

**The Economic Consequences  
of Disability Status:  
A Comparison Between  
Anglo, Black, and Latino Men**

by  
Anna Santiago, University of Michigan

**Research Report No. 14  
June 1996**

**Julian Samora Research Institute**  
Michigan State University  
301 Nisbet Building  
1407 S. Harrison Road  
East Lansing, MI 48823-5286

**Phone:** (517) 432-1317  
**Fax:** (517) 432-2221  
**E-mail:** [jsamorai@msu.edu](mailto:jsamorai@msu.edu)  
**Web:** [www.jsri.msu.edu](http://www.jsri.msu.edu)

The Midwest's premier Hispanic center undertaking research on issues of relevance to the Hispanic community in the social sciences and economic and community development. JSRI is a unit of the College of Social Science and is affiliated with various units on the Michigan State University campus.

MICHIGAN STATE  
UNIVERSITY

Michigan State University  
East Lansing, Michigan



Julian Samora Research Institute  
Refugio I. Rochín, Director

### SUGGESTED CITATION

Santiago, Anna M., *The Economic Consequences of Disability Status: A Comparison Between Anglo, Black, and Latino Men*, JSRI Research Report No. 14, The Julian Samora Research Institute, Michigan State University, East Lansing, Michigan, 1996.

**Abstract:** Utilizing data from the 1990 Panel Study of Income Dynamics Preliminary Release File, this paper examines patterns of disability and estimates the differential costs attributed to disability status for Anglo, Black and Latino men. The analysis reveals considerable variation in the prevalence of disability. When examining prevalence across racial and ethnic groups, Puerto Rican men have the highest rates of disability, regardless of the indicator used to measure disability; Anglo men report the lowest rates. Multivariate analyses reveal that poor health and the presence of a work disability were significant predictors of the labor force participation and earnings of men. These analyses also suggest that the economic well-being of Blacks and Latinos is further constrained by the costs associated with carrying "additional minority" statuses, lending partial support to the notion of double or triple jeopardy.

*An earlier version of this paper was presented at the 1994 Annual Meetings of the American Sociological Association, Los Angeles, Calif., Aug. 5, 1994. This research was partially supported by a training grant from the Institute for Social Research at The University of Michigan, whose support is gratefully acknowledged. Helpful comments and suggestions were provided on an earlier draft by John Bound, Greg Duncan, Jim Lepkowski, Clara Muschkin and Vilma Ortiz.*

**About the Author:** Anna M. Santiago currently is an Associate Research Scientist at the University of Michigan. She is also the Director of Research at the Center for the Education of Women and is a Research Affiliate at the Population Studies Center. She earned her Ph.D. in Urban Social Institutions at the University of Michigan and completed a NICHD/Rockefeller postdoctoral fellowship in demography and poverty studies at the University of Michigan. Santiago's research interests are in the areas of residential segregation, poverty and inequality, and the economic consequences of disability status for minority populations.



MICHIGAN STATE  
UNIVERSITY

Michigan State University  
East Lansing, Michigan



Julian Samora Research Institute  
Refugio I. Rochín, Director

### SUGGESTED CITATION

Santiago, Anna M., *The Economic Consequences of Disability Status: A Comparison Between Anglo, Black, and Latino Men*, JSRI Research Report No. 14, The Julian Samora Research Institute, Michigan State University, East Lansing, Michigan, 1996.

**Abstract:** Utilizing data from the 1990 Panel Study of Income Dynamics Preliminary Release File, this paper examines patterns of disability and estimates the differential costs attributed to disability status for Anglo, Black and Latino men. The analysis reveals considerable variation in the prevalence of disability. When examining prevalence across racial and ethnic groups, Puerto Rican men have the highest rates of disability, regardless of the indicator used to measure disability; Anglo men report the lowest rates. Multivariate analyses reveal that poor health and the presence of a work disability were significant predictors of the labor force participation and earnings of men. These analyses also suggest that the economic well-being of Blacks and Latinos is further constrained by the costs associated with carrying "additional minority" statuses, lending partial support to the notion of double or triple jeopardy.

*An earlier version of this paper was presented at the 1994 Annual Meetings of the American Sociological Association, Los Angeles, Calif., Aug. 5, 1994. This research was partially supported by a training grant from the Institute for Social Research at The University of Michigan, whose support is gratefully acknowledged. Helpful comments and suggestions were provided on an earlier draft by John Bound, Greg Duncan, Jim Lepkowski, Clara Muschkin and Vilma Ortiz.*

**About the Author:** Anna M. Santiago currently is an Associate Research Scientist at the University of Michigan. She is also the Director of Research at the Center for the Education of Women and is a Research Affiliate at the Population Studies Center. She earned her Ph.D. in Urban Social Institutions at the University of Michigan and completed a NICHD/Rockefeller postdoctoral fellowship in demography and poverty studies at the University of Michigan. Santiago's research interests are in the areas of residential segregation, poverty and inequality, and the economic consequences of disability status for minority populations.



# The Economic Consequences of Disability Status: A Comparison Between Anglo, Black, and Latino Men

## Table of Contents

Abstract .....	ii
Introduction .....	1
Data and Sample .....	2
The Impact of Disability Status on Labor Force Participation and Income .....	5
Measuring the Impact of Disability Status on the Economic Well-being of Latinos.....	7
The Impact of Disability on Labor Market Outcomes.....	8
The Impact of Disability on Economic Well-being .....	12
Annual Earnings.....	12
Summary and Conclusions .....	13
References .....	15

*All rights reserved.*

*No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, without permission of the Julian Samora Research Institute or the report's author(s).*

*Copies of this report may be obtained by contacting JSRI at:*

*Michigan State University  
112 Paolucci Building  
East Lansing, MI 48824-1110  
(517) 432-1317 • FAX (517) 432-2221  
E-mail: jsamorai@msu.edu*

*©1996 JSRI Research Report No. 14*

The **Julian Samora Research Institute** is the Midwest's premier policy research and outreach center to the Hispanic community. The Institute's mission includes:

- *Generation of a program of research and evaluation to examine the social, economic, educational, and political condition of Latino communities.*
- *Transmission of research findings to academic institutions, government officials, community leaders, and private sector executives through publications, public policy seminars, workshops, and consultations.*
- *Provision of technical expertise and support to Latino communities in an effort to develop policy responses to local problems.*



MICHIGAN STATE  
UNIVERSITY

Michigan State University  
East Lansing, Michigan



Julian Samora Research Institute  
Refugio I. Rochín, Director

### SUGGESTED CITATION

Santiago, Anna M., *The Economic Consequences of Disability Status: A Comparison Between Anglo, Black, and Latino Men*, JSRI Research Report No. 14, The Julian Samora Research Institute, Michigan State University, East Lansing, Michigan, 1996.

**Abstract:** Utilizing data from the 1990 Panel Study of Income Dynamics Preliminary Release File, this paper examines patterns of disability and estimates the differential costs attributed to disability status for Anglo, Black and Latino men. The analysis reveals considerable variation in the prevalence of disability. When examining prevalence across racial and ethnic groups, Puerto Rican men have the highest rates of disability, regardless of the indicator used to measure disability; Anglo men report the lowest rates. Multivariate analyses reveal that poor health and the presence of a work disability were significant predictors of the labor force participation and earnings of men. These analyses also suggest that the economic well-being of Blacks and Latinos is further constrained by the costs associated with carrying "additional minority" statuses, lending partial support to the notion of double or triple jeopardy.

