

## HPS-Civicscience Economic Sentiment Index White Paper

### Introduction

The HPS-Civicscience Economic Sentiment Index measures U.S. adults' expectations for the economy going forward, as well as their feelings about current conditions for major purchases. The primary goal of the Index is to accurately measure movements in overall national economic sentiment, and to provide a more sophisticated alternative to existing economic sentiment indices. Unlike other prominent indices that release consumer sentiment estimates infrequently, the HPS-Civicscience Index is updated in real time as responses are collected continuously every hour, every day. Large-scale cross-tabulation of survey responses and consumer attributes enable more granular analyses than are currently possible through prevailing measures.

### Sample Design

Civicscience manages a network of web-based polling applications distributed across third-party websites, social media assets, mobile applications, and a proprietary web portal to engage consumers ("respondents") in attitudinal research. A strong consideration in the recruitment of participating web assets is the demographic and geographic composition of its visitors.

Civicscience polls deliver three questions to respondents during each session, including two attitudinal questions. The first is designated as an "Engagement" question, designed to compel respondents to participate. The second is a "Value" question, designed for commercial purposes. The third is the "Profile" question, which asks respondents about more general attributes such as demographics and personality traits. Respondents, who receive no monetary incentive, can only view results after completing all three questions.

Throughout the course of each month, Civicscience collects approximately 3,000 responses to five separate tracking questions, developed and tested in conjunction with Hamilton Place Strategies:

- Looking ahead six months, do you think the U.S. economy will get better, stay the same, or get worse?
- Over the next six months, do you think it will become easier or more difficult to find a new job?
- Over the next six months, do you expect your personal financial situation to get better, stay the same, or get worse?
- Given the current state of the economy, is now a good time or a bad time to make a major purchase like a new car or home improvements?
- Given the current state of your local market, is now a good or bad time to purchase a new home?

Each question contains optimistic, pessimistic, and neutral response options.

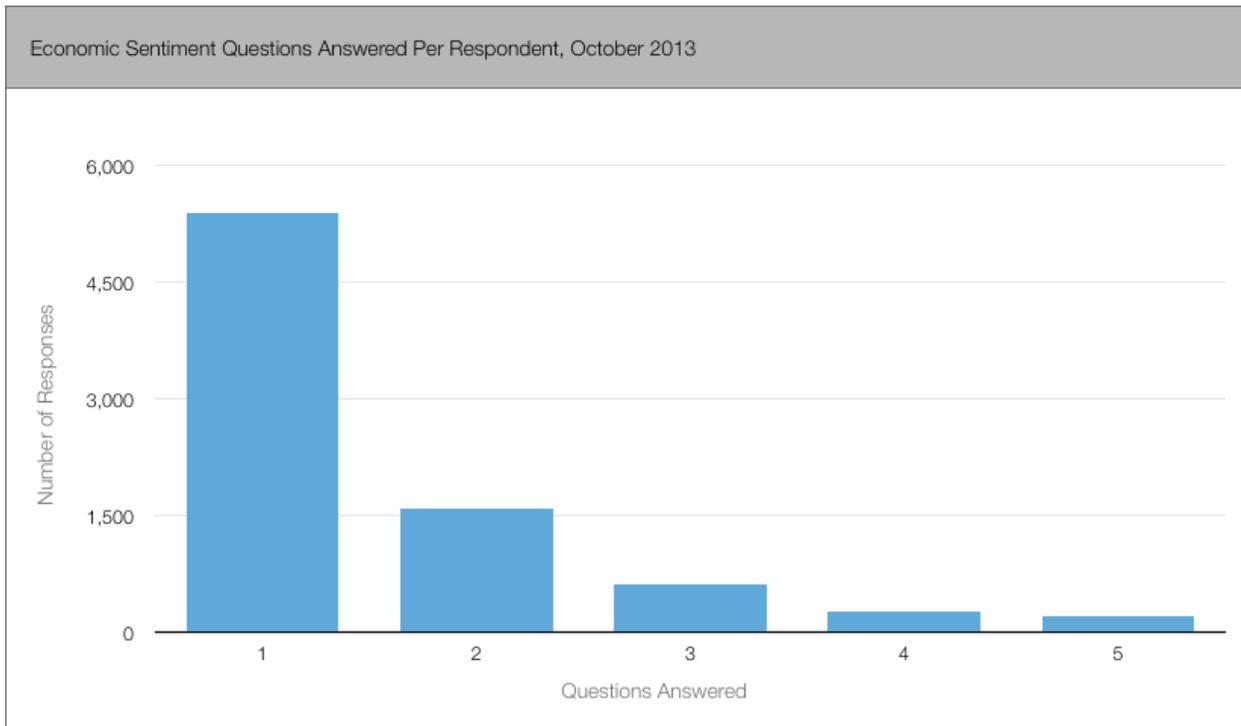
For each question, U.S. adults are targeted by stratified random sample according to U.S. Census weights for gender, age and region. Post-stratification weights are then used for gender, age, region, and gross household income. The following groups are used in post-stratification for age and income:

