The Effects of Workgroup Gender Composition on Unionization and Union Strength

Masters Thesis

Presented in Partial Fulfillment of the Requirements for the Degree of Master of Arts in the Graduate School of The Ohio State University

By

Nicholas A. Jordan, B.A.

Graduate Program in Sociology

The Ohio State University
2010

Thesis Committee:

J. Craig Jenkins, Advisor
Edward M. Crenshaw
Andrew Martin
Randy Hodson
Copyright by

Nicholas A. Jordan

2010
Abstract

Why are women less like to be union members, yet more likely to desire union representation? Most available explanations for this emphasize the supply side, especially the resources and job characteristics of female workers. This study examines a more structural explanation: That female dominated workplaces are less like to become unionized, and more likely to have weaker unions, because of gender stratification. The Williams/Acker theory of gendered organizations suggests that this is at least partly due to gender bias embedded at the organizational level. This reflects the devaluing of “women’s work” which targets workplaces as well as occupations in which women constitute a major share of the workers. Drawing on the Workplace Ethnography dataset, we analyze the effects of workgroup gender composition on unionization and union strength along with a range of standard controls for the resources and job characteristics of workers. The percentage of female workers is shown to significantly reduce the likelihood of unionization, as well as decreasing the likelihood of forming a stronger union. These show net of controls for the average level of worker seniority and education, local unemployment levels, paternalistic management, as well as size of the workplace, occupational skills of the workers, and locally owned companies. These findings indicate that gender is operating independent of the individual actors to present further obstacles to female union membership. So, while women are attitudinally more supportive of unionization, the larger system of gender stratification hinders women’s access to the benefits that unionization can provide.
Dedication

Dedicated to my Aunt Verna
Acknowledgments

I’d like to acknowledge my advisor, J. Craig Jenkins, and my Thesis Committee of Edward Crenshaw, Andrew Martin, and Randy Hodson for their guidance and assistance. I’d also like to thank my family for their patience.
Vita

June 1998……………………………….GED, Warren County Career Center

2005……………………………………A.A., Columbus State Community College

2008……………………………………B.A., Sociology & Strategic Communications,
   The Ohio State University

2008 to Present…………………………University and National Science Foundation
   Fellow, Department Of Sociology,
   The Ohio State University

Fields of Study

Major Field: Sociology
# Table of Contents

Abstract ........................................................................................................................................... ii

Dedication ........................................................................................................................................ iii

Acknowledgments .................................................................................................................. iv

Vita .................................................................................................................................................. v

List of Tables ............................................................................................................................. vi

Introduction ..................................................................................................................................... 1

Literature Review .................................................................................................................... 3

Methodology ............................................................................................................................ 13

Results .......................................................................................................................................... 18

Discussion .................................................................................................................................... 22

Conclusion ..................................................................................................................................... 24

References ................................................................................................................................. 25

Appendix A: Tables .................................................................................................................... 28
List of Tables

Table 1. Variable Description ................................................................. Page 26
Table 2. Imputation Steps ................................................................. Page 27
Table 3. Final Models ................................................................. Page 28
Introduction

The ability to unionize has been one of the most important freedoms that workers in western democracies have fought for and won. Unions have helped usher in a new era for labor, relative to the conditions workers have experienced throughout the majority of labor history. Over the preceding century, workers have seen the implementation of minimum wages, maximum workweeks, paid benefits, improved workplace conditions, significantly higher wages, and a higher level of job stability. Unfortunately, the impact of these improvements has not been fully realized by all members of our society. Women throughout the history of labor have occupied poorer paying, less prestigious, positions that have afforded them less job security, wages, benefits, and respect (Budig, 2004). While this association has been well documented and studied over the previous few decades, it has only been recently that this relationship has been analyzed by applying a gender perspective to the organizations involved.

Much research has analyzed the association between gender and numerous indicators of labor force participation and work conditions. This research is at a near consensus that women have lower levels of employment, receive fewer job offers, lower pay, fewer benefits and promotions, less job security, and higher levels of workplace abuse throughout most of the industrialized world (Mills, 2003; Gangl, 2005). While this is certainly important, more recently scholars have begun questioning the traditionally held view that work organizations and unions are gender neutral, rather positing that
masculinity and patriarchy are embedded at the organizational level. These influence a wide range of factors, from the process of production and management decision protocols to choices of leadership and contract bargaining priorities (Acker, 1990; Williams 1992; Budig, 2004). This is an important distinction to make, as it significantly alters the intent and types of questions research focuses on. It is the difference between looking for variables that will explain away the relationship for gender, to one that is using gender to explain away other relationships.