*An earlier version of this paper was presented at the 1994 Annual Meetings of the American Sociological Association, Los Angeles, Calif., Aug. 5, 1994. This research was partially supported by a training grant from the Institute for Social Research at The University of Michigan, whose support is gratefully acknowledged. Helpful comments and suggestions were provided on an earlier draft by John Bound, Greg Duncan, Jim Lepkowski, Clara Muschkin and Vilma Ortiz.*

**About the Author:** Anna M. Santiago currently is an Associate Research Scientist at the University of Michigan. She is also the Director of Research at the Center for the Education of Women and is a Research Affiliate at the Population Studies Center. She earned her Ph.D. in Urban Social Institutions at the University of Michigan and completed a NICHD/Rockefeller postdoctoral fellowship in demography and poverty studies at the University of Michigan. Santiago's research interests are in the areas of residential segregation, poverty and inequality, and the economic consequences of disability status for minority populations.





## INTRODUCTION

Of the estimated 43 million persons with disabilities in the United States, approximately one out of six were Black and one out of ten were Latino (Kirkpatrick, 1994). While prevalence rates are highest among Blacks, these rates are quite similar for Latinos and Anglos.<sup>1</sup> However, the number of Latinos with disabilities increased by 58 percent in the 1980s while the number of Anglos with disabilities declined (see Santiago and Villarruel, forthcoming). As we approach the close of this century, it is anticipated that the Black and Latino population with disabilities will rise sharply. Sustained high rates of population growth and greater exposure to health and occupation risks are viewed as the primary factors contributing to this increase.

Previous research on earnings and labor force participation (e.g., Luft, 1978; Sullivan, 1978; Berkowitz and Hill, 1989; Wolfe and Haveman, 1990; Yelin, 1992) has shown that persons with disabilities are less likely to be employed and have lower earnings than the non-disabled. Moreover, a number of these studies have reported significant racial differences in the impact of disability on labor force participation and earnings. Luft (1978) found that Black men and women were more likely to leave the labor force, work fewer hours or move into different jobs because of work disabilities than their white counterparts. Recent studies (Yelin, 1992; Burkhauser, Haveman and Wolfe, 1993) document that the erosion of economic well-being of persons with disabilities during the 1970s and 1980s was particularly severe for Blacks with disabilities. Bound, Schoenbaum, and Waidmann (1994) report that racial differences in the health status and functional ability of working-aged men explain a substantial fraction of the Black/Anglo differences in labor force participation. Further, Baldwin and Johnson (1994) report that wage discrimination against men with disabilities, restricts not only the labor market participation of disabled men, but also the mobility within the labor market for those who continue to participate.

<sup>1</sup>Latino is used in this study to refer to persons who identify themselves as being of Mexican, Puerto Rican, or Cuban descent. Anglos are white persons of European descent. In the PSID, Latinos were asked to self-identify Latino origin based on a series of indicators. We define this population for this study using the question in the PSID that asks the individual to identify Latino heritage.

How do Latino men fit into this picture? Despite the growth of the disabled Latino population, relatively little is known about the economic consequences of disability status for Latinos. In a 1989 study of labor force status of persons with work disabilities, the U.S. Bureau of the Census reported that only one out of ten Latinos with disabilities were employed full-time in the labor force. For those who were working full-time, Latinos earned approximately 73 percent of the earnings of white persons with disabilities. Moreover, the chances of being unemployed were quite high for Latinos. Nearly three out of ten Latino men were unemployed in 1988 (U.S. Bureau of the Census, 1989).

In one of the few studies to empirically document the economic costs of disability status for Latinos, Angel (1984) found that Latino men with disabilities suffered greater loss of work and income than their non-Latino counterparts. The families of Latinos with disabilities were also more likely to live in poverty. In addition, Angel (1984) reported significant differences in the impact of disability status for Mexican, Puerto Rican and Cuban men. Mexican and Puerto Rican men had lower rates of full-time employment and experienced substantial declines in hourly wages relative to Anglos with disabilities. Puerto Ricans were found to be particularly disadvantaged relative to the other Latino subgroups, sustaining higher losses in earnings and work hours and more reliant on welfare benefits.

The present analysis extends this work by examining the impact of disability status on the economic well-being of Anglo, Black, Mexican, Puerto Rican and Cuban men. Given their relatively low socioeconomic status and greater exposure to health and occupation risks, patterns of disadvantage among Blacks and Latinos should be exacerbated by disability status. Existing research suggests that regardless of race or ethnicity, persons with disabilities would be less likely to be employed, have lower earnings, have greater risks of falling into poverty and are more dependent on social welfare programs than their non-disabled counterparts. Given the different trajectories of incorporation within the workforce experienced by people of color, there also should be considerable differences between Anglos, Blacks and Latinos in terms of the prevalence of disability and the impact that disability has on economic well-being. An additional dimension involves the notion of empirically testing the effect of multiple minority status to measure the additional economic costs that are attached to individuals who face double or triple jeopardy based on ascribed personal characteristics. These issues will be examined in more detail in the present study.

## DATA AND SAMPLE

Data for this study were obtained from the 1990 Panel Study of Income Dynamics (PSID) Preliminary Release File. The PSID is a nationally representative longitudinal survey of approximately 7,000 households that was initiated in 1968. In the original cohort, oversamples were drawn for Blacks and disadvantaged Anglos. In 1990, 2,043 Latino households, which were originally part of the 1989 Latino National Political Survey (LNPS), were incorporated within the larger Panel Study of Income Dynamics. Each year, an adult respondent, usually the householder, is asked a set of core questions focusing on family composition, labor force status, jobs and earnings, income and assets, schooling, health limitations and residential location (for further discussion see Hill, 1992).

This study uses a subset of the entire sample from the 1990 PSID Early Release file. Data were extracted for all Anglo, Black, Mexican, Puerto Rican and Cuban men who were between the ages of 18 and 64 in 1990. The sample was restricted further to those men who were household heads. These restrictions were made because detailed disability information and the most detailed information on work and earnings are reported for household heads in the PSID.

### *Measuring Disability Status*

Who is disabled? How is disability measured? How accurate are our current measures of disability? These are questions that have been part of a broader discussion of the methodological issues and policy implications of the measurement of disability status (i.e. Haveman and Wolfe, 1985; Angel and Gronfein, 1988). At issue methodologically is the extent to which subjective measures of disability (i.e. self-reports) are influenced by factors which are endogenous to the empirical models tested in multivariate analyses. Several studies (Angel, 1984; Angel and Gronfein, 1988; Angel and Guarnaccia, 1989) suggest that subjective health measures are influenced by factors such as culture and social class status. Therefore, the use of these measures in empirical models tend to mask the effects of economic variables on labor force behavior (Haveman and Wolfe, 1985). As a result, there is a degree of uncertainty as to what indicators such as disability status are really measuring. This compounds the problems of inaccuracy that already are inherent in subjective measures. Haveman and Wolfe (1985) argue for the need to develop objective measures which account for functional limitations, severity of impairment and the occupational tasks linked to health limitations.

A study conducted by Santiago, Villarruel and Leahy (Forthcoming) on perceptions of disability and wellness illustrates these concerns. In a survey of Latinos with disabilities, they found that there was considerable variation among Latino subgroups in defining disabling conditions or handicaps. Further, they found that respondent perceptions about the severity of disability differed considerably from established program measures. While approximately one-third of the Latino respondents in the sample considered themselves to be severely disabled, nearly 90 percent of them would have been identified as such based on agency criteria. How disabling conditions are perceived has important policy implications. Haveman and Wolfe (1985) document how these perceptions shape decisions regarding employment, the utilization of health and rehabilitation services, and participation in disability-related social welfare programs. Santiago and Villarruel (Forthcoming) found that the use of rehabilitative services among Latinos was conditioned, in part, by personal assessments about the severity of disability and the extent to which respondents felt that existing services would meet personal needs.

In the PSID, there are a number of measures which can be utilized to measure disability status (see Table 1). Four of the measures are respondent self-reports of the health status of household heads. These include reported health status in 1990, which reflects the extent to which respondents ranked their health as fair or poor; the presence of a limiting physical or nervous condition affecting the ability to work; an indicator of the severity of work limitation; and the work hours lost because of personal illness. While the question on the number of work hours lost to illness is more objective, it is still conditioned by the individual's perception of what constitutes illness.

