THE ARCHITECTURE OF INCLUSION: EVIDENCE FROM CORPORATE DIVERSITY PROGRAMS

FRANK DOBBIN AND ALEXANDRA KALEV*

Introduction

Ever since the Civil Rights Act of 1964 outlawed employment discrimination, governments, colleges, and corporations have tried to understand what the law means.¹ Employers have tried to integrate workforces, some with more enthusiasm than others.² Change has been slower than those who passed the Civil Rights Act might have imagined it would be.³ Given the slow progress in the academy, National Science Foundation ("NSF") deputy director Joseph Bordogna designed the ADVANCE program in 1999 to promote the integration of women in the science and engineering fields that the NSF funds.⁴ In 2001, ADVANCE, under the leadership of Alice Hogan, considered the first round of applications for grants for institutional change.⁵ The typical grant lasts for five years and provides several million dollars to colleges and universities that propose institutional changes to promote women in science and engineering.⁶

As with most efforts to reduce gender segregation in the government, academia, and the corporate world,⁷ ADVANCE has been little studied for evidence of its efficacy. Now some twenty programs have been initiated, and we have the opportunity to observe which strategies have succeeded and which have not. Susan Sturm provides the first systematic analysis of a

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⁵ Id. at 277.


landmark program, one that has clocked some of the greatest gains for women to date, at the University of Michigan.\(^8\)

In this commentary on Sturm’s pathbreaking analysis we explore the generalizability of some of Sturm’s findings to the corporate world using unique data from a longitudinal study of diversity efforts at more than 800 American firms over thirty years.\(^9\) Sturm identifies key diversity strategies that have proven successful at the University of Michigan.\(^10\) We ask whether corresponding strategies in the corporate sector have led to increases in the numbers of white women, black women, and black men in management. Our findings are based on the most detailed data yet analyzed on corporate diversity efforts and their effects on actual diversity.

Our findings lend striking support to Sturm’s analysis and insights. In the corporate world, as in academia, programs that establish clear leadership and responsibility for change have produced the greatest gains in diversity. Programs that integrate the roles of corporate leadership and equity leadership are most successful in business, as they appear to be in the academy. We find that programs that create public accountability have led to significant increases in the presence of all three underrepresented groups in management: white women, black women, and black men. As in the academy, those programs that use public resources to promote the spread of new knowledge about how to enhance opportunity are more successful in business. We compare these programs to other popular, and expensive, programs.

This Essay proceeds as follows: in Part I we discuss Sturm’s two insights on leadership and public accountability. We describe the corporate leadership strategies and public accountability programs that in our view are the closest corollaries to the programs Sturm describes at the University of Michigan and at NSF’s ADVANCE. In Part II, we examine the efficacy of these initiatives in the corporate world. We look at whether managerial diversity increases in the organizations that adopt the leadership programs and in the organizations that fall under the accountability measures.

\(^8\) Sturm, supra note 4, at 282–87.

\(^9\) The findings we draw on were reported in Alexandra Kalev & Frank Dobbin, Enforcement of Civil Rights Law in Private Workplaces: Compliance Reviews and Lawsuits Before and After Reagan, 31 L. & Soc. Inquiry 855 (2006); see also Kalev, Dobbin & Kelly, supra note 7.

\(^10\) Sturm, supra note 4, at 283–85 (describing strategies such as assembling teams with experience “in promoting gender and racial equity,” conducting a survey to pinpoint problems, and developing and implementing targeted initiatives).

\(^1\) Sturm, supra note 4.

\(^2\) Max Weber, Economy and Society 960 (Guenther Roth & Claus Wittich eds., 1978).

\(^3\) Sturm, supra note 4, at 255–58.

officers. As a result, Sturm argues, although establishing responsibility for the goal of equity may be essential, an unintended consequence in many organizations (but not at Michigan) is that the person responsible for increasing diversity is herself segregated and kept out of the mainstream in decision making.

Sturm finds that at the University of Michigan, this problem was solved by the creation of hybrid roles, folding responsibility for gender equity into existing leadership roles. In Sturm’s view, the University of Michigan’s program is effective because diversity managers are not segregated in an office devoted to diversity alone, but rather are integrated members of the academic hierarchy. Diversity trainers are regular members of the faculty, who have studied the scholarly literature on diversity, rather than outside consultants; the leaders of the ADVANCE program are regular high-level university administrators, rather than isolated diversity experts. Having leaders of the organization participate in the design and implementation of equity efforts is key to the effectiveness of the program, in Sturm’s view.

2. Overcoming Decentralization

The marginalization of diversity is all the more pronounced in academia because of the extreme decentralization of decision making. Decisions about hiring and promotion are made by individual departments that are unaware of one another’s actions and of the larger pattern of hiring and promotion by sex and race. Overcoming decentralization is therefore essential for effective diversity leadership.

B. Corollary Leadership Programs in Corporations

We considered the effectiveness of these two approaches to improving gender equity—integrating gender equity with functional leadership roles and overcoming decentralization—by investigating several corporate programs.

