National Institutes of Health/Office of Extramural Research

Electronic
Research
Administration

eXchange Services
Notes, Tips and Validations
For Grants.gov Components

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Filling Out an Application for NIH Grants

How applicant institutions submit a grant application to the National Institutes of Health (NIH) is changing from mailing in a paper application to submitting the application electronically through Grants.gov using the new SF424 (R&R) application. For information about the timetable for each mechanism's conversion to electronic submission and other information, go to http://era.nih.gov/ElectronicReceipt/.

For electronic submission, applicant institutions can submit applications on PureEdge™ forms downloaded from Grants.gov, build a system-to-system interface with Grants.gov or work with a commercial service provider. Regardless of submission method, Grants.gov electronically performs a simple validation against the application. If it passes inspection, the application is put in a queue, which the National Institutes of Health (NIH) then pulls into its system.

The NIH performs a more specific and detailed electronic check of the application against the instructions in the application guide and funding opportunity announcements. If the application passes the validation check, the NIH sends an email to the Authorized Organization Representative (AOR)/ Signing Official (SO) and Project Director (PD)/Principal Investigator (PI). The email includes the NIH application tracking number and notification that both the SO and PI have two days to view the application image on the eRA Commons before the application automatically moves to Receipt and Referral.

If the application doesn't pass the validation check—usually because NIH instructions are not being followed—NIH sends the AOR/SO and PD/PI an email saying there are *error messages* or *warnings* that they must address*:*

- **Error message:** All errors must be fixed to complete the submission process. Once all errors are addressed, the applicant organization must submit the entire corrected application through Grants.gov as a changed/corrected application.
- **Warning:** Warnings do not stop the application from being accepted by the eRA System; however, each warning should be looked at carefully to avoid delays or issues later on in the peer review process.

The AOR/SO and PD/PI can log onto the eRA Commons to view the error codes and warnings. **Note:** since email can be unreliable, it is the applicant's responsibility to periodically check the eRA Commons for the status of the application after notification is received that NIH has pulled it from the Grants.gov queue.

So how can one be sure that the application passes all validation checks and results in no error messages or warnings? Carefully read and follow the application guide and announcement-specific instructions. Be sure that you fill out all sections to the best of your ability and that you include all attachments. NIH requires that all text attachments be in PDF format. Be clear about what is required for the type of application you are submitting. Make sure you observe the page limits for the different attachments. Confirm that you haven't exceeded direct cost limitations. Don't take shortcuts.

Here are some tips for filling out each section of the application. The NIH requires that applications be submitted using the SF424 (R&R) package, as well as supplemental, agency-specific forms identified as Public Health Service (PHS) application forms. Note that included in each funding opportunity announcement is the complete application forms package and guide.

After the application package is submitted, the eRA system will assemble the grant image, generate a table of contents and include headers (PI's name) and footers (page numbers) on all pages.

The following notes, tips, validations and errors/warnings address SF424 Research & Related (R&R) and PHS 398 specific components of an NIH application package.

SF424 (R&R)

Component	Field	Validation	Error Message	Notes & Tips
SF424 (R&R)	**Type of Submission (Pre-App, App, Changed App)**	For non-X02 submissions, do not accept 'Pre-application' as submission type	'Pre-application' is not a recognized submission type for NIH applications	NIH is not accepting "pre-applications" unless specifically noted in the Funding Opportunity Announcement.
		For X02 submissions, do not accept 'Application' as submission type	'Application' is not a recognized submission type for X02 applications.	
		Do not accept 'Application' submission type if there is an associated prior submission. Find associated prior submission by matching on PI Commons account, institution, and project title for the same council round.	This application is a duplicate of a previous submission for the same council round. Please resubmit using the 'Changed/Corrected Application' submission type.	Don't submit duplicate applications for the same council round. If you are submitting corrections to a previously-submitted application, submit it as a "Changed/ Corrected Application."
		Do not accept X02 pre-application submission type if there is an associated prior submission. Find associated prior submission by matching on PI Commons account, institution, and project title for the same council round.	This application is a duplicate of a previous submission for the same council round. Please resubmit using the 'Changed/Corrected Application' submission type.	
SF424 (R&R)	**Date Submitted**	If Phase II SBIR/STTR, and Phase I identified as NIH grant, provide warning if date submitted is more than 2 years after Phase I project period end date	Phase II SBIR/STTR applications should be submitted within 6 receipt dates after the expiration of the Phase I budget.	
SF424 (R&R)	**Applicant Indentifier**			
SF424 (R&R)	**Date Received by State**			
SF424 (R&R)	**State Application Identifier**			
SF424 (R&R)	**Date Received by Grants.gov**			

Component	Field	Validation	Error Message	Notes & Tips
SF424 (R&R)	Federal Identifier	If a resubmission, revision, or renewal, this component is mandatory	For resubmissions (revised applications) and renewals (competing continuations), the Federal Identifier must be included. Please include the IC and serial number of the prior grant number in the Federal Identifier field on the S 424 RR Face page (e.g., CA123456). For revisions, the Federal Identifier must be included. Please include the IC and serial number of the parent grant number in the Federal Identifier field on the SF242 (R&R) Face page (e.g., CA123456).	You must include the prior grant number here if you are submitting a revised application (resubmission), a competing continuation (renewal), or a new Phase II SBIR/STTR. The IC and serial number of the prior grant number will be checked for accuracy. Schema must parse out the components of the grant number.
		If a new Phase II SBIR/STTR, this component is mandatory	For Phase II SBIR/STTR submissions, the Federal Identifier must be included. Please include the IC and serial number of the prior grant number in the Federal Identifier field on the SF424 RR Face page (e.g., CA123456).	
		If a renewal Phase II SBIR/STTR, this component is mandatory	For Phase II SBIR/STTR submissions, the Federal Identifier must be included. Please include the IC and serial number of the prior grant number in the Federal Identifier field on the SF424 RR Face page (e.g., CA123456).	
		If Phase II SBIR/STTR, and Phase I grant number is found in NIH database, provide warning if Phase I grant has not been awarded.	Phase II SBIR/STTR applications may be submitted only if the Phase I grant has been awarded.	

Component	Field	Validation	Error Message	Notes & Tips
		If a resubmission, revision, or renewal, or a new Phase II SBIR/STTR, components of grant number must be 'parsable'. Components are <application_type> <mechanism> <institute> <serial number>-<support year><suffix code) (example: 1R01GM072828-01A1) −Application Type is a one-digit number. −Mechanism is a letter followed by a two-digit number. −Institute (IC) consists of two characters. −Serial number is a number that has been assigned sequentially within an IC (must be followed by a dash). −Support year is anywhere from 1 to 99. −Suffix code will start with an 'A' or an 'S'. −At least the IC and serial number must be included.	Federal Identifier format is not valid. Please provide the IC and serial number of the prior grant (e.g., CA123456).	
		If a resubmission, revision, or renewal, or a new Phase II SBIR/STTR, the prior grant number must exist in the NIH system. Matching is performed against NIH Institute/ Center and Serial Number.	The Federal Identifier that you have entered is not a grant number that has been previously assigned.	
		If a resubmission, revision, or renewal, or a new Phase II SBIR/STTR, mandatory components are IC and serial number.	You must include the <missing component> of the prior grant in the Federal Identifier.	

Component	Field	Validation	Error Message	Notes & Tips
		If PIChangeIndicator not set, check if PI on this submission has same Commons Account as PI assigned to the prior grant. If not, provide warning if last name of PI on prior grant matches last name for PI on current application.	The prior grant entered as the Federal Identifier is not associated with the Commons account for this PI. This application will be received by NIH, but may be returned after internal processing.	
		Provide error if Commons Account doesn't match and last name of PI on prior grant doesn't match last name for PI on current application. Ignore case, spaces, and punctuation on match.	The prior grant that has been entered as the Federal Identifier is not associated with this PI.	
		For a resubmission, a summary statement must have been mailed for the prior grant	A resubmission (a revised application) cannot be submitted until the Summary Statement for the previous application has been released by NIH.	
		For a resubmission, the prior grant must not have been awarded, unless it has been identified as interim funding.	A resubmission (a revised application) cannot be submitted if a prior version in the same support year has been awarded.	
		For a resubmission, if the prior grant suffix code = 'A2', display a warning (default for mechanisms not otherwise defined)..	NIH normally limits the number of resubmissions for an application to two. This application will be received by NIH, but may be returned after internal processing.	
		For a resubmission, of an R36 application (activity code on funding opportunity = 'R36'), prior grant suffix code must not = 'A2'.	This application has exceeded the number of resubmissions permitted by NIH and cannot be accepted.	
		For a resubmission, prior grant suffix code must not = 'A3'.	This application has exceeded the number of resubmissions permitted by NIH and cannot be accepted.	
		For a revision, the parent grant must be awarded.	The parent grant for a revision must be awarded. The parent grant for this submission is not a funded grant.	
		For a 'Phase II' SBIR/STTR, validations on parsing Federal Identifier, requiring IC and serial number, and identifying the number as existing in the NIH system are *warnings* only.	Error message text is the same as the items above.	These need to be warnings, since it is possible to submit a phase II application where the phase I was funded externally (or funded as an NIH contract, not a grant).

