Title
Immigrant Unionization through the Great Recession

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Comment on Rosenfeld and Kleykamp, *ASR*, December 2009: Immigrant Unionization through the Great Recession

by

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Abstract

Prior research finds that in recent years immigrants had a higher propensity to unionize than native-born workers. Such research buttresses the hopes of both working class Hispanics, who view unions as a potential avenue to upward mobility, and union supporters who view immigrants as a potential source of union revival. However, there is little research that shows historically marginalized immigrant workers are able to *maintain* newly acquired union jobs, especially during times unfavorable to unionization more generally. Therefore, this paper focuses on immigrant unionization during the Great Recession of 2008 to determine whether the inroads that immigrants have made through organizing are maintained in hostile union environments. Using the Current Population Survey (CPS), I extend Rosenfeld and Kleykamp's (2009) models for Hispanic unionization (which end in 2007) through the recent downturn and beyond. I find that Hispanic immigrants, who hold higher odds of union entry or membership in Rosenfeld and Kleykamp's prerecession analysis, lost union jobs at an increased rate during the Great Recession compared with white native-born workers. These effects for Hispanic immigrants filter throughout various subcategories and control variables that include years since entry, citizenship status, and nationality. These results are likely *not* the result of unfavorable labor market allocation of immigrants, and to some degree undercut the hopes of those who view immigrants as the key to organized labor's future and organized labor as the key to immigrant prosperity.

Comment on Rosenfeld and Kleykamp, *ASR*, December 2009: Immigrant Unionization through the Great Recession[*]

After decades of de-unionization, research suggests that Hispanics – and Hispanic immigrants in particular – may revitalize organized labor in the United States. Most of this research consists of case studies of individual organizing campaigns (see, e.g. Milkman 2006). In 2009, however, Rosenfeld and Kleykamp (RK) set out to determine whether these campaigns had produced quantifiable gains at the national level. By analyzing detailed data from the Current Population Survey, they found that when compared to native-born whites "many Hispanic subgroups are no less likely," and some Hispanic subgroups are "more likely," to join or belong to labor unions (933). These results are important, for they buttress the hopes of both Hispanic workers, who view union membership as a potential avenue to upward mobility, and union organizers, who view immigration as a potential source of new members. While RK realize that *overall* union density is low in the U.S., and that unionization is therefore unlikely to usher in widespread assimilation in the absence of a "fundamental restructuring of the institutional underpinnings of organized labor" (933), they find that Hispanic immigrants "organize at higher rates than do U.S. born whites" (932), and interpret their findings as evidence for the "steady" assimilation of those Hispanics who find themselves in "organizable labor market positions" (933).

But the CPS did not begin to identify immigrants until 1994. RK conducted their analyses in the years prior to the Great Recession of 2007-2009. And the bulk of their data are therefore drawn from a decidedly prosperous period in American history. Will the immigrant influx survive the recent downturn? While RK "indirectly control" (919) for the effects of the business

[*] *I gratefully thank Jake Rosenfeld and Meredith Kleykamp who blindly sent their MORG recode and Matching do files. I would also like to acknowledge Andrew Schrank, Melissa Binder, John Roberts, Dale Willits, Jessica Garrick and the anonymous ASR reviewers for their insightful comments and helpful suggestions and assistance.*

cycle by deploying state and year fixed effects, they neither test – nor claim to test – the effects of the macroeconomy more generally, and their conclusions are therefore vulnerable to charges of "ahistoricism" that bedevil analysts who try to control—rather than theorize—the effects of time (Isaac and Griffin 1989).

I therefore address the effects of the recent downturn head-on by extending the models developed by RK through the Great Recession of 2008 and beyond. The results suggest that Hispanic immigrants, who hold higher odds of union entry or membership in RK's pre-recession analysis, lost union jobs more rapidly than native white non-Hispanics during the downturn regardless of citizenship and years since entry. These results are in all likelihood not attributable to the unfavorable labor market allocation of immigrants, as will be discussed below, and to some degree undercut the hopes of both those who view immigrants as the key to organized labor's future and those who view unionization as the key to immigrant prosperity.[1]

Data and Methods

Data come from the March Current Population Survey (CPS) outgoing rotation groups and Merged Outgoing Rotation Groups (MORG) for various years.[2] Labor market position and firm size variables were recoded to match RK's do files, and data are limited to non self-employed wage and salary workers ages 18-65.[3] First, using a logistic regression to determine the odds of union membership, cross-sections from the 2007 and 2009 March CPS outgoing rotation groups

[1] The US has only has experienced only two recessions since the CPS began to identify immigrants in 1994. Whereas this comment is focused on the Great Recession of 2008, I find some evidence of a delayed recession effect from the 2001 dot-com crash in 2002, when Hispanic and Hispanic immigrant unemployment increased (Hout et al. 2011: 75-77, Figure 3.7 and 3.8). Results are available from the author upon request. Furthermore, RK's Figure 2 shows potential recession effects for Hispanics in most recession periods (the interesting exception being the 1981-to1982 recession, which, until recently was the most severe post-war recession).

[2] All CPS datasets are downloaded from the National Bureau of Economic Research (www.nber.org/cps). My own files used to recode and merge the nber data are available upon request in addition to all supplementary analyses.

[3] By keeping the positive selection of only those who remain employed, those who became more likely to lose a job during the recession are implicitly controlled for.

are analyzed. The first analysis predicts the odds of union membership in 2007 (the last year of RK's data) and the second analysis predicts the odds of union membership in 2009 (near the bottom of the recession). Differences between the two years are examined for both race/ethnicity categories as well as Hispanic immigrant racial/ethnic subcategories.

A second analysis takes advantage of the longitudinal aspect of the CPS. Using the same matching scheme for the MORG provided by RK, I report the odds that members of immigrant racial/ethnic groups leave a union from one year to the next. The matching process creates two-year panel data where changes in union status can be calculated. A multinomial logistic regression with four unordered categorical outcomes (joining a union, leaving a union, staying in a union, and never being in a union) is performed. The multinomial regressions are run for the years 2004-06 (boom years), 2006-08 (an intermediary period), and 2008-10 (the recession and post-recession).[4]

Modeling Union Membership through the Recession

Table 1 presents the odds of union membership in both 2007 and 2009 following both RK's market position and firm size models.[5] The 2007 cross-section replicates the last year of their study and supports their analysis (see their Table 2).[6] In 2007, Hispanics are neither more nor less likely to hold a union job than white non-Hispanics, following RK, in both the market position and firm size models; however, in 2009, while failing to reach conventional significance levels, Hispanics show 22.4 percent lower odds of holding union jobs than their white non-

[4] The logistic regressions control for the labor market and firm size variables defined by RK. See their Table A2 for a list of the covariates used. The multinomial logistic regressions control for the labor market position variables, regional dummies (as opposed to state fixed effects following RK) and year.
[5] I also compared 2006 with 2008, but these results show similar, but less severe declines.
[6] The notable differences, namely marital status showing non-significance, may be because RK had a larger sample spread over several years.

