Published in final edited form as:

Econ Lett. 2016 July ; 144: 41–44. doi:10.1016/j.econlet.2016.04.013.

Ownership of a bank account and health of older Hispanics

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Abstract

We study health effects of financial inclusion, particularly ownership of a checking account of older minorities, with focus on Hispanics. Using data from the Health and Retirement Study from 2000 to 2012, we find that, for Hispanics, being banked has a positive effect on mental health but is not associated with effects on physical health. Mental health benefits are likely to be larger for those who face greater hurdles to access formal financial institutions. Hispanics in less well-off neighborhoods and with below-median wealth appear to experience the greatest mental-health benefits associated with ownership of a checking account.

Keywords

financial inclusion; unbanked; health disparities; Hispanics; Older population

I. Introduction

Previous studies of the United States (US) have found that access to health insurance for the uninsured improves wellbeing by providing financial protection, reducing stress, and, in turn, improving mental health (e.g., Finkelstein et al., 2012). Similarly, Taylor et al. (2009) document a positive relationship between individuals' ability to manage and take control of their finances and their psychological wellbeing.

Ownership of a bank account constitutes a basic step towards promoting financial capability and is likely to have important implications in relation to liquidity constraints and saving behavior (Thaler, 1999), transaction costs (Carbo et al., 2005), financial preparedness for retirement (Clark and d'Ambrosio, 2003), and personal security (Mullainathan and Shafir, 2011). Hence, access to a bank account may increase financial stability, reduce stress, and

benefit health, especially among minorities facing cultural and socio-economic barriers that limit their participation in the formal financial sector.

Using panel data techniques, we investigate the extent to which ownership of a bank account is associated with better physical and mental health for different racial and ethnic groups in the US, particularly Hispanics. We focus on individuals age 51 to 90 since they are likely to face greater hurdles to accessing primary financial services due to their cultural background or lack of acculturation. We also explore whether, among Hispanics, the potential health benefits of ownership of a bank account are heterogeneous across different socioeconomic status (SES) groups. While our work is innovative in documenting the relationship between financial access and health, lack of exogenous variation in bank account ownership prevents us from interpreting our estimates as causal. We briefly discuss some of the endogeneity issues we face.

II. Data and Methodology

We use data from the Health and Retirement Study (HRS). Our sample includes individuals age 51 to 90 observed over the period 2000–2012 (7 biennial waves). We construct three health indices—overall, physical, and mental health—using principal component analysis as in Michaud and Van Soest (2008). Overall health index includes self-reported health (5-point scale: excellent, very good, good, fair, or poor), severe condition (cancer, chronic lung disease, heart attack or other heart problems, and angina), mild condition (hypertension, diabetes, emotional, nervous, or psychiatric problems, and arthritis or rheumatism), CESD score (Center for Epidemiologic Studies Depression Scale), and difficulty with activities of daily living (ADL). Physical health index includes severe condition, hypertension, diabetes, arthritis or rheumatism, and difficulty with ADL. Mental health index includes CESD score and psychiatric problems. Health indices are standardized and reverted so that higher values correspond to better health.

We classify as “banked” those households who answer the question: “*Do you [or your] [husband/wife/partner] have any checking or savings accounts or money market funds?*” affirmatively.¹ For each household, we consider the financial respondent and estimate individual-specific effects models of the form:

$$HI_{it}^j = \alpha + \beta AF_{it} + \gamma X_{it} + \lambda_i + \delta_t + \varepsilon_{it}, \quad (1)$$

where HI_{it}^j is the health index j for individual i in year t ; AF_{it} is an indicator for whether individual i in year t holds a bank account; X_{it} is a vector of time-varying individual characteristics, namely an index of neighborhood SES characteristics, a quadratic polynomial in age, an indicator for couple household, income and wealth in tertiles, indicators for home and vehicle ownership, working status, private pension, health

¹FDIC (2014) indicates that 67% of unbanked and underbanked Hispanics own a checking account, but only 26% own a savings account.

insurance, ever smoked, and obesity. The term λ_i represents time-invariant individual characteristics; δ_t are survey year indicators and ε_{it} idiosyncratic errors.