First, we tested Sturm’s hybrid-roles thesis that it is better to involve key administrators who have wide-ranging authority rather than isolating the gender equity role. We examined whether it is more effective to have a diversity task force, composed of employees involved in regular line-management roles from across the organization, than to have a full-time expert.

Second, we tested Sturm’s idea that university decentralization thwarts progress. We examined whether setting annual affirmative action goals is effective and whether institutionalizing responsibility for diversity by having a designated diversity manager is more effective than merely having an affirmative action plan. This test allowed us to observe an implication of Sturm’s centralization hypothesis, namely that it is best to have a full-time expert in place. Both scholars and consultants advise ongoing coordination and monitoring of diversity progress by dedicated staff members or task forces.

Third, we tested the idea that top management support for diversity programs benefits diversity efforts. Due to the difficulty of directly measuring whether executive and diversity roles are conjoined, as Sturm prescribes, we chose to look at the proportion of top executives who are women and the proportion who are minorities. We examined the effects of gender and racial diversity among the ten highest corporate leaders. This provided a broad test of the effect of top-management support for diversity programs.

Next, we discuss these three programs, and top-management diversity, to explain how they correspond to Sturm’s program suggestions. We also review previous research on these programs, which has been sparse and inconclusive for the most part.

1. The Diversity Task Force

At Michigan, university leaders took the lead on the equity effort. The hybrid role, academic leader/equity leader, helped ensure success. The corellary in business has been diversity task forces or committees, comprising unit heads who take on the work of devising and implementing equity measures; these have spread since the early 1980s. Committees are typically charged with overseeing diversity initiatives, brainstorming to identify remedies, and monitoring progress. As Sturm found in her investigation of the accounting and consulting giant Deloitte & Touche, the diversity task force consisted of a series of ongoing groups responsible for analyzing the gender differences.

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15 See id. at 255–58.
16 See id. at 255 (discussing compartmentalization).
17 Id. at 299–301.
18 Id.
19 Id.
20 Id.
21 See id. at 258.
22 See id. (discussing fragmented authority structure).
23 See id. at 288–89 (discussing “organizational catalysts,” insiders with training and expertise in diversity).
25 Sturm, supra note 4, at 299–300.
26 Id.
27 See generally Kalev, Dobbin & Kelly, supra note 7 (evaluating various diversity programs, including task forces and committees).
28 See id. at 590.
gap, recommending remedial steps, and establishing systems for monitoring results and ensuring accountability. These task forces create hybrid roles in which unit managers become equal-opportunity experts.

2. The Affirmative Action Plan and the Diversity Manager

We examined the effect of centralizing responsibility for equality of opportunity to explore Sturm's thesis that decentralization undermines equal opportunity programs. Since 1971, the Office of Federal Contract Compliance Programs ("OFCCP"), the agency President Lyndon Johnson set up to monitor affirmative action among federal contractors, required bigger contractors to assemble data each year on workforce characteristics and write an affirmative action plan. Corporations, universities, and colleges wrote plans evaluating their own workforces, specifying goals for female and minority representation based on labor market analyses, and sketching timetables. The order specified that firms should assign responsibility to a staff member, though this need not be their sole responsibility. The few studies that examine effects of affirmative action plans are inconclusive. In Sturm's model, having a full-time diversity manager should better counter decentralized decision making than having an affirmative action plan alone, as the most important effect of the diversity manager may be to centralize responsibility. The next step up from installing a diversity manager is creating a distinct department. Edelman and Petterson show that equal-opportunity departments do not increase gender and racial diversity on their own, but that they do expand diversity recruitment programs, which in turn improve diversity.

3. A Diverse Leadership

Leadership is important in Sturm's theory of gender inclusion because organizations cannot sustain an effort to expand inclusion without it. Women and minorities in top leadership positions may help women and minorities move into management positions below them for several reasons: they may be committed to equity; they may also improve opportunities by acting as role models, by reducing stereotype threat or self-handicapping by women and minorities, or by reducing the stress associated with tokenism. In many corporations, the decision to put women and minorities in high-profile positions was part of a broader diversity strategy. Since the late 1980s, business leaders have argued that to recruit the best managerial talent they would have to demonstrate that women and minorities could succeed. As we do not have a direct measure of the commitment of leaders to gender and racial equity, we examined the gender and racial mix of top executives as a proxy. Thus far we have discussed Sturm's insight on effective diversity leadership within academia and presented corollary strategies in the corporate world. Next we turn to Sturm's argument that effective public accountability is required to ensure that efforts to improve gender equity have a real impact.

