The Continuing Significance of Race in the Occupational Attainment of Whites and Blacks: A Segmented Labor Market Analysis*

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In this article we posit that racial discrimination is not uniform across the U.S. labor market. While it is likely that patterns of racial discrimination occur in some types of jobs more than others, little empirical research has examined the effect of race across segmented labor markets. Incorporating two decades of comparable General Social Survey data, this article revisits William J. Wilson's hypothesis that the significance of race in determining labor market outcomes is declining. We examine the effect of race within two dissimilar labor segments over time, dividing the labor market into technique-versus social-skills-oriented segments. Using this theoretically useful dichotomy, we examine if the net effect of race (African American and white men) on occupational prestige has declined from the 1970s to the 1990s. Our multivariate analysis shows that the net effect of race is different in each labor market. This suggests that racial discrimination against African Americans is not uniform across the entire labor market, but instead is differentiately manifested within various labor market segments. Overall, our findings partially support Wilson's thesis indicating that while the effect of race is no longer a significant indicator of occupational prestige by the 1990s in a technique-oriented job segment, it remains a significant predictive variable within a social-skills-oriented job segment, even when controlling for a range of social class and structural variables.

More than 20 years have passed since William J. Wilson (1980) published the declining significance of race thesis, which argues that class characteristics, broadly identified with one's socioeconomic and human capital "stock," rather than race, has become a more significant factor in allocating life chances for black Americans. To date, Wilson's thesis continues to spur many scholarly debates and remains an important theoretical perspective (Cancio, Evans, and Maume 1996; Niemonen 2002; Sakamoto and Tzeng 1999; Sakamoto, Wu, and Tzeng 2000). Despite considerable discussion in the literature, there exists little consensus over temporal patterns of racial equality in the labor market, especially since the 1980s. Moreover, a critical unexplored question is the extent to which racial occupational inequality has declined, if at all, within different segments of the occupational structure.

This article is an attempt to address the complexity of racial inequality in the occupational structure. Occupation is a central dimension to social status and is closely linked to one's earnings and material standard of living (Blau and Duncan 1967; Fossett, Galle, and Kelly1986). The location and mobility pattern of black Americans in the occupational structure is a central indicator of the

degree and change of racial equality in the labor market and in society as a whole (Pavalko 1988). While most analysis of racial disparities in the labor market assume inequality to be a constant across the occupational structure, we posit that racial inequality, all things being equal, is not patterned uniformly across the whole labor market but rather embedded within different labor market segments. Given the theoretical significance of this issue, we believe it is important to revisit Wilson's declining of race thesis and examine the changes in racial occupational inequality between the 1970s and the 1990s at different segments of the labor market.

Although the argument that racial inequality in the labor market is not patterned uniformly seems reasonable, surprisingly little research has directly examined the effect of race at different points of the occupational structure (Grodsky and Pager 2001).¹ To begin filling this gap, this article's central focus relates to the differences in racial occupational prestige within two segments of the occupational structure and its variation over time. To this end, we divide the labor market into two segments based on the degree of technique/social skills required by different types of occupations. Building our theoretical model from prior empirical research, we will refer to (a) technique-oriented and (b) socialskills-oriented labor segments. Drawing from Dictionary of Occupational Titles (DOT) data to guide our classification schema, we incorporate two decades of nationally representative data from the 1970s and 1990s General Social Survey (GSS) and estimate ordinary least squares (OLS) models of occupational prestige for white and black men in each labor segment. We expect that the net effect of race on occupational prestige, all things being equal, is less in a technique-oriented job segment as compared to a social-skills-oriented segment. Moreover, we anticipate that the effect of race on occupational prestige has declined more sharply from the 1970s to the 1990s in the technique-oriented segment as compared to those jobs in the social-skills-oriented segment.

Understanding changes in the effect of race on occupational prestige over time across two different labor segments helps inform our understanding of the complexity of racial inequality in the labor market. Taken together, this article extends previous research by providing new evidence on changes in the effect of race on occupational prestige from the 1970s to the 1990s, and by offering a novel approach to examine if racial occupational inequality varies within different segments of the occupational structure.

The article is organized around the following sections. First, we sketch out the theoretical and empirical concerns guiding this study. This is followed by a discussion of our data and methods. Next, a description of the findings, which identifies declining but different patterns of racial discrimination in each labor segment from the 1970s to the 1990s, is presented. From these results, we derive implications and conclusions.

Theory and Background

A Technique-Oriented versus Social-Skills-Oriented Segment

The degree of subjectivity attached to hiring and promotion decisions could be a source of racial discrimination, and jobs involving high amounts of "social skills" likely require greater levels of subjective based evaluations by employers (Lim 2002). Although the linkages between occupational discrimination and criteria associated with hiring and promotion decisions have begun to receive attention in the sociology of organization, it has been more intensively discussed by management science. In studying organizational control, Thompson (1967) argued that without tangible measures of performance bias is more likely to enter into assessments of individual productivity within particular occupations. Under conditions of uncertainty, where objective information about an applicants' or employees' relative skills is scarce, evaluators making hiring or promotion decisions may be more likely to draw on social characteristics as a basis for assessment. It is in this context, where subjective evaluations are tied to performance criteria, that ascriptive factors such as race or gender are more likely to be included in evaluation and/or hiring decisions. This situation, we believe, can foster discrimination.

For example, examining salary inequality between men and women, Auster (1989) reveals that subjectivity in employers' evaluations is associated with ascriptive-based discrimination.² In a similar vein, Pfeffer (1977) finds that ascriptive characteristics were used more frequently in evaluations of employees within some jobs (e.g., staff) over others (e.g., line positions). In other words, under conditions where subjectivity of hiring and/or promotion decisions is high, employment evaluations may shift from empirical to social criteria (Lee 1985), in which case, discrimination based on ascriptive characteristics may be more prevalent. Several studies have also established a link between racial discrimination and occupational settings where social skills are stressed (Kirschenman and Neckerman 1991; Moss and Tilly 1996). Kirschenman and Neckerman's (1991) study found that employers ranked blacks low in social skills and based hiring and evaluative criteria of entry-level positions in a relatively subjective way such as judging an applicant's appearance and interpersonal skills. Moss and Tilly (1996) showed that social or "soft" skills are increasingly important to employers and that many managers perceive black men as lacking in these skills.