To try to address the concerns raised by Haveman and Wolfe (1985), several more objective measures were also examined. Each of these measures reflect program participation so it is assumed that disability status has been determined by virtue of meeting program eligibility requirements. These measures include an indicator for receipt of tax exemptions for blindness, an indicator of reciprocity of Social Security disability benefits, and a composite measure indicating participation in programs for persons with disabilities. These programs included the tax exemption program for the blind, Social Security disability pension program, the Supplemental Security Income program and the Worker's Compensation program. Participation in any one of these programs would indicate the presence of a disabling condition.

**Table 1. Alternative Measures of Disability Status in PSID**

**SELF-REPORTED MEASURES**

*General Health Status in 1990.*

Respondents were asked to rate health as excellent, very good, good, fair or poor.

*Presence of Limiting Physical/Nervous Condition.*

Respondents were asked to identify whether they had any physical or nervous condition limiting the type of work or amount of work performed.

*Severity of Work Limitation.*

Respondents were asked to identify the severity of health condition which would limit ability to work.

*Work Hours Lost Because of Illness.*

Respondent report of annual work hours lost because of illness.

**OBJECTIVE MEASURES**

*Extra Exemptions for Blind.*

Respondent report of additional tax exemptions because of blindness.

*Receipt of Social Security Disability Benefits.*

Respondents were asked to identify the type of Social Security benefits.

*Participation in Program for Persons with Disabilities.*

Indicator derived from responses to questions on receipt of tax exemptions for blindness, receipt of Social Security disability benefits, receipt of Supplemental Security income, and receipt of Worker's Compensation. If respondent participated in any one of the above programs, they were considered to be disabled using federal government criteria.

Table 2 provides summary information regarding the prevalence of disabling conditions across racial, ethnic and gender lines. Results are weighted in order to provide national estimates for each of the different subpopulations. Of interest, I found that PSID respondents reported higher rates of work disabilities than what has previously been reported from the Census.<sup>2</sup>

The prevalence of disability varied significantly by ethnicity and Latino origin. These findings show that Anglo, Black and Mexican men have similar prevalence rates (14 percent). For Cubans, prevalence was slightly higher with 15 percent of the men reporting the presence of a work disability. However, the highest prevalence rates were reported for Puerto Rican men, regardless of the disability measure used. Among Puerto Ricans, nearly one third of the men reported a work disability.

When disability status is measured using general reports of health status, a substantially higher proportion of Blacks and Latinos consider themselves to be in fair or poor health relative to Anglos. While approximately 10 percent of Anglo men reported fair or poor health, slightly more than 20 percent of Black and Cuban men and 25 percent of Mexican men indicated low health status. Among Puerto Rican men this proportion rose to nearly one third. Puerto Rican men are the most likely to report severe work limitations (13 percent). When measures of work hours lost are utilized, Puerto Rican men reported the highest losses with an average loss of nearly two weeks of work per year to personal illness.

<sup>2</sup>These figures are based on responses to the question regarding whether the individual had a physical or nervous condition that limited their ability to do certain types of work. This question in the PSID most closely resembles the question asked by the U.S. Census regarding the presence of a work disability.



**Table 2. Variations in Reported Disability Status of Men 18-64 by Race and Latino Descent<sup>1</sup>**

	<i>Anglo</i>	<i>Black</i>	<i>Latino</i>	<i>Mexican</i>	<i>Puerto Rican</i>	<i>Cuban</i>
<b><i>Self Reported Measures</i></b>						
Percent reporting fair health	6.2	12.7	18.0	18.1	21.0	11.3
Percent reporting poor health*	1.9	4.6	7.0	6.2	12.3	8.1
Percent reporting the presence of a work limitation*	13.7	14.0	15.5	13.5	30.6	14.7
Percent reporting moderate work limitations*	12.9	12.3	13.2	11.4	26.0	13.5
Percent reporting severe work limitations*	3.6	8.1	7.1	6.3	13.1	7.0
Annual work hours lost because of personal illness	54.9	48.6	53.5	50.9	72.7	54.0
<b><i>Program Participation Measures</i></b>						
Percent reporting extra exemptions for blindness	.6	1.0	1.5	1.7	1.0	.3
Percent receiving disability benefits*	1.3	3.0	1.5	1.0	3.9	4.4
Percent participating in programs for disabled*	4.3	6.4	6.5	5.0	16.5	8.5
Unweighted N	2911.00	1279.00	1121.00	699.00	173.00	255.00
<sup>1</sup> Results were weighted using 1990 sample weights. *Differences across groups are significant at the $p < .05$ level.						

To some extent, these variations may reflect ethnic and class differences in the reporting of health status. Previous research, (Angel, 1984; Angel and Guarnaccia, 1989) has documented that Puerto Ricans are more likely than Mexicans to report symptoms of physical and psychological distress. Also, self-reports of poor health status are much higher among poor individuals. However, as Angel and Guarnaccia (1989) stress, this evidence needs to be interpreted cautiously since diminished health status is highly correlated with economic deprivation. Thus, the higher prevalence rates among Puerto Ricans may actually reflect the precarious economic situation of this population. Likewise, if workers feel that they are not protected by programs for persons with disabilities and they need to continue working, they may be less inclined to report a disability out of fear of jeopardizing current and future employment.

When measures of program participation are used, we find that reported rates of disability are much lower. Less than five percent of the men received tax exemptions for blindness or Social Security disability benefits. Even when program participation is extended to include the Supplemental Security Income and Worker's Compensation programs, prevalence rates are only about half of the self-reported rates for work disabilities. Again, Puerto Rican men have the highest prevalence rates based on program participation: 17 percent of the men received benefits from programs targeted at persons with disabilities. Since participation in these programs is based on meeting a series of eligibility requirements — only one of which is the presence of a disabling condition — the lower prevalence of disability may simply mean that persons with disabilities have a more difficult time in meeting program requirements.

Thus, there is a considerable range of response to the PSID questions on disability status. For analyses on the economic consequences of disability status, it is important to decide which of the measures will be utilized. In this paper, self-reports of work disability are used in the subsequent multivariate analyses since more objective measures would tend to underestimate the extent of disability among particular Latino groups and self-reports of overall health status would tend to overestimate actual disability. Also, the self-report of work disability closely corresponds to Census indicators of disability status, which facilitates comparisons of results with previous studies. Finally, since individual perceptions of disability status are crucial determinants of economic behavior, self-reports of work disability allow us to measure how these perceptions of diminished health affect labor market behavior.<sup>3</sup>

### THE IMPACT OF DISABILITY STATUS ON LABOR FORCE PARTICIPATION AND INCOME

Table 3 documents the effects of disability status on the economic well-being of men. For comparative purposes, results are presented for Anglos, Blacks and Latinos in the aggregate as well as separately for the three Latino subgroups. Again, weighted results are presented so we can generalize to the national population. For all groups, persons with disabilities tended to be older than their non-disabled counterparts. They also have significantly lower levels of educational attainment — on average, one to two years less than persons without disabilities. In particular, Mexicans and Puerto Ricans with disabilities reported extremely low levels of educational attainment (approximately 7 years for Mexicans and 9 years for Puerto Ricans). While Anglos and Blacks in the sample are native born, the majority of Latinos are immigrants. Latinos with disabilities were more likely to be Spanish dominant and have resided in the U.S. longer than their non-disabled counterparts.

For all of the groups in this study, disability greatly reduces their labor force participation. When employed, disability also reduces the returns from work. Among men, Anglos with disabilities had the highest rates of labor force participation (64 percent), while Blacks were the least likely to be employed (27 percent). Mexican and Puerto Rican men with disabilities also reported extremely low levels of labor force participation. Only 43 percent of Mexican men and 46 percent of Puerto Rican men were employed — less than half of their non-disabled counterparts.