C. Sturm's Theory of Effective Public Accountability

In both the corporate world and academia, the principal public accountability mechanisms have been the Equal Employment Opportunity Commission ("EEOC") charge system, the discrimination lawsuit, and the federal compliance review system for government contractors. EEOC charges were first filed in 1965, shortly after the agency was established. Since the mid-1960s as well, corporations and universities have been subject to discrimina-

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29 Sturm, supra note 24, at 492.
30 See id. at 492-99.
31 Affirmative action status does not fully predict whether an employer has an affirmative action plan. Employers are not required to file these plans with the OFCCP, and some employers simply do not create plans. Kalev & Dobbins, supra note 9, at 866. On the other hand, noncontractors sometimes voluntarily prepare affirmative action plans, either in preparation for applying for a government contract or to symbolize their openness to diversity. See Barbara Reskin, THE REALITIES OF AFFIRMATIVE ACTION 15-17 (1998).
32 See generally CONFERENCE BOARD, IN DIVERSITY IS STRENGTH: CAPITALIZING ON THE NEW WORK FORCE (Judith Alster et al. eds., 1992) (recounting CEOs' perspectives about their companies' diversity programs).
33 41 C.F.R. § 60-2.17(c) (2002).
35 See Sturm, supra note 4, at 255-58.
36 Edelman & Petterson, supra note 34, at 118-23.
37 See Sturm, supra note 4, at 258.
38 For a discussion of tokenism and stereotype threat, see generally Rosabeth Moss Kanter, Men and Women of the Corporation (1977) (examining the problem of tokenism and suggesting ways to ameliorate it); Steven J. Spencer, Claude M. Steele & Diane M. Quinn, Stereotype Threat and Women's Math Performance, 35 J. EXPERIMENTAL SOC. PSYCHOL. 4 (1999) (examining women's response to stereotype threat in the area of mathematics).
tion lawsuits under Title VII and Title IX by women and members of minority groups.40 Many large private corporations and virtually all universities, public and private, are subject to further accountability when they serve as federal contractors.41 Since the 1960s, federal contractors have been subject to OFCCP oversight and, in particular, compliance reviews and debarment as contractors.42 Debarment is rare, so the real sanction faced by firms and universities is the compliance review itself.43

By contrast to these regulatory mechanisms, designed mainly to sanction employers that do not practice equal opportunity, the NSF’s ADVANCE program offers a model of public accountability based in positive incentives, institution-specific equity strategies, and sharing of the best practices of successful colleges and universities.44 Sturm sees great promise in this model. Her two principal insights about effective public accountability have to do with (1) the distinction between incentives and disincentives and (2) the reliance on communities of practice for expertise. We discuss these two below.

1. Regulatory Incentives and Disincentives

Sturm points out that neither regulatory oversight through the OFCCP nor lawsuits under Title VII have been very successful at promoting gender equity in academia.45 The OFCCP, she argues, has not vigorously pursued compliance reviews and in fact does not have the specific knowledge of the academic career system that it would need to conduct rigorous reviews.46 Moreover, it is not clear that it could fashion useful remedies to the problem of inequity in academia.47 Lawsuits have been rare in the academy, and they have been difficult to win in part because successful suits generally depend on statistical evidence that a class of workers has been ill-treated,48 but university departments are too small to generate statistical samples of adequate size.49 Moreover, faculty members are often reluctant to resort to lawsuits for fear of tarnishing their professional reputations.50

Sturm argues that the positive inducements offered by the ADVANCE program are more likely to be effective than the weak disincentives produced by lawsuits and compliance reviews of universities.51 ADVANCE pays for the cost of program changes and encourages accountability through annual reports on both program implementation and effectiveness, supplemented by comprehensive reviews at the three-year mark.52

2. Leveraging Communities of Practice

One of the advantages that ADVANCE offers is that it draws on existing networks of experts in gender equity, both inside the university and outside.53 Knowledge of successful innovations at other universities spreads through this network, so that in the end, program innovations that help to increase gender equity spread.54 Sturm argues that the ADVANCE program created a community of practice and encouraged universities to share the most effective equal-opportunity programs with one another.55

D. Corollary Measures of Public Accountability in the Corporate World

We are not able to examine all of the mechanisms of public accountability that are embodied in the ADVANCE program, but our data allow us to examine both the ineffectiveness of disincentives and the effectiveness of reliance on communities of practice.

1. Regulatory Disincentives: EEOC Charges and Discrimination Lawsuits

First, we examined the effects of two kinds of negative incentives, both faced by corporations as well as by colleges and universities: EEOC charges and lawsuits. Lawsuits, whether they are won or lost by the firm, represent a relatively expensive disincentive.56 Sturm states that EEOC charges and lawsuits are not pursued often enough in academia. Our analysis helps to answer an important question: If EEOC charges and lawsuits were pursued more often, and more effectively, in academia, would they be likely to work?

