NBER WORKING PAPER SERIES

WHAT PROMISES ARE WORTH:
THE IMPACT OF AFFIRMATIVE ACTION GOALS

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Working Paper No. 1346

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ABSTRACT

Affirmative action goals and timetables for the employment of minorities and females have been criticized by some as being ineffective, and by others as being a system of rigid quotas. Using new data from OFCCP administrative records, this paper estimates the impact of detailed regulatory pressure on goals and on subsequent employment demographics. It also tests for the information content of the goals.

While the goals are inflated and are not being fulfilled with the rigidity one might expect of quotas, the establishments that promise to employ more minorities and females do actually employ more in subsequent years. While the detailed enforcement tools of the compliance review process are of doubtful utility, the system of affirmative action goals does appear to have prompted increases in minority and female employment at reviewed establishments.

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The goals and timetables for the employment of minorities and females drawn from federal contractors under affirmative action stand accused on two mutually inconsistent charges. The first is that "goal" is really just an expedient and polite word for quota. Affirmative action has really imposed inflexible quotas for minority and female employment. The second is that these goals are worth less than the paper they are written on. Affirmative action is a game played for paper stakes, and has never been enforced stringently enough to produce significant results. This paper attempts to bring fresh empirical evidence to bear on the controversial question of the actual impact of affirmative action goals.

Under Executive Order 11246, federal contractors are required to take affirmative action not to discriminate, and to develop affirmative action plans (AAPs) including goals and timetables for good-faith efforts to correct deficiencies in minority and female employment. The aim of this paper is to measure good-faith, to determine what affirmative action promises are worth. Is negotiation over affirmative action goals an empty charade played with properly penciled forms, or does it in fact lead to more jobs for minorities and females in the contractor sector? If the latter is the case, are these goals so strictly adhered to as to constitute quotas?

This paper contains four sections. The first section reviews past work and establishes the institutional setting of affirmative action. The second section develops an analysis of the formation of goals and the impact of government policy in the context of a model of the supply and demand for labor. It then discusses the characteristics of the data underlying this study. The third section presents our central empirical findings in five stages. It first presents simple comparisons of goals with realizations on average. It then estimates the impact of detailed affirmative action enforcement tools on minority and female employment in reduced form equations of the labor market. The information content of affirmative action goals are then formally tested, followed by estimates of the impact of government policy on the formation of goals. At

the end of this section, we return to the question of the impact of goals on minority and female employment. Taken together, the evidence to be presented here suggests that while many of the detailed enforcement tools are of doubtful utility, the system of affirmative action goals has prompted increases in minority and female employment.

I. The Regulatory Setting

Detailed regulations to enforce affirmative action under Executive Order 11246, including numerical goals, were not introduced until 1969 after the Comptroller General ruled that the affirmative action obligation was too vague to satisfy the requirement that minimum contract standards be made clear to prospective bidders. Such numerical goals were first embodied in the manning tables of the Cleveland and Philadelphia Plans for construction contractors. These measurable standards against which to monitor compliance were extended to non-construction contractors in 1970, and have since won the tacit approval of Congress and the Courts. The regulations require that every contractor maintain an affirmative action plan consisting in part of a utilization analysis indicating areas of minority and female employment in which the employer is deficient, along with goals and timetables for good-faith efforts to correct deficiencies.

While no one has ever studied the usefulness of these affirmative action goals as a regulatory tool, the impact of the contract compliance program as a whole has been analyzed five times in the past. For black males, Burman, Ashenfelter and Heckman, Heckman and Wolpin, and Leonard all conclude that employment increases faster at establishments that are federal contractors. For females, a positive impact has not been clearly established. Heckman and Wolpin, and Goldstein and Smith find the program ineffective, while Leonard finds mixed evidence. Considering the marginal impact of compliance reviews, Burman, and Heckman and Wolpin both find them ineffective in the late 60's and early 70's, while Leonard finds a positive impact on both minority and female employment in the late 70's, and suggests that the expanded

supply of skilled minorities and females, as well as more aggressive enforcement helped account for the improvement in effectiveness over time. Since the reviews examined here have already been shown to be useful, the question here is not "Are reviews effective ?", but rather "Do promises extracted during the review process contribute to the impact of reviews?".

It is not beyond reason to suppose that they do not. Neither the penalties for inflating promises to hasten the departure of federal inspectors nor the prospects of being apprehended seem great. The ultimate sanction available to the government in the case of affirmative action is debarment, in which a firm is barred from holding federal contracts. The first debarment of a non-construction contractor did not take place until 1974, and in total only 26 firms have ever been debarred. If the OFCCP finds the establishment's affirmative action plan unacceptable, it may issue a show cause notice as a preliminary step to higher sanctions. This step has been taken in only 1 to 4 percent of all reviews. (USCCR, 1974, p.297). Of these, one-third to one-half involve basic and blatant paperwork deficiencies such as the failure to prepare or update an AAP. (USGAO, 1975, p.26).

The other major sanction used by the OFCCP is backpay awarded as part of a conciliation agreement. In 1973 and 1974, $54 million was awarded in 91 settlements, averaging $63 per beneficiary. (USGAO, 1975, p.46). In 1980, in an even more skewed distribution, $9.2 million was awarded to 4336 employees in 743 conciliation agreements. (USCCR, 1982, p.47). These beneficiaries represented less than two tenths of one percent of all protected group employees at just the reviewed establishments[1].