When employed, Black and Latino men with disabilities worked fewer hours and had lower earnings than Anglo men with disabilities as well as non-disabled minorities. While Anglo men with disabilities worked an average of 1615 hours and had mean earnings in excess of \$17,000, Black men with disabilities had the lowest reported work hours (834) and annual wages (\$6,525). Cuban men with disabilities had the lowest hourly wages (\$6.30). Although disability status greatly reduced the earnings of all men with disabilities, disabled Anglo men had earnings which, on average, were 53 percent of the earnings of non-disabled Anglos. Further, while Anglos with disabilities experienced a marked disadvantage relative to non-disabled Anglos, they still were in a position of advantage relative to minority men. The earnings of disabled Anglo men approximated those of non-disabled Black and Latino men. In contrast, disabled Puerto Rican and Cuban men earned less than half of the wages of their non-disabled counterparts and from one-fourth to one-third the earnings of non-disabled Anglo men. Among Latino men with disabilities, Mexicans reported the highest wage income (\$11,056), which in part reflects the higher number of hours worked.

Perhaps because of their selectivity into the labor force, disabled workers were less likely to be low earners than their non-disabled counterparts.<sup>4</sup> Nonetheless, approximately one-quarter of Anglo, Black and Latino men with disabilities in the sample were low wage earners in 1989. Of interest, the fraction of low earners among Puerto Rican men is significantly lower than for the other groups. In part, this may underscore their selectivity into the labor force with those who are most likely to be low

<sup>3</sup>However, the concerns of Angel (1984) and Haveman and Wolfe (1985) regarding the influence of ethnicity and class on self-reports of disability are heeded. In order to test for these effects, separate regressions were estimated to examine the effects of race, Latino origin, acculturation and socioeconomic status on the presence or absence of a self-reported work disability. The results indicate that poor men were 1.5 times more likely to report a disability relative to the nonpoor. However when race was controlled, poor Black men had 56 percent lower odds of reporting a work disability. Among Latinos, Puerto Rican men had 5.5 times higher odds of reporting a work disability than Cubans who serve as the reference group; Mexican men who were poor had 77 percent lower odds of reporting a work disability. Finally, Latino men who indicated that they were neither white nor black (other race) had 1.5 times higher odds of reporting a work disability than white Latinos.

<sup>4</sup>Low earners are defined by the U.S. Census as those individuals who are employed but have annual earnings that are less than \$12,000 - the poverty threshold for a family of four in 1990.

**Table 3. Weighted Characteristics of Disabled and Non-Disabled Men Aged 18-64 by Race and Latino Descent, 1990**

	Anglo Non-Disabled	Black Non-Disabled	Latino Non-Disabled	Mexican Non-Disabled	Puerto Rican Non-Disabled	Cuban Non-Disabled						
<b>Demographic Characteristics</b>												
Average age	44.4*	39.2	44.6*	36.5	44.1*	37.4	43.3*	36.6	45.3*	38.4	49.8*	46.0
Mean years of schooling completed	12.4*	13.6	11.3*	12.0	7.9*	8.9	7.5*	8.6	8.6*	10.4	9.9*	11.3
Percent married	81.0	82.0	70.0	61.0	91.0	88.0	93.0	89.0	84.0	87.0	98.0	87.0
Percent Spanish speaking	0.0	0.0	2.0*	0.0	63.0	60.0	58.0	60.0	70.0*	51.0	92.0*	74.0
Percent immigrant	0.0	0.0	0.0	0.0	59.0	62.0	57.0	61.0	57.0	58.0	94.0	85.0
Years in the U.S.	n.a	n.a	n.a	n.a	11.5	9.9	10.9	9.1	12.3	13.7	15.0	14.2
<b>Labor Force Characteristics</b>												
Percent employed	64.0*	92.0	27.0*	84.0	44.0	90.0	43.0*	90.0	46.0*	91.0	54.0*	92.0
Average annual work hours in 1989	1615.4*	2239.9	833.5*	1900.2	1289.4*	2022.0	1401.5*	2013.6	918.8*	2027.6	1299.7*	2124.5
Average hourly wages in 1989 (dollars)	10.6*	14.8	7.9	10.4	6.3*	9.2	6.5*	8.9	5.8*	11.5	5.6*	10.2
Average annual wages in 1989 (\$1000s)	17.0*	32.1	6.5*	17.9	10.8*	17.7	11.1*	17.0	10.4*	23.0	8.5*	20.0
Percent low earners	27.4*	19.2	23.4	27.8	23.6*	32.9	25.3*	34.8	10.7	17.8	49.2	28.7
<b>Participation in Government Programs</b>												
Percent receiving AFDC income	1.0	0.0	0.0	0.0	4.0*	1.0	3.0*	0.0	5.0	3.0	17.0*	0.0
Percent receiving SSI income	2.0*	0.0	11.0*	0.0	5.0*	0.0	2.0*	0.0	11.0*	1.0	9.0*	0.0
Percent receiving other welfare	1.0*	0.0	4.0*	1.0	4.0*	1.0	3.0	1.0	6.0	1.0	0.0	1.0
Percent receiving Social Security	13.0	2.0	33.0*	2.0	19.0*	1.0	18.0*	1.0	19.0*	1.0	25.0*	2.0
Percent receiving VA income	8.0*	1.0	13.0*	1.0	2.0*	0.0	2.0*	0.0	1.0	1.0	0.0	0.0
Percent receiving Workers Compensation	10.0*	1.0	5.0*	1.0	8.0*	2.0	8.0*	1.0	6.0	10.0	7.0	2.0
Unweighted N	405	2506	175	1104	188	939	98	601	55	118	37	216

\*Differences between groups (disabled v. non-disabled) are significant at the  $p < .05$  level.

earners deciding not to enter the labor force at all. However, it is important to note that the Puerto Rican sample of the PSID has relatively high socioeconomic status. In contrast, the relatively high fraction of Cuban men with disabilities who are low earners (49 percent) reflect differences in the structure of this population: the Cubans in this sample represent an older, immigrant cohort relative to the other Latino groups.

For persons with disabilities who were out of the labor force, government-sponsored income support and social insurance programs were significant sources of income. Black men with disabilities had

the highest rates of participation in the Supplemental Security Income (SSI), Social Security and Veterans Administration pension programs. One third of all disabled Black men were receiving Social Security; 11 percent collected SSI benefits and 13 percent were receiving VA pensions. Cuban men with disabilities had the highest AFDC participation rate (17 percent) and Puerto Rican men had the highest rate of other welfare receipt (6 percent). One out of ten Anglo men reported receipt of Workers Compensation — twice the rate for Blacks and Puerto Ricans and 25 percent higher than the rate for Mexicans, suggesting that Anglos were employed in jobs with greater coverage in this program.



## MEASURING THE IMPACT OF DISABILITY STATUS ON THE ECONOMIC WELL-BEING OF LATINOS

The empirical models in this study focus on examining the effects of disability status on several labor market outcomes (employment status, work hours) and economic outcomes (hourly earnings and annual wages). Separate regression equations were estimated for Latino and non-Latino men following the assumption that the underlying processes vary by race and ethnicity. The regressions for employment status were computed for all men between the ages of 18 and 64 since the presence or absence of a disabling condition is expected to have a significant impact on an individual's decision to work. This yielded a sample of 2,919 non-Latino men and 1,099 Latino men. For the equations predicting work hours, hourly earnings, and annual wages, the regressions were restricted to persons who worked one or more hours and had positive earnings in 1989. The resulting sample sizes were 2,872 non-Latino men and 1,012 Latino men. For all analyses, the non-Latino sample was restricted to Anglos and Blacks. The Latino equations included only persons of Mexican, Puerto Rican or Cuban descent from the 1990 PSID sample.

*Labor Market Outcomes.* Two variables are used to measure labor market outcomes: employment status and annual work hours in 1989. Employment status (EMPLOYED) is a dichotomous variable indicating whether the individual had been employed during 1989. Work hours (LHOURS) refers to the total number of hours worked in 1989. The natural logarithm of this variable is used as the outcome measure.

