

*Can educational devaluation and occupational choice explain disparities between the earnings of Asians and whites better than discrimination does? Lewis and Kim argue that they do not. Additional education appears more valuable for Asians than whites. Asian-white grade disparities are larger in an almost entirely native-born group than in one including more immigrants. Asians do choose different occupations than whites, but they are generally higher-paying ones. Asians are as likely as blacks to feel that discrimination is blocking their career prospects. While unexplained salary differences alone do not prove discrimination, one should not reject the discrimination hypothesis without strong alternative explanations.*

## Asian Americans in the Federal Service: Education, Occupational Choice, and Perceptions of Discrimination: A Reply

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Christopher Daniel claims that "statistical disparities...shed little light on this issue [job discrimination] because plausible alternatives to the discrimination hypothesis can be formulated." He asserts that differences in linguistic abilities, cultural backgrounds, and occupational choices between Asian immigrants and white civil servants probably explain many of the disparities we described in our previous article (Kim and Lewis, 1994). In this reply, we argue that these differences, while real, are inadequate to explain why Asian Americans remain in lower grades than similarly educated and experienced whites in the federal civil service. We conclude that discrimination provides a more persuasive explanation for the disparities than the plausible alternatives he proposes.

### Educational Devaluation?

Daniel argues that "education's contribution to productivity is often contingent upon linguistic and cultural contexts, so immigration can devalue human capital." His hypothetical Vietnamese attorney's legal education does not transfer well to the United States, and his hypothetical Chinese computer programmer's spoken English and interpersonal style limit his advancement possibilities. We agree with Daniel that "linguistic competencies matter" and proposed that as a possible explanation for why Asian/white grade differences are larger among less educated employees (Kim

and Lewis, 1994, 288). Still, not all Asian federal employees are immigrants, and other differences may make the education of Asian Americans more valuable than that of whites. Asian Americans study harder (Peng and Wright, 1994), take more academic course work in high school, and outscore whites on many standardized tests, including the SAT (Scholastic Aptitude Test) (U.S. Department of Education, 1992, 124, 125, 131).

Depending on whether language skills, culture, effort, or other differences have the most impact, additional education could plausibly raise grade levels more for whites than Asians. To determine whose education the federal civil service values more, we reanalyzed the 1 percent sample of the Central Personnel Data File (CPDF) described in our earlier article. We found that a year of education raised the average grade of whites by .70 and the average grade of Asians by .88.<sup>1</sup> While Asian immigrants may find their educations devalued, grades rise faster with education for Asian than white federal employees overall.

If Daniel's educational devaluation argument applies only to Asian immigrants, its importance depends on how many federally employed Asians are foreign-born. We do not know that number, because the U.S. Office of Personnel Management (OPM) does not gather data on its employees' immigration status. As Daniel notes, veterans' preference and citizenship rules probably mean that Asian federal employees are less likely than Asian Americans generally to be immigrants. Indeed, in the CPDF sample, Asian men were three-quarters as likely as white men to be veterans (35 versus 46 percent). Because almost all veterans were probably born in the United States or moved here as children, this suggests that a sizeable majority of federally employed Asians have lived in this country since childhood, and that the educational devaluation hypothesis applies to a limited number of Asian federal employees.

Because almost all veterans should be native or near-native speakers of English, Daniel's argument implies that most Asian American veterans should not suffer educational devaluation. Thus, comparable white and Asian veterans should have more similar grades than do comparable white and Asian federal employees overall (because the latter group includes more immigrants). Reanalysis of the CPDF sample showed that Asian males held positions, on average, .28 of a grade below white males with as many years of education, federal experience, and age. When we restricted the sample to veterans, the grade gap between comparable white and Asian American men more than tripled in size. Immigration status and English competency cannot explain why the grade gap was wider in this subsample of U.S.-born employees than among the broader sample, which probably includes more immigrants. Other factors must also be at work.<sup>2</sup>

### Occupational Choice

Daniel correctly argues that Asians and whites differ somewhat in their occupational choices. In state and local government employment, 35 percent of Asian men and 66 percent of Asian women would need to change occupations to have the same occupational distribution as white men (Lewis and Nice, 1994). Comparable percentages for the federal civil service in 1980 were 29 and 60 respectively.<sup>3</sup> Occupational choice rather than discrimination probably explains much of this difference; it is the likely reason that a higher percentage of college professors than elementary and secondary teachers are Asians.