The low penalties if caught are compounded by the low probability of apprehension, although the Department of Defense (DOD), upon whose reviews this paper concentrates, had one of the most vigorous programs. In 1976, DOD reviewed 24 percent of its identified contractors, compared to an average for all compliance agencies of 11 percent. (USCCR, 1977, p.113). In 1977, DOD had a ratio of 42 contractor facilities per

staff member, and a total budget of \$345 per contractor. (USCCR, 1977, p.107). Strikingly, compliance reviews have not typically been targeted directly against discrimination. An establishment's history of employment demographics has typically not played a role in the incidence of compliance reviews, for a reason as procedurally obvious as it is logically obscure: compliance officers have not generally looked at an establishment's past AAPs or EEO-1 forms in targeting reviews. Heckman and Wolpin report that reviews are essentially random with respect to the level or growth rates of an establishment's demographics. Leonard finds evidence that establishments with more blacks or females are actually more likely to be reviewed.

In this light, the expected penalties for making promises to the government with little regard for the likelihood of fulfilling those promises do not seem overwhelming. In such circumstances, affirmative action promises may contain little if any information about the establishment's future employment. On the other hand, the OFCCP may use more subtle and less easily observed pressures. Firms may care about their reputations, not only with the OFCCP but also with their own employees and the public, and so strive to set reasonable goals. More importantly, firms may react to the threat of Title VII litigation, with its substantial legal costs and penalties, hanging over their heads while under affirmative action review.

II. Models and Data

To understand the impact of regulatory pressure on affirmative action goals, and the impact of these in turn on market realizations, we model both the labor market and the formulation of goals. The inverse demand for labor is:

$$W^D = \beta_1 D - \beta_2 P + \beta_3 G + e_1 \qquad (1)$$

where:

P   is the number of workers of a given type demanded as a

     proportion of all workers.

G   is an indicator of affirmative action regulatory pressure.

D   is a demand shifter

W   is the wage for workers of a given type.

The inverse supply function is given by:

$$W^S = -\delta_1 S + \delta_2 P + e_2 \qquad (2)$$

where:

P   is the number of workers of a given type supplied

    as a proportion of all workers

S   is a supply shifter

In equilibrium $W^S = W^D$, so solving out we find:

$$P = \frac{1}{\delta_2 + \beta_2}\left[\beta_1 D + \beta_3 G + \delta_1 S + e_1 - e_2\right] \qquad (3)$$

We shall use this reduced form equation to estimate the impact of detailed affirmative action regulatory pressure on minority and female employment.

Let P^* be the projection firms would report if they had symmetric loss functions about true P, in other words rational expectations. P^* would then be given by the expected value of P in equation 3 above. Now let $\hat{P}$ be the goal reported by companies. We shall present below estimates of a standard test of $\hat{P}$ against the null hypothesis of rational expectations:

$$P = \alpha + \beta\hat{P} + u \qquad (4)$$

If firms are reporting the expected value of P as their goal, the rational expectations hypothesis will hold, giving *alpha* =0 and *beta* =1. This in itself tells us nothing about the impact of policy, since both the goal and actualization condition on actual policy. At the other extreme, if firms' goals have no information content, then *beta* =0. This

possible finding would have a direct policy implication: the goals elicited from firms under affirmative action are useless because they have no relation to subsequent employment patterns.

To interpret the information content of goals in cases between the extremes of *beta* = 1 or *beta* = 0, we model goals as given by the following equation, which will be considered a reduced form equation for goals, but one of a set of structural equations for realizations.

$$\hat{P} = \lambda_1 D + \lambda_2 G + \lambda_3 S + e_3 \tag{5}$$

We shall use this equation to estimate the impact of regulatory pressure on goals.

The impact of regulatory pressure on market demands both directly and indirectly through goals is identified in the reduced form equation 3 . In the quest for identification, however, this reduced form estimate throws away most of the information contained in $\hat{P}$. $\hat{P}$ is determined in great part by exogenous variables known to the firm but unobservable to the econometrician. Since $\hat{P}$ is then only poorly explained by observable D, G, and S, we also examine estimates of the semi-reduced form equation:

$$P = z_1 D + z_2 G + z_3 S + z_4 \hat{P} + e_4 \tag{6}$$

DATA

The next section will present estimates of the rate of change in the employment share of minorities and females in a sample of establishments that were subjected to affirmative action compliance reviews in the late 1970's. This study relies on information gathered by the OFCCP during compliance reviews[2]. The work-force analysis in these reports includes past, current, and projected employment by occupation, race, and sex at each establishment. The employment totals used here are the summations across occupations. The projections are typically one-year ahead forecasts, so by using data from reviews in consecutive years we can compare year ahead projections with consequent realizations[3].

III. The More They Promise, The More They Do

The employment goals that firms agree to under affirmative action are not vacuous; neither are they adhered to as strictly as quotas. This section will show that while affirmative action promises are inflated, they are not hollow.

The sample means of absolute employment by demographic group by year are shown in Table 1. The mode year for which projections are made is 1976. The first finding in Table 1 is that establishments on average overestimate the growth of total employment. They project one percent employment growth one year ahead, but employment consequently falls by three percent. From a macroeconomic perspective this is striking for two reasons. First, 1976, the year for which most projections are made, was a year in which real GNP grew by 5.4 percent coming out of a recession, and total employment grew by 3.4 percent. Peculiarly, these reviewed contractor establishments were not only left behind by the rising tide, they continued to sink. This is consistent with previous evidence that reviewed contractors shrank between 1974 and 1980, and may in part be due to the concentration of these sampled reviews in the durable goods manufacturing sector.