While it is accepted knowledge that fewer women belong to unions, recent research suggests that women are both more supportive of unions, and express greater desire for union representation. This disconnect between individual preference and aggregate reality certainly raises concerns about what processes are hindering working women’s ability to engage in collective action. There are many variables that have been shown to impact unionization, from numerous theoretical and disciplinary perspectives, however, this association between unionization and gender remains persistent and ambiguous. The impetus of this research is thus twofold: 1) to shed further light on the relationship between gender, capital, and unionization, and 2) to make the case that increasing proportions of female workers, at the aggregate level, decreases the likelihood of unionization.
Literature Review

Gender As Social Structure

The nature of the question being asked here requires an operationalization of gender as an independent social structure or institution. In 2004, Patricia Martin and Barbara Risman published two separate articles with compelling arguments for the operationalization of gender in this manner. While there are semantic differences between the cases being made by these respective authors, the content of their claims are largely similar. Both of these researchers are making the case that refusing to acknowledge the aspects of gender that operate outside of the individual severely limits the scope, utility, and explanatory power of gender research. This is an extraordinarily important distinction to make, as without it, gender is difficult to study through a sociological paradigm. This perspective serves as the basis for the theoretical direction and expectations of this research.

In addition to this, we will use the principles laid out by the Williams/Acker theory of gendered organizations (Acker, 1990; Williams, 1992 & 1995). This theory suggests that organizational structure is, and has been, embedded with masculine ideology and symbolism since its inception. This has led to a systematic advantage being afforded to male workers, not necessarily because of any latent or overt discrimination, rather because the average actual male worker has historically more closely resembled what capital would consider being the "ideal-worker" (Budig, 2002). Stated differently,
the average woman typically has different expectations and responsibilities placed on her, both inside and outside of the workplace, than does the average man. The cumulative result of this process, both spatially and temporally, is an organizational structure that favors the traits typically held by men, as they more closely align with the organization’s procedures, expectations, and goals. Applying this to our case of unionization, the theory would suggest that unions, as a historically gendered organization, would have embedded structural factors that hinder both their ability to recruit, service, and integrate women, as well as women’s ability to seek out their representation.

In her 2002 article Michelle Budig theoretically analyzed the Williams/Acker theory of gendered organizations in comparison with Kanter’s theory of tokenism. Kanter’s theory of tokenism would suggest that both men and women would be at a competitive disadvantage in workplaces where they were a distinct minority. This theory had been supported by significant body of literature suggesting a "glass- ceiling" effect on women holding traditionally masculine jobs, such that their career advancement was negatively impacted by their "token" status as a woman holding a ‘man's’ job. However, as Budig suggests, for the theory of tokenism to be theoretically accurate the same disadvantage must hold for a man in the traditionally feminine job. What Budig finds is just the opposite, that male tokens share similar advantages to other men in the workforce in terms of pay, and a slightly smaller advantage in terms of promotions, showing that male tokens are advantaged, not disadvantaged, relative to women in their workplaces. These results are further supported by Hultin (2003), producing similar results. This “glass- escalator” (Budig, 2002) effect for male tokens would seem to strongly support the theoretical arguments being made by the Williams/Acker theory of gendered
organizations, suggesting the worker’s gender status is far more influential than their token status, pointing to a clearly gendered nature to these organizations.

Women, Labor, & Working Conditions

Women occupy a disadvantageous position in the labor markets of industrialized society, having access to positions that are sub-standard, relative to a similarly resourced male, across a range of indicators. This has proven a consistent relationship that, despite popular opinion, has seen little attenuation over time (Mills, 2003; Gangl, 2005). Women in this labor market are likely to see, relative to their male counterparts, lower pay, less job stability, fewer raises and promotions, and greater levels of discrimination and harassment (Christopher et al, 2002; Helmbold & Schofield, 1989; Darity Jr. & Mason, 1998), all while having higher grades, graduation, and college matriculation rates (Sadker & Sadker, 1994; Mickelson, 2000). Numerous scholars and disciplines have attempted to explain this phenomenon, attributing the female position to lower levels of experience and seniority, less job attachment, higher levels of part-time employment, industry centralization of female employees, and sexual harassment and discrimination (Welsh, 1999; Gangl, 2005; Stier, et al, 2001). All of these attempts, however, are geared toward showing that it is really a matter of resources that are hindering women’s workplace opportunities, rather than gender itself being a social structure that is independently reducing their potential to address these grievances.
Women & Unions

While there has been a steady decline in the unionization disparity between men and women, this gap has been consistent throughout union history. However, over the last 20 years research has begun to show that while there is still a disparity between the proportion of male and female workers who are union members, this is not the case in terms of attitudes about, and support for, unions. Rather, just the opposite appears to be the case, that women, when surveyed, show both stronger support for unions and a greater desire for union representation. Schur & Krus (1992) found that women were not only more supportive of unions, but that when given the opportunity women were just as, if not more, likely to vote for union representation. They attribute the primary responsibility for the lower level of female unionization as being “…not from lower interests in unions, but from barriers to unionization faced by women.” Charolette Yates (2006) finds that not only are union drives more likely to succeed in predominately female workplaces, but also that there are no public-private sector differences in the success of union drives between genders and that employers use fewer anti-unionization tactics in predominately female workplaces. This last point is important, as it would seem to suggest that women may have some embedded structural advantages due to stereotypes of gender, and could be partially responsible for the higher success rates of union votes in predominately female workgroups. Nonetheless, women are still less likely to be union members and female dominated workgroups are less likely to be unionized.

