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This article uses longitudinal career history data for the period 1982 through 1990 to explore the mechanisms that produce a gender gap in earnings among writers in the television industry. Two models of labor market dynamics are compared. The first is a model of cumulative disadvantage whereby differential access to opportunity is increasingly consequential over the course of writers' careers. The second is a model of continuous disadvantage whereby the contributions of women writers are uniformly devalued across career stages. The results strongly support the model of continuous disadvantage and show that a narrowing of the wage gap is limited to very recent cohorts of writers. The article describes how unstructured labor market arrangements in the entertainment industry sustain the process of continuous disadvantage and discusses implications for labor market issues more generally.

Cumulative Versus Continuous Disadvantage in an Unstructured Labor Market

GENDER DIFFERENCES IN THE CAREERS OF TELEVISION WRITERS

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In the television industry in 1982, employed women writers earned 70¢ for each \$1 earned by males. Among male television writers, median earnings doubled between 1982 and 1990 and grew each year throughout that period, with the exception of the 1988 strike year (see Figure 1 and Table 1). Over the same period, median earnings of women grew just as much, but the trend was much more erratic. By 1990, women writers were still earning, on average, 70¢ for each \$1 earned by males. In this article, we explore the

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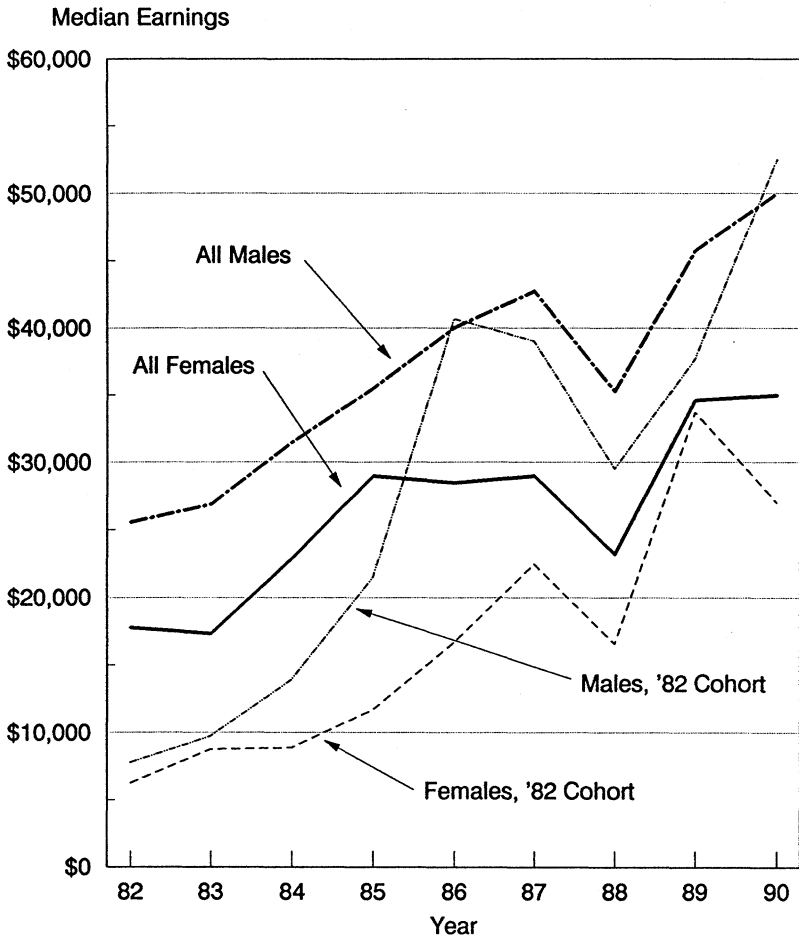


Figure 1: Median Earnings of Employed Television Writers, by Gender, 1982-1990

underlying labor market dynamics that produce this gender gap in earnings among writers in the television industry.

The primary goal of our empirical analysis is to compare two models of labor market dynamics. The first is a model of *cumulative disadvantage* whereby differential access to opportunity is increasingly consequential over the course of writers' careers. According to this model, males benefit more

TABLE 1: Total Writers, Employed Writers, and Percentage Employed, Median Earnings of Employed Writers, Average Years in WGA of Employed Writers, and Average Age of Employed Writers, by Gender, 1982-1990

