## Shaking Things Up: Unintended Consequences of Firm Acquisitions on Inequality and Diversity

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### Shaking Things Up: Unintended Consequences of Firm Acquisitions on Inequality and Diversity

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### Abstract

Although millions of workers every year experience ownership change as their firms get acquired, it remains unclear how such an event shapes inequality in the work-place. This study addresses this question using a difference-in-differences design on a nationally representative sample covering 37,343 acquisition events from 1971 to 2015. Contrary to the common assumption, while acquisitions increase skill-based inequality, they reduce both racial and gender inequality. On the one hand, they widen the skill-based gap, leading to fewer jobs for middle managers, back-office workers, and blue-collar workers while adding more jobs for educated professionals. But on the other hand, they shake up existing arrangements and open up opportunities for racial minorities and women to move into managerial ranks and new occupations, especially in those establishments where white men have previously occupied the most central positions. This study suggests that although mergers and acquisitions favor the more skilled workers, they also produce an unintended consequence of making room for more racial and gender equality in the workplace.

**Keywords:** Diversity, Inequality, Mergers and Acquisitions

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### INTRODUCTION

Labor market inequality remains substantial in the United States. Skilled-based gap has been increasing since the 1980s due to a rising need for high-skilled workers and a dropping demand for low-skilled. The highly educated workers have seen a substantial increase in compensation and career opportunities, but earnings for those without a college degree have mostly stayed the same for the last four decades (Fligstein and Shin 2004; Kalleberg 2011). When it comes to gaps between demographic groups, although racial and gender inequality experienced a significant decline in the 1970s, progress has been stalled in recent decades. Racial and gender gap remain quite significant: based on 2017 statistics, whites and men still earn at least 20 percent more than racial minorities and women (Leicht 2008; McCall 2005).

To better understand drivers and causes of inequality, many have turned to organizations. After all, a firms structures, routines, and culture can either strengthen or reduce opportunities for various groups (Stainback, Tomaskovic-Devey, and Skaggs 2010). For instance, the adoption of new technologies generally benefits high-skilled workers at the expense of low-skilled ones. Unionization does the opposite: by protecting low-skilled workers, it helps reduce skilled-based inequality. Similarly, certain workplace arrangements, such as cross-functional teams, can reduce stereotyping and benefit racial minorities and women, while practices like flexible human resource management can increase racial and gender gap. Clearly, organizational practices can play an important role in shaping labor market inequality. (Bielby 2000; Castilla 2008; Kalev 2009; Kalev, Dobbin, and Kelly 2006; Reskin 2000).

But organizations are not static. They often go through dynamic changes caused by immense growth, bankruptcy, new ownership, and other market forces, all of which could have profound effects on their structure and routine. Perhaps the most common change is mergers and acquisitions. Last year alone the United States saw over 10,000 mergers and

acquisitions (M&A) deals with a total value equivalent to nine percent of the Gross Domestic Product. Firm acquisitions are a major event for employees. Their announcement is usually followed by a high level of anxiety among workers in the acquired establishments, as restructuring and downsizing may lead to many of them to lose jobs or move into a different position. It is estimated that more than five million workers every year experience an acquisition, and more than ten percent of all workers in the United States have experienced this transformative event in their recent career (Andrade, Mitchell, and Stafford 2001; Haveman and Cohen 1994).

Despite the frequency of M&A transactions and their apparent impact on workers, only a handful of studies have examined their impact on inequality. The voluminous M&A literature in corporate finance generally focuses on firm performance as the outcome (Andrade, Mitchell, and Stafford 2001; Blonigen and Pierce 2016; Maksimovic and Phillips 2001; Li 2013). The few studies that look at employment find that M&A deals lead to downsizing and overall wage reduction, suggesting that such events lower labor spending (Fligstein and Shin 2006; Siegel and Simons 2010). But it remains unclear how acquisition events influence different groups of workers. Do they benefit some groups at the expense of others? Do they increase or decrease workplace inequality?

Intuition suggests that ownership changes may adversely affect the less-skilled employees, as they are often let go to reduce cost after an acquisition. In fact, a recent study has shown that firms shed the more routine-based jobs after being acquired, supporting the view that M&As lead to more skill-based inequality (Ma, Ouimet, and Simintzi 2016). The story becomes less clear when it comes to demographic groups, although many assume that M&A events hurt women and racial minorities more (Haveman, Broschak, and Cohen 2009; Woodall, Edwards, and Welchman 1997; S. Kim 2011). As disadvantaged groups, racial minorities and women tend to hold more peripheral positions in an organization, which make them more likely to be layoff targets in internal downsizing events (Couch and Fairlie 2010; Cunningham, Lord, and Delaney 1999; Kalev 2014; Wilson and McBrier 2005; see Dencker

2008 for an exception). Given that acquisitions generally lead to downsizing, it is natural to assume that M&A events lead to particularly harmful effects on racial minority and women workers. Therefore, sociologists tend to see acquisition events rather negatively, perceiving them as drivers of increased skilled-based gap and demographic inequality (Haveman, Broschak, and Cohen 2009).

This study suggests an alternative framework. First, to stay "lean and mean," the acquirer firm typically removes layers of bureaucracy and redundant labor in the acquired establishment, which should disproportionately affect middle managers and back-office workers. At the same time, a change in ownership offers an opportunity to reshuffle and reorganize the acquired workforce. The acquirer firm, previously an external entity, can restructure the acquired establishment by re-assessing its workers and managers, changing their existing procedures and practices, and incorporating new firm culture. An extensive reshuffling by the new leadership can shake up existing hierarchies and routines and open up opportunities for new groups. Women, racial minorities, and other peripheral groups that possess the competency required to fill higher positions but were impeded under the old arrangement may now have opportunities to move into more central positions. I propose that while M&A events widen skilled-based gaps, they reduce racial and gender gaps.

I examine this proposition using EEO-1 data, gathered by the Equal Employment Opportunity Commission (EEOC), covering all private-sector establishments in the US with more than 100 employees. Using difference-in-differences models on 37,343 acquisition events from 1971 to 2015, I find evidence consistent with my theoretical propositions. After being acquired, an establishment experiences immediate downsizing, mostly affecting middle managers, back-office workers, and blue-collar workers. However, while M&A events hurt low-skill labor, they significantly improve the positions of women and racial minorities. Establishments that were acquired saw a notable drop in the proportion of white men in management, a considerable rise in the proportion of racial minority and women managers, and significantly lower levels of racial and gender segregation across occupational categories.

Further analysis shows that these post-M&A improvements in diversity appear almost entirely in establishments that were doing poorly on diversity measures before being acquired. To reinforce the findings, I conducted a number of robustness checks, including using withdrawn M&A deals as a placebo test, and entertained various alternative explanations. In the end, results strongly suggest that racial and gender gaps decline after an establishment gets acquired.

This study makes several contributions. First, it speaks to the sociological literature on organizational inequality, which tends to hold that corporate restructuring increases inequality. My findings show instead that extensive restructuring by outsiders can sometimes bring unintended benefits to disadvantaged groups, especially in those workplaces that previously had high levels of inequality. These findings challenge the conventional views on corporate restructuring, and contribute to the broader debate on whether market forces increase or decrease inequality. Second, this study shows that organizational dynamics have significant and complex influence on workplace inequality. Generally speaking, how major organizational events shape inequality remains underexplored and this study shows their important influence in shaping inequality. Third, although a rich literature in finance has explored the consequences of M&A events on corporate performance, there is limited understanding of how this phenomenon shapes inequality. This study theorizes and finds that M&A events have important consequences on both diversity and inequality, underscoring the importance of this topic for sociological research. Third, this study shows that managerial actions often have unintended consequences on workplace inequality. Senior managers undertake acquisition deals mostly in pursuit of strategic goals, such as organizational growth and cost reduction. But such actions also have unintended consequences, aggregating some types of inequality while alleviating others.

### MERGERS, ACQUISITIONS AND INEQUALITY

Sociologists have long been interested in understanding workplace inequality. Over time several related but distinct literatures have emerged. In this paper, I touch on two such literatures: the first focuses on the rising skill gap and the second examines persistent racial and gender inequality. Both literatures are quite rich and I give only a brief synopsis of each, referring interested readers to review articles for more exhaustive overviews (see Autor, Katz, and Kearney 2006; Fligstein and Shin 2004; Neckerman and Torche 2007 for a review of the rising skill gap and DiTomaso, Post, and Parks-Yancy 2007; Stainback, Tomaskovic-Devey, and Skaggs 2010 for a review racial and gender inequality in organizations).

### Rising Skill-Based Inequality

Income inequality in the United States has been rising since the 1980s (Autor, Dorn, and Hanson 2016; Fligstein and Shin 2004; Kalleberg 2011; Levy and Murnane 1992; Neckerman and Torche 2007). It is generally agreed that workers who fare the worst are those who did not finish high school, as they have their wages relative to college graduates slip by more than 30 percent over the past four decades. In contrast, highly educated workers have seen a considerable rise in income, though this has been accompanied by longer working hours and greater job insecurity (Fligstein and Shin 2004; Kalleberg 2011).

This rising skill-based gap is often attributed to reconfigured work and employment relationships. But the exact driver is still a matter of debate. One view suggests that most of the shift was caused by the increase in demand for high-skill workers caused by technological change (Bresnahan and Greenstein 1999; Katz and Murphy 1992). However, although this view helps explain the divergence in the 80s between high-skilled and low-skilled, it does not fully explain the increasing deterioration of middle-wage jobs in recent decades (DiPrete 2007). Recent work suggests that computerization may have played a role, as it enhances the productivity of highly educated professionals, undermines the demand for routine cognitive workers usually located in back-office positions, and has relatively less impact on the lowest-

skilled blue-collar and service occupations (Autor, Katz, and Kearney 2006, 2008).

But technology may not be the sole driver of the rising skilled-based inequality. Institutional changes, in particular the decline of unions and the stagnation of the minimum wage, have likely played a role in diminishing the welfare of less-skilled workers. There are a number of additional culprits, such as the continuing shift from manufacturing to service industries, increased global competition, a rise in the use of contingent labor, and even recent waves of immigration. All of these changes have pushed in one direction: to the benefits of those with high skills who tend to occupy professional occupations, and against less-skilled workers (Fligstein and Shin 2004; Kalleberg 2011; Neckerman and Torche 2007).

Accompanying these changes is the rise of a shareholder-value logic. In the 1980s, some thought that management was focused too much on growth and size and not enough on profits and shareholder value (Fligstein and Shin 2007). To improve profit and please investors, firms began to streamline their operations, seeking to make them "lean and mean." Instead of seeing employees as partners, senior managers under the shareholder conception tend to view them as costs to be minimized. Under this thinking, establishments were closed, less-efficient workers were let go, some operations were moved offshore and others outsourced to lower-cost providers, and technologies were adopted to reduce labor cost. The increasing acceptance of the shareholder value further depressed prospects for less-skilled workers, contributing to the rising class inequality in the United States.

One way that shareholder value manifests is through mergers and acquisitions. In fact, recent scholarship speculates that the acquisition waves that peaked in the 80s and 90s could be another driver of the growing skilled-based inequality (He and Maire 2018; Ma, Ouimet, and Simintzi 2016). Later on, I will explore how mergers and acquisitions have contributed to the rising skill gap from 1970 to 2015.

### Persistent Racial and Gender Inequality

In contrast to the rising skill-based inequality, racial and gender gaps have been slowly declining in the United States, although this progress has stalled somewhat in recent

decades (Leicht 2008; McCall 2005). But despite the overall progress, racial minorities and women still face strong impediments in organizations: they have a lower chance of getting hired and promoted and a higher chance of getting laid off (Bertrand and Mullainathan 2004; Pager and Shepherd 2008). Research has explored both individual- and organizational-level processes to understand racial and gender inequality in the workplace. At the individual level, stereotyping and in-group preference can favor white men in hiring and promotion decisions (Bielby 2000; Reskin 2005; Ridgeway and Correll 2004). Moreover, social networks and friendship ties tend to form along racial and gender lines (McPherson, Smith-Lovin, and Cook 2001). Since most managers, especially at the senior levels, are white men, this network homophily hurts racial minorities and women in the labor market: they tend to reside on the periphery of the social networks and have less access to mentors, referrals, and career information (Ibarra 1992, 1995; Roth 2004; Turco 2010).

These individual level processes can be either amplified or suppressed by organizational structure, routine, and culture. For instance, some organizational practices, such as cross-functional teams, can reduce stereotyping and benefit racial minorities and women's chances of promotion (Kalev 2009). But others, such as flexibility in HR systems, give managers room to exercise personal preferences and therefore aggregate existing racial and gender gaps (McDowell 1991). Still others, such as formalized evaluation systems, can suppress managerial bias in some contexts but in not others (Bielby 2000; Castilla 2008; Petersen and Saporta 2004). In general, a firm's willingness to promote diversity is important in reducing racial and gender inequality. When a firm is committed to diversity causes and holds managers accountable, it is more likely to implement practices that benefit racial minorities and women and managers are more willing to hire, support, and promote members of disadvantaged groups (Kalev, Dobbin, and Kelly 2006).