Component	Field	Validation	Error Message	Notes & Tips
SF424 (R&R)	**Applicant Information, Organizational DUNS**	Must match DUNS recorded for IPF in Commons. Validate the leftmost 9 characters only, discarding any characters submitted in places 10-13.	The DUNS number you have provided does not match the number NIH has on record for your organization. The SO should make sure the correct DUNS number has been entered in the NIH Commons.	
		For a revision, provide a warning if it doesn't represent the same organization as the parent grant.	The parent grant may be associated with a different organization. Revisions should only be submitted for the same organization as the parent grant. This application will be accepted by NIH, but may be delayed in the peer review process.	
SF424 (R&R)	**Applicant Information, Legal Name**	None		Display in grant image as submitted; store in database as reflected in IPF associated with PI Commons account and org. DUNS. Long-term, change length in eRA db to 120 characters.
SF424 (R&R)	**Applicant Information, Department**	None		
SF424 (R&R)	**Applicant Information, Division**	None		
SF424 (R&R)	**Applicant Information, Street 1 and 2**	If either line>50 characters, truncate and display warning.	Street <*n*> of the Applicant Information exceeds the limit of 50 characters. The grant image will display the address as submitted; NIH will store the first 50 characters only.	Long-term, change eRA db to 55 chars.
SF424 (R&R)	**Applicant Information, City**	None		
SF424 (R&R)	**Applicant Information, County**	None		
SF424 (R&R)	**Applicant Information, State**	Required if country is US or Canada.	The Applicant Information State must be supplied for US and Canadian addresses.	
		If country not US or Canada must be blank.	The Applicant Information State should be blank for all countries other than the United States and Canada.	
		Transform to 2-char abbreviation before validating and storing. If state name can't be transformed, give error.	The Applicant Information State is not a valid state name.	

Component	Field	Validation	Error Message	Notes & Tips
SF424 (R&R)	**Applicant Information, Zip Code**	Required if country is US.	The Zip Code was not entered in the Applicant Information section.	Long-term, change in eRA db to 13 characters.
		Must be 5 or 9 numeric digits if country is US.	The Applicant Information Zip Code must be entered in 5-digit or 9 digit format.	
		If >9 characters, truncate and display warning (remove any dashes before truncating).	The Applicant Information Zip Code has more than 9 digits. The grant image will display the zip code as submitted; NIH will store the first 9 digits only.	
SF424 (R&R)	**Applicant Information, Country**	For an R13 application (activity code on funding opportunity = 'R13' or 'U13'), provide a warning if country is not US	The Applicant Organization for a Conference Grant should be located in the US. This application will be accepted by NIH, but may be delayed in the peer review process.	
		For an R15 application (activity code on funding opportunity = 'R15') return an error if country is not US	The Applicant Organization for an AREA Grant must be located in the US.	
		For an S10 application, return an error if country is not US	The Applicant Organization for an S10 application must be located in the US.	
		Must be a valid ISO 3166-1 alpha-3 country code.	The Applicant Information country code provided (<Country>) is not a valid ISO 3166-1 alpha-3 country code.	
SF424 (R&R)	**Person to be Contacted**	If the combination of all items in this component is more than 30 characters, truncate and display warning. Display in grant image as submitted.	The grant image will display the Person to Be Contacted as submitted; NIH will store the first 30 characters only.	Long-term, change in eRA db for Contact Name to accommodate the way it is submitted through Grants.gov.
SF424 (R&R)	**Person to be Contacted, Phone Number**	None		
SF424 (R&R)	**Person to be Contacted, Fax Number**	None		
SF424 (R&R)	**Person to be Contacted, e-mail**	e-mail is required	The e-mail address for the Person to Be Contacted is required.	
		Must contain a '@', with at least 1 and at most 64 chars preceding and following the '@'. Control characters (ASCII 0 through 31 and 127), spaces and special chars < > ( ) [ ] \ , ; : are not valid.	The submitted e-mail address for the Person to Be Contacted, <Email>, is invalid. Please enter e-mail addresses in the format username@domainname.com	

Component	Field	Validation	Error Message	Notes & Tips
SF424 (R&R)	**Employer Identification**	If >12 characters, truncate (no warning).		
SF424 (R&R)	**Type of Applicant (other, woman owned, disadvantaged)**	For an SBIR/STTR application, must be 'Small Business'.	For an SBIR/STTR application, the Type of Applicant must be 'Small Business'.	Design/mapping note: when the applicant type is "O - Small Business", set small_business_code to 'N', but do not supersede any value that is the result of mapping the women-owned or socially-economically-disadvantaged qualifiers. In other words, default when applicant type is "O" should be 'N'' instead of "null". This should be overwritten if the women-owned and socially-economically-disadvantaged indicators need to record either a W, M, or B in this field.
SF424 (R&R)	**Type of Application (New, Resub, Renewal, Contin, Revision)**	Must be either New, Revision, Resubmission, or Renewal	<Type of Application> is an invalid Type. The Type must be New, Revision, (for supplements), Resubmission (for revisions/amendments), or Renewal (for competing continuations).	• You must select one of the following: **New**, **Revision, Resubmission** (for revisions/amendments) or **Renewal** (for competing continuations). **Note**: *Renewal* is not valid for Phase I SBIR/STTR applications. • A **Continuation** is equivalent to a Progress Report. However, NIH and other PHS agencies will not use the Continuation box. • A **Revision** is somewhat equivalent to a
		Renewal is not a valid type for a Phase I SBIR/STTR, X01, X02, R03, R21, or R34 application.	A renewal (competing continuation) cannot be submitted for **this** application.	
		Provide warning if renewal is submitted for an R21/R33 combination.	Renewal (competing continuation) applications are accepted if specifically allowed in the Funding Opportunity Announcement (FOA). If the FOA does not explicitly allow renewals, this application may be delayed in the review process or rejected.	

Component	Field	Validation	Error Message	Notes & Tips
		Revision is not a valid type for an S10, X01, or an X02 application.	A revision (supplement) cannot be submitted for this application.	Competing Supplement. • If you are submitting an SBIR/STTR application, select "Small Business." • For a revision, define parent grant by finding the most recent type 1, type 2, or type 9 that matches on the IC and serial number provided in the Federal Identifier, where the Project Start Date on the parent is earlier than or equal to the revision's Project Start Date, and the Project End Date on the parent is later than or equal to the revision's Project End Date. Subprojects and other revisions should be excluded from consideration as parent grants.
SF424 (R&R)	**If revision, increase award, decrease, etc.**	None		
SF424 (R&R)	**Name of Federal Agency**			
SF424 (R&R)	**Catalog of Federal Domestic Assistance Number**			The CFDA number and title are filled in based on the specific announcement.
SF424 (R&R)	**Submitted to other agencies?**			
SF424 (R&R)	**Descriptive Title**	Truncate if >81 characters, and provide warning	The Descriptive Title exceeds the limit for NIH. It will be displayed in the grant image as submitted; NIH will store the first 81 characters only in the eRA database.	Long-term, expand eRA db to 200 chars
		For a revision, must be the same as the project title on the parent grant. Do not include leading or trailing spaces or any punctuation in the comparison.	The project title for this revision is not the same as the project title on the parent grant.	

Component	Field	Validation	Error Message	Notes & Tips
SF424 (R&R)	**Areas Affected by Project**			
SF424 (R&R)	**Proposed project start date**	Must be later than current date	The Proposed Project Start Date must be later than the Proposed Project Start Date.	
SF424 (R&R)	**Proposed project ending date**	Must be later than ProjectStartDate	The Proposed Project Ending Date must be later than the Proposed Project Start Date	
		For an R03 (LV), R21 (LV), or R36 application, return warning if project period is more than two years long. Define project period by time span between project period start date and project period end date as entered on the SF424 (R&R) Face Page.	The project period for this application is limited to two years.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable project period limitations for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For an R15, R33 (LV), or R34 (LV) application, return warning if project period is more than three years long. Define project period by time span between project period start date and project period end date as entered on the SF424 (R&R) Face Page.	The project period for this application is limited to three years. The application will be accepted, but may be delayed in the peer review process.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable project period limitations for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For an R21/R33 pair (LV) application, return warning if project period is more than five years long. Define project period by time span between project period start date and project period end date as entered on the SF424 (R&R) Face Page.	The project period for this application is limited to five years. The application will be accepted, but may be delayed in the peer review process.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable project period limitations for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
SF424 (R&R)	**Congressional**			Long-term, expand eRA database to 30

Component	Field	Validation	Error Message	Notes & Tips
	districts of applicant	Must be a valid congressional district code (after truncating). Truncation logic: Parse from left to right, and take the first two digits encountered, skipping leading zeroes (return error if no digits are encountered, but no error if only zeroes are encountered). Before validating, pad out with a leading zero if less than 2 digits are extracted in this way. Display in grant image as truncated.	Congressional district <Congressional District> is invalid. If the applicant organization is a foreign institution, enter all zeros. To locate your district visit http://congress.org/congressorg/dbq/officials/?lvl=L.	chars.
	Congressional districts of project			
SF424 (R&R)	**PD/PI Contact Information**	Pulled from R&R Key Person Form (for PD/PI)		
SF424 (R&R)	**Total estimated project funding**	For an S10 application, display a warning if this is greater than 500k	The direct cost request is greater than 500k. The application will be processed, but a concern may be raised during review.	Design note: mapping for S10s and X02 for budget figures should come from this element instead of from budget components. It should be mapped to appl_periods_t and to the following columns in appls_t: direct_cost_requested_amt, total_cost_requested_year1_amt, total_cost_requested_amt. (indirect_cost_requested_amt should be 0). For X02, all values will be zero.
		For an X01 or X02 application, provide an error if non-zero values are entered.	Total Estimated Project Funding must be zero.	
SF424 (R&R)	**Total federal and non-federal funds**	For an X01 or X02 application, provide an error if non-zero values are entered.	Total Federal and non-Federal Funds must be zero.	
SF424 (R&R)	**Estimated program income**	For an X01 or X02 application, provide an error if non-zero values are entered.	Total Estimated Program Income must be zero.	