*Economic Outcomes.* Two economic measures, which are conditioned on labor force participation, are also examined. These include hourly earnings and annual wages from earnings in 1989. Hourly earnings (LHRWAGE) are measured as the natural logarithm of the average hourly earnings of the head in 1989. Earnings (LWAGES) reflects the natural logarithm of the individual's annual earnings from wages in 1989.

In this study, it is hypothesized that labor force participation and earnings are influenced by four sets of factors: the overall health status of the individual, which conditions perceptions about the ability to work; the disability status of the individual, which can restrict the type or amount of work that can be performed; the existence of additional minority statuses, which can add to the costs of a disabling condition; and the human capital possessed by the individual. A glossary of variable names and

descriptions is provided in Appendix A. To account for differences in the probability of selection into the sample, all variables were weighted using the individual sample weight.

*Health Status.* Two measures of health status were derived from the PSID question, which asks respondents to rate the health of the male household head. The first variable, FAIR, indicates whether the respondent self-reported fair health. The second measure reflects respondent self-reports of poor health (POOR). Previous studies (Berkowitz and Hill, 1989; Wolfe and Haveman, 1990; Bound, Schoenbaum and Waidmann, 1994) have reported that low health status has led to early withdrawal from the labor force. These studies also suggest that low health status lowers worker productivity, thereby contributing to reduced work hours and earnings. Thus, it is hypothesized that individuals reporting fair or poor health would be less likely to be employed and have lower earnings than persons who are in good health.

*Disability Status.* The model incorporates two dummy variables that attempt to capture the presence and severity of work disability (SOMELIM and CANTWORK). Both measures are constructed from two parallel sets of questions that were posed to household heads regarding the presence of a work disability and the degree to which these disabling conditions limited the type or amount of work that could be performed. The omitted category reflects persons with no work limitations. SOMELIM represents those individuals who indicated that they had a disabling condition that somewhat limited their ability to work. CANTWORK reflects those individuals who indicated that they could not work at all because of severe limitations. Extending the argument developed above, it is expected that persons who consider themselves moderately or severely disabled will be less likely to work, and when employed, will receive lower returns for their labor.

*Multiple Minority Status.* Six measures are used to examine the costs of additional minority statuses that minority persons with disabilities could possess: being black (BLACK) or of another minority race (OTHRACE), being of Mexican or Puerto Rican descent (MEXICAN AND PRICAN, respectively), having limited English proficiency (SPANISH) and being an immigrant (IMMIGRANT). Studies by Luft (1978), Yelin (1992), and Burkhauser, Haveman and Wolfe (1993) have documented racial differences in the impact of disability status. Blacks with disabilities are expected to be more likely to leave the labor force, work fewer hours when employed and have lower earnings relative to Anglos. In turn, the



findings reported by Angel (1984) suggest that these patterns would also occur for Latinos. An Additional race variable (OTHRACE) is included in the Latino equations to examine the effect of race for Latino populations that are identified as being neither black nor white. Since a sizable fraction of Latinos may experience differential treatment on the basis of presumed racial heritage, it is hypothesized that Latinos who racially identify themselves as being "other" would be more disadvantaged than Latinos who consider themselves "white."<sup>3</sup> Further, persons who had limited English proficiency or were immigrants were expected to encounter additional barriers to employment and lower returns to work.

From these measures, an additional five interaction terms are derived to examine the effects of double jeopardy - being a racial/ethnic minority and disabled (BLHEALTH, MXHEALTH, and PRHEALTH). If the presence of a work disability is coupled with being Black, Mexican or Puerto Rican, it is hypothesized that there is an additional negative cost to multiple minority status. Therefore, Black, Mexican and Puerto Rican men who are disabled are expected to work less and have lower earnings than their non-disabled counterparts. In the case of Latinos, if an additional minority status, limited English proficiency is added to the equation, it is hypothesized that Latinos who are disabled and also possess limited English skills may be further exploited in the labor market than those who are bilingual or English dominant.

*Human Capital.* The models include four indicators of human capital: three measures of educational attainment (HSGRAD, SOME COLL and COLLEGE), and a measure of time in the United States which is included in the Latino equations (TIMEUS). HSGRAD, SOME COLL and COLLEGE are dummy variables which indicate whether the individual has completed high school, has attended college or has completed a college degree. The reference category includes individuals with less than 11 years of schooling. It is hypothesized that higher levels of educational attainment are positively associated with being employed, working more hours, and commanding higher earnings. TIMEUS is constructed for Latino immigrants as a measure of acquisition of U.S. specific work experience. Latino immigrants who have lived in the United States longer are expected to work more and have higher earnings than recent immigrants.

<sup>3</sup>Earlier models included a dummy variable for Latinos who considered themselves to be "black." However, black Latinos represent only a tiny fraction of the sample (< 1 percent) and standard errors on this variable were substantial. Therefore, BLACK was eliminated from these equations.

Four models were run for each of the dependent variables. Model 1 tests the effects of health and disability status on the probability of employment, work hours, hourly earnings and wages of men without controlling for other individual characteristics. In Model 2, the additional minority status variables are introduced to examine the impact of multiple minority statuses on labor force participation and earnings. Model 3 tests the effects of these variables after controlling for age and marital status. Human capital variables are introduced in Model 4 to examine the effects of disability status and multiple minority statuses after controlling for differences in level of educational attainment and work experience in the United States. For these analyses, Anglos and Blacks were examined separately from Latinos. Also, because of the relative small samples of Puerto Ricans and Cubans with disabilities, a pooled Latino sample was utilized in the multivariate analyses.

## THE IMPACT OF DISABILITY ON LABOR MARKET OUTCOMES

*Employment Status.* Table 4 provides the logistic regression results for the models predicting the odds of men being employed in 1989. Once we control for differences in the background characteristics, I find that low health status or the presence of a work disability significantly impacts the employment status of men. Anglo and Black men who were in fair health had a 74 percent lower odds of being employed than their non-disabled counterparts; if in poor health, the odds of working were 42 percent lower. For Latino men, poor health was a significant predictor of employment. Latinos in poor health had a 65 percent lower odds of being employed than non-disabled Latinos.

Similar patterns emerge when examining the effect of disability status on employment. The odds of working for Anglo and Black men with moderate to severe work limitations were 52 and 80 percent lower than for persons who had no work limitations. The effect of disability status on Latino employment were even more pronounced. The presence of moderate or severe work limitations were the strongest predictors of the employment of Latino men, even after controlling for differences in human capital. Latino men who were moderately disabled had 87 percent lower odds of employment; for Latinos with severe work limitations, the odds of being employed decreased by 91 percent.

**Table 4. Estimated Coefficients of Logit Models Predicting the Probability of Employment of Anglo, Black and Latino Men<sup>1</sup>**

