

Hispanic Journal of Behavioral Sciences

<http://hjb.sagepub.com/>

Investigating Hispanic Underrepresentation in Managerial and Professional Occupations

Kusum Mundra, Andrew Moellmer and Waldo Lopez-Aqueres

Hispanic Journal of Behavioral Sciences 2003 25: 513

DOI: 10.1177/0739986303259297

The online version of this article can be found at:

<http://hjb.sagepub.com/content/25/4/513>

Published by:



<http://www.sagepublications.com>

Additional services and information for *Hispanic Journal of Behavioral Sciences* can be found at:

Email Alerts: <http://hjb.sagepub.com/cgi/alerts>

Subscriptions: <http://hjb.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://hjb.sagepub.com/content/25/4/513.refs.html>

Investigating Hispanic Underrepresentation in Managerial and Professional Occupations

Kusum Mundra

San Diego State University

Andrew Moellmer

Tulane University

Waldo Lopez-Aqueres

The Tomás Rivera Policy Institute

In this article, the authors examine Hispanic underrepresentation in managerial and professional occupations on the basis of human capital deficiencies, economic and spatial barriers, and the lack of mentoring resources. Using Public Use Microdata Samples data, the authors find that there is a 6% chance of Hispanics working as a manager or a professional over other professions, whereas the same probability is 32% for non-Hispanic Whites. Also, the most important explanatory variable affecting the chances of being a manager or professional for Hispanics is fluency in English, whereas years of education are most important for non-Hispanic Whites.

Keywords: *Hispanic underrepresentation; employment; business; human capital; mentoring*

This article reviews and evaluates the underrepresentation of Hispanics in professional and managerial occupations in the United States. We investigate barriers to Hispanics' occupational mobility, especially those preventing access to professional and managerial jobs. In this article, we update the char-

AUTHORS' NOTE: This work is a part of the research study undertaken at The Tomás Rivera Policy Institute. The authors thank Harry Pachon, Rodolfo de la Garza, Matt Barreto, Gary Segura, Raul Araujo, Jim Bennett, and John Finamore for helpful comments and assistance on this article. We are solely responsible for any errors. All correspondence concerning this article should be directed to Kusum Mundra, Department of Economics, San Diego State University, 5500 Campanile Drive, San Diego CA 92182-4485.

Hispanic Journal of Behavioral Sciences, Vol. 25 No. 4, November 2003 513-529

DOI: 10.1177/0739986303259297

© 2003 Sage Publications

acter and magnitude of the underrepresentation of Hispanics in the upper echelons of the occupational structure, recommend new policy initiatives to address the problem, and make suggestions for further research.

The problem of underrepresentation is particularly salient given increasing numbers of Hispanics. Growth in the Hispanic population over the past decade has been significant. The 2000 Census reported that there are now 35.3 million Hispanics in the United States, a 58% increase since the 1990 Census. This means that Hispanics now constitute approximately 12.5% of the total U.S. population. Hispanics now surpass African Americans as the nation's largest minority group. If population growth translates into increased political and economic clout, then we will expect the structure of opportunities for qualified Hispanics to improve over time. Hispanic representation in managerial and professional occupations has not kept pace with population growth, however. Relative to labor force composition, Hispanic underrepresentation has decreased in some economic sectors such as insurance, utilities, and business services, but the overall proportion of Hispanics who are managers and professionals is now lower than was the case a decade ago (see Avalos, 1996; Hirsch & Schumacher, 1992; Leonard, 1996; Mason, 1995; Mora, 1998; Reimers, 1984; Smith, 1983). For the purposes of this study, when we refer to managers, we mean workers in managerial occupations. Farm managers are not included in our managerial definition.

For comparative purposes, the significance of the underrepresentation problem has been determined by comparing Hispanics with non-Hispanic Whites. This does not necessarily mean that non-Hispanic Whites, especially women, do not have special needs, only that the lack of representation in professional and managerial occupations may be aggravated by political, cultural, and historical differences between non-Hispanic Whites and Hispanics. First, data from the March 1990 and March 2000 Current Population Survey are presented and analyzed. We then review previous findings on the nature and causes of Hispanic underrepresentation in managerial and professional occupations and present our results of a logit regression using 1990 Public Use Microdata Samples (PUMS). This is followed with recommendations for further research and a brief discussion of policy implications.

