Number of Responses and the Most Important Problem

Stuart N. Soroka, Nuffield College, University of Oxford

Nuffield College, New Road, Oxford, UK, OX1 1NF
Tel: 01865 278679 Fax: 01865 278621
Email: stuart.soroka@nuffield.oxford.ac.uk

Abstract.   The most important problem (MIP) question has been asked consistently by many polling firms in many countries, and used repeatedly in both news reports and academic research. Nevertheless, there has been only limited recent consideration of either data sources or the question itself. This paper re-examines the question as it is used in the US, UK, and Canada, and explores the degree to which changes in the number of responses affect uni- and multi-variate analyses. MIP responses are a valuable measure of the issues respondents feel are most important; researchers should be more cautious in their use of MIP responses, however, particularly when combining results from single- and multiple-response questions.

The Most Important Problem (MIP) question features prominently in both news reports and academic research. MIP results are regularly included in public opinion reports by all major US newspapers and television networks, for instance, and academic research routinely includes hypotheses based on MIP data. These data play a fundamental role in the vast public agenda-setting literature – beginning with analyses by McCombs and Shaw (1972) and Funkhouser (1973), the MIP question has served as *the* measure of issue salience in well over 100 studies examining the mass media's agenda-setting impact on public opinion.[1]

The history and prevalence of the MIP question are remarkable, then, both in terms of its appearance on surveys and its use in analyses of public opinion. Unfortunately, discussion of the MIP question itself is relatively scarce. US Gallup results continue to be used widely. There has been only limited consideration of other data sources, however, in spite of the increasing number of polling firms with consistent omnibus polls, the growing prevalence of time series work in political communications, and the consequent interest in time series data. Moreover, there is a paucity of research on how question wording, coding, and form might affect MIP responses.

This article focuses on one methodological issue regarding the open-ended MIP question: the effect of the number of responses on MIP results. Some MIP questions ask for a single response while others allow for multiple responses, and the two types of questions are often combined in cross sectional and time series

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[1] For reviews of the agenda-setting literature, see Dearing and Rogers (1996) or McCombs and Shaw (1993).

modelling. There are reasons to believe that there will be significant differences between first and subsequent MIP responses, however. As a consequence, combining multiple responses may (adversely) affect both uni- and multi-variate analyses.

The MIP Question – Past Research and Prospective Hypotheses

One strength of open-ended questions is that responses are not affected by the limited set of alternatives accompanying close-ended questions. This is a distinct advantage for a survey item generally used to track the salience of both established and emerging issues over time.[2] Provided the coding is accurate, an open-ended question will do a better job of identifying recent issue dynamics (e.g., Rugg and Cantril 1944) – particularly for issues that are less salient in the past, and so are less likely to be included in a close-ended question. Schuman and Presser's (1979) experiment with MIP questions, taking place as the eastern US unexpectedly suffered the coldest winter in recent history, illustrates the advantage of an open-ended format: the open-ended question captured a dramatic increase in public concern about food and energy shortages, while the close-ended version could not.

Accordingly, an open-ended MIP question is probably the single best means of tracking changes in issue salience. This is not to say that open-ended MIP questions will always capture trends in emerging issues, of course. Coding open-ended questions is no mean task, and determining when to include new codes (with only one response? with ten responses?) will have an effect on how early an emerging issue is detected. That said, an open-ended MIP question with

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[2] *Salience* is defined here as the relative (and changing) significance of an issue to individuals.

a reasonably flexible coding scheme is likely the best means of capturing emerging issue dynamics.

The primary advantage of the MIP question is more straightforward, however: it is one of the very few attitudinal survey questions to have been asked relatively consistently, virtually from the beginning of public opinion polling. The most widely used MIP time series are based on Gallup (US) results. This is the polling firm with the longest history, certainly – the Gallup (US) MIP time series begins in 1935, and the question has been included in over 140 surveys to this day. While Gallup (US) results span the longest time period, however, and while they consequently dominate the academic literature, these are no means the only MIP data available. This author's search turned up over 100 surveys by other major US polling firms since 1980 that include an MIP question, and the question has also been used repeatedly in other countries.

