

Demographic Variables and Credit Scores: An empirical study of a controversial selection tool

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The widespread use of credit scores as a selection tool has raised flags with lawmakers and the general public, but little is known about what impact such practices might have on protected classes. To explore this issue, the reported research investigated the relationship between five demographic variables and individual consumer credit scores. Using demographic data from 142 employees and objective credit data obtained from the Fair Isaac Corporation, the reported research found minority status was negatively related to credit scores (including large effect sizes), whereas age and education level were positively related to credit scores. Implications for organizations currently using or planning to use credit scores as part of their selection practices are discussed.

1. Introduction

For years, applicants have been subjected to a host of selection procedures including cognitive ability tests, personality tests, interviews, etc., yet current trends show one alternative selection tool is gaining significant momentum: applicant credit reports (Kuhn & Nielsen, 2008; Oppler, Lyons, Ricks, & Oppler, 2008).¹ Recent research conducted by the Society for Human Resource Management (2010) indicates over half of the employers surveyed currently conduct credit background checks on some or all applicants. This trend is also documented by a national survey of retailers who report credit checks show the largest planned increase usage during upcoming years (Hollinger & Adams, 2008). Use of credit reports as a selection tool is based on an intuitively appealing belief that applicants' credit histories serve as an objective indicator of integrity and conscientiousness. Practitioners propose applicants who fail to keep promises in financial matters will also fail to keep promises in the workplace (see Babcock, 2003; Norred, 1993; Radtke & Harr, 2008; Reed & Reed, 2007). Moreover, there is a general thought that employees who have personal financial problems will engage in theft and other criminal activity on the job. In an effort to prevent such activity and reduce their legal liability for negligent hiring, some suggest organizations use credit checks on all potential hires (Radtke & Harr, 2008).

As the issues discussed in the preceding paragraph have seen increasing attention in the media, both public officials and the general public have raised questions surrounding the legality of using credit scores as a selection criterion (Smith, 2007). For example, the Equal Employment Opportunity Commission (EEOC) (2010a) recently held a second public meeting on the use of credit checks as a selection tool. In the United States, the use of credit background checks is covered by the Fair Credit Reporting Act, which explicitly permits the use of consumer credit reports for *employment purposes* if written authorization is obtained from applicants. Although the term 'employment purposes' is debatable (see EEOC, 2010a; Gallagher, 2006), organizations still need to demonstrate that credit information is job-related and does not lead to adverse impact. Adverse impact refers to resulting differences between groups of applicants (e.g., minority vs. nonminority) based on the methods used during selection. To investigate such possibilities, the reported research pulls from social-psychological research to propose relationships between five demographic variables that have legal protection in many countries and credit scores.

First, the relationship between minority status and credit scores is investigated because previous research indicates minorities have different attitudes toward debt such that minority groups tend to borrow more money and make more minimum payments than nonminorities

(Micomonaco, 2003; Trent, Lee, & Owens-Nicholson, 2006). Such behaviors might translate into substantial differences in credit scores as such scores are dependent, in part, on the amount of money owed. This line of reasoning is supported by traditional news reporting that indicates blacks and Hispanics typically have credit scores substantially lower than whites (Smith, 2007). Second, the relationship between gender and credit scores is also investigated as previous research suggests potential differences between males and females. For example, females engage in more impulse buying (Verplanken & Herabadi, 2001), have more credit cards (Micomonaco, 2003), and typically earn less than males (potentially influencing the ability to repay debt; Ng, Eby, Sorensen, & Feldman, 2005). In addition, there is some indication that males may have more financial knowledge than females (Micomonaco, 2003). Given gender is a legally protected class in many countries, this research suggests the relationship between gender and credit scores needs to be investigated. Likewise, there are also reasons to explore the relationship between age and credit scores including previous research that indicates older individuals tend to hold more antidebt attitudes and have greater savings than younger individuals (Livingstone & Lunt, 1992, p. 128). Moreover, younger individuals tend to have less self-control (Tokunaga, 1993), which could result in a number of behaviors that negatively impact one's credit score. As age is also a legally protected class in many countries, there appears to be good reason to investigate a potential link between age and credit scores.

Marital status, a fourth characteristic afforded legal protection in many countries, also has the potential to influence individual credit scores as differences in credit problems exist between individuals and couples. In fact, marriage and family research has long documented the link between financial problems, divorce, and bankruptcy (Amato & Rogers, 1997; Tokunaga, 1993). As such, exploration of marital status warrants attention. Finally, although educational attainment is not a protected class, educational attainment is highly correlated with several factors that could influence credit scores including general mental ability (Judge, Klinger, & Simon, 2010, $r=0.60$) and conscientiousness (Bozionelos, 2003). Given historical problems associated with general mental ability tests and adverse impact, it seems important to investigate a potential link with a new selection tool. To this point, Perry (2008) found financial knowledge is predictive of credit scores.

