Attachment A – ECDS Contact Strategy Narrative Protocol

Contact Strategies for a Two Stage Data Collection Effort

I. Introduction

This attachment provides a description of the Early Career Doctorates Survey (ECDS) contacting strategies for the two stages of data collection. In outlining the strategies used in our data collection effort, we note both the approximate timing of events (e.g., when materials are sent or used) and how the materials vary by strategy and/or experimental group. To aid the reviewer we have included two sets of visual aids: tables that highlight the materials used for each step with stages of data collection and corresponding flowcharts depicting the sequence of contacts within each stage. The tables and flowcharts are available for review on pages 13-18 of this attachment. Contact materials are provided in the attachments B and C. Attachment B includes the institutional contact materials and Attachment C includes the ECD contact materials.

II. Protocols for Institutional Contacting

In the methodological study and Pilot ECDS, we developed and tested an institutional contacting protocol modeled on the protocols used in the O*Net establishment study and leveraging the contacts developed through the NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) and the companion Survey of Postdocs at Federally Funded Research and Development Centers. This protocol was designed to simultaneously maximize institutional participation rates and minimize burden on institutional respondents. To start the first stage of data collection, RTI will contact the office of the top administrator (e.g., president, chancellor, director) at each sampled institution (hereafter called the high authority or HA) to seek their approval for the institution to participate in the ECDS. At the same time, RTI will ask the HA to identify a List Coordinator (LC) and a Communication Coordinator (CC). The LC will be responsible for providing RTI with a list of all early career doctorates (ECD) working at the institution. The CC will assist the HA with developing a letter of support and sending out the pre-notification e-mails. RTI will recommend a possible LC using the following institutional attributes:

1. Participation in the ECDS methodological study or Pilot ECDS,
2. Existence of an Institutional Research Office (IRO),
3. What authority is represented by the offices in which GSS respondents work (e.g., high administrative office such as Provost or another office with less authority), and
4. Whether current GSS respondents are approachable.

The above attributes will determine the protocol we will use when initially contacting the institution. If the institution participated in the methodological study or Pilot ECDS and the responding LC is still in the same role at the institution, we will suggest that the same LC serve in that role for the full-scale ECDS. For institutions where it is necessary to identify a new LC, we will use the decision matrix summarized in Table 1 below. The rows indicate the possible combinations of GSS respondent in the IRO and their approachability. Similarly, the columns show the combinations of GSS respondents who are in another office, how well placed they are (amount of influence institution-wide or ability to access the data to be requested), and their approachability. The cells where the rows and columns intersect identifies the person who will be suggested as the LC. While many of these suggestions are accurate, participating institutions can change the LC as needed throughout the data collection. If the LC identified by the HA is non-responsive or does not have time and cannot suggest a replacement, we will use the below matrix to identify an alternate person to contact.

Table 1. Strategies for identifying a new List Coordinator (LC)

IRO existence and GSS respondent(s) position/efficacy	**Other approachable GSS respondent, well-placed**	**Other approachable GSS respondent, not well-placed**	**Other unapproachable GSS respondent or no other GSS respondent**
IRO with approachable GSS respondent	A: Suggest IRO GSS respondent	A: Suggest IRO GSS respondent	A: Suggest IRO GSS respondent
IRO with unapproachable GSS respondent	B: Suggest well-placed GSS respondent	D: Suggest best GSS respondent	E: No suggestion
IRO without a GSS respondent	B: Suggest well-placed GSS respondent	C: Suggest the IRO director	C: Suggest the IRO director
No IRO	B: Suggest well-placed GSS respondent	D: Suggest best GSS respondent	E: No suggestion

NOTE: IRO = Institutional Research Office; GSS = NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

Protocols for the second stage (individual level) data collection will also be discussed with the HA, LC, and/or CC to determine which will best meet the institution's privacy and confidentiality guidelines. There will be four basic contact protocols for the second stage data collection. The HA protocol will be the default protocol for all institutions. Under this protocol, a high ranking person within the sampled institution will provide two communications: an initial survey pre-notification to the sampled ECD, and a letter of support for use in a hard-copy letter sent from NSF via RTI later in data collection. A series of up to 8 additional contacts (detailed below in section III) will follow the HA pre-notification. This protocol yielded the best participation rates in both the methodological study and the Pilot ECDS, places minimal burden on the HA's office, and limits the risk to sample members (SM) by ensuring no one at their institution knows whether they decided to participate or not.

The NSF protocol will be used when an HA does not wish to send a survey pre-notification or is unable to do so within the required timeframe. Under the NSF treatment, SM will receive all communications regarding

participation to the Web survey from NSF, via the survey contractor, RTI International. The HA Opt-out and HA Opt-in approaches are alternatives that enable participation when the institution has policies that prevent them from sharing contact information directly with NSF or the survey contractor. In the HA Opt-out protocol, SM receive an e-mail from the HA or LC informing them of their selection for the survey and asking that they reply by a given date (specified by the institution) if they do not wish to participate in the survey. After the specified date, the contact information of all SM who do not opt-out would then be sent to the survey contractor.