Among federal employees, Asians and whites also differed somewhat in the occupations they prepared for, as shown by the major fields of study they chose in college or graduate school (Table 1). Asians were more than twice as likely to study engineering as whites of the same sex; indeed, over half the Asian males had engineering degrees. Similar percentages of all four groups studied business administration, but (perhaps in line with Daniel's expectations about political and legal careers) far fewer Asians than whites majored in the social sciences, law, or public affairs.

Different occupational choices, however, need not lead to lower grades and

salaries. Engineering pays well, and college professors earn more than school teachers. In state and local government, Asian men were more heavily concentrated in higher-paying occupations than were white men (Lewis and Nice, 1994). In a reanalysis of the CPDF sample, we compared the grades of white males and other groups who not only had the same level of education and experience, but had majored in the same field. For most groups, the grade gaps were narrower than when we only controlled for level of education and experience, suggesting that white males studied more lucrative fields. The Asian male-white male grade gap widened when we controlled for field of study, however: Asian men majored in higher-paying fields than white men but remained in lower grades.<sup>4</sup>

In another analysis, we restricted the CPDF sample to federal employees with engineering degrees, a field that stereotypes indicated was appropriate for Asians: high quantitative skills and limited language requirements. White women and blacks who had earned engineering degrees held positions at about the same grades as comparable white men. Asian men and women, however, lagged 0.3 and 1.3 grades below comparable white men, respectively.<sup>5</sup> In addition, 32 percent of the white men with engineering degrees held supervisory or managerial positions, compared to 8 and 9 percent of the Asian men and women, respectively. Did Asians turn down more promotions and supervisory opportunities or did those making promotion decisions advance whites ahead of Asians?

### Perceptions of Discrimination

Daniel correctly notes that we lacked evidence that Asian Americans actually perceived discrimination and argues that such perceptions would "inevitably impact esprit de corps." We now possess that evidence. In November 1991, the Office of Personnel Management sent the Survey of Federal Employees (SOFE) to a huge sample of federal employees.<sup>6</sup> One question asked, "If I am dissatisfied with my federal career prospects, it is because," followed by nine options, including "I believe I am being discriminated against." Respondents were instructed to mark as many options as applied.

Asians were as likely as African Ameri-

**Table 1**  
**Ten Most Common Majors\***

	White Males	Asian Males	White Females	Asian Females
Business Administration	21	15	17	18
Engineering	23	54	5	13
Social Science	11	4	13	7
Agriculture	6	3	5	1
Physical Sciences	7	4	3	6
Biological Sciences	5	3	6	5
Education	4	1	10	11
Health Sciences	3	5	8	14
Law	3	0	5	0
Public Affairs	3	0	4	0
Sample Size	3443	136	1265	84

\*Numbers represent the percentage of college graduates in each group who majored in a particular field.

Source: U.S. Office of Personnel Management, Central Personnel Data File, one percent sample, [machine-readable data file], 1992.

cans, and almost twice as likely as whites, to feel that they were being discriminated against (Table 2). Women were less likely than men to complain of bias in all groups, and Asian women differed little from white women. Asian men were twice as likely as white men to perceive discrimination, however. White claims of discrimination were less frequent at higher grade levels, but nearly one-fifth (18 percent) of both high-level Asians and blacks perceived discrimination, compared to only 7 percent of whites. Because employees claiming discrimination were, on average, 0.7 of a grade below employees of the same race, sex, and education, experience, and age, the perceptions and statistical disparities support each other.<sup>7</sup> These findings are bolstered by the 1992 Merit Principles Survey, in which 36 percent of both Asian and African American men felt that they had been denied a job, promotion, or other job benefit during the previous two years due to unlawful discrimination based on race. Percentages for Hispanics, Native Americans, and nonminorities were far lower (U.S. Merit Systems Protection Board, 1994, 12). In addition, reports such as that of the U.S. General Accounting Office Asian American Liaison Group (1991) document differences in success rates between Asians and whites and Asians' perception that discrimination is the cause.

