

# ***ROLLING THE DICE ON ELECTION DAY: RISK SEEKING AND POLITICAL PARTICIPATION<sup>1</sup>***

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## **Abstract**

A large body of work in the political science literature has taken up the question of the risk preferences of the public. This work, while valuable, has been informed by a common assumption: citizens behave in a risk-averse manner. Though the assumption of risk aversion may be reasonable, there is reason to suspect that individuals differ in their propensity to undertake risky actions. In this paper, I propose a direct measure of inter-individual variation in risk-acceptance and show how this measure can inform the study of political behavior. I first develop a scale of the propensity to take risks using items from the 1972 National Elections Study (NES) that measure an individual's propensity to gamble. I then demonstrate that this scale predicts the propensity to take risky behaviors outside the realm of gambling. Finally, I demonstrate the utility of examining heterogeneity in risk-taking proclivities by demonstrating how variation in risk-seeking affect rates of political participation among the general public.

## 1. Introduction

The political world is an unpredictable place. Citizens must make decisions in an environment of uncertainty and the expected benefits of most politically relevant actions are often difficult to assess. The risk-taking preferences of individuals therefore play a potentially important role in determining political behavior. Not surprisingly, a large body of work in the political science literature has taken up the question of the risk preferences of the public (see, for example, Shepsle 1972; Bartels 1986; Alvarez 1997; Nadeau, Martin, and Blais 1999)

This work, while valuable, has been informed by a common assumption: citizens behave in a risk-averse manner (for an exception, see Nadeau, Martin, and Blais 1999).<sup>1</sup> For example, in his study of the effects of uncertainty on vote choice, Bartels presumes that voters follow quadratic utility functions, which leads to the assumption that voters are risk averse (see also Alvarez 1997). Ansolebehere and Iyengar characterize the state of the literature well when they write, “At this point, speculation about the consequences of uncertainty, then, is principally informed by the notion that voters are risk averse” (1993; p. 330).

Though the assumption of risk aversion may be reasonable, there is reason to suspect that individuals differ in their propensity to undertake risky actions. First, an individual may react differently to risky situations, depending on the context in which he or she makes his or her choice (Kahneman and Tversky 1979, Tversky and Kahneman 1981). But risk-taking may also reflect a personality trait (Keinan et al 1984). Work in psychology suggests that risk-taking could be a general psychological predisposition that is stable across different choice contexts (Dahlback 1990, 1991; Fagley and Miller 1990; Kowert and Hermann 1997, though see Slovic 1964). Thus, there is a potential gain in moving from an assumption about choice behavior under uncertainty to actually measuring differences in individual tendencies in those situations.

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<sup>1</sup> This assumption is common because it is typical for utility functions in economics.

In this paper, I propose a direct measure of inter-individual variation in risk-acceptance and show how this measure can inform the study of political behavior. I first develop a scale of the risk-taking personality trait using items from the 1972 National Elections Study (NES) that measure an individuals' propensity to gamble. I then demonstrate that this scale predicts the propensity to take risky behaviors outside the realm of gambling. Finally, I demonstrate the utility of examining heterogeneity in risk-taking proclivities by demonstrating how variation in risk-seeking affects rates of political participation among the general public.

These analyses are important for two reasons. First, they demonstrate that blanket assumptions about risk-aversion common in studies of voting are problematic. Second, and more importantly, my analyses demonstrate that this erroneous assumption may have more general consequences for fully understanding important political behaviors, such as the decisions to turnout and vote for a particular candidate in an election.

## **2. Measuring Risk-Seeking Tendencies**

The 1972 NES differs in important respects from other datasets in the time series. Unlike previous studies, the National Science Foundation (NSF) did not provide funding sufficient to carry out the study. To supplement the initial NSF grant the study staff invited the participation of scholars in closely-related disciplines – particularly economic behavior and social psychology – and included instruments not immediately relevant to the study of politics (Miller, et al. 1977). As a result of this appeal for outside help, the NES asked a battery of questions concerning the gambling behavior of the respondents.<sup>2</sup> These items are advantageous for the purposes of assessing attitudes

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<sup>2</sup> I am not sure for what purpose these items were asked. I performed a search of academic databases (such as JSTOR and the Wilson indices). The one study that I could find which employs these items is a paper by Clyde Wilcox in *The Journal of Social Psychology*. Wilcox (1989) uses these items to generate a gambler/non-gambler dummy variable. He then gauges the effect of gambling on candidate choice in 1972 and 1976.

towards risk because the items directly tap the risk-taking behavior of the respondents.<sup>3</sup> Though the gambling proclivities of respondents might not correlate perfectly with their general acceptance of risk, there is reason to believe that the gambling items tap more general attitudes towards risk. In fact, previous studies have detected an empirical link between risk-taking behavior and gambling (Powell et al. 1999).<sup>4</sup>