Component	Field	Validation	Error Message	Notes & Tips
SF424 (R&R)	**Subject to state executive order review?**			
SF424 (R&R)	**Agreement and certification**			
SF424 (R&R)	**Authorized representative name**	Truncate if first or last name>30 chars, or if suffix>5 chars. Display warning.	The Authorized Representative <element name> exceeds the NIH limit. The grant image will display the name as submitted; NIH will store the first <database length> characters in the eRA database.	Long-term, change in eRA db to 60 chars for last name, 35 for first name, 10 for suffix (all names in db)
SF424 (R&R)	**Authorized representative position/title**	Truncate if >30 chars. Display warning.	The Authorized Representative position/title exceeds the NIH limit. The grant image will display the name as submitted; NIH will store the first 30 characters in the eRA database.	Long-term, change in eRA db to 45 chars
SF424 (R&R)	**Authorized representative organization**			
SF424 (R&R)	**Authorized representative department**			
SF424 (R&R)	**Authorized representative division**			
SF424 (R&R)	**Authorized representative street 1 & 2, city, state, zip code, country, phone number, fax, e-mail**	If either line 1 or 2 >50 characters, truncate and display warning.	Street <n> of the Authorized Representative address exceeds the limit of 50 characters. The grant image will display the address as submitted; NIH will store the first 50 characters only.	Long-term, change in eRA db for zip code to 13 characters
		Transform state to 2 char. abbreviation for US or Canada before validating and storing. If state name can't be transformed, give error.	The Authorized Representative State is not a valid state name.	
		If zip>9 characters, truncate and display warning. Remove dashes before truncating and/or storing	The Authorized Representative Zip Code has more than 9 digits. The grant image will display the zip code as submitted; NIH will store the first 9 digits in the eRA database.	
SF424 (R&R)	**Authorized representative county**			

Component	Field	Validation	Error Message	Notes & Tips
SF424 (R&R)	**Authorized representative signature and date**			
SF424 (R&R)	**Pre-application attachment**	Not accepted at this time		

R&R Personal Data Component

Not used by NIH. Information is pulled from PD/PI Commons contact information.

Research & Related: Project/Performance Site Location(s)

Component	Field	Validation	Error Message	Notes & Tips
Project/ Performance Site (R&R)	**Primary Location, Organization Name**			
Project/ Performance Site (R&R)	**Primary Location, Street 1 and 2**			
Project/ Performance Site (R&R)	**Primary Location, City**			
Project/ Performance Site (R&R)	**Primary Location, County**			
Project/ Performance Site (R&R)	**Primary Location, State**			
Project/Perform ance Site (R&R)	**Primary Location, Zip code**			
Project/Perform ance Site (R&R)	**Primary Location, Country**			
Project/ Performance Site (R&R)	**Location 1, Organization Name**			
Project/ Performance Site (R&R)	**Location 1, Street 1 and 2**			
Project/ Performance Site (R&R)	**Location 1, City**			
Project/ Performance Site (R&R)	**Location 1, County**			

Component	Field	Validation	Error Message	Notes & Tips
Project/Perform ance Site (R&R)	**Location 1, State**			
Project/Perform ance Site (R&R)	**Location 1, Zip code**			
Project/Perform ance Site (R&R)	**Location 1, Country**			
Project/Perform ance Site (R&R)	**Additional Location(s)**			

Research & Related: Other Project Information

Component	Field	Validation	Error Message	Notes & Tips
Other Project Info (R&R)	**Human Subjects Involved?**	Either ExemptionNumber or AssuranceNumber must be specified if HumanSubjectsUsedQuestion is true.	Either Exemption Number or Assurance Number must be provided if Human Subjects is "Yes".	• If you click **Yes** that *human subjects* are involved, you must provide either an exemption number or assurance number. • If you click **Yes** that *vertebrate animals* are involved, you must provide one of the following: − Assurance number AND IACUC approval date − Assurance number AND IACUC approval pending − IACUC approval pending
		If HumanSubjectsUsedQuestion is false, ExemptionNumber must not be specified	When Human Subjects is "No," Exemption Number must not be specified.	
		If HumanSubjectsUsedQuestion is false, provide a warning if AssuranceNumber is specified.	When Human Subjects is "No," Assurance Number does not apply.	
		Must be true if Human Subjects Clinical Trial question is true.	The 'Human Subjects Involved' question must be "Yes" if the Human Subjects Clinical Trial question is "Yes".	
		For S10 application, display a warning if this is true.	The answer to the Human Subjects involved question should be 'No'. The application will be processed, but a concern may be raised during review.	
Other Project Info (R&R)	**IRB review pending?**			
Other Project Info (R&R)	**IRB approval date**	Date can't be in the future (but can be blank)	The IRB approval date cannot be in the future.	
Other Project Info (R&R)	**Exemption number**	Must be "E1" through "E6"	The Exemption Number must be within the range of E1 to E6.	

Component	Field	Validation	Error Message	Notes & Tips
Other Project Info (R&R)	**Human subject assurance number**	Provide warning if it doesn't match IPF human subject assurance number for this organization. Match should be on the last 11 characters of the IPF assurance number. If the Assurance Number that is receive is exactly eight characters long and consists of all numeric digits, prefix the string with 'FWA' before validating and storing in the database.	The human subject assurance number entered in the application does not match what is on file for your organization. There are rare cases where this is permissible. Please make sure that the correct number is entered. If not, correct and resubmit.	
Other Project Info (R&R)	**Vertebrate animals used?**	If this is 'Y', then ONE of the following must be provided: • Assurance Number + IACUC Approval Date • Assurance Number + IACUC Approval Pending • The word 'None' (case insensitive, don't validate on punctuation)	When Vertebrate Animals is "Yes," you must provide either (1) animal welfare assurance number + IACUC approval date, (2) animal welfare assurance number + an indication that IACUC approval is pending OR (3) the word 'None'.	
		For S10 application, display a warning if this is true.	The answer to the Vertebrate Animals Used question should be 'No'. The application will be processed, but a concern may be raised during review.	
Other Project Info (R&R)	**IACUC review pending?**	Provide a warning if Vertebrate Animals Used is 'N'	When Vertebrate Animals is "No," IACUC Approval Pending indicator does not apply.	
Other Project Info (R&R)	**IACUC approval date**	Provide a warning if VertebrateAnimalsUsedQuestion is false	When Vertebrate Animals is "No," IACUC Approval Date does not apply.	
		The date can't be in the future	The IACUC Approval Date cannot be in the future.	
Other Project Info (R&R)	**Animal Welfare Assurance #**	Provide a warning if VertebrateAnimalsUsedQuestion is false	When Vertebrate Animals is "No," Assurance Number does not apply.	

Component	Field	Validation	Error Message	Notes & Tips
		If an animal welfare assurance number is entered, provide a warning if it doesn't match animal welfare assurance number for this organization. Match needs to be on the last 9 characters of the IPF assurance number. This validation should not be done if the field is left blank or if the word 'None' is entered.	The Animal Welfare Assurance Number entered in the application does not match what is on file for your organization. There are rare cases where this is permissible. Please make sure that the correct number is entered. If not, correct and resubmit.	
Other Project Info (R&R)	**Proprietary or privileged info?**			
Other Project Info (R&R)	**Impact on environment?**			
Other Project Info (R&R)	**Activities outside US?**			
Other Project Info (R&R)	**Project Summary**	Limited to one page	The Project Summary/Abstract is limited to 30 lines of text.	
Other Project Info (R&R)	**Project Narrative**	For non-S10 applications, limit to 1 page	The Public Health Relevance Statement (labeled 'Project Narrative' on the Other Project Information page) should be no longer than 2 or 3 sentences.	The project narrative should be used for the Public Health Relevance Statement and should be no longer than 2 or 3 sentences.
Other Project Info (R&R)	**Bibliography and References**			
Other Project Info (R&R)	**Facilities and other resources**			
Other Project Info (R&R)	**Equipment**	Required for S10 applications.	The Equipment Attachment is required for S10 applications.	
Other Project Info (R&R)	**Other attachments**	For S10 applications, provide warning if at least one attachment has not been included for this.	At least one attachment should be provided as an 'Other Attachment' on the Other Project Information page. Please consult the funding opportunity announcement to which you are responding, for the type(s) of information to be attached. The application will be processed if you have not included an 'Other Attachment', but a concern may be raised during review.	Note that multiple attachments may be received with Other Attachments. They should all be processed.

