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Based on data from the 1990 early release file of the Latino sample of the Panel Study of Income Dynamics (PSID), this article examines the loss of earnings suffered by disabled or health-limited Hispanic women workers. For comparative purposes, the author created an identical analysis based on a sample of black and white non-Hispanic women from the 1989 original-sample PSID. The research also considers the prevalence of poor health among Latinas to ascertain whether their lower labor-force participation, earnings, and number of hours worked can be associated with episodes of poor health. The empirical results show that Hispanic women are more likely to report health limitations than non-Hispanic women. After controlling for other factors that might affect labor-supply behavior, the findings indicate that health problems negatively affect labor-force participation, the market wage offer, and the number of hours that both Hispanic and non-Hispanic women are able to supply. Hispanic women with health problems were more likely to work in comparison with a similar group of non-Hispanic women, so the prevalence of poor health among the Hispanic sample is not useful in explaining their relatively lower participation rates. Nor does it seem that the lower earnings and hours worked by Latinas in poor health are the major cause for the greater frequency of poverty-level earnings among this sample. In fact, the causality may work in reverse: poverty increases the probability of being in poor health.

The 1990–1992 Latino file of the Panel Study of Income Dynamics (PSID) provides the research community with an opportunity to test a number of hypotheses about the social and economic environment of Hispanics in the United States. In anticipation of the release of the full complement of variables and documentation that will accompany the 1990 through 1992 longitudinal files, I present preliminary findings from the 1990 early release file of the Latino sample of the PSID on the loss of earnings suffered by Hispanic women workers who are disabled or health-limited. For comparative purposes, I created an identical analysis from a sample of black and white non-Hispanic women from the 1989 original-sample PSID.

Studies show that health status, labor-force participation, earnings capacity, and the choice or opportunity to work full or part time are all related.[1] In general, analyses of Hispanic health trends have been extremely limited because of documentation prob-

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lems,[2] and with few exceptions, have been avoided.[3] Therefore, information is limited on the degree to which Hispanic women's recorded lower labor-force participation, earnings, and number of hours worked can be associated with the prevalence of poor health within this population.

Research indicates that whether one examines income or wealth, individual occupation, education level, or residence in a poverty area, there is a direct link between health and socioeconomic status. Poor health is concentrated among those with lower incomes and education. Hispanic women especially are apt to be at greater risk owing to their higher poverty rates and lower educational levels and employment rates. Substandard access to health care and private or public health insurance is also likely to increase health problems for Hispanics.

In 1991, Hispanic women had a labor-force participation rate of 51 percent as compared with a 57 percent rate for non-Hispanic women.[4] Hispanic women are therefore more prone to be out of the labor force and working in the home. Since "housewives" have been found to report poor health more frequently, this could be contributing to high report rates found among Hispanic women. However, because of major differences in the labor-force participation rates and labor-market experiences of Cuban, Mexican, Puerto Rican, and other Hispanic women, one must be cautious in generalizing about Hispanic women as a group.[5]

In 1990, Hispanic women were employed in low-paying occupations, were overly represented in production occupations, and experienced higher unemployment rates than their non-Hispanic counterparts. Statistics indicate that Hispanics are significantly more likely to lack private or public health insurance coverage and that they have less access to preventive and primary health care than non-Hispanics.[6] About two-thirds of working Hispanic females had private or public health insurance, compared with 87 percent of white and 81 percent of black working women. Hispanic working poor women were as likely as white women to be covered by Medicaid (about 27 percent covered), but less likely to be covered than black women (about 41 percent covered).[7] Because of economic limitations and the uneven public and private health insurance coverage available, one would expect Hispanic women to report being in poor health more often. On the basis of previous research, one would also expect those in poorer health to be less likely to work and to earn less.[8]

A Model for Estimating Women's Labor Supply

I used the following model to estimate the impact of poor health on the labor supply of Hispanic and non-Hispanic female heads and wives/"wives." One major problem for researchers lies in establishing the amount of confidence to be placed in both self-reported and objective measures of health when they are applied to models of labor-force behavior.[9]