Second, this observed overestimation of employment growth conflicts with a previous finding that during the past two decades firms tended to underestimate wage increases in part because they underestimated growth in labor demand. Part of the discrepancy may easily arise because in the context of a compliance review firms inflate minority and female employment well beyond their true expectations. However, this cannot be the full explanation because even white male employment falls more than projected. If the projections were being manipulated to result in the greatest projected increase in minority and female share, then we would not expect to see, as we do, firms underestimate the decline in white male employment.

The second finding of interest in Table 1 is that neither absolute minority nor female employment increased, but that both minority and female employment shares

did increase. This is because the contraction in employment that did occur was almost lily-white and predominantly male. Most of the average employment decline of 27 was accounted for by white males, whose employment fell by 21. Put another way, while white males averaged 57 percent of initial employment, they accounted for 78 percent of the employment decline. Since females and minorities typically have lower seniority, they are usually found to suffer disproportionately more during a downturn. In this perspective, the finding here that white males accounted for most of the employment decline is itself striking evidence of the impact of affirmative action.

These establishments are projecting swift and substantial increases in black male employment. If the one year projections in Table 1 are extrapolated for ten years, then fully 14 percent of the workforce at these plants would be black males.

These projections and actualizations can also be expressed as shares of total employment. Over time, minority and female employment shares are indeed growing, but not nearly so fast as projected. The firms project growth in minority and female employment share far in excess of their own past history, and far in excess of what what they will actually fulfill. Is there then any information at all in their projections, or is the entire procedure an exercise in futility?

Reduced Form Estimates of the Impact of Policy

This section makes use of the richly detailed data available in OFCCP records to ask whether greater regulatory pressure results directly in better actual performance. We shall later examine the affirmative action bargaining process itself, and ask the related question: what types and levels of regulatory pressure elicit better promised performance? Section II derived the reduced form equation for a model of the demand and supply of labor. Table 2 presents estimates of the impact of regulatory pressure on employment in this reduced form. These are regressions, weighted by initial establishment size, of the realized growth rate in demographic group employment share on the actual growth rate lagged one year, a vector of enforcement variables,

and vectors of binary variables indicating year and SMSA[4].

The regulation variables may be divided into two classes: those that indicate initial deficiencies or non-compliance in affirmative action plans, and those that indicate higher levels or regulatory pressure and the resolution of plan deficiencies[5]. For both classes the results are mixed and often insignificant. One might expect greater growth in protected group employment in the case of pre-award compliance reviews -reviews mandated prior to the final award of large federal contracts- supposedly because the carrot is dangling so close to the nose. On the other hand, few contracts have ultimately been lost in this process, and the courts have been loathe to uphold the use of this type of leverage. 29 percent of all the reviews studied here are pre-award reviews, but only in the case of black females did they make a significant positive addition to protected group employment share beyond that expected from a regular review.

Among the indicators of initial deficiencies in affirmative action plans, eight establishments were found to be not in compliance. As expected, protected group employment grows slower at these establishments, but this is only significant in the case of white females. Table 2 also includes three additional variables indicating more specific deficiencies found in EEO policies, in composition of the workforce, and in goals and timetables. Such deficiencies are commonly found. 56 percent of all the AAPs studied here were classified by federal inspectors as having deficiencies in their goals and timetables. In only a few cases are these deficiencies completely resolved during a given compliance review. In general, establishments that are deficient do not differ significantly in their subsequent demographics from others. White males employment does grow significantly faster at establishments with deficient EEO policies, and black female employment does grow significantly slower at those with deficient goals and timetables.

Having controlled for the initial level of deficiencies, as well as for past growth

rates, we can now ask what impact higher levels of regulatory pressure beyond the initial review have on subsequent employment patterns. The first of these are a set of variables indicating the resolution of deficiencies in policies, composition, or goals and timetables. Such deficiencies were resolved during the given review in at most 18 establishments, and had a mixed effect. As expected, the employment of white males grew significantly slower, and that of white females significantly faster, where deficiencies in goals and timetables were resolved. On the other hand, this variable was insignificant for other groups. Resolving deficient EEO policies significantly increased black male employment growth, but had a perverse effect on white males and white females. Resolving deficient workforce composition had a significant perverse impact on black males and white females, and was insignificant in other cases. Note also that the OFCCP spent an average of 58 man-hours in conducting the reviews in this sample, with a range between 5 and 1006 hours. Controlling for size, additional hours had a positive but insignificant impact on protected group employment.

One third of the establishment were required to make interim progress reports. This marginally greater pressure had no significant impact on their subsequent demographics. 122 establishments, three percent of the total, signed conciliation agreements to remedy deficiencies in their AAPs. Perhaps their AAPs looked better, but their subsequent demographics did not. Only the growth rate of white male employment was significantly different at establishments with conciliation agreements, and it was higher.

The ultimate enforcement tool at the Department of Labor's disposal is debarment, but none of the few actual uses of this deterrent show up in our sample. The strongest pressure observed here is a show-cause notice. 24 establishments received such notices offering them the opportunity to show cause why they should not be debarred. On average, they had not significantly altered their demographics a year later[6]. On the whole, there is no compelling evidence here that these detailed com-

ponents of the enforcement process have a significant impact on the employment of members of protected groups[7].