New Evidence on the Problem: The Current Population Survey

The data from the current population survey (CPS) show that the number of Hispanics in managerial and professional occupations has improved slightly over the past decade. The CPS is a scientific, national survey of about 50,000 households conducted each month by the Bureau of the Census for

the Bureau of Labor Statistics. The CPS is the primary source of information on the labor force characteristics of the U.S. population (see www.bls.census.gov/cps). For details on the data used on this study, please contact the authors.

Gains were slightly better for Hispanic managers than for Hispanic professionals; Hispanics as a percentage of all managers increased to 5.9% in the year 2000 from 3.8% in the year 1990, whereas Hispanics as a percentage of all professionals increased to 4.8% in the year 2000 from 3.7% in the year 1990. These gains reflect across-the-board improvements in minority representation in managerial and professional occupations generally. Hispanics increased their presence across all industries over the past decade, except in wholesale trade, which was marked by a significant decline, from 5.8% of managers in 1990 to 3.2% in 2000. Hispanics experienced the most significant growth in insurance (100.0%), utilities (100.0%), business services (88.9%), and retail trade (82.4%). At first glance, then, it appears that the number of Hispanics in professional and managerial occupations has increased. These statistics only tell part of the story, however. A more complete picture emerges once we consider the racial/ethnic composition of the labor force and how that relates to representation in managerial and professional occupations.

Over the past 10 years, the composition of the civilian labor force has changed as the presence of minorities in the workforce has increased. The proportion of non-Hispanic Whites in the labor force declined, from 77.6% in 1990 to 73.0% in 2000. Hispanics increased their presence in the labor force, from 7.7% in 1990 to 10.9% in 2000. One can use this measure as a baseline against which to examine Hispanic representation in managerial and professional occupations. As Table 1 shows, Hispanic underrepresentation in managerial occupations, as measured against labor force composition, has increased. Relative to their proportion in the workforce, Hispanic underrepresentation in managerial occupational categories has increased, from 3.9% in 1990 to 5.0% underrepresentation in 2000. By contrast, non-Hispanic White overrepresentation in the same occupational categories decreased, from 11.3% overrepresentation in 1990 to 10.0% overrepresentation in 2000. It is important to note that although non-Hispanic White overrepresentation in managerial occupations decreased during the 1990s, this has not translated into an improvement for Hispanics.

A similar trend is evident in professional occupational categories (see Table 1). Relative to their proportion in the workforce, Hispanic underrepresentation in professional occupational categories increased, from 4.0% in 1990 to 6.1% in 2000. By contrast, non-Hispanic White overrepresentation in the same occupational categories has decreased, from 7.8% over-

Table 1. Non-Hispanic White and Hispanic Representation (Differential) in Professional and Managerial Occupations Relative to Labor Force Composition, 1990 and 2000

	Occupation	1990 % of Labor Force			2000 % of Labor Force		
		All	Composition	Differential	All	Composition	Differential
Non-Hispanic White	Professional	88.9	77.6	11.3	83.0	73.0	10.0
	Managerial	85.4	77.6	7.8	80.1	73.0	7.1
Hispanic	Professional	3.8	7.7	-3.9	5.9	10.9	-5.0
	Managerial	3.7	7.7	-4.0	4.8	10.9	-6.1

SOURCE: Bureau of the Census, Current Population Survey, March 1990 and March 2000.

representation in 1990 to 7.1% overrepresentation in 2000. Again, this decline has not translated into an increase of Hispanic representation in professional occupational categories. In other words, although Hispanics have increased their presence in the civilian workforce and more Hispanics are managers or professionals than before, the proportion of Hispanics in the highest occupational echelons relative to labor force composition has declined. What explains this discrepancy?

Barriers to Representation in Managerial and Professional Occupations

Although Hispanics composed more than 8% of the labor force in the 1990s, a survey of senior-level male managers in *Fortune* 1,000 industrial and *Fortune* 500 service industries revealed that only 0.4% were Hispanic. This compares to almost 97% of senior managers who were White (Glass Ceiling Commission, 1995). When all occupational categories are considered, the percentage of Hispanic managers and administrators increases considerably to 5.2% (Chapa & Wacker, 2000). This increase is explained by the fact that Hispanic managers are better represented in the construction, retail trade, communications, and transportation sectors of the private sector (Glass Ceiling Commission, 1995). Nevertheless, despite significant gains made in certain sectors, Hispanics and other minorities continue to be underrepresented at the managerial level in business and in many professional sectors of the economy, especially in firms that account for the most significant proportion of the nation's gross domestic product. Why are Hispanics underrepresented in professional and managerial occupations, despite their increasing presence in the workforce and their substantial consumer clout? In 1999, Hispanics represented a \$380 billion consumer market (Humphreys, 1998). There are three broad explanations that are frequently advanced in the literature to explain underrepresentation.