An organization's structure and culture are often correlated with its age, because organizational blueprints are often shaped by environmental conditions at their birth. Generally speaking, firms founded earlier tend to have less supportive structures and cultures for diversity, and this lack of support can persist over time (Stainback, Tomaskovic-Devey, and Skaggs 2010). For example, firms founded in the earlier decades tend to have lower levels of gender integration compared to later cohorts (Tomaskovic-Devey and Skaggs 1999). Similarly, pay systems in some firms designed in the 1950s and 60s with a gender bias continued to reflect these biases over half a century later (Kim 1989). In the following, I propose that post-acquisition restructuring could be an effective way for an organization to reset its structures and routines to reflect modern values. Hence, acquisitions events may play an important role in promoting racial and gender equality in an organization. Before venturing into this hypothesis, I give a brief overview of the post-acquisition process.

### The Process of Post-Acquisition Integration

In the United States, anti-trust laws and active enforcement have made within-industry mergers extremely difficult since the 1940s. Prior to the 1980s, firms mostly undertook acquisitions to diversify company portfolio and expand their range of control. However, as anti-trust laws contracted in the 1980s, M&A became an instrument for enforcing market discipline: the threat of hostile takeovers has forced companies to become more attentive to profitability and efficiency. In this effort, within-industry acquisitions have become more prevalent; CEOs often take on acquisitions to benefit from economies of scale and to please shareholders (Andrade, Mitchell, and Stafford 2001).

My understanding of the post-acquisition process is based on primary and secondary qualitative data collected in a pre-study. I conducted 15 in-depth, semi-structured interviews with M&A consultants, HR managers, and senior executives who have been involved in an acquisition event. I complemented the interviews with study of over 100 newspaper and trade press articles, a dozen practitioner-oriented books and business school cases, and several academic articles about the M&A process. These qualitative data provide a foundation for understanding of M&A events and allow me to theorize how they impact within-firm inequality.

In a typical post-integration process following an acquisition, the acquirer firm sets

up a steering committee, typically composed of C-level executives and the head of the human resources department. The steering committee sets the broad direction for the deal and is in charge of higher-level integration strategies. Under the steering committee is the integration management office, which is composed of senior managers and supporting staff. They are the central governance structure in the post-acquisition integration, managing the core functions of the integration effort and converting the steering committee's high-level strategy into detailed roadmaps. They in turn work with operational teams and task forces to ensure successful integrations and restructurings in all the departments.

In the following, I discuss two post-integration processes that may influence workplace inequality: streamlining and reshuffling.

### Streamlining

First, streamlining should increase inequality between high-skilled and low-skilled workers in the acquired establishment. As mentioned above, M&A deals have been increasingly influenced by shareholder value (Fligstein and Shin 2007; Goldstein 2012). Senior managers are increasingly attentive to market reactions, as their compensation and job security are closely tied to the firm's market values. Shareholders prefer efficiency and profitability: they like companies that streamline their businesses by focusing on their core functions, and dislike ones they perceive as having bloated management and overpaid labors. This shareholder logic has gradually become taken-for-granted in the field: efficiency and profitability are senior managers primary objective, even for non-publicly traded private firms.

This focus on efficiency and profitability has direct implications for the post-acquisition integration process. An important feature of an acquisition event is the chance to restructure the workforce and lay off redundant and inefficient workers, which helps boosts short-term profit and generates additional cash-flows (Dessaint, Golubov, and Volpin 2017; Gugler and Yurtoglu 2004; Siegel and Simons 2010). As departments get consolidated, certain roles may overlap and the firm can reduce labor cost by cutting the redundant workers. Furthermore, if the acquired establishment previously suffered from excessive layers of management and

overstaffing, the new firm can streamline the workforce to reduce slack. Such streamlining has become a commonly accepted practice following an acquisition event, and the market generally rewards such acts with a boost in firm's stock price.

Although streamlining in the post-acquisition period helps reduce operational costs and increase profit, it may negatively impact some workers and exacerbates skill-based inequality. After consolidation, role redundancies tend to be concentrated in back-office positions, such as the human resources and the accounting units. Therefore, post-acquisition downsizing may particularly hurt employees in mid- and low-skilled occupations. Moreover, acquisition events can act as a catalyst for technological change (Fligstein and Shin 2006; Ma, Ouimet, and Simintzi 2016). As firms increase in scale, they may adopt more automated technologies and other innovations, which typically raise the demand for well-educated professionals while reducing the need for middle managers, back-office workers, and blue-collar labors. Through these processes, M&As can significantly contribute to the rising skill-based gap between highly-skilled professionals and less-skilled workers.

### Restructuring: Reevaluate Employees

Besides streamlining, the post-acquisition process is also associated with extensive restructuring, which I argue helps improves racial and gender equality in the acquired establishment. When an establishment gets acquired, it is typically subjected to a thorough reshuffling and reorganizing process. In this process, all workers and managers are carefully re-evaluated. The acquirer company conducts extensive interviews with all employees in the acquired establishment and assesses their skillsets, past performance, and future fit. Some describe this re-evaluation as "re-recruitment," as everyone starts off on a clean slate and are essentially treated as new hires (Saint-Onge and Chatzkel 2008).

It is important to keep in mind that these re-evaluations are mostly carried out by managers from the acquirer firm, under at least some scrutiny and often with the help of external consultants, both of whom are outsiders to the acquired establishment. Evaluations by outsiders can offer more objectivity, as internal evaluations are often biased by the existing history, network, and interests between managers and employees. Additionally, MA events can also result in more scrutiny from media, critics, and employees, which could contribute to the emphasis on objectivity. Not surprisingly, many acquirer firms are highly concerned about objectivity and, use a variety of objective metrics to evaluate each individual (Carey and Ogden 2004). Many also rely heavily on external consultants for their objective views and experience. As one HR manager puts it: "There is a lot of value in having the assessment done by people who do this for a living day in and day out and who must be professionally objective" (Saint-Onge and Chatzkel 2008).

Thus, post-acquisition evaluations should be both more thorough and more objective than routine evaluations. In fact, they often produces findings that contradict the established order in the acquired establishments. For example, after acquiring Union Carbide, Dow, a producer of chemicals and polymers, re-evaluated plant leaders of Union Carbide and came up with a different set of conclusions than previous internal evaluations (Saint-Onge and Chatzkel 2008):

"When we got the performance evaluations for the Union Carbide leaders from their CEO, we went through out one-on-one evaluations, and they did not match up. They had five large manufacturing sites. As they ranked their site leaders, they had one individual who was on the bottom of the list. Yet, through our interview process, etc., we felt that this individual was the best of the lot."

Such re-evaluations could have important implications for women and racial minority workers. As discussed earlier, minorities and women face disadvantages in hiring and promotion because they tend to be located in the periphery of the network structure, which give them less access and fewer connections within the workplace. They may also be the victims of bias and discrimination. However, the post-acquisition process gives them an opportunity to be re-evaluated on a more objective scale. Because the evaluators are from outside of the establishment, previous connections and networks become much less relevant. The thoroughness of re-evaluation process, its focus on objectivity, and external scrutiny should also

help reduce racial and gender biases. Additionally, since everyone is evaluated at the same time, it is easier to directly compare employees based on an objective set of metrics (Bohnet, Van Geen, and Bazerman 2015). For these reasons, the re-evaluation process following an acquisition should improve minorities and women's positions in the establishment, especially if they were previously disadvantaged.

### Restructuring: Reset Policies and Practices

In addition to re-evaluating employees, reshuffling also involves resetting polices, practices, and routines in the acquired establishment (Haveman and Cohen 1994). This could include significant changes in organizational structures and operational routines to ensure compatibility with the acquirer firm. It could also include changes in policies and guidelines, as the acquirer firm's practices usually apply to the newly acquired establishments. Even cultures and norms in the acquired establishments may experience change as they are likely to be influenced by those of the acquirer firm. In general, the smaller the acquired firm is relative to the acquirer, the more extensive the resetting process.

A resetting of practices and routines can benefit women and racial minority workers. In the past few decades, promoting diversity has become an increasingly important objective for firms (Dezso, Ross, and Uribe 2016; Dobbin, Kim, and Kalev 2011). The percentage of women on boards, a commonly used indicator for diversity acceptance, has been steadily rising among major US corporations, from less than 5 percent in the 1980s to over 20 percent in 2015 (Catalyst 2015; Farrell and Hersch 2005). Similarly, a growing number of firms have added Chief Diversity Officer positions and adopted policies and programs designed to promote diversity in management (Dobbin, Kim, and Kalev 2011; Shi et al. 2018). It appears that over time, senior executives have become increasingly attentive to diversity issues and have a growing desire to improve diversity in their firms.

However, despite senior managers increasing awareness, implementation often lags. Many firms have found it easier to add women and racial minorities in board positions than it is to increase the percentage of women and minorities in management. Part of this difficulty comes from an imprinting effect: when employees are used to certain routines, they are more reluctant to change. This is particularly likely to occur when the senior management's commitment to diversity is weak. As a result, even though firms claim support for diversity and adopt practices to promote it, many have only made marginal progress toward diversity goals.

The restructuring process in the post-acquisition period may help reduce this imprinting effect. As an organization resets its structures and practices, managers and employees are forced to adopt new ways of recruiting, evaluating, and interacting. Firms that hope to increase diversity may use post-acquisition restructuring as an opportunity to fully integrate equity policy into the new structure. Additionally, most newer routines and practices, even those not explicitly related to workplace diversity, produce less racial and gender inequality than older ones, as shown by the higher average levels of managerial diversity in newer establishments (Stainback, Tomaskovic-Devey, and Skaggs 2010). For example, firms in the past few decades have increasingly favored performance-based promotion criteria over seniority-based ones, a change that tends to benefit racial minorities and women. In sum, there are reasons to believe that post-acquisition establishments would have more policies and practices that help reduce racial and gender inequality in the workplace.

### DATA AND ANALYSIS

To examine the hypotheses, I used establishment-level panel data from EEO-1 surveys. In 1966, to help monitor compliance with the Civil Rights Act of 1964, the Equal Employment Opportunity Commission (EEOC) began to collect demographic workforce data on private-sector firms. Before 1982, all private-sector firms with at least 50 employees, as well as firms under federal contract and with at least 25 employees, were required to submit EEO-1 forms annually. In 1982, the cutoff was raised to 100 employees for non-federal contractors and 50 for federal contractors. Firms meeting this requirement are required to file a separate form for each establishment that has at least 50 employees. Each EEO-1 survey form contains a

matrix of occupational classifications and race/sex combinations, into which employers enter counts of employees. The form also collects identifying information for each establishment, such as its location, industry, and parent firm. Past studies that compared the EEO-1 reports to other datasets find their quality to be comparable to that of US Census or Current Population Survey-based sources (Tomaskovic-Devey et al. 2006; Robinson et al. 2005). Data from 1971 to 2015 were obtained for research purposes through an Intergovernmental Personnel Act agreement signed by Frank Dobbin. EEO-1 reports were not available for years 1974, 1976, and 1977. In total, the EEO-1 data from 1971 to 2015 include 202,101 firms and 11,966,225 establishments. On average a firm lasts ten years in the sample and an establishment lasts 6.2 years.

Although the EEO-1 data have become the gold standard in studying organizational diversity, there are several limitations (Ferguson and Koning 2017; Tomaskovic-Devey et al. 2006). First, the EEO-1 reports do not include government employees and so the analysis will only speak to patterns in private sector employment. Second, the reports are only required of firms with at least 100 employees, which accounts for approximately 60 percent of all employment (Hollister and Wyper 2013). Thus, the sample is only representative of medium-to large- firms, and excludes small businesses. Third, the EEO-1 report does not provide information about individual workers, only annual employment totals for each category. This prevents us from capturing all personnel changes within a firm since it will not identify situations where one employee leaves and a similar employee is hired as a replacement. Finally, in 2007, the EEOC began collecting data from establishments whose size is below the mandatory reporting threshold. Consequently, there is a larger-than-usual cohort of establishments that entered the data in 2007 (Ferguson and Koning 2017). I conducted robustness checks to ensure that the additional establishments that were added in 2007 do not substantively influence the results.

### **Identifying Acquisition Events**

Mergers and acquisitions can be identified based on changes in an establishment's parent firm. Each establishment has a unique identifier that is consistent over time, even after changes in ownership. Similarly, there is also a unique identifier for each parent firm. I can therefore identify instances of ownership change by observing when the establishment changes its parent firm's identifier. This identification method includes both partial and full acquisitions: one establishment of a firm can be acquired while another establishment remains under the old firm. Using this method, I identified a total of 37,343 unique acquisition events covering 168,293 establishments from 1972 to 2014. I compared this sample with the commonly used Securities Data Company (SDC) Platinum's database on mergers and acquisitions, and found that about half of the acquisition events in this sample also appear in the SDC's database. With the assistance of a colleague, we manually merged the SDC and EEO-1 databases. As a robustness check, I ran analyses on the subsample of acquisition events that appear in the SDC database, and the findings are substantively similar.

