

College Student Attitudes toward Retirement Planning: The Case of Mexico and the United States

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Abstract

College students are a population of particular interest when it comes to financial planning for retirement, because they will soon enter the workforce and be asked to make significant decisions that will set the stage for a lifetime of saving practices. In this investigation, college students in the United States ($n = 346$) and Mexico ($n = 345$) reported their attitudes, behaviors, and beliefs regarding an array of psychological variables related to financial planning for retirement. We cast the data into two theoretically-based path models—one for each country—and then compared the results. Both models accounted for appreciable variance in expectations of future financial planning. Although models for both groups were structurally similar, path coefficients revealed important cross-national differences in the psychological factors that underlie anticipated future saving practices. The discussion focuses on cultural differences in attitudes and beliefs likely to impact long-range financial planning and saving behaviors.

Keywords

retirement, financial planning, cross-cultural, Mexico, United States, saving

Introduction

A variety of factors, including economic, demographic, social, psychological, and country-specific structural dimensions, influence how individuals go about the process of financial planning for retirement. Some of these factors have been shown to be more important than others, and the influence these dimensions have on planning practices can vary not only from situation to situation, but also from one individual to the next. One thing, however, seems to remain constant, and that is that most individuals do not adequately plan and save for the post-employment period (Adams & Rau, 2011; VanDerhei & Copeland, 2010; Wiener & Doescher, 2008).

A review of the literature suggests that retirement saving challenges in both developed and emerging economies are not at all uncommon. Moreover, researchers have observed an inadequate preparation for retirement (financial and otherwise) in a number of countries around the world—even those with well-developed pension systems (Litwin & Sapir, 2009; Lusardi & Mitchell, 2011a). This state of affairs has led to widespread economic concerns across the globe, one of which is how financially secure individuals will be once they leave the workforce (Lusardi & Mitchell, 2014). Although investigators have published a number of studies on cross-cultural comparisons regarding retirement habits (Alavinia & Burdorf, 2008; Coe & Zamarro, 2011; Hershey, Henkens, and Van Dalen, 2010; Wahrendorf, Dragano, & Siegrist, 2012), no studies to date examine cross-national attitudes toward retirement planning among college students. In the present study, we explore the anticipated retirement planning practices of students in the United States and Mexico, as well as the psychological dimensions believed to underlie individuals' financial planning expectations.

This study stands to make two unique contributions to the literature on financial planning for retirement. The first involves identifying the psychological predispositions to planning among members of this understudied population. By doing so, we seek to determine whether students' predispositions are consistent with those of already working (non-student) adults. Indeed, a large proportion of college students will enter the workplace soon after matriculating, and shortly thereafter, they will be asked to make thoughtfully-considered decisions about their involvement in employer-sponsored retirement saving

programs. By understanding how students are likely to think about their involvement in such programs, it should be possible to construct age-appropriate interventions designed to stimulate proactive planning and saving practices. A second contribution involves what can be learned from the cross-national comparison we carry out. It is altogether possible that culturally-based attitudes toward retirement and differences in the retirement financing systems in Mexico and the United States will differentially shape students' perceptions of the importance of planning for the future. Thus we carefully consider not only cross-national differences in the strength of the psychological predispositions that underlie the planning process, but also the extent to which those predispositions differentially predict the anticipated likelihood of planning.

Retirement Preparation: A Cross-Cultural Perspective

Previous investigations have revealed cultural differences in planning for later life, demonstrating the need to explore retirement as a specific area of interest with regard to culture. For example, Hershey, Henkens, and Van Dalen (2007) compared the retirement attitudes of employees living in two different countries, the United States and The Netherlands. They found that individuals in The Netherlands perceived their retirement savings as more adequate compared to individuals in United States. Surprisingly, however, the results also revealed that employees in The Netherlands had lower levels of retirement goal clarity and engaged in fewer retirement planning activities compared to working adults in the United States. Along similar lines, Imamoglu, Kuller, Imamoglu, and Kuller (1993) carried out a study on attitudes toward retirement and aging using two samples of respondents, one drawn from Sweden and one drawn from Turkey. The authors found that relative to individuals from Sweden, members of the Turkish sample established larger social networks and engaged in more frequent social interactions as they approached retirement. Despite this fact, Turkish respondents were more likely to report negative attitudes toward aging, higher levels of loneliness, and lower levels of life satisfaction in retirement compared to Swedish respondents. The fact that previous cross-cultural studies of retirement have led to some unanticipated findings suggests that retirement planning practices among different cultures is not yet well understood and should be subject to further inquiry. One finding

that has remained consistent, however, is that individuals in many countries around the world fail to adequately plan and save for retirement (Aegon, 2014).

Nearly 25 million Americans over the age of 60 are economically insecure—living at or below 250% of the federal poverty level (National Council on Aging, 2015). Consistent with this finding, the Social Security Administration (2012) found that 36% of single retirees over the age of 65 depend on Social Security for all or most of their monthly income. In a study conducted by the Employee Benefit Research Institute (Helman, Copeland, & VanDerhi, 2015), only 22% of adults in the United States felt they would have enough money to live comfortably in retirement. Over half of respondents reported their net worth (not including housing equity) was under \$25,000. Although housing equity is a principle asset for a large fraction of Americans, it seems that it is not typically viewed by homeowners as a general source of wealth that will support consumption during retirement. Based on data from the Health and Retirement Study, Venti and Wise (2002) concluded that home equity is typically used as a retirement asset in only a small fraction of cases, and then, primarily late in retirement following a serious “family shock” (i.e., death of a spouse or serious illness). For cases in which housing equity is converted to a liquid asset to support retirement consumption, this typically happens quite late in life (Poterba, Venti, & Wise, 2011) and usually in the form of a reverse mortgage (Sanai & Souleles, 2007).