The Appendix that follows lists firms in the US, UK, and Canada that regularly ask an open-ended MIP question (using a national sample). Apart from Gallup, Harris and CBS offer the most data points in the US. In Canada, Decima and Environics provide quarterly data from mid-1980s to 1990s, while Angus Reid (now IPSOS-Reid) and Pollara ask their MIP questions between 4 and 6 times a year from the early 1990s to the present. The small number of UK pollsters asking the question is made up for by the fact that both ask it virtually every month – Gallup (UK) since 1960, and MORI since 1979. Without question, the strongest MIP time series exist in the UK.

The fact that so many pollsters have asked relatively similar versions of an open-ended MIP question presents several advantages. For those interested in creating a longitudinal measure of public attention to issues, it may be possible to combine results from several polling firms to make more complete monthly or

quarterly time series. Additionally, different pollsters' question wording and results can be used to better understand what exactly MIP questions are measuring.

There are two important differences in the various MIP question wordings listed in the Appendix. First, some questions ask about the most important problem facing our "country" today, while others ask for the most important issue for the "government" to address. We might expect that these two questions lead to slightly different responses, increasing the number of policy-oriented mentions in the "government" questions.[3] Secondly, some questions solicit only one response, while others ask for multiple responses.

The focus here is on differences between results from single and multiple response MIP questions. Researchers regularly use the MIP question, combining responses across firms regardless of differences in question wording or number of responses (Behr and Iyengar 1985; Gonzenbach 1996; Soroka 1999). Smith (1980,1985) asserts that small differences in question wording do not affect Gallup (US) results. In spite of the fact the different firms ask for either single or multiple responses, however, no work has directly examined whether there are benefits to one method or the other. More specifically, no work has discussed the distinct possibility that first MIP responses are systematically different from subsequent ones.

This hypothesis follows from a common criticism of open-ended questions – namely, that they make excessively high demands on relatively ignorant

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[3] This has been discussed in detail in Soroka (2001). So too have differences in question coding that may contribute to different results across polling firms. Firms like Environics or Pollara in Canada, or the *LA Times* in the US, for instance, code virtually everything. The resulting data is sometimes more difficult to deal with, but these time series are likely better indications of when exactly new issues move onto the public agenda. At the other end of the spectrum, Decima used an open-ended question but only eight codes.

respondents.[4] While respondents are able to answer close-ended questions, some critics charge, they may have difficulty articulating responses to open-ended questions on the same topic. In their analysis of partisanship measures, for instance, Stanga and Sheffield (1987:833) suggest that, "responses to open-ended questions may relate more to articulation skills than anything else;" Craig (1985:284) writes that "the number and content of responses to open-ended questions may be influenced by such factors as ideological sophistication, political involvement, and expressive skills."

The notion that that responding to open-ended questions requires a certain degree of sophistication suggests two hypotheses. On the one hand, it might be true that the articulation skills necessary to provide a second response is greater than that required to provide a first response. Providing subsequent responses might be increasingly difficult for respondents – so that even if articulation skills are not a serious obstacle for most respondents where first responses are concerned, the same might not be true for second responses.

On the other hand, it might also be true that second responses reflect an entirely different thought process or set of considerations than first responses. While we can likely expect that first responses will reflect a certain connectedness with respondents' personal circumstances and beliefs, the increased demands placed on respondents may mean that this is not true for subsequent responses. More precisely, as survey questions place increasingly high demands on respondents, logical, considered responses may gradually give way to more random, injudicious responses. This hypothesis may be too far-

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[4] Converse (1984) provides a history of the debate surrounding closed- versus open-ended questions. For recent research on open-ended questions in general, and the MIP question in particular, see Schuman et al. (1986) and Geer (1988,1991).

fetched, admittedly; a more cautious equivalent is that first responses are based on a different set of considerations then are second responses.

Perhaps somewhat paradoxically, the hypothesis that subsequent response are somehow less 'considered' does not necessarily conflict with the largely accepted notion that more educated respondents give a greater number of responses to a single open-ended question. Imagine that each respondent has a finite amount of *response capacity*, where this capacity is positively linked to some version of sophistication or articulation skills, and where its use reflects the kind of consideration (of individual's demographics, social and economic situations, and interests) that survey researchers generally expect respondents to give to open-ended questions. Many respondents exhaust their response capacity with the first response; others have some left for additional responses. These respondents continue until their capacity has run out; they often continue to offer responses with their residual response capacity, even when that capacity provides only some of the fuel for subsequent responses. As respondents reach the final response they rely on an increasingly dwindling supply of response capacity, and the nature of responses changes as a consequence. What exactly takes the place of response capacity in subsequent responses is not clear, of course. A first reaction is that nothing does, and so responses simply become more random. A more judicious suggestion might be that there are different kinds of response capacity, and the capacity that informs first responses gradually gives way to different capacities.