Some establishments have been acquired multiple times. This can confound the post-acquisition effect: it would be unclear if an observed pattern is due to the lingering impact of an older acquisition or the immediate impact of a more recent acquisition. I therefore focus only on the first acquisition events for an establishment, and exclude its observations during and after the second acquisition event. In the sample, 16.7 percent of the acquired establishments are experiencing second-time acquisitions. After the exclusion, the resulting sample includes 140,125 establishments that have been acquired.

Figure 1 plots the number of unique acquisition events and proportion of workers affected over time. The volume of acquisitions has been relatively consistent over time, with a few spikes representing waves of acquisition events. On average about 1.5 percent of all workers in the EEO-1 sample, or 5.6 million workers, experience such an event in a given year. The plotted pattern is generally consistent with M&A data from Center for Research in Security Prices (CRSP), SDC, and other sources, showing major spikes in acquisition

activities in the mid-80s and the mid-90s.

[insert Figure 1 about here]

### Dependent Variables: Occupational Change

The first outcome of interest is skill-based inequality in an establishment. The EEO-1 data provide information on occupations, which I used as a proxy for an establishment's skill compositions. There are nine broad occupational categories on the EEO-1 form: official and managers, professionals, technicians, sales workers, office and clerical workers, craft workers, operatives, laborers, and service workers. Although this occupational categorization is rather broad (Tomaskovic-Devey et al. 2006), it has remained constant over the years, in contrast to many other national surveys that have adopted different occupational coding schemes over time. The EEO-1's consistency in occupational definition ensures that any changes observed are not driven by shifts in coding systems (Kalev 2014; Wilson and McBrier 2005).

In presenting the results, I grouped some categories for the ease of interpretation. In particular, I clustered technicians, sales workers, and office and clerical workers as back-office employees, and clustered craft workers, operatives, and laborers as blue-collar employees. This creates a classification scheme with four skilled-based levels: official and managers, professionals, back-office, and blue-collar.

### Dependent Variables: Racial and Gender Inequality

The second set of outcomes are racial and gender inequalities in an establishment. I measured demographic inequalities using two types of variables: (1) proportion of minorities and women in management and (2) racial and gender segregation across non-managerial occupations. I focus on these two types of outcomes, instead of total proportion of minorities and women, because they help capture the extent to which minorities and women have truly become integrated.

The EEO-1 report includes five racial groups: White, Black, Asian, Hispanic, and Native American. Because each employee can only be counted once on the survey, this classification scheme effectively makes Hispanic a separate racial category. Such classification

differs from the U.S. Census, where respondents can declare a race and also identify as being of Hispanic origin. Treating Hispanics as a separate racial group is somewhat unusual, but no more fraught than any other socially constructed racial scheme (Ferguson and Koning 2017). Because most establishments do not have any Native American employee, I chose to focus on the other four groups in the analyses.

I used the index of dissimilarity (D) to measure segregation at the establishment level. The value of D represents the proportion of employees who need to change occupations for equal representation of two groups in an establishment. It tells us how far this establishment is from an equal occupational distribution by gender or race. The index of dissimilarity is computed within establishments as follows:

Index of Dissimilarity (D) = 
$$(1/2 \sum_{occ=1}^{n} |P_{occ\_x} - P_{occ\_y}|) \times (100)$$
 (1)

where  $P_{occ\_x}$  and  $P_{occ\_y}$  are the proportions of group x and y, respectively, within a occupation in an establishment (Tomaskovic-Devey et al. 2006). In calculating D, I included only the eight non-managerial occupations. Therefore, the value of D is not directly influenced by the proportion of minorities and women in management.

Figure 2 plots these variables over time. Consistent with past findings (Leicht 2008), the overall levels of racial and gender inequality have been declining, with a greater decline for women than for minorities. Figure 2a shows that both minorities and women have made important advancement into managerial representation in the 1970s. In the following decades, while women continued to make steady progress into managerial positions, blacks and Hispanics progresses have stalled. In Figure 2b, the men-women segregation has been declining rapidly since the 1970s, but racial segregation has been decreasing at a much slower pace.

### Matched Sample

To analyze the impact of acquisition events, I implemented a dynamic differencein-difference design in which I compare the target (the acquired) establishments to similar establishments that did not take part in an acquisition event.

I implemented a matched sampling procedure: for every target establishment in the year right before the acquisition, I selected a control establishment from the same year. Specifically, for each target establishment acquired in year t, I selected a control establishment that satisfies the following criteria in year t-1: (1) it belongs to the same two-digit SIC industry as the target; (2) it is in the same quartile of establishment size (num of employees in the establishment) as the target; (3) it is in the same quartile of firm size (num of employees in the firm) as the target; and (4) it has never been acquired. For control establishments that satisfy these requirement, I calculated their propensity score using a linear logistic model and selected the establishment with the closest propensity score to the target establishment. Each target establishment is matched with one control establishment and vice versa. Table 1 shows a comparison between the target group and the control group in the year before the target establishments get acquired.

### [insert Table 1 about here]

As a robustness check, I used a number of additional matching samples. First, I tried various alternative ways of assigning propensity score, including using a different set of predictors in calculating propensity score and picking nearest three neighbors as controls. I also tried not using propensity matching, but simply drawing a random set of establishments that share the same industry, year, size quartile, and geographic location as the target establishment. Second, some M&A deals were announced but subsequently withdrawn, and I used the target establishments of these withdrawn acquisition deals as a control group. Data on withdrawn M&A deals come from SDC Platinum database. Finally, I used the entire sample, including all establishments that did not experience an acquisition as controls (see Appendix Table A.1 for results on racial and gender inequality). Using these alternative

matching samples produces substantively similar results.

Once matched, the establishment in the control group would be considered as if it had gone through an acquisition event in the same year as the target firm. I set the window of observation at ten years, starting from five years prior to the acquisition event till five years after the event. The five years of pre-acquisition observation allow us to observe any parallel trends between the target and the control groups, and the five years of post-acquisition observation should give us sufficient time to observe any post-acquisition change, even if it is not immediate. The other years of observation were excluded from the sample.

After matching, the sample initially includes 1,701,884 observations, representing 264,410 unique establishments. Some of these establishments were closed shortly after acquisition, and workers in these establishments were either transferred or let go. Although establishment closure is an important topic, it does not inform us on how acquisition affects different groups. I therefore excluded establishments that were shutdown within the first two years post acquisition, resulting in a final sample of 1,432,196 observations and 191,957 establishments. As a robustness check, using the initial sample (that includes closed establishments) increases the overall downsizing effect post acquisition, but does not substantively change the post-acquisition effect on within-establishment inequality.

### Model Specification and Controls

I examine employment dynamics change at the establishment level by estimating the following difference-in-differences model:

$$Y_{jt} = \sum_{p=-4}^{5} c_p T_{ip} + \sum_{p=-4}^{5} \beta_p T_{ip} \times Target_i + \gamma \cdot X_{it} + E_i + CY_t + \epsilon_{it}$$

$$\tag{2}$$

where  $Y_{jt}$  is outcome variable at establishment j in year t. I denoted p as the number of years relative to the acquisition event. Specifically, I set year one to be the first year that an establishment changed its parent firm in the EEO-1 form.  $T_{ip}$  is a dummy variable indicating p years after the acquisition event. For example,  $T_{i3} = 1$  when it is the third years

after establishment i being acquired. The coefficient of interest is  $\beta_p$ , which captures the average difference in the outcome variable between treated and control firms when T = p. In other words,  $\beta_p$  denotes the acquisition effects on the outcome variable.

I included establishment-level fixed effects,  $E_i$ , to control for time invariant establishment traits, such as industry and geographic location. The inclusion of fixed effects allows us to observe changes within each establishments, rather than differences between establishments. I also included calendar year fixed effects,  $CY_t$ , to control for macro environment, as well as leads and lags around event time,  $T_{ip}$ . Fixed effects help rule out omitted variables, but they also reduce the power of an estimation. As a robustness check, I included additional fixed effects on industry-year and state-year; results are substantively similar.

X is a set of control variables that capture time-variant establishment level characteristics. These include the total number of workers in each establishment, as occupational composition and demographic inequality may be a function of workplace size (Tomaskovic-Devey and Skaggs 1999). In estimating racial and gender inequality, I also included the proportion of total workers in each occupational group, as occupational composition could influence minorities and women segregation levels and promotion rates. For example, a workplace with a higher proportion of blue-collar workers may have lower promotion rate for women, as women would be seen as token members in such a male-dominated setting. Excluding controls of occupational compositions does not substantively change the results. In these models, I also included each demographic group's proportion among non-managerial workers and in the local labor market. Demographic data on local labor market comes from Decennial Census's county-level data, which has been extrapolated to obtain annual estimates. The inclusion of these controls ensures that the outcome variables capture racial and gender inequality within a workplace, as opposed to overall workforce diversity. Finally, in estimating segregation levels, I included a measure for occupational heterogeneity, which tends to be correlated with the index of dissimilarity (Tomaskovic-Devey et al. 2006).

Standard errors are clustered at the firm level, because the decision to merge is

made at that level. Results are qualitatively similar whether or not I included establishment size as weights, so for simplicity I presented models without weights. In some models, I used a simpler difference-in-differences model, grouping together  $T_{ip}$  into pre-acquisition and post-acquisition periods.

$$Y_{it} = c \cdot Post_i + \beta \cdot Post_i \times Target_i + \gamma \times X_{it} + E_i + CY_t + \epsilon_{it}$$
(3)

where  $Post_i$  is one if establishment i has experienced an acquisition event within the last five years and zero if it would go through an acquisition event within the next three years.

In these models, the key identifying assumption is that employment in target and control establishments would have followed parallel trends if no acquisition had occurred in the target establishment. Admittedly mergers and acquisitions are not exogenous events, but endogeneity is less of a concern as long as acquisition events are not chosen based on factors highly correlated with dependent variables. Potential threats to identification would be unobserved shocks that affect both the outcomes and the timing of acquisition. For instance, acquirer firms could target firms on the verge of increasing diversity or losing unskilled labors. Based on my qualitative understanding, I find such scenario somewhat unlikely, as the acquirers are mostly concerned about financials and market outcomes in making acquisition decisions (He and Maire 2018).

### RESULTS

Results strongly support the hypothesis: although acquisition events contribute to skilled-based gap, they reduce racial and gender inequality. After being acquired, establishments tend to downsize middle managers, back-office workers, and blue-collar workers, while hiring more highly skilled professionals. At the same time, they promote a higher proportion of minorities and women into managerial positions and have significantly lower levels of racial and gender segregation. This post-acquisition effect on diversity is mostly concentrated in establishments that had poor level of diversity prior to the acquisition, and is stronger when

the acquirer firm values diversity.

### Impact on Skilled-Based Inequality

I first examined how acquisition impacts the acquired establishment's occupational composition. As expected, an establishment experiences downsizing after being acquired, with an 2.5 percent reduction in workforce on average (see Table 2 Model 1;  $e^{-0.025} = 0.975$ ). But downsizing does not affect all groups in the same way. As both Table 2 and Figure 3 show, middle managers and back-office workers are disproportionately hurt by post-acquisition downsizing. On average, an establishment loses 4.1 percent of middle management positions, 4.3 percent of back-office positions, and 3.5 percent of blue-collar and service positions after being acquired, while gains 1.8 percent of professional positions. Proportionwise, as Table 2 shows, establishments have a smaller proportion of middle managers and back-office workers and a higher proportion of professionals post acquisition. The proportion of blue-collar and service workers does not experience a major change because acquisition events hurt middle managers and back-office workers more.

[insert Table 2 about here]

[insert Figure 3 about here]

Before moving on to discuss contextual variables, I mention one quick implication of these results. Sociologists have been concerned about how restructuring affects managerialism. Although we generally expect that corporate restructuring leads to fewer management layers (Dencker and Fang 2016; Jung 2016), recent studies using Current Population Survey data have shown a positive correlation between M&A events and managerial representation at the industry level (Goldstein 2012). My finding suggests that this positive correlation is not due to a direct causation, as M&A events lead to significantly fewer middle managers in the acquired establishments, both in absolute numbers and in proportions. This opens up an interesting question for future studies: if acquisitions lead to fewer managerial positions, what are the drivers behind a positive correlation between acquisition activities and managerial jobs at the industry level?