In the HA Opt-in protocol, SM receive an e-mail from the HA or CC informing them of their selection for the survey and asking them to contact the survey contractor directly if they would like to participate. The HA Opt-in protocol was the least effective in both the methodological study and the Pilot ECDS, but enabled a few institutions to participate when they otherwise would have had to decline. With the exception of the first contact (pre-notification), the follow-up communications are the same across the four stage two data collection protocols.

Communications

Figure 1 provides a flowchart of the institutional contacts. The first communication with institutions is a lead letter that is sent via FedEx to the institutional HAs. With six possible strategies for identifying the suggested LC (prior LC plus strategies A-E in table 1 above), it is necessary to have multiple versions of this lead letter. Each version provides an outline of the survey and a brief description of what is being asked of the institution. Content of the letters differs, however, based on the type of LC being suggested. As can be seen in Table 2, there are four versions (2-1a through 2-1d) of the FedEx lead letter to HAs. LC identification strategies A, B, and D all use a GSS contact as a possible LC and thus share a common lead letter. For strategy C, we specify someone other than a prior GSS or FFRDC respondent by name and office. In the Strategy E letter we request that the HA assist us with identifying a qualified person to serve as the survey LC. For all institutions that participated in the methodological study or Pilot ECDS, we will simply confirm the prior LC contact information.

Institutional contact materials can be reviewed in Attachment B. The contacts are grouped by contact number and ordered as they would be received. For example, the four versions of the lead letter can be found in Attachment B in pages labeled "Attachment B.1 – *Lead Letter to High Authorities*…." These are followed by two versions of the Survey Participation Form and the HA Brochure that complete the first Institutional Contact. HAs are asked to return the Survey Participation Form to RTI, by mail, e-mail, or fax, or to log-in to the ECDS website (www.earlycareerdoctoratessurvey.org) to approve the survey and identify the LC.

Approximately seven business days after lead letters are sent to HAs, as noted in the timeline provided in the topmost row of Table 2, follow-up phone calls (Attachment B.2 – *Institutional Contact 2*) will be made. The purpose of these calls is to 1) determine if HAs have any questions and 2) gently prompt HAs to provide the

requested materials (i.e., approval forms including their nominees for a List Coordinator and a Communication Coordinator).

During this call HAs can also indicate that they do not wish to e-mail (or have a designee e-mail) sampled respondents about participation. Based on the methodological study and Pilot ECDS, we anticipate that this will happen with a small number of institutions. In such cases, these institutions will be reassigned to the NSF group and asked to provide two letters of support: one to be sent at same time as the pre-notification and one to be included in the mail reminder to nonresponding SM. For both letters of support, the HA will be asked to modify the letter as needed to meet their institution's requirements and send it back to RTI on their institution's letterhead.

Based on the methodological study and Pilot ECDS, we anticipate that a small number of institutions will be required by their institutional procedures to seek the permission of SM to share their contact information before providing it to NSF. (Only 3 of the 57 institutions that provided lists in the methodological study, and 13 out of the 149 Pilot ECDS institutions selected the Opt-in or Opt-out approach.) In these cases, we will request the list of ECD or potential ECD without personally identifying contact information and sample based on an anonymous identification number generated by the institution. The institution will then send an e-mail to the SM informing them of their selection and requesting permission to share their contact information. Some institutions will accept implicit permission whereby SM are e-mailed by the HA and if they do not reply noting they do not wish to participate their contact information is shared with the survey contractor (HA Opt-out group). Other institutions require explicit permission to share contact information. For these institutions, an e-mail will be sent by the HA requesting a reply if they are interested in participating (HA Opt-in group).

Immediately following receipt of HA approval, or three weeks after the lead letter is sent if no reply is received from the HA, an introductory call (Attachment B.3 – *Institutional Contact 3*) is made to the LC. The purpose of this call is to briefly introduce ourselves and the survey, seek to elicit cooperation, and confirm that they are the best person to serve as the LC. This contact will be skipped if the nominated LC already served in this capacity in the methodological study or Pilot ECDS.

Information packets (Attachment B.4 – *Institutional Contact 4*) will be sent within one day of confirming LCs. Enclosed in these packets are (1) a cover letter briefly describing what is being asked of them, (2) a LC brochure similar to the one HAs received, and (3) a document describing the data fields and specifications. The cover letter will also include their unique login credentials for a new web interface designed specifically for LCs, which will include answers to frequently asked questions, instructions for preparing a list, and a secure method of uploading completed lists. These information packets and the related online resources are intended to provide LCs with an adequate understanding of the survey goals and how their participation is critical to meeting those goals.

Follow-up profiling calls (Attachment B.5 – *Institutional Contact 5*) to LCs will be made approximately four business days after information packets are sent. On this call the LC and the institution contactor (IC) will collaborate to determine all components of the institution that should be included in the data request (e.g., branch campuses, affiliated health facilities, research centers) and the locations will need to be contacted to obtain complete coverage of all ECD within these components. The IC and LC will also discuss the data fields being requested, the ability of the LC to pull these data from extant administrative data, and other information that may define the boundaries and scope of the data that can be provide by the institution.