The Information Content of Affirmative Action Goals

Goals and timetables for protected group employment are a major component of affirmative action policy. Are these affirmative action goals of any use in predicting subsequent employment? Table 3 tests for the information content of these goals by regressing the actual growth rate of employment share on the goal that had been set a year earlier. The results are very strong. The establishments are clearly not reporting as goals their rational expectations of employment share growth. As was obvious from simply comparing the sample means of goals and realizations shown in Table 1, these inflated goals far overstate subsequent achievements. On the other hand, except for non-black minority males, these regressions show a significant relationship between the goal and the realization. Knowledge of the goal is useful in determining future demographics.

The Impact of Pressure on Goals

To judge the implication of this finding for policy, we must first ask what impact regulatory pressure has on these goals. The answer, in nearly every case in Table 4, is none that we can observe. Here the independent variables are the same as those in the reduced form equations previously considered for realized growth rates of employment share, but the dependent variable is now the employment goal expressed as the projected rate of change in demographic group employment share. These estimates suggest that of the enforcement tools considered, the only one that results in greater goals is a conciliation agreement, and this only works for females.

Are we then driven to the inescapable conclusion that while goals do contain significant information on subsequent achievements, with few exceptions the government can affect neither projected nor actual employment patterns? The argument

deserves closer examination.

Semi-Reduced Form Estimates

In the attempt to identify the impact of policy on employment, the reduced form estimates in Table 2 throw out nearly all the information contained in the goals. This can be clearly seen by considering the estimates in Table 4 as structural equations explaining goals. Here the exogenous variables can only explain from 1 to 6 percent of the variation in goals, are always insignificant independently, and sometimes insignificant jointly. While this may simply mean that regulatory pressure, as well as the other independent variables, has little impact on goals, a more likely explanation, in my opinion, is that the few components of regulatory pressure that we can observe have little explanatory power. Here we have a trade-off between identification and information. Table 2 chose identification. Table 5 choses information. These should roughly bound the true impact. This table replicates the reduced form specification with the addition of goals as an independent variable. It attempts to measure the impact of policy on employment both directly, and indirectly through the formulation of goals. The striking finding in Table 5 is that the affirmative action goal is the single best predictor of subsequent employment demographics. It is far better than the establishments own past history, even controlling for the direct impact of detailed regulatory pressure.

This indicates that while establishments promise more than they deliver, the ones that promise more do deliver more, even conditioning on the past growth rate of employment share. In these regressions, weighting by initial size, of consequent actualizations on the past years' actualizations and on last year's projection, the projection is significant in every case except non-black minority males. The central finding of this paper is that there is significant information in the projection over and above what could have been predicted on the basis of past history. On the other hand, the coefficient is far from one; the projection falls far short of perfect information. For

example, on average a projected eleven percentage point increase in the growth rate of black male employment share results in an actual increase of one percentage point, ceteris paribus[8].

Establishments not only generally overpromise minority and female employment, they also overpromise white male employment. This reveals something of their strategy in formulating promises. They do not promise direct substitution of minority and female workers for white males, instead they promise more for all. More accurately, they promise to make room for more minority and female employees by increasing the size of the total employment pie. The first step in bringing these projections down to earth may simply be to ask the establishment whether the projected growth in total employment is reasonable[9].

While establishments do overpredict one year ahead, the coefficient on the projection is generally more significant than the coefficients on past actualizations. The surprising finding is that the projection is usually the single best predictor of the future. This does not necessarily indicate anything about the establishment's demand for labor. It is possible that establishments forsee shifts in the supply of labor that we cannot observe, and incorporate these into their goals. However, these equations control for both calendar year and SMSA. This explanation would require then that within a given SMSA, during a particular year, some establishments can accurately project particular supply shifts that will differentially affect them. Assuming identical demand elasticities, a general supply shift, such as an increase in the number of black males in New York, would be reflected in the SMSA variable. It seems doubtful then that the correlation of goals and market outcomes merely reflects the accuracy of establishments in projecting establishment specific supply shocks that are unobservable to us. Moreover, other work has shown that protected group employment share generally grows faster in reviewed establishments during this period. There would be no reason to expect this evidence of effective compliance reviews if firms were merely projecting

supply shifts.

IV. Conclusions

Goals for the employment of minorities and females are an important product of affirmative action bargaining. This process costs at least $51 million and perhaps more than one billion a year in administrative costs alone. In 1980, the OFCCP's authorized budget was $51 million. Past studies, some politically motivated, have estimated direct costs of affirmative action on the order of $50 to $80 per employee. Cumulating very roughly results in more than a billion dollars in direct compliance costs for all non-construction contractors. Concerning just the direct costs of compliance reviews, a 1981 survey of 42 companies with an average workforce of 50,000 found that 80% of the reviewed were requested to submit data in addition to the AAP, at an average cost of $3000.[10] A similar survey by Senator Hatch's Labor Committee of 245 contractors with an average workforce of 2584 in 1981 reported that 60% were asked to submit additional data beyond the AAP, at an average cost of $24,000.

The major finding here is that goals set in these costly negotiations do have a measurable and significant correlation with improvements in the employment of minorities and females at reviewed establishments. At the same time, these goals are not being fulfilled with the rigidity one would expect of quotas. While the projections of future employment of members of protected groups are inflated, the establishments that promise to employ more do actually employ more.

On the basis of the evidence studied here, which is essentially the only direct evidence brought to light on the question so far, it is clear that affirmative action goals are strongly correlated with subsequent achievements. What ultimately cannot be resolved with certainty here is the implication this has for policy beyond the important observation that goals appear to be neither so vacuous nor so rigid as their critics on either side have supposed.