Hispanic counterparts in the market position model. Once firm size is included, moreover, Hispanics and white non-Hispanics continue to show no statistically discernible differences in the likelihood of holding a union job. Hispanic ethnicity includes immigrants as well as non-immigrants, however, and obscures heterogeneous origins among both groups.

[INSERT TABLE 1 ABOUT HERE]

Table 2 presents the odds ratios for immigrant subcategories in the 2007 and 2009 cross-sections. The first model includes immigrant and nonimmigrant race/ethnic categories with controls identical to Table 1. RK do not report the equivalent findings; therefore, a comparison to their models is impossible. Nonetheless, I find that in 2007, ceteris paribus, Hispanic immigrants reveal no statistically discernible disadvantage vis-a-vis white non-Hispanics in terms of union membership. In 2009, however, Hispanic immigrants hold 46.7 percent lower odds of union membership in the market position model and 41.4 percent lower odds once firm size variables are added. Given that these effects do not filter through all immigrant race/ethnic categories, they suggest that mechanisms that predict a lower propensity for Hispanic immigrants to organize are in place, whatever those mechanisms may be.

The second model of Table 2 includes the years since entry for Hispanic immigrants. RK found that Hispanic immigrants who had lived in the United States for more than 20 years were no more likely to hold union jobs than native-born whites controlling for the relevant variables. But they also noted that immigrant organizing is a relatively recent phenomenon and that their data may therefore have averaged out its effects. This interpretation finds some support in my analyses, which show that Hispanic immigrants with more than 20 years in the US held over 70 percent higher odds of unionization than native white non-Hispanics in 2007. But the two groups betray no statistically discernible differences in 2009, when the odds ratio for experienced

Hispanics actually falls below 1. Moreover, recent Hispanic immigrants held lower odds of unionization than white non-Hispanics in both 2007 and 2009. Finally, the gap between newcomers and white non-Hispanics was larger at the bottom of the recession.

[INSERT TABLE 2 ABOUT HERE]

The third model in Table 2 addresses the subcategory of Hispanic immigrant citizenship status. Hispanic immigrant citizens hold over 60 percent higher odds of unionization than their native white counterparts in 2007. This effect is different from that of RK, who show that controlling for firm size these citizens hold 20 percent higher odds of unionization than white non-Hispanics. In 2007, meanwhile, Hispanic immigrant non-citizens reveal no difference in the odds of holding a union job when compared to native-born whites. This also differs from RK's results, which show that Hispanic immigrant non-citizens have 40 percent lower odds of holding a union job, all else equal. As in previous models, the differences between my 2007 cross-section and RK's analysis may be due to their larger sample, since their data are spread over several years that may average out the statistical effect of one year. The differences between 2007 and 2009 show similar patterns: the statistically significant advantage Hispanic immigrant citizens enjoy in 2007 falls to non-significance in 2009; and Hispanic immigrant non-citizens have more than 50 percent lower odds of unionization than native white non-Hispanics (from no statistically discernible effect in 2007). Thus, Hispanic immigrants who became citizens, and in so doing underwent some form of assimilation, were still disadvantaged in holding onto union jobs.

The last model in Table 2 includes the Hispanic nationality and immigrant subcategories. Unionists or employers may view immigrants differently depending on where they originate. Furthermore, differential socialization at the point of origin may influence the propensity to

unionize in the US. In RK's analysis, Mexican immigrants and non-Mexican Hispanic immigrants hold lower odds of unionization than native white non-Hispanics. While my 2007 analysis reveals no significant difference in their propensity to organize, by 2009 they evince lower odds of union membership than native-born whites net of other factors. Furthermore, the gap between these two groups and white non-Hispanics in 2009 is greater than that of RK's pre-recession analysis. By contrast, Hispanic-origin and Mexican-origin natives show no difference in union membership compared to native white non-Hispanics in both years.

[INSERT TABLE 3 ABOUT HERE]

Table 3 reports interactions of year and the immigrant subcategories pooling 2007, 2008, and 2009. For the results above, the 2009 interaction coefficients show that the observed differences are correctly signed in all—and statistically significant in most—cases. These results suggest that there are mechanisms in play that push Hispanic immigrants to leave union jobs at higher rates than native white non-Hispanics and native-born Hispanics during the Great Recession. However, it is important to understand whether these effects are specific to the Great Recession, or whether Hispanic immigrants' de-unionization is a function of broader economic circumstances over time. I therefore leverage the full dataset for which immigrant status is available (1994-2011).[7] I present the interaction of the co-racial/ethnic unemployment rate for people aged 18-65 and the immigrant subcategories.[8] Since unions emphasize economic gains for their members, there may be a disemployment effect where higher wages force employers to lower the number of employees in a firm. Workers, then, may become unemployed until they

[7] The recession effects occur for Hispanic immigrants.

[8] Milkman (2006) argues that kinship among immigrants in both the workplace and community becomes the foundation for building solidarity among workers. This, along with previous organizing experience and a shared experience of stigmatization is why immigrants have a higher propensity to organize. However, if there is a high co-ethnic unemployment rate, workers may fear exercising their co-ethnic solidarity if there is a strong chance of losing their job.

find employment in the non-union sector. Therefore, to prevent this potential reverse causality, the unemployment rate is lagged by one year (e.g. last year's co-racial/ethnic unemployment rate predicts this year's co-racial/ethnic unionization odds). Table 4 presents the interactions for the years 1994-2007 (just before the Great Recession) and then adds the recession years.