Human Capital Barriers

Human capital characteristics such as education, language proficiency, work experience, and training are critical factors determining career success. A study reports that in 1997, 54.7% of Hispanics had completed high school compared to 83.0% of non-Hispanic Whites that completed high school (Siles & Pérez, 2000). Hispanics also exhibit the nation's highest high school dropout rates. In 1995, 30% of young Hispanics did not finish high school, compared to only 8% of Whites and 13% of African Americans. It should be noted that the Hispanic school dropout rate of 30% includes many immi-

grants who quit school before coming to the United States and the school dropout rate for Hispanics who attend U.S. schools is only 15% (Fry, 2003). In addition, only 9.5% of Hispanics 25 years and older are college graduates, compared to 24% of non-Hispanic Whites. The Federal Glass Ceiling Commission (1995) reported that 60% of *Fortune* 1,000 executives hold graduate degrees. In contrast, only 2% of Hispanics have a similar level of education (Glass Ceiling Commission, 1995).

Language is also a critical factor predicting career success in business. In 1996, three quarters of Hispanics reported that they spoke English "very well" or "well." Thus, one fourth of Hispanics do not have a level of English proficiency that permits them to gain access to higher paying jobs. The persistence of this problem is related to the continuing influx of Latino immigration since the 1990s. Latino immigrant English language skills overall are the poorest among all immigrant groups (Smith & Edmonston, 1997). Finally, Hispanics report a lower level of experience and training than their non-Hispanic White counterparts. Finally, as reported by Siles and Pérez (2000), Hispanics do not reflect comparable levels of work experience as their White and African American counterparts. In sum, Hispanics exhibit deficiencies in the following three important elements of human capital: education, English language acquisition, and experience on the job. The fact that Hispanics participate at higher rates in the workforce than any other racial/ethnic category highlights the troubling nature of these deficiencies. Hispanic males have the highest rate (78.2%) of labor force participation in the nation (Glass Ceiling Commission, 1995). Given the difficulty of gathering data on private sector recruitment and hiring practices, however, it is not surprising that there is a lack of systematic, nationwide studies of the effects of human capital characteristics on job advancement in business generally.

Driving many of the demographic and human capital trends among Hispanics is the nature of Hispanic immigration over the past decade. The 1990s witnessed an enormous increase in the number of Hispanic immigrants, most of whom lack education and the skills necessary for managerial or professional status (Contreras, 2002). For example, in California, which experienced the bulk of the immigration, nearly half a million Hispanic immigrants became citizens from 1991 to 1998; an additional 1,144,000 new Hispanic immigrants were legally admitted to the state during this same period. This huge influx of less skilled and less educated Hispanics into the civilian workforce is a major factor explaining the 3.2% increase of Hispanics in the U.S. civilian labor force composition over the 1990s. It also helps explain why the proportion of Hispanic underrepresentation in managerial and professional occupational categories generally has increased despite an increase in the total number of Hispanic managers and professionals in the workforce.

Economic and Spatial Barriers

Another line of reasoning posits that underrepresentation is the result of economic and structural features beyond the control of Hispanics and other minorities, or even business. Economic change in the United States is argued to have had the effect of concentrating Hispanics in low-paying, low-skilled jobs that have the tendency to perpetuate and disseminate poverty across generations. For example, Morales (2000) reported that the sectoral shift away from middle-income manufacturing jobs toward low-paying service sector and high-paying technology jobs has had a particularly detrimental effect on poorly educated Hispanics, with the highest rate of employment growth occurring in lower paying, low-skilled jobs. Another argument posits that the spatial distribution of minorities within cities affects job availability and access to the critical resources necessary to improve minority economic standing. To test the effect of the spatial distribution of minorities on job success and availability, Stoll, Holzer, and Ihlanfeldt (2000) examined the census data on workers and the employer survey data in the cities of Boston, Detroit, Los Angeles, and Atlanta. The authors found that there is a “spatial concentration of disadvantage” produced by the relative lack of low-skilled jobs in city centers where Hispanics and other minorities tend to concentrate. Other research supports this claim, indicating that minorities tend to live far from even those jobs for which they qualify (Farley, 1987; Ihlanfeldt, 1993). This argument is based on the implicit assumption that low-skilled workers living in or near the city center are unable or unwilling to commute. This assumption needs systematic testing, but it seems likely that given the dependence of many Hispanics and other minorities on low-paying, low-skilled jobs, the persistence of underemployment in economically depressed central cities may exacerbate the “burden of inherited poverty” for Hispanics who cannot afford to move or commute to the suburbs, where many jobs have moved (Glaeser & Kahn, 2001).