There is some past work supporting the hypothesis that first responses are different from second responses in important ways. Using the NES "like-dislike" questions, Kelley finds that first responses play a much more powerful role in

predicting votes than subsequent responses (1983:Appendix I).[5] Other work suggests the difference may be negligible, or at least indecipherable: when asked to select the single most important item from the multiple responses respondents have offered to an open-ended question, Schuman and Presser (1996: 88, ft. 9) find that only roughly one half of respondents select their first response. Schuman and Presser have a very small sample size (55). This authors' replications using the NES version of the MIP question, however, confirm their findings: about 50% of respondents (offering multiple responses) select their first response as the most important.

The issue remains unresolved, however, admittedly due more to lack of attention than persistently conflicting results. Accordingly, the following sections test two hypotheses: (1) less sophisticated or articulate respondents will give fewer responses to MIP questions, and (2) when subsequent responses are given – even by more sophisticated or articulate respondents – these will reflect a different set of considerations than first responses.

Sophistication and the Number of MIP Responses

In spite of some authors' concern that respondents cannot answer open-ended survey questions, it appears as though the vast majority are able to do so. Geer (1988) finds that only 5% of respondents offered no response to the open-ended NES "like-dislike" questions, for instance. By way of comparison, in 353 Gallup (UK) polls from 1970 to 2000, the number of "don't know" responses to the MIP question reached 10% only once, and the average was 3%.

There is nevertheless reason to believe that respondents will have increasing difficulty with multiple responses. This possibility is tested using four

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[5] The NES "like-dislike" questions are as follows: "Is there anything in particular that you like about [e.g., the Democratic Party]? What is that? Anything else?" The question is then repeated substituting "dislike" for "like".

datasets: (1) two American *LA Times* Polls from the late 1990s, (2) three British MORI polls from the first quarter of 1996, (3) seven Canadian Angus Reid polls from 1993 and 1994, and (4) three American National Election Studies (NES) from 1996, 1998, and 2000.[6] The three commercial pollsters were selected because they ask a two-part MIP question, and because they provide examples from the US, UK, and Canada. In each case, the polls used represent all polls from the mid-1990s that include an MIP question, and for which individual-level data was available to the author.

The NES is also included, since this is among the most widely used American individual-level datasets.[7] Unfortunately, the NES question is different from the regular commercial version – the NES question asks for a list of problems, and then asks the respondent to select the most important (see Appendix). As a consequence, we are not able to directly compare NES first responses with most commercial pollsters' first responses. This becomes a problem for subsequent tests, but should not affect the current analysis.

Selecting a variable or set of variables that adequately captures sophistication or articulation skills or is no mean task. Some past work in the field uses education as proxy. Schuman and Presser (1979:697) suggest that "education is associated with somewhat more self-developed and stable concepts," and find that less educated respondents have more uncoded or missing responses for open-ended questions than more educated respondents. Geer's analysis

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[6] Details of the commercial polls are as follows: MORI – 1996, Wave 2 (January 19-22), Wave 6 (February 23-26), and Wave 9 (March 22-25); *LA Times* – #380 (August 3-6 1996) and #398 (September 6-9 1997); Angus Reid – 93-1 (January 20-30 1993), 93-3 (March 15-18 1993), 93-5 (May 25-31 1993), 93-10 (October 5-6 1993), 94-1 (January 20-23 1994), 94-3 (March 16-22 1994), 94-5 (May 30-June 1 1994). We combine NES results from 1996 to 2000 because the question wording is the same for these years.

[7] The NES MIP question has been central to the literature on "issue priming." See, for instance, Iyengar and Kinder (1987), Edwards et al. (1995), Krosnick and Brannon (1993).

"proceeds on the assumption that a respondent's formal education provides an accurate measure of articulateness," on the basis that "as citizens accumulate more years of schooling, they should be better able to express themselves" (1988:368 nt 4). Geer's work on the open-ended "like-dislike" questions in the American National Election Study (NES) then provides additional evidence that education and the number of responses are positively linked. His work also suggests that education and interest in politics are correlated, however, illustrating that in the absence of other 'control' variables education may act as proxy for more than just articulation skills. For the purposes of the present work, we assume that education captures – albeit not perfectly – an element of sophistication or articulation skills. (This assumption is rooted in past work, but is admittedly also the product of convenience. In short, commercial omnibus polls are the only polls that consistently use the MIP question; they include a limited number of additional variables, however, and so do not provide any other options for measuring sophistication.)