Research & Related: Senior/Key Person Profile

Component	Field	Validation	Error Message	Notes & Tips
Senior/Key Person (R&R)	**PD/PI Profile Information, name (prefix, first name, middle name, last name, suffix)**	Required.		Note: Identify this Senior/Key Person as the contact PI if multiple PI roles are defined.
		If only a Commons Account is supplied, display a *warning* to pay attention to the name that is generated in the grant image, since this will appear exactly as it is represented in the Commons.	No name was provided for the PD/PI, with Commons Username: <Credential>. The name listed on this person's Commons account, <Commons profile name components>, will be used for this submission.	
		If this *and* Commons Account provided, provide warning if last name or first name on account doesn't match provided last name or first name, and/or if the first initial of the middle name on the account doesn't match the first initial of the middle name that has been provided. Comparison to ignore case and embedded spaces, but not embedded punctuation.	The name provided for the PD/PI, <First name, middle initial, last name>, does not match the name listed on the Commons account: <First name, middle initial, last name>. The grant image will display the name as submitted here.	Post-testing solution: If validation fails, provide warning that the Commons name (or position title) is *xxxx* and the name submitted through Grants.gov is *yyyy* and we will be displaying the Commons data. Provide ability for the submitter to update their Commons account and to regenerate the image to display the updated information from the Commons account.
Senior/Key Person (R&R)	**PD/PI Profile Information, Position/Title**	If title doesn't appear on an employment record for this person and organization in Commons, provide warning message and display the submitted position/title in the grant image.	The PD/PI position/title, <Position/title>, does not match those listed on the Commons account: <position titles, separated by commas>. The grant image will display the position/title as submitted here.	Be sure to match the PD/PI's position and title with those listed in the eRA Commons account. Note that the grant image will display the position and title that you submit on this page.
		Truncate if greater than 40 characters, before comparing to title stored in database. No warning message is needed to the submitter.		
Senior/Key Person (R&R)	**PD/PI Profile Information, Organization Name**			
Senior/Key Person (R&R)	**PD/PI Profile Information, Department**	Provide a warning if not entered.	If appropriate for your organization, please supply a department for the PD/PI.	

Component	Field	Validation	Error Message	Notes & Tips
Senior/Key Person (R&R)	**PD/PI Profile Information, Division**	Provide a warning if not entered.	If appropriate for your organization, please supply a division for the PD/PI.	
Senior/Key Person (R&R)	**PD/PI Profile Information, Street 1 and 2, city, state, zip, country, phone number, fax number, e-mail**	Transform state name to 2 char. abbreviation before storing. If state name can't be transformed, give an error.	The PD/PI Profile State is not a valid state name.	Long-term, change in ERA db for zip code to 13 characters
Senior/Key Person (R&R)	**PD/PI Profile Information, County**			
Senior/Key Person (R&R)	**PD/PI Profile, credential**	Must be specified for the PD/PI	The Commons Username must be submitted for the PD/PI in the Credential field.	
		Truncate if greater than 30 characters, before comparing to account stored in database. No warning message is needed to the submitter.		
		If specified, must be a valid Commons account.	The Commons Username <Credential> is not a recognized Commons account.	
		For the PD/PI, this account must be affiliated with the organization submitting the application and have the PI role	The Commons account indicated for the PD/PI is not affiliated with the applicant organization.	

Component	Field	Validation	Error Message	Notes & Tips
		For a revision, the PI should be assigned to the parent grant. If the person profile for this Commons account is not the same person profile assigned as the PI to the parent grant, and the last name of the PI assigned to the parent grant matches the last name that is submitted for the PI on the current application, provide the indicated warning. This match must not be case-sensitive, and should compare only the non-blank, non-punctuation characters that appear in the last name. If neither the profile nor the last name match, provide the indicated error.	Warning: The Commons account for the PI does not include the parent grant of this submission in its NIH support history. Error: The parent grant that has been entered is not associated with this PI	
Senior/Key Person (R&R)	**PD/PI Profile, other project role category**			
Senior/Key Person (R&R)	**Biosketch**	Limited to four pages	The Biosketch for the PD/PID, <first name last name>, is longer than four pages.	
Senior/Key Person (R&R)	**Current and Pending Support**			
Senior/Key Person (R&R)	**Profile, senior & key person *x*, name**	Truncate if first or last name>30 chars, or suffix>5 chars. Display warning.	The Senior/Key Person <element name> for <first name last name> exceeds the NIH limit. The grant image will display the name as submitted; NIH will store the first <database length> characters only.	Long-term, change in eRA db to 60 chars for last name, 35 for first name, 10 for suffix (all names in db) *("nth" indicates the relative order of this KeyPerson element)*
		If this *and* Commons Account provided, provide warning if any component of name on account doesn't match provided name. Comparison to ignore case and embedded spaces, but not embedded punctuation.	The name provided for Key Person <submitted name components> does not match the Commons account name (<Commons profile name components>). The grant image will display the name as submitted.	Post-testing solution: If validation fails, provide warning that Commons name is *xxxx* and name submitted through grants.gov is *yyyy* and we will be displaying the Commons data. Provide ability for the submitter to update their Commons account and to regenerate the image to display the updated information from the Commons account.

Component	Field	Validation	Error Message	Notes & Tips
		For S10 applications, provide warning if there are not at least two senior/key persons (other than the PD/PI), with project role of 'Other (specify)'.	Less than 2 senior/key person entries have been included with a project role of 'Other (specify)', to represent the major user group cohort. The application will be processed, but a concern may be raised during review.	
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **position title**	Truncate if greater than 40 characters. No warning message is needed to the submitter.		
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **organization name**	Needs to be enforced as mandatory.	The organization name for Key Person <Key Person First Name Last Name> must be provided.	
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **department**			
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **division**			
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **street 1 and 2**			
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **city**			
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **county**			
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **state**			
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **zip code**			Long-term, change in eRA db to 13 characters.
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **country**			
Senior/Key Person (R&R)	**Profile, senior & key person** *x*, **phone**			

Component	Field	Validation	Error Message	Notes & Tips
Senior/Key Person (R&R)	**Profile, senior & key person** *x***, fax**			
Senior/Key Person (R&R)	**Profile, senior & key person** *x***, e-mail**			
Senior/Key Person (R&R)	**Profile, senior & key person** *x***, credential**	*If specified*, provide warning if this is not a valid Commons account.	The Commons Username <Credential>, specified for key person <First Name Last Name>, is not a recognized Commons account. The application will be accepted for processing.	
		Truncate if greater than 30 characters, before comparing to account stored in database. No warning message is needed to the submitter.		
		Must be specified if project role is 'PD/PI'.	The Commons Username has not been specified in the 'Credential' field for PD/PI <First Name Last Name>	
Senior/Key Person (R&R)	**Profile, senior & key person** *x***, project role**	For an R36 application (activity code on funding opportunity = 'R36'), there must be at least one key person included in addition to the PD/PI identified in the PD/PI component.	A mentor must be identified for an R36 application. List the mentor as a key person on the Senior Key Person page.	
		If project role is 'PD/PI', identify in database as Multiple PI.		Need to create role record for multiple PIs. Also need to set multi_pi_indicator_code in appls_t. Should be indicated in mapping document.
Senior/Key Person (R&R)	**Profile, senior & key person** *x***, other project role category**	Accept "Other Project Role Category" only when "Project Role" is "Other" or "Other Professional"	For key person <First Name Last Name>, an 'Other Project Role Category' was submitted for a project role of <project role>. This can be used only when Project Role is "Other" or "Other Professional".	
Senior/Key Person (R&R)	**Senior & key person** *x***, Biosketch**	Limited to four pages	The Biosketch for Senior/Key Person <first name last name> is longer than four pages.	

Component	Field	Validation	Error Message	Notes & Tips
Senior/Key Person (R&R)	**Senior & key person x, Current and Pending Support**	For S10 applications, provide warning if no attachment is provided for any three senior/key persons with project role of 'Other (specify)' or with project role of 'PD/PI'.	Less than 3 Current and Pending Support attachments have been included for the major user group cohort. The application will be processed, but a concern may be raised during review.	This attachment can be received for a PD/PI, or for a senior/key person with a role of 'Other (specify)'. We need to make sure that at least 3 of these attachments are submitted, whether 1 is submitted for the PD/PI and 2 for the senior/key person (with role of 'Other (specify)'), or 3 are submitted for the senior key person (with role of 'Other (specify)').
Senior/Key Person (R&R)	**Additional Senior/Key Person Profiles**	For version 1.0 of Key Person component, accept only if eight key personnel have been submitted on the Senior/Key Person page.	An Additional Senior/Key Person Profiles attachment may be submitted only if eight senior/key person profiles have been submitted on the Senior/Key Person page.	Additional Senior/Key Person profiles can be submitted only if you've submitted eight key personnel in the Senior/Key Person Profile section.
		For version 1.1 of Key Person component, accept only if 40 key personnel have been submitted on the Senior/Key Person page.	An Additional Senior/Key Person Profiles attachment may be submitted only if 40 senior/key person profiles have been submitted on the Senior/Key Person page.	
Senior/Key Person (R&R)	**Additional Senior/Key Person Biosketch**	Accept only if an Additional Senior/Key Person Profiles attachment has been submitted and accepted.	An Additional Senior/Key Person Biosketch attachment may be submitted only if an Additional Senior/Key Person Profiles attachment has been submitted and accepted.	
Senior/Key Person (R&R)	**Additional Senior/Key Person Current and Pending Support**	Accept only if an Additional Senior/Key Person Profiles attachment has been submitted and accepted.	An Additional Senior/Key Person Current and Pending Support attachment may be submitted only if an Additional Senior/Key Person Profiles attachment has been submitted and accepted.	