Another possible explanation is the character of the labor market and demand for labor. In times of economic growth, labor demand increases relative to the labor supply, creating a situation in which Hispanics and other minority managers and professionals are more likely to find employment. Tight labor market conditions create favorable employment options, making ascriptive criteria such as ethnicity, age, and gender less feasible in hiring decisions. The converse is true in times of recession. Thus, given the economic growth that took place during the 1990s, one would expect Hispanic representation in managerial and professional occupations to increase. Consistent with this hypothesis, one finds unemployment among Hispanic managers and professionals to be higher relative to the national average in 1990,

surpassing the national average by 1.9%, a period of economic recession. In 2000, on the other hand, a time of economic expansion and tight labor markets, the relative proportion of Hispanic unemployment decreased, to .4% over the national level. This is a 44.7% decrease in the rate of unemployment among Hispanic managers and professionals over the course of the decade. Clearly, economic growth is favorable to the employment of Hispanic managers and professionals.

The increase in the absolute numbers of Hispanic managers and professionals as shown earlier in Table 1 may be a function of tighter labor market conditions, as these data suggest. But it is also likely that tight labor market conditions have not benefited Hispanics across the board because most of the growth during the 1990s was in the so-called new economy, in jobs demanding skilled, educated workers. The parallel expansion of the service economy means that most new jobs for which many Hispanics are eligible pay less, requiring fewer skills and lower education. This translates into fewer resources available in the Hispanic community to pay for higher education. In the new economy, education is the key to higher paying jobs, and in education Hispanics continue to lag behind other groups.

The Role of Mentoring

Within firm factors such as mentoring, social networks and corporate hiring and tracking mechanisms play a more direct, and likely more important, role. It is well-known that social ties to the upper reaches of management, which are dominated by White males, are a requisite for placement in the right career paths from which employees can gain the correct mix of training and experience to qualify for upper management status themselves. Mentoring is widely regarded in the literature to be lacking for Hispanics (Glass Ceiling Commission, 1995; Knouse, 1992; Melendez, Carre, & Holvino, 1995). There is evidence to suggest that this problem exists in the private sector. The Korn/Ferry International (1998) study reported that only 27% of Hispanic males have access to a formal mentor at their current company. According to the study's respondents, formal mentors provide such critical assistance as advocacy, instruction in the so-called rules of the game, and critical social network introductions. Not surprisingly, 83% of formal mentors were non-Hispanic White. Only 3% of formal mentors were Hispanic. Of the Hispanic males in the study, 64% reported access to an informal mentor. Informal mentors also may advocate on behalf of protégés and introduce them to social networks, but respondents identified giving advice as the primary role that these mentors play.

A related question is that of the role played by corporate culture. It may be possible that Hispanics and other minorities gain access to mentors because they fit well with the dominant White male corporate culture. Anecdotal evidence reported by the Glass Ceiling Commission report illustrated the potential role that cultural factors play. One executive stated, "Whether you're talking about the factory floor or the board room, you have to have a comfort and safety zone. . . . You have to speak the same language. . . . It's socialization, culture, and class that are causing the problem" (Glass Ceiling Commission, 1995).

Explaining the Presence of Hispanics in Professional and Managerial Occupations: A Logit Analysis

Based on the review of the literature, logistic regression analysis was used to investigate the independent role of human capital, demographic, spatial, and employer-specific factors in explaining the presence of Hispanics and non-Hispanic Whites in professional and managerial occupations relative to all other occupations in the U.S. labor market. Logistic regression measures the shift in the probability of an individual being in a managerial or professional occupation with changes in the independent variables. For a technical discussion on logit models, refer to Aldrich and Nelson (1984) and Maddala (1983).