Year	Total Writers	Employed Writers	Percentage Employed	Median Earnings	Average Years in WGA	Average Age
Females						
1982	1,011	402	40	\$17,761	5.7	39.1
1983	1,069	413	39	\$17,303	5.9	39.0
1984	1,147	439	38	\$22,903	6.3	39.3
1985	1,225	455	37	\$29,000	6.9	39.8
1986	1,316	521	40	\$28,495	7.1	40.0
1987	1,422	575	40	\$29,000	7.2	40.6
1988	1,499	545	36	\$23,221	7.7	40.7
1989	1,592	609	38	\$34,625	7.9	40.9
1990	1,687	627	37	\$35,000	8.1	41.2
% Change						
1982-1990	67	56		97	42	5
Males						
1982	3,583	1,624	45	\$25,552	10.1	43.8
1983	3,724	1,585	43	\$26,902	10.3	43.7
1984	3,888	1,625	42	\$31,500	10.3	43.7
1985	4,091	1,719	42	\$35,500	10.6	43.9
1986	4,324	1,837	42	\$40,004	10.5	43.7
1987	4,595	1,937	42	\$42,750	10.3	43.5
1988	4,759	1,828	38	\$35,306	10.6	43.2
1989	4,974	1,953	39	\$45,750	10.4	43.2
1990	5,198	2,024	39	\$50,000	10.6	43.1
% Change						
1982-1990	45	25		96	5	-2

than females from access to career opportunities, and as a result small gender differences at entry into the career generate increasingly divergent earnings trajectories over time. The second is a model of *continuous disadvantage* whereby the contributions of women writers are uniformly devalued across career stages. According to this model, the barriers faced by women writers begin at entry into the industry and pose a constant source of disadvantage over the course of their careers.

A secondary goal of our empirical analysis is to examine whether there has been a measurable erosion during the 1980s in the career barriers faced by women writers in the television industry, regardless of whether the underlying dynamic is one of cumulative or continuous disadvantage. On one hand, over the period from 1982 through 1990, women have increased

their representation in decision-making roles in production (e.g., as writer-producers of successful series) and, to a lesser extent, in programming, although barriers to career advancement for women have been documented and widely publicized (Bielby & Bielby, 1987a, 1989). On the other hand, as described below, the labor market for television writers is highly unstructured, making it difficult to identify the specific structures and practices that place women at a disadvantage and to design, implement, and enforce effective remedies. Accordingly, gender differences in labor market dynamics may or may not exhibit a trend of *declining disadvantage* over time, and we assess whether such a trend exists in our statistical models.

Below, we first describe the labor market for television writers and discuss implications for gender differences in career trajectories. We then describe our data and models for evaluating alternative conceptualizations of the labor market. After presenting the results of our analysis, we discuss implications for future research on the entertainment industry and for labor market issues more generally.

THE MARKET FOR TELEVISION WRITERS

Technically, a television writer is a salaried employee in an industry dominated by about a dozen large corporations. Nearly half of all writers are employed by the television divisions of the seven major motion picture studios (Columbia/Sony, Time-Warner, Universal-MCA, Paramount, Fox, MGM, and Disney). Together, the major studios, the three networks, and the five or six largest independent production companies account for about two thirds of all employment.

However, the employment relation for television writers is closer to the kind of short-term contracting typical of craft administration of production (Stinchcombe, 1959) than to the bureaucratically organized internal labor market typical of large firms. Writers are employed for the duration of a project, which might be as short as a few weeks for work on a single telefilm, pilot, or episode of a prime-time series. Most secure (and potentially most lucrative) is employment as a writer-producer on an ongoing prime-time series. Those series last anywhere from a few weeks to a few years, but even on the most enduring series there is considerable turnover among the production staff from season to season. In short, television writers attempt to sustain careers by moving from project to project, perhaps working for dozens of employers over a period of a few years.

Although this project-oriented employment is similar in many ways to work in the construction trades, the labor market differs from that found in

craft administration of production in one important respect: The quality of the work cannot be unambiguously evaluated based on technical and measurable features of the finished product. Instead, the quality of work and the competence of the writer is evaluated post hoc based on whether or not the product is seen by large numbers of viewers with the demographic traits most valued by advertisers. Moreover, the size of the audience for a writer's work is influenced by many factors that are beyond the control of the individual writer.

DiMaggio (1977) has described the organization of production surrounding this kind of work as a "brokerage" administration of production. In "culture industries" such as the television industry, the inherent conflict between creative and commercial interests create unique problems of "governance" that cannot be effectively resolved with either a bureaucratic authority hierarchy or a craft system based on short-term contracting. Instead, in popular culture industries, brokers mediate between artists (e.g., writers) and managers (e.g., network programmers), performing the monitoring function that resides in authority relations in a bureaucracy and in professional standards and contract specifications in craft administration. According to DiMaggio,

Like craft administrators, brokerage administrators lack professional competence to build a finished product and must defer to specialists beneath them on the organizational charts; but unlike craft administrators, they can never be certain exactly what professional competence is or who may be expected to possess it. Artists, and often brokers themselves, can only be evaluated post hoc on the basis of success, or on the basis of reputation or track record. (p. 442)

In television production, brokerage occurs among individual artists, projects (series), and networks purchasing those projects. The brokers in this system are established writer-producers. Among network executives, these individuals have reputations for successfully developing new projects, overseeing their production, and managing the inherent conflict between artistic and commercial interests. DiMaggio describes the specific arrangements in the television industry as a *centralized* brokerage system:

In such a system, management exerts strong pressures upon creators and innovation and diversity are, in most cases, successfully minimized. Brokers represent management's views to creators; they themselves are subject to vertical communication through multiple hierarchies of control; decisions to fund products are made by committee; and management personnel are involved in the creative process itself. (p. 443)

Finally, the evaluation of professional competence in culture industries is unique in that it is driven by "fashion" (Hirsch, 1972). Thus, while reputations are built on past success, it is only success in arenas that remain fashionable

that contributes to a writer's marketability. As a result, the "human capital" that is acquired through labor market experience atrophies rapidly, and only very recent experience yields a return in the market.