Accordingly, education is used in all analyses except those based on MORI data. The MORI surveys do not include a measure of education, but do include a "social class" variable common to commercial polls in the UK[8]; this variable is used as the independent variable in MORI results. In both cases, we divide respondents into four categories, described in Table 1.

Table 1 presents cross-tabulations of the education/social class measures and (1) whether the respondent gave a first MIP response, and (2) whether the respondent gave a subsequent MIP response. In each case, increasing levels of education/social class are negatively associated with nonresponse. In the UK, for

[8] The "social class" variable classifies households based on the occupation of the chief income-earner For more information on the social class coding, see Moon (1999:59).

instance, 7.1% of respondents in the lowest category do not give any MIP response; this is true for only .7% of respondents in the highest category. Additionally, and most importantly for our purposes, the effects of education/social class are greater in magnitude for second responses than for first responses. 41% of first category MORI respondents do not give a second response, for instance, and this is true for only 11.8% of respondents in the last category. The same trends are evident in all four datasets. Chi-square statistics indicate that the relationship between education/social class and nonresponse is statistically significant in every case.

These results confirm our expectation about the relationship between education and the number of MIP responses. In short, more education is positively associated with a greater number of MIP responses. As a result, individual-level MIP results using subsequent responses will probably exclude less educated respondents, and aggregate results based on multiple responses will be biased towards the issue concerns of more educated respondents.

To the degree that education/social class are proxies for articulation skills or sophistication, Table 1 suggests the possibility that subsequent responses do indeed require a greater degree of articulateness or sophistication. The extent to which this is true should be further evidenced below.

Differences Between First and Subsequent MIP Responses

Are subsequent MIP responses is fundamentally different from first responses? Preceding evidence suggests that multiple response series will be biased towards the issue concerns of the more educated. Paradoxically, forthcoming results suggest that subsequent responses demonstrate much weaker links with other variables such as real-world indicators and media content.

Table 2 presents results for models predicting the probability that an individual will cite unemployment as the MIP based on demographic, real-world, and media variables. Unemployment is selected as a test issue because it displays considerable variation over the last 20 years, and because it is an issue for which we expect both real-world and mass media influences on public opinion. That said, there should be a logic to first responses that does not exist for subsequent responses. Accordingly, the model is repeated (1) for first responses only, and (2) for second responses only.

This test relies on the MORI and *LA Times* datasets only, since it requires individual-level data with an MIP question that begins by asking for a single MIP, and that includes controls for sex, ethnicity, and class (for MORI data) or education (for *LA Times* data).[9] Real-world circumstances are represented by three variables: (1) the respondent's regional unemployment rate, (2) a variable equal to 1 if the respondent is employed, and (3) a variable equal to 1 if the respondent is unemployed. The latter two variables represent a set of dummy variables, then, the residual category for which includes housewives, students, and retirees. Finally, the model includes a media variable – the number of articles dealing with unemployment in major UK or US newspapers in the month preceding the poll.[10]

Table 2 presents results from a regression where the dependent variable is equal to 1 for respondents who cited unemployment as the MIP, and equal to 0

[9] Sex is represented by a binary variable equal 1 for female respondents; ethnicity is a binary variable equal to 1 for non-white respondents; social class/education are represented by a set of binary variables controlling for the highest three categories in Table 1.

[10] Media searches were performed using Lexis-Nexis. The search identified all articles with the word "unemployment" in the first few paragraphs. For the UK, results are based on the *UK National Newspapers* library; for the US, results are based on the *New York Times* library. Articles were checked manually to ensure that they focused on domestic unemployment.

otherwise. Since the dependent variable is binary, a logistic regression is most appropriate.[11]   The logistic coefficients are more difficult to interpret than those from a standard regression, but odds ratios – listed below each coefficient – make an interpretation relatively straightforward. For the sake of clarity, coefficients for the control variables are not presented.[12]

Using first responses only, unemployed respondents in the UK are 2 times more likely to name unemployment as the most important problem than are housewives, students, and retirees; unemployed respondents in the US are almost 4 times more likely to name unemployment. The coefficient for the employment dummy in the UK is smaller in magnitude but statistically significant, suggesting that the employed are less likely than the unemployed to name unemployment as the MIP, but more likely than those in the residual category. This is not true in the US model, where the coefficient for the employed dummy variable is positive but statistically insignificant.

