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ABOUT THE AUTHOR

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Do Asian Men Face Wage Discrimination in the United States?

MARLENE KIM

Currently there is a debate regarding whether Asian men suffer from workplace discrimination on account of their race. The research findings have been mixed. Cabezas and Kawaguchi (1988) found that in the San Francisco Metropolitan Area, both foreign-born and U.S.-born men who were of Chinese, Japanese, Filipino, and Korean descent earned less than similarly qualified U.S.-born white men, although they did not examine the statistical significance of these findings. Using the same 1980 census data on a national sample of Chinese, Filipino, Japanese, Asian Indian, and Korean men, Duleep and Sanders (1992) find differences in earnings by race that are statistically significant only for those of Asian Indian descent. Using Current Population Survey data in the 1990s, Ong (2000) finds that foreign-born Asian men earn 7% less than U.S.-born men but there is no evidence that U.S.-born men suffer from lower earnings due to their race. Sakamoto and Furuichi (2002) also fail to find earnings discrimination agianst U.S.-born Asians using a similar data.

Thus the most consistent finding is that foreign-born Asian men face earnings discrimination, and that only U.S.-born Asians of certain ancestries, such as of Filipino and Asian Indian descent, appear to suffer earnings discrimination. (Mar 2000; Yamane 2001). Asian men who are born in the United States, especially those of Japanese, Korean, and Chinese descent, do not seem to earn less than comparable white men. Yet even when they do not suffer from earnings discrimination, U.S.-born Asian men appear to face a glass ceiling compared to white men. Asians are less likely

to obtain management jobs compared to similarly skilled white men (Duleep and Sanders, 1992; Cabesas and Kawaguchi, 1988; Mar, 2000), and at higher levels of schooling, Asian men earn less that similar white men (Duleep and Sanders, 1992; Sakamoto and Furuichi, 2002).

Measurement Error in Earnings Disparities

This paper questions the findings that Asian men born in the US do not suffer from discrimination in their earnings, except perhaps at the highest education levels. It is possible that measurement error causes misleading findings that fail to show earnings discrimination when in fact Asian men suffer from this. Research on earnings discrimination use human capital regression models, which examine earnings differences between whites and Asians after accounting for any non-discriminatory differences due to productivity. When accounting for such non-discriminatory productivity differences, researchers include education levels and work experience in the regression model, since these are legitimate factors that contribute to earnings differences by race.

The problem is that in the large data sets that are used for these studies, such as the decennial census and the Current Population Survey, there are no measures of work experience. Hence researchers commonly proxy work experience by a standard formula: age (in years) minus the number of years of education minus 6. This proxy is accurate if one does not work while attending school. For example if one is thirty years old, had attended college for four years, and immediately began to work after completing college, one's years of work experience would be 30-16-6= 8. But if Asians

are more likely to work than whites while in school or for any given age group, this measure of work experience will understate the amount of work experience Asians have compared to whites. The result will be biased estimates of the difference in work experience by race and a bias towards showing that Asians do not face racial discrimination, when in fact they may.

This paper was motivated by the following question: If I used more accurate measures of work experience, would I find that Asian men suffer from discrimination in their earnings? The data I used to explore this question was the Job Tenure Supplement of the Current Population Survey (CPS) in February 1996. I used these data because they contained information regarding the number of years one worked in one's occupation and for one's employer. I included in my sample only civilian workers who were male, not Hispanic, and between the ages of 25 and 64. These data were merged with the Basic CPS file for February 1996 in order to obtain demographic and earnings data on the sample surveyed. Unfortunately, because only a sample of those who were in the Basic CPS file were also surveyed in the Job Tenure Supplement File, the resulting sample size was quite small: A total of 2908 white men were included in the sample, of whom 94 were foreign born and 2816 were U.S. born. There were a total of 139 Asian men, of whom 99 were foreign born and 40 were U.S. born. Thus the findings I present should be viewed as preliminary and exploratory rather than definitive.