IMPLICATIONS FOR GENDER DIFFERENCES IN CAREER TRAJECTORIES

Faulkner and Anderson (1987) argue that short-term contracting in a highly uncertain and unstable business environment supports a process of cumulative advantage in career trajectories (see also Allison, Long, & Krauz, 1982). Their data on the careers of film producers and directors strongly supports their assertion, and we expect to see a similar pattern among writers in the television industry.

A cumulative advantage process per se need not imply that women experience a cumulative *disadvantage*, especially if men and women begin their careers with comparable resources. Moreover, because only recent experience is valued in the market, gender differences in the continuity of labor force participation—a factor emphasized in human capital accounts of the wage gap (Polachek, 1979)—should not place women writers at a significant disadvantage.

However, there are features of "brokerage administration" that might pose barriers that have a continuous impact on the careers of women writers. One is the highly skewed sex ratio within the industry. The network executives who make decisions about program procurement and scheduling and those at the production companies who make decisions about financing new projects are almost always White males. Women constitute less than 15% of the executive producers of prime time programs and less than 25% of the writers working in television. With decisions being made in the context of high levels of ambiguity, risk, and uncertainty, social similarity is likely to have a significant impact on how writers' reputations are evaluated (Kanter, 1977). As a result, women writers are likely to remain peripheral to decision makers' social networks and thus have limited access to well-placed producers and programmers.

A second feature that might place women at a disadvantage is the "type-casting" of writers. In his study of musical directors working in feature film, Faulkner (1983) describes how artists must balance the trade-off between short-term employment security arising from stylistic specialization versus the long-term threat to artists' careers from being typecast. An artist who is labeled too narrowly risks falling out of fashion as tastes change. The careers of television writers are likely to be subject to similar processes. Moreover,

the typecasting of television writers is also likely to be shaped by cultural stereotypes. Because of sex stereotyping, women writers may be subject to "role encapsulation" (Kanter, 1977). Employment of women who defy conventions is likely to be viewed as especially risky. Thus women writers are likely to encounter barriers to career advancement due to the limited range of writing opportunities open to them.

In sum, in the television industry, both the business environment and the labor market are characterized by high levels of risk and uncertainty. The matching of individual writers to employment opportunities is brokered by a small number of writer-producers whom network executives rely on to manage the inherent conflict between creative and commercial interests. In such a system, women writers are disadvantaged by limited access to informal networks and by "typecasting" of writers by gender. In terms of career trajectories, the dynamics of disadvantage might take on one of two forms: cumulative disadvantage, whereby differential access to opportunity is increasingly consequential over the course of the career, or continuous disadvantage, whereby gender barriers pose a constant source of disadvantage at every career stage. Regardless of whether the underlying dynamic is one of cumulative or continuous disadvantage, women's increased representation in "broker" roles may be contributing to a pattern of declining disadvantage over time.

DATA, MEASURES, AND MODELS

The data for our study describe the employment and earnings trajectories of 6,935 television writers, 5,167 of whom were employed at least once during the period from 1982 through 1990. These data are from the employment and membership records of the Writers Guild of America, West (WGA). They cover nearly all writing for episodic series and films for television produced in Hollywood. Not included are news, sports, and other nonfiction programming, game shows, and the daytime dramas produced in New York. Also not included in our analyses are data on a small number of writers for whom information on age is not available (see Bielby & Bielby, 1989, for details).

Our model is a pooled cross-sectional time-series specification of the form

$$Y_{ict} = a + b_1 X_i + b_2 W_{it} + Z_c + d_t + e_{ict}, \quad (1)$$

where Y_{ict} is log earnings for the i th individual in cohort c in year t , and cohort is defined as year admitted to membership in the WGA. Attributes of individuals that do not vary over time (e.g., minority status) are included in

X_i and individual traits that vary over time (e.g., years of experience) are included in W_{it} . The term Z_c captures effects on earnings that are unique to a specific cohort over time, whereas d_t captures year-specific effects on earnings. The disturbance, e_{ict} is assumed to have zero mean and constant variance and to be uncorrelated with the other independent variables.

Minority status and gender are represented by binary (0-1) variables, coded 1 for minority and female, respectively. Work experience is measured in two ways. The first is years of membership in the WGA.¹ Because less than half of all writers are employed in any given year (see Table 1), years of membership does not equal years of employment experience. Consequently, in some models we also include binary variables for lagged employment status 1, 2, and 3 years prior to year t .