41 Corporations receive government contracts for everything from paper towels to jet fighters. Any corporation with $50,000 in federal contracts is subject to federal oversight, under terms established by Lyndon Johnson's 1965 Executive Order 11246. Colleges and universities are subject to OFCCP oversight due to the federal grants they receive. Kalev & Dobbins, supra note 9, at 566.
43 See Kalev & Dobbins, supra note 9, at 864 (discussing the decline in debarments and other sanctions during the 1980s).
44 See Sturm, supra note 4, at 277.
45 Id. at 261–70.
46 Id. at 266–67.
47 Id. at 267.
48 Id. at 263–64.
49 Id.
50 Id. at 263.
51 Id. at 271.
52 Id. at 280–81.
53 Id. at 281–82.
54 Id. at 282.
55 See id.
56 See id.; Kalev & Dobbins, supra note 9.
a. EEOC Charges

Title VII originally gave the EEOC no power of enforcement, but granted the authority to investigate charges and seek voluntary conciliation where it found discrimination.\(^{*57}\) The EEOC could also draw up guidelines for nondiscrimination, but these guidelines had no legal status.\(^{*58}\)

b. Title VII Lawsuits

Under the Civil Rights Act of 1964, the EEOC had no authority to impose sanctions, but individuals had the right to bring suit.\(^{*59}\) The Attorney General could bring suit in cases where a “pattern or practice” of resistance to Title VII was identified, but this power was rarely used.\(^{*60}\) Congress amended the powers of the EEOC so that as of 1972 it could bring pattern-and-practice suits itself.\(^{*61}\) Lawsuits create an immediate incentive to prevent discrimination because they make real the threat of financial loss.\(^{*62}\) Even unsuccessful lawsuits are often costly in terms of legal fees and lost business due to negative publicity.\(^{*63}\) Evidence to date on the efficacy of lawsuits in promoting equity is thin. Leonard finds that Title VII class action suits improve the employment status of blacks at the state level.\(^{*64}\) Skaggs uses EEO-I reports from supermarkets for 1983 to 1998 to examine the effects of lawsuits on workplace diversity.\(^{*65}\) In progressive federal court districts, supermarkets that experience discrimination lawsuits subsequently move more women and Latinos, but not African Americans, into management.\(^{*66}\) Following lawsuits, competitor supermarkets also move more women into management.\(^{*67}\)

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\(^{*58}\) Id. at 6–7.

\(^{*59}\) Id. at 7.

\(^{*60}\) Id.


\(^{*63}\) See id. at 150 (discussing the public relations effects of EEOC enforcement).

\(^{*64}\) Id. at 171.


\(^{*66}\) Id. at 127.

\(^{*67}\) Id. at 147–48.

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\(^{*68}\) See generally **Bureau of Nat'l Affairs, Equal Employment Opportunity: Programs and Results** (1976); **Ruth G. Schaeffer, Nondiscrimination in Employment—And Beyond** (1980).


\(^{*70}\) See **Graham**, supra note 40, at 51–59 (describing the implementation of Plans for Progress).

\(^{*71}\) See id. at 196 (noting the influence of Plans for Progress on the EEOC and other agencies).

\(^{*72}\) See **Anderson**, supra note 42, at 299 (discussing “hometown plans” that envisioned local agreements among contractors, unions, and other parties to increase employment diversity).

\(^{*73}\) See id.

\(^{*74}\) See id.

\(^{*75}\) Id.

\(^{*76}\) See **Sturm**, supra note 6, at 287.

\(^{*77}\) See **Anderson**, supra note 42, at 299 (discussing the OFCCP’s encouragement of structural changes).
changes. Thus, while its regulatory role is quite different from that of the NSF ADVANCE program, during the 1970s the OFCCP served a similar function of disseminating evidence from test cases.

A regulatory change allows us to examine whether the OFCCP’s strategy during the 1970s was effective. The agency changed course in 1981, when President Reagan sought to turn over more control for compliance to employers themselves. The OFCCP increased the number of compliance reviews significantly, but reduced sanctions and cut staffing, with the overall effect that compliance reviews were more rapid and less intrusive than they had been. The new regulatory strategy put an end to efforts to spread successful innovations.

Previous studies suggest that the early compliance reviews designed to promote the insights gleaned from practice communities, in Sturm’s terms, may indeed have been effective. Three studies show that early OFCCP compliance reviews had significant effects on the growth of black employment and the movement of black men and women into better jobs, over and above the effect of being a federal contractor. Being a contractor stopped improving black employment growth in the early and mid-1980s, coincident with the Reagan administration’s new policy of deregulation. In line with these findings, Rodgers and Spriggs show that the OFCCP adopted a modestly more interventionist regulatory stance after Reagan stepped down.

II. Quantitative Evidence from Corporate Experience

In this Section, we examine data that allow us to test Sturm’s theories about how leaders can create a sustained and effective equity initiative and about how public accountability measures can be effective. We test these theories in the corporate sector.

The data we use come from two sources. The workforce data were collected annually between 1971 and 2002 by the EEOC, which is charged with collecting data from private employers with more than one hundred workers and government contractors with more than $50,000 worth of contracts and more than fifty workers. The data cover the race, ethnicity, and gender of employees in nine broad occupational categories. From that data set, we drew a random sample of workplaces, selecting from nine representative industries. We conducted a survey of the history of employment practices at each establishment, asking questions covering the period 1971–2002, in collaboration with the Princeton Survey Research Center. We completed 833 interviews for a response rate of 67%.