Variables	Anglo/Black Model 1		Anglo/Black Model 2		Anglo/Black Model 3		Anglo/Black Model 4		Latino Model 1		Latino Model 2		Latino Model 4		Latino Model 5	
	B	Antilog	B	Antilog	B	Antilog	B	Antilog	B	Antilog	B	Antilog	B	Antilog	B	Antilog
<b>Health Status</b>																
Fair health	-1.94*	.14	-1.83*	.16	-1.49*	.22	-1.35*	.26	-.67*	.51	-.57**	.56	-.44	.64	-.45	.64
Poor health	-1.09*	.34	-1.00*	.37	-.73*	.48	-.55*	.58	-1.33*	.27	-1.07*	.35	-.96**	.38	-1.05**	.35
<b>Disability Status</b>																
Some work limitations	-.84*	.43	-.86*	.42	-.79*	.46	-.75*	.47	-1.34*	.26	-1.77*	.17	-1.99*	.14	-2.04*	.13
Severe work limitations	-1.58*	.21	-1.46*	.23	-1.63*	.20	-1.64*	.19	-2.10*	.12	-2.42*	.09	-2.42*	.09	-2.42*	.09
<b>Other Minority Statuses</b>																
Black			-.65*	.52	-.75*	.47	-.89**	.41								
Other race										.26	1.30	.21	1.24	.27	1.30	
Mexican										-.55	.58	-.85	.43	-.65	.52	
Puerto Rican										-.48	.62	-.73	.48	-.38	.69	
Spanish dominant			-3.09	.05	-3.79	.02	-3.46	.03		-.44	.65	-.42	.66	-.41	.66	
Immigrant										.37	1.45	.34	1.40	1.05*	2.84	
Black*disabled			-.62	.54	-.77**	.47	-.89**	.41								
Mexican*disabled										.80	2.22	.97	2.65	1.07	2.91	
Puerto Rican*disabled										.40	1.50	.53	1.70	.54		
1.72																
Mex*disab*Span										-.72	.49	-.69	.50	-.72	.49	
PR*disab*Span										.21	1.23	.32	1.37	.30	1.36	
<b>Human Capital</b>																
H.S. graduate							.51*	1.67							.29	1.33
Some college							.61*	1.84							.44	1.56
College graduate							.96*	2.62							.32	1.37
Time in U.S.															-.03**	.97
Constant	2.39*		2.49*		-3.71*		-3.88*		2.43*		2.86*		2.93**		2.19	
Log-likelihood	2763.53		2728.59		2428.12		2395.46		754.07		743.79		725.52		718.32	
N of Cases	2919.00		2919.00		2919.00		2919.00		1099.00		1099.00		1099.00		1099.00	

<sup>1</sup>Regressions are weighted by sample person weight. Reference categories include: good health; no work limitations; Anglos; Cubans; English-dominant; native born. Excluded categories for interaction terms are non-disabled, English dominant persons who are not Black, Mexican or Puerto Rican. Models 3 and 4 include control variables for age, age squared and marital status. \* p < .01 \*\* p < .05

These analyses reveal that Black men with disabilities pay additional costs because of their multiple minority status. The odds of being employed were 60 percent lower for Black men with disabilities. However, with the exception of immigrant status, these additional minority statuses are insignificant predictors of the employment status of Latino men. Immigrant Latinos have 2.8 times higher odds of being employed than native-born Latinos, suggesting that immigrants may not have the option to withdraw from the labor force even when they may be disabled or in poor health.

An interesting pattern emerges when examining the effects of human capital on employment. For Anglo and Black men, there are significant, positive returns to employment with increasing levels of educational attainment. However, for Latino men, differences in educational attainment have no significant effect on labor force participation. Of interest, work experience in the United States has a significant negative effect on Latino male employment. For each additional year of work experience in the United States, there is a three percent decrease in the odds of being employed. I suspect that this may reflect, in part, the process of labor force withdrawal due to aging.

How did low health status and disability affect the work hours of men? As shown in Table 5, the work hours of men in fair health, regardless of race or ethnicity, were 10 percent lower than their healthy counterparts. Moreover, Anglo and Black men who reported some work limitations worked 12 percent fewer hours. The effect of disability status seems more pronounced for Latino men. Latinos with some work limitations worked 23 percent fewer hours than Latinos in good health.

The costs of additional minority statuses on work hours varied across the racial and ethnic lines. Although the work hours of Black men were nearly 14 percent less than those of Anglo men, the interaction term (BLHEALTH) was an insignificant predictor of work hours. While the indicators of Latino ethnicity were insignificant predictors of Latino work hours, the interaction term MXHEALTH, would indicate that the combination of being Mexican and being disabled actually increased

**Table 5. WLS Regression of Selected Indicators Predicting the Amount of Hours Worked by Anglo, Black and Latino Men<sup>1</sup>**

Variables	Model 1		Model 2		Model 3		Model 4	
	Anglo Black	Latino	Anglo Black	Latino	Anglo Black	Latino	Anglo Black	Latino
<b>Health Status</b>								
Fair health	-.15*	-.18*	-.13*	-.16*	-.11*	-.11*	-.10*	-.10*
Poor health	-.22**	-.17**	-.18**	-.14	-.14	-.11	-.14	-.13
<b>Disability Status</b>								
Some work limitations	-.11*	.03	-.11*	-.24**	-.12*	-.22**	-.12*	-.23**
Severe work limitations	-.10	.14	-.10	-.04	-.09	-.01	-.10	.03
<b>Other Minority Statuses</b>								
Black			-.15*		-.14*		-.14*	
Other race				.05		.03		.04
Mexican				-.04		-.08		-.03
Puerto Rican				.01		-.05		-.02
Spanish dominant				-.14*		-.15*		-.12*
Immigrant				.17*		.14*		.14*
Black*disabled			-.08		-.10		-.10	
Mexican*disabled				.33*		.31*		.30**
Puerto Rican*disabled				.28		.27		.24
Mex*disab*Span				-.03		-.05		-.05
PR*disab*Span				-.23		-.24		-.25
<b>Human Capital</b>								
H.S. graduate							.08*	.10*
Some college							.02	.07
College graduate							.08*	.02
Time in U.S.								.01
Constant	7.66*	7.60*	7.67*	7.59*	6.78*	6.72*	6.75*	6.65*
F	16.14*	7.49*	13.51*	5.78*	20.53*	7.69*	17.19*	6.62*
Adjusted R2	.02	.03	.03	.06	.06	.10	.07	.10
N of Cases	2872.00	1012.00	2872.00	1012.00	2872.00	1012.00	2872.00	1012.00

<sup>1</sup>Dependent variable is the natural logarithm of annual work hours. Reference categories include: good health; no work limitations; Anglos; Cubans; English-dominant; native born. Excluded categories for interaction terms are non-disabled, English dominant persons who are not Black, Mexican or Puerto Rican. Models 3 and 4 include control variables for age, age squared and marital status.

\* p < .01 \*\* p < .05

**Table 6. WLS Regression of Selected Indicators Predicting the Average Hourly Earnings of Anglo, Black and Latino Men<sup>1</sup>**

Variables	Model 1		Model 2		Model 3		Model 4	
	Anglo Black	Latino	Anglo Black	Latino	Anglo Black	Latino	Anglo Black	Latino
<b>Health Status</b>								
Fair health	-.25*	-.13*	-.21*	-.08	-.29*	-.06	-.14**	-.04
Poor health	-.69*	-.30*	-.65*	-.17	-.74*	-.19	-.57*	-.15
<b>Disability Status</b>								
Some work limitations	-.17*	.05	-.21*	-.29**	-.24*	-.20	-.18*	-.29**
Severe work limitations	-.09	.14	-.09	-.01	.04	-.01	.02	.02
<b>Other Minority Statuses</b>								
Black			-.43*		-.34*		-.21*	
Other race				-.24*		-.24*		-.23*
Mexican				-.43*		-.31*		-.22**
Puerto Rican				-.11		-.05		-.02
Spanish dominant				-.16*		-.21*		-.04
Immigrant				-.03		-.22*		-.45*
Black*disabled			.27		.22		.05	
Mexican*disabled				.21		.10		.16
Puerto Rican*disabled				.51		.41		.65*
Mex*disab*Span				.10		.09		.06
PR*disab*Span				-.06		-.16		-.29
<b>Human Capital</b>								
H.S. graduate							.29*	.03
Some college							.41*	.33*
College graduate							.72*	.33*
Time in U.S.								.01*
<b>Constant</b>	2.53*	2.09*	2.56*	2.80*	.37**	.78*	.38**	.91*
F	19.05*	3.35*	21.78*	14.06*	47.69*	21.65*	67.99*	22.23*
Adjusted R2	.03	.01	.05	.14	.14	.25	.23	.30
N of Cases	2872.00	1012.00	2872.00	1012.00	2872.00	1012.00	2872.00	1012.00

<sup>1</sup>Dependent variable is the natural logarithm of average hourly earnings. Reference categories include: good health; no work limitations; Anglos; Cubans; English-dominant; native born. Excluded categories for interaction terms are non-disabled, English dominant persons who are not Black, Mexican or Puerto Rican. Models 3 and 4 include control variables for age, age squared and marital status. \* p < .01 \*\* p < .05

work hours by 30 percent, again suggesting that Mexican men may not have the option of withdrawing from the labor force despite having work limitations. In a similar vein, immigrant Latinos worked approximately 14 percent more hours than native-born Latinos. However, for Latinos with limited English proficiency, work hours were reduced by 12 percent relative to their English proficient counterparts.