For each labor force member whether Hispanic or non-Hispanic White, the dependent variable measures whether the respondent belongs to the managerial and professional class or not. The independent variables used in the models were as follows: To measure human capital, we use the number of years of school completed, age, gender, and fluency in English. Marital status is a proxy for employers' perception of an employee's stability and expected performance at work and age as a proxy variable for job experience. To measure the influence of market forces, we include variables for whether a person works for a nonprofit or a for-profit employer, and self-employed is the omitted category for these dummy variables. Travel time to work measures a spatial barrier to occupational advancement (Raphael & Stoll, 2000) and year of entry in the United States is a proxy for economic and cultural integration. All variables are based on questions asked to participants in the 1990 Census of Population.

Table 2. Logistic Regressions Explaining the Presence of Non-Hispanics in Managerial and Professional Occupations

Independent Variable	Hispanics		Non-Hispanic Whites	
	Logit Coefficient	SE	Logit Coefficient	SE
Education	.393**	.006	.524**	.07
Age	.016**	.001	.014**	.00
Gender	.273**	.026	.206**	.009
Fluency in English	.576**	.051	.329**	.072
Marital status	.204**	.028	.209**	.01
Type of employer				
Profit employer	-.645**	.047	-.227**	.015
Nonprofit employer	.240**	.05	.483**	.016
Travel time to work	.003**	.001	.003**	.00
Year of entry in the United States	-.54**	.012	.020*	.01
Constant	-6.88**	.1	-8.185**	.081
Sample size	68,891		306,315	
Percentage predicted correctly	90		79	
-2Log L	39,437.2		289,061.6	
G/K- τ -C	.5		.5	

*significant at 5% level. **significant at 1% level.

Estimated Results

Table 2 shows the estimated logistic regression models. The coefficients reported quantify the effects of the explanatory variables on the odds of being a professional or manager in the workforce. Thus, a positive coefficient indicates that the independent variable is associated with an increase in the individual's likelihood of being a manager or having a professional occupation. A negative coefficient indicates a negative relationship. All variables were statistically significant and indicate that the likelihood of being in the managerial or professional fields is affected by the individual's level of education, age, gender, English language skill, marital status, type of employer (profit or nonprofit), travel time to work, and year of entry into the United States.

Education is arguably the most critical factor explaining access to managerial and professional occupations. Possessing a college degree is the key that unlocks the door to greater occupational mobility and increased income. The analysis indicates that education, as measured by the number of years of schooling, had a positive coefficient for both Hispanics and non-Hispanic Whites, and it was significant at the 1% level. Controlling for all other variables in the equation, the more years of schooling, the higher the odds of being engaged in a managerial or professional activity over all other types of

work, after controlling for all other variables in the equation. It was the second most important predictor of occupation in the case of Hispanics, and the most important for non-Hispanic Whites.

Our findings on the role of education somewhat contradict Daley (1996), who found that Hispanics and other minorities are more reliant on education and other objective factors for career success. There are two reasons for this discrepancy. First, Daley examined the career paths of minority and female federal employees in his analysis. Our analysis examines the career paths of Hispanics and non-Hispanic Whites and includes federal, nonprofit, and private-sector employees. This suggests that, relative to non-Hispanic Whites, Hispanics seeking to advance their careers in the public sector may rely more on education and other objective criteria for career success; education, although important, is less relevant for Hispanics seeking to advance their careers as managers or professionals generally. Second, in his regression analysis, Daley used current pay grade as his dependent variable. He uses this variable as a proxy for career success, whereas we measure career success by focusing on occupational status. The two sets of findings suggest that salary advancement and occupational advancement among Hispanics may depend on different factors.

As anticipated, as the age of the labor force member increased, so did the chance of being in a professional or managerial occupation, holding other variables constant. Necessary experience for advancement accumulates over time, and a young working population simply lacks the accumulated expertise required to increase the number of managers and professionals. Given the fact that possession of a college degree is the key to achieving professional status, it may be that age can be viewed as a proxy for experience. Age can be viewed as a key factor in being a manager. This variable was significant for both Hispanic and non-Hispanic Whites.