The regional unemployment rate is also statistically significant in both countries – a one-unit increase in the regional unemployment rate makes UK respondents about 30% more likely to cite unemployment, and US respondents about 100% more likely. The media variable is also positive and statistically significant in the US and UK. In sum, individual-level results for first responses support the hypothesis that respondents citing unemployment are taking into account changes in the unemployment rate, their own employment status, and the salience of unemployment in the mass media.[13]

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[11] For more information on the uses or applicability of logistic models, see Aldrich and Nelson (1984) and Kennedy (1998:233-5).

[12] Complete results are available upon request from the author.

[13] Another way of representing media content would be to use interactions between the media variable and (1) the employment dummy and (2) the unemployment dummy. This would allow us to test the different effects of media content on the employed and unemployed. Unfortunately, there is not a great change in the US media measure and

As a test of the difference between first and subsequent MIP responses, the logistic model is repeated using second responses (second column, Table 2). These estimations include only those respondents who gave a second response and did not cite unemployment in their first response. As expected, and unlike the estimation using first responses, the relationships between the independent variables and subsequent MIP responses are weak. The unemployment dummy is no longer statistically significant. This is not simply a product of all unemployed respondents citing unemployment first, since only 50% did. In fact, of all the other real-world and media variables, only the UK employment dummy is significant. While we find the expected relationships between media content, real-world indicators and issue salience for first responses, then, our results indicate little substantive explanation for second responses. These results were foreshadowed by past criticisms of open-ended questions, and they serve to illustrate a striking difference between first and subsequent MIP responses.

Discussion and Conclusions

In spite of the frequency and availability of the open-ended MIP, there are relatively few discussions of what exactly the question means or of whether results change when the question is formulated in slightly different ways. The preceding work represents one attempt at filling this gap in the literature by investigating differences in first and subsequent MIP responses, and in the relationships between single versus multiple response MIP time series and both real-world and media content variables.

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we have only two *LA Times* polls, so including the interactions along with the employment and unemployment dummies creates multicollinearity problems. The UK analysis does not appear to suffer from the same problem – when interactions are included, there is significant effect of the media on the employed, but not on the unemployed. This result is telling: for those who are unemployed, media effects may disappear because real-world circumstances overwhelm the potential for media influence (see Soroka 2002).

The resulting evidence suggests that some care should be taken in using MIP data, at the individual or aggregate level. On the one hand, less educated individuals tend to give fewer MIP responses. If education is indeed a reasonable proxy for articulation skills or ideological sophistication (as some past work suggests it is), then preceding evidence may suggest that less articulate respondents have trouble giving more than one MIP response. Indeed, this is a multiple-response variant of the long-standing criticism of open-ended questions. Previous authors have argued that individuals may not respond to open-ended questions not because they have no opinion, but simply because they are not articulate enough. Evidence above may suggest that while the vast majority of respondents can give single MIP responses, subsequent responses are increasingly difficult.

Even when subsequent responses are given, they appear to be quite different from first responses. First responses are logically linked to both real-world circumstances and media content, while subsequent responses are not. This has been evidenced by the individual-level analysis above, and the negative consequences for the aggregate-level series have been illustrated through a time series analysis.

Explaining why subsequent responses are different from first responses requires either a leap of faith, further testing, or both. On the one hand, subsequent MIP responses may be more impulsive and less considered than first responses, even when more educated respondents ten tend to be the ones giving subsequent responses. Faced with the prospect of offering a second response, less educated individuals abstain while more educated individuals offer additional, but virtually meaningless, responses.

To suggest that subsequent responses have no meaning whatsoever is probably going too far, however. It may simply be the case that respondents look to different sources of information for subsequent responses – first responses reflect individuals' recent real-world and media experiences, for instance, while subsequent responses indicate more long-standing, personal concerns. Identifying the extent to which any of these hypotheses is true requires some further analysis, however.