We estimate equation (1) by fixed effects (FE) with robust standard errors. This allows us to control for unobserved individual traits and preferences that are bound to affect both health outcomes and financial behavior. Since we are interested in the effect of financial-sector participation on the health of racial groups, we estimate equation (1) for the entire sample and, separately, for Whites, Blacks, and Hispanics (excluding other racial/ethnic groups). The FE estimator exploits within-individual variation in ownership of a bank account to identify the parameter of interest. While changes over time in bank account ownership are relatively common among minorities (especially Hispanics), we check the robustness of our results to the source of identifying variation by estimating equation (1) with random effects (RE). In the RE specification, we include time-invariant individual characteristics, such as gender, education, race and ethnicity, ever received Social Security benefits, and individuals' initial health to account for unobserved determinants of health status potentially correlated with financial behavior.

We exploit the restricted HRS geo codes to link census tracts of sampled households with data from Census 2000 and the 2009–12 American Community Survey. We construct an index of neighborhood socioeconomic status (*NSES*) characteristics using principal component analysis as in Diez Roux et al. (2001). The index includes neighborhood-level information about residents' income, housing, education and occupation (see [blinded for review] for more details). Summary statistics are available in Table A.1 of the online appendix.

III. Results

Table 1 shows the estimated relationship between health and ownership of a bank account for the entire sample and, separately, for Whites, Blacks and Hispanics. The FE estimates in columns (1), (2), and (3) indicate that having a bank account is associated with an improvement in overall and mental health, while there is no effect on physical health. When we split the sample by race/ethnicity, we see that mental health benefits are driven primarily by Hispanics, for whom ownership of a bank account increases the mental health index by nearly 0.06 standard deviations. For Whites and Blacks, we observe a marginally significant association between bank account ownership and overall health.

Columns (4), (5), and (6) present the RE results. These confirm the stronger association between mental health and ownership of a bank account for Hispanics in comparison to the other two racial groups. The RE estimation also reveals significant positive health effects for Whites (overall and mental health) and Blacks (overall health). While we control for initial health in our RE regressions, this may not fully account for unobserved individual-specific characteristics that correlate with both health outcomes and ownership of a bank account. For this reason, we prefer FE specifications, which we will use below when exploring heterogeneity across SES groups.

Controlling for ownership of home, vehicle and private pension, which could proxy for financial inclusion, might lead to underestimate the association between bank account ownership and health outcomes. When we exclude such variables we obtain slightly larger parameter estimates (see Tables A.4 and A.5 in the online Appendix). Yet, in the reminder of the paper we maintain a more conservative specification where these variables are controlled for.

In Table 2, we analyze whether the effect of bank account ownership on health varies by SES. Here we consider only Hispanics, for whom mental health benefits of financial-sector participation appear to be greatest. We hypothesize that ownership of a bank account increases financial security, reduces stress, and through this, improves mental health. We expect the positive effect of owning a bank account on mental health to be more apparent for relatively more disadvantaged groups, especially within minorities that face access barriers related to language proficiency, culture, and legal status, among others. Below, we test this hypothesis using a one-sided test.

In columns (1) and (2) of Table 2, we separate Hispanic households depending on whether they answer the questionnaire in Spanish or English. We consider the former to be less proficient in English and to have limited acculturation. As a consequence, they may find it more difficult to open a bank account because of language as well as cultural barriers. We compute that, while 72% of Hispanics answering the HRS in English own a bank account, only 40% of those answering in Spanish do so. We find that, for those Hispanics who answer in Spanish, ownership of a bank account improves mental health by nearly 0.08 standard deviations. For those who answer in English, the estimated effect is smaller and not statistically different from zero. Yet, a one-sided test does not provide statistical evidence that the former receive larger mental health benefits from being banked than the latter.