[INSERT TABLE 4 ABOUT HERE]

Table 4 shows that in the years prior to the Great Recession, there is no interaction effect unique to immigrants vis-à-vis native white non-Hispanics. It is possible that effects between unemployment and Hispanic immigrants would show up if it were possible to examine the years prior to 1994 (when the CPS began to track immigrant status) since unemployment failed to increase sharply in the years leading up to the Great Recession.[9] However, with the inclusion of the Great Recession years, 2008-2011, unemployment produces lower odds of unionization for Hispanic immigrants compared with native white non-Hispanics. The interaction effect filters through the Hispanic immigrant noncitizen category and for Hispanic-origin and Mexican-origin immigrants. Interestingly, the years since entry model suggests that only those who have remained in the US for a long time and recent arrivals (while failing to reach a conventional significance level in the firm size model) have lower unionization odds as unemployment increases. It is possible that recessions have a non-linear interaction with time since arrival where low and long tenure predicts de-unionization as unemployment increases. Low tenure immigrants may have been subject to last hired, first fired dynamics and long tenured immigrants may have voluntarily taken early retirement in the downturn or involuntarily lost their union job and found it difficult to retrain. Nevertheless, these mechanisms are purely speculative and should be examined in future research. Hispanic immigrants who have become citizens,

[9] There is a slight increase in unemployment in the years after the 2001 dot-com crash. See footnote 1 for the analysis looking at this period.

however, show no statistically discernible difference than native white non-Hispanics, which may support the notion of assimilation into the economic mainstream. The inclusion of the Great Recession years supports the analysis above and suggests that Hispanic immigrants are more likely to lose union jobs (voluntarily or involuntarily) at an increased rate as unemployment rates skyrocket. These effects may be due to the recession affecting unionized sectors more than nonunionized sectors, unfavorable labor market allocation, seniority schemes, or a host of other mechanisms. The following analysis sheds light on potential reasons for the decrease in the odds of unionization for immigrants.

Modeling the Odds of Leaving a Union

The CPS-Matched MORG dataset allows one to estimate the shift from employment to unemployment during the recession and the odds of leaving a union in a one-year period. First, as noted above, the recession may have affected unionized sectors more than nonunionized sectors. Immigrants tend to concentrate in the construction industry and low-wage occupations and industries that were especially hard-hit during the recession. If these industries became less union dense as the recession unfolded, this would have a major impact on the likelihood that an immigrant would hold onto a union job. A model determining the shift from employment to unemployment shows, controlling for industry and other labor market position variables, the odds of entry into unemployment in a one year period were significantly lower for union members than nonunionized workers as the recession unfolded.[10] Thus, unionized workers were less rather than more likely to lose their jobs.

Second, by focusing on union leavers, as opposed to union joiners, we can better understand why the effects described above may have occurred and simultaneously shed light on

[10] See Appendix A for results.

whether the changing industrial composition of the American workforce may be to blame for the decline in the unionization of Hispanic immigrants (and Hispanic immigrant subcategories).[11] Table 4 presents the odds of leaving a union (as opposed to staying in a union) for the race/ethnic categories and Hispanic immigrant subcategories. The model showing the race/ethnic immigrant and nonimmigrant categories also reports selected industries to show whether working in these industries significantly predicts union leaving.

The first three columns of Table 5 control for the labor market position variables defined by RK. The next three columns add a dummy variable for change in occupation and a dummy variable for the change in industry to the market position variables. The last three columns limit the sample to only those who remained in a stable occupation and industry. The odds that both immigrants and non-immigrant minorities leave a union (as opposed to staying in a union) increase compared to native white non-Hispanics between the pre-recession and recession/post recession years.[12] These trends continue when change in occupation and industry dummies are included. The CPS does not allow analysis for individuals who remained employed with the same employer. However, those who stayed in the same occupation and industry (with the exception of the other race categories) also showed increased odds of leaving a union compared with their white counterparts. The gap between minority immigrant groups and native white non-Hispanics widens in the intermediary period, with few exceptions. In all likelihood, this is a result of minorities' vulnerability to economic downturns. Hout et al. (2011) suggest that the recession affected minorities before the recession officially began in December 2007 – especially

[11] The odds of joining a union are not reported since the economic downturn reduced the number of people who report this status. However, the odds of joining a union (as opposed to never being in a union) increased or remained similar over the three periods for many of the race/ethnicity categories compared to native whites. Whereas the preferences of these groups for union jobs may have increased, union joiners are not able to replace union leavers during the recession.

[12] The exception being the nonimmigrant other race category, which largely consists of Asian Americans.

for African Americans and immigrants – a finding consistent with the odds of losing a union job in my own analysis. For instance, Hispanic-origin natives are no more likely to lose a union job than white non-Hispanics in 2004-2006, but hold 55.4 percent higher odds of leaving a union than white non-Hispanics in the intermediary period. In the recession/post-recession years, the gap is invariably significant and tends to widen. In a few cases it tightens a bit – perhaps because minorities had already lost their union status – but it never fails to achieve significance.

The logistic regressions from Table 2 suggest that Hispanic immigrants were most likely to lose union status. Hispanic immigrants are more likely to leave a union than native white non-Hispanics in all models in all periods. In fact, in the labor market position model, Hispanic immigrants hold 79.9 percent higher odds of leaving a union (as opposed to staying in a union) between 2004-06 and 94.2 percent higher odds of leaving a union between 2008-10 than their native white non-Hispanic counterparts.

Table 5 also controls for selected industries in order to determine whether elevated odds of leaving a union are due to the changing composition of industries in the United States. There are no significant differences in leaving a union (as opposed to staying in a union) between the shown industries and the baseline agriculture, forestry, and fishery industry in the three periods. However, the sign changes in all but the stable occupation and industry models from lower (but not significant) odds of leaving to higher (but not significant) odds of leaving between the three periods. This suggests that holding a job in these industries did not significantly predict whether someone lost a union job and the changing composition alone does not account for the lower odds of holding a union job for Hispanic immigrants.

[INSERT TABLE 5 ABOUT HERE]

Table 5 also reports the odds of leaving a union in a one-year period for Hispanic immigrant subcategories. Whereas seniority schemes may predict that recent Hispanic immigrants will become increasingly more likely to leave a union since unions have only recently targeted these groups, it is possible that immigrants who have remained in the US for a long period should also be no less likely to leave a union than a native white non-Hispanic. Unfortunately, the CPS does not report how long an individual has remained on the job, so this analysis is impossible. But the odds that Hispanic immigrants leave a union increase as the recession unfolds regardless of how many years they have remained in the US compared with their native white non-Hispanic counterparts. The logistic regressions show that Hispanic immigrants who have remained in the US for over 20 years were more likely to hold a union job in 2007 and neither less nor more likely to hold a union job in a statistical sense than native whites in 2009. However, the gap between this group and native white non-Hispanics in the odds of leaving a union increased from 52.3 percent higher odds in 2004-06 to 71.9 percent higher odds in 2008-10.