If occupational categories are basically founded on different characteristics of job tasks and a source of ascriptive discrimination comes from different degrees of subjectivity tied to the evaluation of those tasks/skills, then an examination of racial discrimination based on subjectivity of evaluation within different occupations should be beneficial.³ Few studies, however, have examined linkages between different types of required skills (e.g., soft skills) and patterns

of racial discrimination in the labor market outside of a case study or qualitative approach. Moreover, the temporal patterns of racial occupational inequality in social-skills-oriented occupations, in which subjective evaluation is more likely, compared to other labor segments has gone practically unexplored in the sociological literature. As a first step to address this gap, we formulate below a broad classification schema that attempts to capture two different segments across the occupational structure based on type of skill. This analytical framework allows us to examine empirically the declining significance of race over time at different points of the occupational structure.

We divide occupations into two segments based on the level of technique/ social skills required by different types of occupations. The first group we propose is an occupational segment where technique-oriented tasks would seem to be the foundation for hiring and promotion. We call this the *technique-oriented job segment* (TOJ hereafter; see Table 1). Put simply, specific and less ambiguous

	TOJ market: more objective standards of evaluation	SOJ market: more subjective standards of evaluation
Related jobs based on skills and types of evaluation	 a) Professional, technical, and related workers (except social scientist/teachers, religious workers, and accountants) b) Technicians and related support occupations c) Precision production and craft occupations d) Repair occupations e) Clerical and kindred workers operatives including transport f) Laborers and workers g) Farming, forest, and fishing occupations 	 a) Social scientists, teachers, religious workers, and accountants b) Managers and administrators c) Sales workers d) Service occupations

 Table 1

 Reclassification of Occupational Category into Technique and Social-Skills-Oriented Segments

Note: See Appendix A for more details.

job requirements and/or knowledge are the foundation for our TOJ market. People generally occupy this job market because they have that specific skill or technique. For instance, jobs such as medical doctor, engineer, and mechanic can be classified as technique-oriented jobs. It seems highly plausible that standards within these jobs, in contrast to social-skills-oriented jobs, can be more easily evaluated with objective standards. Given these characteristics, we believe that racial discrimination is less likely to occur within a technique-oriented occupational context (TOJ), given similar human capital characteristics between racial groups.

The second and contrasting occupational segment represents jobs where social skills have more foundation for evaluative criteria. We call this segment the *social-skills-oriented job segment* (SOJ hereafter). A variety of social and interactive skills provide the basis for this market segment, marked by a set of skill requirements that are not as clear as in a TOJ market. Occupations in SOJ generally require more communicative skills and are more likely to encourage criteria such as appearance, personality, and interpersonal skills to be used as the basis of an employee's ability to fulfill important job requirements. Evaluative standards of these qualities tend to be more subjective and are thus more inclined to be based on the normative values of employers.⁴ In a SOJ market, we theorize that racial discrimination against African Americans may be more likely.

To examine the validity of our classification schema using available objective measures, we consider two types of skills based on the *Dictionary* of Occupational Titles (DOT hereafter): interactive and manual skills. We draw from these variables to measure the extent of social and manual skills in the TOJ and SOJ occupational segments outlined above. The DOT is a rare source of data that offers measures of skill requirements of detailed jobs (Spenner 1983). Although it was last updated in 1977, it continues to be a robust source of information on occupational skill requirements used by a number of studies (Grodsky and Pager 2001; Howell and Wolff 1991; Rumberger 1981). Research has shown that these skills are reasonably independent dimensions of job skills (Howell and Wolff 1991). DOT variables are available only in the 1970s GSS data and coded to each respondent's occupation.⁵

First, we use *interactive skills* measured by the DOT "people" variable as a proxy for occupational requirements related to social skills. As noted earlier, social skills make up an increasingly important skill dimension to employers and may shape patterns of racial occupational inequality. Social skills in the DOT are measured on a functional scale or additive composite, originally from 0-8 (low to high), which reflects the degree to which a job requires social skills complexity: (0) mentoring, (1) negotiating, (2) instructing, (3) supervising, (4) diverting, (5) persuading, (6) speaking-signaling, (7) serving, and (8) taking

instructions. The evaluative criteria derived from these skill characteristics are likely to be evaluated more subjectively.

Manual skills represent a second important skill dimension offered by the DOT. In this article, manual skills serve as a proxy to evaluate the degree of technique-oriented tasks required by a job. Manual skills is an additive composite and include indicators for a range of tasks that require physical strength and/or dexterity from precision manual work to feeding machines. In contrast to interactive skills, occupations that stress manual skills appear to have more tangible and hence standard evaluative criteria as skills in jobs that emphasize technique types of skills are inclined to foster job skills that can be tested quickly and are easy to objectify. Discussing the importance of manual skills in racial occupational inequality, Grodsky and Pager (2001:548) note that jobs stressing manual skills "may lead to a more meritocratic basis for decisions regarding employee compensation."

Employing these variables, we measure the extent of social and manual skills present in both the TOJ and SOJ occupational segments as outlined in Table 1. To do this, we first recoded the DOT variables to reflect a more logical order; that is a higher score means higher concentration of those skills. We then compared the mean score of social and manual skills within each job segment and found the following. Our TOJ segment shows a higher mean level of manual skill requirements (4.6) compared to our SOJ segment, which shows a mean level of 1.4. The mean difference of manual skill between these two segments is statistically significant at any conventional significance level with a t-statistic of 41.2.

To gauge the level of social skills between the TOJ and SOJ segments, we employ the DOT "people" variable. Our results are again supportive. The SOJ segment shows a higher mean level of social skills (2.2) when compared to our TOJ segment (0.7). The mean difference of social skills between these two segments is statistically significant at any conventional significance level with a *t*-statistic of 27.7. These comparisons bring to light an important dimension of the classification schema employed in this article: the importance of manual skills in the TOJ segment and conversely the importance of social skills in our SOJ segment.

Drawing from this framework, our central concern is how racial inequality is embedded, if at all, at a technique and social-skills-oriented labor market segment and its variation over time. This scheme allows us to assess Wilson's declining significance of race thesis with a sharper angle than previous studies, which tend to assume a uniformity of racial discrimination across the labor market. Before heading into our analysis, we sketch out the general hypothesis provided by Wilson and the empirical research and scholarly debate that this perspective has stimulated.