In our analyses we use fixed-effect models which account, implicitly, for unobserved firm characteristics that do not vary over time and that may affect diversity (for example organizational culture). We also include a long list of variables that account for many known sources of change in workforce diversity so that we are able to isolate effects of the programs and regulatory activities of interest, tracking whether they increased, reduced, or had no effect on the diversity of the managerial workforce.

A. Evidence on Effective Leadership from Corporate Diversity Programs

We first report the results from an analysis of annual data from 708 of these establishments that examines changes in managerial composition following the adoption of different gender equity programs and following increases in gender and minority representation in the executive ranks. For each establishment, we have data for between five and thirty-two years, with a median of twenty-five years.

The full statistical models, with sixty-four parameters and complete information on the supplementary statistical tests we performed to confirm the results, are available elsewhere. Here we show the effects of the gender equity programs of interest, alongside those of a few other popular programs for comparison.

Above we suggested three ways to examine the generalizability of Sturm’s theory of effective leadership: first, by testing Sturm’s idea that by creating hybrid equity and leadership roles, organizations would better insti-
tutionalize and carry out the equity program.\footnote{See supra notes 25–30 and accompanying text.} We looked at this by examining the effect of a diversity task force comprising leaders from across the organization. Second, we compared the effect of centralizing responsibility for equity in an affirmative action plan to the effect of hiring a full-time diversity manager.\footnote{See supra notes 21–22 and accompanying text.} Many employers without federal contracts wrote plans, and many with contracts neglected to write them, so we looked at the effect of having a plan, not the effect of being a federal contractor. We expected that having a plan would be effective, but that having a full-time manager would be more so. Third, we tested the wider consequences of leadership by looking at the effects of having women and minorities represented in the firm’s top management.\footnote{See supra notes 31–36 and accompanying text.}

Table 1 reports results from a multiple regression analysis predicting the log odds of four groups in management jobs. In Table 1, each row shows the effects of a series of different equity programs on a particular group: white men, white women, black women, and black men. Statistically significant effects, positive and negative, are indicated with asterisks. The coefficients, or the estimated effects, can be read roughly as the percentage change in the odds of each group being in management that is solely due to the adoption the program under consideration (or the relevant change in top management diversity). Where the estimated effects are not statistically significant (those not accompanied by asterisks), the analysis suggests that the programs in question do not have effects on the group under consideration.

Figure 1 also shows the estimated effects of each program on each group. The bars represent the estimated percentage change in the proportion of each group among managers following adoption of a particular program (or following an increase of one woman or minority among the top ten executives) in the average organization that adopted such a program (or added a woman or a minority manager to the top ten positions). Because women and African Americans are not well-represented in management to begin with, a large percentage increase in the proportion may reflect a small increase in the numbers of these groups in management. Where the effect of a program was not statistically significant, we show it as zero. Figure 1 gives a good sense of the relative efficacy of these programs by isolating the effect of each program.

Our first question, about the efficacy of the integration of gender equity and leadership roles,\footnote{See supra notes 23–24 and accompanying text.} receives a positive answer. It is more effective to have a diversity task force, composed of unit leaders from across the firm, than to have a diversity staff person. This can be seen in the size of the coefficients estimating the change in managerial diversity following the introduction of Diversity Committee compared to those of Diversity Staff in

<table>
<thead>
<tr>
<th>Hybrid Leadership Roles</th>
<th>( \text{White Men} )</th>
<th>( \text{White Women} )</th>
<th>( \text{Black Women} )</th>
<th>( \text{Black Men} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity Committee</td>
<td>(-0.081^{* *})</td>
<td>(0.175^{* *})</td>
<td>(0.242^{* *})</td>
<td>(0.114^{* *})</td>
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<tr>
<td>Centralization</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Affirmative Action Plan</td>
<td>(-0.078^{* *})</td>
<td>(0.086^{* *})</td>
<td>(0.005)</td>
<td>(0.039^{*})</td>
</tr>
<tr>
<td>Diversity Staff</td>
<td>(-0.055)</td>
<td>(0.104^{* *})</td>
<td>(0.123^{* *})</td>
<td>(0.128^{* *})</td>
</tr>
<tr>
<td>Top Management Diversity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion minorities in top management</td>
<td>(-0.002)</td>
<td>(-0.002)</td>
<td>(0.007^{* *})</td>
<td>(0.012^{* *})</td>
</tr>
<tr>
<td>Proportion women in top management</td>
<td>(-0.002^{* *})</td>
<td>(0.004^{* *})</td>
<td>(0.002^{* *})</td>
<td>(-0.002^{* *})</td>
</tr>
<tr>
<td>Other, Popular, Diversity Initiatives</td>
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<td></td>
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<tr>
<td>Managerial Bias</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Diversity Training</td>
<td>(-0.038)</td>
<td>(-0.001)</td>
<td>(-0.066^{* *})</td>
<td>(0.031)</td>
</tr>
<tr>
<td>Diversity Evaluations</td>
<td>(0.028)</td>
<td>(0.061^{* *})</td>
<td>(-0.027)</td>
<td>(-0.081^{* *})</td>
</tr>
<tr>
<td>Social Isolation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Networking Programs</td>
<td>(-0.083^{* *})</td>
<td>(0.080^{* *})</td>
<td>(0.012)</td>
<td>(-0.096^{* *})</td>
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<tr>
<td>Mentoring Programs</td>
<td>(-0.011)</td>
<td>(-0.004)</td>
<td>(0.213^{* *})</td>
<td>(0.037)</td>
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</table>

Note: Data shown are coefficients from seemingly unrelated regression with standard errors in parentheses. The analyses include establishment and year fixed effects. All independent variables are lagged by one year. Number of parameters is 64. N (organization-year, organizations) = 16,265; 708. The full model can be seen in Kalev, Dobbin & Kelly, supra note 7.