Age is measured as year t minus year of birth. Year effects are captured by eight binary variables, with 1982 as the reference category. We expect writers who began their careers prior to the mid-1970s to be disadvantaged in the labor market, and therefore cohort effects are captured by two binary variables, the first coded 1 for those admitted to the WGA prior to 1971 and the second coded 1 for those admitted between 1971 and 1975. Finally, our models include a binary variable coded 1 if the writer received earnings from work in feature films during year t .

CUMULATIVE VERSUS CONTINUOUS DISADVANTAGE: HYPOTHESES

Table 2 summarizes our hypotheses regarding the determinants of earnings under alternative conceptualizations of labor market dynamics. The main effects of gender, experience, and control variables are assumed to be the same across models. Each assumes a net negative effect of being female, effects of years of experience that increase at a decreasing rate, and positive effects of prior employment and earnings.

We assume that, net of experience, the contributions of older writers are disadvantaged in the labor market (D. Bielby & Bielby, 1991). The net age-earnings profile is expected to take the shape of an inverted "U," peaking at a relatively young age. Similarly, we expect writers who began their careers prior to 1975 to be disadvantaged and hypothesize negative effects for the binary variables denoting year of entry prior to the mid-1970s. Opportunities for minority writers are constrained due to widespread "typecasting" by race and ethnicity (Bielby & Bielby, 1987a, 1989), and thus we hypothesize a negative net effect of minority status.

TABLE 2: Hypothesized Effects of Independent Variables on Earnings for Different Models of Labor Market Dynamics

<i>Variable</i>	<i>Cumulative Disadvantage</i>	<i>Continuous Disadvantage</i>	<i>Declining Disadvantage</i>
Female	–	–	–
Experience (years in industry)	Inverted U	Inverted U	Inverted U
Lagged employment	+	+	+
Lagged earnings	+	+	+
Control variables			
Age	Inverted U	Inverted U	Inverted U
Pre-1971 cohort	–	–	–
1971-1975 cohort	–	–	–
Minority	–	–	–
Film earnings	–	–	–
Year (except strike year)	+	+	+
Gender interactions			
Female x			
Experience	–	0	?
Lagged Employment	–	0	?
Lagged Earnings	–	0	?
Year	?	?	–

Some writers find occasional work in television, even though the focus of their careers is in the field of feature films. For many of these writers, employment in television is incidental to their work in the area of feature films (for example, they may receive compensation for a television spin-off from a successful film). Others might seek out work in television only when employment is unavailable in the film industry. Accordingly, we expect employment in feature film in year t to be negatively associated with television earnings in that year.

Because the collective bargaining agreement specifies annual increases in minimum compensation for virtually all types of writing assignments in television, we expect earnings to increase annually from 1982 through 1990, with one exception. A strike in 1988 halted production for several months, so we expect earnings in that year to fall substantially below earnings for the previous year.

The three models of labor market dynamics—cumulative disadvantage, continuous disadvantage, and declining disadvantage—are differentiated by their implications for interaction effects by gender. We choose between the cumulative disadvantage and continuous disadvantage models based on interaction effects between gender and experience, between gender and prior

employment, and between gender and prior earnings. The cumulative disadvantage model assumes that access to opportunity early in the career pays off more for men than for women. As a result, the gender gap in wages is expected to increase with experience, as suggested in the trend for the cohort of writers who began their careers in 1982, as portrayed in Figure 1.² According to the cumulative disadvantage model, the net returns to experience, lagged employment, and lagged earnings are expected to be lower for women than for men.

According to the continuous disadvantage model, a pervasive bias against women affects them equally through all stages in their careers. The disadvantage at entry is neither greater nor worse than at later stages in the career. Thus the continuous disadvantage model implies no interaction between gender and measures of experience, prior employment, and prior earnings.

Neither the cumulative disadvantage nor the continuous disadvantage model provides an explicit prediction about the size and direction of the Gender \times Year interaction. Over time and net of all other factors in these two models, the wage gap between men and women might be increasing, decreasing, or not changing at all. In contrast, according to the model of declining disadvantage, there is a trend toward an erosion of gender barriers and a resulting decline in the gender gap in wages over time. Whether the underlying dynamic is one of cumulative or continuous disadvantage, forces are at work that are slowly but surely dismantling the sources of that disadvantage.

In sum, if we find strong evidence of lower returns among women than among men in the effects of experience, prior employment, and prior earnings, then the cumulative disadvantage model will be favored over the continuous disadvantage model. In contrast, if there is a large net effect of gender but no interaction of gender with measures of experience, prior employment, or prior earnings, then the continuous disadvantage model will be favored. Regardless of the outcome of this comparison, a large negative interaction of female by year will provide evidence of declining disadvantage.³ Absence of such an interaction will suggest that the barriers faced by women writers have persisted throughout the 1980s, despite women's increasing representation in positions of power and responsibility and despite increased attention to the problem of gender bias in the industry.