Next, we estimate our model for Hispanics who reside in neighborhoods with low and high SES (above and below the median value of the NSES index). We find that having a bank account significantly improves mental health for Hispanics in more disadvantaged neighborhoods but has little or no effect for those in better-off communities. Using a one-sided test, we reject the null (at 5%) that mental health benefits are the same in neighborhoods with low and high SES against the alternative that they are larger in the former.

Columns (5)–(6) and (7)–(8) show estimation results for Hispanics by level of wealth and income, respectively. Ownership of a bank account is associated with an increase in the mental health index of 0.08 standard deviations for Hispanics below median wealth, while it is not correlated with mental health for those above median wealth. We test the hypothesis that mental health benefits are the same for Hispanics below and above median wealth against the alternative that they are larger for the former and reject the null at 10% significance level. For Hispanics below median income, having a bank account is associated with an increase in the mental health index of 0.07 standard deviations. The estimated effect for those above median income is about half the size, but not statistically smaller (using a one-sided test, we cannot reject the null that the coefficients are the same for those below

and above median income). We do not find that overall and physical health respond to ownership of a bank account across SES groups among Hispanics.²

Overall, our results indicate that ownership of a basic financial instrument such as a bank account can have important and positive implications for individuals' wellbeing, especially their mental health. We obtain moderately supportive evidence to the hypothesis that these benefits are larger for those who are likely to face greater hurdles to accessing formal financial institutions. We identify these individuals as Hispanics who live in more disadvantaged neighborhoods. These are more likely to face barriers to ownership of a bank account stemming from lack of acculturation and information, illegal immigrant status and a stronger territorial presence of alternative financial service providers (e.g., payday loans, pawnshops) crowding out traditional banking institutions. Conditional on SES neighborhood characteristics, there are no significant differences by language and income level, but the results are suggestive of heterogeneous health effects for Hispanics below and above median wealth.

A potential limitation of our analysis is that we cannot rule out the possibility that differences in health status are reflected in differences in bank account ownership. For instance, the positive mental health effects we estimate could be the result of family members taking over finances for aging individuals whose mental health is declining, leading to a selection effect in our analysis (e.g., those whose mental health worsens are more likely to become unbanked). To reduce the impact of such an effect on our estimation results, our analysis excludes individuals over the age of 90, who may have a higher incidence of impairments and, therefore, a higher likelihood of becoming unbanked. We have also checked the robustness of our findings to different sample selection criteria and obtained very similar results when limiting our analysis to respondents 51 to 85, 51 to 80, and 51 to 75 years of age.

IV. Discussion

Our analysis provides empirical evidence that ownership of a bank account may improve financial stability, reduce stress, and thus improve individuals' mental health and wellbeing. We estimate a strong and positive association between financial-sector participation and mental health for older Hispanics. We also document heterogeneity in this relationship along several SES dimensions.

Our data allow us to condition our analysis on a rich set of variables, including household demographics, financial situation, and health behaviors, that can affect health outcomes. Most importantly, we exploit the longitudinal dimension of our data set to control for individual-specific, time-invariant characteristics that may determine both health outcomes and decisions to participate in the formal financial sector.

²We have also estimated the regressions in Table 2, columns (3)–(8) for Whites and Blacks, separately. We do not observe any evidence that ownership of a bank account has health effects for Whites and Blacks in different SES groups (results are available upon request).

Our study suggests that increasing financial-sector participation for minority and more disadvantaged SES groups can have positive effects on wellbeing and help reduce health disparities. While we have supportive evidence of this relationship, our analysis is still preliminary in its attempt to uncover a causal link. A field experiment where a bank account is randomly granted to individuals belonging to targeted minority and SES groups would allow a better assessment of the health effects of access to financial services.

Acknowledgments

We are thankful to William Cunningham, Susan Ettner, Carol Mangione, Ronald Oaxaca, James Smith and an anonymous referee for their helpful comments and Mei Leng for her research assistance. We thank Pierre-Carl Michaud and Arthur Van Soest for providing us with their code to construct health indices. Authors are grateful for support from UCLA RCMAR/CHIME under NIH grant P30AG021684 and the UCLA CTSI Grant UL1TR000124. [blinded for review] additionally received support from the NIH under grant R01AG037398. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the NIH. All errors are our own.