I developed two measures of health limitations. The first, HLTHDEF1 in Table 1, is self-reported and based on two survey questions. The PSID questioned health status in general and further inquired whether there was a physical or nervous condition that limited the type of work or the amount of work the individual could do. Individuals who reported their health at the time of the interview as fair or poor and said they had a work-limiting health problem were flagged as being in poor health. Despite the fact that subjective measures of health or disability have been found to be influenced by such factors as social class and existing or past participation in disability-related social

welfare programs, HLTHDEF1 was the preferred measure in the labor-supply estimations.[10]

A second measure, HLTHDEF2, grouped people who were in programs for which health disability was a criterion for eligibility (see Table 1). However, the second measure, while positively and significantly correlated with the first, contained a small percentage of the total sample in both cases and was not included in the regression analysis.[11]

Data and Labor-Supply Variables

I took the data for the labor-supply analyses from the 1990 Panel Study of Income Dynamics/Latino Early Release File. That file employed a multistage probability sample design and was conceived to be nationally representative of Mexican- Americans, Puerto Ricans, and Cuban-Americans. For my study, I narrowed the Hispanic sample to include only Puerto Rican, Cuban, and Mexican women aged 18 to 60 who were not self-employed and who were either female family heads, married women (wives), or women who were part of a cohabiting couple ("wives"). I constructed the non-Hispanic sample similarly from the existing non-Hispanic population in the 1989 PSID file.

Women who work must earn enough so that they can use their money and time to purchase the inputs necessary for the production of health and other home goods. The amount of time spent out of work over the course of a year because of illness lowers the wage, which is conditional on productivity, which is related to one's health. Weekly fixed costs associated with transportation, labor and health care markets, as well as costs associated with paying for home production and day care services, are especially apt to make the labor-supply function for women discontinuous. Therefore, I used a reservation-wage/ reservation-hours model that allows for this discontinuity in the labor-supply function.

In a single-period decision model such this, the decision to work and the number of hours and weeks that an individual works are the result of both supply and demand factors.[12] On the demand side in this specification, market wages (equation 1) are assumed to be given independently of hours and are determined by a semi-logearnings function that includes years of completed schooling, a proxy for potential labor-market experience and its square, residence in the South, urban residence, and a control for health status.[13] These variables are defined in Table 1.

The first equation on the demand side shows

$$\ln(W_i) = X_{1i}b_1 + u_i \qquad (1)$$

where $\ln(W_i)$ is the natural log of the wage offer available to individual i, and X_{1i} is a row vector of observed individual characteristics with the associated parameter vector b. The mean-zero random disturbance term u_i represents the effects of unobserved factors (e.g., motivation) on market wages and is assumed to be a normal variate with classical properties for all i.

On the supply side we have

$$\ln(W_{*i}) = X_{1i}c_* + X_{2i}d_* + u_{*i} \quad (2)$$

where $\ln(W_{*i})$ is the ith individual's reservation wage. Working women maximize their level of satisfaction by combining household production time with market goods and

Table 1

Variable Definitions

Mexican	= 1 if individual identified as Mexican; 0 otherwise
Puerto	= 1 if individual identified as Puerto Rican; 0 otherwise
Cuban	= 1 if individual identified as Cuban; 0 otherwise
White	= 1 if individual identified race as white; 0 otherwise
Black	= 1 if individual identified race as black; 0 otherwise
Other	= 1 if individual identified race as other; 0 otherwise
AnnHrs	= annual work hours reported for 1989 (1988 original PSID)
NuKid6	= number of children under age 6 at home
NuKid7	= number of children 6 to 17 years of age at home
GetsAFDC	= 1 if individual received positive amount of ADC/AFDC in 1989 (1988 original PSID); 0 otherwise
Medicaid	= 1 if individual reported being covered by Medicaid in 1990 (1989 original PSID); 0 otherwise
FamHlth	= 1 if individual lived with other family member(s) who were not in good health in 1990 (1989 original PSID); 0 otherwise
Health	= 1 if individual self-reported poor health and/or work limitation in 1990 (1989 original PSID); 0 otherwise
Age	= age of respondent in years at time of 1990 interview (1989 original PSID)
Exp	= a measure of potential job experience calculated as age-years of completed education — 6
SqExp	= exp squared
Educ	= actual years of completed education
North, South, Midwest, West	= 1 if individual resided in geographic location at time of interview; 0 otherwise
Urban	= 1 if individual resided in urban area at time of interview; 0 otherwise
SingMom	= 1 if individual was a female family head living with children under age 18; 0 otherwise
MarrMom	= 1 if individual was a wife/"wife" living with children under age 18; 0 otherwise
NotMom	= 1 if woman (either head or wife) did not live with children under age 18; 0 otherwise
Poverty	= a ratio of real total family income in 1989/the census poverty threshold value for 1989 (1988 for original PSID) coded to reflect the value in relation to the census poverty line
LnWage	= real value of natural logarithm of hourly wage rate in 1989 (1988 original PSID)
Employed	= 1 if individual had positive wage rate and annual hours; 0 otherwise
ExoInc	= real value of exogenous income reported in 1989 (1988 original PSID)