Before proceeding, however, it is important to review the impact that unionization has on paid labor, in general, and if unions provide any benefits for women, more
specifically. Buchmueller et al. (2002) finds that while union effect on probability of an individual having health care coverage has slightly decreased, union members are increasingly more likely to sign up for offered plans, compared to non-union employees. Krecker and O’Rand (1991) show that unionization increases the probability of receiving protective structures (such as a pension) from an employer, especially for employees in smaller firms. The study also finds that these effects are significant for unions less than a decade old, indicating that there is certainly the potential for immediate benefit from the decision to unionize. The U.S. Bureau of Labor Statistics, for the year 2008, reports that non-union employees earn 22% less weekly than do union members, on average. While it seems rather clear that unions have many positive effects in general, scholars remain sharply divided on its impacts on gender equity.

Joan Acker, 1989, argues that unions are organizations that represent the interests of their predominately male workers, whose best interests lie in ensuring that there are numerous jobs and someone at home to tend to family requirements, allowing them a stronger commitment to labor and the union. However, Marion Crain (1992) suggests a more hopeful view of the potential role unions could have, that “feminized labor unions could…politicize gender issues and transform the structures of work and family.” I would suggest that unions are subject to the organizational constraints put in place by those who have initiated and maintained them, a group that has historically been comprised predominately of men (Mills, 2003; Gangl, 2005). However, unions not only operate through a democratic election process, but are started, controlled, and administered at the workshop level. This would seem to indicate that there is certainly a
potential there for unions to positively impact workplace gender inequality, given the appropriate priority structure.

So, do unions spell doom for women hoping for greater workplace equality? Or do they provide an opportunity for women to address grievances? Elvira & Saporta (2001) find support for both. Their analysis of the gender wage gap between nine different American manufacturing industries finds that unionization not only significantly reduces the wage gap in six of nine industries, but it provides greater gains for female workers, relative to men. However, the other three industries showed no signs of a union impact for women employees, in terms of a reduction in inequality. The authors suggest that factors including the gender composition of the occupation, as well as the characteristics of individual unions, are impacting the other three. Doiran & Riddell (1994) produce similarly supportive findings. In their analysis of the wage gap in Canada, they are able to show that the reduction in the gender unionization gap has helped prevent a further increase of 7% in the gender pay gap, while also showing that the gender pay gap is significantly higher for women in non-union occupations. The U.S. Bureau of Labor Statistics (2008) shows that women receive a double benefit from unions, in terms of gender pay equity. Not only do women receive a greater bump in pay for being a union member (24%, compared to 19% for men), but that there is also greater equality in pay between union men and women than there is between non-union men and women.

**Where We’re At**

These findings are important, as they support the contention that unions have the potential to not only provide gains for all workers, in terms of both overall pay and
benefits, but can help increasing gender pay equity in the workplace as well. Having had mixed effects on gender equity issues historically need not be attributed to unions, per se, rather to the decisions and priorities put in place by organizational management. There is no doubt that if gender equity were made the number one priority for a union, then there would be significant and immediate improvement. However, as Acker (1989) explains, this priority structure is not always in place. Acker shows that capital often uses gender pay equity as a bargaining chip, offering to provide resources to attenuate the gender pay gap, in exchange for slower or no pay increases for male employees. What is clear is that, while historically having mixed results, unions have the potential to provide women with an opportunity to have their grievances with workplace issues addressed.

So, we have a female workforce that is in just as much, if not more, need than any other single demographic in American society for the benefits that unions have been shown to provide to their members. These workers are also more likely to support, desire, and vote for union representation than their male counterparts. However, they are still less likely to be union members (US Bureau of Labor Statistics, 2008). There are two potential causes of this decreased likelihood of female union membership, given both their stronger desire and greater potential benefits. The first is that the resources available to the average woman would place anyone at a significantly increased risk of not having union representation, regardless of gender. The second potential cause of this phenomenon is that the gendered nature of organizations constrains both women's ability to fill the ideal worker's role, and the workplace’s ability to allow fluidity in this distinction. This places women at a disadvantage in workplaces and unions, due to the manner in which these organizations are structured, so as to devalue more feminine traits.
The literature presented thus far would strongly suggest that there is an argument to be made that resources are decreasing women’s likelihood of unionization. The aim here is to strengthen the argument that not only do the resources available to the average woman reduce their individual likelihood of unionization, but that the gendered nature of organizations reduces this likelihood as well.