The same results appear with Hispanic immigrants who have become citizens of the US. Hispanic immigrants who are citizens and Hispanic immigrant non-citizens show increasing odds of leaving a union compared to native white non-Hispanics following the patterns above. These effects continue to manifest themselves in models that include a change in occupation and industry as well as the model that limits the sample to those who remain in the same occupation and industry. With the exception of Mexican-origin natives, the nationality models also show similar results. The race/ethnic immigrant and nonimmigrant models show increasing odds of leaving a union for Hispanic-origin natives compared to their native white counterparts as described above. Table 5 provides insight that the recession engendered mechanisms that might

offset those of RK's joining models, whatever those mechanisms may be. These results present a different trend than that of previous research that portrays immigrants as a source of union revival (e.g. Milkman 2006) and/or show higher odds of immigrant union affiliation of membership prior to the Great Recession (RK 2009).

Conclusion

Recessions are an unavoidable feature of market economies, and they will affect the life chances and opportunity structures available to different groups depending on how they are mediated by societal institutions and economic structures. My results suggest that net of other factors Hispanic immigrants were more likely to lose union jobs (whether voluntarily or involuntarily) than white non-Hispanics at an increased rate during the Great Recession. This has potentially disruptive impacts throughout the economy and society. After all, immigrants have breathed new life into unions, and unions have given working class immigrants a potential ladder out of low-paying jobs. But unions that hope to organize immigrants must address cultural and language differences as well as possible racial prejudices from employers and the native working class, and recessions may make their job harder by altering the design of governmental policies, the attitudes of employers, and the patience of local communities—and in so doing may steer immigrants away from the organizable sectors of the economy to ethnic and enclave economies that may be unorganizable. If the link between unions and immigrants is severed, however, both communities are likely to suffer.

The specific mechanisms that would lead to lower immigrant propensity to unionize in bad times should thus be examined – perhaps through case studies that ask not only "who joins" but also "who leaves unions" – in an effort to compliment both RK's pathbreaking analysis and

my own follow up study. Such analyses would shed light not only on why immigrants were disproportionately likely to lose union jobs in the recession but on whether their rates of unionization will recover with the macroeconomy—or whether there will be a lasting scarring impact that would make immigrants more difficult to organize in the future.

RK conclude that many Hispanic subgroups immigrants have a higher propensity to unionize than native-born workers and find evidence for the "steady" assimilation of Hispanics who find themselves in "organizable labor market positions" (933) as well. But the immigrant propensity to unionize is by no means unchanging, and Hispanic assimilation need not be "steady" over time. While RK identified very real gains among immigrants in the period prior to the Great Recession, my own analysis suggests that they have to a large degree evaporated in the wake of the recent downturn. In order to fully understand the immigrant-union relationship, therefore, and to avoid the perils of ahistoricism, we need to examine data collected in bad times as well as good times at a relatively fine level of detail.

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Table 1. Odds Ratios from Logistic Regression Predicting Unionization. 18-65 Year Old Wage and Salary Workers

	2007		2009	
	Market Position	Firm Size	Market Position	Firm Size
Race (White Ref.)				
Black	1.303	1.262	1.159	1.090
	(2.18)*	(1.91)	(1.22)	(.71)
Hispanic	1.059	1.081	.776	.807
	(.50)	(.66)	(-1.94)	(-1.60)
Other Race	.727	.723	.994	.980
	(-1.90)	(-1.90)	(-.05)	(-.14)
Male	1.242	1.235	1.152	1.143
	(2.84)*	(2.74)*	(1.82)	(1.70)
Married	1.094	1.109	1.140	1.150
	(1.21)	(1.36)	(1.74)	(1.84)
Age (exper)	1.041	1.037	1.068	1.063
	(2.92)*	(2.56)*	(4.57)*	(4.20)*
Age sq (exper squared)	.999	.999	.999	.999
	(-1.88)	(-1.65)	(-3.68)*	(-3.37)*
Education (<HS ref)				
HS	1.541	1.379	1.294	1.154
	(2.89)*	(2.09)*	(1.50)	(.83)
Some College	1.460	1.264	1.593	1.366
	(2.34)*	(1.42)	(2.58)*	(1.71)
B.A. +	1.593	1.325	1.654	1.383
	(2.92)*	(1.71)	(2.84)*	(1.80)
Private Sector	.118	.153	.110	.140
	(-22.38)*	(-18.97)*	(-23.27)*	(-19.95)*
Occupation (Professional/managerial reference)				
Farm/forestry/fishery	1.072	1.529	.099	.130
	(.08)	(.52)	(-2.08)*	(-1.83)
Production/craft/	2.634	2.812	2.676	2.864
Repair	(8.20)*	(8.66)*	(8.49)*	(8.86)*
Service occupations	1.149	1.200	1.036	1.098
	(1.51)	(1.93)	(.40)	(1.04)

Table 1 Continued

	2007		2009	
	Market Position	Firm Size	Market Position	Firm Size
Industry (Ag ref.)				
Mining	2.653	2.233	5.089	3.888
	(1.50)	(1.20)	(2.17)*	(1.75)
Construction	2.428	3.113	4.991	5.811
	(1.72)	(2.03)*	(2.39)*	(2.54)*
Manu. Durables	2.217	1.728	3.380	2.598
	(1.54)	(.98)	(1.81)	(1.38)
Manu. Non-Dura	3.412	2.517	5.239	4.027
	(2.36)*	(1.66)	(2.45)*	(2.00)*
Transportation	5.181	4.127	10.883	8.904
	(3.16)*	(2.54)*	(3.55)*	(3.16)*
Communications	4.248	2.898	6.867	4.863
	(2.66)*	(1.82)	(2.77)*	(2.22)*
Utilities	3.271	2.471	6.517	4.875
	(2.07)*	(1.50)	(2.64)*	(2.18)*
Wholesale Trade	1.222	1.051	1.673	1.479
	(.34)	(.08)	(.71)	(.53)
Retail Trade	1.461	1.207	1.719	1.404
	(.73)	(.34)	(.80)	(.49)
FIRE	.483	.375	1.333	1.063
	(-1.23)	(-1.57)	(.41)	(.09)
Business Repair	.910	.839	.777	.767
	(-.17)	(-.30)	(-.35)	(-.36)
Personal Services	1.575	1.671	1.704	1.727
	(.81)	(.85)	(.75)	(.75)
Rec./entertain	1.648	1.510	4.187	3.516
	(.84)	(.65)	(1.97)*	(1.69)
Professional Ser.	2.649	2.314	4.211	3.740
	(1.91)	(1.53)	(2.17)*	(1.93)
Public Admin.	1.709	1.504	3.568	3.160
	(1.03)	(.73)	(1.89)	(1.67)
Unclassified	.603	.526	4.238	3.341
	(-.64)	(-.76)	(1.78)	(1.43)