Immediately following the profiling call, the IC will send a “next steps e-mail” to the LC documenting their discussion and attaching an Excel spreadsheet template for providing the list of ECD (Attachment B.6). The Excel template will be customized based on the fields the LC indicated they had in their administrative data. A separate “job title” Excel template will be attached for LCs from institutions that are unable to affirmatively identify all individuals who qualify as ECD (i.e., LCs who do not have highest degree and award year for all staff and affiliates in their administrative data). These LCs will be asked to send a list of job titles and departments for these potential ECD. This information will be used to identify job categories that are likely to employ ECD, and LCs asked to include people in the selected job titles to the list of individuals known to have earned a doctorate or doctorate-equivalent degree in the last ten years.

A “Certificate of Appreciation” (Attachment B.7 – *Institutional Contact 7*) will also be sent to the LC immediately following the profiling call. The certificate will be accompanied by a cover letter. Reasons for sending this include showing an appreciation for the time we are asking of LCs and getting immediate buy-in from them. Even a nominal token of recognition such as this is appreciated and should result in better response from LCs in terms of overall willingness to participate and the effort expended in providing quality data on ECD.

Reminder/help phone calls to LCs (Attachment B.8 – *Institutional Contact 8*) begin approximately 10 business days after the certificate of appreciation is sent. These calls have two related purposes: (1) to determine if the LC has any questions about data fields, which individuals should be included in the sample, etc., and (2) to express how the LC’s participation is critical to the success of the survey. These calls will also enable updates about the anticipated date by which the LC expects to provide the ECD list. Multiple calls may be necessary, but as with the entire stage one data collection effort, we will be as efficient with calls as possible to minimize burden on LCs.

In both the methodological study and the Pilot ECDS, obtaining the letter(s) of support and getting the HA to send the pre-notification e-mails to the selected SM were two of the more challenging tasks. In part this was due to the lag between the initial contact and the start of stage two data collection, and in part because HAs often have several staff members who work on their behalf and calls to the HA's office often required a lot of reintroduction and time spent trying to find the person who could help. To help streamline communications with HA offices in the full-scale ECDS, we will ask institutions to designate a single Communication Coordinator (CC) at the same time they designate an LC. The CC will be responsible for providing an HA-approved letter of support and assisting the HA in sending out the pre-notification e-mails (or sending them out on the HA's behalf). We expect that this person will typically be a chief of staff or executive secretary in the HA's office. In some cases, the LC may also serve as the CC.

We will also postpone sending the letter of support and pre-notification email templates until we are closer to the stage two data collection. In many cases, the institutions did not want to provide a letter of support that was dated prior to the start of the individual data collection. About two months after the initial contact with the institution, we will use phone and e-mail check-ins with CCs (Attachment B.9 – *Institutional Contact 9*) to provide a status update about their list (received or not, sampled or not) and refresh their memory about the assistance we are requesting for the stage two data collection. We will describe the rationales for sending individual pre-notification e-mails to each sample member, describe the functionality of the HA contacting tool, provide RTI survey team contact information, and thank them for their support and time. After the initial check-in call, we will send them the relevant message template(s) for their review and modification (Attachment B.10a – *Templates for pre-notification e-mail and letter of support* [HA groups only] or Attachment B.10b – *Templates for two letters of support* [NSF group only]).

Once the ECD list is provided to RTI and a sample is drawn, we will notify CCs (for the HA group) that we are ready for them to send pre-notification e-mails (Attachment B.11 – *Institutional Contact 11*). Our experience from the methodological study and Pilot ECDS is that a single notification to HA offices is typically insufficient. We will therefore remind CCs of the availability of the tool to send pre-notification e-mails and that the sample is ready. The first of these reminders (Attachment B.12 – *Institutional Contact 12*) will be an e-mail follow-up that includes a reminder of their agreement to send the pre-notification e-mails. Also included in the e-mail is a description of an alternate option in which pre-notification e-mails come from NSF with the disclaimer that it is preferable that they send them. This language is included as some HAs may be unable to send pre-notification e-mails within a time frame that will work for the data collection.

About five business days after the reminder e-mail, a phone reminder is made to CCs who have not sent pre-notification e-mails (Attachment B.13 – *Institutional Contact 13*). The purpose of this phone call is to provide a gentle reminder to CCs, determine if there are any questions about the tool used to load pre-notification e-mails, and determine if CCs still plan to send the e-mails. The call also provides another opportunity to determine if the CC needs to make alternative arrangements (e.g., change to NSF group) to the pre-notification process.

As can be seen by comparing Figures 1 and 2, following the receipt and review of ECD data, the flow of contacts differs for the NSF and HA groups. After step 7, institutions included in the NSF Group have completed all necessary steps following the receipt and review of ECD contact and demographic data. However, CCs from institutions in the HA Group will be sent a request to send pre-notification e-mail *(*Attachment B.10 – *Institutional Contact 10)*. Instructions on how to use the web-based e-mail assistance tool are included in this communication.

III. Protocols for Contacting Stage Two Sample Members

In the Tailored Design Method (TDM), Dillman et al. suggest a multi-contact strategy in which an initial pre-notification is sent, followed by a request to complete the questionnaire and multiple reminders for which there is a heightened sense of urgency with each new request (Dillman 2007; Dillman et al. 2014). Building awareness and anticipation of the survey to come is the main purpose of the pre-notification contact. Reminder mailings may jog a sample member’s memory about a prior request, but they may also do more than that. It is possible initial requests were not received due to incorrect contact information; in these cases, a subsequent reminder in a different mode of contact gives us another opportunity to reach the sample member. It also provides the opportunity to “invoke new and more persuasive appeals” (Dillman, 2007: 178). Below we provide a description of the second stage of data collection—web survey administration—that is grounded in the TDM methodology. A stepwise description of each contact is provided and differences across the groups are highlighted.