The Wilson Debate and Its Evolution

According to Wilson's hypothesis (1980:2), the significance of race in American society is declining. He notes, "whereas the old barriers bore the pervasive features of racial oppression, the new barriers indicate an important and emerging form of class subordination." Distinguishing three stages of racial discrimination in American history, Wilson identified both macroeconomic and political factors as key mechanisms through which black–white relations are mediated. The earliest period was marked by the black slave system in a plantation economy, which lasted until after the Civil War. Industrial expansion, urbanization, class conflict, and continued racial oppression marked the next period, which lasted until at the 1950s.

The current period, according to Wilson (1980:150), is marked by progressive transition from racial inequalities to class inequalities. Whereas blacks suffered overt discrimination in past periods, "class has become more important than race in determining black life-chances in the modern industrial period." The modern era of black–white relations, he argues, is distinguished by a more flexible economic and political system in modern America, which allows talented blacks to fill some prestigious positions.⁶ Wilson identified various structural forces such as an expanding economy, unionism, industrial flight to the suburbs, and the growth of the service sector as important factors influencing black mobility patterns in the current period. Moreover, he argued that growing public sector employment coupled with civil rights legislation and affirmative action programs have helped foster economic opportunities for the black population, especially those coming from advantageous class positions.

In such a context arose two distinct groups of black Americans according to Wilson; an undereducated and economically immobile group who mostly live in the center of large cities and another cluster reflecting a better-educated and more upwardly mobile black middle class. According to Wilson, it is the increased significance of social class and the declining importance of race in the current period that has allowed many middle-class black Americans to access more privileged occupational positions. Thus, inclining racial inequalities in the labor market such as rising unemployment rates in the black population are explained not so much by overt racial discrimination but rather as a consequence of socioeconomic relations that have tended to marginalize the black proletariat or "underclass." In contrast, "talented and educated blacks, like talented and educated whites, will continue to enjoy the advantages and privileges of their class status" (Wilson 1980:153).

To be sure, Wilson's declining significance of race thesis has prompted many studies and scholarly debates attempting to assess patterns of black mobility (Niemonen 2002). The empirical results of this literature tend to rely on indirect measures of racial discrimination, assessing the racial gap in wages or in the occupational structure after human capital variables are controlled. The literature has tended to stress two sides of a contentious story; those that give evidence of an increasingly economically mobile black population, and those that highlight the persisting importance of race, apart from social class, in mediating the gap in the occupational and/or earnings structure between blacks and whites.

Some analysts of race and the labor market have found support for Wilson's thesis of increased mobility for black Americans both within and across generations. Earlier studies such as Hout (1984) find evidence of social mobility for black men, especially those drawn from relatively privileged backgrounds (see also Featherman 1979). Fossett and colleagues (1986), using U.S. Census data, found that racial occupational inequality between blacks and whites tended to decrease for the nation as a whole in the 1950s, 1960s, and 1970s. More recent studies share this optimism. King (1992) shows that over the past two decades, black men had made advances in elite economic sectors. In another study, Sakamoto and Tzeng (1999), drawing from U.S. Census Public-Use Microdata Samples (PUMS), show that the net effects of class, measured by educational attainment, are substantively greater than the effects of race in the labor market of 1990 when compared to that of 1940.

By way of contrast, other researchers have argued that race, apart from social class, is still a significant explanatory factor for persistent racial inequality in the labor market between blacks and whites. Responding directly to Wilson's thesis, Willie (1978) insisted that race is a barrier to social mobility of blacks because of discrimination patterns in society. Pettigrew (1980) pointed to the increasing occupational concentration of blacks in lower-sector jobs as signaling the continuing persistence of racial stratification in the labor market. Davis' (1995) analysis on the social mobility of black males since the early 1970s found a continuing significance of race in influencing occupational mobility of some black males.⁷ In a more recent study, Grodsky and Pager (2001) employ 1990 PUMS data and observe that racial disparities in earnings between blacks and whites persist in many occupations, especially in some of the most prestigious jobs.

Although these findings are insightful, albeit in some sense contradictory, existing research with few exceptions tends to simplify variation of racial inequality over time by overlooking the nature of racial inequality, or not, at different segments in the occupational structure.⁸ That is, by employing the whole labor market as a point of reference, many studies have assumed that racial inequality is constant across the occupational structure. This approach, we believe, has concealed more complex patterns of racial disparities in occupations and earnings within dissimilar job segments. In this vein, this article offers a shift of emphasis in assessing Wilson's declining of race thesis so as to include temporal analysis of racial occupational inequality at different segments of the labor market. In doing so, we investigate racial occupational inequality within a social and technique segment. The next section documents a number of studies that establish a relationship between the nature of occupational skills and black disadvantage in the labor market.

Bringing In Occupation and Skills

Occupation is an indicator of numerous skill sets requiring a diverse array of "motor skills (manual dexterity, motor coordination), interpersonal skills, organization and managerial skills (leadership, autonomy, and responsibility) verbal and language skills, diagnostic skills (synthetic reasoning abilities), and analytical skills (mathematical and logical reasoning abilities)" (Howell and Wolff 1991:487). As a central component of occupation, skills are thus related to one's position in the social structure.

The recent work of Grodsky and Pager (2001) calls particular attention to the interplay between occupations and racial disparities in the labor market. Using 1990 PUMS data, they reveal that variation in earnings disparities between blacks and whites is related in part to different occupational measures, controlling for human capital. They conclude, "while most analyses assume the race gap to be constant for all occupations, our empirical tests lead us to reject this assumption" (p. 562).

Of particular interest for the present article is the growing importance of social skills in occupations and its consequence for racial inequalities in the labor market. Given the rapid growth of the service sector in the United States over the past 30 years, social skills have become increasingly relevant to the hiring criteria of many employers (Moss and Tilly 1996). Employing U.S. Census data from 1950-1990, Szafran (1996) supports this postulation, finding that skill levels requiring social interaction have increased over time. In contrast to technical knowledge, social skills can be seen as a broad and multidimensional set of "soft" skills required by certain occupations, including an employee's personality, attitude, demeanor, communication skills, and ability to interact effectively with customers and coworkers. Leidner (1993) outlines three types of work that stress social skills. First is the type where social interaction is directly linked to the product being sold or delivered, such as in teaching. In the second type, social skills exist outside of the product; however, a "particular type of experience is an important part of the service" (p. 26). For example, in the airline industry customers buy the product, the tickets, but at the same time, they expect friendly and prompt service throughout their journey. Last, some occupations require keen social skills even though it is not particularly linked to the product being sold or delivered. For instance, the success of workers who are

part of sales departments within large corporations is linked with their ability to forge beneficial interactions with clients.

