1. Survey Development and Testing

We developed the survey instrument and sample using a number of deliberate steps to assure data quality and success of the survey design.

Cognitive interviews. We conducted two rounds of cognitive interviews in the early stages of the Vanguard Research Initiative.\(^1\) Both sets of interviews were conducted by the Survey Research Center of the University of Michigan. The first set was based on a sample of Vanguard participants with over $100,000 in Vanguard assets. They were first given a small screening interview via the Internet. A subset was invited to do cognitive interviews via phone where the questions focused on retirement planning and interest in annuities. We used the results of this cognitive interview in designing multiple VRI surveys. The second set of cognitive interviews was conducted in person by the Survey Research Center on a small sample of individuals in the Ann Arbor area with similar characteristics to VRI. This round of interviews was used to test and evaluate the VRI Internet survey interface. Individuals were given pilot questions via a laptop and interviewed as they did the survey by SRC interviewers. For both sets of cognitive interviews, the research team analyzed and discussed detailed, de-identified summaries of the interviews. It used these results to improve wording and presentation of the surveys.

One important substantive finding of the cognitive interviews is that this group is familiar with annuities, has a good understanding of them, and has little interest in purchasing them.

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\(^1\) We gratefully acknowledge the collaboration of Wandi Bruine de Bruin, Alycia Chen, and Brooke Helpie McFall in the design, implementation, and interpretation of the cognitive interviews.
Subsequent VRI surveys are aimed at establishing whether this carries over to large-scale populations.

**Pilot and Production Surveys and Samples.** An initial round of survey was conducted using a Pilot Sample (747 completed surveys). The purpose of this pilot was to test our procedures, e.g., invitation, survey implementation, recording data, and whether the questions were working as designed. We used the pilot for the first VRI survey (the wealth survey discussed in this paper) to estimate response rates for the production survey as well as to estimate the oversampling rate of administrative singles (see Vanguard Research Initiative: Documentation and Supporting Analysis, “2. Sample Design”). The survey firm also conducted online chats with randomly-selected pilot respondents to assess their understanding and their attitudes about the survey (see below).

Based on the pilot, we made modest adjustments and correction to the survey instrument. We also adjusted our plans for the number of invitations based on the response rate and on the relationship between administrative- and survey-singles. Subsequent VRI surveys use the same structure, i.e., using the same pilot sample to test the design. Much of the pilot and production surveys are similar or identical, so we will be able to use the pilot data as well as the production data for some analyses.

This paper uses the Survey 1 production sample except where indicated.

*iModerate.* The survey firm contracted to have a separate firm conduct on-line chats (iModerate) with randomly-selected pilot respondents during the first two days that the pilot was in the field. These were conducted at the end of the pilot survey via a pop-up window. The chats were based on a loose script (similar to a cognitive interview) to assess which questions were difficult and whether the respondents found the survey understandable or difficult overall.
The typical chat lasted 15 to 20 minutes. The survey team made some adjustments based on de-
identified summaries of these chats. Overall, the reaction of the respondents to the survey was quite positive. Even questions that we expected to be quite difficult were generally well-
received.