For the HA group, pre-notification e-mails will be sent by a high-ranking person within the sampled institution. Stage two contact materials are available for review in Attachment C. For example, pre-notification letters can be found in Attachment C.1 – *ECD Contact 1*. For the NSF protocol, pre-notification will be sent one of three ways depending on the SM’s assigned experimental treatment group. The survey contractor will send the pre-notification on behalf of NSF by U.S. first-class mail, priority mail, or e-mail.

A letter of support from the institutional HAs and the ECD brochure will be enclosed in the NSF hard-copy pre-notification mailing and mailed separately to SM who receive the NSF pre-notification via e-mail. The pre-notification letters briefly describe the survey and what is being asked of the SM. Brochures are included to complement the letter by providing more detail on the survey and answering frequently asked questions. Support letters from HAs are included in this contact to enhance the legitimacy of the survey and increase the likelihood that the SM will deem this worth his or her time and consideration. The ECD brochure will also be available electronically on the main webpage for the survey.

The morning after the pre-notifications are received by the SM, RTI will send login credential e-mails (Attachment C.2 – *ECD Contact 2*) to each SM. For the NSF protocol, this will be 5 business days after first-class mailings, 3 days after priority mailings, and one day after e-mails in order to ensure that adequate time elapses for SM in each NSF condition to receive the pre-notification. For the HA group, the login credentials will be automatically generated through an overnight batch process the day after the HA has sent the pre-notification e-mail. For the HA Opt-in group, login credentials will be automatically generated through the same process and sent on a rolling basis as RTI receives notification that the SM has opted-in to the survey. The same automatic process will generate the login credentials for the Opt-out group. The e-mail will be sent to those SM who did not opt-out within one day of receiving a list of SM from the HA. Login credential e-mails will include a hyperlink that contains a unique username and password that upon being clicked will open the user's web browser and log them into the secure (i.e., https) survey website.

Whether an SM receives subsequent communications regarding survey participation is contingent upon their response. That is, only SM who do not respond to the initial login credential e-mail will receive follow-up communications. Figure 3 depicts the flow of initial and follow-up communications.

A reminder e-mail #1 (Attachment C.3 – *ECD Contact 3*) will be sent to all SM who have not completed the questionnaire within three business days of receiving their login credentials (henceforth all days referred to are business days). The HA and NSF groups will receive e-mails with wording differing based on who sent an initial contact to the SM. The remainder of the content is the same across the two e-mails. The purpose of this e-mail is to jog the memory of nonrespondents who may have forgotten the initial request. The e-mail includes login credentials for those who may have already deleted the initial credentials e-mail.

Reminder e-mail #2 (Attachment C.4 – *ECD Contact 4*) will be sent approximately 5 days after the first reminder e-mail. Rationale for a second e-mail is twofold. Following the TDM approach, the language used exhibits a strong form of personalization and the importance of their participation. Attention to individual nonrespondents is exhibited by noting that our records indicate that they have not completed the questionnaire. Attention to the individual indicates to the prospective respondent how important they are to the success of the survey. With only minimal effort the recipient can gain access to the questionnaire. This contact does not vary by protocol group.

Reminder phone call #1 is the fifth contact in our protocol (script is in Attachment C.5 – *ECD Contact 5*). Following the TDM, this contact invokes special procedures. Invoking the special procedure allows us to further intensify our follow-up while at the same time decreasing the intensity of language used. By using a new mode of contact we demonstrate to the prospective respondent that their participation is so critical to our survey that we are attempting to reach them in a new way. A second purpose of the call is to determine if those individuals who broke off after beginning the survey experienced any problems that need to be addressed in order for them to complete the survey. A final purpose of the call is to provide an alternative mode to complete the survey. This option will be offered to potential respondents who would rather complete the survey at that time.

Approximately 10 days after the reminder phone call, a reminder e-mail #3 (Attachment C.6 – *ECD Contact 6*) will be sent. Similar to the previous reminders, the verbiage used in this contact personalizes the contact and stresses the importance of the SM participation. Again, we note that our records indicate that they have not completed the questionnaire. Following the TDM approach, we include themes in this contact not used in previous reminder e-mails. The purpose of this contact is to attempt to assuage concerns and offer new and increasingly compelling reasons why the participation of each SM is critical to the success of the survey. An automatic login hyperlink is again provided so the SM may easily access the survey. Again, this communication is the same for all SM.

A mail reminder (Attachment C.7 – *ECD Contact 7*) is made to all nonrespondents about two weeks after the third e-mail reminder. Two versions of the letter are needed based on the need to refer to who notified the potential respondent of the survey (i.e., whether or not we want to refer to an HA). Accompanying the NSF letter is a second letter of support (also in Attachment C.7 – *ECD Contact 7)*, when available. Again we change the mode of contact and use language that notifies the potential respondent that they are one of only a few nonrespondents, their voice needs to be heard in order for the survey to be valid, and new language is used to describe the kind of data being gathered. For this mailing we will use a priority FedEx or USPS Priority Mail package, which in the Pilot ECDS was found to yield a significantly higher response rate than a regular first-class letter.