We have a policy that appears to be effective in its whole and ineffective in its parts. The paperwork requirements of the AAP, the notification and resolution of AAP deficiencies, and even conciliation agreements and show-cause notices appear to have no general significant impact on affirmative action goals or on subsequent employment demographics. On the other hand, protected group employment share does generally grow faster at reviewed firms, and goals are strongly correlated with this growth. Do our results then indicate only that establishments' projections reflect variations in supply known to them, rather than induced variations in demand? Alternatively, can we infer that extracting greater promises will result in greater achievement? The critical evidence here is that there is an overall response to pressure. Within labor markets of the same industry and region, reviewed contractors do better than non-reviewed, as other work shows. As we have seen here, within a given SMSA the establishments that set higher goals achieve higher growth rates of protected group employment[11]. My reading of this evidence is that while much of the nit-picking over paperwork is ineffective, the system of affirmative action goals has played a significant role in improving employment opportunities for members of protected groups. One expects the lofty goals generated by political accomodation to be accompanied by loftier promises. The surprising finding here is that in the case of affirmative action, these promises are not entirely empty.

Notes

1. While these affirmative action sanctions have not been heavily employed, in many cases regulatory sanctions, like weapons of war, are judged most successful just when they are used the least. That does not seem to be the case here. The US Civil Rights Commission, the General Accounting Office, committees of both houses of Congress, and the Courts, have all concurred in the judgement that the contract compliance agencies have not made full and effective use of the sanctions at their disposal.

2. This data was made available by the OFCCP's Division of Program Analysis. Of the roughly 27000 centrally documented reviews, 19351 are identifiable. For the period before consolidation of enforcement activities into the OFCCP in 1978, records are available primarily of reviews conducted by DOD. Fortunately DOD accounted for roughly half of all pre-consolidation reviews. For example, in 1976 10,647 reviews were conducted, of which 5050 were performed by DOD, (USCCR, 1977, p.113), and of which about 4300 were centrally reported in detail.

    Among the numerous contract compliance agencies prior to 1978, DOD enjoyed one of the better reputations for strict enforcement, so by examining a sample of primarily DOD reviews we start with one of the more rigorous enforcement efforts. To the extent that defense contractors are heavily dependent on the federal government, and more so than the reverse, we may be looking at a situation in which the government stands in a relatively strong bargaining position.

3. Multiple compliance reviews at the same establishment are not rare. Of the 19351 reviews at identifiable establishments, 13125 represented multiple reviews. OF these, 10768 were conducted in consecutive years, at 4479 establishments. These pairs of reviews provide the data for this study. Some establishments experienced more than one set of consecutive reviews.

While this research design allows the use of one consistent set of data, it depends on repeatedly reviewed establishments which may differ from the average contractor establishment, or even from the average reviewed contractor. In particular, the large defense contractors who have been reviewed a number of times may expect to be reviewed frequently, and so conform more carefully to regulations and adhere more closely to promises. If so, this study may overstate the average impact of affirmative action promises. This question could be answered empirically in future work by matching the compliance review records with data on consequent realizations from EEO-1 reports. While the use of a sample of multiply reviewed defense contractors may overstate the impact of affirmative action, I believe this is unlikely to significantly bias the results reported here.

The determinants of reviews are studied at length in a companion paper. Reviews are primarily a function of size. The multiply reviewed establishments studied here are significantly larger than other contractor establishments. They are also more black, but otherwise do not differ greatly in their initial demographics.

4. Since there are six demographic groups, there are only five independent share equations to be estimated. The reported employment patterns are thought of as a sample statistic for the establishment's true employment propensities, so the regressions are weighted by initial year establishment size to correct for heteroskedasticity.

5. Each of these mileposts in the bargaining process reflect both the establishment's resistance to bureaucratic pressure, and at the same time increasing levels of bureaucratic pressure itself. If establishment resistance can be controlled for, then these may be taken roughly as inputs into a regulatory production function. This is the method adopted here to deal with the simultaneity problem. We assume that corporate resistance is controlled for by the past growth rates of protected group employment share, and by initial notification of deficiencies, so

we can then ask what the marginal impact is of factors of regulatory production such as conciliation agreements and show cause notices.

6.   Table 2 also indicates the importance of healthy macroeconomic growth in accommodating minority and female employment. We estimate separate intercepts for each year, with 1974 omitted. White males' employment share growth is greater during the recession years of 1975 and 1980. Correspondingly, females' and blacks' shares are substantially lower.

7.   Caution must be exercised in interpreting this result, since it may reflect the weakness of the identifying assumption rather than the weakness of enforcement tools.

8.   Comparing results across demographic groups, the value of the projections is weaker and less significant for minority males. One might expect promises for females to be less costly to fulfill because of the concurrent increase in female labor supply, but it is not clear why employers should appear less prescient in forecasting the share of minority males than that of other groups.

9.   We know that minority and female employment shares increase in growing establishments, so errors in projecting total growth will reduce the accuracy of share projections. To insulate from this effect, the regressions in Table 5 were repeated for the sub-sample of establishments that grew by at least 10 percent during the projection year. To the extent that this truncates the bottom of the sample on the basis of a variable that is correlated with the dependent, it should bias all coefficients toward zero. The power and significance of the projections are much greater once the possibly confounding errors in projecting total growth are reduced in this fashion. There are two factors at work here. First, it is far easier to increase minority and female employment in establishments that grow. Secondly, we expect establishments that are surprised by a recession to overstate the workforce openings they will have for minorities and females. Establishments

that grow stick far more closely to their projections for minority and female employment share than do stagnant or shrinking establishments.