Variables of Interest

As previously mentioned, the dependent variables for our analysis will be a dichotomous measure of unionization and a categorical measure of union strength. Our key independent variable will be a continuous measure of gender composition of the workgroup. This variable will act as a proxy to test the Williams/Acker theory of gendered organizations. If this theory holds, we should anticipate seeing a significant and negative relationship between this and both unionization and union strength. The first hypothesis is structured to capture gender disadvantage originating from the unions, where as the second will show this from the employer level.

This leads to the following research hypotheses:

H1: There will be an inverse relationship between the odds of a workgroup being unionized, and the proportion of that workgroup that is female.

H2: There will be an inverse relationship between the proportion of a workgroup that is female, and the odds of increased union strength.
Additionally, we will introduce a host of other theoretically relevant controls. Windolf & Haas (1989) indicate that there is a positive relationship between firm size, unionization, and union strength. I will use a raw measure of the number of workers at the location to control for this. Job security and worker seniority have both been positively linked with unionization, and negatively linked with female workers, so a measure of mean worker seniority in the workgroup will be included. We will also introduce dichotomous measures indicating whether there is a strict gender division of labor & paternalistic management (Windolf & Haas, 1989; Sutton, 1980). These measures are intended to control for what would be considered more overt adherence to traditional gender norms. This will provide a higher degree of confidence that our key variable is measuring latent gender discrimination that is embedded in the organizational structure.

It has long been held that union organization is more difficult for both unskilled labor and in professional/management occupations (Jenkins & Perrow, 1977; Adler, 1993). For this we will use a series of dummy variables to control for occupation. The social movement literature would suggest that grievances, group resources, and an opening in the decision-making structure are all important determinants of collective action (Jenkins, 1983; McAdam, 1983). We will use mean education level and the workgroup and community unemployment level to control for the availability of resources. Higher levels of education are positively associated with having both greater financial resources and more individual and collective knowledge with which to mount a challenge. The unemployment level will control for the availability of external resources. We will also use a dichotomous measure indicating local ownership of the firm, as
having local decision-makers would present a greater opportunity for a union to have their grievances heard directly. Finally, to control for the potential presence of grievances, we will use a measure of quality of leadership, with the inference that poor leadership (measured specifically as poor short-term goal setting and long-term strategic planning) would deteriorate the workplace environment and lead to higher levels of grievances. We will also control for the year the study ended. A detailed description of all variables, scales, and missing values to be imputed is available in Table 1.
Methodology

Data

The primary difficulty in ascertaining the effects of gender as an independent social structure is finding a data set that will not only provide data on unionization and workgroup gender composition, but also access to the theoretical controls necessary for this type of analysis. This is what makes The Workplace Ethnography Data Set uniquely suited to analyze our research question, providing the level of depth and nuance typically associated with qualitative research, in a format suitable for our quantitative analysis. This dataset is composed of 212 workplace ethnographies. Each ethnography is full book length, focuses on a specific workgroup inside of the work location, and the investigating researchers spent an average of one year in the workplace in preparation for writing. These ethnographies range in date from 1948 to 2006, with 128 being based in the United States and another 84 from additional countries. This analysis is being done solely on the US sub-sample of the dataset. These ethnographies have all been content coded, following a strict protocol, for a range of workforce, institutional, and community variables, with inter-coder reliability at 79 percent overall. The end result is a data set that allows a great deal of insight into aggregate level factors operating at the workgroup level.
**Missing Values & Data**

As with anything, there are drawbacks to using this data set. With there being an $N$ of only 128, using standard missing value deletion techniques will leave the data questionable for most methods of statistical analysis. Given this limitation, it is more appropriate to use Multiple Imputation (Rubin, 1987), allowing for a full range of controls without the concern for a reduction in statistical power. The advantage of using this method is that the final analysis is not based on a single version of what those missing values may be, rather being based on the aggregated average of multiple versions. Each imputed dataset is derived from regression based analyses using known values, while the variation between datasets takes into account random uncertainty. This method has a well-documented history of use throughout the social and behavioral sciences, at both the individual and aggregate levels of analysis (Gill, 2005; Gordon & Hafer, 2005).

While multiple imputation does provide a great deal more flexibility, there are still drawbacks and restrictions associated with it. Initially, it is ill-advised to include variables where more than 50% of the data is missing. The only variable of concern is community unemployment, which has exactly 50% missing. While this is right on the line of acceptability, it will be included, given the relatively low proportion of missing values from our other variables. Also, with each imputation being based on regression principles, colinearity in the dataset can cause potential problems with the missing value estimates being imputed. Our solution to this will be discussed forthwith. Following the
recommendation of von Hippel (2005), 10 imputations will be used. Each variable will be
given a unique linear prediction model based off of known values of itself and other
variables. Then, 10 separate imputed data sets are generated using a Monte Carlo
simulation containing 10 different versions of what those missing values could be. Each
analysis is subsequently carried out individually on each of these 10 data sets with results
being averaged into the final output (Rubin, 1987).