The gambling battery consists of a series of questions that asked respondents if they engaged in a series of 19 common betting activities, ranging from taking part in football pools to buying raffle tickets, to investing in the stock market. These items made direct reference to the risk-taking element involved in gambling. Specifically, the introduction to the battery read, “Many people take chances in some areas of life; games they play, ways they make money, things like that. Of the following activities which do you take part in – even if you only do it once in a while?” Individuals who participated in at least one of the 19 activities were asked a series of follow up questions concerning their spending habits and frequency of gambling<sup>5</sup>. In addition, all respondents were asked if they would continue betting after winning a large sum of money on a horse-racing bet.<sup>6</sup> Together, these items are well suited to gauge the degree of risk-taking in which respondents are willing to engage.

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<sup>3</sup> The use of the gambling items to measure risk is especially appropriate. The notion of risk-acceptance and avoidance in choice, within utility theory, is based on an analogy to behavior in a lottery or a gamble (see, for example, Morrow 1994).

<sup>4</sup> As I will show below, there is also empirical support for this position in the present study.

<sup>5</sup> Many of the follow-up questions on the NES are well-suited to measure attitudes towards risk. For example, one of the items asks “When you take part in [the activity which the respondent engages in] do you set limits on what to spend?” Unfortunately, because these items were only asked of individuals who engaged in at least one gambling activity, we cannot use them to assess general attitudes towards risk.

<sup>6</sup> The questions reads, “Suppose you were betting on horses and were a big winner in the third or fourth race. Would you be more likely to continue playing or take your winnings?”

To measure risk-acceptance, I created a simple additive scale from: (1) the initial 19 gambling items; (2) a measure of how much respondent spend on gambling (coded zero if respondents did not engage in gambling), and the question measuring whether respondents would continue gambling after a big win.<sup>7</sup> These items scaled together well. The 21 items showed reasonable inter-item correlations, and the estimated reliability of the scale was high ( $\alpha=.78$ ).<sup>8</sup>

The risk-taking measure is, not surprisingly, skewed to the lower end of the scale. Very few individuals engage in a great number of gambling activities. But the measure does show reasonable variance. The scale ranges from 0 to 0.85, with a mean of 0.12 and a standard deviation of 0.13. Figure 1 presents a histogram of the scale. Though almost 30 percent of the respondents have a score of zero on the risk scale (indicating they do not engage in any gambling activity), another 40 percent of the respondents lie in a middle range between 0.1 and 0.4. In short, though the scale is skewed toward the risk-averse side of the scale, it appears to capture individual variation in risk preferences.<sup>9</sup>

Once I constructed the risk measure, the next step in my analyses was to determine whether the variable was a valid measure of risk-taking behavior. I first ran a regression to see if the scale was related to background correlates in ways that were sensible and consistent with previous research. Table 1 demonstrates that this is the case. Wealthier respondents – those with more

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<sup>7</sup>The question wordings are included in Appendix A. The spending question was recoded to put it in the same range as the other items. Specifically, the spending item was transformed by taking the natural log, then dividing by 10. It should be noted that the general pattern of the results reported below do not change if the risk-taking scale is constructed using only the 19 gambling items.

<sup>8</sup> A principle components factor analysis supports the assumption that the gambling items tap a single underlying construct. The Eigenvalue of the first factor is 3.36, compared with 0.81 for a second factor. Furthermore, using a scale constructed from the scores from the first factor in the analyses below yields results virtually identical to those reported in this paper.

disposable income – are more likely to engage in gambling activities. This result is consistent with the work of MacCrimmon and Wehrung (1986). As with previous studies I found that males are more likely to engage in risky activity than are females (Byrnes et al. 1999, MacCrimmon and Wehrung 1986, Miller and Byrnes 1997). There appears to be a slight curvilinear relationship with age but, by and large, older respondents seem to engage in less risk-taking behavior than younger individuals (see Byrnes et al. 1999, MacCrimmon and Wehrung 1986). Finally higher levels of education are related to greater risk-taking proclivities (see MacCrimmon and Wehrung 1986). Thus, the relationships found here are consistent with those found in psychological and economic studies of risk-taking behavior.