As Table 1A indicates, on average Asians have fewer years of work experience than whites. However, when examined by age group, this is no longer true. Table 1B shows that Asians have fewer years of experience

working in their chosen occupations and for their current employers compared to whites, but this finding is driven by foreign-born Asians. Among the foreign born, Asians have less work experience in their occupation and with their employer compared to white foreign-born workers. But among the native born, Asians have more work experience in both their occupations and with their employer compared to their white counterparts (these differences are not statistically significant, however; see Table 1B). Thus within a given age group, although foreign-born Asians have less work experience than their white counterparts, U.S.-born Asians appear to have the same work experience as U.S.-born white workers.

If work experience is estimated by the standard formula of age minus education minus six, measures of work experience will be underestimated for U.S.-born Asians. This is because Asians tend to be younger than whites and they have more years of education. Regression analysis will assume that Asians have lower work experience, when in fact they have the same amount as whites for the same age group.

Statistical Methodology

Using data from the 1996 Job Tenure Supplement of the Current Population Survey and February 1996 Basic CPS Survey, I use standard human capital regressions to predict the natural log of hourly wages, computed by dividing total weekly earnings by the number of hours usually worked. The independent variables I use include a dummy variable for having a high school degree or equivalent, a dummy variable for having received a college degree, a dummy variable for achieving a professional or graduate degree (e.g. Masters Degree, Law Degree, medical degree, PhD, MBA), a dummy variable for full-time work (those who usually worked 35 hours per week or more), regional dummy variables for the West, Northeast and South (with the Midwest[1] being the comparison region), a dummy variable for residence in a central city, a dummy variable if one is married, a dummy variable if one works for the government, the number of years one has worked for one's employer, and the number of years in one's occupation. For the foreign born, two additional variables were included: a dummy variable if one was a US citizen, and a dummy variable if one had lived in the United States for fifteen years or more.

I ran the regressions with and without variables for age (in years) and age squared. Most research includes these variables but this is because more accurate measures of work experience are not available. It is unclear whether age variables should be included when explicit work experience variables are present. Although one can argue that age may be correlated with higher earnings due to rewarding our elder peers and should be included for this reason, age is also correlated with race, since U.S.-born whites are older than U.S.-born Asians. To see whether and how these variables would affect my results, I ran the regressions with and without these variables.

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[1] There were too few people in the sample to have the Northeast be a separate dummy variable for U.S.-born Asians.

Table 2 shows the means of the variables. Among the U.S. born, Asians earn 82.4% of whites. Notice that Asians are younger than whites and are more likely to have attained at least a college degree. The average Asians is 35 years old compared to 41 for whites. Thirty six percent of Asians have attained at least a college degree, compared to 33 percent for whites. Asians are more likely to live in the West and in central cities, and they are more likely to work for the government and less than full-time. On average, Asians have fewer years of work experience when age is not accounted for. They have worked 7 years for their employer and 8 years in their occupation, compared to 9 and 10 years, respectively, for white workers.

Among the foreign born, Asians earn 88.5% of white foreign-born workers. Compared to U.S.-born Asians, those born abroad are more similar to their white counterparts. Foreign-born Asian workers are approximately the same age, 41 years, as their white counterparts, and hold similar educational attainments. They are more likely to live in central cities and in the west and are less likely to live in the Northeast compared to white foreign-born employees. They are more likely to have resided in the United States for at least fifteen years.

To examine whether Asians suffer from earnings discrimination, I ran the regressions separately for Asian and white men and by nativity and then used the Blinder-Oaxaca decomposition procedure. This procedure recognizes that part of the earnings difference between whites and Asians may result from non-discriminatory racial differences. For example, Asians are more likely to work part time and for the government, which pays less than those who work full time and for the government. The part of the earnings difference attributed to these legitimate differences by race is viewed as the non-discriminatory, or explained, part of the racial earnings difference.[2]

In addition, part of the earnings difference between whites and Asians may result from discrimination. Asians may be rewarded with lower earnings compared to white men even when they work full-time and in the private sector. Receiving different rewards for the same traits as white men is viewed as the earnings difference due to discriminatory treatment in the workplace, due to unmeasured characteristics between whites and Asians, or both. The part of the racial wage gap due to rewarding Asians differently than whites is called the unexplained or discriminatory component.