Analytic Strategy

Given the concerns about collinearity that arise with use of multiple imputation,
coupled with the limited size of our data set, the analysis will be carried out using a two-
step method. The first step would be akin to what you would typically find in a
regression analysis, a set of X’s on Y. The second step in our process will be to remove
any insignificant X variables from the model, re-impute the data set using significant
variables, and providing a final model based on these imputed estimates. This final step
is necessitated by use of multiple imputation. The missing values imputed using this
method are a function of linear prediction models that are based off of known values of
both the variable being imputed and other variables within the data set to be imputed.
Thus, including variables that are known to have an insignificant relationship carries with
it the potential to introduce bias towards these insignificant variables into the estimation
process. Using a step method allows us to assess concerns about both collinearity and
potential biases arising from multiple imputation. Both sets of results will be provided in
the tables. The dependent variables being used here are a dichotomous measure
indicating union presence and an ordinal measure of union strength (scored 0-3: no union,
weak, moderate, strong). Given this, two different forms of analysis will be used. To analyze the impact of the independent variables on union presence, we will use logistic regression, and ordered logistic regression will be used for the analysis of their impact on union strength. These methods also make no assumptions that the data is normally distributed.

We will explore the relationship between the proportion of a workgroup that is female, their odds of unionization, and the strength of their unions. It is important to keep in mind the distinction here between suggesting that an individual woman is less likely to be a union member, and suggesting that the density of women in a workgroup decreases the likelihood of unionization. As the literature has shown, being a woman is negatively associated with the likelihood of being a union member, at the individual level. What we are suggesting here is that the gendered nature of organizations sufficiently hinders women's ability to unionize and reduces the strength of the unions they are able to form. This is especially pertinent, given that there are several factors that, on their surface, would suggest that increased proportions of female employees in the workgroup would lead to higher levels of unionization. Not only do women report having a stronger desire for, and more favorable views of unions, but they’re more likely to vote for a union when given the opportunity. Furthermore, research has shown that businesses use fewer anti-unionization tactics when dealing with primarily female workgroups. The culmination of this evidence points to there being an underlying process at work that is systematically disadvantaging women at the aggregate level. Our analysis is designed to further disentangle this relationship and provide evidence supporting the contention that gender is the underlying process, rather than this
disadvantage being solely a function of the disadvantageous structural positions that women are more likely to occupy, external to the workplace.
Results

The results in Table 2 summarize the first two steps of the analytical process. Models 1 and 4 represent the variable block looking at workgroup characteristics, including the gender and minority composition of the workgroup, community unemployment, as well as the average worker’s level of seniority, education, and skill. Models 2 and 5 represent the variable blocks looking at organizational characteristics, including the year the study ended, paternalistic management, a gender division of labor, employer size, locally owned, quality of leadership, and occupational field of the ethnography.

The results from Model 3, in Table 3, offer strong support for our first hypothesis, showing a highly significant and negative relationship between the percentage of women in the workgroup and the workgroup’s odds of unionization. Specifically, these results suggest a 7.6 percent decrease in the odds of a workgroup being unionized for each percentage point increase in female employees, which is significant at the p< .001 level. Taken to its extreme, the odds of an all female workgroup being unionized would be 76 percent lower than that of an all-male workgroup. Furthermore, these results indicate that the relationship between workgroup gender composition and unionization is statistically stronger than any of the other theoretical controls. The significance and substantive size of these results lend strong support to the Williams/Acker theory of gendered
organizations, suggesting that gender operates independently, rather than through mediating organizational and social processes.

The results from Model 4, Table 3, offer similarly strong support for our second research hypothesis, showing an inverse significant relationship between the percentage of women in a workgroup and the odds of increasing union strength. These results specifically suggest a 4.7 percent decrease in the odds of having stronger union, for each percentage point increase in female employees, significant at the p<.01 level. Not only does this provide stronger support for the Williams/Acker theory of gendered organizations, but provides clear evidence of an additive effect of gender in the case of unionization. Female dominated workgroups, therefore, not only face significantly reduced odds of being unionized, but significantly reduced odds of forming a strong union where unionization is able to occur.

Other Variables of Interest

From the workgroup characteristics grouping, Models 1 and 4, the only consistently insignificant variable is our measurement of the average worker skill level in the workgroup. While the community unemployment variable is insignificant in Model 1, this does not hold for Model 4. To allow for comparative analysis between the determinants of unionization and union strength, this variable will be retained for our final model. In Models 2 and 5 we again have only one variable that is insignificant throughout, and another that is significant in only one. The variable for paternalistic management is insignificant, pertaining to both unionization and union strength, and is thus dropped from our final model. Similar to the unemployment variable, our measure
for quality of leadership is significant in only one of the models and will be retained for the final model. While only dropping 2 variables from our final estimation, the stepping process has allowed us to alleviate all collinearity from the multiple imputation estimation process. While Table 2 contains estimates for the Models 3 and 6, these are presented in a more streamlined fashion in Table 3.