Having shown that the scale relates in sensible ways to criterion variables, I next sought to determine whether the gambling measure predicts risky behavior outside the realm of wagers. This is an important step because it shows that the gambling measure can be used as a general measure of risk. Fortunately, the 1972 NES contains a series of questions that allows me to assess the predictive validity of the risk measure. As part of another question battery, respondents were asked if they had made significant changes to their life; a decision that demonstrates considerable risk-taking proclivities. Specifically, the question read, “Was there ever a time when you tried to change what you were doing – for example, entered a training program, went back to school, tried to go into a different type of work – things that would really change what you were doing?” If respondents answered in the negative, they were asked, “was there ever a time when you thought about doing something like that.” From these two questions, I created two variables to measure the respondents’ proclivity to take risks in their own life. The first was a simple dummy variable measuring whether the respondent had made a change in their life. The second was an ordinal scale,

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<sup>9</sup> This result is not surprising. The scale is more a measure of risk-seeking, than it is of risk acceptance. While the risk scale measures individual differences in the degree of risk acceptance, it does not measure similar variation in risk

scored 0 if the respondent did not make a change, 1 if they considered making a change, and 2 if they did make a change. I predict that respondents who score higher on the risk-acceptance scale will be more likely to consider changes in their life because such changes involve moving away from the status quo of their life and, as a result, involve uncertain outcomes. Table 2 presents the results of the probit analysis relating the two dependent variables to the risk-acceptance scale. As the results show, people who are more disposed to gambling are more likely to engage in risky behavior in other areas of their life, even controlling for demographic characteristics – such as age and income – that affect both gambling behavior and the tendency to make life changes.<sup>10</sup> In sum, the risk-acceptance scale developed from the gambling items appears to be a valid measure of general preferences towards risk in life.

### **3. Risk and Participation**

Having developed a valid measure of risk-taking tendencies, I will next demonstrate that accounting for variations in risk-taking attitudes can inform the study of political behavior. Certainly, the potential applications are numerous. Models of candidate choice have long assumed that voters behave in a risk-averse manner. The risk score advanced here can be used to move our models of vote choice beyond this assumption to see how variations in risk preferences affect decision-making under uncertainty. In a separate project I do just this (see Berinsky and Lewis 2000). But attitudes towards risk might play a role in other political choices. In the rest of this paper, I will look at the effect of attitudes towards risk on the decision to participate in the political world.

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avoidance. Still, the scale contains useful information about the risk-taking proclivities of the respondents.

<sup>10</sup> Respondents were also asked how many changes they had made and considered in their life. The risk scale predicts these counts as well. The results are redundant with those reported here and are therefore omitted from this note. They are, however, available from the author upon request.

It is not readily apparent what impact attitudes towards risk should have on the decision to vote in an election or to contribute time and money to a campaign. Some theories of voting assume that citizens will behave in a risk-averse manner in the electoral realm. The minimax regret model (Ferejohn and Fiorina 1974, 1975) presumes that individuals will follow a decision rule that will minimize the maximum regret their actions could cause. In the case of voting, Ferejohn and Fiorina predict that some individuals will pay the costs of turning out to avoid the situation where they abstain when their vote could have been pivotal.<sup>11</sup> According to this logic, citizens should behave in a risk-averse manner when deciding whether to vote. If Ferejohn and Fiorina are correct, the pool of voters, should score low on measures of risk-acceptance.

On the other hand, it could be argued that risk-taking proclivities might lead individuals to the voting booth on Election Day for one of two reasons. First, from an economic perspective, it is clear that the probability of casting a pivotal vote in any election is low. But if certain people are more willing to take high-risk gambles, those risk-acceptant individuals might be willing to pay the costs of voting on the chance they could be pivotal in the election. Second, moving away from the economic framework, voting, like gambling, is an act that is difficult to justify on purely instrumental grounds. Therefore risk-seeking individuals may pay the costs of participation, just as they pay the costs of gambling, for the non-instrumental rewards they reap from the act. In short, risk could affect the decision to vote in a variety of ways. It is necessary, then, to look at the empirical reality to determine which explanation is most persuasive.

#### **4. Analysis**

I began my investigation by modeling the decision to vote as a function of the risk-acceptance score, and the “usual suspects” – those variables we know influence the decision to vote.

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<sup>11</sup> More specifically, Ferejohn and Fiorina find that “In a two-candidate plurality winner contest, a citizen following the minimax regret decision rule votes for his preferred candidate rather than abstains if the utility gain from the election of

The inclusion of certain controls is important because many factors known to determine turnout, such as gender, education, and age also predict the risk-acceptance scale (see Section 2).

Specifically, I included controls for gender, race, age, income, education, strength of party identification (to capture political engagement)<sup>12</sup>, and external efficacy. As Table 3 demonstrates, an increase on the risk-acceptance measure increases the likelihood of voting. The predicted probability of voting for an individual who is “average” in every way is 73 percent.<sup>13</sup> Increasing that individual’s risk score one standard deviation increases the likelihood of voting by six percent.<sup>14</sup>

What is perhaps more interesting is that the relationship between risk-acceptance levels and propensity to turn out is moderated by the respondents’ level of education.<sup>15</sup> In the second column of Table 3, I present the results of a specification when an interactive term between education and risk-acceptance is introduced.<sup>16</sup>

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his preferred candidate exceeds four times the utility loss of the voting act” (1974; 528).