Approximately one week after the mail reminder, telephone interviewers will begin calling nonrespondents for a second round of telephone prompting (script is in Attachment C.8 – *ECD Contact 8)*. In the Pilot ECDS, this contact was an attempt to conduct computer-assisted telephone interviews (CATI), but less than 1 percent of respondents even started a survey that included a telephone interview. In the full-scale ECDS, this contact will serve initially as a mode change and an additional reminder, but will not include the same encouragement to complete via CATI. If any SM would like to complete via CATI, the telephone interview will be started on this call.

After three weeks of attempting to reach the sample member with the second round of telephone prompting, a final e-mail reminder (Attachment C.9 – *ECD Contact 9)* will be sent. This final reminder switches back to the electronic format for two reasons. One reason for the switch is to return to the mode of contact that allows the simplest method of logging into the survey. The three previous contacts were in modes that for these nonrespondents essentially served as reminders. While there were important reasons for using these alternate methods of contacting the potential respondent, not providing the simplest method of logging into the web survey is the one limitation to them. Moreover, this final appeal e-mail invokes a combination of messages, some of which have not been used in recent contacts, that we believe provides the most intense plea for participation to date. Again, potential respondents are reminded that the survey has a unique focus, that survey offers an indirect benefit to them by helping determine how best to support the research community, and that only a small number of people were selected for the survey and that their participation is critical to the validity of the survey.

Finally, a thank you e-mail (Attachment C.10 – *ECD Contact 10*) will be sent to each SM who completed the survey. This contact recognizes the respondents' effort and shows that NSF values and appreciates their time. Moreover, sending the thank you e-mail builds rapport with respondents for future contacts. Should they be selected to participate in future waves, thanking them for their participation should improve the chances that they will participate again.

IV. Conclusion

In this Contact Strategy Narrative Protocol, we have delineated the steps involved in both of the two data collection stages. A description of each step within the two stages has been provided, in addition to the purpose of the corresponding contact material. It has been noted that there are multiple versions of some materials based on the protocol stratum to which the institution is assigned. Highlights of these differences include:

- The content of the initial letters to institutional high authorities vary based on our ability to identify a good LC candidate;
- Requests of HAs differ based on their willingness to notify SM of their selection for the study. HAs willing to e-mail the SM in their organization (or designate an authority figure to send these e-mails) will receive up to five additional communications from RTI after the stage 2 sampling is complete. The first will ask the HA to send a pre-notification e-mail. Up to four reminder communications (e-mail and phone) will be made to HAs until they send pre-notification e-mails, they inform RTI they will not send the e-mails, or it is determined by RTI that subsequent requests for the pre-notification are not appropriate, at which time pre-notification is sent by RTI on behalf of NSF. HAs in the NSF protocol will receive no further communication from RTI after they have provided the ECD contact information and letters of support.
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- Delivery of pre-notification differs by stage two protocol. Most SM will receive an e-mail from an institutional authority figure notifying them of their selection and urging them to participate (HA protocols). SM in the HA Opt-out and HA Opt-in protocols will be asked for implicit or explicit permission to share contact information with NSF and the study contractor. SM in the NSF group will be assigned to one of three experimental groups. Depending on their treatment group, SM in the NSF group will receive notification via first-class USPS mail, priority mail (i.e., FedEx or priority U.S. mail), or e-mail.

To the extent possible we will follow the steps outlined in this document. With the numerous varying factors across institutions it is possible that an unexpected scenario may arise. In these situations we will develop contingency plans based on the unique circumstances of the institution. However, we believe the current contact strategy plan lays out appropriate steps for the vast majority of institutions and that any contingencies will require only minor modifications to the existing plan.

Table 2. List of Institutional Contacts with Contact Timing

Contact	Mode	Business Day							
		0	**7**	**15**	**19**	**29+**	**~60**	**65**	**70**
1. HA: FedEx package	Mail	B.1							
Letter – LC Strategies ABCE		.1a							
Letter – LC Strategy D		.1b							
Letter – LC Strategy F		.1c							
Letter – Prior ECD Study LC		.1d							
Survey participation form (LC suggested)		.2a							
Survey participation form (blank)		.2b							
HA brochure		.3							
2. HA: Follow-up call with outline script	Phone		B.2						
3. LC: Introductory call with outline script	Phone			B.3					
4. LC: Information packet mailing	Mail			B.4					
Cover letter				.1					
LC brochure				.2					
Description of data fields and specifications				.3					
5. LC: Profiling call with outline script	Phone				B.5				
6. LC: Overview/"next steps" e-mail	E-mail				B.6				
7. LC: Certificate of appreciation packet	Mail				B.7				
Cover letter					.1				
Certificate of appreciation					.2				
8. LC: Reminder/help phone calls (every two weeks, as needed)	Phone					B.8			
9. HA/CC: Phone/e-mail check-ins with CC (once a month, as needed)	Phone/ E-mail					B.9			
10. HA/CC: Follow-up re stage two communications	E-mail					B.10			
HA protocol e-mail						.1a			
HA pre-notification e-mail template						.2a1			
HA pre-notification e-mail template (opt-out						.2a2			
HA pre-notification e-mail template (opt-in protocol)						.2a3			
HA nonresponse prompt template (opt-in protocol)						.2a4			
HA letter of support template						.3a			
NSF protocol e-mail						1b			
NSF pre-notification letter of support template						.2b			
NSF reminder letter of support template						.3b			
11. HA/CC: Request to send pre-notification e-mail	E-mail						B.11		
12. HA/CC: Follow-up e-mail about pre-notification	E-mail							B.12	
13. HA/CC: Follow-up phone call about pre-notification (HA group only; if not sent)	Phone								B.13