The complex interaction between race and social-skills-oriented occupations is highlighted by several key studies that have directly analyzed perceptions and attitudes of employers. Kirschenman and Neckerman (1991) interviewed 185 employers in the Chicago area focusing on their hiring criteria for low-level jobs. In their survey, employers reported the importance of social skills in hiring criteria, including an applicant's appearance, ability to communicate, and personality. At the same time, these employers tended to rank black applicants, especially inner-city men, worse than whites and Latinos in social-oriented skills, suggesting evidence that occupations which stress "social skills" mediate some of the disadvantages that blacks encounter in the labor market. For example, employers ranked blacks low in their ability to get along with coworkers and in some cases questioned their capacity to communicate well with white clientele, among other negative images. The authors note, "if race were a proxy for expected productivity and the sole basis for statistical discrimination, black applicants would indeed find few job opportunities" (p. 213). They suggest that employers used race, social class, and space, to make hiring decisions for entry-level jobs, many of which require a high level of social skills:

Black job applicants, unlike their white counterparts, must indicate to employers that the stereotypes do not apply to them....black applicants had to try to signal to employers that they did not fall into those categories, either by demonstrating their skills or by adopting a middle-class style of dress, manner, and speech or perhaps (as we were told some did) by lying about their address or work history. (p. 231)

In a similar vein, Moss and Tilly (1996) argue that social or "soft" skills play an important role in shaping racial inequality in the labor market. Put simply, they assert that employers tend to devalue the communication skills and personality traits of equally-qualified blacks in relation to whites. Interviewing 56 firms across four industries, Moss and Tilly found that employers increasingly stress soft skills as an important part of employment performance and that many perceive black men as lacking these skills. Because judgments of an applicant's level of social or soft skills are ultimately more subjective, racial perceptions, the authors argue, seem more likely to go into such evaluations. Toward this end, one public sector official cited in Moss and Tilly's study noted "Woven into that [the interview assessment] is all of the individual interviewer prejudices, how they see the job, how they evaluate the candidate and how they present it. You cannot get away from that" (p. 273).

In addition to research demonstrating that an emphasis on social skills often disadvantages black Americans in low-level jobs, studies have also highlighted the disadvantages blacks experience in professional occupations. James (2000), in a study of black and white managers of Fortune 500 financial services, found that black managers tended to have a slower rate of promotion when compared to white managers. In another study, Collins (1989) interviewed 87 black executives in white-owned firms and found that their upward mobility has been racially defined. For example, Collins discovered that the majority of black managers were concentrated in sales departments that dealt with black consumer markets (see also Collins 1997).

In sum, the aforementioned literature represents an important contribution to the study of race in the labor market because it calls attention to the complex interplay between occupational requirements and racial inequality. This research, though limited, has painted a general picture of racial discrimination in occupational settings where social skills are stressed. Among the most important social skills that appear to mediate race in the labor market are appearance, communication skills, and personality, which evidence suggests are increasingly used in hiring criteria, especially for entry-level jobs.

Taken together, our preceding theoretical arguments of a two-segment labor market and existing empirical research lead us to the following hypotheses:

- H1: The net effect of race on occupational prestige, all things being equal, is less in a technique-oriented job segment when compared to a social-skills job segment in both the 1970s and 1990s.
- H2: From the 1970s to the 1990s, the net effect of race on occupational prestige has declined in both delineated labor market segments.
- H3: The net effect of race on occupational prestige has declined more sharply from the 1970s to the 1990s in our technique-oriented job segment when compared to our social-skills-oriented segment.

To examine these hypotheses in the context of the Wilson debate, we draw from two decades of a nationally representative GSS data.

Data and Methods

The data for our analyses are derived from the GSS of the National Opinion Research Center in 1972, 1973, 1974, 1976, 1977, 1978, 1980, 1991, 1993, 1994, 1996, 1998, and 2000. To obtain a substantive sample size of blacks, we pooled the data from these years into two comparable data sets: 1970s and 1990s. These data are robust, representing a national probability sample of noninstitutionalized U.S. residents who are at least 18 years of age.⁹ With these two data sets, we use multiple regression models to test our hypotheses.

Control Variables

As noted above, we used standard occupational classifications to divide the labor into a two-tiered arrangement. For the 1970s and 1990s data set, our

classification scheme is relatively parallel (see Appendix A for more details.) We first refer to a TOJ segment, which we define as including (1) professional specialty occupations except social science scientist/teachers, religious workers, (2) technicians and related support occupations, (3) precision production craft, and repair occupations, (4) clerical and kindred workers and operatives including transport, (5) laborers and workers, and (6) farming, forest, and fishing occupations. We then refer to the SOJ segment, which we define as including (1) accountants, social scientists, social science teachers, and religious workers, (2) managers and administrators, (3) sales workers, and (4) service occupations.

Father's Occupational Prestige. In this article, father's occupational prestige is a control variable.¹⁰

Education. Education is an important measure of human capital in the labor market. In our data, the respondent's education level is coded in years of schooling. We recoded this variable into four dummy variables: high school graduate (HSG), some college (COL), bachelor's degree (BA), and graduate school (GRAD). The reference group is high school dropout or below. This measurement scale is more efficient than years of schooling, mainly because an obtained degree is more important than schooling years in terms of labor market outcomes.

Age and Age-Squared. Age is an important control variable. Skills that a worker has can vary through their previous work experience, which is related to age. Age-squared is introduced to control the curvilinear effect of age or job experience on labor market outcomes (Mincer 1974; Murphy and Welch 1990).

Public/Private. We included whether or not a respondent works for the public or private sector to control for the niche effect of black Americans in the public sector. Wilson (1980) and other scholars have suggested that public sector growth has promoted middle-class occupational opportunities for black Americans. Collins (1983) identifies the public sector as a niche for middle-class employment for black Americans.

Urban (Big and medium-sized cities). There may be variation in patterns of racial occupational inequality across urban and rural landscapes (Massey and Denton 1993; Wilson 1999). Cities variables are classified into two dummy variables: big and medium-sized cites. Big cities are urban areas with more than 100,000 residents and medium-sized cities are less than 100,000.

Region (South and Pacific region). There may be differences in racial occupational inequality across different regions of the United States. Racial

discrimination is often thought to be more extensive in the South, a region with historical ties to discriminatory practices and racism. More extensive racial occupational inequality in the South may also be tied to the region's relatively late industrial transformation. Previous research has shown that racial socioeconomic inequality is more extensive in the South (Featherman and Hauser 1978; Fossett et al. 1986; Reich 1981). We also include the Pacific region to further control for possible regional variation in racial inequality in the labor market.