<sup>12</sup> I also ran the model with other measures of political engagement, such as political information (using the scale developed for the 1972 NES by Zaller (1992), and self-reported levels of political interest. The inclusion of these variables did not change the results.

<sup>13</sup> This model respondent has values on the variables set at the sample mean, except that he is assumed to be a white male.

<sup>14</sup> I accounted for the possibility that the gambling measure was somehow picking up a spurious relationship between desire for control and voting. Including a scale measuring this tendency in the regressions did not change the results.

<sup>15</sup> The discovery of this relationship was serendipitous. I was initially interested whether risk-taking individuals would be more likely to “gamble” on voting in a high stakes election – one that was particularly close. I therefore created an interactive term between risk-seeking and perceived closeness of the election. I found a significant effect for this interaction term in 1972, but not 1976. This result was peculiar because 1972 was a landslide victory for Nixon, while the 1976 election was very close. Larry Bartels suggested that my findings could be the result of perceived closeness acting as a proxy for education or political information. That is, it could be that in 1972 only those with low education would perceive the election as close. Substituting the education term, I found this intuition to be correct.

<sup>16</sup> I accounted for the possibility that these results were driven by the forced non-linearity of the interactive term by estimating the probit separately for each educational level. The results were consistent with the results reported here. I also accounted for the possibility that these results were driven by outlier cases by re-estimating the model (1) using bootstrapping methods and (2) by eliminating high values on the risk scores. In all cases, the original results held.

While the interactive term is clearly significant, the non-linear setup of the model presented in the table makes it difficult to directly examine the results. The results are presented graphically in Figure 2. Here I examine the effect on the probability of voting of changes in risk-acceptance scores from 0 to 0.4 – a range that covers up to the 95<sup>th</sup> percentile of the variable’s range – for respondents who are identical in every way apart from possessing different levels of education.<sup>17</sup> As the figure demonstrates, increasing levels of risk-acceptance do not have uniform effects. For respondents with only a grade school education, moving from the lowest risk-acceptance score to the 95<sup>th</sup> percentile of risk-acceptance increases the probability of voting by almost 25 percent.<sup>18</sup> For college graduates, however, the level of risk-acceptance has no effect on turnout. Thus, the effect of risk-acceptance is highly conditioned by education levels.<sup>19</sup>

The reason for this conditional effect is not immediately apparent. One possibility is that education may act here as a proxy for political engagement. We know that education (and other measures of political engagement) increases the probability of voting (Wolfinger and Rosenstone 1980; Rosenstone and Hansen 1993). But, at the same time, the more educated are also more likely to realize that the expected value of the voting “gamble” is low. Thus, it could be that higher levels of education give individuals the expertise to know that they are making a “bad bet” by turning out, at the same time that their civic engagement raises their overall voting rate. This process would produce the pattern found in Figure 2. Bolstering this view, the same conditional relationship between risk-acceptance and propensity to vote is found if interactions between risk and other

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<sup>17</sup> This model respondent has values on the variables set at the sample mean, except that he is assumed to be a white male.

<sup>18</sup> While the percentage of people in the contemporary era with only a grade school education is quite small, in 1972 almost 20 percent of the population fell into the lowest education category.

<sup>19</sup> One avenue I pursued was trying to see if the strong result on the interactive term was the result of a non-linear relationship between factors related to both the interaction term and the dependent variable. To perform this test, I

measures of sophistication, such as information, and self-reported interest in politics are included in the probit analysis. While the interactive terms do not always reach conventional levels of statistical significance, the variables are always correctly signed and substantively significant. In short, there is no conclusive explanation for the conditional relationship found here, but that relationship is robust and intriguing.

### 3.1 Extensions

It is possible that the strong results obtained here are an artifact of the 1972 election and cannot be generalized past that contest. Fortunately, the 1972 NES was the first wave in a multi-survey panel continuing to 1976. Thus, we have information on the voting behavior and risk scale levels for some individuals in the 1976 election. In addition, because the NES conducted a vote validation study in conjunction with the 1976 NES, we can model actual (as opposed to self-reported) turnout for that election. Thus we can also account for the possibility that the strong results in 1972 are an artifact of misreporting among high-risk individuals.<sup>20</sup> The results of this replication are presented in Table 4. As the table makes clear, the effect of risk-acceptance on turnout is similar in 1976.<sup>21</sup> Given the differences in the dynamics of the elections of 1972 and 1976, we can have greater confidence that the relationship between risk-acceptance and turnout is genuine.