Retirees in Mexico face a similarly troubling retirement income situation. The Organisation for Economic Co-operation and Development (OECD) reports that Mexico has the highest old-age poverty rate among the countries they track, with 26% of adults over 65 living below the poverty level (OECD, 2013). In fact, an industry study revealed that 67% of Mexican workers are concerned they will have to work full or part-time during retirement in order to make ends meet, and 63% have concerns about outliving their retirement funds (MetLife, 2013). Indeed, an appreciable number of Mexican adults expect to rely on the support of family members in old age instead of saving for retirement (Rodriguez-Flores & DeVaney, 2006).

Unfortunately, there is little to suggest that working adults in the United States and Mexico are actively involved in the planning process as a way of staving off retirement income insecurity. An investigation by Brucker and Leppel

(2008) queried American adults over the age of 43 about their plans for retirement. Fewer than half of those surveyed reported they either had a plan for managing their finances in retirement or had set a specific savings goal. Along similar lines, Lusardi and Mitchell (2011b), using data from the Health and Retirement Study, found that only about one-third of households (31%) had ever attempted to calculate how much they would need to finance their retirement.

A comparable lack of financial planning for retirement has been seen in Mexico, where fewer than one in four working Mexican adults have taken any steps to calculate their future retirement needs (MetLife, 2007). Yet, that same study revealed that just over half of Mexican employees indicated that they planned to retire between the ages of 51 and 60. This is surprising given that only 12% of respondents reported they are “on track” or “have achieved” their retirement savings goal. Troublingly, some 30% of Mexican citizens do not feel responsible for ensuring a financially comfortable retirement (Principal Financial Group, 2005), choosing instead to defer that responsibility to the state.

It goes beyond the scope of this paper to provide a detailed synopsis of the retirement support systems in Mexico and the United States, but suffice it to say that retirees in both countries rely on the three-pillar system of retirement income support (World Bank, 1994). Within this system, the first pillar consists of publicly or privately managed state funds (i.e., social security), the second consists of employer-sponsored occupational pensions, and the third consists of personal savings (Whitehouse, 2007). For better or worse, shifts in pension financing over the past two decades have created a situation in which “retirees are now left to balance on a one-legged stool [of personal savings] as decreasing public and employer benefits shift the greater share of the responsibility onto the individual” (Natixis, 2015, p. 8). For that reason, it will be critically important for current (and future) working adults to play an active role in not only saving for the post-employment period, but also managing their own resources in the years prior to their departure from the workforce.

The following section of the paper outlines a number of psychological determinants of retirement saving practices among working adults, with an eye toward illuminating how those same factors might shape college students’ expectations of planning once they enter the workforce.

Psychological Predispositions Toward Planning

We tested a path model as part of this investigation in which four different determinants of students' expectations of financial planning are examined: financial knowledge, retirement goal clarity, future time perspective, and the extent to which one's parents have encouraged saving for the future. In previous research, each of these constructs has been shown to predict planning and saving tendencies among working adults. Each of the four is briefly described below.

Financial knowledge. Comparative cross-national data on financial knowledge are sparse in the primary research literature. However, findings from the Visa International Financial Literacy Barometer Survey (Visa, 2012) suggest Mexican children and young adults are relatively financially well informed. One question in the survey asked: "To what extent would you say that teenagers and young adults in (Country) understand money management basics and are adequately prepared to manage their own money?" Mexican respondents earned a score of 47.8 out of 100, ranking fifth in a field of 28 countries surveyed. Respondents in the United States earned a score of 18.5, leading to a ranking of 27th among the countries studied. Perhaps the important take-away message is that there is room for improvement in both countries, given that scores in all countries were relatively low. Consistent with this assertion, a study by Hastings and Tejada-Ashton (2008) found basic financial knowledge to be seriously lacking among Mexican adults, which parallels a result reported by Lusardi and Mitchell (2014) who found knowledge levels in the United States to also be suboptimal. However, a recently released cross-national examination of financial literacy involving 140 countries (Klapper, Lusardi, & Van Oudheusden, 2015) contradicts these findings, showing that the percentage of financially literate adults in the United States is 57%, compared to 32% in Mexico.

Retirement goals. Our review of the literature failed to identify any studies that have compared levels of retirement goal clarity between individuals living in the United States and Mexico. However, the literature on cultural differences in goals suggests that individuals in the United States may score higher on this dimension than individuals in Mexico. In one review (Oettingen, Sevincer, & Gollwitzer, 2008), the authors discuss differences in goals between

individualist (i.e., the United States) and collectivist (i.e., Mexico) cultures. Individuals who live in individualist cultures are more likely to have goals related to social independence and personal success. We conclude from that finding that workers in the United States would be more likely to have stronger goals related to financial independence (social independence), and accordingly, set goals to achieve financial freedom. Work by Briley and Aaker (2006) is suggestive of another reason why individuals in the United States might be likely to rank higher along the retirement goal clarity dimension than individuals in Mexico. In countries with developing economic systems (e.g., Mexico), personal safety and preventing danger from occurring to oneself and family members is a top goal, whereas in economically developed nations (e.g., the United States), personal safety needs have largely been satisfied and individuals are more likely to devote time and effort to goals related to future achievements.

Future time perspective. In the literature, investigators have characterized future time perspective as the extent to which one enjoys thinking about the future (Hershey & Mowen, 2000). Research suggests that individuals in the United States tend to have an orientation toward the future, whereas individuals in Mexico tend to be oriented toward the present (Kluckhohn & Strodtbeck, 1961; Spears, Lin, & Mowen, 2000). These differences in time orientation may be due to cultural conceptualizations of time as being linear in the United States and circular in Mexico (Graham, 1981; Jones, 1988). Recent published findings from Earl, Bednall and Muratore (2015; see also Yang and Devaney, 2011) suggest that one's orientation to time is predictive of retirement planning tendencies. However, an investigation by Petkoska & Earl (2009) failed to demonstrate a relationship between time perspective and planning activities.