FINDINGS

Tables 1 and 3 present a portrait of a career in television writing as a "revolving door" (Jacobs, 1989) for both men and women. Over the period from 1982 through 1990, the number of writers pursuing work in television

TABLE 3: Stability of Employment, by Gender and Year

<i>Subsequent Employment of Those Employed in 1982 – % Employed, by Year (n = 2,026)</i>			<i>Prior Employment of Those Employed in 1990 – % Employed, by Year (n = 2,651)</i>		
<i>Year</i>	<i>Females</i>	<i>Males</i>	<i>Year</i>	<i>Females</i>	<i>Males</i>
1982	NA	NA	1982	34	41
1983	74	75	1983	36	43
1984	69	68	1984	40	46
1985	65	66	1985	43	50
1986	65	64	1986	49	57
1987	61	62	1987	58	62
1988	57	56	1988	59	63
1989	58	55	1989	71	74
1990	52	51	1990	NA	NA

has grown substantially more than the amount of available work, with the rate of employment declining accordingly from 40% to 37% among women and from 45% to 39% among men (Table 1). Over the same period, women have increased their representation among total writers (from 22% to 24.5%) and employed writers (from 19.8% to 23.7%).

Consistent with Faulkner and Anderson's (1987) notion of careers in Hollywood as a series of short-term contracts, Table 3 shows a high degree of discontinuity in the employment of both women and men writers (also see Bielby & Bielby, 1987b). For example, about a fourth of those employed in the industry in 1982 were not among those working in television the following year. It was also found that nearly half of those working in 1982 were not employed 8 years later. Similarly, over a fourth of those employed as television writers in 1990 were new to the industry, and fewer than half of those employed in that year were working as television writers 5 years earlier.

The employment patterns portrayed in Tables 1 and 3 suggest that the high level of risk and uncertainty in the business context facing programmers and producers also characterizes the careers of individual writers. It is in precisely this kind of environment that the sources of gender bias are likely to be subtle and indirect, subject to the stereotypes and preconceptions of decision makers who place a premium on social similarity in order to establish trust and avoid risk (Ruble & Ruble, 1982; Salancik & Pfeffer, 1978). Tables 4 and 5 present the results of statistical analyses designed to determine how these sources of bias are embodied in labor market dynamics.

Our strategy was to estimate and contrast models with and without gender interactions under three alternative specifications. The first specification (Models 1 and 2) includes our measure of experience but not lagged

TABLE 4: Earnings Regressions, Pooled Cross-Sectional Time-Series Models, OLS Estimates

<i>Variable</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
Cohort				
Pre-1971	-0.185**	-0.175**	0.178**	0.169**
1971-1975	-0.098**	-0.092	0.169**	0.167**
Year				
1983	0.048	0.055	—	—
1984	0.152**	0.176**	—	—
1985	0.246**	0.267**	—	—
1986	0.302**	0.328**	0.084*	0.082
1987	0.403**	0.425**	0.203**	0.194**
1988	0.179**	0.188**	-0.053	-0.075
1989	0.440**	0.473**	0.256**	0.250**
1990	0.475**	0.480**	0.308**	0.276**
Experience	0.118**	0.116**	-0.011*	-0.010
Experience ²	-0.002**	-0.002**	0.001**	0.001**
Minority	-0.221**	-0.190**	-0.116	-0.045
Age x 10	0.053	0.053	-0.064	-0.008
Age ² x 10	-0.004**	-0.004**	-0.002*	-0.000*
Film earnings	-0.202**	-0.196**	-0.091**	-0.090**
Employed—Lag 1	—	—	0.776**	0.765**
Employed—Lag 2	—	—	0.435**	0.467**
Employed—Lag 3	—	—	0.447**	0.448**
Female	-0.216**	-0.137	-0.249**	-0.228**
Gender Interactions				
Female x				
Experience	—	0.012	—	0.002
Experience ²	—	-0.001*	—	-0.000
1983	—	-0.041	—	—
1984	—	-0.117	—	—
1985	—	-0.105	—	—
1986	—	-0.122	—	0.015
1987	—	-0.101	—	0.045
1988	—	-0.042	—	0.096
1989	—	-0.140	—	0.030
1990	—	-0.020	—	0.140
Film	—	-0.032	—	—
Minority	—	-0.109	—	-0.228
Employed—Lag 1	—	—	—	0.044
Employed—Lag 2	—	—	—	-0.134
Employed—Lag 3	—	—	—	-0.011
Constant	9.916	9.897	9.894	9.868
Root MSE	1.413	1.413	1.296	1.296
R ²	0.080	0.080	0.210	0.210
N (person-years)	20,717	20,717	14,629	14,629

(continued)

TABLE 4 Continued

	Numerator df	F Ratio	Numerator df	F Ratio
Tests:				
All interactions	12	1.431	11	1.288
Experience interactions	2	6.339**	2	0.906
Lag employment interactions	—	—	3	1.509
Year interactions	8	0.512	5	0.74

* $p < .05$; ** $p < .01$.