Table 1 Continued

	2007		2009	
	Market Position	Firm Size	Market Position	Firm Size
Firm Size (<25 ref)				
25-99		1.829		1.536
		(3.81)*		(2.84)*
100-499		3.417		2.851
		(8.42)*		(7.60)*
500-999		4.415		3.700
		(8.57)*		(8.09)*
1,000+		4.553		3.584
		(11.24)*		(10.21)*
State/Metro Effect	Yes	Yes	Yes	Yes
N	13,692	13,692	13,082	13,082
McFadden's R^2	.2258	.2513	.2649	.2840
BIC	8,870	8,680	8,501	8,336

* $p < .05$ two-tailed

Notes: *z*-statistic in parentheses. Data come from the March-CPS outgoing rotation group for appropriate year. Models weighted with the appropriate CPS weights. BICs calculated without weights.

Rosenfeld and Kleykamp (2009) do not use fulltime in their model citing that "many unions push to convert part-time positions to full-time during contract negotiations" (p. 935). However, they do use a full-time indicator as a robustness check and find "substantively similar results" (p. 935). I confirm their finding. Rosenfeld and Kleykamp (2009) also control for both public administration (labeled government in their tables) and private sector, variables that should be inversely related. The correlation between these two variables in 2007 and 2009 is -.54 (rounded to the nearest hundredth). According to the Census Bureau, those who remain in the public administration industry "oversee governmental programs and activities that are not performed by private establishments" (www.census.gov/naics). The Census Bureau further specifies, "government establishments engaged in the production of private-sector-like goods and services should be classified in the same industry as private-sector establishments engaged in similar activities" (www.census.gov/naics). Therefore, all individuals in the public administration industry remain in the public sector, but those in other industries may be in either the private sector or public sector. As a robustness check, first, all models are run without the private sector dummy. Substantively similar results for the race/ethnic groups occur, but the model fit is greatly reduced. A second robustness check collapses the industry variables into major industry codes defined by Waldinger and Der-Martirosian (2000). One dummy includes all public sector/public administration workers and five other private industry sectors. Again, substantively similar results for the race/ethnic categories emerge, however, the other race category flirts with different levels of significance.

Table 2. Immigrant Subcategories. Odds Ratios from Logistic Regressions Predicting Unionization. 18-65 Year Old Wage and Salary Earners.

	2007		2009	
	Market Position	Firm Size	Market Position	Firm Size
Immigrant Race				
White Immigrant	.709	.749	.975	.956
	(-1.54)	(-1.34)	(-.12)	(-.21)
Black Non-immigrant	1.392	1.356	1.141	1.077
	(2.60)*	(2.38)*	(1.02)	(.57)
Black immigrant	.715	.679	1.239	1.141
	(-.91)	(-1.06)	(.72)	(.46)
Hispanic non-immigrant	1.077	1.077	1.015	1.005
	(.48)	(.46)	(.09)	(.03)
Hispanic immigrant	.989	1.039	.533	.586
	(-.07)	(.25)	(-3.28)*	(-2.71)*
Other non-immigrant	.851	.817	1.232	1.194
	(-.68)	(-.82)	(1.08)	(.89)
Other immigrant	.627	.640	.828	.828
	(-2.15)*	(-2.03)*	(-1.01)	(-.99)
N	13,692	13,692	13,082	13,082
McFadden's R^2	.2269	.2523	.2664	.2850
BIC	8,901	8,711	8,529	8,367
Years Entry				
Nonimmigrant Hispanic	1.073	1.072	1.015	1.006
	(.46)	(.43)	(.10)	(.04)
Hispanic 20+	1.702	1.762	.637	.663
	(2.60)*	(2.79)*	(-1.58)	(-1.41)
Hispanic 10-20	.963	1.046	.673	.741
	(-.15)	(.17)	(-1.45)	(-1.05)
Hispanic 5-10	.514	.516	.310	.362
	(-2.14)*	(-2.07)*	(-2.57)*	(-2.21)*
Hispanic 0-5	.393	.438	.169	.222
	(-1.96)	(-1.59)	(-2.30)*	(-2.00)*
N	13,692	13,692	13,082	13,082
McFadden's R^2	.2292	.2544	.2672	.2856
BIC	8,911	8,724	8,551	8,390

Table 2 Continued

	2007		2009	
	Market Position	Firm Size	Market Position	Firm Size
Citizenship				
Hispanic nonimmigrant	1.071	1.072	1.012	1.002
	(.45)	(.43)	(.08)	(.02)
Hispanic Immigrant Citizen	1.639	1.685	.725	.743
	(2.28)*	(2.43)*	(-1.19)	(-1.05)
Hispanic Immigrant Non-Citizen	.745	.791	.413	.479
	(-1.60)	(-1.24)	(-3.60)*	(-2.96)*
N	13,692	13,692	13,082	13,082
McFadden's R^2	.2281	.2533	.2668	.2854
BIC	8,905	8,716	8,535	8,374
Nationality				
Hispanic Nonimmigrant, non-Mexican	1.143	1.142	1.359	1.366
	(.59)	(.54)	(1.43)	(1.43)
Hispanic Immigrant, non-Mexican	1.106	1.172	.478	.525
	(.50)	(.77)	(-2.58)*	(-2.22)*
Mexican Nonimmigrant	1.027	1.028	.830	.814
	(.14)	(.14)	(-.93)	(-1.00)
Mexican Immigrant	.901	.940	.567	.623
	(-.55)	(-.32)	(-2.47)*	(-1.99)*
N	13,692	13,692	13,082	13,082
McFadden's R^2	.2270	.2524	.2669	.2855
BIC	8,919	8,730	8,542	8,379

* $p < .05$ two-tailed

Note: *z*-statistic in parentheses. Data come from the March-CPS outgoing rotation group for appropriate year. All models include variables from Table 1. The reference category for all models is nonimmigrant whites. Models weighted with the appropriate CPS weights. BICs calculated without weights. See Appendix A for results of interactions between year and the immigrant subcategories from a pooled model of 2007, 2008, and 2009.