- Age: 18-24; 25-34; 35-44; 45-54; 55-64; 65 and older
- Income: Under \$25,000; \$25,000-\$34,999; \$35,000-\$49,999; \$50,000-\$75,000; \$75,000-\$100,000; \$100,000-\$150,000; \$150,000 or more

While income is not incorporated in the initial respondent targeting, historically the average discrepancy across all seven income groups for each question has been less than three percent. Post-stratification is done via iterative survey raking.

An important consideration with CivicScience’s collection method is that the five questions are not necessarily answered by the same respondents within a given month. Each question will have a different group of 3,000 respondents, some of whom will have answered other questions, but most of whom will have not. The histogram shown below illustrates this for the month of August 2013, when 15,249 total responses were collected across all five questions.

**Figure 1.0**



A key advantage to CivicScience’s collection method is that it mitigates biases found in other survey methods. An ever-shrinking proportion of the U.S population is willing to participate in phone surveys, and, because its respondents are not incentivized, CivicScience is able to reach a broader slice of the population than traditional online surveys. Indeed, nearly three quarters of CivicScience respondents do not currently participate in any regular online panels or surveys.

Additionally, CivicScience collects responses continuously every day, allowing for the Economic Sentiment Index to be updated in real time, and enabling instant responsiveness to major economic and political events.