employment and lagged earnings. This specification has the advantage of exploiting all nine years of data from 1982 through 1990, reflecting the earnings trajectories of the 5,167 writers who worked at least once during that period. The second specification (Models 3 and 4) adds binary variables for whether a writer was employed in years $t-1$, $t-2$, and $t-3$. Because data on employment are not available for years prior to 1982, estimates for this specification are based on a shorter time span—from 1985 through 1990—and pertain to the 4,564 writers who worked at least once during this period. The final specification (Models 5 and 6) includes effects of earnings in years $t-1$ and $t-2$ and is limited to writers with at least one employment spell of 3 consecutive years between 1983 and 1990 (i.e., nonzero earnings in years t , $t-1$, and $t-2$). Accordingly, the results of this specification apply to a select subgroup of 2,415 more successful writers with relatively continuous employment histories in the television industry.

Results for the first two specifications (Models 1 through 4) appear in Table 4, and those for the third specification (Models 5 and 6) are shown in Table 5. Overall, the results provide extremely strong support for a model of continuous disadvantage and fail to support a model of cumulative disadvantage. First, in each instance, a global test of the gender interactions failed to reject the null hypothesis of no interaction (see row labeled “all interactions” at the bottom of Tables 4 and 5). Models 2, 4, and 6 provide no significant improvement in fit over Models 1, 3, and 5, respectively. Second, specific tests of the Gender \times Experience interactions failed to reject the null hypothesis in two of the three comparisons, and in the third (Model 1 vs. Model 2), the gender difference in the effect of experience is opposite in direction to that implied by the cumulative advantage model (see row labeled “experience interactions” at the bottom of Tables 4 and 5). Third, we failed to reject the hypothesis that the effects of prior employment on earnings are identical for men and women (see row labeled “lag employment interactions” at the bottom of Table 4 and the coefficient for lagged employment in Table 5). Finally, the small but significant interactions of gender and lagged earnings

TABLE 5: Earnings Regressions, Effects of Prior Earnings Among Those Employed in 3 Consecutive Years: Pooled Cross-Sectional Time-Series Models, OLS Estimates

<i>Variable</i>	<i>Model 5</i>	<i>Model 6</i>
Cohort		
Pre-1971	-0.036	-0.035
1971-1975	0.002	0.003
Year		
1986	-0.047	-0.029
1987	-0.034	-0.026
1988	-0.380**	-0.395**
1989	0.093*	0.111**
1990	0.010	0.037
Experience	0.013*	0.012
Experience ²	-0.000	-0.000
Minority	-0.038	0.003
Age x 10	-0.348**	-0.346**
Age ² x 10	0.002*	0.002*
Film earnings	-0.144**	-0.144**
Log earnings—Lag 1	0.517**	0.506**
Log earnings—Lag 2	0.211**	0.209**
Employed—Lag 3	0.082**	0.115**
Female	-0.106**	-0.514*
Gender Interactions		
Female x		
Experience	—	0.007
Experience ²	—	-0.000
1986	—	-0.087
1987	—	-0.039
1988	—	0.061
1989	—	-0.081
1990	—	-0.121
Minority	—	-0.116
Log earnings—Lag 1	—	0.048
Log earnings—Lag 2	—	0.004
Employed—Lag 3	—	-0.143
Constant	4.009	4.112
Root MSE	0.961	0.961
R ²	0.455	0.456
N (person-years)	8,579	8,579
	<i>Numerator df</i>	<i>F Ratio</i>
Tests:		
All interactions	11	1.554
Experience interactions	2	0.654
Lag earnings interactions	2	3.172*
Year interactions	5	1.188

* $p < .05$; ** $p < .01$.

(see row labeled “lag earnings interactions” in Table 5) are opposite in direction to the hypothesis derived from the cumulative advantage model (.012 and $-.001$ for the linear and quadratic interaction terms, respectively). In short, there is no evidence that men receive higher returns than women with respect to the effects of years of experience, prior employment, and prior earnings on current earnings. That is, there is no evidence that the sizable overall gender difference in earnings is due to a small disadvantage faced by women at entry that accelerates through a process of cumulative disadvantage.

Nonetheless, the results for the models with no gender interactions show a remarkably large net disadvantage faced by women writers compared to men of similar age, experience, minority status, and recent employment history. Holding these factors constant, women face a net earnings disadvantage of approximately 22% (Model 1) to 25% (Model 3). Moreover, when we examine the relatively advantaged group of writers who have employment spells in television of 3 consecutive years (Model 5), women still earn 11% less than men with similar experience and comparable levels of earnings in the previous 2 years. In short, there is substantial evidence that in the 1980s women television writers faced formidable obstacles to career advancement regardless of age, years of experience, or pattern of employment.