Research & Related Budget: Section A & B, Budget Period 1

Component	Field	Validation	Error Message	Notes & Tips
Budget, A&B, Year x (R&R)		Accept submission of modular budget or detailed budget, but not both	Both a modular and a detailed budget have been included with this submission. One or the other may be submitted.	Budget information is necessary for all applications. Some applications will list both the modular and detailed budget components as "optional". This is to allow the appropriate component to be chosen. Choose one or the other, but not both.
		Allow a submission with neither a modular budget nor a detailed budget component.		
		For a revision, if the parent grant budget is modular, only a modular budget component may be submitted.	The parent grant for this revision uses the modular format; therefore, this application may include a modular budget only.	In mapping, assign a budget period ID based on the year of the budget.
		For an STTR submission, there must be at least one budget included with budget type of subaward/ consortium for each year of the STTR (project) budget.	A Research Institution Budget page must be included for each year of an STTR submission	If you are submitting an STTR application, you must include a Research Institution Budget page for each year of the project (submitted using the Subaward budget type on the budget page).
Budget, A&B, Year x (R&R)	**Organizational DUNS**	Required for budget type 'Subaward/Consortium'	The Organizational DUNS has not been included for Sections A&B for <name of organization>	
		One and only one budget should contain the DUNS of the applicant organization.	The Project budget must contain the DUNS number for the applicant organization.	
		This must be a budget that has been identified as 'Project'	A Subaward budget has been identified for the applicant organization. Budgets for the applicant organization should have the 'Project' budget type.	
Budget, A&B, Year x (R&R)	**Budget type (project, subaward/ consortium)**	If a detailed budget is included, there must be one and only one occurrence with a value of 'Project'.	Only one budget with a budget type of 'Project' for Sections A&B may be submitted.	You can submit only one budget with the budget type "Project" for Sections A&B.
Budget, A&B, Year x (R&R)	**Name of organization (for subaward/ consortium)**	If multiple detailed budgets have been included in the submission, all budget and warning messages should include the name of the organization for which the budget validation has failed.		Since there is a limit of 250 characters for the error message, put the organization name at the end of the message, and truncate if necessary.

Component	Field	Validation	Error Message	Notes & Tips
Budget, A&B, Year x (R&R)	**Start Date**	For budget year 1, for Budget Type 'Project', for new applications and resubmissions, must be the same as the Proposed Project Start Date listed on the SF 424 RR Face Page.	For new applications and resubmissions, the start date for the first budget year for Sections A&B must be the same as the proposed project start date listed on the SF424 RR Face Page	Remember to check start and end dates. For new applications and revisions/amendments to new applications, the start date for the first budget year for Sections A&B must be the same as the proposed project start date listed on the SF424 (R&R) face page.
Budget, A&B, Year x (R&R)	**End Date**			
Budget, A&B, Year x (R&R)	**Senior/Key Person Name (prefix, first name, middle name, last name, suffix)**	Truncate if first or last name>30 chars, or if suffix>5 chars. Display warning.	The <order in list (first, second)> Senior/Key Person <element name> for budget year <budget year> exceeds the NIH limit. The grant image will display the name as submitted; NIH will store the first <database length> characters in the eRA database.	Long-term, change in eRA db to 60 chars for last name, 35 for first name, 10 for suffix (all names in db)
		For Project Role of PD/PI, must match Senior/Key Person form name elements.	The <element name> given for the PD/PI for budget year <budget year> does not match the name given for the PD/PI on the Senior/Key Person form.	
Budget, A&B, Year x (R&R)	**Senior/Key Person Project Role**	For budgets of type 'Project', there must be at least one record for the budget year with a project role of PD/PI. Validation does not apply to STTR submissions.	There must be a Personnel entry listed for the PI or PD on the Detailed Budget Page for budget year <budget year>.	For an STTR submission, the PI/PD could be on the Research Institution Budget.
Budget, A&B, Year x (R&R)	**Senior/Key Person Base Salary**			
Budget, A&B, Year x (R&R)	**Senior/Key Person Cal. Mos**	A non-zero value for calendar months, academic months, or summer months is required for each senior/key person.	Senior/Key Person <First name Last name>, listed on the Detailed Budget Page for budget year <budget year>, must have the number of calendar months, academic months, or summer months provided.	
Budget, A&B, Year x (R&R)	**Senior/Key Person acad. mos**	Provide warning if both academic and calendar months have been provided for a person for a budget year.	Both academic and calendar months have been included for <Senior/Key Person First Name Last Name>, for budget year <budget year>. If effort does not change throughout the year, use the calendar months column. If effort varies between academic and summer months, leave the calendar months column blank and use only the academic and summer months' columns.	

Component	Field	Validation	Error Message	Notes & Tips
Budget, A&B, Year x (R&R)	**Senior/Key Person summer mos**			
Budget, A&B, Year x (R&R)	**Senior/Key Person Requested Salary**			
Budget, A&B, Year x (R&R)	**Senior/Key Person Fringe benefits**			
Budget, A&B, Year x (R&R)	**Senior/Key Person Funds Requested**	Must be equal to the sum of Requested Salary and Fringe Benefits for the Senior/Key Person for the budget year.	The Funds Requested for <Senior/Key Person First Name Last Name>for Budget Year < Budget Year> does not equal the sum of the Requested Salary and the Fringe Benefits for the corresponding budget year.	
Budget, A&B, Year x (R&R)	**Total funds requested for Senior Key Persons in attachment**	Required if Additional Senior Key Persons Attachment is included.	If the Additional Senior Key Persons Attachment is included, the total funds that are requested in the attachment must be provided on the 424 RR Budget Page.	
Budget, A&B, Year x (R&R)	**Total Funds requested for all senior/key persons**	Must be equal to the sum of Funds Requested for the budget year.	The Total Funds Requested for Budget Year <Budget Year> does not equal the sum of Funds Requested for all Senior/Key Persons for the corresponding budget year.	
Budget, A&B, Year x (R&R)	**Additional Senior Key Persons attachment**	Accept only if eight key personnel have been submitted on the budget page for this year.	An Additional Senior/Key Person attachment may be submitted for budget year <budget year> only if eight senior/key persons have been submitted on the budget page.	
Budget, A&B, Year x (R&R)	**Other Personnel, (number of personnel)**			
Budget, A&B, Year x (R&R)	**Other Personnel (Project Role)**			
Budget, A&B, Year x (R&R)	**Other Personnel (Cal. Mos)**			
Budget, A&B, Year x (R&R)	**Other Personnel (acad.mos)**			

Component	Field	Validation	Error Message	Notes & Tips
Budget, A&B, Year x (R&R)	**Other Personnel (summer mos)**			
Budget, A&B, Year x (R&R)	**Other Personnel (Requested salary)**			
Budget, A&B, Year x (R&R)	**Other Personnel (Fringe benefits)**			
Budget, A&B, Year x (R&R)	**Other Personnel (Funds Requested)**	Must be equal to the sum of Requested Salary and Fringe Benefits for the project role for the budget year.	The Funds Requested for Other Personnel Project Role <Project Role> for Budget Year <Budget Year> does not equal the sum of the Requested Salary and the Fringe Benefits for the corresponding budget year.	
Budget, A&B, Year x (R&R)	**Total number other personnel**	Must equal the sum of number of personnel for all project roles under Other Personnel.	The total number of Other Personnel does not equal the sum of the number of other personnel for all project roles.	
Budget, A&B, Year x (R&R)	**Total Funds Requested other personnel**	Must be equal to the sum of Funds Requested for Other Personnel for the budget year.	The Total Funds Requested for Other Personnel for Budget Year <Budget Year> does not equal the sum of Funds Requested for all Other Personnel for the corresponding budget year.	
Budget, A&B, Year x (R&R)	**Total salary, wages and fringe benefits**	Must equal the sum of Total Funds requested for all senior/key persons and Total Funds Requested other personnel	The Total Salary, Wages and Fringe Benefits for Budget Year <Budget Year> does not equal the sum of Total Funds requested for all senior/key persons and Total Funds Requested for other personnel	

Research & Related Budget: Section C, D, & E, Budget Period 1

Component	Field	Validation	Error Message	Notes & Tips
Budget, C, D, E, Year x (R&R)	**Equipment description, equipment item**			
Budget, C, D, E, Year x (R&R)	**Equipment description, funds req**			
Budget, C, D, E, Year x (R&R)	**Equipment description, total funds requested in attachment**			
Budget, C, D, E, Year x (R&R)	**Equipment description, total equipment**	Must be equal to the sum of Funds Requested for equipment for the budget year.	The Total Funds Requested for Equipment for Budget Year < Budget Year> does not equal the sum of Funds Requested for all Equipment Items for the corresponding budget year.	
Budget, C, D, E, Year x (R&R)	**Additional equipment attachment**			
Budget, C, D, E, Year x (R&R)	**Travel, domestic travel costs**			
Budget, C, D, E, Year x (R&R)	**Travel, foreign travel costs**			
Budget, C, D, E, Year x (R&R)	**Total travel cost**	Must be equal to the sum of domestic travel costs and foreign travel costs for the budget year.	The Total Travel Cost for Budget Year < Budget Year> does not equal the sum of Domestic Travel Costs and Foreign Travel Costs for the corresponding budget year.	
Budget, C, D, E, Year x (R&R)	**Participant/ trainee support costs: tuition**			
Budget, C, D, E, Year x (R&R)	**Participant/ trainee support costs: stipends**			