Year. To account for yearly fluctuations in, for example, economic cycles as well as sampling method, we include year as a control variable in our model.

Dependent Variable: Occupational Prestige

The dependent variable employed in this analysis is the respondent's occupational prestige.¹¹ A great deal of research has noted the importance of occupational prestige in terms of its relation to earnings, social status, and worker autonomy (Treiman 1977). Occupational prestige is a powerful quantitative estimation of the social standing of occupation. For the GSS data analyzed in this article, occupational prestige refers to the respondents' primary occupation, which was recoded into this occupational prestige score.

With these variables, we employed the following statistical analyses. We first ran descriptive analysis of each variable by job segment in the 1970s and 1990s. Next, we regressed race and other independent variables on occupational prestige by each job segment in the 1970s and 1990s. We then estimated the difference of coefficients of race on occupational prestige between two labor segments in each time period to test our first hypothesis and between two periods within each labor segment to test Hypotheses 1 and 3.

Empirical Results

Before reporting our multivariate analysis, we present in Table 2 the descriptive statistics on human capital and other control variables for white and black employed men between the 1970s and 1990s. Taking into account the whole occupational structure, we first observe that occupational prestige for white men increased from 41.7 in 1970s and 45.4 in 1990s. For black men, occupational prestige is, as expected, lower at 32.4 in 1970s and 40.8 in 1990s. During this time period, the prestige gap between blacks and whites has decreased from 9.3 points to 4.5 points in the whole labor market. In the TOJ segment, the racial occupational prestige gap narrowed from 7.8 to 4.7. It diminished from 10.7 to 4.3 in SOJ segment. From these results, we observe that in both job segments racial occupational prestige gap has decreased during the examined time period.

Table 2

Descriptive Statistics for White and African-American Men in the General Social Surveys between 1970s and 1990s in Technique-Oriented Job (TOJ) and Social-Skills-Oriented Job (SOJ) Segments

		1970s			1990s	
White men	ТОЈ	SOJ	Total	ТОЈ	SOJ	Total
Occupational prestige	39.55	44.35	41.68	43.86	47.02	45.35
	(13.64)	(13.73)	(13.94)	(14.29)	(13.03)	(13.80)
Age	39.19	41.93	40.44	39.91	42.02	40.90
-	(13.41)	(13.97)	(13.72)	(12.06)	(12.69)	(12.40)
High school graduate	.5421	.4933	.5169	.5994	.4280	.5185
	(.4984)	(.5001)	(.4998)	(.4902)	(.4949)	(.4997)
Some college	.0192	.0253	.0201	.0783	.0702	.0745
C	(.1372)	(.1572)	(.1405)	(.2688)	(.2555)	(.2622)
BA	.0918	.1942	.1348	.1228	.3019	.2073
	(.2888)	(.3127)	(.3416)	(.3283)	(.4592)	(.4055)

Graduate school	.0540 (.2262)	.1098 (.3127)	.0773 (.2671)	.0800 (.2714)	.1484 (.3557)	.1123 (.3158)
Father's SES	38.77	41.29	39.68	43.87	46.20	44.97
	(11.95)	(12.15)	(11.94)	(12.71)	(12.65)	(12.73)
Public sector	.0819	.1182	.1017	.0444	.1068	.0739
	(.2743)	(.3230)	(.3023)	(.2061)	(.3090)	(.2617)
Big city	.2400	.2519	.2383	.2522	.3273	.2877
	(.4272)	(.4343)	(.4261)	(.4344)	(.4694)	(.4528)
Medium city	.4747	.4631	.4756	.5461	.5410	.5437
	(.4995)	(.4988)	(.4995)	(.4980)	(.4984)	(.4982)
South states	.3120	.2913	.2991	.3289	.3304	.3296
	(.4635)	(.4545)	(.4579)	(.4699)	(.4705)	(.4701)
Pacific states	.1278	.1316	.1283	.1306	.1503	.1399
	(.3340)	(.3382)	(.3345)	(.3370)	(.3575)	(.3469)
	N = 1,721	<i>N</i> = 1,421	N = 3,142	N = 1,800	<i>N</i> = 1,610	N = 3,410

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	_	1970s			1990s	
African-American Men	TOJ	SOJ	Total	TOJ	SOJ	Total
Occupational prestige	31.73	33.62	32.37	39.21	42.74	40.82
	(10.77)	(14.58)	(12.19)	(12.51)	(14.33)	(13.46)
Age	40.85	41.42	41.04	41.53	39.69	40.69
	(12.93)	(14.34)	(13.40)	(11.59)	(10.69)	(11.21)
High school graduate	.3909	.4300	.4040	.6319	.5686	.6030
	(.4892)	(.4976)	(.4915)	(.4836)	(.4969)	(.4900)
Some college	.0051	.0300	.0135	.0659	.0654	.0657
	(.0713)	(.1715)	(.1155)	(.2489)	(.2480)	(.2481)
BA	.0457	.1100	.0673	.0659	.1830	.1194
	(.2093)	(.3145)	(.2510)	(.2489)	(.3879)	(.3248)
Graduate school	.0254	.0100	.0202	.0055	.0980	.0478
	(.1577)	(.1000)	(.1409)	(.0741)	(.2983)	(.2136)

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Father's SES	34.01	33.28	33.76	39.46	40.12	39.76
	(12.02)	(12.00)	(12.00)	(11.14)	(12.61)	(11.82)
Public sector	.0508	.2100	.1044	.0659	.2026	.1284
	(.2201)	(.4094)	(.3063)	(.2489)	(.4033)	(.3350)
Big city	.5584	.6700	.5960	.4615	.5229	.4896
	(.4979)	(.4726)	(.4915)	(.4999)	(.5011)	(.5006)
Medium city	.2893	.1800	.2525	.3571	.3725	.3642
	(.4546)	(.3861)	(.4315)	(.4805)	(.4851)	(.4819)
South states	.5228	.4700	.5051	.6154	.4575	.5433
	(.5008)	(.5016)	(.5008)	(.4879)	(.4998)	(.4989)
Pacific states	.0660	.0900	.0741	.0495	.0850	.0657
	(.2489)	(.2876)	(.2623)	(.2174)	(.2798)	(.2481)
	<i>N</i> = 197	<i>N</i> = 100	<i>N</i> = 297	<i>N</i> = 182	<i>N</i> = 153	<i>N</i> = 335

Source: Authors' own calculation with pooled GSS data.