Early family influences. Individuals who work in the area of family processes have suggested that the way children and young adults are socialized by family members (and particularly parents) has an effect on an offspring's financial decisions (Gudmunson & Danes, 2011; Payne, Yorgason, & Dew, 2014). Parents not only serve as role models, but they are in a position to cultivate forward-thinking attitudes when it comes to financial behavior. One question on the Visa Financial Barometer Survey (Visa, 2012) asked individuals how often they talk with their children about money management issues. On a scale of 1 to 100, Mexico ranked first on this dimension among the 28 countries studied,

with a score of 80.2. The United States, in contrast, ranked 6th with a score of 49.7. Researchers determined that Mexicans talk to their children about money roughly 41.7 days out of the year (a comparable value was unreported for the United States). A similar question on the survey queried respondents about their financial literacy training in schools, and again, Mexico outranked the United States.

Present Investigation

One purpose of the present study is to examine the extent to which college students in the United States and Mexico differ in their retirement planning expectations. We anticipate that cultural factors will lead to mean differences in retirement expectations, and perhaps the psychological dimensions that underlie those expectations. The second purpose of this study is to test a hierarchically-structured path model for students that is formulated based on findings from existing studies of the retirement planning practices of working adults. Toward this end, we will estimate the model shown in Figure 1 separately for students from Mexico and the United States. As seen in the figure, expectations of financial planning for retirement will serve as the dependent variable, and the four psychological variables described above (financial knowledge, goal clarity, future time perspective, and parental influences on saving) will be cast as predictors.

Hypotheses. Culture can be thought of as representing collectively held values and beliefs among a group of people (Hofstede, 1980/1981). Therefore, to the extent that individuals from Mexico and the United States form their beliefs on the basis of different values, it is likely that the

magnitude of scores for the different variables in the study will differ cross-nationally. For that reason, the first empirical goal was to probe for mean differences in expectations of financial planning for retirement, as well as the psychological dimensions that underlie anticipated planning practices.

Given the particularly strong cultural emphasis on retirement preparation in the United States (Ekerdt, 2004), we predicted that American students' scores for the expected financial planning construct would be larger than those of Mexicans. In contrast, based on findings from the Visa Financial Barometer Survey (Visa, 2012) described above, we anticipated that mean scores for the financial knowledge and parental influences on saving dimensions would be larger for students from Mexico. Furthermore, given cultural values surrounding individuals' retirement goals in the United States and in Mexico, we posited scores on the retirement goal clarity dimension would be larger for students from the United States. Finally, the strong future orientation of individuals in the United States relative to the present orientation of individuals in Mexico (Spears, et al., 2000) suggests that Mexican students' scores would be lower on this dimension than those of students in the United States.

The second empirical goal was to test the path analysis model depicted in Figure 1. Findings from existing studies reveal that a number of the constructs in the model are related to one another; importantly however, investigators have not studied these relationships among college students, nor have they comparatively studied these relationships between individuals from Mexico and the United

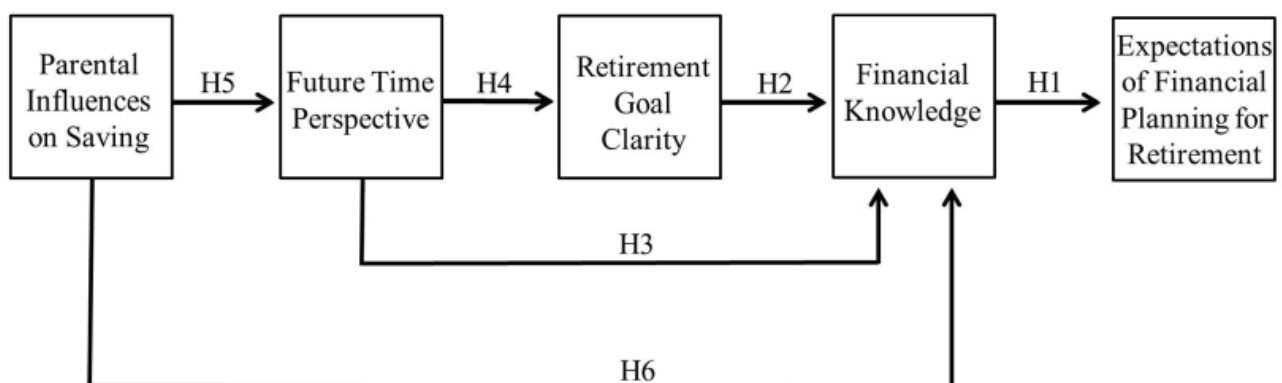


Figure 1. Hypothesized model of influences on expectations of financial planning for retirement. All paths shown in the model are posited to have beta weights with positive valences.

States. Consistent with previous findings, we anticipated financial knowledge would be predictive of expectations of future financial planning activities (H1; Kopusko & Hershey, 2014; Noone, O'Loughlin, & Kendig, 2012; Van Rooij, Lusardi, & Alessie, 2011; Van Rooij, Lusardi, & Alessie, 2012). The second hypothesis suggests retirement goal clarity will account for variability in financial knowledge (H2). This relationship has already been demonstrated among a sample of American adults (Hershey, Jacobs-Lawson, McArdle, & Hamagami, 2007), and a different investigation found that teenagers with strong financial goals actively sought out financial information relative to those with weak financial goals (Koonce, Mimura, Mauldin, Rupured, & Jordan, 2008). We also expected, on the basis of previous findings, that future time perspective would be related to financial knowledge (H3; Gutierrez & Hershey, 2014; Hershey et al., 2010; Hershey et al., 2007; Noone et al., 2012). Furthermore, we hypothesized that future time perspective would be related to goal clarity (H4; Hershey et al., 2007; Kopusko & Hershey, 2014) and parental influences on saving would be significantly linked to future time perspective (H5; Gutierrez & Hershey, 2014; Kopusko & Hershey, 2014; Wilkins, 2010). Finally, we anticipated that parental influences on saving would significantly predict financial knowledge (H6; Akben-Selcuk & Altiok-Yilmaz, 2014; Gutierrez & Hershey, 2014; Kopusko & Hershey, 2014; Payne et al., 2014). We expected that all beta coefficients in the path models would carry positive valences.