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Table 1**Health Effects of Bank Account Ownership by Race and Ethnicity**

	(1)		(2)		(3)		(4)		(5)		(6)	
	Overall Health	Physical Health	Physical Health	Mental Health	Mental Health	Overall Health	Physical Health	Physical Health	Mental Health	Mental Health		
	Fixed Effects Model				Random Effects Model							
All	0.0200** (0.0080)	0.0118 (0.0082)	0.0253** (0.0099)	0.0271*** (0.0074)	0.0120 (0.0075)	0.0294*** (0.0089)						
Whites	0.0178* (0.0107)	0.0069 (0.0108)	0.0164 (0.0138)	0.0342*** (0.0100)	0.0167* (0.0101)	0.0288** (0.0126)						
Blacks	0.0251* (0.0150)	0.0182 (0.0156)	0.0158 (0.0180)	0.0277** (0.0133)	0.0021 (0.0137)	0.0172 (0.0152)						
Hispanics	0.0218 (0.0216)	0.0067 (0.0222)	0.0596** (0.0261)	0.0144 (0.0191)	0.0082 (0.0198)	0.0546** (0.0225)						

Notes: Dependent variables: Overall Health Index (Columns 1 and 4), Physical Health Index (Columns 2 and 5), Mental Health Index (Columns 3 and 6). Estimated coefficients for bank account ownership are reported for the whole sample and, separately, for different racial/ethnic groups. In the FE specification the set of controls includes NSES index, age, age squared, indicator for couple household, income and wealth (tertiles), indicators for home and vehicle ownership, working status, private pension, health insurance, ever smoked, obesity, and year dummies. Additional controls in the RE specification are race/ethnicity (whole sample), male, education, indicator for ever received Social Security benefits, and initial overall, physical or mental health (depending on the regression dependent variable). The complete set of estimated coefficients is provided in Tables A.2 and A.3 in the online Appendix. Robust standard errors in parentheses.

Significance denoted as

p<0.01,

**
p<0.05,

*
p<0.1.

Table 2
Health Effects of Bank Account Ownership among Hispanics: FE Estimates by Survey Language and SES Group

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Survey Language		Neighborhood SES		Wealth		Income	
Spanish	English	below median	above median	below median	above median	below median	above median
Panel A: Dependent variable - Overall Health							
0.0073 (0.0293)	0.0429 (0.0315)	-0.0093 (0.0282)	0.0562 (0.0396)	0.0318 (0.0258)	-0.0030 (0.0447)	0.0166 (0.0277)	0.0224 (0.0371)
Panel B: Dependent variable - Physical Health							
0.0084 (0.0302)	-0.0216 (0.0327)	0.0101 (0.0295)	0.0216 (0.0366)	0.0089 (0.0268)	-0.0148 (0.0462)	0.0039 (0.0290)	0.0339 (0.0377)
Panel C: Dependent variable - Mental Health							
0.0775** (0.0372)	0.0417 (0.0365)	0.0855** (0.0340)	-0.0108 (0.0429)	0.0779** (0.0309)	-0.0041 (0.0554)	0.0741** (0.0336)	0.0457 (0.0426)

Notes: The sample includes only Hispanics. Estimation is carried out separately for sub-groups defined by survey language (Columns 1–2), neighborhood SES index (Columns 3–4), wealth (Columns 5–6) and income (Columns 7–8). Dependent variables: Overall Health Index (Panel A), Physical Health Index (Panel B), and Mental Health Index (Panel C). FE estimated coefficients for bank account ownership are reported. The set of controls includes NSES index, age, age squared, indicator for couple household, income and wealth (tertiles), indicators for home and vehicle ownership, working status, private pension, health insurance, ever smoked, obesity, and year dummies. The complete set of estimated coefficients is provided in Tables A.6 and A.7 in the online Appendix. Robust standard errors in parentheses.

Significance denoted as

p<0.01,
**
p<0.05,
*
p<0.1.