Let us next turn to Models 3 and 6 in Table 3. The first thing noticeable is that several of our previously significant variables are rendered mute, given a full complement of controls. The variables controlling for mean educational attainment, gender division of labor, and occupational sector of the ethnography are all shown to have an insignificant impact on the probability of a workplace being unionized. As we can see, both variables controlling for overt adherence to traditional gender norms (paternalistic management and gender division of labor) are insignificant. Buttressing this finding is a lack of significance for occupation. Coupled together, these insignificant findings would certainly seem to indicate that the barriers women face to unionization are more a function of latent gender ideologies embedded at the organizational level, rather than a function of overt gender discrimination or adherence to traditional gender norms. As previously mentioned, there are two variables that show significance in one model, yet not the other. Our measure of quality of leadership shows a significant and negative relationship with unionization. However, this has no significant impact on union strength, while our control for community unemployment level shows just the opposite. These results would seem to indicate that grievances matter more for the genesis of collective action than for its continued growth and strength. The reaction of the
unemployment variable would suggest that community unemployment level acts more as a resource for capital, in terms of reducing union strength.

Throughout the course of any analysis there are difficult choices made as to which variables to include. We’d like to take this opportunity to briefly mention some theoretically relevant controls that were not included in this final analysis. Factors such as the percentage of workers who are either part-time or temporary employees, worker satisfaction, solidarity, and pay, as well as overtly paternalistic or abusive atmospheres have all garnered some support in the literature. In our analysis, all of these proved poor predictors, even in the most basic models. There could also potentially be concerns regarding characteristics of the ethnographers or the methodologies, such as their theoretical bent (human resources or feminist/critical) or gender, or the use of supplemental data in the analysis. All of these were tested with the final presented models here with no significance or impact on the substantive results.
Discussion

This research provides compelling evidence that gender operates at the aggregate level. However, there are limitations and potential sources of bias in this analysis. The first potential problem is selection bias, in terms of the firms that would choose to participate in this form of ethnographic research. However, we would suggest that bias of this form is unlikely, and if present would actually serve to strengthen the arguments being made herein. It would seem more reasonable to suggest that firms with high levels of gender inequality would be less likely to participate, rather than more likely. So, if selection bias were applicable, it would be more likely to reduce the likelihood of being the sample, not increase it. Secondly, the limited size of the data set and the use of multiple imputation certainly forced parsimony to be one of the key modeling criteria. Given that unionization is really studied at the crossroads of numerous disciplines, from sociology to economics, there were many difficult modeling decisions made in terms of theoretical controls presented in the final models. There were many controls that, while theoretically compelling, proved insignificant in their relationship with unionization.

Perhaps the most significant limitation is the data’s inability to effectively disentangle the source of influence, leaving empirically unclear whether this process is operating through employers or unions. However, the culmination of the literature and analyses presented would seem to implicate unions as the primary source of influence in regards to likelihood of unionization. Women are more likely to desire union
representation, have a higher likelihood of voting in favor of a union, and employers are less likely to run anti-unionization campaigns, combining to indicate that the gendered structure of unions has led them to organizational decisions which are negatively impacting the ability of female dominated workgroups to unionize. This is not to say that business organizations are not gendered in nature, rather that this gendered nature need not always be seen as restricting access. As this analysis makes clear, there are aspects of gender that could be harnessed, at least temporarily, to advance the ideal of equality for all workers. However, the negative relationship between gender composition and union strength is more likely to contain at least some influence from the employers. Employers being less-likely to use anti-unionization campaigns with female dominated workplaces would suggest that they view them as less serious, or at least less of a threat to organizational goals. This could certainly spill over into the negotiation rooms, in terms of the benefits and concessions that unions would be able to extract.
Conclusions

The results of the analysis presented here strongly support not only the Williams/Acker theory, but the case to operationalize gender as an independent social structure as well. While previous studies have shown that the inverse relationship between gender and unionization persists, these have primarily been done through the use of individual level survey data. Using the workgroup as the unit of analysis allows us perspective as to how gender, at the organizational level, operates and interacts with individual actors. Perhaps the greatest significance of these findings is that unionization finds its genesis at the workgroup level. Whether unionization efforts are brought to a workgroup by a third party (i.e.: a specific union), or are born through collective action at the workgroup level, this is the unit that votes for the union’s inception. These findings have the potential to make several positive contributions to not only the sociological studies of both unionization and gender, but could assist unions in better structuring and gearing their organizational decisions to get the most return on their organizing efforts. Currently, union membership numbers are on a continuous decline, in both the United States and in other industrialized nations. If unions aspire to return to a position of influence then there must be a greater emphasis placed on changing the organizational structure to better represent the majority of modern workers.
Citations