### Skilled-Based Gap: Variations in the Acquisition Effect

Several contextual factors could shape the acquisition effect on skilled-based inequality. First, the acquisition effect on occupational composition varies over time (see Appendix Figure A.1). In the 70s and 80s, acquisition leads to little downsizing and has limited impact on occupational composition. This is mostly expected, as most acquisitions during this period were diversifications. Downsizing started in the 1990s, during this period it had a strong impact on middle managers, service workers, and in particular, blue-collar workers. In the 1990s, an acquisition would lead to a 2.8 percent reduction in middle management, a 2 percent reduction in back-office positions, and a 7 percent reduction in blue-collar and service positions. In the 2000s, post-acquisition downsizing significantly increased for middle managers and back-office positions, but in fact decreased for blue-collar positions. After being acquired, an establishment loses 4.6 percent of blue-collar and service positions, but as much as 8.6 percent of middle management and 9.8 percent of back-office positions. This temporal shift may be explained by the different types of technologies adopted post acquisition in the 1990s and in the 2000s (Ma, Ouimet, and Simintzi 2016). Prior to the 2000s, technological adoptions largely involved automations that help replace manual blue-collar labors. But the technological innovation in the 2000s, such as various software applications, could have made many low-skilled white collar-positions redundant.

Appendix Figure A.2 compares between service-related and manufacturing-related industries. I defined these two categories broadly: service refers to any consumer-facing industries, including service, retail, and finance, and manufacturing refers to non-consumer-facing industries, including manufacturing, mining, and construction. The acquisition effect is similar in both sets of industries for middle managers and back-office workers, but differs for blue-collar and service workers: a significant post-acquisition reduction occurs when the acquired establishment is in service (a reduction of 8.5 percent), but no such effect when it is in manufacturing (an increase of 1 percent; statistically non-significant). As one possible explanation, in an effort to streamline operations, acquirers may be more likely to get rid of

non-core functionalities, and blue-collar positions are more likely to cover core functionalities in manufacturing than service industries.

Finally, I compare the acquisition effect across acquired firms of different sizes. It is possible that when the acquired firm is large, the acquirer would make fewer changes to it and allow it to retain its existing structure, routine, and culture. Appendix Figure A.3 breaks down the sample into quartiles, based on the acquired firm's total number of employees. I used the acquired firm's size instead of establishment's size because the acquirer should make strategic decisions based on the overall size of the acquisition. For most occupations, the post-acquisition effect is stronger when the acquired firm is smaller. For example, the downsizing magnitude for middle managers and back-office workers is much larger when the acquired firm is in the bottom and second quartile (a reduction of 7.2 percent and 7.8 percent for bottom quartile, only 0.4 percent and 3.2 percent for top quartile), and the increase in professional positions is also much stronger when the acquired firm is smaller. The lone exception is in blue-collar and service positions: post-acquisition downsizing is stronger when the acquired firm size is in the top quartile. Nonetheless, for the most part, results suggest that the acquisition effect is much weaker when the acquired firm is larger.

### Impact on Racial and Gender Inequality

I next examined the impact of acquisition on racial and gender inequality in the acquired establishment. As Table 3 and Figure 4 show, establishments experience an increase in managerial diversity and a decrease in occupational segregation post acquisition. In Table 3, following an acquisition, the proportion of white managers dropped by 0.42 percentage points, while the proportion of black and Hispanic managers rise by 0.18 percentage points and 0.21 percentage points, respectively, and the proportion of women managers rise by 0.6 percentage points. These changes correspond to a 3 percent rise in the proportion of black managers, a 4 percent rise in the proportion of Hispanic managers, and 2 percent rise in the proportion of women managers. The magnitude of these effects is significant in the context of employment changes, which tend to be relatively small. In fact, the acquisition effect leads

to more managerial diversity than many practices specifically designed to promote diversity, such as diversity training, diversity evaluations, minority mentoring programs (Kalev, Dobbin, and Kelly 2006).

[insert Table 3 about here]

[insert Figure 4 about here]

Table 3 also shows a significant reduction in non-managerial occupational segregation. Following an acquisition, an establishment reduces its black-white dissimilarity by 0.85, Hispanic-white by 0.95, Asian-white by 0.67, and men-women by 1. Using the average dissimilarity level for each category as a bench mark, these numbers correspond to a 2.8 percent reduction in black-white segregation, a 3 percent reduction in Hispanic-white segregation, a 1.9 percent reduction in Asian-white segregation, and a 2.5 percent reduction in gender segregation. Workplace desegregation is a slow process. For example, despite various efforts, black-white and Hispanic-white segregation in the United States have been declining at only around 0.6 percent per year, while gender segregation has been declining at a slightly faster pace, around 1.5 percent per year (Tomaskovic-Devey et al. 2006). Therefore, relatively speaking, the magnitude of the desegregation following an acquisition is significant. Additional analyses suggest that much of the desegregation comes from women and minorities entering into professional and other occupations that were traditionally dominated by whites and men.

I focused on managerial diversity and occupational segregation because they best reflect racial and gender inequality in an establishment (Kalev, Dobbin, and Kelly 2006; Ferguson and Koning 2017). An establishment's overall workforce diversity, in contrast, tends to be highly correlated with demographics in its local labor market. After all, there is little equality in an establishment where most minorities and women are clustered in low-paying, non-supervisory positions, even if it has a high level of overall workforce diversity. As mentioned earlier, to distinguish inequality from overall workforce diversity, all models include the five demographic groups (whites, blacks, Hispanics, Asians, and women) respective

proportions of non-managerial workers in the establishment, as well as their proportions in the local labor market. Therefore, the resulting outcomes effectively represents each group's promotion rate and occupational differences.

Nonetheless, I conducted additional analyses predicting an establishment's overall workforce demographics, finding that acquisition events have limited effect on them (see Appendix Table A.3). The total proportion of white workers decreases, while that of black workers increases by 0.29 percentage points, equivalent to a 3.5 percent increase. There is not much change among Hispanic and Asian workers, and a slight decrease in women workers. But this effect is quite marginal: women workers lose 0.16 percentage points in total proportion, roughly equivalent to a 0.3 percent drop. In short, acquisition events increase the proportion of black workers, but has little impact on other demographic groups.

Appendix Table A.2 breaks down the acquisition effect into specific years before and after the event (see Equation 1). These results are plotted in Figure 4. After being acquired, there is a sudden increase in managerial diversity and decrease in occupational segregation, and the effects extend at a more gradual pace in the following years. In some cases, the change starts even before the official acquisition date, possibly because most acquisition announcements take place sometimes before the official acquisition.

### Withdrawn M&As

As a robustness check, I conducted a placebo test using withdrawn acquisition events, focusing on establishments that were announced to be acquired but the announcement was ultimately withdrawn. These establishments likely share most of the same attributes observed and unobserved that lead them to be targeted for an M&A transaction. Any difference between them and the ones that went through is mostly related to acquirer firms, such as the type of financing it uses to fund the deal, its size, and its attitude toward the deal (Blonigen and Pierce 2016). Therefore, withdrawn M&A events serves as a suitable placebo test: if my results are driven by unobserved confounders, then we should observe the same effect among withdrawn acquisition events.

I obtained from SDC Platinum all acquisition announcements that were subsequently withdrawn within 90 days. I used a 90-days cutoff to ensure that no substantive post-acquisition changes have been made since the announcement. I then manually merged the withdrawn M&A events from SDC Platinum with my sample from EEO-1 reports, finding a total of 90,313 matched establishments representing 2,580 unique firms. I then implemented the exact same matching procedure to identify a sample of matched establishments for this withdrawn sample and conducted the same set of analyses as if these establishments were acquired.

But as Figure 5 shows, the withdrawn establishments did not experience the same set of acquisition effects as the acquired establishments. In fact, none of the acquisition effects in this sample is statistically different from zero. This placebo test provides additional support that we were observing an acquisition effect in the main models, not a confounder.

[insert Figure 5 about here]

### Volunteer Departure for Whites and Men?

A key alternative explanation is that whites and men have better outside options and are therefore more likely to voluntarily leave after being acquired. To entertain it, I examined the moderating role of unemployment rate and economic recession on the post-acquisition effect. If whites and men's reduced managerial representation is driven by volunteer departures, then we should see a weaker post-acquisition effect when the economy is in recession and/or when the unemployment rate is higher. In these times, fewer firms would be hiring, and there should be fewer voluntary departures and more forced turnovers.

Unemployment data is available annually at state level from Current Population Survey (CPS) and decennially at county level from the Census Bureau. I tried both measures using separate models, linearly extrapolating the decennial Census data to approximate annual county level rate. But as Table 4 shows, a higher unemployment rate does not reduce the post-acquisition effect at all. In models using CPS data, unemployment rate has a small, statistically insignificant interacting effect with post-acquisition. In models

using extrapolated Census data, the moderating effects are negative, which is the opposite of what the alternative explanation suggests. In a separate analysis, I used the macro-level economic recession indicator from National Bureau of Economic Research to moderate the post-acquisition effect, and found that economic recession similarly does not moderate the post-acquisition effect. These results suggest that the post-acquisition effect is likely not driven by volunteer departures.

### [insert Figure 4 about here]

### Prior Racial and Gender Inequality

I next considered an establishment's level of racial and gender inequality prior to the acquisition event. The restructuring process, which helps clear existing structural and cultural impediments for minorities and women, should have a more pronounced effect when the establishment previously had high levels of inequality.

I conducted split-sample analysis based on an establishment's racial and gender inequality prior to an acquisition event. For each establishment, I examined its diversity and segregation levels in the years before being acquired and compared them to the average diversity and segregation levels of its peers in the same county, year, and 2-digit SIC industry. I then conducted separate analyses on establishments that had a higher level of inequality than its peers and those that had a lower level. I carried out this procedure separately for each of the eight dimensions of racial and gender inequality.

Figure 6 shows results from the split-sample analyses: for establishments whose inequality levels were previously lower than its peers, the acquisition event has almost no effect on subsequent inequality levels: establishments in both control and target groups exhibit similar trends post acquisition. But for establishments that had higher levels of inequality previously, there is a significant reduction in racial and gender inequality in the target establishments following acquisition. After being acquired, an establishment increases its proportion of black managers by 0.41 percentage points, Hispanic managers by 0.38 percentage points, and women managers by 1.5 percentage points, which roughly correspond

to a 17 percent increase in the representation of black managers and Hispanic managers and a 8.5 percent increase in the representation of women managers. In additional analysis, instead of analyzing split samples, I used an establishment's inequality level prior to acquisition as a moderator and interacted it with Target x Post-Acquisition. Results are substantively similar to the split-sample analysis. These results show that the post-acquisition effects are almost entirely concentrated in establishments that previously had relatively higher levels of racial and gender inequality.

### [insert Figure 6 about here]

### Acquirer Firm Diversity and Segregation

The acquirer firm's attitude and policies toward diversity should play an important role in the restructuring process. After all, it is typically senior managers from the acquirer firm who oversees the post-acquisition integration. Additionally, practices, policies, and culture from the acquirer firm could easily spill over into the acquired establishment. Therefore, when the acquirer firm values diversity and has adopted practices that support minorities and women workers, acquisitions should be more likely to reduce racial and gender gap in the acquired establishment.

I recorded an acquirer firm's managerial diversity and segregation levels in the year prior to making the acquisition and found them to significantly moderate the acquisition effects. When the acquirer firm had been doing well in an inequality dimension, it tends to improve the acquired establishment's inequality in that dimension as well. Figure 7 shows the split-sample analyses on those establishments whose acquirer firm had higher-than-median levels of inequality and those whose acquirer firm had lower-than-median levels, separately for each of the eight dimensions of inequality. As the figure shows, when the acquirer firm had high levels of racial and gender inequality, the post-acquisition effects still exist but are relatively small and, in some models, statistically insignificant. In contrast, when acquirer firm had low levels of inequality, the acquired establishment tends to show a significant jump in managerial diversity and a sharp drop in segregation level following the acquisition event.

These results suggest that acquisitions benefit minorities and women much more when the acquirer firm had been doing well on the diversity front.

[insert Figure 7 about here]

### Racial and Gender Gap: Variations in the Acquisition Effect

I also examined several additional factors that may shape the post-acquisition effects on racial and gender inequality. First, I did not find much significant temporal variation: the effects appear to be slightly stronger in the 1990s, but they are quite visible in all periods (see Appendix Figure A.4). Similarly, the acquisition effects also appear to be mostly similar between service and manufacturing: the desegregation effect is slightly stronger in manufacturing industries and the managerial-diversity effect is slightly stronger in service industries, but they are highly comparable to each other (Appendix Figure A.5).

I next explored the moderating role of acquired firm size. As discussed above, the acquirer is more likely to leave an acquired firm intact when the latter is relatively large, since it is difficult to extensively restructure a large firm. Consistent with this prediction, I found the acquisition effect to be much weaker when the acquired firm is larger: there is no significant post-acquisition change in managerial diversity and only small reduction in occupational segregation when the acquired firm size is in the top or the third quartile. In contrast, the change is the greatest when the acquired firm size is in the bottom quartile (see Appendix Figure A.6).