Using the results from the decomposition procedure, I can then pose the following question: Let's say Asians are treated as whites, so that they receive identical rewards for working full-time as whites, and they are penalized the same amount as whites for working for the government. They receive the same rewards when they have the same education levels, age, and location as whites. What would their earnings be? The difference between these hypothetical earnings and their actual earnings is viewed as the amount Asians are underpaid due to discriminatory treatment in the workplace.

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[2] Of course, if Asians are more likely to be relegated to part time work or government work because they have less access to full time work and jobs in the private sector, the estimates will understate the amount of discrimination present by race.

Because the number of regression specifications I ran precludes showing the results for all of the regressions, I will summarize the results for the independent variables here. Basically, these were consistent with theory and with previous reseach. In general, both occupational and employer tenure were positive and significant. Working for the government was negative and significant. Higher education levels, working full time, and being married led to increased earnings. Living in the central city was negative but insignificant, and living in the Northeast was positive but insignificant, the South, negative and significant, and the West, positive and significant.

Results of the Blinder-Oaxaca Decompositions

Tables 3A show the results of the decompositions for U.S.-born workers. Part A shows the actual hourly wage for Asians and the predicted hourly earnings for Asians using the estimated coefficients for white men. This simulated earnings allow one to examine what Asian men would earn if they were treated the same as white men; i.e., if they received the same returns for their human capital characteristics as white men. The difference in actual and simulated earnings is also shown. As Table 3A shows, if Asians were rewarded the same as white in the workplace, they would earn more than they do currently: Asians would earn between thirteen to fifteen percent

more than they currently earn; full-time workers would earn even more, between 17% to 20%. All but one of these earnings differences are significant at the 10% level. The estimated wage ratios indicate that if Asians were treated as white workers, they would earn the same or more than white workers. Currently, they earn less.

Part B of Table 3A breaks the log earnings gap between white and Asian workers into two components. The first part is that which is explained by human capital differences (different productivity traits) and is viewed as the nondiscriminatory component of earnings differences.[3] The second part is viewed as the part due to rewarding whites and Asians differently for their productivity traits and is seen as a measure of discrimination. As Table 3A shows, in all of the regession specifications, most of the log earnings gap is explained by rewarding Asians differently than whites. Between 96% to the entire amount of the earnings gap is due to rewarding whites better than Asians.[4]

Table 3B shows the results for foreign-born workers. Consistent with the results for native-born workers, foreign-born Asians would earn more than they do currently, approximately 23% more, if workplaces treated them as white workers. Full-time Asian workers would earn 25% more than they are earning at present. The estimated wage ratio indicates that if this differential treatment

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[3] If Xa is a vector of the means of the independent variables for Asian men, Xw a vector of the means of the independent variables for white men, Ba the coefficients on the variables for Asian men, and Bw the coefficients on these variables for white men, then the log earnings gap = XwBw - XaBa; the explained portion of the gap (due to different productivity traits)= Bw (Xw - Xa) ; the unexplained gap (due to rewarding whites differently than Asians) = Xa (Bw- Ba) . See Blinder (1973) and Oaxaca (1973).

[4] Having estimates of over 100% is due to the fact that Asians have greater amounts of human capital, such as higher education levels, than whites. Hence the negative amounts of the log earnings difference explained by difference in human capital.

were eliminated, foreign-born Asian workers would earn the same as white workers. But because the workplace treats foreign-born Asians differently than foreign-born whites, foreign-born workers currently earn less than white workers. Part B of this table shows that virtually all of the difference in log earnings between foreign-born white and Asian workers is due to the fact that Asians are treated differently in the workplace, receiving lower pay increases for their traits, such as higher education levels, than white workers.