Human capital variables produced mixed effects on the work hours of men. Among non-Latinos, persons with high school diplomas and college degrees worked approximately 8 percent more hours than persons with less than 12 years of schooling. Among Latino men, high school graduates worked 10 percent more hours than those who did not graduate from high school. However, post-high school education did not significantly alter the number of hours worked by Latinos.



## THE IMPACT OF DISABILITY ON ECONOMIC WELL-BEING

In this section, the economic consequences of disability status are explored further in terms of the impact of earnings for non-Latino and Latino men. Earlier descriptive statistics suggest that the costs of disability status are particularly acute for minorities with disabilities. In the following set of analyses reported in Tables 6 and 7, I examine these effects controlling for demographic and human capital differences.

**Hourly Earnings.** The hourly earnings of non-Latino men were significantly affected by low health status and the presence of a work disability (see Table 6). Non-Latino men in fair health earned 14 percent less per hour than their non-disabled counterparts; if they were in poor health, their earnings were reduced by 57 percent. In the case of Latinos, however, low health status is an insignificant predictor of hourly wages. When the impact of disability status is assessed, we see that non-Latino men with moderate work disabilities had hourly earnings that were approximately 18 percent less than men with no work limitations. Finally, the presence of moderate work disabilities continues to be a significant predictor of the hourly wages of Latino men, with disabled Latinos earning 30 percent less than non-disabled Latinos.

Although other minority statuses were found to be significant predictors of minority hourly earnings, only one multiple minority status measure, that of being Puerto Rican and disabled, was found to be significant, albeit in the opposite direction. The hourly earnings of Black men were approximately 21 percent less than those of Anglo men. Nonwhite Latinos earned 23 percent less per hour than white Latinos. Mexican men earned 22 percent less than Cuban men. Immigrant men had hourly earnings that were 45 percent lower than those of native-born Latinos. However, Puerto Rican men who were also disabled earned more than their non-disabled counterparts, suggesting in part the greater selectivity of Puerto Rican men with disabilities who decide to enter the workforce.

In general, men had increasing returns to education, although these returns were much higher for non-Latinos. Non-Latinos with high school degrees earned 29 percent more per hour than their counterparts who had not completed high school. Among Latinos, there was a modest three percent increase in hourly earnings for those with high school diplomas. For non-Latino men with some college,

hourly earnings increased by 41 percent; Latino men experienced a 33 percent increase. It is at the highest level of educational attainment that we see marked gaps in the returns to education. While non-Latinos with college degrees earned 72 percent higher hourly earnings relative to those without degrees; Latino college graduates experience only a 33 percent increase in their hourly earnings. Further, additional work experience in the United States did have a significant impact on the hourly earnings of Latinos. Each additional year in the United States accounted for a one percent rise in hourly earnings.

## ANNUAL EARNINGS

Table 7 presents the results of the analyses on annual earnings. The regressions show that the health and disability indicators continue to be significant predictors of the earnings of men, regardless of ethnicity. Fair or poor health status accounted for a 24 and 70 percent reduction, respectively, in the earnings of non-Latino men. For Latino men, low health status reduced annual earnings by 14 and 24 percent, again suggesting that Latinos may be unable to withdraw from the labor force even when they are in poor health. The presence of moderate work limitations reduced the annual earnings of all men, although the effects were more pronounced for Latinos with disabilities. Anglo and Black men with disabilities earned 30 percent less than their healthy counterparts. For Latino men, annual earnings were less than half the earnings of non-disabled Latinos.

Several minority status variables did have significant effects on the annual earnings of minority men. Black men had annual earnings that were 35 percent lower than those of Anglo men. Latinos who were nonwhite had earnings that were 20 percent lower than those of white Latinos. Immigrant Latinos earned 30 percent less than native-born Latinos. Latino men with limited English proficiency earned 18 percent less than Latinos who were English speaking.

In addition, several of the interaction terms were significant, although two were in the opposite direction. Once differences in human capital and demographic characteristics are controlled, Mexican and Puerto Rican men with disabilities had higher incomes — a finding which warrants further examination. However, men who were Puerto Rican, disabled and limited English proficient had annual earnings that were 55 percent lower than those of persons who were non-disabled, English dominant and non-minority.

**Table 7. WLS Regression of Selected Indicators Predicting the Average Annual Wages of Anglo, Black, and Latino Men<sup>1</sup>**

Variables	Model 1		Model 2		Model 3		Model 4	
	Anglo Black	Latino	Anglo Black	Latino	Anglo Black	Latino	Anglo Black	Latino
<b>Health Status</b>								
Fair health	-.40*	-.32*	-.34*	-.23*	-.40*	-.16*	-.24*	-.14*
Poor health	-.91*	-.43*	-.83*	-.27**	-.88*	-.25**	-.70*	-.24**
<b>Disability Status</b>								
Some work limitations	-.28*	.06	-.32*	-.52*	-.36*	-.41*	-.30*	-.51*
Severe work limitations	-.19	.25	-.19	-.05	-.06	-.02	-.08	.03
<b>Other Minority Statuses</b>								
Black			-.58*		-.48*		-.35*	
Other race				-.19*		-.22*		-.20*
Mexican				-.43*		-.35*		-.22
Puerto Rican				-.08		-.08		-.02
Spanish dominant				-.31*		-.37*		-.18*
Immigrant				-.03		-.06		-.30*
Black*disabled			.19		.12		-.05	
Mexican*disabled				.50*		.37**		.42*
Puerto Rican*disabled				.80*		.63**		.89*
Mex*disab*Span				-.06		.03		.01
PR*disab*Span				-.31		-.41		-.55*
<b>Human Capital</b>								
H.S. graduate							.37*	.11**
Some college							.42*	.39*
College graduate							.80*	.34*
Time in U.S.								.02*
<b>Constant</b>	10.18*	9.68*	10.23*	10.34*	7.15*	7.43*	7.13*	7.52*
F	32.24*	10.82*	33.31*	14.16*	57.23*	25.58*	71.29*	25.79*
Adjusted R2	.04	.04	.07	.15	.16	.28	.24	.33
N of Cases	2872.00	1012.00	2872.00	1012.00	2872.00	1012.00	2872.00	1012.00

<sup>1</sup>Dependent variable is the natural logarithm of average annual wages. Reference categories include: good health; no work limitations; Anglos; Cubans; English-dominant; native born. Excluded categories for interaction terms are non-disabled, English dominant persons who are not Black, Mexican or Puerto Rican. Models 3 and 4 include control variables for age, age squared and marital status. \* p < .01 \*\* p < .05

While there were positive returns to schooling for all men, the returns were substantially lower for Latino men. A high school diploma increased the earnings of non-Latino men by 37 percent but only 11 percent for Latinos. Some college increased the earnings of non-Latinos by 42 percent and Latinos by 39 percent. Again it is at the highest level that substantial gaps are noted. While non-Latinos with college degrees earned 80 percent more than those persons with less than a high school education, the gain for Latinos was only 34 percent. Work experience in the United States continued to be a significant predictor of Latino earnings: each additional year in the United States accounted for almost a two percent increase in annual earnings.