A few more analyses are not shown in the paper. One is the comparison between same-industry acquisitions and diversifications: the acquisition effect on demographic inequality is stronger for same-industry acquisitions than for diversifications, possibly because there is less reshuffling in the latter scenario. I also examined whether the acquirer's federal-contractor status moderates the acquisition effect. In the United States, federal contractors are required to follow affirmative action, which could encourage the acquirer to push for managerial diversity following acquisition. In additional analyses, I did not find much difference between the two types of acquirers, suggesting that the rising level of managerial

diversity post acquisition is not a direct result of affirmative action requirements.

### Alternative Explanations and Potential Mechanisms

Before concluding, I briefly discuss possible mechanisms underlying the observed effects. First, I have already suggested that the above analysis is not consistent with the volunteer departure story. But there is a related possibility: it is possible that white men are generally paid more for their relative productivity, and to reduce cost, the acquirer firm would simply cut these overpaid workers, leading to a lower proportion of white male managers. This process should be more likely to occur when the firm is in dire financial situations, has low cash flow and high-debt-to-equity ratio, and face weak union pressures. Using a subset of the sample covering publicly traded firms, I interacted a firm's revenue per asset, Tobin's Q, cash flow, and debt-to-equity ratio with the post-acquisition effect and did not find any significant interaction term. I then used industry-level labor union data from Current Population Survey and did not find it to influence the post-acquisition effects either. While this mechanism is still possible, it is unlikely to be a key explanation.

The second possible explanation is that the acquirer firm has more managerial diversity and less occupational segregation than the acquired firm, and the observed effect is a result of the acquirer sending their employees to the acquired establishment. I found this explanation also unlikely for two reasons. One, while the acquirer firm may occasionally send some of its middle managers to the acquired establishments, it rarely sends non-managerial workers, so this process cannot explain the decreased desegregation level among non-managers. Two, on average acquirer firms are not any more managerially diverse or less segregated than the acquired establishments. Three, when the acquirer firms have low managerial diversity and high occupational segregation, acquisition does not lead to more inequality in the acquired firm (see Figure 7), which is inconsistent with this explanation. Moreover, I did not find any significant interacting effect when adding the physical distance between the acquirer headquarter and the acquired establishments as a moderator, assuming that worker transfer would be more likely when such distance is smaller.

The third explanation, also the one most consistent with both my qualitative and quantitative evidence, is that the acquirer uses the acquisition event as an opportunity for reassessing workers and changing existing practices. Several of my informants suggest that acquirer firms pay attention to diversity in the post-acquisition stage and may try to use it as an opportunity to reset the hierarchies and reduce gender and racial gaps. One ex-M&A consultant mentioned: "You can be ensured that the steering committee would be very concerned about diversity; I bet they would use that as a criterion when restructuring the firm" (interview). My informants also suggest that acquirer firms typically introduce new practices to the acquired establishment, most of which are more friendly to minorities and women. These qualitative evidences are consistent with the above finding that the acquisition effect is stronger for the more diversity-friendly acquirers, presumably because they are more concerned about diversity and have practices that are more supportive of minorities and women. A brief summary of possible mechanisms and their evidences is shown in Table 5

[insert Table 5 about here]

### DISCUSSION AND CONCLUSION

How does firm acquisition shape workplace inequalities? Although acquisition events affect millions of workers every year, their impact on inequality remains unclear. Using various qualitative evidence, I theorize that while acquisition may lead to more skilled-based inequality, it may in fact reduce racial and gender inequalities in the acquired establishment. I found strong support for this hypothesis using a nationally representative sample of firms covering 37,343 acquisition events. On the one hand, acquisition events significantly reduce jobs for middle managers, back-office workers, and blue-collar workers, while raise the demand for highly skilled professionals. But on the other hand, they lead to more managerial diversity and less occupational segregation, especially for blacks and women. Therefore, acquisition events both increase skilled-based inequality and decrease racial and gender inequality.

This study speaks to the literature on workplace inequality. In the last few decades, organizational fields have undergone transformative changes, as mergers, acquisitions, internal downsizing, other forms of corporate restructuring become commonplace. These organizational dynamics create and destroy jobs on a large scale, so they can dramatically alter the job opportunities available to different groups of workers. Indeed, in this era of restructuring, we are seeing rising class inequality, unemployment, and persistent racial disparities. Redistributive wage-setting institutions such as unions and internal labor markets have become weaker as power shifted decisively in favor of employers. How much of these changes are credited to organizational restructuring and workplace reconfiguration?

As sociologists become increasingly interested in the consequences of corporate restructuring, a general view has emerged: the widespread restructuring activities contribute to inequality by hurting the job prospect of the disadvantaged groups (Dencker 2008; Dencker and Fang 2016; Kalev 2014; S. Kim 2011; McCall 2005). Restructuring typically leads to downsizing and wage depression for workers in the more peripheral positions, which should particularly affect the lower-skilled workers and demographic minorities. In making downsizing decisions, managers cognitive biases could further aggregate racial and gender inequalities (Acker 1992; Reskin and Padavic 1994). This study offers strong empirical support for part of this view. Using a nationally representative sample and robust diff-in-diff models, this study provides convincing evidence that one of the most common forms of restructuring events mergers and acquisitions have contributed substantially to the growing class inequality in the United Stated.

But my study paints a different picture for racial and gender inequality. A previously underexplored consequence of restructuring is the opportunity to break up existing hierarchies, structures, and norms. This restructuring can open up opportunities for those competent individuals who were located on the periphery and were given limited support under the old arrangement. This is particularly so after an acquisition, which typically involves extensive restructuring, external oversight, and new leadership. Such a shakeup can greatly

benefit minorities and women, especially if racial and gender inequalities were previously high. Thus, it may be premature for a verdict on the inequality consequences of corporate restructuring. As this case on acquisition shows, restructuring can contribute to some forms of inequality while alleviating others.

Interestingly, the acquisition effects reflect macro level trends growing skill gaps and declining racial and gender gaps. This may not be a coincidence: mergers and acquisitions could be seen tools that help senior managers to speed up changes in an organizational field, as they can use the restructuring opportunity to shape a firm in their desired direction. If this is the case, then the consequence of acquisition could vary significantly across countries. For instance, we may not observe the same set of effects in countries where shareholder value and demographic diversity have not become widely accepted.

Findings of this study also provokes a rethinking of the intersectionality between race, gender, and class. Although post-acquisition restructuring reduces racial and gender gaps, the low-skilled minorities and women may not benefit much from this change. In fact, the resulting skill gap should hurt their career prospect, perhaps even more than it does to low-skilled whites and men. The growing stratification within minority groups and women has already been noted by some scholars, and my findings calls for more attention to this intersection between race, gender, and class.

In additional to the literature on organizational inequality, this paper also contributes to the rich literature on mergers and acquisitions. M&A events are traditionally the realm of economists and management scholars studying corporate finance, and it has been a very active topic of study. However, as mentioned earlier, the vast majority of this work focus on profitability and performance as the ultimate outcome. Even the few studies that address employment consequences simply use them to understand workplace productivity and labor cost. This is rather unfortunate, because M&A events have huge impact on workers, employment relationships, and workplace inequality. Given their prevalence and importance in the contemporary world, there appears to be great potential for sociologists to study M&A

events and link them to social inequality and stratification.

This study has its limitations. Given the data is at the establishment level, it is difficult to observe the precise process at work. Are the reduced racial and gender gaps a result of the re-evaluation process, newly adopted structures and practices, or a conscious effort of the acquirer firm to promote diversity? Future studies could use more detailed microlevel data to better measure the relative impact of these different processes. Additionally, the EEO-1 report does not include data on wage. Can the changing occupational composition accurately reflect a growing wage gap? Although there is increasing managerial diversity, are minority and women managers paid on the same level as their white male counterparts prior to acquisition? Currently, no one dataset in the United States offers information on wage, occupation, race, and gender. For future studies, perhaps some types of employer-employee linked dataset in Europe can help us answer these questions.

Although acquisitions are generally pursued for strategic purposes, they have the unintended consequence of causing major employment changes. Using diff-in-diff models on a nationally representative set of firms, I found that acquisitions lead to more skill-based inequality but reduce racial and gender inequality in the workplace. This study should encourage more studies to focus on the link between organizational dynamics and social inequality.

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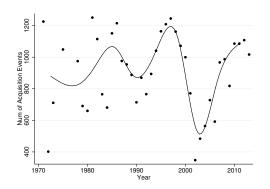
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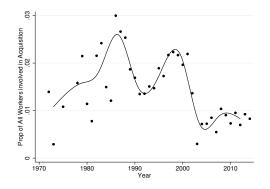
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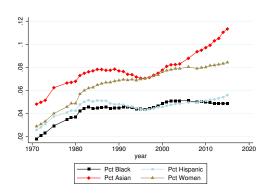
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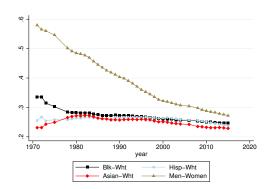




- (a) Num of Unique Acquisition Events
- (b) Proportion of Workers Affected

Figure 1: Trend in Merger and Acquisition Activities over Time





(a) Managerial Composition

(b) Occupational Segregation

Figure 2: Trend in Managerial Composition and Segregation over Time

Table 1: Comparing Means for Treatment and Control Groups before an Acquisition Event

	Treatment	Control	Rest of Sample
	mean	mean	mean
Pct White Managers	87.402	87.097	83.996
Pct Black Managers	5.500	5.410	6.793
Pct Hispanic Managers	5.010	5.317	6.703
Pct Asian Managers	2.089	2.175	2.508
Pct Women Managers	30.999	31.245	35.331
Pct White Workers	72.818	72.985	70.034
Pct Black Workers	12.486	12.070	12.941
Pct Hispanic Workers	10.149	10.343	11.805
Pct Asian Workers	3.348	3.289	3.465
Pct Women Workers	48.518	48.638	50.264
Blk-Wht Occupational Segregation	29.943	29.994	28.784
Hisp-Wht Occupational Segregation	31.735	31.840	30.258
Asian-Wht Occupational Segregation	34.985	34.482	33.200
Men-Women Occupational Segregation	39.855	40.460	37.532
Pct Managers	12.861	13.329	13.635
Pct Professionals	12.108	12.062	11.677
Pct Backoffice Workers	40.416	40.205	43.056
Pct Bluecollar Workers	27.556	26.682	22.388
Pct Service Workers	14.116	14.259	14.355

Table 2: Diff-in-Diff Models: Downsizing and Occupational Change Before and After Acquisition

	Total Employees	Pct Managers	Pct Profs	Pct Backoffice	Pct Bluecollars	Pct Service
Post Acquisition x	$-0.0249^{***}$	-0.500***	0.426***	-0.392*	0.252	-0.0701
Target (treat)	(0.00467)	(0.0903)	(0.0863)	(0.180)	(0.141)	(0.118)
Total Num Workers		-4.877***	$-0.656^{***}$	-2.338***	$4.434^{***}$	1.223***
(log)		(0.0700)	(0.0660)	(0.128)	(0.110)	(0.0628)
Establishment Age	-0.00318***	0.0723***	$0.176^{***}$	-0.271***	-0.0718***	-0.0616***
(proximation)	(0.000000)	(0.00753)	(0.0107)	(0.0223)	(0.0152)	(0.0149)
Post Acquisition	0.0186***	0.174***	-0.0444	0.0814	-0.236**	0.0988
(both treat and control)	(0.00315)	(0.0436)	(0.0447)	(0.0993)	(0.0761)	(0.0715)
Observations	1432196	1432196	1432196	1432131	1432196	1432131
$R^2$	0.932	0.823	0.908	0.921	0.944	0.954

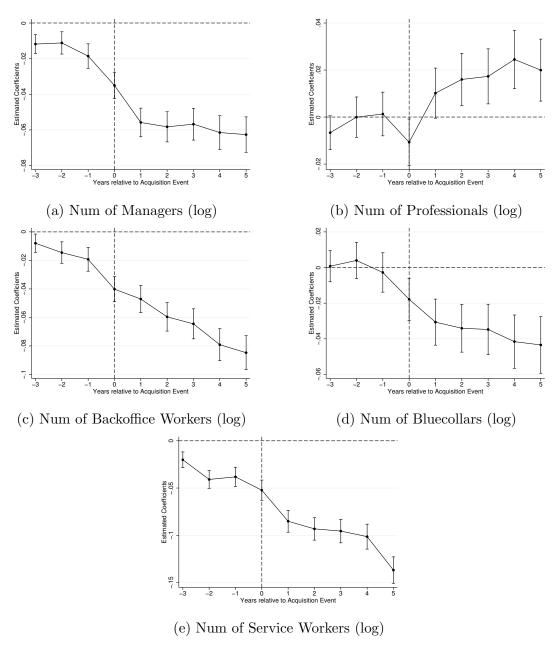
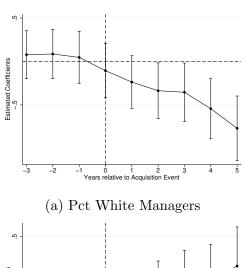
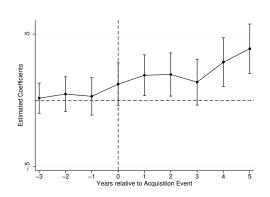