Component	Field	Validation	Error Message	Notes & Tips
Budget, C, D, E, Year x (R&R)	**Participant/ trainee support costs: travel**			
Budget, C, D, E, Year x (R&R)	**Participant/ trainee support costs: subsistence**			
Budget, C, D, E, Year x (R&R)	**Participant/ trainee support costs: other**			
Budget, C, D, E, Year x (R&R)	**Participant/ trainee support costs: description of other**			
Budget, C, D, E, Year x (R&R)	**Participant/ trainee support costs: number of Participants/ Trainees**			
Budget, C, D, E, Year x (R&R)	**Participant/ trainee support costs: Total Participant/ Trainee Support Costs**	Must be equal to the sum of participant/trainee support costs for the budget year.	The Total Participant/Trainee Support Costs for Budget Year <Budget Year> does not equal the sum of Participant/trainee support costs for the corresponding budget year.	

Research & Related Budget: Section F–K, Budget Period 1

Component	Field	Validation	Error Message	Notes & Tips
Budget, F-K, Year x (R&R)	**Other Direct Costs (materials & supplies)**			
Budget, F-K, Year x (R&R)	**Other Direct Costs (Publication Costs)**			
Budget, F-K, Year x (R&R)	**Other Direct Costs (Consultant Services)**			
Budget, F-K, Year x (R&R)	**Other Direct Costs (ADP/ Computer Services**			
Budget, F-K, Year x (R&R)	**Other Direct Costs (Subawards/ Consortium/ Contractual Costs)**	If specified for budget type 'Project', provide warning if not equal to the sum of Total Direct and Indirect Costs for all consortium/contractual budgets.	The Applicant Organization Other Direct Costs (Subawards/Consortium/Contractual Costs) is not equal to the sum of Total Direct and Indirect Costs for all consortium/contractual organizations.	
Budget, F-K, Year x (R&R)	**Other Direct Costs (Equipment or Facility Rental/ User Fees)**			
Budget, F-K, Year x (R&R)	**Other Direct Costs (Alterations and Renovations)**			
Budget, F-K, Year x (R&R)	**Other Direct Costs (other description 1)**			

Component	Field	Validation	Error Message	Notes & Tips
Budget, F-K, Year x (R&R)	**Other Direct Costs (other1 funds requested)**			
Budget, F-K, Year x (R&R)	**Other Direct Costs (other description 2)**			
Budget, F-K, Year x (R&R)	**(other2 funds requested)**			
Budget, F-K, Year x (R&R)	**Other Direct Costs (other description 3)**			
Budget, F-K, Year x (R&R)	**(other3 funds requested)**			
Budget, F-K, Year x (R&R)	**Other Direct Costs, Total Other Direct Costs**	Must be equal to the sum of other direct costs for the budget year.	The Total Other Direct Costs for Budget Year <Budget Year> does not equal the sum of other direct costs for all categories for the corresponding budget year.	
Budget, F-K, Year x (R&R)	**Total Direct Costs (A-F)**	Required.	The Total Direct Costs Funds Requested for Year *x* is required.	
		Must be equal to the sum of total salary, wages and fringe benefits, total funds requested for equipment, total travel cost, total participant/trainee support costs, and total other direct costs	The Total Direct Costs for A-F for Budget Year <Budget Year> does not equal the sum of direct costs for Sections A-F.	
		For non-SBIR/STTR, non-R13 and non-U13, non-R36, and non-Opdiv submissions, provide warning if subtotal direct costs for *every* budget year is < = $250K. Calculate subtotal direct costs as follows: Total Direct Costs (A-F) *minus* the sum of Total Indirect Costs for all budgets for the corresponding year with budget type 'subaward/consortium'.	R01, R03, R15, and R21 direct cost requests of $250K or less each year must be in modules of $25K, using the PHS 398 Modular Budget Form and not the R&R Budget Form. Incorrect applications may be delayed in the peer review process or rejected.	

Component	Field	Validation	Error Message	Notes & Tips
		For non-SBIR/STTR submissions, provide warning if subtotal direct costs for *any* budget year is >= 500K. Calculate subtotal direct costs as follows: Total Direct Costs (A-F) *minus* the sum of Total Indirect Costs for all budgets for the corresponding year with budget type 'subaward/consortium'.	Direct cost requests >=$500k a year need agreement from ICs, except for RFAs or PAs with budgetary limits. Applications without such approval may be delayed in the peer review process or rejected.	
Budget, F-K, Year x (R&R)	**Indirect Costs, Indirect Cost Type**	Allow submissions to come in with no indirect costs.		
Budget, F-K, Year x (R&R)	**Indirect Costs, Indirect Cost Rate**	Provide warning if less than 1.	The Indirect Cost Rate is less than 1 for budget Year <Budget Year>. Please note that this figure represents a percentage (e.g., '25.5', not '.255').	
Budget, F-K, Year x (R&R)	**Indirect Costs, Indirect Cost Base**			
Budget, F-K, Year x (R&R)	**Indirect Costs, Funds Requested**			
Budget, F-K, Year x (R&R)	**Indirect Costs, Cognizant Federal Agency**			
Budget, F-K, Year x (R&R)	**Total Indirect Costs**	Must be equal to funds requested for all indirect cost types	The Total Indirect Costs for Budget Year <Budget Year> does not equal the sum of indirect costs for each indirect cost type.	
Budget, F-K, Year x (R&R)	**Total Direct and Indirect Costs**	Required	The Total Direct and Indirect Costs Funds Requested for Year *x* is required.	
		Must be equal to the sum of Total Direct Costs and Total Indirect Costs	The Total Direct and Indirect Institutional Costs is not equal to the sum of Total Other Direct Costs and Total Indirect Costs.	
Budget, F-K, Year x (R&R)	**Fee**	A fee cannot be entered for a subaward/consortium budget.	A fee has been entered for year <x> of the budget for <organization name>. Fees are not allowed for subaward/consortium budgets.	

Component	Field	Validation	Error Message	Notes & Tips
Budget, F-K, Year x (R&R)	**Budget Justification**	If fee is requested, must not be blank or null	A fee has been entered for year <x> of the Project budget. A Budget Justification must be included if a fee has been entered.	
		If SBIR/STTR Phase I cost limitation is exceeded, must not be blank or null. Cost limitation is 100k, calculated as total cost (direct cost, indirect cost, and fee).	The Phase I cost limitation of 100k has been exceeded. Please explain the deviation in the Budget Justification.	
		If SBIR/STTR Phase II cost limitation is exceeded, must not be blank or null. Cost limitation is 750k, calculated as total cost (direct cost, indirect cost, and fee).	The Phase II cost limitation of 750k has been exceeded. Please explain the deviation in the Budget Justification.	
		If Fast-Track cost limitation is exceeded, must not be blank or null. Cost limitation is 850k, calculated as total cost (direct cost, indirect cost, and fee).	The Fast-Track cost limitation of 850k has been exceeded. Please explain the deviation in the Budget Justification.	
		If Phase I SBIR time limitation is exceeded, must not be blank or null. Time limitation is six months, calculated as the time between the start date of the first budget period and the end date of the last budget period.	The Phase I SBIR time limitation of six months has been exceeded. Please explain the deviation in the Budget Justification.	Since there is no cumulative budget justification, this validation will look at the Budget Justification for the first budget period. Instructions should include this.
		If Phase I STTR time limitation is exceeded, must not be blank or null. Time limitation is one year, calculated as the time between the start date of the first budget period and the end date of the last budget period.	The Phase I STTR time limitation of one year has been exceeded. Please explain the deviation in the Budget Justification.	Since there is no cumulative budget justification, this validation will look at the Budget Justification for the first budget period. Instructions should include this.
		If Phase II SBIR/STTR time limitation is exceeded, must not be blank or null. Time limitation is two years, calculated as the time between the start date of the first budget period and the end date of the last budget period.	The Phase II SBIR/STTR time limitation of two years has been exceeded. Please explain the deviation in the Budget Justification.	Since there is no cumulative budget justification, this validation will look at the Budget Justification for the first budget period. Instructions should include this.