The effect of the risk scale also extends past the decision to vote into other forms of political participation. As was the case with voting, we might think that risk-acceptant individuals would

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created a new variable that was the residual obtained when risk was regressed on all of the control variables. I used this residual variable in a new regression and obtained the same results, indicating that the relationship is not spurious.

<sup>20</sup> This information is especially important because both the gambling items and the turnout question in 1972 are self-reports of behavior. Research by Belli et. al. (1999) indicates that much of the overreporting in levels of turnout may result from faulty recall. Thus, the 1976 data controls for the possibility that the 1972 results reflect a spurious relationship driven by the ability to recall events.

participate in politics for one of two reasons. First, the probability of making a difference on the election outcome with a contribution of time and energy is low, but risk-acceptant people might be willing to take that gamble. Or, following the argument laid out for voting in Section 3, risk-acceptant individuals may pay the costs of participation – as they pay the costs of gambling – for the non-instrumental gains they receive from those actions.

Respondents to the 1972 NES were asked if they took part in any of four campaign-related activities: (1) trying to convince other people they should vote for one of the parties or candidates; (2) attending political meetings; (3) doing work for one of the parties or candidates; and (4) wearing a button supporting one of the parties or candidates. I combined these items into an additive scale, which I analyzed with a Poisson regression, using the same independent variables as I did in the turnout analysis.<sup>22</sup> Table 5 demonstrates that risk-acceptance – and the interaction of risk-acceptance and education – has a large effect on campaign participation levels. To better understand these results, the effect of risk-acceptance on the three model respondents who differ in their levels of education is presented graphically in Figure 3. As in Figure 2, the risk score ranges from 0 to 0.4. But here the Y-axis presents the expected number of campaign actions. The figure demonstrates, as before, that risk-acceptance has its largest effects for those with low education. As education levels increase, the effect of risk-acceptance attenuates, and actually reverses direction. Among the highly educated respondents, risk actually decreases the propensity to participate politically. These results also replicate using data from 1976. In sum, the effect of risk acceptance, conditioned on education, on levels of participation is real and stable over time and across participatory activities.

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<sup>21</sup> The same pattern of results hold if self-reported vote is substituted for the validated vote measure, again bolstering the believability of the 1972 results.

<sup>22</sup> The same basic pattern of results is obtained if each item is modeled separately as a probit. The one exception is that the risk term and its interaction with education are not statistically significant predictors of doing work for one of the

## 5. Conclusion

The strong relationship between risk-seeking behavior and political participation found here has important implications for study of politics. The Ferejohn and Fiorina minimax model presumes that voters are risk-averse. My findings suggest that this might not be a tenable assumption. Instead, it appears that electoral participation is a gamble of sorts, undertaken by risk-seeking individuals.

This study also has implications for the study of political behavior more generally. Ferejohn and Fiorina are not the only ones to presume that voters are risk-averse. Models of issue voting commonly employ such an assumption. In light of the findings presented here, that assumption may need to be revised (for an exploration of this problem, see Berinsky and Lewis (2000)). Future work should therefore seek to directly measure and account for the risk-taking proclivities of individuals. The gambling items used here provide a model for such a strategy. Attitudes towards risk should be assessed by measuring a respondent's willingness to participate in risky activities (occurring in their own life or in hypothetical situations), such as dangerous sports or uncertain investments. Two scales of such items – the Choice Dilemmas Questionnaire and the Personal Risk Inventory – have already been used by scholars in a political science context (see Kowert and Hermann 1997). In sum, accounting for heterogeneous risk preferences has great potential to advance our study of political choice under uncertainty.

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parties or candidates. The terms are, however, in the expected direction. For presentational purposes, I used the scale. The separate results are available from the author upon request.

**Table 1: Risk Score Background Correlates**

	<b>Coefficient (S.E.)</b>
Constant	0.01 (0.02)
Male	0.04 (0.01)**
White	0.01 (0.01)
Education	0.07 (0.01)**
Age	0.14 (0.09)
Age <sup>2</sup>	-0.22 (0.09)**
Income	0.09 (0.01)**
N	2118
Adj R <sup>2</sup>	0.14

\* =  $p < .10$ ; \*\* =  $p < .05$

**Table 2: Life Changes**

**Make Changes in Life?**

	<b>Coefficient (S.E.)</b>
Constant	-0.77 (0.23)**
Risk Scale	1.16 (0.24)**
Male	0.33 (0.06)**
White	-0.09 (0.10)
Education	0.66 (0.12)**
Age	1.24 (1.03)
Age <sup>2</sup>	-2.60 (1.12)**
Income	-0.18 (0.14)
N	2104
Log-Likelihood	-1249.32