services. Therefore, the amount of labor supplied depends on the value of the reservation wage, which is a function of individual characteristics contained in X_{1i}, where c_* is the associated coefficient vector. Variables thought to influence the reservation wage include the health of the respondent, the level of exogenous income, the health of other household members, the number and ages of children living in the household, the head and motherhood status of the individual, region of residence, whether the individual lives in an urban area, and taste factors relating to time spent at home. These variables are contained in the row vector X_{2i}, and d_* is the associated coefficient vector. The random disturbance term u_{*i} refers to unobservable factors and is assumed to be a normal variate with classical properties for all i.

The expectation is that poor health should lower the value of the offered wage, making it more likely that a woman with health problems will not be employed.

The final supply equation in this model shows that the annual number of hours supplied is a discontinuous function of the market wage,[14] where

$$H_i = a\ln(W_i) + X_{1i}c + X_{2i}d + e_i \text{ for } \ln(W_i) > \ln(W_{*i}) \text{ and}$$

$$H_i = 0 \text{ for } \ln(W_i) <= \ln(W_{*i}) \quad (3)^{15}$$

The expectation is that women with health problems generally work fewer hours annually.

Sample Characteristics

The preliminary findings contained in Table 2 show that Hispanic heads and wives fare worse in terms of the percentage employed, wage rates, annual hours worked, poverty threshold values, years of completed education, yearly labor income, and exogenous income. Hispanic women are more likely to receive public assistance, be covered by Medicaid, live with other family members who are in poor health, and report more health problems of their own.

Table 2

Variable Means (and Standard Deviations) for Total Population

Variable	Hispanic Female Heads Wives/"Wives"		Non-Hispanic Female Heads Wives/"Wives"
Mexican	.796 (.403)	White	.847 (.360)
Puerto	.147 (.354)	Black	.144 (.351)
Cuban	.057 (.232)	Other	.021 (.145)
AnnHrs	914.5 (926)		1,327 (920)
Nukid6	.726 (.934)		.336 (.643)
NuKid7	1.21 (1.29)		.664 (.953)
GetsAFDC	.068 (.253)		.044 (.206)
Medicaid	.109 (.312)		.054 (.226)
FamHlth	.089 (.284)		.033 (.179)
Health	.415 (.493)		.270 (.444)
Age	36.9 (10.8)		38.3 (10.9)
Exp	18.9 (11.6)		19.2 (11.3)

Table 2, continued

Variable	Hispanic Female Heads Wives/"Wives"	Non-Hispanic Female Heads Wives/"Wives"
SqExp	490 (489)	495 (503)
Educ	8.57 (4.49)	12.9 (2.49)
North	.118 (.323)	.228 (.419)
Midwest	.119 (.324)	.257 (.437)
South	.237 (.426)	.333 (.472)
West	.525 (.500)	.177 (.381)
Urban	.401 (.490)	.741 (.438)
SingMom	.158 (.365)	.141 (.348)
MarrMom	.642 (.480)	.396 (.489)
NotMom	.200 (.400)	.463 (.499)
Poverty	3.93 (1.85)	5.43 (1.65)
LnWage	.892 (.865)	1.50 (.954)
Employed	.580 (.494)	.787 (.410)
ExoInc	16,980 (13,410)	25,200 (44,300)
n =	1,292	3,436

Table 3 provides estimates on the probability of self-reported health problems among the Hispanic and non-Hispanic women's sample. Among Hispanic women, a one-unit increase in the poverty threshold value significantly diminished probabilities of health problems by 6.2 percent. Coverage by Medicaid (an alternative indicator of low socio-economic status) increased health limitation probabilities by 11.7 percent. A one-unit increase in education diminished health-problem probabilities by 1.3 percent. These findings support previous studies that document the inverse relationship between mea-

sures of health and indicators of socioeconomic status. They suggest the need for research that looks at the interaction between poor health and low income without assuming the direction of causality.[16]