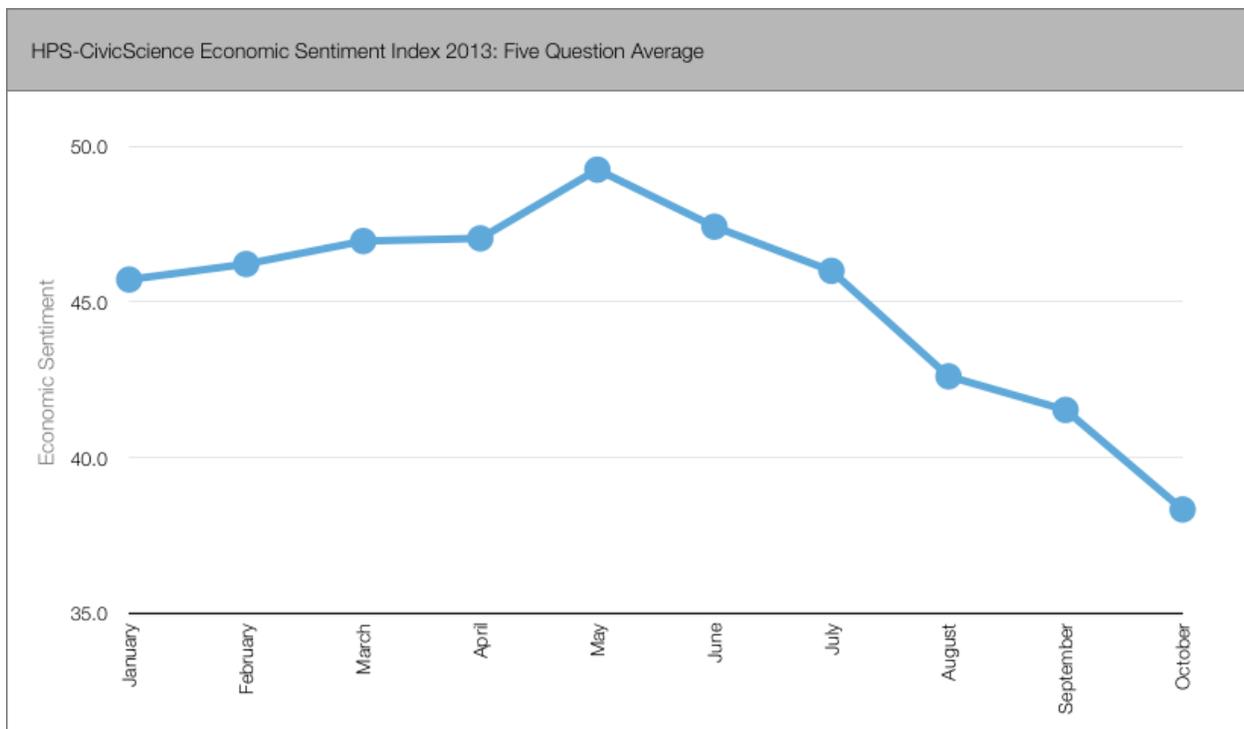
### How the Index Is Calculated

Any time the index is calculated – either for a fixed time period such as August 2013 or for any custom period such as the previous ten days – for each question the percentage of pessimistic responses is subtracted from the percentage of optimistic responses and converted to a 0 to 100 scale. The Index number represents the mean score for all five questions. If all respondents give optimistic answers to all five questions in a given time period, then the Index will be at 100; if all are pessimistic, then 0.

### Past Results

Figure 2.0 below details how the average reading of the Index has changed each month in 2013. Figure 3.0 shows how the Index changed by day throughout September and October.

**Figure 2.0**



Given that the United States government temporarily shut down amidst a budgetary struggle in October 2013, it's hardly a surprise that economic sentiment continued to slide in that month. However, since CivicScience surveys consumers continuously, one is able to see exactly when and by how much consumer sentiment changed.

**Figure 3.0:**

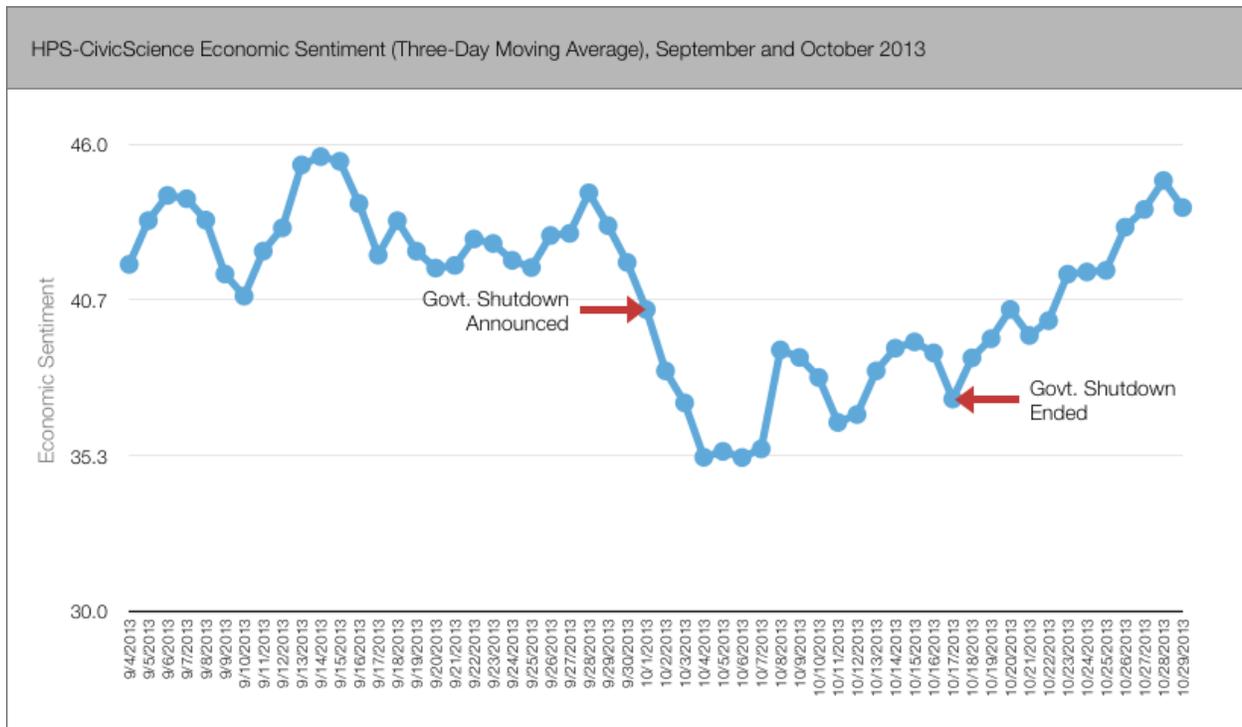


Figure 3.0 shows a strong, uninterrupted decline in the days leading up to and immediately following October 1, the day the government officially shut down. Then we see a steady climb beginning on October 17, the day government operations officially resumed. The HPS-CivicScience Index captures the dynamism of economic sentiment in a way that more static indices – releasing figures only once or twice a month – cannot.