Note: Standard deviation in parenthesis.

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Next, because one of the most important factors of human capital is education, we report educational attainment tendencies for each race within each labor segment. Results show that the percentage of white men who occupy the TOJ segment with a bachelor's degree or above has increased from 14.6 percent in the 1970s to 20.3 percent in the 1990s. In the SOJ segment the percentage of those white men who hold a bachelor's degree or above has also increased from 30.4 percent in the 1970s and 45.0 percent in the 1990s. When compared to white men, the percentage of black men who hold a bachelor's degree or above in the TOJ segment has not changed during the examined time period from 7.1 to 7.1 percent. In contrast, the percentage of black men who hold a bachelor's degree or above in the SOJ segment has increased substantially between the 1970s (12.0%) and 1990s (28.1%). These tendencies reveal that highly educated black men are concentrated in the SOJ segment. The biggest change in educational attainment for African-American men occurs in the level of high school graduates. Overall, the percentage of black men with a high school degree increased in both labor segments from 40.4 percent to 60.3 percent. Likewise, the percentage of employed black men with no high school diploma has dramatically decreased within both labor segments from 49.5 percent in the 1970s to 16.4 percent by the 1990s.

Finally, we note that the percentage of white men employed in the public sector has decreased from 10.2 percent to 7.4 percent in the given period. In contrast, for black men, public sector employment has increased from 10.4 percent to 12.8 percent of the whole occupational structure. This finding is consistent with Wilson's argument that the public sector has promoted middle-class occupational opportunities for black Americans.

Significance of Race between Two Job Segments: The 1970s to the 1990s

The preceding analysis stressed the increasing occupational prestige of both black and white men from the 1970s to the 1990s. It also emphasized that educational attainment has grown within both labor segments during the examined time for both black and white men. To test our hypotheses, we investigate the net effect of race while controlling for education and other variables. Although other factors influencing occupational prestige are important, for example, the changing impact of education over time, it is beyond the scope of the present article to consider our results apart from this article's primary focus—the racial effect on the dependent variable.

Table 3 shows the results of the regression model. In the 1970s, the net effect of black (black = 1, white = 0) on occupational prestige is -4.99 in the TOJ segment, and -7.33 in the SOJ segment, controlling for other variables. The negative effects of being black are statistically significant at any conventional significance level. By the 1990s, the net effect of black on occupational prestige

			19	70s					19	90s		
	,	TOJ segment	:		SOJ segment			TOJ segmen	t	:	SOJ segment	-
	Coeffi.	(S.E.) Sig.	Beta									
Blacks	-4.991	(.780)***	113	-7.334	(1.159)***	120	-1.346	(.882)	026	-2.667	(.949)**	062
Age	.400	(.101)***	.404	.577	(.142)***	.557	.492	(.117)***	.394	.735	(.122)***	.757
Age-squared	004	(.001)**	311	005	(.002)**	456	005	(.001)***	338	007	(.001)***	669
High school graduate	5.032	(.543)***	.189	8.034	(.973)***	.278	3.062	(.786)***	.101	5.692	(1.192)***	.231
Some college	13.634	(1.652)***	.144	9.921	(2.412)***	.103	9.263	(1.158)***	.163	7.734	(1.504)***	.164
BA	18.834	(.869)***	.416	16.671	(1.185)***	.457	17.852	(1.032)***	.400	12.289	(1.255)***	.453
Graduate school	30.152	(1.096)***	.503	24.715	(1.349)***	.539	28.678	(1.112)***	.569	19.440	(1.393)***	.510
Father's SES	.058	(.019)**	.053	.086	(.028)**	.073	.122	(.020)***	.105	.025	(.022)	.025
Public sector	3.307	(.745)***	.075	2.866	(1.159)*	.058	7.636	(1.137)***	.110	4.973	(.832)***	.130
Big city	1.521	(.637)*	.051	-2.197	(.933)*	067	1.825	(.746)*	.055	-1.193	(.866)	046
Medium city	1.097	(.565)	.041	-1.377	(.825)	047	1.808	(.657)**	.060	544	(.819)	022
South	.172	(.510)	.006	.782	(.765)	.025	560	(.540)	018	.897	(.582)	.035
Pacific	.194	(.708)	.005	-2.296	(1.057)*	053	-1.209	(.775)	027	640	(.792)	018
1973	.426	(.848)	.011	574	(1.302)	013						
1974	-1.433	(.859)	035	1.162	(1.321)	.026						
1975	629	(.878)	015	.575	(1.293)	.013						
1976	-2.278	(.896)*	052	561	(1.279)	013						
1977	-2.593	(.836)**	067	1.676	(1.322)	.037						
1978	812	(.854)	020	-1.043	(1.295)	024						
1980	-1.962		047	787	(1.325)	017						

 Table 3

 Results for Regression Models of Occupational Prestige: 1970s and 1990s

(continued)											
		19	970s					19	90s		
	TOJ s	egment	<u>.</u>	SOJ segment			TOJ segmen	t		SOJ segment	;
	Coeffi. (S.E.) Sig. Beta	Coeffi.	(S.E.) Sig.	Beta	Coeffi.	(S.E.) Sig.	Beta	Coeffi.	(S.E.) Sig.	Beta
1993							(1.072)	.009		(1.143)	044
1994							(.932)	025		(1.034)	030
1996						735		020		(1.041)	064
1998						585			-1.006		032
2000						025		001		(1.047)	019
Intercept	21.084 (2.31	3)***	18.076	(3.450)***		19.562	(2.730)***		19.430	(3.027)***	
R^2	.403		.330			.454			.255		
F-statistic	72.353	***	30.883	***		95.602	***		31.169	***	
Sample size	2,16	53		1,274			2,086			1,657	

Table 3

Notes: Reference years of 1970s and 1990s are 1972 and 1991, respectively. *p < .05, **p < .01, ***p < .001.

is -1.35 in the TOJ and -2.67 in the SOJ. While the negative effect of being black in SOJ segments in the 1990s remains significant at the 99 percent significance level, the effect of being black in the TOJ segment in this decade is not statistically significant. Overall, these results indicate that the effect of being black is negatively related to occupational attainment in the given two decades; however, the magnitude of this negative effect has decreased by the 1990s. At the same time, the results reveal that the negative effect of being black on occupational prestige in the 1990s is not uniform across the two labor segments identified in this article.