Table 3

Coefficients of Probit Model for Labor Force Participation of Hispanic and Non-Hispanic Female Heads and Wives/"Wives" Aged 18 to 60

Dependent Variable = Employment Status
(standard errors in parentheses)

Variable	Hispanic	Non-Hispanic
f(Xb/r)+	.3094	.2618
Constant	−.493	.643**
	(.294)	(.274)
PuertoRic	−.138	—
	(.231)	
Mexican	−.127	—
	(.178)	
Black	—	−.135
		(.201)
White	—	−.045
		(.196)
Educ	.045**	.091**
	(.009)	(.011)
Exp	.051**	.012
	(.013)	(.010)
SqExp	−.001**	$-.009^{E-01}$**
	(.003E-01)	(.002E-01)
NotMom	.202	.157
	(.130)	(.095)
SingleMom	.103	−.003
	(.112)	(.087)
NuKid6	−.221**	−.438**
	(.047)	(.050)
NuKid7	−.021	−.115**
	(.036)	(.039)
FamHlth	−.133	−.103
	(.132)	(.133)
South	.378	−.198**
	(.203)	(.075)
West	.427*	−.209**
	(.199)	(.085)
Midwest	.015	−.309**
	(.197)	(.076)
Urban	.314**	−.001
	(.079)	(.062)

Table 3, continued

Variable	Hispanic	Non-Hispanic
ExoInc	.002^{E-03} (.002E-03)	−.008^{E-03}** (.001E-03)
Health	−.221** (.079)	−.342** (.058)
Loglikelihood	792.21 n = 1,292	−1,531.6 3,436

Source: 1990 PSID/LNPS Early Release File and 1989 PSID. Data are weighted.

+ = Multiply coefficients by this factor to obtain slopes at variable means.

Significance Level:**<.01
*<.05

Among Hispanic women, a one-unit increase in age increased the probability of health deterioration by 1.3 percent as would be expected. A one-unit increase in the number of children 6 to 17 years of age decreased the probability of health problems by 4.8 percent, suggesting that the diminished time demands of older children may actually result in improved health. Alternatively, living with other family members who are ill increased health disability probabilities by a large 12.5 percent. This finding would corroborate the idea that women who are responsible for the well-being of others may themselves be in poor health owing to the related stress and increased money and time demands associated with caretaking. Holding other factors constant relative to married mothers, women who were not mothers and women who were single mothers were 12.6 and 21.9 percent less likely, respectively, to report health problems. This finding is at odds with Wolfe and Hill, who reported that married women enjoy better health than single women and that mothers have better health than nonmothers.[17] This disparity in findings may reflect major differences in determining marital and maternal status between the Current Population Survey and the PSID.[18]

The determinants of health status among non-Hispanic women are shown in Table 3. Relative to women of other races (see Table 1 definitions), white women were 12.4 percent less likely to report health limitations, ceteris paribus. A one-unit increase in education decreased the probability of health problems by 1.8 percent, while age significantly increased the deterioration of health. The probabilities of health problems were 14.1 percent lower for single mothers relative to married mothers. Yet, ceteris paribus, a one-unit increase in the number of children under age 6 diminished poor health probabilities by 7.1 percent, indicating that the ages and number of children have implications for the health of mothers. Non-Hispanic women living with other family members in poor health were themselves 9.7 percent more likely to report health limitations. Medicaid coverage increased poor health probabilities by 9.7 percent, and a one-unit increase in the poverty threshold value diminished health problem probabilities by 3.8 percent. Of interest is the fact that among non-Hispanic women, annual work hours had a significant negative effect on poor health probabilities. Haveman, Stone, and Wolfe argued that this positive relationship between hours worked and good health, found in many single-equation models of the determinants of health status, disappears when the interdependencies of health, work time, and wages are accounted for.[19] Therefore, this finding should be interpreted with caution.