## SUMMARY AND CONCLUSIONS

Although profound differences exist across the various racial and ethnic groups, the presence of a disabling condition has a deleterious effect on the economic well-being of all men. For all groups, persons with disabilities are less likely to work and when employed, work fewer hours and for lower pay than their non-disabled counterparts. Their families are more likely to be poor and more reliant on means-tested programs as sources of supplemental income. These conditions are particularly acute for Puerto Rican men. They have the highest reports of disability and when disabled, are the least likely to work and have the lowest earnings.

Although there is little empirical research on Blacks and Latinos with disabilities, we would suspect that these higher rates, especially for Puerto Ricans, are tied to their overall position of economic disadvantage in the United States. Puerto Ricans are more likely to live in poverty, which would increase the likelihood of poor health as well as limit access to preventive health services. Further, poor health status would restrict employment opportunities, thereby exacerbating economic deprivation. Certainly the

interrelationships between disability and economic status warrant further investigation.

Through a series of multivariate analyses, the impact of disability status on labor market outcomes and earnings was assessed. These analyses reveal that the presence of a disability decreased the odds of being employed, and reduced the work hours and earnings of men. These effects appear to be particularly strong for non-Latino men.

**Appendix A**  
*Weighted Measures and Descriptions of Variables in Multivariate Analyses<sup>1</sup>*

MEASURES	DESCRIPTION	MEN		
		ANGLO	BLACK	LATINO
AGE	Age (average)	39.9	37.6	38.5
AGESQR	Age squared	1717.1	1525.4	1607.8
BLACK	Percent Black	0.0	100.0	.3
COLLEGE	Percent with college degrees	31.0	9.8	4.6
EDUCATION	Years of schooling completed	13.4	11.9	8.7
EMPLOYED	Percent employed in 1989	88.5	76.4	83.3
HSGRAD	Percent with high school degrees	33.9	44.2	23.9
IMMIGRANT	Percent who immigrated to U.S.	0.0	0.0	61.6
LHOURS	Natural log of work hours in 1989	7.1	6.1	6.7
LHRWAGE	Natural log of average hourly wages in 1989	2.5	2.1	1.6
LWAGES	Natural log of earnings in 1989	8.2	7.5	8.3
MARRIED	Percent married	81.8	62.4	88.8
MEXICAN	Percent Mexican	0.0	0.0	82.5
OTHRACE	Percent other race	0.0	0.0	37.6
PUERTO RICAN	Percent Puerto Rican	0.0	0.0	11.1
SOMECOLL	Percent with some college	22.1	18.8	11.5
SPANISH	Percent Spanish dominant	0.0	.3	60.7
TIMEUS	Years residing in U.S.	n.a	n.a	10.1

<sup>1</sup>Source: 1990 Panel Study of Income Dynamics. Statistics are weighted by sample person weight.

Although considerable rhetoric has been produced regarding the additional costs of multiple minority status, this analysis only provides partial support for this thesis. For example, only Black men with disabilities are less likely to be employed; and Puerto Rican men with disabilities who are limited English proficient have significantly lower earnings. Individual statuses, such as being black or of another race were found to be significant in some of the models. However, it is difficult to ascertain the extent to which these are additive or multiplicative effects. Nonetheless, the potential economic consequences of multiple minority status warrant additional investigation. For example, do these effects change as men age or are they constant throughout the life cycle?

We need to encourage comparative research that enables us to ascertain whether the patterns observed with these data are replicated elsewhere. With the advent of additional datasets which include oversamples of minority populations, such as the

Health and Retirement Survey, there are new opportunities to more carefully examine racial and ethnic differences in these patterns. Further, these similarities and differences need to be explored not only in terms of objective measures, but also in terms of how disability is defined and perceived. Future research also needs to focus on the effects of informal sources of support, such as transfers from extended kin, in mitigating the negative effects of disability. Other factors, such as the changing nature of work need to be explored in order to examine not only how these conditions affect health status, but also how these factors affect decisions to work and eligibility to participate in income transfer programs. Finally, we need to examine the processes that underlie these economic outcomes. With the incorporation of disability indicators in longitudinal datasets, we will be able to examine the long-term effects of disability status.

*(Anna M. Santiago, June 1996, JSRI RR-14)*



## REFERENCES

- Angel, R. (1984). The costs of disability for Hispanic males. Social Science Quarterly 65: 426-443.
- Angel, R. and W. Gronfein (1988). The use of subjective information in statistical models. American Sociological Review 53: 464-473.
- Baldwin, M. and W. G. Johnson (1994). Labor market discrimination against men with disabilities. Journal of Human Resources 29: 1-19.
- Berkowitz, M. and M. A. Hill, eds. (1989). Disability and the labor market. Ithaca: IRL Press.
- Bound, J. (1989). The health and earnings of rejected disability insurance applicants. American Economic Review 79: 482-503.
- (1991). The health and earnings of rejected disability insurance applicants: reply. American Economic Review 81: 1427-1434.
- Bound, J. and T. Waidmann (1992). Disability transfers, self-reported health and the labor force attachment of older men: Evidence from the historical record. The Quarterly Journal of Economics 107: 1393-1419.
- Bound, J., M. Schoenbaum, and T. Waidmann (1994). Socioeconomic differences in disability status and labor force attachment. Paper presented at the 1994 Meetings of the Population Association of America, Miami, Fla.
- Bowe, F. (1985). Disabled Adults of Hispanic Origin. Washington, D.C.: U.S. Government Printing Office.
- Burkhauser, R. V. and R. H. Haveman (1982). Disability and Work: The Economics of American Policy. Baltimore: Johns Hopkins University Press.
- Burkhauser, R. V., R. H. Haveman and B. L. Wolfe (1993). How people with disabilities fare when public policies change. Journal of Policy Analysis and Management 12: 251-269.
- DeJong, G., A. I. Batavia, and R. Griss (1989). America's Neglected Health Minority: Working-age Persons with Disabilities. The Millbank Quarterly 67, Suppl. 2: 311-351.
- Haveman, R., and B. Wolfe (1988). "The Economic Well-being of the Disabled 1962-1984." Journal of Human Resources 25: 32-54.
- Hill, M. S. (1992). The Panel Study of Income Dynamics: A User's Guide. Newbury Park California: Sage.
- Kirkpatrick, P. (1994). Triple jeopardy: Disability, race and poverty in America. Poverty and Race 3: 1-8.
- Luft, H. S. (1978). Poverty and Health: Economic Causes and Consequences of Health Problems. Cambridge, Mass.: Ballinger.
- Parsons, D. O. (1991). The health and earnings of rejected disability insurance applicants: comment. American Economic Review 81: 1419-1426.
- Santiago, A. M., and F. A. Villarruel (Forthcoming). Latino perceptions about disability and rehabilitation service needs. In P. Berman, I. Mink, and M. L. Siantz, eds. Research on Ethnically Diverse Families with Mentally Retarded, Developmentally Disabled and Physically Disabled Members. Baltimore: Brooks.
- Santiago, A. M., Villarruel, F. A. & Leahy, M. J. (Forthcoming). Latino access to rehabilitation services: Evidence from Michigan. American Rehabilitation.
- Sullivan, T. (1978). Marginal Workers. Marginal Jobs. Austin: University of Texas Press.
- U.S. Bureau of the Census. (1989). Labor Force Status and Other Characteristics of Persons with a Work Disability: 1981-1988. Washington, D.C.: U.S. Government Printing Office.
- Wilson, M. E. (1986). Sociocultural aspects of disability and rehabilitation. In S. Walker, F. Z. Belgrave, A. M. Banner, & R. Nicholls, Equal to the Challenge: Perspectives, Problems and Strategies in the Rehabilitation of the Nonwhite Disabled (pp. 54-67). Washington, D.C.: The Bureau of Educational Research, School of Education, Howard University.
- Wolfe, B. L. and R. Haveman (1990). Trends in the prevalence of work disability from 1962 to 1984, and their correlates. The Millbank Quarterly 68: 53-80.
- Yelin, E. H. (1992). Disability and the Displaced Worker. New Brunswick: Rutgers University Press.