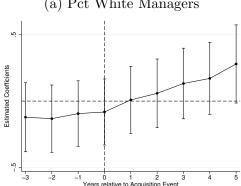
Figure 3: Predicted Workers Count before and after an Acquisition Event

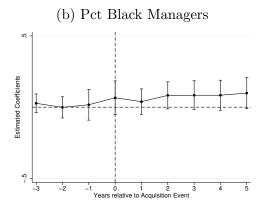
Table 3: Diff-in-Diff Models: Managerial Composition and Occupational Segregation Before and After Acquisition

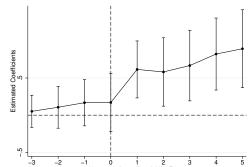
		Man	Managerial Composition	sition			Segreg	Segregation Level	
	Pct White	Pct Black	Pct Hispanic	Pct Asian	Pct Women	Blk-Wht	Hisp-Wht	Asian-Wht	Men-Women
Post Acquisition x Target (treat)	-0.421*** (0.0791)	0.176*** (0.0483)	$0.205^{***}$ $(0.0538)$	0.0401 (0.0329)	0.595***	-0.849*** (0.141)	-0.952*** (0.166)	-0.671** (0.213)	-1.000*** (0.137)
Total Num Workers (log)	-0.770*** (0.0567)	$0.343^{***}$ $(0.0366)$	$0.357^{***}$ (0.0361)	0.0703** $(0.0263)$	$1.767^{***}$ $(0.107)$	-5.762*** (0.119)	$-6.176^{***}$ (0.128)	$-6.297^{***}$ (0.152)	-4.796*** (0.119)
Pct Managers	$35.66^{***}$ (8.904)	-5.413 (2.861)	-20.29*** (5.060)	-9.949 (5.964)	$21.04^{***}$ (5.227)	-7.230 (6.645)	-6.416 (6.207)	4.948 (7.723)	0.550 $(4.978)$
Pct Professional Workers	45.35** $(8.858)$	-9.766*** (2.854)	-23.67*** (5.038)	$-11.91^*$ (5.939)	0.829 (5.141)	-8.968 (6.675)	-8.574 (6.238)	-11.57 (7.754)	-19.70*** $(5.002)$
Pct Backoffice Workers	44.80*** (8.849)	$-9.371^{**}$ (2.854)	$-23.51^{***}$ (5.042)	-11.92* (5.921)	2.618 $(5.156)$	-15.90* (6.703)	-14.12* (6.243)	-1.566 (7.786)	-15.35** (5.034)
Pct Blue Collars	$45.00^{***}$ (8.861)	$-9.440^{***}$ (2.851)	$-23.56^{***}$ (5.044)	-12.00* (5.926)	0.172 $(5.129)$	-12.73 (6.683)	-8.322 (6.206)	10.74 (7.785)	-4.960 (5.010)
Pct Service Workers	44.57*** (8.859)	-9.307** (2.857)	-23.43*** (5.043)	$-11.84^*$ (5.924)	0.857 $(5.184)$	-18.52** (6.703)	-18.91** (6.289)	-1.488 (7.833)	-18.94*** (5.033)
Establishment Age (proximation)	-0.178*** (0.0149)	$0.130^{***}$ $(0.00969)$	0.0222* $(0.00922)$	$0.0262^{***}$ $(0.00588)$	$0.455^{***}$ (0.0224)	-0.236*** (0.0238)	$-0.280^{***}$ (0.0276)	$-0.242^{***}$ (0.0350)	-0.318*** (0.0285)
Post Acquisition (both treat and control)	0.198** (0.0678)	-0.0933* $(0.0430)$	-0.0736 $(0.0434)$	-0.0316 $(0.0242)$	-0.172 (0.102)	0.389*** (0.0850)	$0.381^{***}$ $(0.0981)$	0.161 $(0.127)$	$0.254^{**}$ $(0.0823)$
Occupational Heterogeneity Observations	1432196	1432196	1432196	1432196	1432196	750.1*** (53.97)	762.6*** (51.80) 956784	730.5*** (74.43) 745850	$363.6^{***}$ $(25.54)$ $1374993$
$R^2$	0.770	0.712	0.748	0.715	0.810	0.739	0.740	0.753	0.854
Ctondend omean in manufact	7								











(c) Pct Hispanic Managers (d) Pct Asian Managers

(e) Pct Women Managers cont. on next page

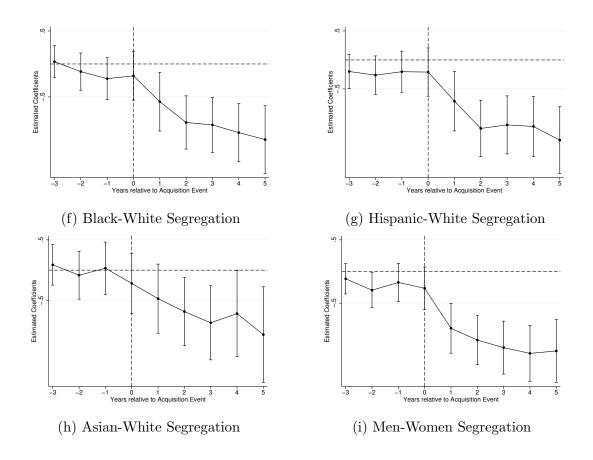
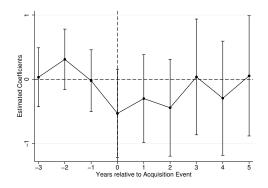
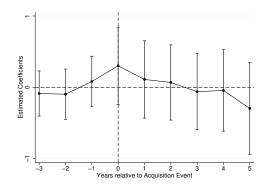
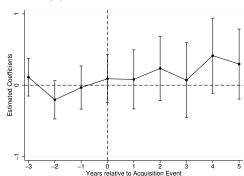


Figure 4: Predicted Change in Managerial Diversity and Occupational Segregation before and after an Acquisition Event

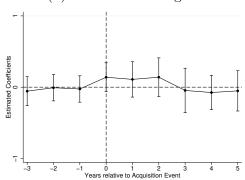




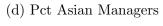


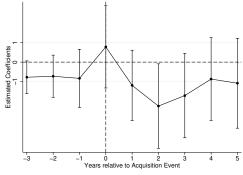


(b) Pct Black Managers



## (c) Pct Hispanic Managers





(e) Pct Women Managers

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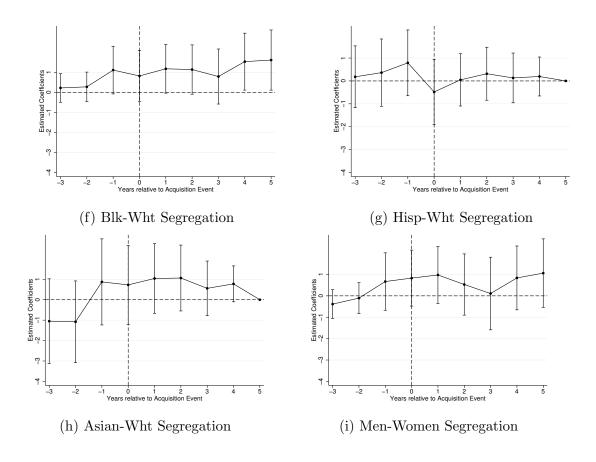
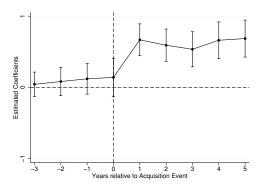


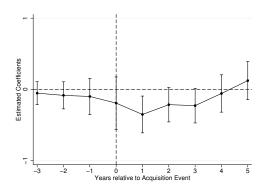
Figure 5: Predicted Change in Managerial Diversity and Occupational Segregation before and after a Withdrawn Acquisition Announcement

Table 4: Moderating the Acquisition Effect: Unemployment Rate

		Managerial	Composition	
	Pct White	Pct Men	Pct White	Pct Men
Post Acquisition x	0.0877	-0.00116	-0.423*	-0.195*
Target (treat)	(0.182)	(0.103)	(0.193)	(0.0936)
Post Acquisition x	-6.994**	-2.909*		
Target x County Level Unemployment Rate	(2.660)	(1.349)		
Post Acquisition x			-0.133	-0.361
Target x State Level Unemployment Rate			(2.806)	(1.260)
Observations	1421792	1400958	1411122	1390293
$R^2$	0.770	0.914	0.770	0.914

Standard errors in parentheses \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

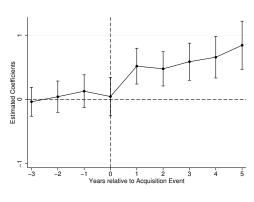


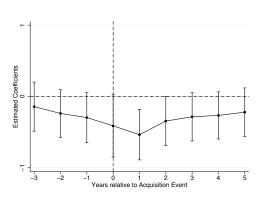


(a) Previously Low

(b) Previously High

Pct Black Managers

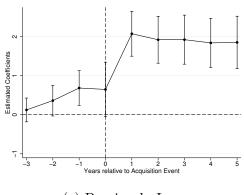


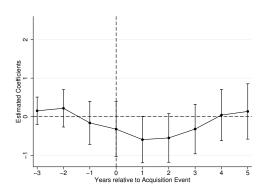


(c) Previously Low

(d) Previously High

Pct Hispanic Managers





(e) Previously Low

(f) Previously High

Pct Women Managers conti. on next page

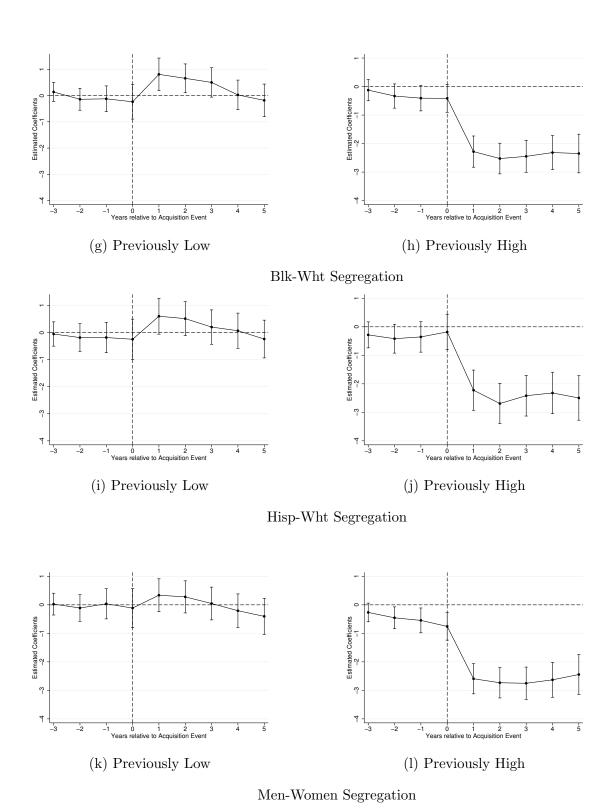
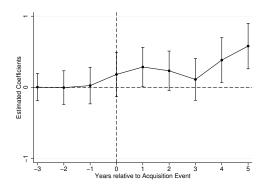
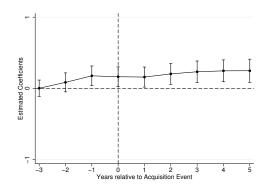


Figure 6: Predicted Change in Managerial Diversity and Occupational Segregation: Splitting High and Low Diversity Establishments prior to an Acquisition Event