10. Letter from Brenda McChristian-Brooks, National Association of Manufacturers, December 2, 1981.

11. The study of the inner workings of the affirmative action negotiation process would amount to futility compounded if that process were shown to be without substance and of theatrical value only. The next step is to explore in more detail the nature of the affirmative action bargaining process, particularly as part of the federal contracting process.

References

[1] Ashenfelter, Orley and Heckman, James. "Measuring the Effect of an Anti-discrimination Program" in Orley Ashenfelter and James Blum, eds., *Evaluating the Labor Market Effects of Social Programs*, (Princeton: Industrial Relations Section, Princeton University, 1976), pp. 46-84.

[2] Burman, George. *The Economics of Discrimination: The Impact of Public Policy*, unpublished Ph.D. thesis, Graduate School of Business, University of Chicago, 1973.

[3] Goldstein, Morris and Smith, Robert S. "The Estimated Impact of the Anti-discrimination Program Aimed at Federal Contractors," *Industrial and Labor Relations Review*, vol. 29, no. 4, July 1976, pp. 523-543.

[4] Heckman, James J. and Butler, Richard. "The Government's Impact on the Labor Market Status of Black Americans: A Critical Review," in Leonard Hausman et. al. ed., *Equal Rights and Industrial Relations*, (Madison: Industrial Relations Research Association, 1977).

[5] Heckman, James J. and Wolpin, Kenneth I. "Does the Contract Compliance Program Work? An Analysis of Chicago Data," *Industrial and Labor Relations Review*, vol. 29, no. 4, July 1976, pp. 544-564.

[6] Leonard, Jonathan, "The Impact of Affirmative Action" Department of Labor Report, July 1983.

[7] U.S. Commission on Civil Rights, *The Federal Civil Rights Enforcement Effort — 1974*, volume 5, "To Eliminate Employment Discrimination" (Washington: Government Printing Office, July 1975).

[8] U.S. Civil Rights Commission, *The Federal Civil Rights Enforcement Effort — 1977*, "To Eliminate Employment Discrimination: A Sequel" (Washington: Government Printing Office, December, 1977).

[9] U.S. Civil Rights Commission, *The Federal Civil Rights Budget*, (Washington: Government Printing Office, 1982).

[10] U.S. General Accounting Office, "The Equal Employment Opportunity Program for Federal Nonconstruction Contractors Can Be Improved," April 29, 1975, p. 30.

Table 1: Means of Projected and Actual Employment Levels by Demographic Group.
N = 5240.

Mode Year	1974	1975	1976	1976
	Lagged 2 Years	Lagged 1 Year	Projection	Actualization
Black Male	54	55	61	54
Minority Non-Black Male	38	40	42	40
White Male	628	623	615	602
Total Male	720	718	718	696
Black Female	34	35	39	35
Minority Non-Black Female	20	21	23	22
White Female	218	216	222	210
Total Female	272	272	284	267
Total	992	990	1001	963

Table 2: Reduced Form Estimates of the Effect of Detailed Enforcement on the Actual Growth Rate of Employment Share.
N = 3091

	Black Males	Other Males	White Males	Black Females	White Females
Intercept	.240 (.046)	.367 (.135)	.016 (.009)	.103 (.239)	.056 (.024)
Lagged Growth Rate	-.041 (.022)	-.144 (.044)	-.282 (.034)	-.105 (.048)	-.019 (.015)
Preaward Review	-.026 (.030)	.140 (.086)	-.005 (.006)	.402 (.150)	-.024 (.015)
Non-Compliance	-.216 (.198)	-.395 (.574)	.064 (.040)	-.469 (.999)	-.214 (.103)
Conciliation Initiated	.022 (.062)	.016 (.178)	.026 (.012)	.413 (.311)	-.032 (.032)
Show-Cause Notice Issued	-.002 (.156)	.137 (.452)	-.035 (.031)	-.117 (.786)	.064 (.081)
Progress Reports Required	.000 (.028)	.162 (.082)	.006 (.006)	-.241 (.142)	-.015 (.015)
EE0 Policies Deficient	.032 (.034)	-.166 (.099)	.018 (.067)	.051 (.173)	-.020 (.018)
EEO Policies Not Resolved	1.062 (.246)	.188 (.715)	.142 (.050)	-.790 (1.243)	-.383 (.128)
Workforce Composition Deficient	.016 (.030)	-.088 (.088)	.001 (.006)	.124 (.153)	.022 (.016)
Workforce Compositon Not Resolved	-.521 (.191)	-.034 (.556)	.042 (.038)	-1.800 (.967)	-.289 (.100)
Goals and Timetables Deficient	-.023 (.031)	-.046 (.090)	-.005 (.006)	-.463 (.156)	-.006 (.016)
Goals and Timetables Not Resolved	.270 (.201)	-.077 (.585)	-.128 (.041)	1.610 (.017)	.575 (.105)
Hours Expended	.00007 (.0002)	.00018 (.0006)	-.00009 (.00004)	.00173 (.00103)	-.00012 (.00011
Year 1975	-.175 (.046)	.062 (.133)	.009 (.009)	.072 (.233)	-.050 (.024)