Table 4

Coefficients of LnWage Regression Model for Working Hispanic Female Heads and Wives/"Wives" Aged 18 to 60

Variable	Hispanic	Non-Hispanic
Constant	.959**	.331**
	(.162)	(.083)
Experience	.178**	.018**
	(.007)	(.003)
SqExp	$-.03^{E-02}$	$-.01^{E-02}$*
	$(.01^{E-02})$	$(.08^{E-03})$
Educ	.047**	.099**
	(.005)	(.005)
Health	−.109**	−.065**
	(.042)	(.026)
South	−.165**	−.084**
	(.042)	(.022)
Urban	−.004	.187**
	(.043)	(.024)
Lambda	.035	−.186**
	(.121)	(.065)
Adj R2	.16	.23
n =756		2,723

Source: 1990 LNPS/PSID Early Release File and 1989 PSID. Data are weighted.

Significance Level:**<.01
*<.05

To summarize, a one-unit increase in the poverty threshold value was more significant in decreasing the probability of poor health among the Hispanic sample relative to the non-Hispanic sample. Medicaid coverage was more likely to increase the probabilities of poor health for Hispanic women compared with non-Hispanic women. A one-unit increase in the level of education was more significant in diminishing the poor health probabilities of non-Hispanic women than of Hispanic women. These results indicate that group differences in the level of poverty, the quality of education, and publicly provided medical care are important distinctions that have major implications for Hispanic women's health. More research on the quality, not just the quantity, of health care and education obtained by Hispanic women could assist policymakers in targeting allocations to health care and labor markets.

Labor-supply Results

Table 4 presents the coefficients from the probit model of labor-force participation for Hispanic and non-Hispanic women, respectively. The partial derivative for each independent variable evaluated at the sample means can be obtained by multiplying each coefficient by the constant of proportionalities, given in the first row of Table 4.

Hispanic women with health problems are 6.8 percent less likely to participate in the labor force. The number of children under age 6, the level of education, the amount of labor-market experience, and regional and urban location also had the expected effect on work probabilities.

Table 4 shows that among non-Hispanic women, health limitations diminished participation probabilities by 8.9 percent. It is important to note that while Hispanic women were more likely to report being in poor health, those with health limitations in that sample had higher participation probabilities than those with health limitations in the non-Hispanic women's sample. Thus, while poor health had the expected negative effect on participation for both groups, health status per se does not help to explain the relatively lower labor-force participation rates of Hispanic women.

Table 5 provides the lnwage regression estimates. Among Hispanic women, poor health had, at <.01, one-tailed test, a significant impact on diminishing hourly wages. Specifically, the average real wage, in 1984 dollars, for working Hispanic women was $4.65 (lnwage = 1.538). Using the coefficients from the lnwage regression, I calculated the average wage for women with no health limitations to be $4.84 (lnwage = 1.577), and the average wage among women with health problems to be $4.34 (lnwage = 1.488). Unhealthy Hispanic women earned on average 10 percent less than their healthy counterparts.

It would be useful to calculate the productivity losses associated with poor health among these workers using the methods developed in Havemen et al.[20] The loss of capability to earn attributable to health limitations among working Americans is shown to be associated with productivity losses, which in the aggregate constituted a loss equal to 4.5 percent of the gross national product in 1988. With the release of the 1990–1992 longitudinal Latino PSID file, the concept of potential productivity losses, which result when flows from the stock of human capital are reduced because of widespread disability or health limitations, can be calculated and the findings for Latinos compared with other racial/ethnic subpopulations.

Havemen et al. also constructed estimates of actual earnings capacity which assumed full-time, full-year work (2,000 hours), and they made adjustments for involuntary unemployment and reported weeks of work missed due to disability.[21] However, while this is the preferred methodology, the PSID early-release data contain neither unemployment data nor information on the number of weeks in the year that individuals are unable to work due to a health limitation or disability. Without these controls, the comparisons I made between the actual earnings of women with and without health limitations would reflect women's individual preferences, unrelated to health, for part-time and full-time work. This is because the decrease in the amount of time spent in market work is the result of both the direct effect of the health limitation and the indirect effect on work time that stems from the wage change. Future studies using the complete panel data could avoid this problem.

Table 5 shows that the real average wage (in 1984 dollars) for all non-Hispanic women was considerably higher, at $6.74 (lnwage = 1.908). Among women with no health problems, the average wage was $6.84 (lnwage = 1.923), and among women with health limitations, the wage averaged $5.58 (lnwage = 1.719). Non-Hispanic women with health limitations earned about 18 percent less than their healthy counterparts.