2. Method

2.1. Participants

Participation was solicited through different sources within a large university in the United States. Specifically,

a news and update message routinely e-mailed to university employees and alumni informed individuals of the study. A message was also placed on the 'News' section of the college of business web site describing the study. Finally, extra credit was offered to students enrolled in an upper-level business course in return for recruiting a willing participant (41 of 55 students [75%] provided the name of a willing participant and 30 of the 41 volunteers [73%] returned their employee survey and credit score). In an effort to encourage participation, individuals were offered a free copy of their credit score (valued \$15.99) and entered into a drawing for a cash prize.

2.2. Procedures

Participation in the study required participants to complete a background survey and obtain a copy of their credit score. Whereas employees and alumni ($N=112$) completed all study requirements at an office, on campus, set up specifically for this study, employees recruited by students ($N=30$) mailed their background survey and the first page of the credit report to the primary investigator. As a result of these efforts, 142 individuals followed the required procedures and provided complete information used for analyses. Sample demographics included 73% white, 21% black, 4% Hispanic, 3% other; 39% female, 61% male; 8% high school graduate/General Equivalency Diploma (GED), 18% some college, 6% 2-year college degree, 27% 4-year college degree, 11% some graduate or professional education, and 30% graduate degree; average age 37.8 ($SD=12.51$).

2.3. Measures

2.3.1. Demographics

Dichotomous variables were created for minority-status (0 = *nonminority*, 1 = *minority*), gender (1 = *male*, 2 = *female*), and marital status (0 = *never been divorced*, 1 = *divorced*). Educational attainment was represented as 1 = *high school degree/GED*, 2 = *some college*, 3 = *2-year college degree*, 4 = *4-year college degree*, 5 = *some graduate or professional education*, 6 = *graduate degree*. Age was the self-reported age of each participant.

2.3.2. Credit score

A credit score, of which that developed by the Fair Isaac Corporation (FICO score) is perhaps the best known, is a statistically derived number representative of a person's creditworthiness. Based on a complex and proprietary algorithm using factors such as an individual's payment history, total debt burden, length of credit history, and types of open credit accounts, a FICO score can range from 300 to 850, where larger values indicate greater creditworthiness. Each participant's FICO score

Table 1. Descriptive statistics and correlations for study variables

	M	SD	1	2	3	4	5	6
1. Minority-status	0.27	0.44	—					
2. Gender	1.61	0.49	.00	—				
3. Age	37.77	12.51	-.32*	.09	—			
4. Educational attainment	5.07	1.67	-.13	-.10	-.06	—		
5. Marital status	0.12	0.33	.02	.12	.06	-.04	—	
6. FICO score	694.45	104.22	-.48*	.03	.34*	.32*	-.12	—

Notes: $N = 142$. Employees provided demographic data; FICO scores were obtained directly through <http://www.myfico.com>. Minority-status (0 = non-minority, 1 = minority); gender (1 = male, 2 = female); educational attainment (1 = high school degree/GED, 2 = some college, 3 = 2-year college degree, 4 = 4-year college degree, 5 = some graduate or professional education, 6 = graduate degree); marital status (0 = never been divorced, 1 = divorced). * $p < .01$. FICO = Fair Isaac Corporation score; SD = standard deviation; GED = General Equivalency Diploma.

Table 2. Regression analyses for demographic variables and FICO scores

Variable	FICO score	
	B	SE
Minority status	-85.13*	17.21
Gender	11.35	14.77
Age	1.97*	.61
Marital status	-39.26†	22.13
Education	17.84*	4.34
R^2	.36*	$F 136 (5) = 15.40$
Adjusted R^2	.34	

Notes: $N = 142$. B is the unstandardized regression coefficient. Respondents provided demographic data; FICO scores were obtained directly through <http://www.myfico.com>. † $p < .10$. * $p < .01$. FICO = Fair Isaac Corporation score; SE = standard error.

was obtained through Fair Isaac's official web site at <http://www.myfico.com>; for employees and alumni, the primary researcher recorded each participant's FICO score directly from the web site; participants recruited by students printed the first page of their credit report, which included their numerical FICO score, and returned it with their background survey. The range of FICO scores was 387–817 with a mean of 694 ($SD = 104$).