Figure 1. Flow of contacts to Institutions – HA Group

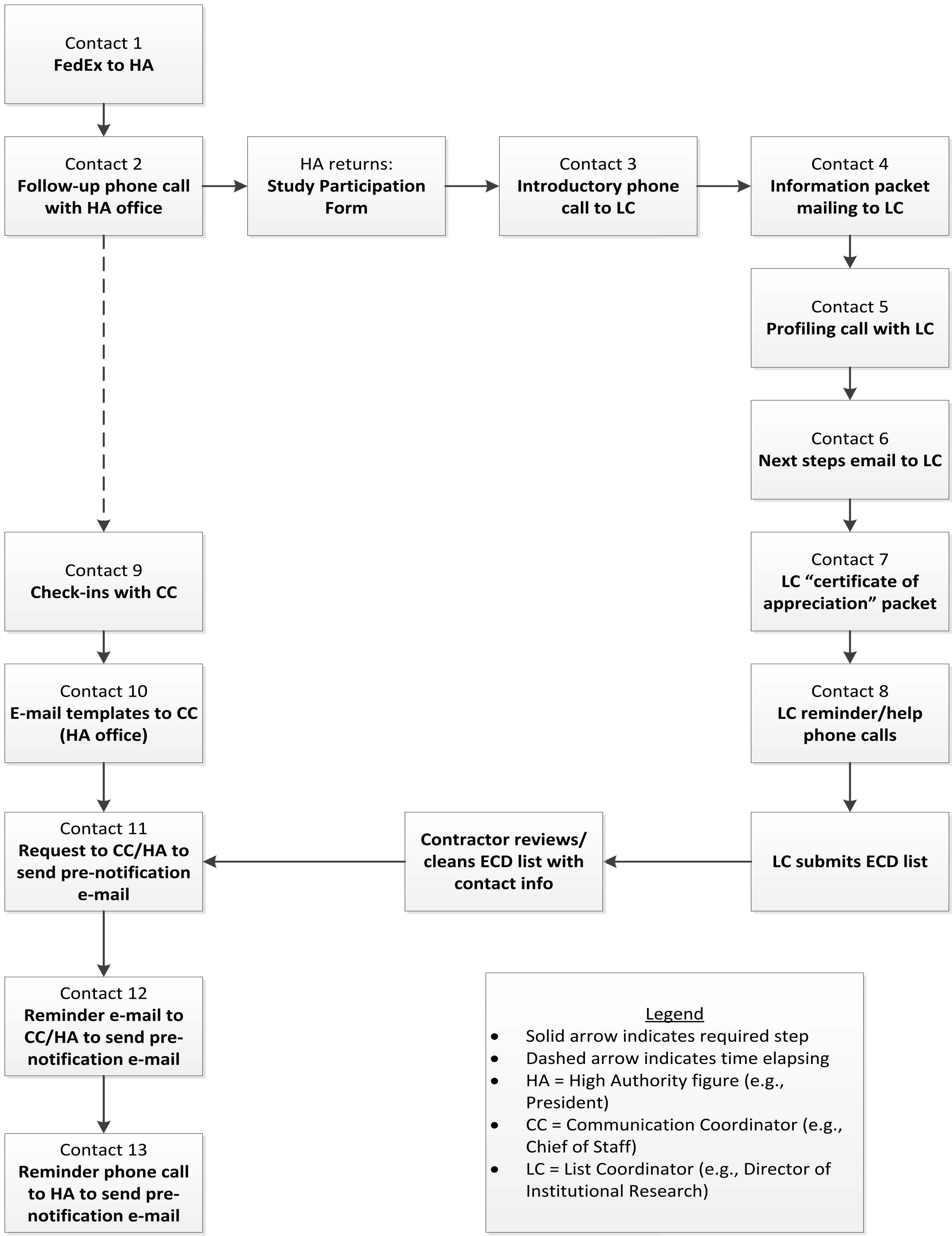

Figure 2. Flow of contacts to Institutions – HA Opt-out/Opt-in Group

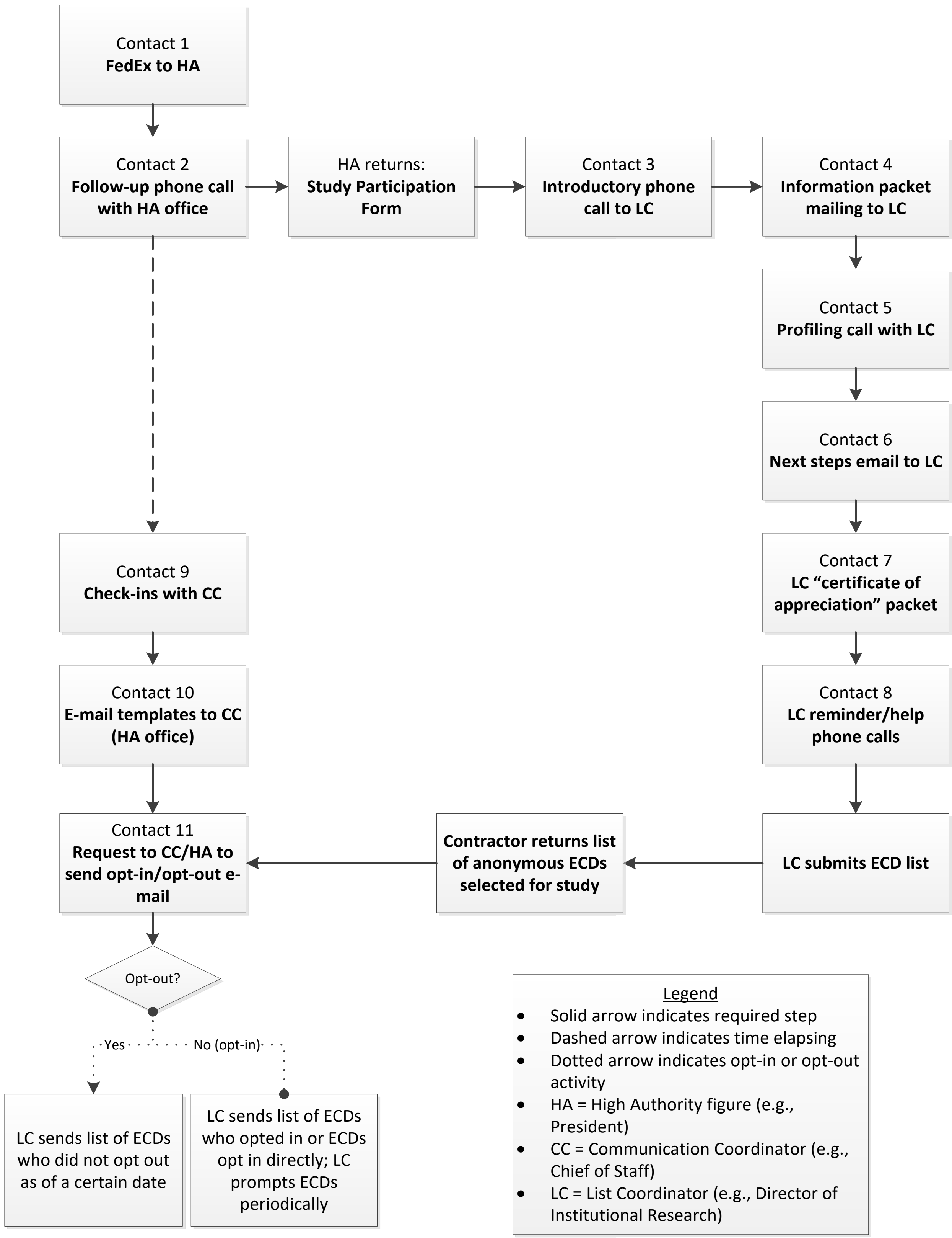

Figure 3. Flow of contacts to Institutions – NSF Group

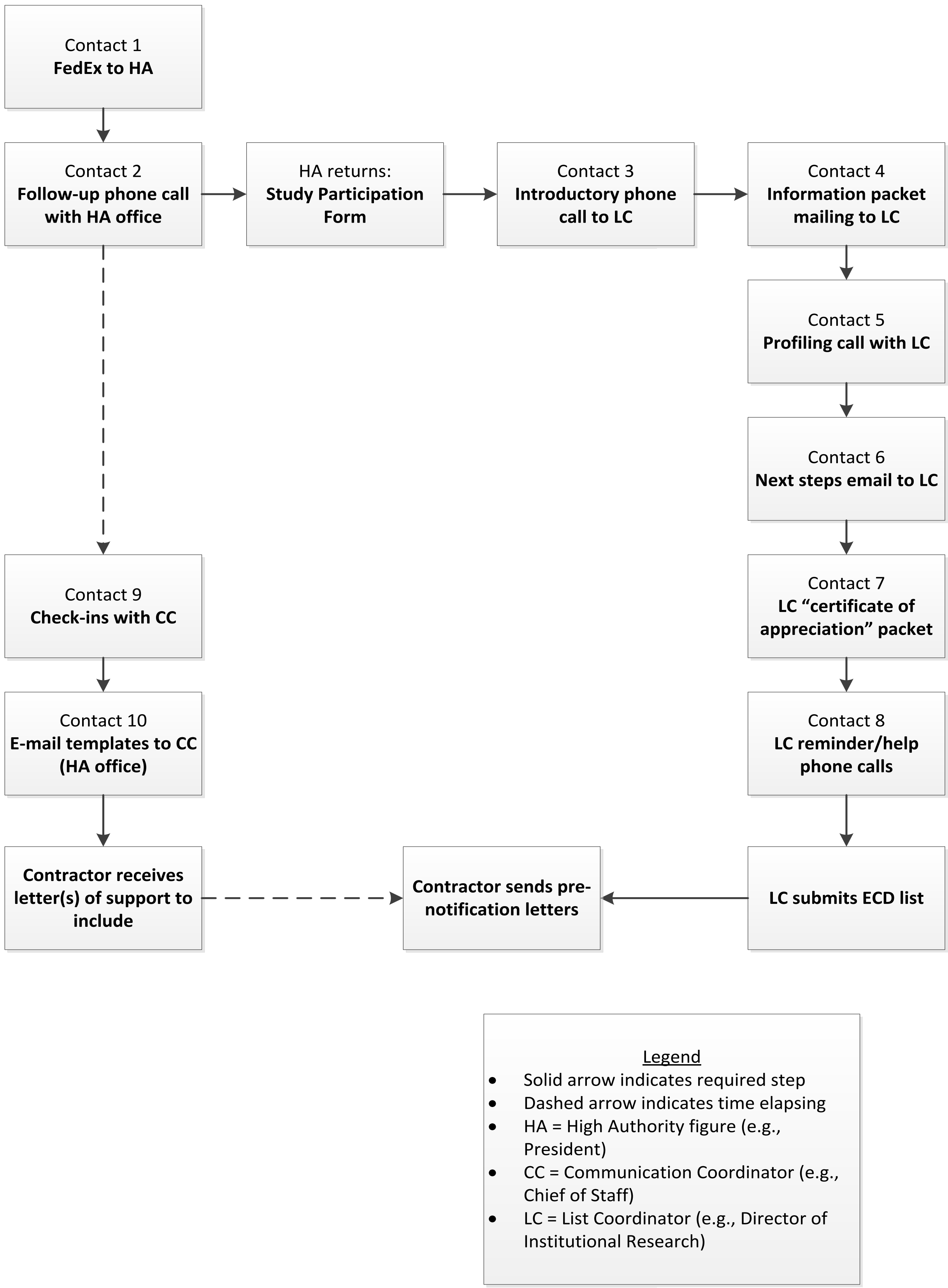

Table 3. List of Notifications to Sample Members

	Contact number and timing of events[1]												
	1	**2a**	**2b**	**2c**	**2d**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Protocol group and contact description	Begin Date	*	+1	+3	+5	+3	+5	+5	+10	+10	+5	+~20[2]	Post-complete
ECD - High Authority Group[3]													
Pre-notification e-mail from High Authority (includes link to survey website and brochure)	C.1												
Login credential e-mail			C.2										
ECD – High Authority Opt-out Group													
Opt-out e-mail from HA	C.1												
Login credential e-mail[4]			C.2										
ECD – High Authority Opt-in Group													
Opt-in e-mail from HA	C.1												
Login credential e-mail[5]		C.2											
ECD - NSF Group 1[6]													
Pre-notification letter from NSF via U.S. first class mail, enclosing ECD brochure and letter of support from HA	C.1												
Login credential e-mail					C.2								