The findings show that Hispanic women with health problems worked 139 hours less in 1989. The hours coefficients indicate that for non-Hispanic women, health problems caused a loss of 107 hours annually. Using the hours and wage regression results to

Table 5

Estimates of Annual Hours and Weeks, Conditional on the Labor-Force Participation of Hispanic and Non-Hispanic Female Heads and Wives/"Wives" Aged 18 to 60
(standard errors in parentheses)

Variable	Annual Hours Hispanic	Annual Hours Non-Hispanic
One	851.7 (401) (461)	1,497** (401) (156)
PuertoRic	–25.3 (148)	—
Mexican	–246* (109)	—
Black	—	106 (99.9)
White	—	161 (97.2)
PredWage	388* (188)	92.9 (58.5)
NotMom	–117 (78.2)	37.4 (47.0)
SingleMom	–153* (73.6)	142** (43.2)
NuKid6	–85.5* (37.5)	–195** (31.2)
NuKid7	–17.7 (23.3)	–77.4** (20.8)
FamHlth	–158 (97.1)	–131 (77.1)
South	336* (153)	110** (35.3)
West	419** (146)	118** (39.5)
Midwest	545** (143)	35.8 (37.8)
Urban	91.7 (64.2)	48.3 (32.1)
ExogInc	.002E-01 (.001)	–.004** (.006E-01)
Health	–139** (56.8)	–106** (34.5)

Table 5 continued

Variable	Annual Hours Hispanic	Annual Hours Non-Hispanic
Lambda	147	–224*
	(202)	(97.7)
R2 =	.05	.11
n =	756	2,723

Source: 1990 LNPS/PSID Early Release File and 1989 PSID. Data are weighted.

Significance Level = **<.01
*<.05

compute the conditional earnings of those women with and without health limitations,[22] I found that for the average Hispanic women with no health problems, earnings would equal $8,266 annually (1,708 hours @ $4.84/hour). Actual earnings for women with health problems would equal $6,197 (1,428 hours @ $4.34/hour). Average earnings for the total sample of working women would equal $7,291 (1,568 hours @ $4.65/hour). Thus, working Hispanic women with health problems realize earnings that are about 88 percent of those of their healthy counterparts.

Taking into account the difference in hours worked and hourly wage rates among non-Hispanic women with and without health problems, the calculated gap in actual earning capacity was quite large. The earnings of an average woman with no health problems was $12,195 (1,783 hours @ $6.84/hour). The earnings for women with health problems was $8,755 (1,569 hours @ $5.58/hour) and averaged about $11,296 (1,676 hours @ $6.74/hour) for the entire sample of non-Hispanic working women. Thus, working non-Hispanic women with health problems had only 72 percent of the earnings of women without these limitations.

The evidence presented here shows that Hispanic women are more likely to report health limitations than non-Hispanic women. After controlling for other factors that might affect labor-supply behavior, the results indicate that health problems negatively affect labor-force participation, the market wage offer, and the number of hours that both Hispanic and non-Hispanic women are able to supply. Hispanic women with health problems were more likely to work than a similar group of non-Hispanic women, so the prevalence of poor health among the Hispanic sample is not useful in explaining the latter's relatively lower participation rates. Nor does it seem that the lower earnings and hours worked by Latinas in poor health are the cause for the greater frequency of poverty-level earnings among this sample. Although poor health certainly contributes to lowering the earnings and hours worked by Latinas with health problems, the actual earnings of those with health limitations are only 12 percent less than the earnings of their healthy counterparts. Among non-Hispanic women with health problems, actual earnings were 28 percent less than those of their healthy counterparts.

The empirical results indicate that the smaller earnings gap within the Hispanic women's sample is largely the result of less variation in the wage earned by women with and without health limitations. Employers are differentially rewarding or penalizing human capital and productivity-related factors (e.g., education and health) in determining wage offers made to Hispanic and non-Hispanic women. Of course these differentials may be a function of occupation or industry location, as well as union member-

ship, which were not controlled for in the empirical tests. More generally, employment discrimination, both in terms of wages and occupational placement, may "set" lower wage and hour constraints so that the average earning capacity for Hispanic women is established within a given range, regardless of whether an individual woman is more or less in good health.