Method

Participants

Study participants ($N = 691$) were college students from Mexico ($n = 345$) and the United States ($n = 346$). The average age of participants was 20.61 years with a standard deviation of 2.89 years, with students from Mexico being 1.72 years older than those from the United States ($M_{\text{MEX}} = 21.47$; $SD = 1.84$; $M_{\text{US}} = 19.75$; $SD = 3.44$; $t(689) = 8.19$, $p = .04$). Some 56.3% of the sample was female, with somewhat more female students in the U.S. sample (United States: 61.3%; Mexico: 51.3%; $\chi^2 = 6.98$, $p < .01$). Marital status demonstrated little variability as is characteristic of college student samples; overall, 94.9% of participants reported being single (United States: 93.6%; Mexico: 96.5%; $\chi^2 = 0.43$, ns).

Procedure

We obtained the sample from the United States from a larger, more comprehensive study that focused on college students' perceptions of and attitudes toward retirement ($N = 722$; Kopusko & Hershey, 2014). At the time of testing, all American students—who represented a wide range of majors—were enrolled in a course in psychology or communication sciences at a large Midwestern university. All individuals received partial course credit for completing the retirement questionnaire online. Research assistants in Mexico collected data from students enrolled at a large university located on the Yucatan Peninsula. They too represented a wide range of majors; most were taking classes in business administration, accounting, and finance. Each Mexican respondent completed a paper-and-pencil version of the questionnaire. Both the questionnaire and procedures for this investigation were subject to appropriate Institutional Review Board scrutiny. In both countries, the questionnaire took about seven minutes to complete.

Prior to conducting the data analysis, we recognized the possibility that differences in sample size across the two groups could lead to significant effects in the path model for one group (with the larger N) but not the other, given equivalent parallel beta coefficients. Our concern was that readers might interpret comparable effects for the two groups as being differentially important. To remedy this situation, prior to analysis we removed cases from the larger American sample using the SPSS random case selector until the sample was reduced to 346 individuals—which is roughly the same size of the Mexican sample. By doing so, we were able to equate statistical power levels across the Mexican and American models, and thus, the ability to detect significant parametric effects.¹

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1. To verify that this sample size reduction procedure did not result in biased beta coefficient values, we also estimated a path model for the full American sample ($N = 722$). We then compared model parameters from that analysis to those from the model using the reduced ($N = 346$) set of respondents. We observed negligible differences in beta weights for all parallel path coefficients across the two American models, which suggests that the sample reduction procedure did not result in biased parameter values for the reduced sample set.

Table 1
Descriptive Statistics for Members of the Two Groups.
All Bivariate Correlations are Positively Related to One Another at the .01 level.

American Students	1	2	3	4	5
1. Expectations of Financial Planning	1.00				
2. Financial Knowledge	.38	1.00			
3. Retirement Goal Clarity	.35	.77	1.00		
4. Future Time Perspective	.53	.26	.29	1.00	
5. Parental Influences on Saving	.35	.32	.25	.43	1.00
Mean	5.51	3.65	3.82	5.69	5.52
(SD)	(1.12)	(1.54)	(1.50)	(1.09)	(1.34)
Mexican Students	1	2	3	4	5
1. Expectations of Financial Planning	1.00				
2. Financial Knowledge	.22	1.00			
3. Retirement Goal Clarity	.35	.60	1.00		
4. Future Time Perspective	.47	.31	.49	1.00	
5. Parental Influences on Saving	.53	.30	.33	.41	1.00
Mean	5.53	3.73	4.31	5.10	5.21
(SD)	(1.07)	(1.48)	(1.67)	(1.15)	(1.32)

Measures

The questionnaire contained the five multiple item psychological scales described below. All questions employed a 7-point (1 = *strongly disagree*; 7 = *strongly agree*) Likert-type response format. The psychometric properties we report below are for all study participants; separate means and standard deviations for members of the two groups are shown in Table 1.

Expectations of financial planning for retirement.

This 2-item measure ($M = 5.52$; $SD = 1.09$) developed by Kopusko and Hershey (2014) was specifically designed to be used with high school and college students. The measure assesses expectations of how challenging individuals will find the task of retirement planning once they enter the workforce. We eliminated one item from the original 3-item version of the scale in order to improve internal consistency reliability and the fit of the measurement model. A sample item from this scale is, “*Success at financial planning for retirement will be something that will come easily to me.*” We observed a unitary factor structure for the scale; the

Spearman-Brown reliability coefficient (i.e., the optimal coefficient for a 2-item scale; Eisinga, Grotenhuis & Pelzer, 2013) was adequate at 0.77. Higher mean scores on this measure indicate the expectation of minimal difficulties in carrying out future financial planning tasks.

Self-reported financial knowledge. This 3-item scale ($M = 3.69$; $SD = 1.52$), designed by Hershey et al. (2010), is a perceptual measure of financially-oriented retirement planning knowledge. A sample item is, “*I know more than most people about retirement planning.*” Psychometric evaluation of the measure revealed a single factor structure and a coefficient alpha level of 0.88. Higher mean scores on the measure indicate higher levels of self-rated financial knowledge.