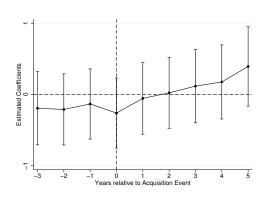


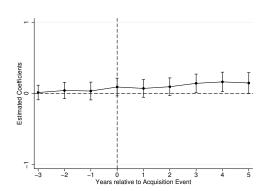


(a) Acquiring Firm: High

(b) Acquiring Firm: Low

Pct Black Managers

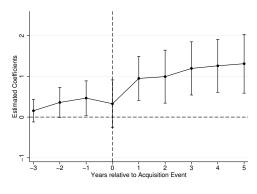


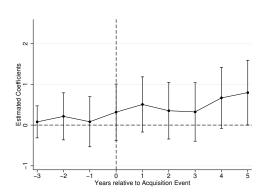


(c) Acquiring Firm: High

(d) Acquiring Firm: Low

Pct Hispanic Managers

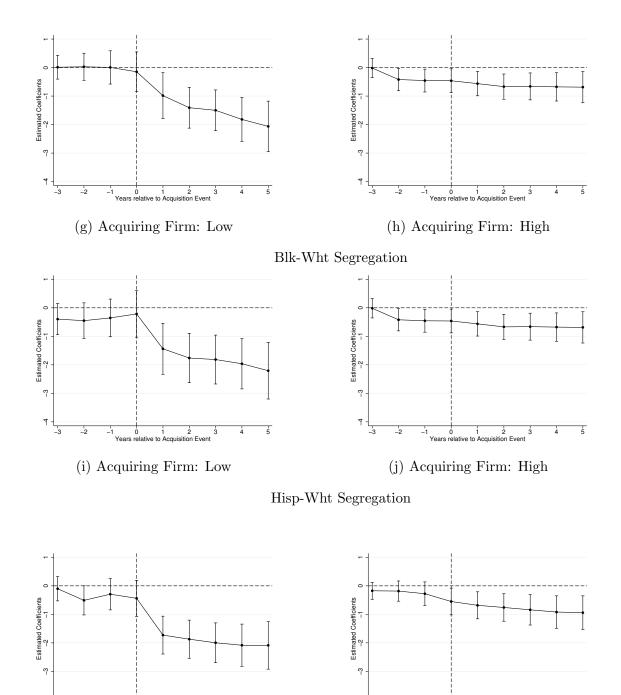




(e) Acquiring Firm: High

(f) Acquiring Firm: Low

Pct Women Managers conti. on next page



Men-Women Segregation

(1) Acquiring Firm: High

(k) Acquiring Firm: Low

Figure 7: Predicted Change in Managerial Composition and Occupational Segregation: Splitting High and Low Diversity Levels for Acquiring Firms

Table 5: Possible Mechanisms (on Racial and Gender Inequality)

Possible	Evidence in Support	Evidence Against	Assessment
Re-evaluating employees, which helps eliminate network homophily and past bias.	<ul> <li>An immediate drop in inequality levels after acquisition events.</li> <li>The effects are mostly concentrated in establishments that had high inequality levels prior to acquisition.</li> <li>Extensive employee reevaluation post acquisition is quite common.</li> </ul>	The reduction in inequality continues slowly after the initial period.	A possible mechanism; could work in conjunctions with other mechanisms to produce the observed effects.
Volunteer departures for whites and men, assuming they have better outside options.	An immediate drop in racial and gender inequality levels after acquisition events.	<ul> <li>The effects are unrelated to economic conditions and unemployment rate.</li> <li>Does not explain why the acquisition effects vary depending the acquirer's diversity and segregation levels and the establishment's prior levels.</li> <li>The reduction in inequality continues slowly after the initial period.</li> </ul>	Unlikely, given that this mechanism should vary according to the availability of jobs on the market.
Acquirer firms cut down highly paid senior workers, who tend to be whites and men.	An immediate drop in racial and gender inequality levels after acquisition events.	<ul> <li>The effects are unrelated to firm performance, cash flow, debt-to-equity ratio, and industry unionization.</li> <li>The reduction in inequality continues slowly after the initial period.</li> <li>Does not explain why the acquisition effects vary depending the acquirer's diversity and segregation levels.</li> </ul>	Unlikely, given that this mechanism should be stronger when the firm is in dire financial situation, low cash flow, high debt-to-equity ratio, and weak unionization support.

Continued on next page

Table 5 – Continued from previous page

Proposed	Evidence in Support	Evidence Against	Assessment
Mechanisms			
Spillover of policies, practices, and culture from the acquirer firm to the acquired establishment.	<ul> <li>The reduction in inequality continues slowly after the initial period.</li> <li>The effects are stronger when the acquirer firm has more managerial diversity and less segregation.</li> </ul>	<ul> <li>When the acquirer firm had lower managerial diversity and more segregation, acquisition does not lead to more inequality in the acquired firm.</li> <li>An immediate drop in racial and gender inequality levels after acquisition events.</li> </ul>	Could be one of the mechanisms, but likely not the only one.
Acquirer uses restructuring as an opportunity to increase managerial diversity and reduce segregation in the acquired establishment.	<ul> <li>The effects are stronger when the acquirer firm is more concerned about diversity (has more managerial diversity and less segregation).</li> <li>Qualitative evidence suggests that steering committees are attentive to diversity issues.</li> </ul>		A possible mechanism; could work in conjunctions with other mechanisms to produce the observed effects.
Internal transfer of managers and workers.	The effects are stronger when the acquired firm has more managerial diversity and less segregation.	<ul> <li>Internal transfer typically does not involve non-managerial workers. This does not explain reduced segregation level.</li> <li>The effects are not moderated by the physical distance between the acquirer and the acquired.</li> <li>When the acquirer firm had lower managerial diversity and more segregation, acquisition does not lead to more inequality in the acquired firm.</li> <li>Acquirer firms on average do not have higher managerial diversity and lower segregation than acquired establishments.</li> </ul>	Unlikely, for all four of these reasons.

## Appendices

Table A.1: Fixed Effects Models without Matching: Managerial Composition and Occupational Segregation Before and After Acquisition

		Man	Managerial Composition	sition			Segreg	Segregation Level	
	Pct White	Pct Black	Pct Hispanic	Pct Asian	Pct Women	Blk-Wht	Hisp-Wht	Asian-Wht	Men-Women
Post Acquisition x Target (treat)	-0.406***	0.166***	0.200***	0.0395	0.570***	-0.742***	-0.851***	-0.641**	-0.899*** (0.134)
					(21.1.0)				
Total Num Workers	-0.757***	$0.318^{***}$	0.355***	0.0833***	$1.647^{***}$	$-5.513^{***}$	-5.918***	-5.986***	-4.873***
$(\log)$	(0.0541)	(0.0348)	(0.0339)	(0.0248)	(0.101)	(0.113)	(0.121)	(0.141)	(0.117)
Pct Managers	$33.54^{***}$	-7.458**	-18.50***	-7.587	$20.52^{***}$	-9.812	-3.141	2.698	0.747
	(7.837)	(2.703)	(4.546)	(5.169)	(4.786)	(5.820)	(5.796)	(6.553)	(4.236)
Pct Professional	43.18***	-11.73***	-21.79***	-9.660	0.783	-11.34	-4.674	-14.29*	-17.39***
Workers	(7.790)	(2.696)	(4.528)	(5.142)	(4.705)	(5.883)	(5.817)	(6.563)	(4.244)
Pct Back-Office	$42.46^{***}$	-11.24***	-21.60***	-9.621	2.725	-16.91**	-9.546	-3.186	-11.38**
Workers	(7.785)	(2.696)	(4.530)	(5.128)	(4.718)	(5.852)	(5.808)	(6.610)	(4.284)
Pct Blue Collars	42.79***	-11.34***	-21.73***	-9.728	0.164	$-14.51^*$	-4.716	8.116	-1.834
	(7.800)	(2.695)	(4.536)	(5.132)	(4.702)	(5.887)	(5.835)	(6.593)	(4.244)
Pct Service Workers	42.47***	-11.22***	-21.59***	-9.656	0.953	-19.88***	-14.47*	-4.161	-15.97***
	(7.796)	(2.699)	(4.533)	(5.131)	(4.754)	(5.917)	(5.907)	(6.648)	(4.267)
Establishment Age	-0.178***	0.129***	0.0230*	0.0257***	0.442***	-0.241***	-0.296***	-0.253***	-0.327***
(proximation)	(0.0149)	(0.00923)	(0.00946)	(0.00559)	(0.0218)	(0.0214)	(0.0265)	(0.0344)	(0.0215)
Post Acquisition	0.177**	-0.0778	-0.0785	-0.0206	-0.112	$0.341^{***}$	0.386***	0.195	$0.242^{**}$
(both treat and control)	(0.0662)	(0.0408)	(0.0433)	(0.0232)	(0.0983)	(0.0798)	(0.0913)	(0.119)	(0.0775)
Occupational						150.7***	$163.4^{***}$	117.9***	138.7***
Heterogeneity						(9.827)	(12.85)	(23.58)	(8.294)
Observations	1688023	1688023	1688023	1688023	1688023	1338498	1150649	883259	1681506
$R^2$	0.779	0.726	0.759	0.731	0.818	0.750	0.750	0.762	0.856

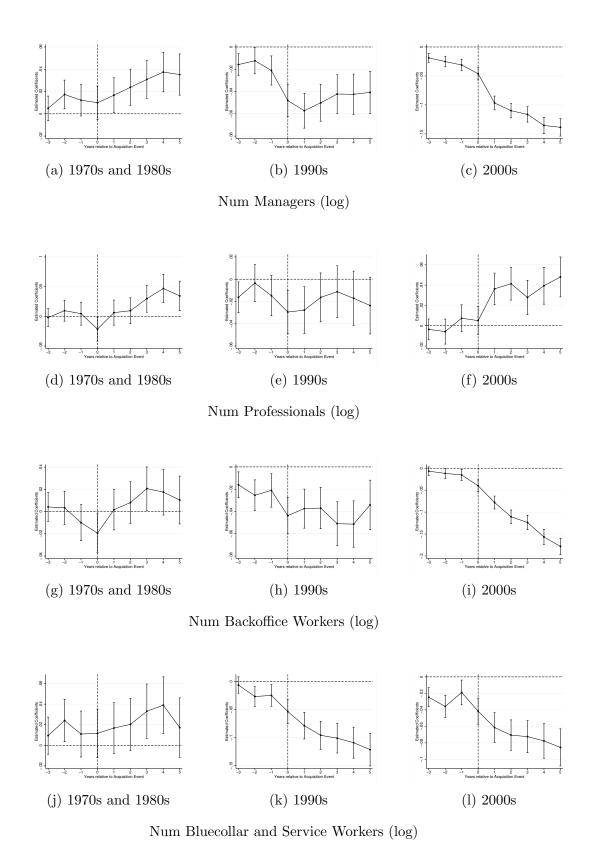


Figure A.1: Acquisition Effect on Occupational Composition: sorted by Decades

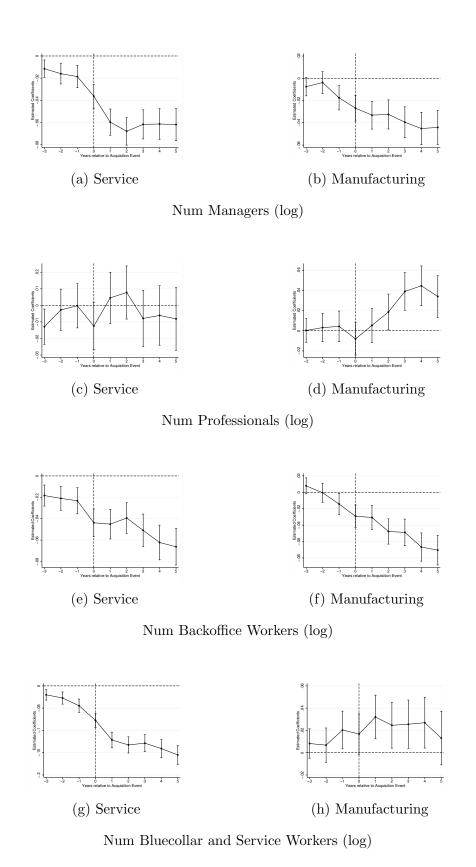
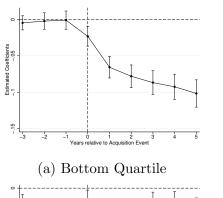
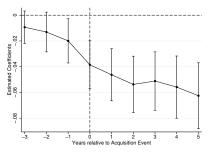
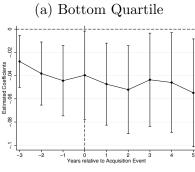
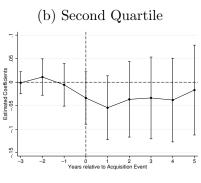


Figure A.2: Acquisition Effect on Occupational Composition: sorted by Broad Industries





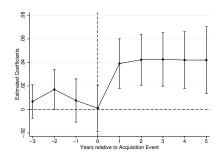


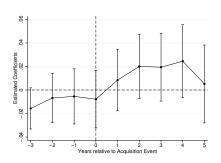


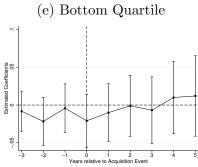
(c) Third Quartile

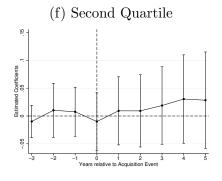
(d) Top Quartile

Num Managers (log)