Results in Tables 4 and 5 show no evidence of declining disadvantage. In each instance, we failed to reject the null hypothesis of no Gender \times Year interactions (row labeled “year interactions” at the bottom of Tables 4 and 5), and there is no evidence of a declining effect of gender over time in the estimates of those interactions for Models 2, 4, and 6. In short, with respect to the impact of gender on earnings, the structure of disadvantage was essentially static during the 1980s. The net gender gap in wages was as large at the end of the decade as it was in the 1980s.

Our findings are surprisingly definitive. The pattern of coefficients is consistent with only one of the three models we posed: the model of continuous disadvantage. Our confidence in our results is reinforced by two other features of our analysis. First, by using a pooled cross-sectional design, we are exploiting both intra- and interindividual variation, and with such large sample sizes we certainly would have detected substantively significant interactions had they existed.⁴ Second, the pattern of coefficients for the control variables is almost exactly as hypothesized. Year effects increase monotonically, with the exception of the strike year. Older writers and those from the earliest cohorts face a net disadvantage, as hypothesized.⁵ Minority writers are disadvantaged according to Model 1, although Models 3 and 5 show this to be largely mediated by differences between minority and nonminority writers in prior employment and earnings. Model 1 shows an impact of years of experience that increases at a decreasing rate (peaking at

about 28 years). However, Model 3 suggests that net of the pattern of very recent employment, additional years of experience in the industry actually place writers at a disadvantage in the labor market (although this pattern is not replicated in Model 5). Finally, as hypothesized, the effect of work in feature film is consistently negative in our models.

The estimates in Tables 4 and 5 provide no evidence of a declining gender gap in earnings. However, those specifications do not test for the possibility that some gender barriers are eroding; they apply only for the most recent cohorts. We subsequently modified Models 1 and 3 by adding two terms: a binary variable coded 1 for recent cohorts (writers who began their careers in 1988, 1989, or 1990) and an interaction — Female \times Recent Cohort (results not reported in Table 4). The results provide our only evidence that, at least for some women writers, opportunities are improving. For the modified Model 3, the estimate for the interaction term is .24, almost exactly offsetting the main effect of gender, and it is statistically significant ($t = 2.638, p < .01$). For the modified Model 1, the estimated interaction term is .19, nearly offsetting the main effect of gender. However, in this model, the interaction term is not quite significant in a two-tailed test ($t = 1.886, p = .059$). Together these results suggest that women writers in more recent cohorts do not face the same disadvantages that limit the earnings of more experienced women writers. Moreover, when the results are disaggregated by including separate main and interaction effects for each of the three cohorts, the point estimates suggest improving earnings prospects for successive cohorts. Once again, however, the Gender \times Cohort interactions are statistically significant for Model 3 ($p < .05$) but not for Model 1 ($p = .17$). Furthermore, it remains to be seen whether gains experienced by recent cohorts of women will be sustained over their careers.

In sum, our results suggest that women writers in the television industry face gender barriers that reduce their earnings substantially, compared to men of similar age and experience. These disadvantages persist throughout the career, reflecting a process of continuous disadvantage rather than one of cumulative disadvantage. Overall, there is little evidence that the barriers faced by women writers have eroded over the past decade, with the possible exception of a recent improvement in the earnings prospects faced by women writers just starting their careers.

SUMMARY AND CONCLUSIONS

The earnings gap between men and women writers with comparable years of experience in the television industry is approximately 25%. We have

shown that women writers face disadvantages in the labor market throughout their careers. Although opportunities may have improved for women in very recent cohorts, we detected little evidence that the gender gap in earnings has narrowed overall during the 1980s. In contrast, in most other sectors of the labor market, the gender gap in earnings among men and women in the same occupation and industry is much smaller than what we find for women television writers, and it is shrinking over time (Goldin, 1990). Thus it appears that the television industry has been insulated from social and economic changes that have improved earnings prospects for women more generally.

Research on other occupations and industries attributes extreme gender segregation to the sex-labeling of jobs and sex-specific demand (Bielby & Baron, 1986; Reskin & Roos, 1990). In contrast, the career barriers that women face in the television industry arise from somewhat different mechanisms. Even though typecasting produces an unequal distribution of men and women across genres, segregation is far from complete. For example, women wrote for 90% of the prime-time series broadcast during the 1990-1991 season, and no series could be described as "women's work." Men account for at least 40% of the writers of every series, even those such as *China Beach* and *Designing Women* that have large female audiences (Bielby & Bielby, 1992). In short, there is little evidence that men successfully exclude women from the most successful writing or that men are fleeing newly feminized areas of the profession. Instead, continuous disadvantage appears to be sustained by more subtle forms of discrimination. In the male-dominated world of studio and network executives, male writers are better known and are perceived as better risks than equally successful female writers. As a result, male writer-producers are more likely to get long-term development deals and multiple-series commitments from the networks. Our findings suggest that men gain this advantage early in their careers and are able to sustain it over the years, even as they work alongside women.