Table 3: Odds Ratios of Interactions Between Year and Race/Ethnic Subcategories From Pooled Data 2007-2009

	Labor Market Position	Firm Size
Immigrant Race		
White Immigrant 2008	.847	.852
	(-.53)	(-.51)
White Immigrant 2009	1.423	1.343
	(1.16)	(.98)
African American 2008	.753	.742
	(-1.68)	(-1.76)
African American 2009	.834	.803
	(-1.08)	(-1.30)
Black Immigrant 2008	1.499	1.450
	(.86)	(.79)
Black Immigrant 2009	1.860	1.763
	(1.36)	(1.26)
Hispanic non-immigrant 2008	1.059	1.079
	(.29)	(.36)
Hispanic non-immigrant 2009	.981	.966
	(-.09)	(-.16)
Hispanic immigrant 2008	.804	.838
	(-1.10)	(-.88)
Hispanic immigrant 2009	.562	.579
	(-2.73)*	(2.53)*
Other non-immigrant 2008	.818	.829
	(-.67)	(-.61)
Other non-immigrant 2009	1.436	1.445
	(-1.30)	(1.28)
Other immigrant 2008	.911	.894
	(-.31)	(-.36)
Other immigrant 2009	1.372	1.371
	(1.14)	(1.12)
N	40,559	40,559
McFadden's	.2382	.2596
BIC	25,295	24,702

Table 3 Continued

	Labor Market Position	Firm Size
Years Entry		
Nonimmigrant Hispanic 2008	1.059	1.078
	(.28)	(.36)
Nonimmigrant Hispanic 2009	.981	.966
	(-.10)	(-.16)
Hispanic 20+ 2008	.659	.686
	(-1.45)	(-1.33)
Hispanic 20+ 2009	.381	.383
	(-2.89)*	(-2.85)*
Hispanic 10-20 2008	.556	.554
	(-1.50)	(-1.49)
Hispanic 10-20 2009	.734	.734
	(-.87)	(-.84)
Hispanic 5-10 2008	1.124	1.316
	(.23)	(.53)
Hispanic 5-10 2009	.650	.724
	(-.82)	(-.84)
Hispanic 0-5 2008	1.755	1.774
	(.91)	(.88)
Hispanic 0-5 2009	.415	.466
	(-.99)	(-.85)
N	40,559	40,559
McFadden's	.2395	.2608
BIC	25,360	24,770
Citizenship		
Hispanic nonimmigrant 2008	1.058	1.077
	(.28)	(.36)
Hispanic nonimmigrant 2009	.981	.966
	(-.10)	(-.17)
Hispanic immigrant citizen 2008	.811	.849
	(-.68)	(-.53)
Hispanic immigrant citizen 2009	.457	.453
	(-2.33)*	(-2.32)*
Hispanic immigrant noncitizen 2008	.735	.771
	(-1.14)	(-.96)
Hispanic immigrant noncitizen 2009	.583	.621
	(1.98)*	(-1.72)
N	40,559	40,559
McFadden's	.2391	.2604
BIC	25,307	24,717

Table 3 Continued

	Labor Market Position	Firm Size
Nationality		
Hispanic Nonimmigrant, non-Mexican 2008	.993 (-.02)	1.001 (0.00)
Hispanic Nonimmigrant, non-Mexican 2009	1.268 (.78)	1.259 (.72)
Hispanic Immigrant, non-Mexican 2008	.632 (-1.42)	.635 (-1.40)
Hispanic Immigrant, non-Mexican 2009	.461 (-2.33)*	.470 (-2.25)*
Mexican Nonimmigrant 2008	1.104 (.39)	1.130 (.46)
Mexican Nonimmigrant 2009	.841 (-.67)	.823 (-.72)
Mexican Immigrant 2008	.935 (-.27)	.997 (-.01)
Mexican Immigrant 2009	.644 (1.64)	.667 (-1.47)
N	40,559	40,559
McFadden's	.2384	.2599
BIC	25,350	24,756

* $p < .05$ two-tailed

Notes: *z*-statistic in parentheses. Data come from the March-CPS outgoing rotation group for appropriate year. Models weighted with the appropriate CPS weights. BICs calculated without weights. All Models control for the labor market position and firm size variables defined by RK and the immigrant subcategories and year.

Table 4: Interaction Effects Predicting the Odds of Unionization Between the Co-Racial/Ethnic Unemployment Rate from the Previous Year and Immigrant Subcategories, 1994-2011

	Labor Market		Firm Size	
	1994-2007	1994-2011	1994-2007	1994-2011
Immigrant Race				
Unemployment Rate	.976 (-.46)	1.063 (1.98)*	.978 (-.41)	1.062 (1.91)
White Immigrant* Unemployment	.947 (-.73)	.982 (-.47)	.928 (-.97)	.980 (-.51)
African American* Unemployment	1.070 (1.90)	.967 (-1.87)	1.083 (2.19)*	.972 (-1.54)
Black Immigrant* Unemployment	.996 (-.05)	.961 (-1.12)	.961 (-.57)	.964 (-1.01)
Hispanic non-immigrant* Unemployment	1.028 (.60)	.977 (-1.10)	1.021 (.44)	.977 (-1.04)
Hispanic immigrant* Unemployment	1.009 (.20)	.942 (-2.73)*	1.014 (.29)	.942 (-2.65)*
Other non-immigrant* Unemployment	.991 (-.16)	.983 (-.51)	1.002 (.03)	.981 (-.56)
Other immigrant* Unemployment	1.066 (1.16)	.984 (-.50)	1.053 (.93)	.982 (-.55)
N	203,585	256,480	200,294	252,104
McFadden's R^2	.2309	.2330	.2518	.2534
BIC	130,762	162,096	126,102	156,321

Table 4 Continued

	Labor Market		Firm Size	
	1994-2007	1994-2011	1994-2007	1994-2011
Years Entry				
Unemployment	.985	1.075	.987	1.072
Rate	(-.27)	(2.36)*	(-.25)	(2.22)*
Nonimmigrant	1.021	.972	1.014	.973
Hispanic*	(.45)	(-1.35)	(.30)	(-1.25)
Unemployment				
Hispanic 20+*	.961	.910	.958	.909
Unemployment	(-.69)	(-3.33)*	(-.72)	(-3.31)*
Hispanic 10-20*	1.093	.973	1.088	.970
Unemployment	(1.42)	(-.82)	(1.29)	(-.89)
Hispanic 5-10*	1.008	.963	1.036	.961
Unemployment	(.10)	(-.76)	(.44)	(-.78)
Hispanic 0-5*	.954	.858	.976	.888
Unemployment	(-.55)	(-2.47)*	(-.27)	(-1.88)
N	203,585	256,480	200,294	252,104
McFadden's R^2	.2316	.2337	.2524	.2539
BIC	130,752	162,081	126,102	156,316
Citizenship				
Unemployment	.981	1.078	.981	1.075
	(-.36)	(2.44)*	(-.34)	(2.29)*
Hispanic	1.025	.971	1.018	.972
Nonimmigrant*	(.53)	(-1.39)	(.38)	(-1.29)
unemp				
Hispanic	1.033	.962	1.026	.956
Immigrant	(.53)	(-1.35)	(.42)	(-1.55)
Citizen*unemp				
Hispanic	1.012	.909	1.021	.914
Immigrant	(.24)	(-3.45)*	(.39)	(-3.17)*
Noncitizen*unemp				
N	203,585	256,480	200,294	252,104
McFadden's R^2	.2314	.2337	.2524	.2539
BIC	130,730	162,025	126,085	156,275