Whether the individual is male or female makes a difference in terms of whether he or she is found in a professional or managerial category relative to all other jobs. For both ethnic groups, the odds increased for women relative to men. Thus, women were more likely than men to be employed in managerial or professional occupations when controlling for all other factors in the equation. Based on the CPS, we see that the proportion of Hispanic females in managerial occupations has gone up from 1.7% in 1990 to 2.6% in 2000. Thus, it is evident that Hispanic females have registered more gains than Hispanic males in terms of access to managerial and professional status. This may be due to the nature of Hispanic immigration over the past 10 years; there are more uneducated Hispanic males in the civilian workforce, driving down the relative proportion of Hispanic males who are managers or professionals. In addition, there is the fact that Hispanic women are gaining more

and better education over time. This has had the effect of boosting the relative proportion of Hispanic females in the workforce, including the proportion of Hispanic women who are professionals and managers.

It was not surprising to find that the fluency in English variable had positive coefficient for both Hispanics and non-Hispanic Whites and was also significant at the 1% level. Thus, the more English proficient the individual was, the higher the likelihood of being engaged in a professional or managerial activity. Communications skills are essential to join the managerial and professional ranks. This variable was the best predictor in the equation for Hispanics, and the third best predictor in the case of non-Hispanic Whites.

Being married also increased the odds of being found in a professional or managerial occupation. Marital status may be viewed by the employer as a sign of stability, responsibility, or greater incentive to perform better as a manager. Many individuals go on to college to obtain professional credentials or degrees after they get married. From CPS, we see that 62.8% of Hispanic managers and professionals are married compared to 68.9% of their non-Hispanic White counterparts. This suggests that marital status may be a contributing factor to achieving managerial status. Because Hispanics tend to be younger, age may also be a factor, along with marital status, explaining the differences.

Another variable included in the model was the number of years the individual had been in the United States. This variable was recoded from the PUMS variable, year of entry in the United States. As expected, the coefficient for this variable was negative for Hispanics and statistically significant. One would expect that the higher the number of years in the United States, the greater the chances for Hispanics to have permanent residence, to network with other people in the community, and to have better exposure to mentoring from other successful professionals. Among Hispanics, the earlier the year of entry in the United States, the higher the likelihood of having a managerial or professional occupation, other things being equal. Interestingly, the relationship was positive for non-Hispanic Whites in the sample. This is not as contradictory as it might seem, however, because it is likely that non-Hispanic White immigrants enter the United States already prepared with a package of skills and social network contacts with which to achieve managerial or professional status.

Another important factor used in the analysis was the type of organization employing Hispanic and non-Hispanic labor. Two dummy variables were created to represent whether a nonprofit or for-profit employer employed the individual. These two variables take into account the demand for managerial and professional labor by profit and nonprofit enterprises. The results show that the dummy variable representing profit employers had a statisti-

Table 3. Independent Variables Ranked in Order of Importance According to the Odds Ratio

	Hispanic			Non-Hispanic White		
	Odds Ratio ^a	Lower	Upper	Odds Ratio ^a	Lower	Upper
Fluency in English	1.780	1.612	1.966	1.39	1.206	1.601
Education	1.481	1.465	1.497	1.689	1.682	1.697
Nonprofit employer	1.271	1.152	1.403	1.62	1.57	1.672
Gender	1.314	1.248	1.384	1.229	1.207	1.252
Marital status	1.226	1.161	1.294	1.232	1.208	1.257
Age	1.016	1.014	1.019	1.014	1.013	1.015
Year of entry in the United States	0.947	0.926	0.97	1.02	1.001	1.039
Travel time to work	1.003	1.002	1.004	1.003	1.003	1.004
For-profit employer	0.525	0.478	0.576	0.797	0.774	0.82

a. 95% confidence interval for odds ratios.

cally significant negative coefficient for Hispanics and non-Hispanic Whites. In contrast, the dummy variable representing nonprofit employment, which includes government, had a statistically significant positive coefficient for both groups. This outcome suggests that, regardless of ethnicity and relative to self-employed status, the chances of having a presence in the managerial and professional occupations decreased for those employed in profit organizations but increased for those employed in nonprofit and public jobs. This is a very interesting result and should be studied further.

The variable of travel time to work in the analysis was included for spatial reasons. As expected, the relationship was positive and statistically significant for Hispanics and non-Hispanic Whites, suggesting that as travel time to work increased, so did the odds of being engaged in a professional or managerial occupation. The magnitude of the coefficients and the corresponding standard errors were similar for both groups. This result simply indicates that access to these specialized occupations requires longer travel time. Because earnings are probably higher in these occupations, labor force members are probably more willing to put up with a longer commute to secure these higher paying jobs.