What are the effects of different numbers of responses on the kind of aggregate MIP results used in time series analyses? The first and relatively obvious difference between single and multiple response questions is that the proportion of respondents citing a given issue will usually be higher when multiple responses are permitted. By way of example: in September 1999, 24% of respondents in a Gallup (UK) poll named unemployment as the most important problem; given the opportunity to give a second response, the total proportion of respondents naming unemployment rose to 34%. It follows that we cannot make a direct comparison of results based on single and multiple response questions.

Researchers seeking to combine single and multiple response series have recognized this difficulty. Their solution has been to calculate responses as a percentage of *responses* rather than respondents, with the expectation that this resolves whatever difference exists between single and multiple response MIP questions (i.e., Behr and Iyengar 1985; Gonzenbach 1996; Soroka 1999). Figure 1 demonstrates this is not always true, however. The figure illustrates the number of "unemployment" responses to the Gallup (UK) MIP question from 1979 to 2000. Separate series are presented for (1) first responses as a percentage of respondents, (2) all responses combined as a percentage of respondents, and (3) all responses combined as a percentage of responses. As expected, the first

multiple response series is higher than the single response series throughout the time period. The final series is much lower, however, suggesting that dividing the series by responses rather than respondents does not resolve the difference between single and multiple response questions.

The central difficulty is that allowing multiple responses increases both the number of responses and the number of *different* responses. This is reflected in the fact that polling reports regularly require a higher number of codes to accommodate subsequent responses. As a consequence, a move from the proportion of respondents to responses can result in a more dramatic drop than some past work has anticipated.

The preceding individual-level analyses suggest that there may be more substantive differences between single- and multiple-response MIP time series, however.

In the meantime, it is enough to point towards the apparently significant differences between single and multiple response MIP questions. The difference is important for those researchers who have combined the two types of MIP questions to create time series. It is a particular problem for those using Gallup (US) series, since Gallup (US) polls reflect a remarkable inconsistency (and lack of transparency) in the number of responses. Whether we can combine results from different polling firms is one avenue for further analysis; whether US Gallup results are themselves directly comparable might be a more pressing concern for researchers interested in MIP results.

In sum, the preceding analyses represent only a first step towards understanding the open-ended MIP question. It is clear both that the question offers a unique opportunity for longitudinal and comparative public opinion research, and that understanding why and how MIP responses vary is an

important avenue for further research. In the meantime, preceding analyses suggests that MIP responses are a valuable indication of the public agenda. For unemployment, they demonstrate a responsiveness to both real-world indicators and media content. This is truer of first than of subsequent responses, however. As we consider the strengths and weaknesses of MIP questions, the issue of whether permitting subsequent responses helps or hinders the measure should likely be at the top of our agenda.

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Appendix. MIP Question Wording

UK:

Gallup: What would you say is the most urgent problem facing the country at the present time? And what would you say is the next most urgent problem?

MORI: What would you say is the most important issue facing Britain today? What do you see as other important issues facing Britain today?

US:

CBS: What do you think is the single most important problem facing this country today? (until May 1999); What do you think is the single most important problem for the government - that is, the President and Congress - to address in the coming year? (from May 1999)

Gallup: What do you think is the most important problem facing this country today? *or* What do you think is the most important problem facing this country today? (If 'Economy,' ask:) What specific economic problem? / What do you think is the SECOND most important problem facing this country today? *or* What do you think are the two or three biggest problems facing the country? (Question wording changes slightly, but frequently, from 1935 to the present.)

Harris: What do you think are the two most important issues for the government to address?

LA Times: What's the most important problem facing this country today? Is there another problem you think is almost as important?

NES: (1996-2000) What do you think are the most important problems facing this country? Of those you've mentioned, what would you say is the single most important problem the country faces?

Pew: What do you think is the most important problem facing the country today?

Yankelovich: What do you think is the main problem facing the country today?

Canada:

Decima: In your opinion, what is the most important problem facing Canada today - in other words, the one that concerns you personally the most?

Environics: In your opinion, what is the most important problem facing Canadians today?

Gallup: What do you think is the most important problem facing this country today?

IPSOS-Reid: To begin with, thinking of the issues presently confronting Canada, which one do you feel should receive the greatest attention from Canada's leaders? What other issues do you think are important for Canada right now?

Pollara: In your opinion, what is the single most important issue facing Canada today?