Retirement goal clarity. This 5-item scale ($M = 4.07$; $SD = 1.36$), developed by Stawski, Hershey, and Jacobs-Lawson (2007), is designed to measure the extent to which individuals report thinking about and setting specific goals for retirement. A sample item is, “*I have a clear vision of how life will be in retirement.*” Psychometric evaluation of the

measure revealed a single factor structure and a coefficient alpha level of 0.88. We associate higher mean scores on this item with a greater degree of retirement goal clarity.

Future time perspective. This 5-item scale ($M = 5.40$; $SD = 1.08$), developed by Hershey et al. (2007; see also Kopusko & Hershey, 2014), was designed to measure the extent to which individuals are prone to and enjoy thinking about the future. A sample item is, “*I enjoy thinking about how I will live years from now in the future.*” Psychometric evaluation of the measure revealed a single factor structure and a coefficient alpha level of 0.84. Higher mean scores indicate a greater tendency toward future-oriented thinking.

Parental influences on saving. This 3-item scale ($M = 5.37$; $SD = 1.34$), developed by Kopusko and Hershey (2014), was designed to assess the effect one’s parents had on money management and saving practices. We eliminated one item from the original 4-item scale in order to improve the fit of the measurement model. A sample item is, “*My parents had a strong influence on my current opinions about saving.*” Psychometric evaluation of the measure revealed a single factor structure and a coefficient alpha level of 0.80. Higher mean scores indicate a stronger positive parental influence on saving.

In addition to the measures described above, each participant also reported his or her age, gender, and marital status. Individual items for all scales are shown in the Appendix.

Measurement Model

We computed a full measurement model using AMOS v.21 (IBM, 2012) to ensure that the factor structure of the scales were as hypothesized and there were no substantial item cross-loadings. The initial model fit was adequate, $\chi^2(160) = 608.65$, $p < .01$, $GFI = .91$, $AGFI = .88$, $NFI = .92$, $TLI = .93$, $CFI = .94$, $RMSEA = .06$. Modification indices suggested the fit could be improved by deleting two items: “*Financial planning for retirement is something that will come easily to me*” (Expectations of Financial Planning for Retirement Scale) and “*My parents made sure I understood that money was a limited resource*” (Parental Influences on Saving Scale). Deletion of these two items appreciably improved overall model fit, $\chi^2(123) = 339.53$, $p < .01$, $GFI = .95$, $AGFI = .93$, $NFI = .95$, $TLI = .96$, $CFI = .97$, $RMSEA = .05$. There were no substantial cross-loadings in the revised measurement model.

Results

Mean Differences Between Nationalities

Prior to testing our *a priori* hypotheses, we cleaned the data and examined distributions for skew, kurtosis, outliers, and any other possible distorting conditions that might violate the assumptions of general linear model analyses. We found no distributional aberrations in this regard. We then compared mean scores across nationalities for each of the five scales in the study. Planned comparisons revealed no significant mean differences between students from Mexico and the United States for two variables: expectations of financial planning for retirement and self-reported financial knowledge. Means revealed that students from the United States and Mexico both had high expectations of the likelihood of future planning (values of 5.51 and 5.53, respectively, on the 7-point scale) and moderate levels of financial knowledge (3.65 and 3.73, respectively). Contrary to expectations, however, Mexican students had significantly higher levels of goal clarity on average, compared students from the United States, $t(689) = 4.88$, $p < .01$, $d = 0.31$. Consistent with predictions, relative to Mexican students, respondents from the United States had significantly higher scores for future time perspective, $t(689) = 7.53$, $p < .01$, $d = 0.53$. Finally, in contrast to what we had hypothesized, parental influences on saving scores were higher for individuals from the United States, $t(689) = 3.18$, $p < .01$, $d = 0.23$. We report mean scores and standard deviations for all scales as a function of nationality in Table 1.

As part of our analysis examining group differences in mean scores, we probed for effects within nationalities as a function of gender.² Gender differences were evident along two dimensions for members of the sample drawn from the United States: future time perspective ($t[344] = 4.56$, $p < .01$, $d = 0.50$), and financial knowledge ($t[344] = 3.31$, $p < .01$, $d = 0.37$). For members of the Mexican sample, only a gender difference in future time perspective was significant, $t(343) = 2.20$, $p < .05$, $d = 0.24$. For members of both nationalities, females had a significantly longer future time

2. We did not carry out mean score comparisons for other sociodemographic dimensions—notably, age and marital status—because of the limited range of values for these two variables.

perspectives than males; in the U.S. sample, males had a higher level of financial knowledge than females.

Path Analysis Comparison of the Models

For the next step in the analysis process, we tested the hypothesized partial mediation model outlined in the introduction, using conventional path analysis techniques. Accordingly, we calculated the model shown in Figure 1 separately for members of each group, which involved the computation of four hierarchical regression equations for each path model. In the first of the four regressions, we regressed expectations of financial planning for retirement scores on financial knowledge (level one), retirement goal clarity (level two), future time perspective (level three), and parental influences on saving (level four). For the remaining regression equations, we changed the dependent variable according to the order displayed in Figure 1, such that for the second equation financial knowledge served as the criterion, for the third goal clarity was the criterion, and for the last (flat) regression future time perspective was the dependent variable. To distinguish between statistically significant and empirically meaningful paths (cf., Kirk, 1996), if an observed path coefficient carried a standardized beta weight between -0.15 and $+0.15$, we omitted it from the path diagram.