Risman, Barbara J. 2004. “Gender as a Social Structure: Theory Wrestling with Activism.” *Gender and Society*. Vol. 18 No. 4


Appendix A: Tables
<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
<th>Scale</th>
<th># Obs</th>
<th># Missing</th>
<th>% Missing</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union</td>
<td>Dichotomous</td>
<td>0=No, 1=Yes</td>
<td>128</td>
<td>0</td>
<td>0.00</td>
<td>0.39</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Union Strength</td>
<td>Categorical</td>
<td>0=None, 1=Weak, 2=Moderate, 3=Strong</td>
<td>128</td>
<td>0</td>
<td>0.00</td>
<td>0.80</td>
<td>1.17</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>% Female in Workplace</td>
<td>Continuous</td>
<td>0 - 100</td>
<td>128</td>
<td>0</td>
<td>0.00</td>
<td>28.13</td>
<td>35.17</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>% Minority in Workplace</td>
<td>Continuous</td>
<td>0 - 100</td>
<td>128</td>
<td>0</td>
<td>0.00</td>
<td>20.42</td>
<td>29.30</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Average Worker Seniority</td>
<td>Continuous</td>
<td>Median worker seniority</td>
<td>100</td>
<td>28</td>
<td>0.22</td>
<td>6.53</td>
<td>6.62</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>Average Worker Education</td>
<td>Categorical</td>
<td>0=Grade, 1=Secondary, 2=2 Year, 3=BA, 4=MA+ 0=Skill &amp; Dexterity only, 1=Some Complexity, 2=Highly Complex</td>
<td>116</td>
<td>12</td>
<td>0.09</td>
<td>1.95</td>
<td>1.27</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Average Worker Skill</td>
<td>Categorical</td>
<td>Median worker seniority</td>
<td>127</td>
<td>1</td>
<td>0.01</td>
<td>1.25</td>
<td>0.73</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Community Unemployment</td>
<td>Categorical</td>
<td>0=Low, 1=Medium, 2=High</td>
<td>64</td>
<td>64</td>
<td>0.50</td>
<td>1.14</td>
<td>0.89</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Year Study Ended</td>
<td>Continuous</td>
<td>Year study ended</td>
<td>127</td>
<td>1</td>
<td>0.01</td>
<td>1977.91</td>
<td>13.34</td>
<td>1940</td>
<td>2001</td>
</tr>
<tr>
<td>Paternalistic Management</td>
<td>Dichotomous</td>
<td>0=No, 1=Yes</td>
<td>105</td>
<td>23</td>
<td>0.18</td>
<td>0.73</td>
<td>0.44</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gender Division of Labor</td>
<td>Dichotomous</td>
<td>0=No, 1=Yes</td>
<td>121</td>
<td>7</td>
<td>0.05</td>
<td>0.17</td>
<td>0.38</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Employer Size</td>
<td>Continuous</td>
<td># of Employees at Location</td>
<td>118</td>
<td>10</td>
<td>0.06</td>
<td>2483.28</td>
<td>5672.49</td>
<td>1</td>
<td>35000</td>
</tr>
<tr>
<td>Local Owned</td>
<td>Dichotomous</td>
<td>0=No, 1=Yes</td>
<td>120</td>
<td>8</td>
<td>0.06</td>
<td>0.44</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Leader</td>
<td>Categorical</td>
<td>0=Catastrophic, 1= marginal, 2= Adequate, 3= Good, 4= Exceptional Professional/Management, Skilled Labor, Unskilled</td>
<td>122</td>
<td>6</td>
<td>0.05</td>
<td>2.10</td>
<td>1.01</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Occupation</td>
<td>Dummy</td>
<td>Labor, Service</td>
<td>128</td>
<td>0</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Variable Description
<table>
<thead>
<tr>
<th>Table 2 - Imputation Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logit Regression Predicting Union Presence</td>
</tr>
<tr>
<td>Model 1</td>
</tr>
<tr>
<td>% Female in Workplace</td>
</tr>
<tr>
<td>% Minority in Workplace</td>
</tr>
<tr>
<td>Average Worker Seniority</td>
</tr>
<tr>
<td>Average Worker Education</td>
</tr>
<tr>
<td>Average Worker Skill</td>
</tr>
<tr>
<td>Community Unemployment</td>
</tr>
<tr>
<td>Year Study Ended</td>
</tr>
<tr>
<td>Paternalistic Management</td>
</tr>
<tr>
<td>Gender Division of Labor</td>
</tr>
<tr>
<td>Employer Size</td>
</tr>
<tr>
<td>Local Owned</td>
</tr>
<tr>
<td>Leader</td>
</tr>
<tr>
<td>Occupation</td>
</tr>
<tr>
<td>Professional - Management</td>
</tr>
<tr>
<td>Unskilled Labor</td>
</tr>
<tr>
<td>Service</td>
</tr>
<tr>
<td>_cons</td>
</tr>
</tbody>
</table>