ECD - NSF Group 2[6]													
Pre-notification letter from NSF via priority mail, enclosing ECD brochure and letter of support from HA	C.1												
Login credential e-mail				C.2									
ECD - NSF Group 3[6]													
Pre-notification e-mail from NSF (includes link to survey website and brochure)	C.1a												
ECD brochure and letter of support from HA via priority mail	C1.b												
Login credential e-mail		C.2											

[1] The timing of each event is represented by the number of business days from the preceding event.
[2] The time between the reminder phone call #2 and the final e-mail reminder may be contingent on the overall amount of time remaining in data collection.
[3] HA group means the institutional high authority figure (or a designated Communication Coordinator) sends the first contact to the ECD and provides a letter of support for a mail reminder. All other contacts come from NSF.
[4] Login credential e-mails for the Opt-out Group will be sent within 1 day of receiving a list of ECD who have not opted-out of the study.
[5] Login credential e-mails for the Opt-in Group will be sent when sample members notify the study team that they would like to participate. Login credential e-mails will be sent out as soon as possible, usually within a few minutes of receiving opt-in notification.
[6] NSF group means that the NSF contractor sends all contacts to the ECD. NSF group is divided into 3 experimental groups to assess effect of different delivery methods on response rates and survey costs.

Protocol group and contact description	Contact number and timing of events[7]												
	1	**2a**	**2b**	**2c**	**2d**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	Begin Date	*	+1	+3	+5	+3	+5	+5	+10	+10	+5	+~20[8]	Post-complete
All Groups													
Reminder e-mail # 1						C.3							
Reminder e-mail # 2							C.4						
Reminder phone call #1								C.5					
Reminder e-mail # 3									C.6				
Mail reminder with ECD brochure and letter of support from HA										C.7			
Reminder phone call #2 (includes CATI offer)											C.8		
Final e-mail reminder												C.9	
Thank you e-mail													C.10

[7] The timing of each event is represented by the number of business days from the preceding event.
[8] The time between the reminder phone call #2 and the final e-mail reminder may be contingent on the overall amount of time remaining in data collection.

Figure 4. Flow of contacts to ECDS sample members