Table 4 Continued

	Labor Market		Firm Size	
	1994-2007	1994-2011	1994-2007	1994-2011
Nationality				
Unemployment Rate	.977 (-.43)	1.062 (1.97)*	.980 (-.38)	1.061 (1.90)
Hispanic Nonimmigrant Non-Mexican* Unemployment	.985 (-.27)	.957 (-1.52)	.970 (-.54)	.950 (-1.72)
Hispanic Immigrant, Non-Mexican* Unemployment	1.048 (.85)	.938 (-2.15)*	1.036 (.62)	.936 (-2.17)*
Mexican Nonimmigrant* Unemployment	1.053 (1.01)	.989 (-.44)	1.051 (.93)	.994 (-.22)
Mexican Immigrant* Unemployment	.981 (-.36)	.944 (-2.18)*	.997 (-.06)	.946 (-2.06)*
N	203,585	256,480	200,294	252,104
McFadden's R^2	.2310	.2331	.2519	.2534
BIC	130,800	162,140	126,140	156,363

* $p < .05$ two-tailed

Note: *z*-statistic in parentheses. Data come from the March-CPS outgoing rotation group for appropriate year. The unemployment rate is calculated for four race/ethnic categories (white, black, Hispanic, other) for people aged 18-65 using the MORG to give the annualized unemployment rate. The independent variable is lagged one year from the unemployment rate to help prevent reverse causation since unions emphasize economic gains that may result in a disemployment effect. All models include variables from Table 1. The reference category for all models is nonimmigrant whites. Models weighted with the appropriate CPS weights. BICs calculated without weights.

Table 5: Odds Ratios for Multinomial Regression for Leaving a Union (As Opposed to Staying in a Union) in a One Year Period

	Labor Market Position			Includes Change in Occupation and Industry			Limited to Stable Occupation and Industry		
	2004-2006	2006-2008	2008-2010	2004-2006	2006-2008	2008-2010	2004-2006	2006-2008	2008-2010
White Immigrant	1.694	1.630	2.270	1.684	1.638	2.207	1.537	1.769	2.325
	(4.07)*	(3.43)*	(6.17)*	(3.99)*	(3.43)*	(5.95)*	(2.69)*	(3.47)*	(5.38)*
African American	1.218	1.485	1.470	1.172	1.411	1.427	1.138	1.383	1.472
	(2.58)*	(5.22)*	(4.92)*	(2.06)*	(4.50)*	(4.52)*	(1.40)	(3.50)*	(4.24)*
Black Immigrant	1.954	1.300	1.902	1.869	1.215	1.821	1.726	1.612	1.773
	(3.66)*	(1.56)	(3.70)*	(3.40)*	(1.13)	(3.47)*	(2.35)*	(2.37)*	(2.84)*
Hispanic Nonimmigrant	1.290	1.514	1.350	1.280	1.475	1.331	1.200	1.530	1.305
	(2.71)*	(4.63)*	(3.30)*	(2.61)*	(4.31)*	(3.13)*	(1.59)	(3.94)*	(2.44)*
Hispanic Immigrant	1.799	1.725	1.942	1.798	1.695	1.923	1.774	1.774	2.127
	(5.27)*	(4.98)*	(6.11)*	(5.25)*	(4.79)*	(5.99)*	(4.23)*	(4.25)*	(5.84)*
Other Nonimmigrant	1.249	1.331	1.008	1.207	1.282	.990	1.166	1.376	.958
	(3.66)*	(4.42)*	(.06)	(1.49)	(1.98)*	(-.08)	(.99)	(2.06)*	(-.27)
Other Immigrant	1.249	1.752	1.828	1.974	1.715	1.827	2.192	1.708	2.001
	(1.76)	(4.42)*	(5.22)*	(5.41)*	(4.23)*	(5.18)*	(5.31)*	(3.54)*	(5.14)*
<u>Selected Industries</u>									
Construction	.566	.576	1.182	.624	.615	1.264	.415	.437	.483
	(-1.51)	(-1.35)	(.43)	(-1.22)	(-1.18)	(.59)	(-1.68)	(-1.47)	(-1.47)
Manufacturing Durables	.630	.555	1.257	.681	.593	1.365	.404	.415	.583
	(-1.23)	(-1.44)	(.59)	(-1.00)	(-1.27)	(.79)	(-1.74)	(-1.56)	(-1.09)
Manufacturing Non-Durables	.659	.603	1.358	.677	.604	1.436	.448	.501	.584
	(-1.10)	(-1.22)	(.78)	(-1.01)	(-1.21)	(.91)	(-1.53)	(-1.22)	(-1.08)
Transportation	.541	.537	1.197	.612	.592	1.368	.383	.439	.615
	(-1.64)	(-1.52)	(.47)	(-1.28)	(-1.28)	(.80)	(-1.86)	(-1.46)	(-1.00)
Public Administration	.763	.679	1.760	.811	.707	1.856	.576	.545	.882
	(-.72)	(-.95)	(1.46)	(-.55)	(-.85)	(1.58)	(-1.07)	(-1.08)	(-.26)
N	101,776	102,621	100,573	101,776	102,621	101,573	68,921	68,692	69,984
McFadden R^2	.1672	.1660	.1789	.1751	.1738	.1849	.1869	.1880	.1971
BIC	115,091	114,510	110,432	114,116	113,524	109,690	81,320	80,134	79,579