Research & Related Budget: Cumulative Budget

Component	Field	Validation	Error Message	Notes & Tips
Cumulative Budget (R&R)	**Section A, Senior/Key Person Total**	Must be equal to the sum of Total Funds Requested for all senior/key persons for every budget year for this budget.	The Cumulative Budget Senior/Key Person Total does not equal the sum of Total Funds Requested for all senior/key persons for all budget years.	
Cumulative Budget (R&R)	**Section B, Other Personnel Total**	Must be equal to the sum of Total Funds Requested for Other Personnel for every budget year for this budget.	The Cumulative Budget Other Personnel Total does not equal the sum of Total Funds Requested for Other Personnel for all budget years.	
Cumulative Budget (R&R)	**Total Number other personnel**	Must be equal to the sum of Total Number Other Personnel for every budget year for this budget.	The Cumulative Budget Total Number Other Personnel does not equal the sum of Total Number Other Personnel for all budget years.	
Cumulative Budget (R&R)	**Total Salary, Wages, and Fringe Benefits**	Must be equal to the sum of Total Salary, Wages, and Fringe Benefits for every budget year for this budget.	The Cumulative Budget Total Salary, Wages, and Fringe Benefits do not equal the sum of Total Salary, Wages, and Fringe Benefits for all budget years.	
Cumulative Budget (R&R)	**Section C, Equipment Totals**	Must be equal to the sum of Total Funds Requested For Equipment for every budget year for this budget.	The Cumulative Budget Total Funds Requested For Equipment does not equal the sum of Total Funds Requested For Equipment for all budget years.	
Cumulative Budget (R&R)	**Section D, Travel, Total**	Must be equal to the sum of Total Travel Cost for every budget year for this budget.	The Cumulative Budget Total Travel Cost does not equal the sum of Total Travel Costs for all budget years.	
Cumulative Budget (R&R)	**Section D, Travel, Domestic**	Must be equal to the sum of Domestic Travel Cost for every budget year for this budget.	The Cumulative Budget Domestic Travel Cost does not equal the sum of Domestic Travel Costs for all budget years.	
Cumulative Budget (R&R)	**Section D, Travel, Foreign**	Must be equal to the sum of Foreign Travel Cost for every budget year for this budget.	The Cumulative Budget Foreign Travel Cost does not equal the sum of Foreign Travel Costs for all budget years.	
Cumulative Budget (R&R)	**Section E, Participant/ Trainee, Total**	Must be equal to the sum of Total Participant/Trainee Support Costs for every budget year for this budget.	The Cumulative Budget Total Participant/Trainee Support Costs does not equal the sum of Total Participant/Trainee Support Costs for all budget years.	
Cumulative Budget (R&R)	**Section E, Participant/ Trainee, Tuition, Fees, Health Insurance**	Must be equal to the sum of Participant/Trainee, Tuition, Fees, Health Insurance Costs for every budget year for this budget.	The Cumulative Budget Participant/Trainee, Tuition, Fees, Health Insurance Costs does not equal the sum of Participant/Trainee, Tuition, Fees, Health Insurance Costs for all budget years.	

Component	Field	Validation	Error Message	Notes & Tips
Cumulative Budget (R&R)	**Section E, Participant/ Trainee, Stipends**	Must be equal to the sum of Participant/Trainee, Stipends Costs for every budget year for this budget.	The Cumulative Budget Participant/Trainee, Stipends Costs does not equal the sum of Participant/Trainee, Stipends Costs for all budget years.	
Cumulative Budget (R&R)	**Section E, Participant/ Trainee, Travel**	Must be equal to the sum of Participant/Trainee, Travel Costs for every budget year for this budget.	The Cumulative Budget Participant/Trainee, Travel Costs does not equal the sum of Participant/Trainee, Travel Costs for all budget years.	
Cumulative Budget (R&R)	**Section E, Participant/ Trainee, Subsistence**	Must be equal to the sum of Participant/Trainee, Subsistence Costs for every budget year for this budget.	The Cumulative Budget Participant/Trainee, Subsistence Costs does not equal the sum of Participant/Trainee, Subsistence Costs for all budget years.	
Cumulative Budget (R&R)	**Section E, Participant/ Trainee, Other**	Must be equal to the sum of Participant/Trainee, Other Costs for every budget year for this budget.	The Cumulative Budget Participant/Trainee, Other Costs does not equal the sum of Participant/Trainee, Other Costs for all budget years.	
Cumulative Budget (R&R)	**Section E, Participant/ Trainee, Number**	Must be equal to the sum of the Number of Participants/Trainees for every budget year for this budget.	The Cumulative Budget Number of Participants/Trainees does not equal the sum of the Number of Participants/Trainees for all budget years.	
Cumulative Budget (R&R)	**Section F, Other Direct Costs, Total**	Must be equal to the sum of Other Direct Costs for every budget year for this budget.	The Cumulative Budget Other Direct Costs does not equal the sum of Other Direct Costs for all budget years.	
Cumulative Budget (R&R)	**Section F, Other Direct Costs, Materials and Supplies**	Must be equal to the sum of Other Direct Costs, Materials and Supplies, for every budget year for this budget.	The Cumulative Budget Other Direct Costs, Materials and Supplies, does not equal the sum of Other Direct Costs, Materials and Supplies, for all budget years.	
Cumulative Budget (R&R)	**Section F, Other Direct Costs, Publication Costs**	Must be equal to the sum of Other Direct Costs, Publication Costs, for every budget year for this budget.	The Cumulative Budget Other Direct Costs, Publication Costs, does not equal the sum of Publication Costs for all budget years.	
Cumulative Budget (R&R)	**Section F, Other Direct Costs, Consultant Services**	Must be equal to the sum of Other Direct Costs, Consultant Services, for every budget year for this budget.	The Cumulative Budget Other Direct Costs, Consultant Services, does not equal the sum of Consultant Services for all budget years.	

Component	Field	Validation	Error Message	Notes & Tips
Cumulative Budget (R&R)	**Section F, Other Direct Costs, ADP/ Computer Services**	Must be equal to the sum of Other Direct Costs, ADP/Computer Services, for every budget year for this budget.	The Cumulative Budget Other Direct Costs, ADP/Computer Services, does not equal the sum of ADP/Computer Services for all budget years.	
Cumulative Budget (R&R)	**Section F, Other Direct Costs, sub, consortium, contractual**	Must equal the sum of Other Direct Costs, Subawards/Consortium/ Contractual Costs, for every budget year for this budget.	The Cumulative Budget Section F, Other Direct Costs, Subaward/Consortium/ Contractual, does not equal the sum of Other Direct Costs, Subawards/Consortium/ Contractual Costs for all budget years.	
Cumulative Budget (R&R)	**Section F, Other Direct Costs, Equip or facility rental**	Must be equal to the sum of Other Direct Costs, Equipment or Facility Rental, for every budget year for this budget.	The Cumulative Budget Other Direct Costs, Equipment or Facility Rental, does not equal the sum of Equipment or Facility Rental for all budget years.	
Cumulative Budget (R&R)	**Section F, Other Direct Costs, Alterations and Renovations**	Must be equal to the sum of Other Direct Costs, Alterations and Renovations, for every budget year for this budget.	The Cumulative Budget Other Direct Costs, Alterations and Renovations, does not equal the sum of Alterations and Renovations for all budget years.	
Cumulative Budget (R&R)	**Section F, Other Direct Costs, other**	Must be equal to the sum of Other Direct Costs, Other, for every budget year for this budget.	The Cumulative Budget Other Direct Costs, Other, does not equal the sum of Other Direct Costs, Other for all budget years.	
Cumulative Budget (R&R)	**Section G, Direct Costs (A-F), total**	Required.	The Cumulative Budget Direct Costs is required.	
		Must be equal to the sum of Total Direct Costs for every budget year for this budget.	The Cumulative Budget Total Direct Costs does not equal the sum of Total Direct Costs for all budget years.	
Cumulative Budget (R&R)	**Section H, Indirect Costs**	Must be equal to the sum of Total Indirect Costs for every budget year for this budget.	The Cumulative Budget Total Indirect Costs does not equal the sum of Total Indirect Costs for all budget years.	
Cumulative Budget (R&R)	**Section I, Total Direct and Indirect Costs**	Required	The Cumulative Budget Total Direct and Indirect Costs are required.	
		Must be equal to the sum of Total Direct and Indirect Costs for every budget year for this budget.	The Cumulative Budget Total Direct and Indirect Costs do not equal the sum of Total Direct and Indirect Costs for all budget years.	
Cumulative Budget (R&R)	**Section J, Fee**	Must be equal to the sum of Fee for every budget year for this budget.	The Cumulative Budget Fee does not equal the sum of the Fee for all budget years.	

Component	Field	Validation	Error Message	Notes & Tips
Cumulative Budget (R&R)	**Budget Justification (attachment)**			

SBIR/STTR Information

Component	Field	Validation	Error Message	Notes & Tips
SBIR/STTR (NIH)	**Program Type (SBIR, STTR, Both)**	One and only one choice may be made.	Please select one Program Type: SBIR or STTR.	
		Choice must be consistent with the information stored for the announcement: if the announcement is indicated as 'SBIR', 'SBIR' must be selected; if announcement is indicated as 'STTR', 'STTR' must be selected.	You have selected a Program Type of <Program Type> on the SBIR/STTR component. That is not the correct program type for this announcement. Please refer to the FOA for the correct program type for this application.	
		'Both' is not a valid choice.	For NIH submissions, 'Both' is not an acceptable value for the 'Program Type' field on the SBIR/STTR Information Component.	
SBIR/STTR (NIH)	**SBIR/STTR Type (Phase I, Phase II, Fast-Track)**	One and only one choice may be made.	Please select one SBIR/STTR Type: Phase I, Phase II, or Fast-Track.	
SBIR/STTR (NIH)	**Question 1. Small Business Eligibility (Y/N)**	Required.		
SBIR/STTR (NIH)	**Question 2. Are Subcontracts Included? (Y/N)**	Required.		
SBIR/STTR (NIH)	**Name of Labs/ Agencies For Subcontracts**	Required entry if response to 'Are Subcontracts Included?' is 'Yes'.	If Question 2 on the SBIR/STTR form indicates that subcontracts are included, the name(s) of labs or agencies for subcontracts must be included.	
		Cannot be included if response to 'Are Subcontracts Included?' is 'No'.	If Question 2 on the SBIR/STTR form indicates that subcontracts are not included, the name(s) of labs or agencies for subcontracts cannot be included.	
SBIR/STTR (NIH)	**Question 3. Located in HUBZone (Y/N)**	Required.		