With respect to our first hypothesis, we find that in both periods the negative effect of being black is more severe in a SOJ segment when compared to a TOJ segment. The result of *t*-tests of difference of coefficients shows support for our first hypothesis. In the 1970s, the difference of coefficients of being black between the two specified segments is 2.34, which is statistically significant at alpha .10 level with a *t*-statistic of 1.68. In the 1990s, the difference of coefficients of being black between the TOJ and SOJ segments is 1.32, which is not statistically significant with a *t*-statistic of 1.02, but the coefficient of being black in TOJ is not different from 0 in 1990s. As we expected, the net effect of race on occupational prestige, *all things being equal*, seems to be less in a technique-oriented labor segment when compared to a social-skills-oriented labor segment in both the 1970s and 1990s, but the difference here is not statistically significant.

In terms of our second hypothesis, we find that from the 1970s to 1990s the net effect of being black on occupational prestige has declined in both labor segments. In the TOJ segment, the negative effect of being black on occupational prestige has decreased from -4.99 to -1.35 given the examined time periods. Likewise, in the SOJ segment, we observe a similar decreasing effect of being black on occupational prestige; from -7.33 to -2.67. The result of *t*-tests of difference of coefficients between two periods with each labor market segment shows support for our second hypothesis. From the 1970s to the 1990s, the difference of coefficients of being black in the TOJ segment is 3.65, which is statistically significant at any conventional significance level with a *t*-statistic of 3.10. From the 1970s to the 1990s, the difference of coefficients of 3.10. From the 1970s to the 1990s, the difference of coefficients of 3.10. From the 1970s to the 1990s, the difference of coefficients of 3.10. From the 1970s to the 1990s, the difference of coefficients of 3.10. From the 1970s to the 1990s, the difference of coefficients of being black in the SOJ segment is 4.67, which is statistically significant at 99.9 percent significance level with a *t*-statistic of 3.12. As we expected in the second hypothesis, the net effect of being black on occupational prestige has declined over the given period in both delineated labor market segments.

Finally, concerning our third hypothesis, we observe that from the 1970s to 1990s the declining slope of net effect of being black on occupational prestige has been steeper in TOJ than in the SOJ segment. Although the absolute value of decrease looks bigger in SOJ (4.67 points) than in TOJ (3.65 points), it

is because of the floor effect. The net effect of being black has declined by 63.7 percent in SOJ and it has declined by 73.1 percent in TOJ, but the difference of declining effect of being black between SOJ segment and TOJ segment is not statistically significant with a *t*-statistic of .54. When we look at the standardized beta coefficients, this tendency is more obvious; in TOJ the standardized beta coefficients has decreased by 78.0 percent (.087 points change from -.113 to -.026) but in SOJ it has diminished only by 48.3 percent (.058 points change from -.120 to -.062).

Our research findings show not only that the decrease of the net effect of being black in the TOJ segment seems to be sharper than in the SOJ segment, but also, that the net effect of being black on occupational prestige in the TOJ by the 1990s is no longer statistically significant. We also find that although lessened, race is still statistically significant in our SOJ segment in the 1990s. That is, the significance of race, all things being equal, on occupational prestige has declined over time; however, its magnitude, at least on occupational prestige, has decreased differently at different points of the occupational structure. This result suggests empirical support for the notion that racial discrimination against black Americans is not uniform but rather segmented at different points of the occupational structure. Taken together, these findings lend weak support for Hypothesis 3; that the net effect of race on occupational prestige has not declined uniformly from the 1970s to the 1990s between the TOJ and SOJ segment and that it seems to have declined more sharply in a technique-oriented job segment when compared to a social-skills-oriented segment.

The Continuing Significance of Race within Certain Job Segments

This research extends existing knowledge on changes in racial occupational inequality over time. We have revisited William J. Wilson's declining significance of race hypothesis by estimating the effect of race on occupational prestige during the 1970s and 1990s. Employing GSS data, we introduced the dichotomy of a technique-oriented (TOJ) and social-skills-oriented (SOJ) segments to better understand changes in racial occupational inequality within dissimilar segments of the occupational structure.

Although more research is needed and our findings are tentative from a strict statistical sense, the results of the preceding analysis demonstrate empirical support for the classification schema employed in the article. Put simply, we observed a dissimilar pattern of racial occupational inequality in each labor market segment in the 1970s and 1990s. Further, we find that the effect of race on occupational prestige seems to have declined more sharply in the TOJ in comparison with the SOJ segment. In the 1970s (Table 3), race is a significant predictor variable on occupational prestige in both labor markets, but is stronger in the SOJ market than in TOJ market. In the 1990s, race is no longer a significant

predictor variable in the TOJ market, while it remained significant, albeit to a lesser degree, in the SOJ market. This pattern offers support for studies showing that blacks are disadvantaged in jobs where social skills are stressed (Kirschenman and Neckerman 1991; Lee 1985; Moss and Tilly 1996).

Altogether, our empirical results lend only partial support for Wilson's declining of race thesis. Perhaps our most interesting finding is that while the net effect of race on occupational prestige is declining in both labor market segments, there is still a persistent negative effect of race on occupational prestige for black Americans in the 1990s within a SOJ labor segment, even with controls for a wide range of variables (e.g., education, age, family background, regional and sector effects). Put another way, employed black American men, even with similar credentials to whites, are still disadvantaged in the SOJ market in the 1990s. At the same time, we observed that the net effect of race on occupational prestige within the TOJ segment became insignificant by the 1990s. Inasmuch as the significance of race has declined across many technique-oriented occupations, it continues to be a more important variable in a social-skills-oriented labor segment.

Moss and Tilly (1996) note three factors disadvantaging black men in the labor market: racial stereotypes, perceived cultural differences between employers and black men, and substantive skill differences. Part of the explanation that racial occupational inequality has declined less in the SOJ market when compared to jobs in the TOJ market by the 1990s may be a result of the more subjective evaluative standards used to assess an applicant's or current worker's "social skills." In such context, we believe, racial prejudice may be more likely to surface. Further, given equal opportunity laws, it seems reasonable to argue that racial discrimination can more likely take place in occupational settings where standards of skill (credentials) are vaguely specified, such as in jobs where social skills are stressed. Thus, even with similar human capital characteristics as whites, blacks may be at a disadvantage in occupations where employers stress "social skills" as an important occupational requirement.