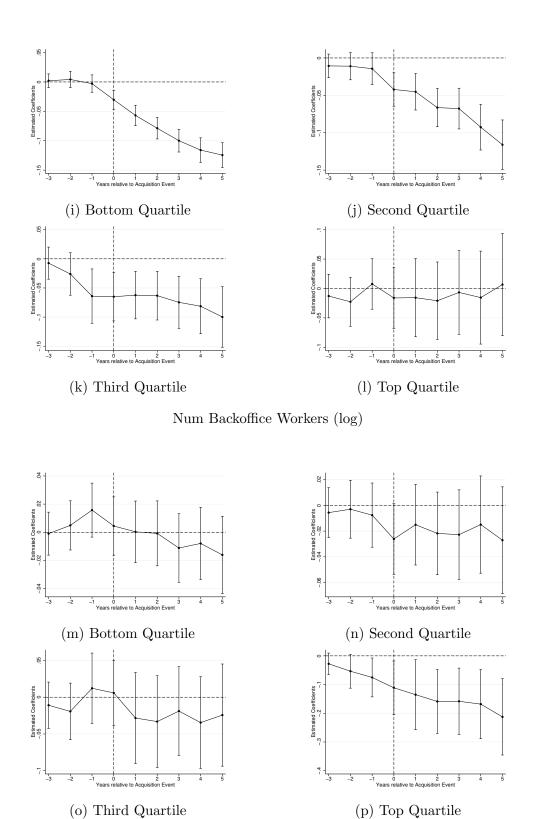


(g) Third Quartile

(h) Top Quartile

Num Professionals (log)

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Num Bluecollar and Service Workers (log)

Figure A.3: Acquisition Effect on Occupational Composition: sorted by Firm Size (of the Acquired Firm)

Table A.2: Diff-in-Diff Models: Managerial Composition and Occupational Segregation Before and After Acquisition II

		Ma	nagerial Composition	sition			Segreg	Segregation Level	
	Pct White	Pct Black	Pct Hispanic	Pct Asian	Pct Women	Blk-Wht	Hisp-Wht	Asian-Wht	Men-Women
5 Years after	-0.842***	0.418***	0.323*	0.102	1.024***	-1.310***	-1.457***	-1.042*	-1.419***
Acquisition x Target	(0.192)	(0.0973)	(0.151)	(0.0572)	(0.275)	(0.271)	(0.304)	(0.407)	(0.261)
4 Years after	$-0.616^{***}$	0.313**	0.215	0.0879	0.959***	-1.209***	-1.235***	-0.639	-1.424***
Acquisition x Target	(0.180)	(0.0960)	(0.140)	(0.0557)	(0.256)	(0.234)	(0.278)	(0.370)	(0.237)
3 Years after	-0.430*	0.167	0.175	0.0886	0.797**	-1.065***	-1.201***	-0.826*	-1.347***
Acquisition x Target	(0.175)	(0.0904)	(0.138)	(0.0540)	(0.252)	(0.223)	(0.271)	(0.321)	(0.226)
2 Years after	-0.410*	0.221**	0.102	0.0869	0.709**	-1.044**	-1.197***	-0.554	-1.265***
Acquisition x Target	(0.167)	(0.0859)	(0.135)	(0.0506)	(0.247)	(0.218)	(0.264)	(0.299)	(0.212)
1 Years after	-0.312	0.225**	0.0407	0.0468	0.766***	-0.813***	-0.849**	-0.402	-1.182***
Acquisition x Target	(0.163)	(0.0843)	(0.134)	(0.0483)	(0.218)	(0.240)	(0.272)	(0.318)	(0.210)
0 Year before	-0.204	0.169	-0.0601	0.0954	0.312	-0.349	-0.183	-0.140	-0.498*
Acquisition x Target	(0.168)	(0.0921)	(0.131)	(0.0648)	(0.231)	(0.210)	(0.243)	(0.286)	(0.199)
1 Year before	-0.0690	0.0919	-0.0290	0.00613	0.302	-0.274	-0.256	0.144	-0.289
Acquisition x Target	(0.159)	(0.0786)	(0.131)	(0.0594)	(0.181)	(0.182)	(0.204)	(0.248)	(0.177)
2 Years before	0.0383	0.0343	-0.0733	0.000670	0.296	-0.252	-0.311	0.0125	-0.308
Acquisition x Target	(0.151)	(0.0728)	(0.132)	(0.0425)	(0.163)	(0.159)	(0.189)	(0.227)	(0.162)
3 Years before	0.0375	0.00494	-0.0801	0.0376	0.125	-0.00438	-0.185	0.212	-0.123
Acquisition x Target	(0.144)	(0.0599)	(0.136)	(0.0377)	(0.119)	(0.139)	(0.169)	(0.192)	(0.136)
Observations	1432196	1432196	1432196	1432196	1432196	1113726	956784	745850	1374993
$R^2$	0.770	0.712	0.748	0.715	0.810	0.739	0.740	0.753	0.854

Standard errors in parentheses

<sup>(1)</sup> Establishment and year fixed effects are included in all models;(2) All controls are included; (3) Models are clustered at the firm level. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.01

Table A.3: Diff-in-Diff Models: Worker Composition Before and After Acquisition

	Pct White	Pct Black	Pct Hispanic	Pct Asian	Pct Women
Post Acquisition x	-0.346***	0.294***	-0.0736	0.0857	-0.159*
Target (treat)	(0.0742)	(0.0577)	(0.0725)	(0.0474)	(0.0647)
Total Num Workers	-1.886***	1.030***	0.567***	$0.164^{***}$	-0.485***
(log)	(0.0675)	(0.0423)	(0.0423)	(0.0277)	(0.0782)
Pct Managers	142.2***	19.41***	17.55***	12.58***	37.63***
	(4.769)	(2.716)	(2.718)	(2.187)	(4.911)
Pct Professional	149.3***	15.50***	14.48***	13.94***	16.31***
Workers	(4.762)	(2.712)	(2.706)	(2.180)	(4.895)
Pct Backoffice	141.9***	20.89***	$18.12^{***}$	$11.80^{***}$	24.50***
Workers	(4.761)	(2.712)	(2.699)	(2.167)	(4.902)
Pct Blue Collars	134.1***	24.12***	22.24***	12.13***	7.932
	(4.756)	(2.711)	(2.702)	(2.168)	(4.915)
Pct Service Workers	135.5***	24.60***	20.69***	12.01***	15.97**
	(4.762)	(2.722)	(2.702)	(2.169)	(4.917)
Establishment Age	-0.469***	0.258***	0.119***	$0.0514^{***}$	$0.0514^{***}$
(proximation)	(0.0173)	(0.0107)	(0.0115)	(0.00567)	(0.0131)
Post Acquisition	0.161**	-0.102*	-0.0515	0.00846	-0.0399
(both treat and control)	(0.0616)	(0.0405)	(0.0472)	(0.0251)	(0.0486)
Observations	1421792	1421792	1421792	1432196	1432196
$R^2$	0.932	0.919	0.934	0.874	0.943

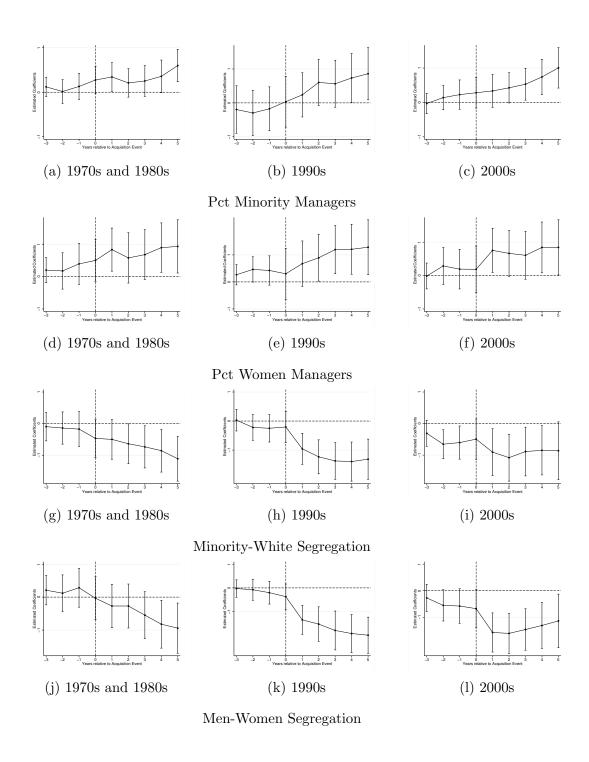


Figure A.4: Acquisition Effect on Managerial Diversity and Segregation: sorted by Decades

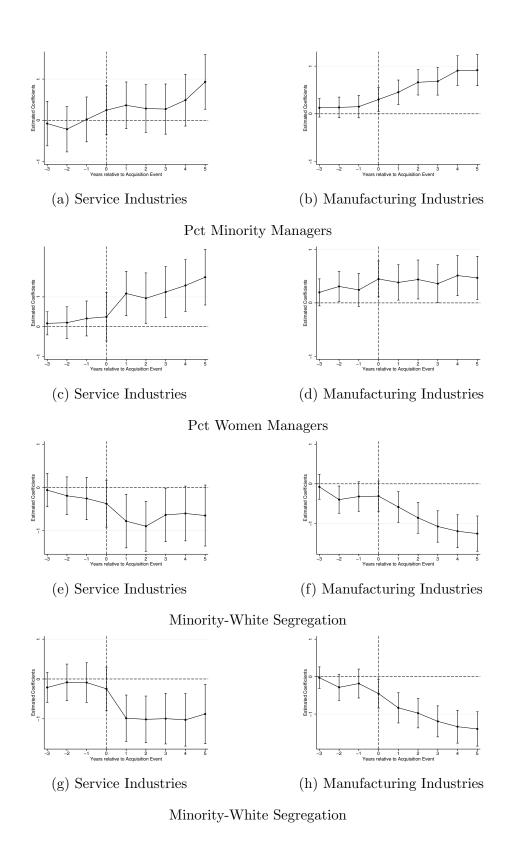
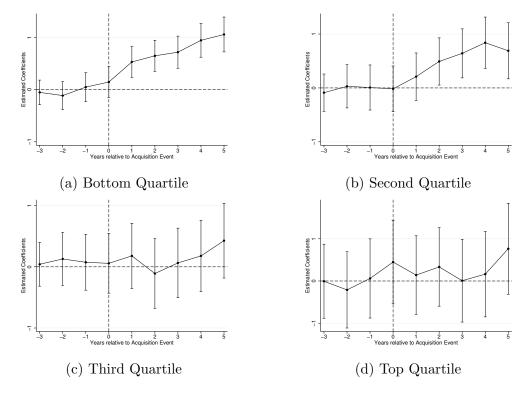
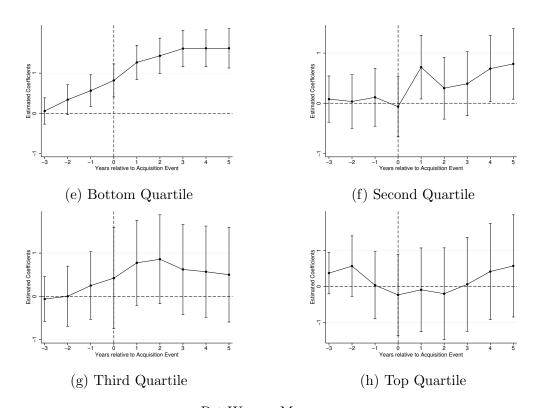


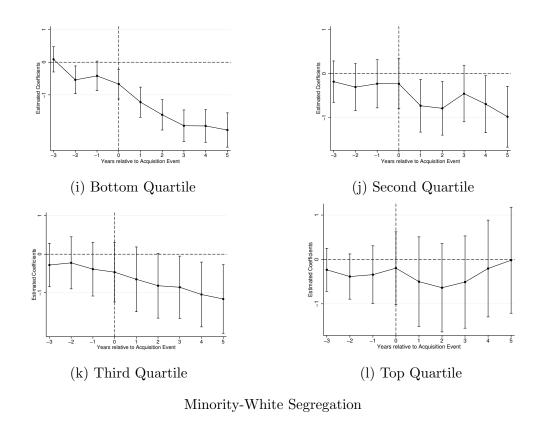
Figure A.5: Acquisition Effect on Managerial Diversity and Segregation: sorted by Broad Industries



Pct Minority Managers



Pct Women Managers cont. on next page



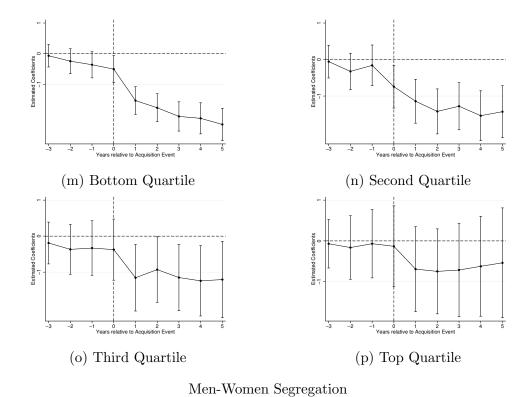


Figure A.6: Acquisition Effect on Managerial Diversity and Segregation: sorted by Firm Size (of the Acquired Firm)