** Significant at p < .01

Both using 1-tailed T-Test.
<table>
<thead>
<tr>
<th>% Female in Workplace</th>
<th>β</th>
<th>0.079</th>
<th>0.924</th>
<th>0.001**</th>
<th>% Female in Workplace</th>
<th>β</th>
<th>-0.048</th>
<th>0.953</th>
<th>0.00**</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Minority in Workplace</td>
<td>β</td>
<td>0.061</td>
<td>1.063</td>
<td>0.02*</td>
<td>% Minority in Workplace</td>
<td>β</td>
<td>0.045</td>
<td>1.046</td>
<td>0.00**</td>
</tr>
<tr>
<td>Average Worker Seniority</td>
<td>β</td>
<td>0.210</td>
<td>1.234</td>
<td>0.045*</td>
<td>Average Worker Seniority</td>
<td>β</td>
<td>0.127</td>
<td>1.135</td>
<td>0.009*</td>
</tr>
<tr>
<td>Average Worker Education</td>
<td>β</td>
<td>-0.415</td>
<td>0.661</td>
<td>0.500</td>
<td>Average Worker Education</td>
<td>β</td>
<td>-0.635</td>
<td>0.530</td>
<td>0.151</td>
</tr>
<tr>
<td>Community Unemployment</td>
<td>β</td>
<td>-0.400</td>
<td>0.670</td>
<td>0.567</td>
<td>Community Unemployment</td>
<td>β</td>
<td>-0.890</td>
<td>0.411</td>
<td>0.02*</td>
</tr>
<tr>
<td>Year Study Ended</td>
<td>β</td>
<td>-0.106</td>
<td>0.900</td>
<td>0.044*</td>
<td>Year Study Ended</td>
<td>β</td>
<td>-0.047</td>
<td>0.954</td>
<td>0.06*</td>
</tr>
<tr>
<td>Gender Division of Labor</td>
<td>β</td>
<td>-1.784</td>
<td>0.168</td>
<td>0.237</td>
<td>Gender Division of Labor</td>
<td>β</td>
<td>-0.512</td>
<td>0.599</td>
<td>0.586</td>
</tr>
<tr>
<td>Employer Size</td>
<td>β</td>
<td>0.00031</td>
<td>1.00031</td>
<td>0.06*</td>
<td>Employer Size</td>
<td>β</td>
<td>0.00013</td>
<td>1.00013</td>
<td>0.01*</td>
</tr>
<tr>
<td>Local Owned</td>
<td>β</td>
<td>2.340</td>
<td>10.380</td>
<td>0.015*</td>
<td>Local Owned</td>
<td>β</td>
<td>2.217</td>
<td>9.183</td>
<td>0.001**</td>
</tr>
<tr>
<td>Leader</td>
<td>β</td>
<td>-1.785</td>
<td>0.168</td>
<td>0.02*</td>
<td>Leader</td>
<td>β</td>
<td>-0.373</td>
<td>0.689</td>
<td>0.240</td>
</tr>
<tr>
<td>Occupational Fields vs. Skilled</td>
<td>β</td>
<td>-2.443</td>
<td>0.087</td>
<td>0.429</td>
<td>Occupational Fields vs. Skilled</td>
<td>β</td>
<td>-0.976</td>
<td>0.377</td>
<td>0.463</td>
</tr>
<tr>
<td>Management</td>
<td>β</td>
<td>-2.770</td>
<td>0.063</td>
<td>0.366</td>
<td>Unskilled Labor</td>
<td>β</td>
<td>-1.418</td>
<td>0.242</td>
<td>0.194</td>
</tr>
<tr>
<td>Unskilled Labor</td>
<td>β</td>
<td>-0.708</td>
<td>0.493</td>
<td>0.816</td>
<td>Management</td>
<td>β</td>
<td>0.093</td>
<td>1.098</td>
<td>0.937</td>
</tr>
<tr>
<td>Service</td>
<td>β</td>
<td>212.530</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>_cons</td>
<td>β</td>
<td>10.00</td>
<td></td>
<td></td>
<td>Imputations</td>
<td>β</td>
<td>10.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum obs</td>
<td>128.00</td>
<td></td>
<td></td>
<td>Minimum obs</td>
<td>128.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum dof</td>
<td>32.70</td>
<td></td>
<td></td>
<td>Minimum dof</td>
<td>65.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at p < .05
** Significant at p < .01
Both using 1-tailed T-Test