Table 1 and also in the bars in Figure 1. Here the difference may not seem dramatic, but keep in mind that a diversity committee may meet irregularly and costs the organization little, and we compared this minimal investment with the larger one of hiring a full-time expert.

Our second question, does centralization of gender equity responsibility prove effective,\footnote{See supra notes 23–24 and accompanying text.} is also answered with a resounding yes. Establishing an-
nual affirmative action plans, representing the simplest method of centralization, shows significant negative effects on white men, and positive effects on white women and black men. But, as the pattern in Figure 1 clearly indicates, the estimated changes in managerial diversity following the appointment of a full-time diversity staff person are larger than those for an affirmative action plan, and all three effects of interest (on white women, black women, black men) are statistically significant. The conclusion we can draw is that it helps to have a plan, but it is better to have a full-time staff person devoted to equity.

Our third question concerned leadership more generally: Does a diverse corporate leadership increase the diversity of the managerial ranks?92 Yes. Firms that add minorities in top positions see faster growth of blacks in lower level management. Firms that add women at the top see faster growth of white and black women in management.

The effects of these programs are particularly striking when we compare them with the effects of other popular (and expensive) equity programs. Diversity training, diversity performance evaluations for managers, networking programs, and mentoring programs all show uneven effects. As Table 1 shows, diversity training had a negative effect on black women. Performance evaluations show negative effects on black men and small positive effects on white women. Networking programs show the same pattern, and mentoring programs only show a positive effect for black women. We do not present a separate figure to show the effects of these programs graphically because the effects are generally small or insignificant.

Taken together, these findings provide striking support for Sturm’s ideas. Building hybrid leadership roles—in which organizational leaders take on responsibility for gender equity—clearly makes a difference. Centralization of the solution helps as well, and we suspect this is particularly true for organizations characterized by decentralized personnel systems and unit autonomy in hiring and promotion decisions. Finally, committed leadership, where women and minorities make it to the top ten executive positions, is clearly important in the corporate world.

B. Evidence from Corporate Experience with Public Accountability

Next we present relevant results from a similar statistical analysis to gauge the effects of different regulatory activities on the gender and racial composition of management. Using the same data set discussed above, and similar models, we examined two of Sturm’s broad insights regarding public accountability. The first is that regulatory disincentives are not particularly effective mechanisms for reducing managerial job segregation.93 Is this true in the corporate world, as it is in the academy? We examined this by looking at the effects of three regulatory interventions: EEOC charges, lawsuits, and compliance reviews. The second is that gender and racial equity will improve when the federal government seeks to identify and diffuse successful recruitment, hiring, and promotion strategies that increase equality of opportunity.94 We examined this by looking at the effects of the original compliance reviews of the 1970s, which were designed to do just that. These early compliance reviews also capture the process of embedding knowledge that Sturm discusses, since the OFCCP’s goal was to change employer practice permanently.95

1. Regulatory Disincentives

Table 2 examines the effect of disincentives. It includes the results of a multiple regression analysis similar to that reported in Table 1. In this model, we analyze 814 work establishments on which we have data for between five and thirty-two years, with a median of twenty-three years.96

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90 See supra Part I.B.

91 See supra Part I.B.

92 See supra Part I.B.

93 See Sturm, supra note 4, at 261–67.

94 See id. at 267–68.

95 See Anderson, supra note 42, at 298 (discussing OFCCP goals and methods).

96 We increased the number of cases in the models reported in Table 2, compared to those reported in Table 1, by estimating values for missing data. Results were substantially similar when we omitted missing values, and results for Table 1 were substantially similar when we estimated missing values.
TABLE 2 - FIXED EFFECTS ESTIMATES OF THE LOG ODDS OF WHITE MEN AND WOMEN AND BLACK WOMEN AND MEN IN MANAGEMENT AFTER REGULATORY INTERVENTIONS, 1971-2002