Table 5 Continued

	Labor Market Position			Includes Change in Occupation and Industry			Limited to Stable Occupation and Industry		
	2004-2006	2006-2008	2008-2010	2004-2006	2006-2008	2008-2010	2004-2006	2006-2008	2008-2010
Year Entry									
Nonimmigrant	1.274	1.501	1.347	1.265	1.462	1.328	1.183	1.515	1.300
Hispanic	(2.58)*	(4.54)*	(3.58)*	(2.49)*	(4.21)*	(3.11)*	(1.46)	(3.84)*	(2.40)*
Hispanic 20+	1.523	1.362	1.719	1.515	1.349	1.707	1.559	1.447	1.768
	(2.85)*	(2.11)*	(4.03)*	(2.80)*	(2.01)*	(3.95)*	(2.52)*	(1.99)*	(3.50)*
Hispanic 10-20	1.451	2.018	2.113	1.448	1.970	2.118	1.169	2.163	3.065
	(1.90)	(3.41)*	(3.62)*	(1.89)	(3.29)*	(3.59)*	(.60)	(3.11)*	(4.66)*
Hispanic 5-10	2.235	2.413	2.991	2.323	2.373	2.770	2.882	1.794	2.096
	(2.48)*	(3.59)*	(3.54)*	(2.58)*	(3.52)*	(3.36)*	(2.83)*	(1.93)	(1.90)
Hispanic 0-5	4.023	1.991	4.676	4.029	1.841	4.742	2.869	2.013	4.159
	(4.04)*	(1.92)	(3.52)*	(4.09)*	(1.70)	(3.57)*	(2.65)*	(1.66)	(2.74)*
N	101,776	102,621	100,573	101,776	102,621	100,573	68,921	68,692	69,984
McFadden R^2	.1678	.1665	.1797	.1757	.1742	.1857	.1875	.1882	.1979
BIC	115,141	114,563	110,455	114,166	113,578	109,714	81,380	80,213	79,646

Table 5 Continued

	Labor Market Position			Includes Change in Occupation and Industry			Limited to Stable Occupation and Industry		
	2004-2006	2006-2008	2008-2010	2004-2006	2006-2008	2008-2010	2004-2006	2006-2008	2008-2010
Citizenship									
Hispanic Nonimmigrant	1.292	1.516	1.351	1.282	1.478	1.333	1.204	1.533	1.306
	(2.72)*	(4.65)*	(3.31)*	(2.64)*	(4.33)*	(3.15)*	(1.62)	(3.95)*	(2.44)*
Hispanic Immigrant Citizen	1.501	1.312	1.639	1.447	1.277	1.605	1.345	1.351	1.827
	(2.84)*	(1.89)	(3.72)*	(2.59)*	(1.69)	(3.52)*	(1.68)	(1.69)	(3.79)*
Hispanic Immigrant Non-Citizen	2.277	2.481	2.656	2.340	2.452	2.645	2.448	2.493	2.803
	(5.36)*	(6.06)*	(6.03)*	(5.49)*	(5.94)*	(6.00)*	(4.80)*	(4.94)*	(5.39)*
N	101,776	102,621	100,573	101,776	102,621	100,573	68,921	68,692	69,984
McFadden R^2	.1677	.1667	.1795	.1756	.1745	.1855	.1874	.1886	.1978
BIC	115,085	114,488	110,395	114,108	113,501	109,652	81,323	80,130	79,580

Appendix A: Model for Job Loss

Table A1: Odds Ratios Predicting that an Employed Worker Transitions into Unemployment in a One-Year Period

	2004-06	2006-08	2008-10
Union	.995	.804	.882
	(-.06)	(-2.56)*	(-2.12)*
Race (White Ref.)			
Black	1.622	1.600	1.737
	(5.93)*	(6.25)*	(9.71)*
Hispanic	1.083	.908	1.063
	(.97)	(-1.27)	(1.10)
Other Race	1.199	1.056	1.108
	(1.70)	(.54)	(1.38)
Male	.941	1.059	1.078
	(-1.02)	(1.04)	(1.81)
Married	.625	.594	.650
	(-8.63)*	(-10.35)*	(-11.47)*
Age (exper)	.989	.965	.982
	(-1.25)	(-4.35)*	(-2.93)*
Age sq (exper squared)	1.000	1.000	1.000
	(.45)	(3.41)*	(2.37)*
Education (<HS ref)			
HS	.876	.744	.800
	(-1.57)	(-3.92)*	(-3.74)*
Some College	.671	.607	.736
	(-4.35)*	(-6.20)*	(-4.79)*
B.A. +	.616	.505	.580
	(-4.51)*	(-6.98)*	(-7.19)*
Private Sector	1.578	1.416	1.809
	(3.81)*	(3.34)*	(7.21)*
Occupation (Professional/managerial reference)			
Farm/forestry/fishery	1.658	1.421	.882
	(1.94)	(1.24)	(-.57)
Production/craft/	1.469	1.350	1.338
Repair	(4.14)*	(3.60)*	(4.95)*
Service occupations	1.311	1.247	1.149
	(3.45)*	(3.09)*	(2.63)*

Table A1 Continued

	2004-06	2006-08	2008-10
Industry (Ag ref.)			
Mining	.098	.877	1.014
	(-3.32)*	(-.36)	(.06)
Construction	.923	1.610	1.379
	(-.36)	(2.10)*	(2.03)*
Manu. Durables	.707	1.116	.958
	(-1.58)	(.48)	(-.27)
Manu. Non-Dura	.663	.964	.653
	(-1.79)	(-.15)	(-2.54)*
Transportation	.385	.908	.603
	(-3.75)*	(-.39)	(-2.96)*
Communications	.864	.955	.785
	(-.56)	(-.17)	(-1.26)
Utilities	.391	.532	.391
	(-2.74)*	(-1.82)	(-3.97)*
Wholesale Trade	.619	.813	.620
	(-1.90)	(-.82)	(-2.68)*
Retail Trade	.895	1.040	.627
	(-.53)	(.18)	(-3.04)*
FIRE	.569	1.037	.565
	(-2.43)*	(.15)	(-3.43)*
Business Repair	.939	1.184	.873
	(-.28)	(.73)	(-.83)
Personal Services	.751	1.003	.612
	(-1.23)	(.01)	(-2.82)*
Rec./entertain	1.019	1.025	.603
	(.07)	(.09)	(-2.62)*
Professional Ser.	.532	.728	.477
	(-2.93)*	(-1.42)	(-4.73)*
Public Admin.	.510	.434	.287
	(-2.39)*	(-2.84)*	(-5.70)*
Unclassified	.494	1.078	.530
	(-1.65)	(.20)	(-1.99)*
Region/metro/year	Yes	Yes	Yes
N	105,533	106,022	105,174

* $p < .05$

Note: *z*-statistic in parentheses. Data come from the CPS-MORG Matching for appropriate years. Models weighted with the appropriate CPS weights.