Year 1976	-.156 (.049)	-.192 (.142)	-.012 (.010)	.096 (.249)	-.052 (.025)
Year 1977	-.070 (.050)	-.135 (.146)	-.014 (.010)	.914 (.256)	-.010 (.026)
Year 1978	-.140 (.061)	-.191 (.176)	-.041 (.012)	.155 (.308)	.050 (.032)
Year 1979	-.033 (.085)	-.101 (.247)	-.024 (.017)	.180 (.431)	.003 (.044)
Year 1980	.316 (.159)	-.272 (.461)	.041 (.032)	.437 (.803)	-.085 (.083)
New York	-.014 (.109)	-.043 (.317)	-.031 (.022)	.032 (.551)	.017 (.057)
Los Angeles	.019 (.038)	-.359 (.112)	-.011 (.008)	-.319 (.194)	-.074 (.020)
Philadelphia	-.374 (1.335)	-.405 (3.876)	.041 (.269)	-1.085 (6.740)	-.100 (.695)
Boston	.086 (.076)	-.079 (.220)	.006 (.015)	-.099 (.382)	-.065 (.039)
Dallas	.020 (.070)	-.220 (.205)	-.018 (.014)	3.199 (.356)	-.116 (.037)
Houston	.440 (.114)	.090 (.332)	.147 (.023)	-.107 (.578)	-.025 (.060)
Nassau-Suffolk	-.018 (.140)	-.180 (.408)	.028 (.028)	-1.365 (.709)	-.061 (.073)
Newark	-.040 (.097)	-.159 (.283)	.020 (.020)	-.250 (.492)	.032 (.051)
San Francisco	-.366 (.193)	-.293 (.560)	.032 (.039)	-.481 (.974)	.017 (.100)
Size	1.3×10^{-5} (2.6×10^{-6})	-1.9×10^{-6} (7.7×10^{-6})	-1.3×10^{-6} (5.3×10^{-7})	1.8×10^{-5} (1.3×10^{-5})	1.6×10^{-5} (1.4×10^{-6})
M.S.E.	686	5789	28	17510	186

Table 3: The Information Content of Goals.
Regressions of Actual Growth Rates of Employment Share on the Rates that Had Been Projected One Year Earlier.
N = 3091

	Black Males	Other Males	White Males	Black Females	White Females
Intercept	.038 (.014)	.212 (.037)	.0043 (.0027)	-.186 (.037)	.057 (.007)
Projection	.100 (.018)	.051 (.027)	.194 (.036)	1.65 (.020)	.194 (.022)
M.S.E.	702	5805	.29	5560	193

Table 4: The Effect of Detailed Enforcement on the Projected Growth Rate
of Employment Share.
N = 3091

	Black Males	Other Males	White Males	Black Females	White Female
Intercept	.230 (.046)	.249 (.090)	-.020 (.005)	.199 (.121)	.037 (.020)
Lagged Growth Rate	-.018 (.022)	-.027 (.029)	-.106 (.017)	-.050 (.024)	-.017 (.012)
Preaward Review	.004 (.029)	-.117 (.057)	.004 (.003)	.105 (.076)	-.030 (.013)
Non-Compliance	-.368 (.194)	-.237 (.382)	.206 (.020)	-.606 (.505)	-.229 (.085)
Conciliation Initiated	-.002 (.060)	-.020 (.119)	.005 (.006)	.569 (.157)	.089 (.026)
Show-Cause Notice Issued	-.000 (.153)	.183 (.301)	-.020 (.016)	-.156 (.398)	-.036 (.067)
Progress Reports Required	.034 (.028)	-.021 (.054)	.001 (.003)	-.061 (.072)	-.006 (.012)
EEO Policies Deficient	.037 (.034)	.016 (.066)	-.001 (.003)	.103 (.088)	.011 (.015)
EEO Policies Not Resolved	.054 (.242)	.036 (.475)	-.002 (.025)	.081 (.629)	.007 (.106)
Workforce Com- position Deficient	.041 (.030)	-.002 (.058)	-.007 (.003)	.060 (.077)	-.009 (.013)
Workforce Composi- tion Not Resolved	.061 (.188)	.602 (.370)	-.016 (.019)	-.402 (.489)	.020 (.082)
Goals & Timetables Deficient	.031 (.030)	-.080 (.060)	-.006 (.003)	-.118 (.079)	-.011 (.013)
Goals & Timetables Not Resolved	-.100 (.198)	-.277 (.389)	.012 (.020)	.127 (.515)	-.002 (.086)
Hours Expended	-.00045 (.00020)	-.00034 (.00039)	.00003 (.00002)	.00047 (.00052)	-.00007 (.00009)
Year 1975	.081 (.045)	-.013 (.089)	.001 (.004)	.131 (.118)	.018 (.020)
Year 1976	.046 (.048)	-.010 (.094)	.000 (.005)	.085 (.126)	.019 (.021)