Even if Hispanic women with health problems were to enjoy the earnings of their healthy counterparts, their income would still place them in poverty unless they receive help from family members or public programs. Thus, while improving the health status of Latinas will increase their participation rates, earned wages, and the number of hours worked, it will not resolve the problems of poverty and low annual income. For Hispanic working women, being in good health does not guarantee that their chances of escaping poverty will be significantly improved, while indicators of low socioeconomic status greatly increase their probabilities of reporting being in poor health. ❧

Notes

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8. N. Chirikos, "Economic Determinants and Consequences of Self-Reported Work Disability," *Journal of Health Economics* 3, no. 2 (1984): 117–136, and Wolfe and Hill, "The Role of Health in Limiting Earnings Capacity."

9. J. Bound, "Self-Reported versus Objective Measures of Health in Retirement Models," *Journal of Human Resources* 26 (1991): 106–138, and R. Haveman and B. Wolfe, *Disability Status as an Unobservable: Estimates from a Structural Model*, Institute for Research on Poverty Discussion Paper 775-85, University of Wisconsin, 1985.

10. Haveman and Wolfe, *Disability Status as an Unobservable*.

11. R. Haveman, B. Wolfe, L. Buron, and S. Hill, in *The Loss of Earnings Capability from Disability/Health Limitations: Toward a New Social Indicator*, Institute for Research on Poverty Discussion Papers, Dp# 1016-93, 1993, review a number of alternatives for defining

the population of persons with health problems or disabilities, including work limitations and disability program participation criteria found in the CPS and other data sets.

12. Legal constraints and employer stipulations concerning the number of hours per week and weeks per year that must be worked are relaxed in the model.

13. Most empirical labor-market analysis assumes that wages are unaffected by hours of work. In a test for differences in the wages of part-time and full-time women workers, R. Blank ("Are Part-time Jobs Bad Jobs?" in Gary Burtless, ed., *A Future of Lousy Jobs?* [Washington, D.C.: Brookings Institution, 1990], 144), concluded that "there is no simple way to characterize the effects of part-time work on women's wages." Without more research, it seems reasonable to keep the identifying assumption I used here.

14. The relationship between equations 2 and 3 arises from the fact that since reservation wage W_{*i} equals the greatest wage offer consistent with zero hours of labor supply, then $c_* = -c/a$, $d_* = -d/a$, and $u_{*i} = -e/a$.

15. The first-stage probit estimates used the entire sample of working and nonworking women to establish the probability of being in the employed sample. See Table 1 for the definitions of variables included in the maximum likelihood estimations. I used the coefficient estimates from the probit to form a measure of the "selection-bias" variable lambda for each observation. The second-stage estimates of the wage function for workers contained the set of regressors included in the vector X_1, but no right-hand-side endogenous variables. In order to correct for the simultaneous equation bias of the OLS estimator, I used imputed wages obtained from the selection-bias corrected regression as an instrument for actual wages in the estimation of the annual-hours equations. I then estimated the parameters of the annual-hours equations, again correcting for the possibility of selectivity bias by including the lambda variable in the equations. Despite the unidirectional dependency between the endogenous variables in equation 3, the system is not recursive because of the assumed correlation between the disturbances in the market wage and annual-hours-worked equations.

16. J. Feinstein, "The Relationship between Socioeconomic Status and Health: A Review of the Literature," *Milbank Quarterly* 71, no. 2: (1993): 279–322, and H. S. Luft, *Poverty and Health: Economic Causes and Consequences of Health Problems* (Cambridge Mass.: Ballinger, 1978).

17. Wolfe and Hill, "The Role of Health in Limiting Earnings Capacity."

18. See M. S. Hill, *The Panel Study of Income Dynamics: A User's Guide* (Newbury Park, Calif.: Sage, 1992).

19. R. Haveman, M. Stone, and B. Wolfe, "Market Work, Wages, and Men's Health," NBER Working Paper No. 3020, 1989.

20. Havemen et al., *The Loss of Earnings Capability.*

21. Ibid.

22. To obtain the potential wage, I used coefficients from the appropriate log wage (lnwage) equation, including the person's health, demographic, and human capital characteristics. I included the coefficient on the lambda variable from the wage regression in predicting wages, so that the resulting earnings loss estimates are conditional on whether we observed the individual working. Lost earnings measures the difference between the amount of money persons could potentially earn if they were free of disability/health limitations and the amount of money that they can actually earn given their limitations.