3. Results

Whereas Table 1 presents the means, standard deviations, and intercorrelations between study variables, Table 2 presents regression results examining the relationship between demographic variables and credit scores. Although not shown in either Table, descriptive statistics for credit scores include: men ($\bar{x} = 694.3$, $SD = 114.0$), women ($\bar{x} = 701.16$, $SD = 97.9$), minorities ($\bar{x} = 616.1$, $SD = 112.7$), and nonminorities ($\bar{x} = 728.53$, $SD = 83.0$). Inspection of Table 2 indicates the combination of the five demographic variables accounted for roughly 34% of the variance in one's credit score ($p < .01$). Closer examination of Table 2 indicates minor-

ity status is a significant predictor of one's credit ($B = -85.13$, $p < .01$). With coding of 0 = nonminority and 1 = minority, the negative correlation and unstandardized regression coefficient indicates minorities tend to have lower credit scores than nonminorities. Beyond minority status, age ($B = 1.97$, $p < .01$) and educational attainment ($B = 17.84$, $p < .01$) were also significant predictors of credit scores. Whereas marital status approached significance ($B = -39.26$, $p = .07$), indicating divorce negatively impacts one's credit, gender ($B = 11.35$, $p = \text{not significant}$) was not significantly related to one's credit score.

4. Discussion

The temptation to get caught up in popular management fads can at times override the realistic evaluation of organizational practices. Whether or not the use of credit reports as a selection tool turns out to be a fad or a valid selection procedure with staying power has yet to be determined. Nevertheless, serious concerns have been expressed by government agencies, the general public, and researchers in relation to the legitimacy of such practices (EEOC, 2010a; Gallagher, 2006; Kuhn & Nielsen, 2008; Oppler et al., 2008; Smith, 2007). To this point, the reported research, which found significant relationships between several demographic variables (i.e., minority status, age, and education) and credit scores, tend to support recent charges of discrimination filed by the EEOC (2010b) against an organization using credit reports as part of their selection procedures. Specifically, large differences between minority and nonminority status and credit scores ($r = -.48$, $p < .05$; $d = 1.14$) suggest the use of credit scores as a selection tool may result in severe adverse impact against a protected class of applicants. Similarly, while educational attainment is a defensible selection factor, the large correlation between educational attainment and other selection tools (i.e., general mental ability (GMA), e.g., Judge et al., 2010) that have severe adverse impact only reinforce the red flags raised by the racial differences observed in this research.²

In terms of the relationship between age and credit scores, the implications of a positive correlation are less clear. That is, applicants over the age of 40 are a legally protected class within the United States and other countries. Finding a positive correlation between age and credit scores suggests individuals tend to have higher credit scores as they get older. Such a relationship may not present a legal problem for organizations using credit scores as a selection tool as applicants under the age of 40 may be subjected to disadvantageous (in relation to age) selection tools without legal recourse. Yet, the elimination or discouragement of a large segment of the applicant pool could present alternatively negative outcomes to the extent that initial research shows an overwhelmingly negative reaction toward such practices (Nielsen & Kuhn, 2009). If such reactions translate into fewer applications, or withdrawals from the application process, organizations may have little to gain from the continued use of credit as a selection tool. To this point, organizations may be well served to counsel applicants on factors that could help improve their credit scores. This seems particularly relevant as many applicants are unaware of what goes into a credit report (Nielsen & Kuhn, 2009); thus, the negative reactions of younger applicants or of other groups may be lessened to the extent that more information is provided (Bell, Ryan, & Wiechmann, 2004; Bernerth, 2005).

In line with legal questions arising from the reported research are important ethical considerations. In particular, critics of credit scores contend that using credit information to make hiring decisions unfairly disadvantages individuals with low scores and traps them in a 'vicious downward spiral,' where unemployment damages personal credit which, in turn, can hurt their job prospects (McNamara, 2010; Miller, 2010; Schoen, 2010). Echoing this point are some who contend individuals with lower credit scores may be more motivated to work harder than their counterparts who have access to additional – and cheaper – financial resources (Jenkins, 2010). Thus, even if credit scores hold up as a legally defensible selection practice (which is anything but certain at this point), there are still ethical considerations facing organizations.

With claims by practitioners and credit reporting agencies that credit information provides insight into applicant character and future job performance, it is unsurprising that the use of credit-related information is on the rise (Hollinger & Adams, 2008). Nevertheless, organizations and researchers have a duty to verify such claims while simultaneously investigating the potential adverse impact such information may have on protected groups. To the extent that the reported research documents concerning relationships between protected groups and credit scores, it is imperative that future research continues this line of inquiry.

Notes

1. The terms credit scores and credit reports are used interchangeably in this study although there is a difference between the two. A credit score is a numeric summary of the information contained in a credit report. While some organizations appear more concerned with the information contained in a credit report (e.g., bankruptcy, foreclosure, and tax liens; Society for Human Resource Management, 2010), a credit score is a quantifiable composite measure of this information.
2. Although this discussion is based on the assumption organizations use a top-down selection process, it is possible that some organizations use a cutscore, a banding approach, or only look at specific items within a credit report (e.g., bankruptcy) to help lessen the impact on minority groups. Future research that investigates what specific information organizations use in relation to credit would help clarify our understanding and potentially lessen the legal concerns raised in the reported research.

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