### Conclusion

Can discrimination or educational devaluation and occupational choice more plausibly explain why Asians rank below similarly educated and experienced white

civil servants? Additional education raised grades more for Asians than whites. Statistical disparities were greater among veterans than nonveterans, though the former group should include far fewer immigrants with devalued educations. Differences in occupational choice in state and local public employment raised rather than lowered Asian men's salaries; Asian men chose higher-paying majors than white men but still earned less in the federal service. On the other hand, one-fifth of the Asian SOFE respondents thought discrimination was impeding their own careers. Those perceiving discrimination were generally experiencing the grade disparities we have documented. Plausible alternative explanations may exist, but a history of racism in the United States suggests that we should not reject the discrimination hypothesis without persuasive counterevidence.

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### Notes

1. We ran multiple regression analysis with grade as the dependent variable. We used three dummy variables to differentiate white and Asian men and women. The model included years of education, age, and federal experience

**Table 2**  
**Percentage Responding "Yes" to the Statement, "If I am dissatisfied with my federal career prospects, it is because: I believe I am being discriminated against."**

	Asian	Black	Hispanic	American Indian	Non-Hispanic White
Total	16	16	14	12	9
Women	10	14	10	12	8
Men	20	23	18	13	9
GS1-GS4	5	14	28	18	12
GS5-GS8	23	17	11	10	9
GS9-GS12	12	16	13	14	9
GS/GM13-SES	18	18	13	7	7
Sample Size	785	3251	1102	314	20,875

Source: Computed from U.S. Office of Personnel Management, "Survey of Federal Employees" [machine-readable data file], November 1991.

(plus years squared for the latter two variables). We tested for different effects of education for whites and Asians using an interaction term equal to years of education for Asians and equal to zero for whites. The coefficient on the interaction term was .18, indicating that the average grade of Asians rose .18 of a grade more with each year of education for Asians than whites. The coefficient was statistically significant at the .01 level.

2. Veterans are a far-from-random sample of nonimmigrant federal employees (nearly 90 percent are at least 40 years old and the vast majority are male), which weakens this analysis somewhat.
3. We calculated the index of segregation using data from the U.S. Office of Personnel Management, *Minority Group Study of Full-Time Employment: November 30, 1980*, Tables 2 and 3.
4. The method again was multiple regression analysis. We added 24 dummy variables showing major field of study for the most recent degree to a model that also included education, federal experience, federal experi-

ence squared, age, age squared, and nine dummy variables for race and sex. We compared the coefficients on these nine variables to the same coefficients in a model that excluded the major fields of study.

5. The regression model included education, federal experience, age, and the race/sex variables.
6. OPM sent SOFE to a stratified random sample of 56,767 and received 30,854 usable responses. Responses were weighted to accurately represent the government's grade and agency distribution. Although a 54 percent response rate is somewhat low, OPM found that the demographic characteristics of the weighted SOFE sample accurately reflected the demographics found in the CPDF (U.S. Office of Personnel Management, 1992, 30). In addition, our grade regressions on the SOFE and CPDF samples yielded similar results, increasing our confidence in SOFE's representativeness.
7. Our method was multiple regression analysis on the SOFE sample. Grade was the dependent variable. Race and sex were represented

through dummy variables. Education, federal experience, and age were also measured using dummy variables in SOFE (as opposed to years and years squared in the CPDF). An additional dummy variable was coded 1 for employees perceiving discrimination against them and 0 for everyone else. The coefficient on this variable was significant at the .0001 level.

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