Table 1. Education/Social Class and the Number of MIP Responses

US *LA Times* Data	Education [a]				Total
	Lower	-	-	Higher	
No Response	8.6%	3.3%	2.3%	1.3%	2.8% (80)
Any number of Resp.	91.4%	96.7%	97.7%	98.7%	97.2%
	$\chi^2 = 4.1$, df = 3, p < .001				
No 2nd Response	42.5%	41.1%	35.2%	29.2%	35.3%
Any number of 2nd Res	57.5%	58.9%	64.8%	70.8%	64.7%
	$\chi^2 = 29.8$, df = 3, p < .001				
(N)	(266)	(627)	(1027)	(890)	(2810)

ANES Data	Education [a]				Total
	Lower	-	-	Higher	
No Response	10.9%	7.8%	7.3%	5.1%	8%
Any number of Resp.	89.1%	92.2%	92.7%	94.9%	92%
	$\chi^2 = 36.1$, df = 3, p < .001				
No 2nd Response	22.6%	17%	11.9%	9.3%	15.6%
Any number of 2nd Res	77.4%	83%	88.1%	90.7%	84.4%
	$\chi^2 = 123.8$, df = 3, p < .001				
(N)	(1757)	(1439)	(1653)	(1273)	(6122)

UK MORI Data	Social Class [b]				Total
	Lower	-	-	Higher	
No Response	7.1%	2.9%	2%	0.7%	2.7%
Any number of Resp.	92.9%	97.1%	98%	99.3%	97.3%
	$\chi^2 = 44.8$, df = 3, p < .001				
No 2nd Response	41%	23.5%	17%	11.8%	21.4%
Any number of 2nd Res	59%	76.5%	83%	88.2%	78.6%
	$\chi^2 = 151.7$, df = 3, p < .001				
(N)	(437)	(978)	(835)	(735)	(2985)

Canada Angus Reid Data	Education [a]				Total
	Lower	-	-	Higher	
No Response	7.0%	4.6%	2.1%	1.1%	3.4%
Any number of Resp.	93.0%	95.4%	97.9%	98.9%	96.6%
	$\chi^2 = 144.4$, df = 3, p < .001				
No 2nd Response	22.3%	16.5%	13.1%	10.8%	15.0%
Any number of 2nd Res	77.7%	83.5%	86.9%	89.2%	85.0%
	$\chi^2 = 125.6$, df = 3, p < .001				
(N)	(1838)	(2758)	(3269)	(2630)	(8795)

NOTE – Entries are column percentages and number of respondents (in parentheses).

[a] Education categories are (1) did not complete high school, (2) completed high school, (3) further years of school without degree, or technical/community college, and (4) university degree.

[b] Social class divisions are (1) those dependent entirely on the state, (2) unskilled manual workers, (3) skilled and semi-skilled manual workers, and (4) white collar workers.

Table 2. Media Content, Prominence of Unemployment, and Issue Salience

Independent Variables	Dependent Variable	
	1st Responses Only	2nd Responses Only
US		
***LA Times* Data**		
R is Employed	.048 (.192)	.281 (.295)
(dummy variable)	1.050	1.324
R is Unemployed	1.340*** (.358)	-.142 (10.47)
(dummy variable)	3.819	.868
Regional	.773* (.338)	.454 (.482)
Unemployment Rate	2.165	1.574
Media salience	.298** (.092)	.021 (.131)
	1.347	1.021
N	2808	1708
Model chi-square (DF)	48.154*** (9)	10.388 (9)
-2 Log Likelihood	1122.564	542.036
UK		
MORI Data		
R is Employed	.220*** (.063)	.309*** (.077)
(dummy variable)	1.246	1.361
R is Unemployed	.677*** (.118)	.300 (.175)
(dummy variable)	1.969	1.350
Regional	.319*** (.065)	.087 (.088)
Unemployment Rate	1.375	1.091
Media salience	.003*** (.001)	.001 (.001)
	1.003	1.001
N (total)	6122	3664
N (unemployed)	389	236
Model chi-square (DF)	141.901*** (9)	33.896*** (9)
-2 Log Likelihood	7117.345	4550.366

NOTE – Entries are logistic coefficients, with standard errors in parentheses and likelihood ratio (Exp(B)) listed below. Dependent variable: "unemployment" as MIP response. Regressions include controls for sex, ethnicity, and social class, as described in text. * $p < .05$ (two-tailed test); ** $p < .01$ (two-tailed test); *** $p < .001$ (two-tailed test).

Figure 1. Effects of Number of Responses on Variance in Issue Salience