In the path model for college students from the United States (see Fig. 2), the overall hierarchical regression for expectations of financial planning for retirement was

statistically significant, $F(4, 341) = 46.69, p < .01, R^2 = .35$. In support of H1, financial knowledge was found to be positively related to expectations of financial planning for retirement ($p < .01$). Contrary to our predictions, however, future time perspective also emerged as a significant indicator of planning expectations at the .01 level and the relationship between retirement goal clarity and expectations of future planning demonstrated a trend ($p < .10$). The second hierarchical model predicting financial knowledge was also significant ($F[3, 342] = 176.98, p < .01$), accounting for 61% of the variance in the criterion. In support of H2 and H6, both retirement goal clarity and parental influences on saving exhibited significant effects at the .01 level. Contrary to expectations, however, the effect we hypothesized for future time perspective predicting financial knowledge (H3) failed to exceed the significance threshold. The third regression model captured far less variability in retirement goal clarity, yet the overall model was significant, $F(2, 343) = 19.99, p < .01, R^2 = .10$. Hypothesis four was supported at the .01 level, which was the path from future time perspective to the retirement goal clarity indicator. An unexpected contribution to the goal clarity criterion involved a significant path that emanated from parental influences on saving. The fourth and final regression model for members of the sample from the United States was also statistically significant, $F(1, 344) = 79.48, p < .01$. In support of H5, we found parental influences on saving to have a moderately strong effect on future time

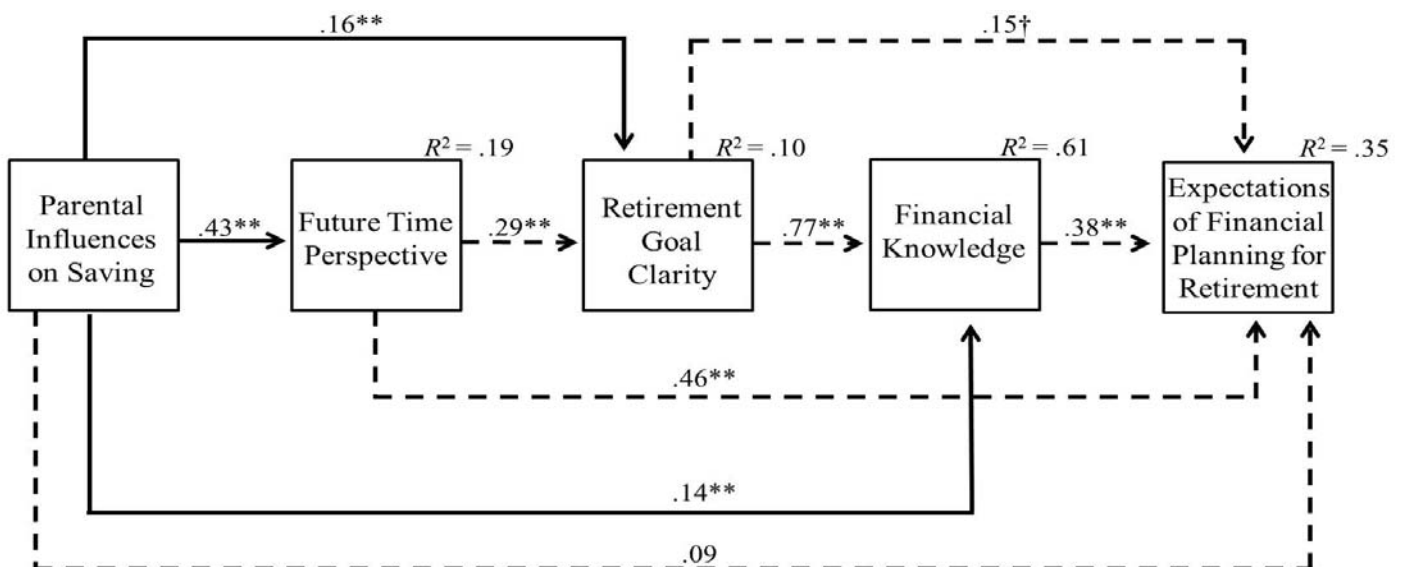


Figure 2. Observed model for American college students. Path coefficients represent standardized beta weights. Pathways that are dashed have slope coefficients that are significantly different between Americans and Mexicans. * $p < .05$, ** $p < .01$, † trend.