The features of the labor market for television writers underlying the dynamic of continuous disadvantage also make it resistant to change. Although most television writers are legally and technically employees of large organizations, the actual circumstances of their employment are similar to those of outside contractors hired for the duration of a short-term project. As a result, gender barriers to career advancement cannot be linked to formal organizational structures and policies such as segregated internal labor markets or biased hiring and promotion criteria (Roos & Reskin, 1984). Therefore, dismantling gender barriers is not as simple as identifying and changing official organizational structures and practices.

Instead, the lines of authority and responsibility for making decisions regarding the hiring and compensation of television writers are often blurred. A typical television series is a joint venture between the executive producer's small production company and the major studio financing the production. The executive producer responsible for assembling a writing staff is likely to be reporting to one executive employed by the studio and another employed by the network. These executives represent the often differing commercial interests of two large organizations, and each is likely to demand input into decisions regarding the hiring and compensation of writers. Moreover, in decision making about creative personnel, criteria for a successful outcome are always ambiguous, and a large body of research demonstrates that social similarity in general and gender stereotypes in particular are likely to influence decisions under such conditions (Brewer & Kramer, 1985; Salancik & Pfeffer, 1978; Tetlock, 1985). Therefore, with no effective accountability regarding a policy of equal opportunity and blurred lines of authority, it is not clear who would establish such a policy and how accountability and enforcement might be implemented.

The same features of the labor market that sustain gender barriers may also explain why opportunities appear to be improving for recent cohorts of women. Although the typecasting of writers limits women's opportunities for employment outside of specific genres, it is precisely those genres in which women are overrepresented that have been the most successful with audiences in recent years. For example, data for prime time network series during the 1986-1987 season reveal that women writers were twice as likely to find employment on situation comedies than on action-adventure dramas (Bielby & Bielby, 1989). Since then, situation comedies have proliferated on the network schedule, whereas the number of action dramas has declined substantially (W. Bielby & Bielby, 1991). As a result, the number of women in executive producer and supervising producer roles has increased as well. In 1986-1987, women held such roles on 14 of the 88 series appearing on the three major networks. During the current (1991-1992) season, women fill those roles on 30 network series, including highly rated shows such as *Roseanne*, *Designing Women*, *The Cosby Show*, *Murphy Brown*, *Golden Girls*, *Empty Nest*, *Home Improvement*, *Perfect Strangers*, *Doogie Howser, M.D.*, *L.A. Law*, and *Northern Exposure*. If social similarity does indeed influence the decision making of those in "broker" roles, then an increased representation of women in such roles is likely to improve the employment prospects for women television writers in general.

Unfortunately, so long as typecasting of women by genre persists, these gains may be short-lived, for the popularity of specific genres are highly

cyclical (Bielby & Bielby, 1990). Eventually, the situation comedy will again fade in popularity as it did in the mid-1970s. Women's gains in writer-producer roles outside this genre have been more limited, restricting opportunities for them to occupy broker roles in other areas (Steenland, 1990). Moreover, creative interests in the television industry are subordinated to commercial interests, and until women significantly increase their representation in top executive positions at the major studios and networks, women's opportunities are likely to remain vulnerable to trends in the popularity of specific genres.

The research reported here demonstrates that gender difference in the labor market for television writers is characterized by a dynamic of continuous disadvantage. Our evidence linking that dynamic to the "brokerage" system of administration and the business context of the industry has been indirect. Our future research will examine these issues more directly. For example, we are currently collecting longitudinal data on women's representation in writer-producer roles and in executive positions at the major studios and networks. With that data, we will be able to explore the relative impact of typecasting by genre and the gender composition of decision-making roles on women's employment prospects. To assess how formal networks of interorganizational relations affect women's careers, we will examine gender differences in the relationship between agency representation and career success. Talent agents have the power to link writers to production companies, and we hypothesize that an agency's ties to those companies are more beneficial to men's careers than to women's. In completing this research program, we expect to develop a better understanding of gender bias in the labor market for television in particular and in the sources of bias in unstructured labor markets more generally.

NOTES

1. We do not count years of experience prior to 1950 because there was very little original writing for television done before that year. Therefore, years of experience is (*t*-admit year) if admit year was 1950 or later and (*t*-50) if year of admission to the WGA was 1949 or earlier.

2. In 1982, 55 women and 130 men from the 1982 cohort were employed. By 1990, only 33 women and 80 men from the 1982 cohort were employed.

3. Strictly speaking, if the cumulative disadvantage model is favored over the model of continuous disadvantage, then a process of declining disadvantage would imply a three-way interaction between time, gender, and the effects of experience, prior employment, and prior earnings.

4. Moreover, inspection of collinearity diagnostics indicates that our failure to detect interactions is not due to inflated levels of sampling variation and covariation.

5. In Models 1, 3, and 5, the curvilinear age effects are negative throughout the age range in our sample. In Model 1, point estimates imply an age effect ranging from $-.019$ at age 30 to $-.042$ at age 60. In Model 3, the effects range from $-.020$ at age 30 to $-.033$ at age 60. In Model 5, the corresponding effects range from $-.021$ at age 30 to $-.008$ at age 60.

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