The independent impact of each variable was also ranked in order of importance by calculating the odds ratio (see Table 3). For Hispanics, the most important variable affecting the likelihood of being a manager or professional was fluency in the English language, followed by education, gender, employment in a nonprofit organization, marital status, age, travel time to work, and year of entry into the United States. Using the coefficients in Table 3 and the mean of all the independent variables in the sample, the odds

of working in a professional or managerial occupation relative to working in all other occupations were estimated for Hispanics and non-Hispanic Whites. It was found that in holding the variables at their mean value, the model predicts that the relative probability of doing professional and managerial work is .06 for Hispanics; by contrast, for non-Hispanic Whites, this probability is .32. Thus, the variables predict the odds of being a manager or professional much more for non-Hispanic Whites than for Hispanics. This finding raises the interesting hypothesis that factors (e.g., mentoring, employee competition, and market imperfections) excluded from the model may be exerting an influence on the presence of Hispanics in the managerial and professional occupations.

The odds of being a manager or professional was significantly higher for Hispanics who had more years of education, who were older, female, more fluent in English, married, and employed in nonprofit organizations, and for those who commuted longer to work, and entered the United States at an earlier year. The analysis confirms the important role played by human capital, demographics, spatial factors, and employer' characteristics in determining the presence of Hispanics and non-Hispanic Whites in managerial and professional occupations.

Discussion

Not surprisingly, individuals who are citizens, older, educated, married, and fluent in English are more likely to find employment as a manager or professional. The regression analysis shows that human capital factors are important predictors of managerial and professional status among Hispanics. We see that both fluency in English and education are important predictors of career advancement for Hispanics. Although much has been written about the importance of education and other human capital factors, less has been said about how private businesses can increase language and education opportunities for their Hispanic employees.

Although education and language are critical factors, other factors such as market imperfections, employee competition, and lack of mentoring resources may be important for Hispanics. As suggested by previous studies, lack of access to mentoring and social network resources among Hispanics appears to be a persistent problem, and qualified Hispanic candidates for management and professional positions in particular industrial sectors may confront significant barriers to advancement within their firms.

Other things being equal, it seems clear that the lack of access to the necessary training and development resources, which track employees through the pipeline, is a problem for career advancement among Hispanics. Mentoring

thus emerges as a crucial feature of the corporate experience of Hispanics. Yet this is precisely the area for which systematic research is scarce. Future studies can pursue a fruitful line of inquiry by focusing on this factor.

There are three broad areas in which immediate action can be taken to improve Hispanic representation in managerial and professional occupations. First, educational opportunities for Hispanics need to be expanded, especially those that target high school students with the potential to succeed in college. This can be accomplished by encouraging businesses to offer English language training and provide tuition credits and time off for pursuit of a college degree. Second, broader ties between corporations and the Hispanic community need to be established to help corporations identify talented Hispanics eligible for managerial or professional employment. Businesses can accomplish this by organizing career fairs and other outreach programs in Hispanic neighborhoods and through Hispanic media outlets. Third, mentoring opportunities for Hispanics need to be increased. Hiring more Hispanic managers and providing cultural training for existing managers will build up a mentoring infrastructure for Hispanics in private business. Given the rapid increase of Hispanics in the workforce in the 1990s, providing more mentoring opportunities for Hispanics will lead to greater profitability for private businesses in the future. Given the demographic shift, encouraging businesses to pay more attention to the problem of Hispanic underrepresentation in managerial and professional occupations is smart business.

References

- Aldrich, J. H., & Nelson, F. (1984). *Linear probability models and logit models*. Beverly Hills, CA: Sage.
- Avalos, M. (1996). Gender inequality: Sorting out the effects of race/ethnicity and gender in the Non-Hispanic White male-Latino female earnings gap. *Sociological Perspectives*, 39, 497-515.
- Chapa, J., & Wacker, C. (2000). Latino unemployment: Current issues and future concerns. In S. Pérez (Ed.), *Moving up the economic ladder: Latino workers and the nation's future prosperity*. Washington, DC: National Council of La Raza.
- Contreras, A. R. (2002). The impact of immigration policy on education reform: Implications for the New Millennium. *Education and Urban Society*, 34(2), 134-155.
- Daley, D. M. (1996). Paths of glory and the glass ceiling: Differing patterns of career advancement among women and minority federal employees. *Public Administration Quarterly*, 20, 143-162.
- Farley, J. E. (1987). Disproportionate Black and Hispanic unemployment in U.S. metropolitan areas: The roles of racial inequality, segregation and discrimination in male joblessness. *American Journal of Economics and Sociology*, 46, 129-150.
- Fry, R. (2003). *Hispanic youth dropping out of U.S. schools: Measuring the challenge* (Report). Washington, DC: Pew Hispanic Center.