**Tracking Economic Sentiment for Selected Subpopulations**

Questions related to economic and financial issues represent a small percentage of the thousands of questions in CivicScience’s database. As a result, the Index allows for one to monitor ongoing changes in economic sentiment for any number of select subpopulations. Figure 4.0 shows how economic sentiment has changed in 2013 for each of the seven income brackets listed earlier.

**Figure 4.0**

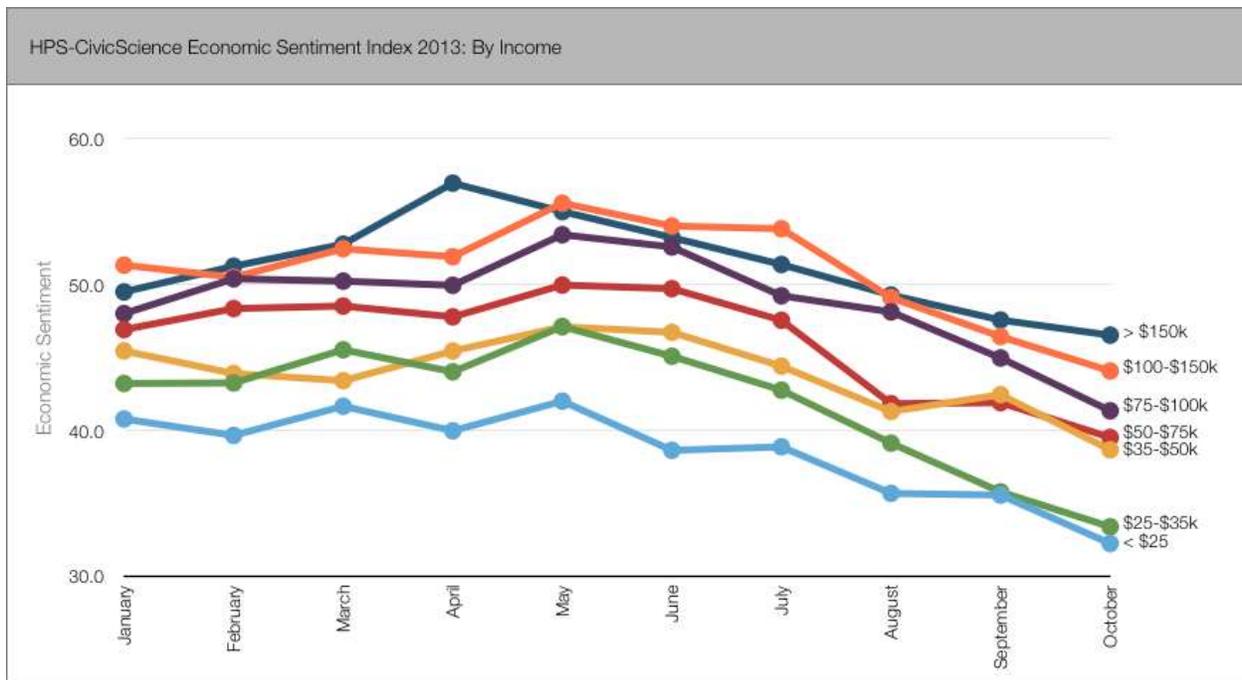


Figure 4.0 shows that there is a strong relationship between annual household income and economic sentiment, as one might expect. But we also see that for households who make more than \$150,000 economic sentiment began to decline steadily in May, as opposed to June for all other income groups.

Tracking economic sentiment by subpopulation is not limited to demographic questions, but can be done for many of CivicScience’s other questions, spanning areas such as media consumption, technology usage, health and lifestyle, and shopping behavior.

**ABOUT HAMILTON PLACE STRATEGIES (HPS)**

Hamilton Place Strategies is a policy, advocacy, and communications consulting firm with a focus and expertise at the intersection of government, business, and media.

**ABOUT CIVICSCIENCE**

CivicScience is a next-generation polling and data mining company. The company partners with hundreds of premier websites to survey millions of people every week. Proprietary technology then rapidly analyzes consumer opinion, discovers trends in real-time, and accurately predicts market outcomes. CivicScience is used by leading enterprises in an array of industries including marketing research, advertising, digital media, financial services, and political polling.

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