Given the tendency in recent years to downplay racial discrimination in the labor market, we believe it important to underscore that our findings reveal that race continues to have a significant effect on occupational inequality between black and white men within a social-skills-oriented labor segment, after human capital variables are controlled. At the heart of the issue is the argument that employers' prejudices (conscious or unconscious) may surface more easily in occupations requiring ambiguous evaluative criteria related to one's "social skills." As skill requirements are tied to broader changes in the occupational structure marked by service sector growth, it is likely that employers will increasingly stress social skills in their evaluative criteria. As a result, racial progress in this labor segment could prove challenging as many of the factors influencing employers negative images of black men in terms of their "social skills" are based on racial stereotypes reinforced through media images and perceived cultural differences between white employers and black employees. National policy could encourage racial equality within a social-skills-oriented labor segment by defining and promoting "social skills" in national skill standards (Moss and Tilly 1996).

Before concluding, several qualifying factors should be briefly discussed. First, it should be recognized that the TOJ and SOJ labor segments are not mutually exclusive, as skills attached to occupations are multidimensional. Our criteria for dividing the labor market into these segments do not touch upon all aspects of the range of skills and evaluation standards that embody different occupations and how these might mediate racial inequality in the labor market. Second, in any full discussion of the factors that influence racial discrimination patterns over time analysis would have to include labor demand and supply, historical context, cultural milieu, and government policies. Much of this article has been concerned with identifying the role of occupation and skill requirements in mediating racial occupational inequality. Finally, it should be pointed out that conclusions drawn from our analysis are limited to black and white employed men. It would be fruitful to expand this article's research to other minority groups, especially black women and Asian Americans.

To recapitulate, the position of black Americans in the occupational structure and their mobility patterns can be better understood if different segments of the labor market are taken into account. In this article, we have shed empirical light on how racial occupational inequality between blacks and whites is patterned differently within a TOJ and a SOJ segment of the occupational structure. Our research findings do not altogether deny the declining significance of race in the occupational structure from the 1970s to the 1990s. Rather, they reveal a deeper complexity of racial occupational inequality and its variation over time, putting into the question the assumption that racial discrimination, or the absence thereof, is constant across the whole labor market. Viewed in this light, we hope this article will stimulate new questions about the complex ways racial inequality may be articulated in the labor market and how it changes over time. Future analysis of racial disparities in the labor market should not assume inequality to be a constant across the occupational structure, but instead, patterned at different points.

ENDNOTES

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¹With the exception of the split-labor-market literature, which posits different patterns of white/black labor market participation in different labor market segments. Despite its importance to the study of racial inequality in the labor market, split-labor-market theory largely ignores new patterns of racial segregation in the labor market and the effect of human capital progress. For example, recent research implies that as African Americans have gained more education, they have made advances primary in the labor market (King 1992; Sakamoto and Tzeng 1999).

²Moreover, Kanter (1977:48–53) argued that with increasing uncertainty, "social similarity will tend to become extremely important," resulting in people forming homogeneous groups and relying on "social bases for trust."

³In his study on organizational control in retail department stores, Ouchi (1977) supports this perspective, showing that job tasks should be classified based on the subjectivity of evaluation for more efficient organizational control.

⁴Accountants and social scientists were included in the SOJ market. We chose to include these occupations in such a segment as skills and ways of evaluation seem to be more based on a set of social relations. Take for example, the importance of clientele relations within an accounting company or course evaluations and tenure review within the university context. See Leidner (1993), which identifies teaching as an occupation where social interaction is directly linked to the product being delivered.

⁵The DOT variables do not exist in the 1990s GSS data. This is one reason we could employ DOT variables in classifying TOJ and SOJ.

⁶It is important to stress that Wilson did not argue that *race* is unimportant nor did he argue for the elimination of race-specific programs (Cancio et al. 1996; Wilson 1989), but rather that macroeconomic and political changes has made evident that social class factors, such as education and residential segregation, play a more important role in allocating the life chances of black Americans than simply race. Much of Wilson's later work has been focused on understanding the black underclass (e.g. Wilson 1987, 1999).

⁷Davis (1995) shows that some black males are experiencing enhanced occupational mobility into white-collar positions, while at the same time, some are experiencing downward mobility.

⁸We draw here from Grodsky and Pager (2001:543), who argue that indeed many analyses, "often ignore the potential variation in racial earnings inequality at different points in the occupational structure."

⁹Striving to make our model simpler, we excluded females from this analysis because of the interactive effect of gender and race on labor market outcomes. Because of the female selectivity bias effect in labor market participation, we needed another statistical model such as Tobit.

¹⁰The occupation of one's father may influence occupational prestige of his sons/daughters. Blau and Duncan (1967) showed that the occupational status of white fathers and the occupations of their sons were stronger than that of black fathers and their sons.

¹¹Occupational prestige is a standardized estimation of occupational attainment. We chose to use occupational prestige instead of income as our dependent variable for the following reasons: (1) GSS data do not provide consistent or exact income levels for each surveyed year, and (2) given this lack of specificity in income data and different category schemes employed at different points in time, we could not fix the inflation effect.

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Appendix A

Reclassification of Occupational Category into Technique-Oriented Jobs (TOJ) and Social-Skills-Oriented Jobs (SOJ)

1970s							
ТОЈ	SOJ						
 Professional, technical, and kindred workers including accountants, farm management jobs, social scientist, social science teachers, and religious workers (1, 2–23, 30–85, 102–113, 140, 150–196) Craftsmen and kindred workers (401–590a) Clerical and kindred workers (301–396) Operatives, except transport (601–696) Transport equipment operatives (701–726) Laborers, except farm (740–796) 	 Farm management jobs (24–26), religious workers (86–90), social scientist (86–101), social science teachers (114–145) Managers and administrators, except farm (201–246) Sales workers (260–296) Other service jobs (901–986) 						

Appendix A

(continued)

1990s						
ТОЈ	SOJ					
 Professional specialty occupations except social scientist, social science teachers, religious workers, and accountants (23, 43–117, 127–138, 164–165, 178–199) 	 Executive, administrative, and managerial occupations (3-37) Social science teachers (118-126, 139-163), social 					
2) Technicians and related support occupations (203–235)	scientist (166–175), religious workers (176–177)					
3) Precision production, craft, and repair occupations (503–699)	3) Sales occupations (243–285)4) Administrative support					
4) Farming, forest, and fishing occupations (473–499)	occupations, including clerical (303–389)					
5) Operators, fabricators, and laborers (703–889)	5) Service occupations (403–469)					

Note: Three-digit occupational codes in parentheses.