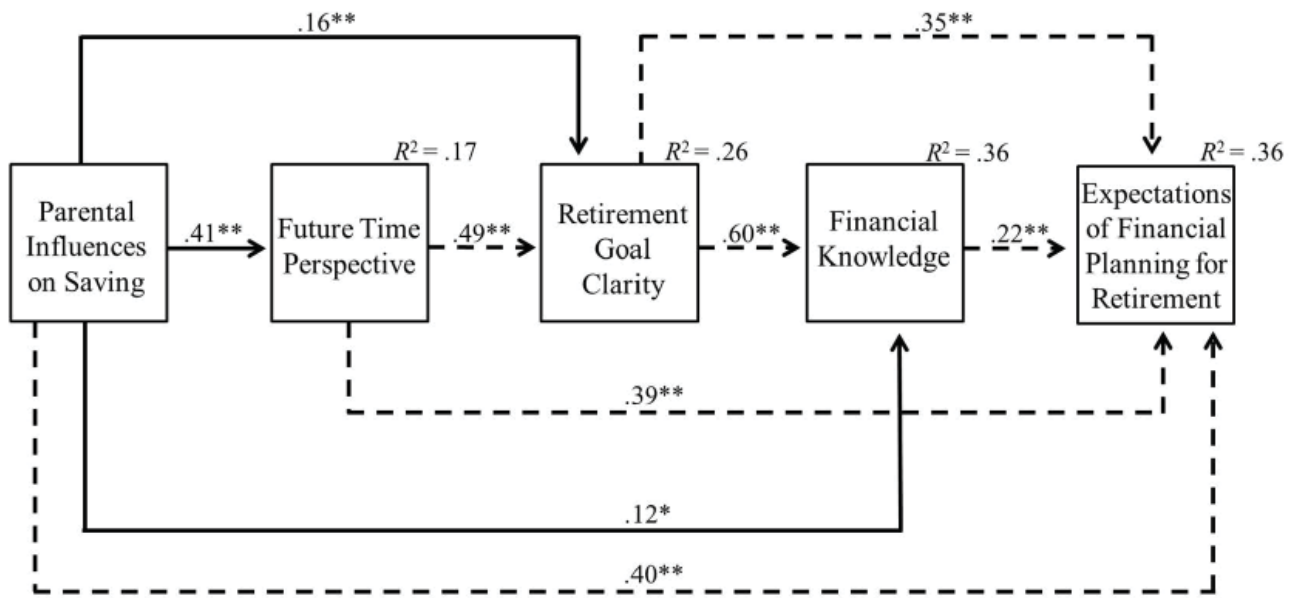


Figure 3. Observed model for Mexican college students. Path coefficients represent standardized beta weights. Pathways that are dashed have slope coefficients that are significantly different between Americans and Mexicans. * $p < .05$, ** $p < .01$, † trend.

perspective, accounting for 19% of the variability in the criterion.

The path model for students from Mexico (see Fig. 3) was nearly structurally identical to the model for students from the United States. Among Mexicans, the overall hierarchical regression for expectations of financial planning for retirement was statistically significant, $F(4, 340) = 49.35, p < .01$, with 36% of the variability captured in the criterion. The impact of financial knowledge on planning expectations (H1) was supported, in the company of three other non-hypothesized paths. Against predictions, goal clarity, future time perspective, and parental influences on saving all exhibited moderately strong influences on future retirement planning expectations (all three paths $p < .01$). The subsequent model predicting financial knowledge also captured appreciable variance, $F(3, 341) = 66.27, p < .01, R^2 = .36$. Hypothesis two and H5 found support in this model (both $p < .01$), but H3—the link between future time perspective and financial knowledge—failed to cross the significance threshold for Mexican students, as was the case in the model for individuals from the United States. The overall hierarchical regression for retirement goal clarity captured 26% of the variability in the criterion, $F(2, 342) = 60.94, p < .01$. The model supported H4 (future time perspective to goal clarity; $p < .01$) and it also showed a weak unexpected path from parental influences on saving to retirement goal clarity. The final bivariate regression of future time perspective on parental influences on saving

also exceeded the significance threshold, $F(1, 343) = 70.26, p < .01$, accounting for 17% of the variance in the time perspective construct. In addition to computing the path models reported above, we calculated cross-national slope comparisons (z-tests) to determine which parallel paths statistically differed from one another. In Figures 2 and 3, dashed pathways are those in which there was a significant difference in slope coefficients across countries. Solid paths, in contrast, indicate slope coefficients that failed to differ from one another. As seen in the figures, six of the nine paths revealed cross-national effects at the .05 level. In descending order of magnitude, parallel paths that revealed significant effects were: parental influences on saving to expectations of financial planning for retirement ($\beta_{diff} = 0.31$), future time perspective to retirement goal clarity ($\beta_{diff} = 0.20$), goal clarity to expectations of financial planning ($\beta_{diff} = 0.20$), goal clarity to financial knowledge ($\beta_{diff} = 0.17$), financial knowledge to expectations of financial planning ($\beta_{diff} = 0.16$), and future time perspective to expectations of financial planning ($\beta_{diff} = 0.07$).

Discussion

The goal of this study was to compare expectations of future financial planning for retirement between American and Mexican college students. To inform the theoretical basis of the study, we consulted the literature on the planning practices of working adults, which has identified a number of psycho-motivational dimensions associated

with the retirement planning process. Students in both countries were highly (and equally) confident that they would engage in financial planning practices once they entered the workforce; however, mean differences were observed for three of the four constructs believed to underlie planning. Furthermore, based on the path model analyses we were able to account for an appreciable amount of variance in future planning expectations among students in both Mexico and the United States. These findings are worth noting, as no previous investigations have directly explored students' perceptions of this issue.

We identified significant mean differences between samples for three dimensions—future time perspective, retirement goal clarity, and parental influences on saving. As predicted, students from the United States had higher levels of future time perspective than students from Mexico (Graham, 1981; Jones, 1988; Spears et al., 2000). This reflects the strong cultural bias toward a future orientation to time in the United States, and a more circular (present) orientation to time in Mexico. Contrary to expectations, however, we found that students from Mexico had higher levels of retirement goal clarity, and students from the United States had higher levels of parental influences on saving. A possible explanation for the former finding is that for individuals living in Mexico, higher levels of goal clarity are needed as a way of dealing with the lack of clear and successful economic goals experienced by most members of the population (MetLife, 2007). Our finding that Mexican college students reported lower levels of parental influences on saving ran counter to what we expected based on findings from the 2012 Visa Financial Barometer survey. One should not dismiss the outcome of the present investigation regarding parental influences, however, as it is based directly on students' perceptions of parental support. In contrast, parental encouragement for saving in the Visa survey was based on Mexicans' perceptions of the frequency of parents' savings discussions with their children. This difference in outcomes is informative as it suggests a disconnect between Mexican adults' perceptions of general parent-child interactions (i.e., the 2012 Visa Barometer Survey) and the first-person reports of interactions adult students had as children with their own parents (i.e., the present study).

The lack of cross-national mean differences with respect to expectations of financial planning and financial knowledge are also intriguing. High mean scores for the former dimension suggests that students in both countries are

acutely aware of the need for them to engage in planning activities as a way of adequately supporting themselves in old age. Whether today's college students actually end up planning and saving for the future once they enter the workforce will be an important issue to explore in future investigations. The lack of a hypothesized cross-national mean difference in self-rated financial knowledge is also interesting, but it needs to be viewed in the context of scores that were in the mid-range of the self-reported financial knowledge scale. That is, students in both countries were only moderately confident in the quality of their financially-based knowledge structures, which is a finding that is consistent with the work of Lusardi and Mitchell (2014) and Hastings and Tejada-Ashton (2008). Indeed, there is room for improvement when it comes to the need for financial education and financial literacy training in both the United States and Mexico.