- Glaeser, E. L., & Kahn, M. E. (2001). *Decentralized employment and the transformation of the American city* (National Bureau of Economic Research Working Papers: Working Paper W8117). Retrieved from <http://papers.nber.org/papers/W8117>
- Glass Ceiling Commission. (1995). *Good for business: Making full use of the nation's human capital*. Washington, DC: Department of Labor.
- Hirsch, B. T., & Schumacher, E. J. (1992). Labor earnings, discrimination and the racial composition of jobs. *Journal of Human Resources*, 27, 4.
- Humphreys, J. (1998, November-December). Hispanic buying power by place of residence: 1990-1999. *Georgia Business and Economic Conditions*, 58.
- Ihlanfeldt, K. R. (1993). Intra-urban job accessibility and Hispanic youth employment rates. *Journal of Urban Economics*, 33, 254-271.
- Knouse, S. B. (1992). The mentoring process for Hispanics. In S. B. Knouse, P. Rosenfeld, & A. L. Culbertson (Eds.), *Hispanics in the workplace*. Newbury Park, CA: Sage.
- Korn/Ferry International. (1998). *Diversity in the executive suite: Creating successful career paths and strategies*. Los Angeles: Author.
- Leonard, J. S. (1996). Wage disparities and affirmative action in the 1980s. *American Economic Review*, 86, 285-289.
- Maddala, G. (1983). *Limited dependent and qualitative variables in econometrics*. New York: Cambridge University Press.
- Mason, P. L. (1995). Race, competition and differential wages. *Cambridge Journal of Economics*, 19, 545-567.
- Melendez, E., Carre, F., & Holvino, E. (1995). Latinos need not apply: The effects of industrial change and workplace discrimination on Latino employment. *New England Journal of Public Policy* [Special Issue: "Latinos in a Changing Society," Part I].
- Mora, M. T. (1998). Did the English deficiency earnings penalty change for Hispanic men between 1979 and 1989? *Social Science Quarterly*, 79, 581-594.
- Morales, R. (2000). What a Latino workers finds in the U.S. labor market. In S. M. Pérez (Ed.), *Moving up the economic ladder: Latino workers and the nation's future prosperity*. Washington, DC: National Council of La Raza.
- Raphael, S., & Stoll, M. (2000). *Can boosting minority car-ownership rates narrow inter-racial employment gaps?* (Working Papers W00-002). Berkeley, CA: Berkeley Program on Housing and Urban Policy.
- Reimers, C. W. (1984). The wage structure of Hispanic men: Implications for policy. *Social Science Quarterly*, 65, 410-416.
- Siles, M., & Pérez, S. (2000). What Latino workers bring to the labor market: How human capital affects employment outcomes. In S. M. Pérez (Ed.), *Moving up the economic ladder: Latino workers and the nation's future prosperity*. Washington, DC: National Council of La Raza.
- Smith, J. P. (1983). Affirmative action and the racial wage gap. *American Economic Review*, 83(2), 79-84.
- Smith, J. P., & Edmonston, B. (Eds.). (1997). *The new Americans: Economic, demographic, and fiscal effects of education* (pp. 183-376). Washington, DC: National Academy Press.
- Stoll, M. A., Holzer, H. J., & Ihlanfeldt, K. R. (2000). Within cities and suburbs: Racial residential concentration and the spatial distribution of employment opportunities across sub-metropolitan areas. *Journal of Policy Analysis and Management*, 19(2), 207-231.

Kusum Mundra, Ph.D., is an assistant professor in the Economics Department at San Diego State University. Her research interests are econometrics, applied econometrics, immigration, international trade stochastic efficiency, and discrimination measurements.

Andrew Moellmer is a political science doctoral candidate at Tulane University. He is currently employed as an oversight associate with the Research and Oversight Council on Worker's Compensation, a state agency in Austin, Texas.

Waldo Lopez-Aqueres, Ph.D., serves as director for The Tomás Rivera Policy Institute's economic policy research. He has extensive experience in research and analysis related to minority-owned businesses, housing, transportation, economic impact analysis, and program evaluation.