Year 1977	.049 (.050)	-.045 (.097)	.004 (.005)	.418 (.130)	.064 (.022)
Year 1978	-.034 (.060)	.271 (.117)	.007 (.006)	-.017 (.156)	.030 (.026)
Year 1979	-.041 (.084)	-.014 (.164)	.003 (.008)	-.079 (.218)	.021 (.037)
Year 1980	-.104 (.156)	-.091 (.307)	-.001 (.016)	.075 (.406)	.004 (.068)
New York	-.123 (.107)	-.086 (.210)	-.026 (.011)	-.148 (.279)	-.004 (.047)
Los Angeles	-.073 (.038)	-.038 (.074)	-.009 (.004)	-.131 (.098)	-.030 (.016)
Philadelphia	-.186 (1.312)	-.068 (2.578)	.008 (.133)	-.332 (3.410)	.020 (.574)
Boston	.159 (.074)	-.031 (.146)	.004 (.008)	.076 (.193)	-.013 (.032)
Dallas	-.109 (.069)	-.080 (.136)	.002 (.007)	1.226 (.180)	-.051 (.030)
Houston	.051 (.112)	-.092 (.221)	.000 (.011)	-.018 (.292)	-.007 (.049)
Nassau-Suffolk	.320 (.138)	.325 (.271)	-.025 (.014)	-.772 (.358)	-.071 (.060)
Newark	-.063 (.096)	-.082 (.188)	.007 (.010)	-.183 (.249)	-.027 (.042)
San Francisco	-.146 (.190)	-.128 (.372)	.000 (.019)	-.264 (.493)	-.037 (.083)
Size	1.3×10^{-5} (2.6×10^{-6})	2.3×10^{-6} (5.1×10^{-6})	9.4×10^{-7} (2.6×10^{-7})	2.4×10^{-5} (6.7×10^{-6})	1.1×10^{-6} (1.1×10^{-6})
MSE	663	2560	7	4482	127

Table 5: Semi-Reduced Form Estimates of the Impact of Goals and Enforcement on the Actual Growth Rate of Employment Share. N = 3091

	Black Males	Other Males	White Males	Black Females	White Females
Projection	.090 (.018)	.051 (.027)	.171 (.036)	1.642 (.020)	.186 (.022)
Intercept	.219 (.0470	.354 (.135)	.019 (.009)	-.224 (.133)	.049 (.024)
Lagged Growth Rate	-.039 (.022)	-.143 (.044)	-.264 (.034)	-.024 (.027)	-.016 (.014)
Preaward Review	-.026 (.030)	.146 (.086)	-.006 (.006)	.230 (.084)	-.018 (.015)
Non-Compliance	-.183 (.197)	-.382 (.574)	.029 (.040)	.525 (.556)	-.171 (.102)
Conciliation Initiated	.023 (.061)	.017 (.179)	.026 (.012)	-.521 (.173)	.049 (.032)
Show-Cause Notice Issued	-.002 (.155)	.128 (.452)	-.032 (.031)	.140 (.438)	.070 (.080)
Progress Reports Required	-.002 (.028)	.164 (.082)	.005 (.006)	-.140 (.079)	-.014 (.014)
EEO Policies Deficient	.029 (.034)	-.167 (.099)	.018 (.007)	-.118 (.096)	-.022 (.018)
EEO Policies Not Resolved	1.057 (.245)	.186 (.714)	.142 (.049)	-.924 (.692)	-.384 (.127)
Workforce Composition Deficient	.012 (.030)	-.088 (.088)	.002 (.006)	.026 (.085)	.023 (.016)
Workforce Composition Not Resolved	-.527 (.191)	-.064 (.556)	.045 (.038)	-1.141 (.539)	-.293 (.098)
Goal & Timetables Deficient	-.025 (.031)	-.042 (.090)	-.004 (.006)	-.270 (.087)	-.004 (.016)
Goal & Timetables Not Resolved	.280 (.201)	-.063 (.585)	-.130 (.040)	1.402 (.567)	.576 (.104)
Hours Expended	.00011 (.00020)	.00020 (.00059)	-.000090 (.000041)	.00096 (.00057)	-.00011 (.00010)

Year 1975	-.182 (.046)	.062 (.133)	.009 (.009)	-.144 (.130)	-.054 (.024)
Year 1976	-.161 (.049)	-.191 (.142)	-.012 (.010)	-.043 (.139)	-.055 (.025)
Year 1977	-.075 (.050)	-.133 (.146)	-.015 (.010)	.228 (.143)	-.022 (.026)
Year 1978	-.137 (.060)	-.205 (.176)	-.043 (.012)	.182 (.171)	.045 (.031)
Year 1979	-.030 (.085)	.100 (.247)	-.024 (.017)	.310 (.240)	-.000 (.044)
Year 1980	-.325 (.158)	-.268 (.461)	.041 (.032)	.314 (.448)	-.086 (.082)
New York	-.003 (.109)	-.039 (.317)	-.027 (.022)	.275 (.307)	.018 (.056)
Los Angeles	.025 (.038)	-.357 (.112)	-.009 (.008)	-.104 (.108)	-.068 (.020)
Philadelphia	-.358 (1.330)	-.401 (3.874)	.040 (.268)	.540 (3.76)	-.103 (.687)
Boston	.071 (.076)	-.078 (.219)	.006 (.015)	-.224 (.213)	-.063 (.039)
Dallas	.029 (.070)	-.216 (.205)	-.018 (.014)	1.187 (.200)	-.107 (.036)
Houston	.436 (.114)	.094 (.332)	.147 (.023)	-.077 (.322)	-.024 (.059)
Nassau-Suffolk	-.046 (.140)	-.196 (.406)	.032 (.028)	-.098 (.395)	-.048 (.072)
Newark	-.035 (.097)	-.155 (.283)	.019 (.020)	.050 (.274)	.038 (.050)
San Francisco	-.035 (.192)	-.286 (.560)	.032 (.039)	.048 (.542)	.024 (.099)
MSE	681	5785	28	543	182