It was surprising to see that few gender differences emerged among study variables, in light of the fact that males tend to outperform females in matters related to financial planning and financial literacy in most advanced and developing economies (Klapper et al., 2015; Lusardi & Mitchell, 2011c; OECD, 2014). The general lack of gender differences in this study provides some hope that gender parity is increasing among young adults, at least, when it comes to individuals who reside in Mexico and the United States.

The path model analyses were also theoretically informative, as they help to explain the drivers of students' perceptions of future financial planning practices. Structurally, the models we observed for students in the two countries were comparable. That is, for the most part, the paths that emerged as statistically significant in one country were also significant in the other. In the four paths that make up the core of the path model (Fig. 1) we posited parental influences on saving would predict future time perspective, future time perspective would predict retirement goal clarity, retirement goal clarity would predict financial knowledge, and financial knowledge would predict financial planning expectations. Each of these paths emerged as statistically significant in both student models. Moreover, in both models, additional non-hypothesized paths needed to be added between retirement goal clarity and expectations of financial planning for retirement, and future time perspective and financial planning expectations. These findings are potentially

important inasmuch as they signal psychomotivational influences on study variables not previously identified in comparable research among working adults.

Despite comparable model structures, we identified parametric differences (i.e., differences in slope parameters) between the models for students from Mexico and the United States. In fact, six of the nine pathways in the models revealed differences in slopes. These differences in beta weights translated into appreciable differences in explained variance for financial knowledge and retirement goal clarity. The cross-national difference in *R*-squared values for financial knowledge was primarily driven by a differential impact of goal clarity on knowledge, a pathway that had a stronger influence on the criterion among college students in the United States. Thus, although Mexican students had higher mean retirement goal clarity scores, the goal clarity scores for students from the United States were more closely linked to their financial knowledge assessment. The other endogenous indicator that revealed a noteworthy difference in *R*-squared values was retirement goal clarity, where we observed a 16% difference in explained variance. This differential effect was due to the moderately strong impact future time perspective had on goal clarity among members of the Mexican sample, not witnessed among students from the United States. Also worth noting is the direct effect parental influences on saving had on expectations of financial planning for retirement among Mexican students, not evident among students in the United States. This differential effect is intriguing inasmuch as it suggests that in the United States, parental lessons learned regarding saving are mediated by a series of intervening psychological constructs. However, in Mexico, the nature of parental lessons learned are such that they capture unique variance in future planning expectations, not otherwise explained by the other psychological predictors.

From a public policy perspective, it is encouraging to see findings that indicate strong expectations of future financial planning among students in the two countries. It suggests young adults in the United States and Mexico may have been swayed by informational campaigns designed to increase public awareness of the need for individual involvement in the financial planning process (Hogarth, 2012), such as campaigns carried out by the Jump\$tart Coalition for Personal Financial Literacy (McElrath, 2015), the National Endowment for Financial Education (NEFE, 2015) (both in the United States), and a major informational and financial training campaign in Mexico sponsored by

the World Bank (Bruhn, Ibarra, & McKenzie, 2014). Caution is warranted, however, in assuming that students' expectations will actually translate into adaptive planning and saving behaviors. Yet, to the extent that intentions have been found to be one of the best predictors of future behavior (Ajzen, 1991; Quелlette & Wood, 1998), we are cautiously optimistic that the next generation of workers in the two countries will be more involved in voluntary saving practices than their predecessors.

We hasten to acknowledge certain limitations associated with this study. One is that due to the paucity of literature on college students and retirement, we based our initial hypotheses on the studies of adults in an older age range. Additional future investigations that focus on pre-employment populations would serve to remedy this gap in the literature. A second limitation is that our data were exclusively correlational in nature, that is, we introduced no experimental manipulations. The findings from this investigation could serve to inform future experimentally-based intervention studies designed to increase financial knowledge, goal clarity, and future time perspective. Individuals who complete an intervention program could then be compared to individuals who did not, to determine whether the general pattern of effects observed in this study are similarly witnessed in an experimental setting.

One other possible future direction would be to examine the retirement planning practices of students in other nations with developing economies, where the burden of old age financial security is in part carried by family members and members of the community (the so-called "fourth pillar" of retirement support; World Bank, 2008). A study such as this could lead to a more comprehensive theoretical understanding of how individuals from around the globe envision alternative pillars of financial support in retirement.

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Appendix:

Items from the Five Scales in the Investigation

Expectations of Financial Planning for Retirement

1. I expect to meet my financial goals in terms of planning and saving for the future.
2. I think I will do a good job of planning and saving for retirement.
3. Financial planning for retirement is something that will come easily to me.*

Self-Reported Financial Knowledge

1. I know a great deal about financial planning for retirement.
2. I have informed myself about financial preparation for retirement.
3. I know more than most people about retirement planning.

Retirement Goal Clarity

1. I have set clear goals for gaining information about retirement.
2. I have thought a great deal about my quality of life in retirement.
3. I set specific goals for how much will need to be saved for retirement.
4. I have a clear vision of how life will be in retirement.
5. I have discussed retirement plans with a spouse, friend, or significant other.

Future Time Perspective

1. I enjoy thinking about how I will live years from now in the future.
2. I like to reflect on what the future will hold.
3. I look forward to life in the distant future.
4. It is important to take a long-term perspective on life.
5. My close friends would describe me as future oriented.

Parental Influences on Saving

1. Growing up, my parents helped me to imagine situations when I might need extra money to fall back on.
2. Saving money for the future was an important lesson I learned as a child.
3. My parents suggested to me concrete ways to save money on my own.
4. My parents made sure I understood that money was a limited resource.*

* Item removed from scale to improve model fit.