<table>
<thead>
<tr>
<th>Regulatory activities:</th>
<th>White Men</th>
<th>White Women</th>
<th>Black Women</th>
<th>Black Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEOC Charges</td>
<td>0.001</td>
<td>-0.001</td>
<td>0.003</td>
<td>0.011**</td>
</tr>
<tr>
<td></td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Title VII lawsuits</td>
<td>-0.007*</td>
<td>0.016**</td>
<td>0.018**</td>
<td>0.014**</td>
</tr>
<tr>
<td></td>
<td>0.002</td>
<td>0.003</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Compliance reviews</td>
<td>-0.029*</td>
<td>0.013</td>
<td>0.039**</td>
<td>0.041**</td>
</tr>
<tr>
<td></td>
<td>0.010</td>
<td>0.010</td>
<td>0.009</td>
<td>0.010</td>
</tr>
<tr>
<td>Other regulatory oversight:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government contractor</td>
<td>0.014</td>
<td>0.020</td>
<td>-0.035*</td>
<td>-0.010</td>
</tr>
<tr>
<td></td>
<td>0.017</td>
<td>0.018</td>
<td>0.015</td>
<td>0.016</td>
</tr>
<tr>
<td>Affirmative action plan</td>
<td>-0.062**</td>
<td>0.020**</td>
<td>0.007</td>
<td>0.043**</td>
</tr>
<tr>
<td></td>
<td>0.015</td>
<td>0.016</td>
<td>0.013</td>
<td>0.014</td>
</tr>
<tr>
<td>R-sq</td>
<td>.3350</td>
<td>.3148</td>
<td>.3549</td>
<td>.2684</td>
</tr>
</tbody>
</table>

Coefficients from seemingly unrelated regression, unstandardized coefficients, standard errors below the coefficients. Note: The analysis includes all variables appearing in Table 1 as well as fixed establishment and year effects. N (organization year, organization)=18,472, 814. Number of parameters=68. The full model is available from the authors.

** p<0.01; * p<0.05; (two tailed test)

In Table 2 we show the estimated effects of EEOC charges, lawsuits, and compliance reviews, isolated from the effects of all other factors that can shape managerial diversity. Firms that faced EEOC charges show slight increases in black men in management with each additional charge. Firms that faced Title VII lawsuits saw a significant negative effect on white men and significant positive effects on all three disadvantaged groups. Each additional lawsuit reduced the subsequent proportion of white men in management and increased the subsequent proportion of white and black women, and of black men. The number of compliance reviews to date had a strong positive effect on black women and men, meaning that with each additional review, employers were more likely to see increases in these groups in management.

We also looked at the effects of being a federal contractor (and thus being subject to affirmative action requirements) and of having an affirmative action plan. Firms under government contract show slight decreases in employment of black women. And as above, those with affirmative action plans show slight decreases in employment of white men, along with increases in numbers of white women and black men.

In Figure 2, we present the effect that the average number of EEOC charges, lawsuits, or compliance reviews would have, for all cases that had at least one charge, suit, or review. The average company with at least one EEOC charge had 8.9 charges by 2002, resulting in an increase of 9% in the proportion of black men among managers. The average company with at least one lawsuit had 10.2 lawsuits that resulted in an increase of between 13 and 19% in the proportion of women and minorities among managers. The average company with at least one compliance review had 3.1 reviews, resulting in an increase in proportion of black men and women among managers of slightly more than 10%. These statistics suggest that compliance reviews are more effective, but less common, than lawsuits.

![Figure 2: Regulatory Effects on Management Diversity](image)

We are guided to the conclusion that EEOC charges, lawsuits, and OFCCP compliance reviews have been effective in the corporate world. EEOC charges had the smallest positive effects on diversity, significant only for black men. It seems likely that Title VII lawsuits and compliance re-

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97 In the analysis presented in Table 1 we treated affirmative action plan as a voluntary activity. Here, we examine it alongside other clear instances of state-imposed regulatory intervention.
views conducted by the OFCCP or by NSF might increase the representation of women in the academy if they were pursued more often.

2. Communities of Practice and the Original Compliance Review System

Our second inquiry, summarized in Table 3, concerned the efficacy of the OFCCP during the 1970s, when it was pursuing compliance reviews designed to share and institutionalize successful practices.

In Table 3, we looked, using similar models to those presented in Tables 1 and 2, at the effect of compliance reviews and lawsuits by decade. We explored the effects of the original compliance reviews of the 1970s and the influence of Reagan’s campaign for deregulation on the efficacy of both compliance reviews and lawsuits.98 First Review 1970s represents the effect of a compliance review in organizations that had their first review before 1981. First Review 1980s represents the effect of a compliance review in organizations that had their first review from 1981 through 1992. First Review 1990s represents the effects of a compliance review in organizations that had their first review from 1993 through 2002.

Note that because we have a separate variable estimating the effects of compliance reviews of the 1970s—which involved promulgating new recruitment, hiring, and promotion practices—the variable counting the number of reviews in Table 3 captures the more general effect of OFCCP reviews.

Figure 3 presents the effects of OFCCP compliance reviews graphically, showing the estimated percentage change of the proportion of each group in management due to each event (compliance review and lawsuits, respectively). As above, these bar charts allow us to compare the relative efficacy of different interventions.