Conclusion

In general, previous research on discrimination against U.S.-born Asian men have often failed to find evidence of earnings discrimination, except at the highest education levels. However, these findings may have been incorrect due to measurement error. Although social scientists agree that work experience is an important factor in determining earnings, accurate measures of this variable has led to researchers using either age or the difference in years of age and education to proxy this variable. However, because on average Asians have higher levels of education and are younger than white workers, using these proxies for work experience may have led to biased results that indicate that Asians do not suffer from earnings discrimination, when in fact they do.

Due to the small sample size used in this study, the results here are only a preliminary examination of this issue. But they indicate that when using more accurate measures of work experience to examine earnings discrimination, the amount of discrimination Asians encounter is greater than what has been found in previous research. Among the foreign born,

Asian men are underpaid 23-25% due to their race. If they were treated as white men, they would be earning more, not less, than foreign-born white men. Virtually all of the wage differences between foreign-born white and Asian men is due to rewarding Asians less than whites for education, work experience, and other productivity characteristics.

Among U.S.-born men, Asians are underpaid 13-20% due to their race. Although these results are only significant at the 10% level, which is considered barely significant, this is probably due to the small sample size. Moreover, these results are stronger than previous research, which has failed to find statistically significant findings for U.S.-born Asian men as a whole. Thus research that includes more accurate measures of work experience generates findings that differ from previous research. It indicates weak evidence for the hypothesis that U.S.-born men face earnings discrimination. In addition, other findings from the decomposition procedure is consistent with this hypothesis. If they were treated as whites, Asians would be earning the same or more than similarly qualified U.S.-born white men. Virtually all of the wage difference between white and Asian men born in the US is the result of rewarding Asians less than whites for their human capital and other productivity enhancing characteristics. Taken together, this indicates that Asian men do indeed appear to face discrimination in their earnings on account of race.

More research needs to be conducted on this issue. This is difficult, however, since the CPS conducts the Job Tenure Survey every four years (which prevents combining years), on a small sample, and appears to have discontinued surveying workers about tenure in their occupation (the 2000 Job Tenure Supplement

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did not include this variable). Nevertheless, researchers should be cautioned that using proxies for work experience, either age or the difference in age and education, may lead to biased results for Asian workers, and that using more accurate measures of work experience leads to stronger findings that Asian men face earnings discrimination in the workplace.

Table 1A
WORK EXPERIENCE BY RACE

	White	Asian
Average Years in the Occupation		
Total	8.42	6.01
Foreign Born	8.38	5.93
U.S. Born	8.42	6.32
Average Years with Employer		
Total	7.73	5.32
Foreign born	7.74	5.23
U.S. Born	7.76	5.63

Table 1B
WORK EXPERIENCE BY RACE AND AGE

	Age Groups			
	18-24	25-35	35-45	46-64
A. Average Years in the Occupation				
White, All	1.56	4.61*	9.09*	14.64*
Asian, All	1.28	3.45*	6.28*	11.56*
White, U.S. Born	1.56	4.63	9.13	14.66
Asian, U.S. Born	1.61	4.80	8.35	15.48
White, Foreign Born	1.31	3.95*	7.80*	14.23*
Asian, Foreign Born	0.94	3.09*	5.84*	10.95*
B. Average Years with Employer				
White, All	1.46	4.08*	8.37*	13.54*
Asian, All	1.39	3.06*	5.54*	10.09*
White, U.S. Born	1.46	4.10	8.45	13.63
Asian, U.S. Born	1.57	4.20	7.55	13.56
White, Foreign Born	1.40	3.58*	6.09	11.24
Asian, Foreign Born	1.22	2.75*	5.12	9.55

*Statistically significant at 5% level.

