mexico – some estimates put it at 40 percent or more – but many of these workers are properly classified as self employed. Focusing, as we do here, on wage and salary workers, inclusion of the informal sector does not change the numbers by very much.

[5] This spike in border-state union density is curious. However, the 1992 union density for the border states is indeed statistically significantly greater than that for Mexico as a whole. Nor does it appear to be the result of any sudden change in the level of employment in the border states, as employment in the region has risen fairly steadily over the entire period.

[6] Herrera and Melgoza, "Evolución Reciente," analyze the trends in unionization between 1995 and 2000 in terms of changes in regulation

governing the organization of work, introduction of new technologies, sub-contracting and casualization of labor. A number of other articles in the same volume provide useful, institutional analyses of the trends presented here.

[7] See Kevin J. Middlebrook, *The Paradox of Revolution: Labor, The State, and Authoritarianism in Mexico* (Baltimore, The Johns Hopkins University Press, 1995).

[8] See David Fairris and Edward Levine. Forthcoming. "La Disminución del Poder Sindical en México," *El Trimestre Económico* 71(4), Number 284, Oct.-Dec. 2004 and David Fairris, "Unions and Wage Inequality in Mexico," *Industrial and Labor Relations Review* 56(3), 2003, pp. 481–97.

[9] See Fairris and Levine, forthcoming and Henry S. Farber, "The Recent Decline of Unionization in the United States," *Science*, 238(4829), 1987, pp. 915–20.

[10] Following Farber, "Decline of Unionization," we use the term "accounted for" rather than "caused" in this description, because institutional and compositional forces are not necessarily independent of one another. For example, shifts in relative employment across sectors may alter the ease of organizing within the growing and shrinking sectors, respectively. Thus, we say that one factor "accounted for" a given share of the decline in union density only in the conditional sense that union density would have declined by the corresponding amount given the observed change in that factor but holding the other factor fixed.

[11] Actually, following Farber, "Decline of Unionization," we compare three predicted union densities using: (1) the 1984 coefficients and the 1984 worker characteristics, (2) the 1984 coefficients and the 1998 worker characteristics, and (3) the 1998 coefficients and 1998 worker characteristics. Because the probit model uses a non-linear functional form, (1) and (3) do not exactly correspond to the actual 1984 and 1998 union densities. However, in practice they are extremely close, and it is therefore harmless, and infinitely more intuitive to talk of the difference between the actual 1984 and 1998 values and the counterfactual 1998 value, than to talk of differences between *predicted* 1984 and 1998 values and the counterfactual 1998 value.