What we see in Table 3, in the first row, is that firms that had their first compliance reviews in the 1970s, under that regime, showed a significant increase in numbers of white and black women, and black men, in management.99 By contrast, firms that had their first compliance review in the 1980s saw only a significant positive effect on numbers of white women. Firms that had their first review in the 1990s saw no significant effects. These effects, which appear in Figure 3 most clearly, are on top of the effect of the simple number of reviews, which is captured by the variable Number of Reviews. Taken together, what we see here is that compliance reviews are effective through the entire period, but that those conducted during the 1970s were dramatically more effective. It is not that compliance reviews

<table>
<thead>
<tr>
<th>Compliance Reviews</th>
<th>White Men</th>
<th>White Women</th>
<th>Black Women</th>
<th>Black Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st compliance review was in the 70s</td>
<td>-0.145*</td>
<td>0.296**</td>
<td>0.162**</td>
<td>0.249**</td>
</tr>
<tr>
<td>1st compliance review was in the 80s</td>
<td>0.062</td>
<td>0.064</td>
<td>0.054</td>
<td>0.058</td>
</tr>
<tr>
<td>1st compliance review was in the 90s</td>
<td>0.081**</td>
<td>0.075**</td>
<td>-0.039</td>
<td>0.045</td>
</tr>
<tr>
<td>1st compliance review was in the 90s</td>
<td>0.027</td>
<td>0.028</td>
<td>0.024</td>
<td>0.026</td>
</tr>
<tr>
<td>Number of reviews</td>
<td>0.003</td>
<td>0.048</td>
<td>0.031</td>
<td>0.020</td>
</tr>
<tr>
<td>Number of lawsuits</td>
<td>0.031</td>
<td>0.032</td>
<td>0.027</td>
<td>0.029</td>
</tr>
</tbody>
</table>

| R-sq | .3356 | .3159 | .3555 | .2684 |
| Chi-sq | 9.663 | 8.668 | 10.428 | 7.127 |

Log Likelihood Ratio Test Chi-sq(16) = 74.68 p < .001

Coefficients from seemingly unrelated regression, unstandardized coefficients, standard errors below the coefficients. Note: The analysis includes all variables appearing in Table 1 as well as fixed establishment and year effects. N (organization year, organizations)=18,474, 814. Number of parameters=68. The full model can be seen in Kalev, Dobbin & Kelly, supra note 7.

** p < .01; * p < .05; (two tailed test)

did not have effects in the 1980s and 1990s, but that they had added “kick” in the 1970s. The estimates in Table 3 for the effects of First Compliance Review 1970s were also the largest in the table, suggesting that this intervention was unusually effective.100

To verify that the reason for the large effects of compliance reviews in the 1970s is due to their emphases at the time—and that it is not the case that all regulatory activity was simply more effective in the 1970s—we in-

98 In examining the effects of both compliance reviews and lawsuits, we cut the decades at the ten-year mark, but rather at the time when the White House changed parties in 1981 and in 1992.
99 Further analyses show that this increase was sustained into the 1990s. See Kalev & Dobbin, supra note 9, at 890.
100 Note that because Number of Reviews/Suits is not a binary variable, the coefficients are not directly comparable.
and black women and black men, in management. We can see this from the effect of having an affirmative action plan and, in particular, from the effect of having a diversity staffer or manager. Both insights are also supported by our findings of the positive effect of having women or minorities in the top ten management positions. When it comes to her ideas about how to institutionalize effective equity programs, our results provide strong support for Sturm’s theory.

We cannot look directly at Sturm’s second main idea that to succeed, equity programs must be framed in terms of organizational citizenship. But we can look at Sturm’s third broad hypothesis, about public accountability. On the one hand, Sturm argues that in academia, regulatory disincentives have not been very successful at promoting gender equity. We find that EEOC charges, and particularly civil rights lawsuits and OFCCP compliance reviews, do have positive effects on the integration of corporate management. This finding might inform future policy choices.

On the other hand, Sturm argues that ADVANCE has been particularly effective because it uses positive incentives to engage universities, offering funding for institutional change, and because it helps to foster communities of practice that identify and disseminate effective equity measures. The closest analogy in regulation of private enterprises was probably Kennedy’s Plans for Progress group of the 1960s, which influenced the early oversight efforts of the Department of Labor’s OFCCP. In the 1970s, the OFCCP took lessons from Plans for Progress employers, and from employers it reviewed, and used those lessons to advise other employers on recruitment, hiring, and promotion. The evidence for a more positive federal regulatory effort, involving federal officials in helping to identify and promote successful equal opportunity strategies, is compelling. In the 1970s, OFCCP compliance reviews had surprisingly strong positive effects on the diversity of the managerial workforce, as our studies show. Firms that underwent compliance reviews subsequently had significantly more women and black men in management. This suggests that NSF’s ADVANCE program may be pursuing the most promising regulatory route. The challenge for NSF will be to bring the insights developed in its ADVANCE programs to other colleges and universities.

\[ \text{Sturm, supra note 4, at 261–67.} \]
\[ \text{See id. at 271 (identifying reasons for ADVANCE’s success).} \]
\[ \text{See Graham, supra note 40, at 196 (describing Plans for Progress).} \]
\[ \text{See Anderson, supra note 42, at 298–99 (OFCCP methods).} \]