**Make or Consider Changes in Life?**

	<b>Coefficient (S.E.)</b>
Risk Scale	1.37 (0.22)**
Male	0.25 (0.05)**
White	-0.11 (0.08)
Education	0.60 (0.11)**
Age	1.74 (0.91)*
Age <sup>2</sup>	-3.41 (0.98)**
Income	-0.13 (0.12)
$\mu_1$	0.23 (0.20)
$\mu_2$	0.79 (0.20)
N	2104
Log-Likelihood	-2046.77

\* =  $p < .10$ ; \*\* =  $p < .05$

**Table 3: Turnout 1972 (Self-Report)**

	<b>w/o Interactive Coefficient (S.E.)</b>	<b>w/Interactive Coefficient (S.E.)</b>
Constant	-2.25 (0.25)**	-2.34 (0.25)**
Risk Scale	0.88 (0.28)**	1.98 (0.56)**
Male	0.13 (0.07)*	0.13 (0.07)*
White	0.02 (0.10)	0.01 (0.10)
Age	4.58 (1.02)**	4.59 (1.02)**
Age <sup>2</sup>	-3.49 (1.07)**	-3.45 (1.07)**
Income	0.75 (0.15)**	0.73 (0.15)**
Education	1.16 (0.15)**	1.42 (0.19)**
Strength of PID	0.77 (0.10)**	0.77 (0.10)**
Efficacy	0.45 (0.08)**	0.45 (0.08)**
Risk * Education		-2.58 (1.10)**
N	2076	2076
Log-Likelihood	-1026.6582	-1023.9653

\* =  $p < .10$ ; \*\* =  $p < .05$

**Table 4: Turnout 1976 (Validated)**

	<b>Coefficient (S.E.)</b>
Constant	-2.00 (0.70)**
Risk Scale	2.48 (1.19)**
Male	0.01 (0.12)
White	0.17 (0.20)
Age	5.93 (2.52)**
Age <sup>2</sup>	-3.91 (2.30)*
Income	1.04 (0.26)**
Education	0.74 (0.34)**
Strength of PID	0.19 (0.20)
Efficacy	0.10 (0.15)
Risk * Education	-3.39 (2.07)*
N	839
Log-Likelihood	-270.3496

\* =  $p < .10$ ; \*\* =  $p < .05$

**Table 5: Political Activity 1972**

	<b>w/o Interactive Coefficient (S.E.)</b>	<b>w/Interactive Coefficient (S.E.)</b>
Constant	-1.63 (0.23)**	-1.83 (0.24)**
Risk Scale	0.67 (0.21)**	2.50 (0.47)**
Male	0.04 (0.06)	0.05 (0.06)
White	-0.11 (0.09)	-0.12 (0.09)
Age	0.28 (1.06)	0.28 (1.06)
Age <sup>2</sup>	-1.34 (1.17)	-1.26 (1.17)
Income	0.45 (0.14)**	0.43 (0.14)**
Education	0.88 (0.12)**	1.32 (0.16)**
Strength of PID	0.64 (0.10)**	0.64 (0.10)**
Efficacy	0.34 (0.08)**	0.34 (0.08)**
Risk * Education		-3.49 (0.82)**
N	2071	2071
Log-Likelihood	-2088.316	-2079.2601