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Table 2
MEANS OF VARIABLES

	All Workers		Full-time Workers	
	White	Asian	White	Asian
U.S. Born				
Natural log of wage	2.68499	2.49192	2.70075	2.54989
Mean wage	14.65805	12.08446	14.8909	12.8057
Wage difference	0.212968		0.162834	
Age	40.64	34.99295	40.60184	36.03754
High school or less	0.37	0.21767	0.37	0.26848
College degree	0.21928	0.33098	0.22016	0.39052
Graduate degree	0.12588	0.02851	0.12341	0.03516
Full time	0.9559	0.81077		
City	0.19353	0.22879	0.18686	0.26449
South	0.31	0.30702	0.31102	0.16299
West	0.20237	0.63496	0.2026	0.76545
Government	0.16196	0.22352	0.15979	0.27569
Married	0.711426	0.63157	0.72501	0.66727
Years with employer	8.90663	6.96748	9.08621	7.55039
Years with occupation	9.55933	7.95066	9.72191	8.6568
Foreign Born				
Natural log of wage	2.67649	2.5542	2.73804	2.57644
Mean wage	14.53399	12.86101	15.45666	13.15024
Wage difference	0.130082		0.17539	
Age	40.36986	40.70734	40.5946	41.25269
High school degree	0.39919	0.38863	0.40674	0.35695
College degree	0.27069	0.28144	0.2684	0.2908
Graduate degree	0.2395	0.27218	0.24513	0.2906
Full time	0.9297	0.93662		
City	0.36469	0.42374	0.36772	0.41605
Northeast	0.43508	0.21618	0.43336	0.23081
South	0.14194	0.17621	0.15267	0.15684
West	0.21431	0.40462	0.20789	0.40853
Government	0.05611	0.07203	0.0489	0.07691
Married	0.80601	0.80401	0.8141	0.82904
Years with employer	5.88164	5.13747	6.28604	5.40016
Years in occupation	8.13782	6.21231	8.5915	6.48023
Citizen	0.43526	0.46307		
In U.S. more than 15 years	0.49069	0.58395	0.46362	0.57927

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Table 3A
DECOMPOSITION RESULTS: U.S.-BORN WORKERS
(selected t statistics in parentheses)

	All Workers		Full-Time Workers	
Control for age?	Yes	No	Yes	No
Part A. Simulated Earnings				
Actual hourly wage	12.08	12.08	12.81	12.81
Hourly wage if Asians were rewarded as whites	13.65	13.91	15.03	15.34
Earnings Penalty for Asians (Percent difference in earnings)	**12.96%** (t=1.58)	**15.11%*** (t=1.71)	**17.37%*** (t=2.02)	**19.79*** (t=.0698)
Wage Ratio if Asians were treated as whites	99.58	102.50	101.22	102.92
Part B. Decomposing the Log Earnings Gap				
% of earnings difference explained because of rewarding whites differently than Asians (measure of discrimination)	96.49	121.22	108.12	118.99
% of earnings difference explained because of different productivity traits (nondiscriminatory component)	3.51	-21.22	-8.12	-18.99
N white	2816	2816	2688	2688
N Asian	40	40	24	24
Adj. R squared white	.293	.282	.283	.27
Adj. R squared Asian	.323	.297	.326	.285

** Statistically significant at 5% level
* Statistically significant at 10% level

Table 3B
DECOMPOSITION RESULTS: FOREIGN-BORN WORKERS
(selected t statistics in parentheses)

	All Workers		Full Time Workers	
Control for age?	Yes	No	Yes	No
Part A. Simulated Earnings				
Actual hourly wage	12.86	12.86	13.15	13.15
Hourly wage if Asians were rewarded as whites	15.79	15.79	16.42	16.44
Earnings Penalty for Asians (Percent difference in earnings)	**22.77%*** (t=16.87)	**22.77%*** (t=13.41)	**24.86%*** (t=24.34)	**25.07*** (t=22.37)
Wage Ratio if Asians were treated as whites	108.71	108.62	106.21	106.38
Part B. Decomposing the Log Earnings Gap				
% of earnings difference explained because of rewarding whites differently than Asians (measure of discrimination)	168.36	167.66	137.32	138.26
% of earnings difference explained because of different productivity traits (non-discriminatory component)	–68.36	-67.66	-37.32	-38.26
N white	94	94	87	87
N Asian	99	99	94	94
Adj. R squared white	.5354	.5464	.4414	.4561
Adj. R squared Asian	.2052	.167	.1767	.1483

*** Statistically significant at .01% level
** Statistically significant at 5% level
* Statistically significant at 10% level

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