The Continuing Significance of Phenotype among Mexican Americans

Author(s): Edward E. TELLES and Edward MURGUÍA

Source: *Social Science Quarterly* , March 1992, Vol. 73, No. 1 (March 1992), pp. 120–122

Published by: University of Texas Press

Stable URL: https://www.jstor.org/stable/42862994

The Continuing Significance of Phenotype among Mexican Americans*

Edward E. TELLES, *University of California, Los Angeles*

Edward MURGUÍA, *Arizona State University*

We are pleased that Bohara and Davila (1991) replicated our study and confirmed our original results using various forms of econometric analyses. Using a Mincer type semi-logarithmic earnings function, an ordered probit model, and our straightforward linear model, they demonstrated that dark and native-American-looking Mexican origin individuals sampled in the National Chicano Survey receive substantially lower earnings than their light and European-looking counterparts. Additionally, those of medium phenotype earn about the same or only slightly less than light individuals, again regardless of the model chosen.

Bohara and Davila's claim of failure to find support for phenotypic discrimination is surprising in that their own evidence demonstrates the contrary. Their claim is based on the fact that statistical significance is not found at the $p \leq .05$ level using semi-logarithmic and ordered probit models. Given their small subsample ($N = 226$, mysteriously lower than our original 253), setting such a level of statistical significance as an absolute test of whether effects occur or not is highly questionable. Based on the standard errors, statistical significance is reached for dark phenotype in the semi-logarithmic model at the $p \leq .10$ level and in the ordered probit model at the $p \leq .15$ level, demonstrating that there is only a slight probability that our original results were incorrect with any of the models.

Furthermore, because income in our sample is normally distributed,[1] we believe the linear model to be the best approach, and thus we need not quibble about statistical significance. Logarithmic transformations designed to bring in the high-income outliers typical of U.S. society as a whole uneces-

[1] Relevant data are available from the authors upon written request.

sarily skew our data. The categorical, ordered-probit model is not as sensitive to significant differences as is regression in normally distributed samples, and since we do not violate the assumption of normally distributed variables it makes no sense to move to a less powerful technique.

Also, the main focus of our original article was to measure extent of labor market discrimination based on a decomposition of earnings. By estimating separate earnings functions for phenotypic groups based on the fully specified model, earnings were decomposed into components corresponding to the difference in endowments and the difference due to labor market discrimination. By choosing a fully specified model, differences due to human capital and labor market advantages are captured in the endowments component, leaving the residual to be reasonably interpreted as the mount due to labor market discrimination (Telles and Murguía, 1990:686).

Thus, Bohara and Davila's analysis is also incomplete because it focuses only on the earnings model in which phenotype is added as a dummy variable. Our use of such a model was simply to show that despite being fully specified, with multicollinearity among variables, a negative and moderately significant effect for dark phenotype persisted. To make the case that our results were spurious because of the model chosen, Bohara and Davila should have replicated the decomposition analysis by estimating the semilogarithmic and ordered probit forms for each phenotypic group. We are confident that a decomposition using estimates based on their alternative models would still yield a considerable loss from discrimination although perhaps of a smaller magnitude than the sizable 11.2 percent of mean earnings they found with a linear model.

We chose a linear model with dollar values in our analysis (1) because dollars are normally distributed in our sample, (2) because of the model's common usage in the human capital literature, and (3) because of the intuitive interpretation of the results. Furthermore, Hodson (1985) found that potential advantages of alternative forms may be offset by the sensitivity of results to the inclusion of interaction terms, which often generates counterintuitive results. Bohara and Davila's results for the full sample suggest that there is little reason to transform earnings in such a way as to complicate rather than simplify the analysis except to achieve statistical robustness.

In conclusion, Bohara and Davila's findings in no way alter our original findings that a dark phenotype means lower earnings among Mexican Americans. Their preferred models are not as well suited to the analysis of Mexican American earnings as is our linear regression model. Even if these models were better or equally suited for the analysis, the results are similar, although at a lower level of statistical significance. The interest generated in our article concerning Mexican American phenotype is encouraging, and we anticipate that studies of forthcoming data sets with larger samples will continue to clarify these important issues. SSQ

REFERENCES

Bohara, Alok K., and Alberto Davila. 1991. "A Reassessment of the Phenotypic Discrimination and Income Differences among Mexican Americans." *Social Science Quarterly* 73:114–19.

Hodson, Randy. 1985. "Some Considerations Concerning the Functional Form of Earnings." *Social Science Research* 14:374–94.

Telles, Edward E., and Edward Murguía. 1990. "Phenotypic Discrimination and Income Differences among Mexican Americans." *Social Science Quarterly* 71:682–96.