\* =  $p < .10$ ; \*\* =  $p < .05$

**Figure 1**

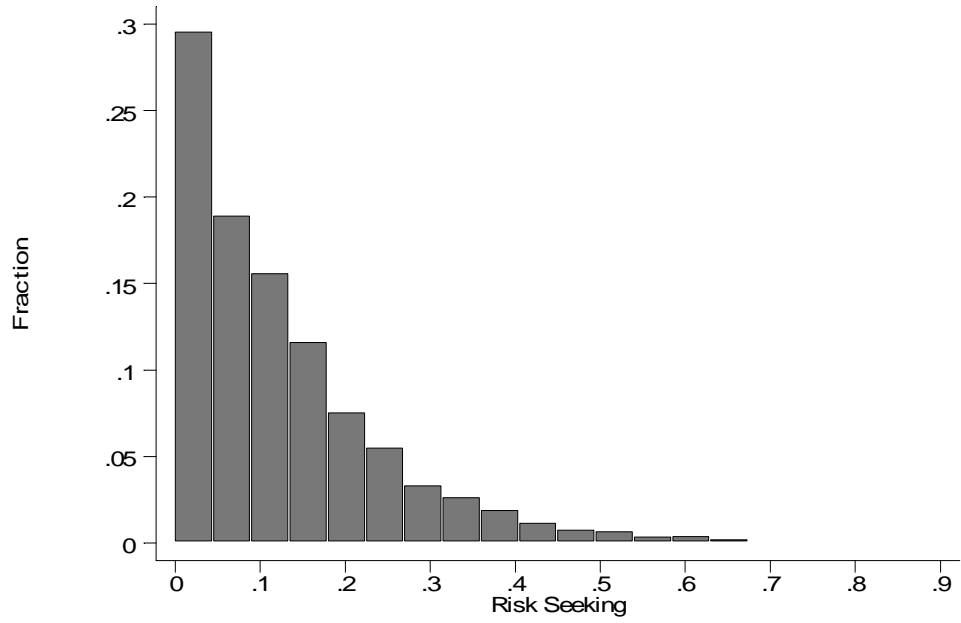


Figure 2: Turnout 1972

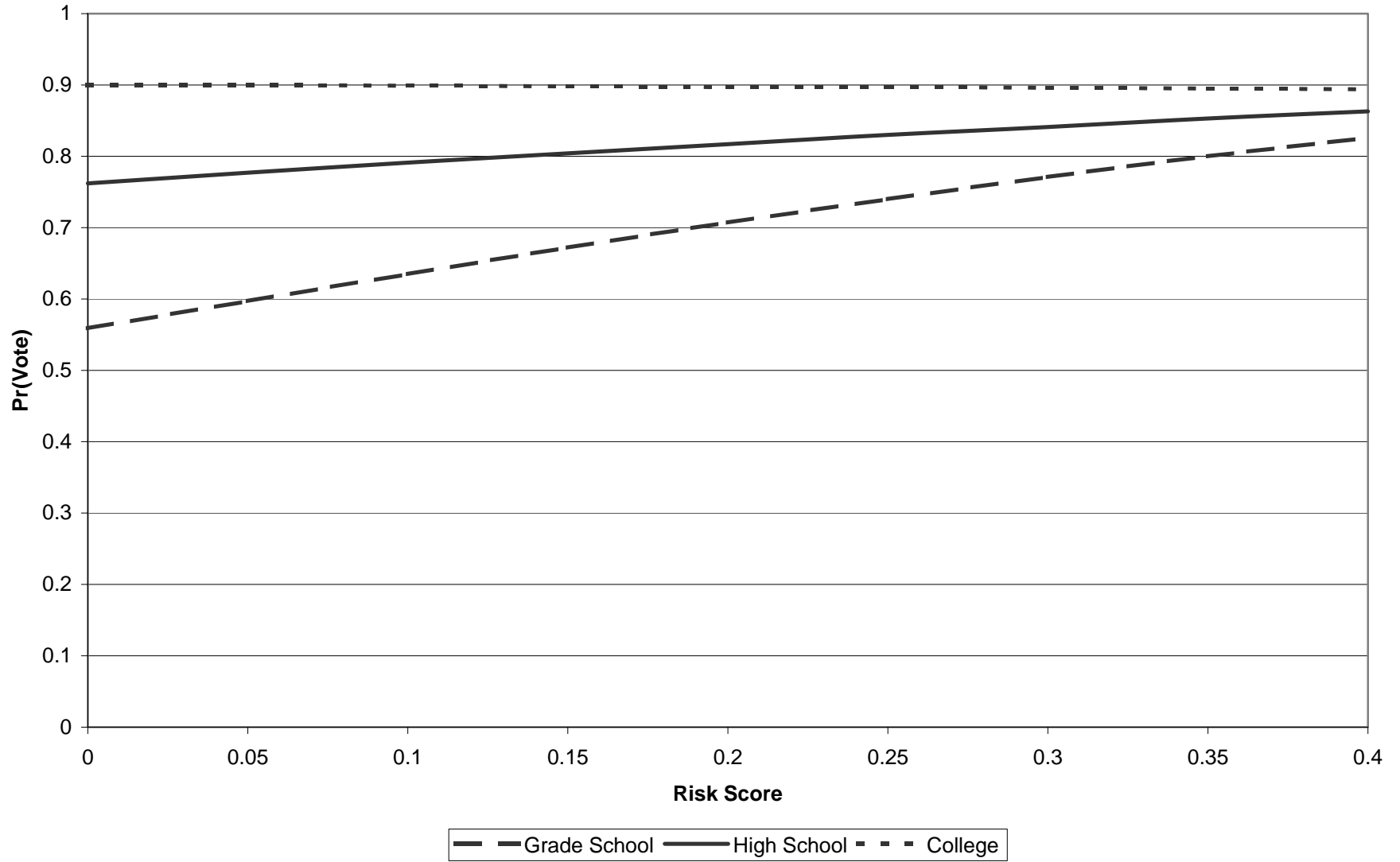
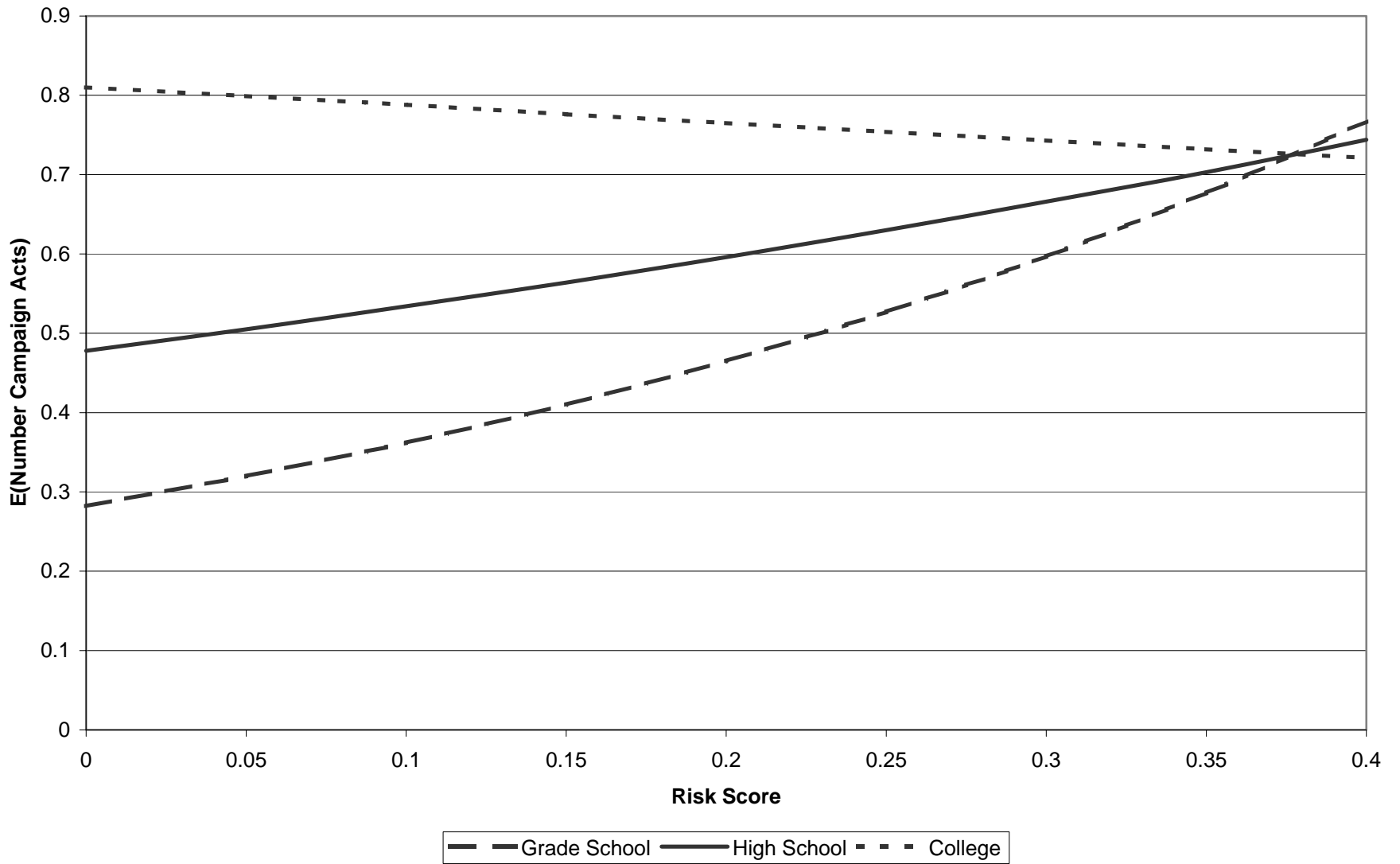


Figure 3: Campaign Participation 1972



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## Appendix A: Gambling Item Question Wordings

1. Many people take chances in some areas of life...games they play, ways they make money, things like that. Which of the following activities do you take part in – even if you only do it once in a while?

- A. Taking part in football pools
- B. Check pools
- C. Playing bingo
- D. Playing poker
- E. Betting on the horses
- F. Playing bid whist
- G. Shooting dice
- H. Buying lottery tickets
- I. Speculating on land
- J. Playing bridge
- K. Playing the numbers
- L. Entering magazine contests
- M. Playing roulette
- N. Playing pinochle
- O. Baseball pools
- P. Buying sweepstakes tickets
- Q. Buying raffle tickets
- R. Buying stocks
- S. Are there any other games you play for money?

2. How much do you usually spend [on the gambling activity] (note: coded zero for non-gamblers)

3. Suppose you were betting on horses and were a big winner in the third or fourth race. Would you be more likely to continue playing or take your winnings? (note: asked of all respondents)