Component	Field	Validation	Error Message	Notes & Tips
SBIR/STTR (NIH)	**Question 4. Research to be Performed in US? (Y/N)**	Required.		
SBIR/STTR (NIH)	**Explanation of Foreign Performance**	Must be included if answer to 'work to be performed in US' question is 'no'.	If Question 4 on the SBIR/STTR form indicates that research is not to be performed in the US, an explanation attachment must be provided.	
		Cannot be included if answer to 'work to be performed in US' question is 'yes'.	If Question 4 on the SBIR/STTR form indicates that research is to be performed in the US, an explanation attachment cannot be provided.	
SBIR/STTR (NIH)	**Question 5. Equivalent Submissions (Y/N)**	Required.		
SBIR/STTR (NIH)	**Names of other Federal agencies for equivalent work**	Required entry if answer to 'submittal of equivalent work to other agencies' question is 'yes'.		
		Cannot be included if answer to 'submittal of equivalent work to other agencies' question is 'no'.		
SBIR/STTR (NIH)	**Question 6. Disclosure Permission Statement (Y/N)**	Required		
SBIR/STTR (NIH)	**Commercialization Plan Attachment**	Required for Phase II and Fast Track submissions	The Commercialization Plan is required for Phase II and Fast Track submissions	
		Cannot be submitted for anything other than Phase II or Fast Track submissions	A Commercialization Plan can only be submitted for Phase II and Fast Track submissions	
		Limited to 15 pages.	The Commercialization Plan is limited to 15 pages	
SBIR/STTR (NIH)	**Question 8. Receipt of Phase II SBIR Awards (Y/N)**	Required for SBIR		
SBIR/STTR (NIH)	**Company Commercialization History Attachment**			

Component	Field	Validation	Error Message	Notes & Tips
SBIR/STTR (NIH)	**Question 9. SBIR PD/PI Primary Employment (Y/N)**	Required for SBIR		
SBIR/STTR (NIH)	**Question 10. STTR PD/PI Commitment (Y/N)**	Required for STTR		
SBIR/STTR (NIH)	**Question 11. STTR work percentages (Y/N)**	Required for STTR		

PHS 398 Cover Page Supplement

Component	Field	Validation	Error Message	Notes & Tips
Cover Page (NIH)	**PD/PI Information (prefix, first, middle, last, suffix)**	Read only, pulled from R&R		
Cover Page (NIH)	**PD/PI New Investigator Question**			
Cover Page (NIH)	**PD/PI Degrees**	Match against 4 character degree codes in PI's Commons account (ignore case, spaces, or punctuation). If it does not match anything on list, compare against any 'other degree text' degrees on Commons account. If degree not found on the degree list or on 'other degree text' entries for the PI, display a warning to the PI that the degrees did not match the Commons account, and that the submitted degrees will be displayed on the grant image. "The degrees that will be displayed on the grant image are x, y, and z". In db, save the top three Commons degrees instead of the submitted degrees in the role.	The PD/PI degree: <degree> is not one of the degrees listed for the NIH eRA Commons account: <Credential>. The grant image will display the degrees as submitted.	Be sure to include your educational degrees (by code) as listed in the eRA Commons. The system will compare your application with the information in the eRA Commons profile. If the degrees don't match, the degrees you submit in the application will be displayed in the grant image but the top 3 degrees listed in the Commons account will be saved in the database. Post-testing solution: Provide warning that Commons degrees are *xxxx* and degrees submitted through grants.gov are *yyyy* and we will be displaying the top three Commons degrees. Provide ability for submitter to update the Commons account and to regenerate the image to display the updated information from the Commons account.
		Provide a warning if no degrees have been included.	No degrees have been submitted for the PD/PI. If you want the degrees to be displayed on the face page of the grant image, you should include them on the PHS 398 Cover Page Supplement.	
Cover Page (NIH)	**Human Subjects Clinical Trial (Y/N)**	An answer is required if the answer to 'Human Subjects Involved' is "Yes".	The Human Subjects Clinical Trial question must be answered if the answer to 'Human Subjects Involved' is "Yes".	
		If Human Subjects NIH-Defined Phase III Clinical Trial is true, must be true.	The Human Subjects Clinical Trial question must be "Yes" if the answer to Human Subjects NIH-Defined Phase III Clinical Trial is "Yes".	

Component	Field	Validation	Error Message	Notes & Tips
		For S10 application, provide a warning if this is true.	The answer to the Human Subjects Clinical Trial question should not be 'Yes'. The application will be processed, but a concern may be raised during review.	
Cover Page (NIH)	**Human Subjects NIH-Defined Phase III Clinical Trial (Y/N)**	An answer is required if the answer to 'Human Subjects Clinical Trial' is "Yes".	The Human Subjects NIH-Defined Phase III Clinical Trial question must be answered if the answer to the Human Subjects Clinical Trial question is "Yes".	
		If Human Subjects Clinical Trial is false, must be false	The Human Subjects NIH-Defined Phase III Clinical Trial must be "No" if the answer to the Human Subjects Clinical Trial question is "No".	
Cover Page (NIH)	**Applicant Organization Contact Information**	Read only, pulled from R&R		
Cover Page (NIH)	**Applicant Organization Contact Title**			
Cover Page (NIH)	**Applicant Organization Contact Street Address (1 and 2)**	If either line>50 characters, truncate and display warning.	Street <*n*> of the Applicant Organization exceeds the NIH limit of 50 characters. The grant image will display the address as submitted; NIH will store the first 50 characters only.	
Cover Page (NIH)	**Applicant Organization Contact City**			
Cover Page (NIH)	**Applicant Organization Contact County**			
Cover Page (NIH)	**Applicant Organization Contact State**	Required if country is US or Canada.	The Applicant Organization State must be supplied for US and Canadian addresses.	
		If country is not US or Canada must be blank.	The Applicant Organization State should be blank for all countries other than the United States and Canada.	
		Transform state name to 2 char abbreviation before validating and storing. If state name can't be transformed, give error.	The Applicant Organization State is not a valid state name.	

Component	Field	Validation	Error Message	Notes & Tips
Cover Page (NIH)	**Applicant Organization Contact Zip Code**	Required if country is US.	The Applicant Organization Zip Code must be entered for US addresses.	Long-term, change in eRA db to 13 characters.
		Must be 5 or 9 numeric digits if country is US.	The Applicant Organization Zip Code must be entered in 5-digit or 9-digit format.	
		If >9 characters, truncate and display warning (remove any dashes before truncating).	The Applicant Organization Zip Code has more than 9 digits. The grant image will display the zip code as submitted; NIH will store the first 9 digits in the eRA database.	
Cover Page (NIH)	**Applicant Organization Contact Country**	Must be a valid ISO 3166-1 alpha-3 country code.	The Applicant Organization country code provided (<Country>) is not a valid ISO 3166-1 alpha-3 country code.	
Cover Page (NIH)	**HESC Involved (Y/N)**	For S10 application, display a warning if this is true.	The answer to the HESC Involved question should be 'No'. The application will be processed, but a concern may be raised during review.	
				Change mapping: set Special Topic code to 13 if HESC Involved is 'yes'. This code is set in appl_special_topics_t.
Cover Page (NIH)	**HESC Cell Lines**	If HESC involved='Y', must include this or 'Can't be Referenced'	If the answer to 'HESC involved' is "Yes", HESC Cell Lines must be included or the 'Can't be Referenced' checkbox must be checked.	For the Human Embryonic Stem Cells (HESC) section, if you answer Yes, you must list the cell lines in the boxes provided or check the box "Specific stem cell line cannot be referenced at this time. One from the registry will be used."
		If HESC involved='N', can't include this or 'Can't be Referenced'	If the answer to 'HESC involved' is "No", HESC Cell Lines may not be included and the 'Can't be Referenced' checkbox must not be checked.	
		If specific stem cell line is included, must be a valid stem cell line in eRA database. Comparison should not be case-sensitive.	Stem cell line <Cell line number> is not a valid stem cell line number.	
		If 'Can't Be Referenced' is checked, no other cell lines may be entered.	If the 'Can't be Referenced' checkbox is checked, no other stem cell lines may be entered.	
Cover Page (NIH)	**HESC 'can't be referenced' checkbox**	If HESC involved='Y', must include this or 'HESC Cell Lines'	If the answer to 'HESC involved' is "Yes", HESC Cell Lines must be included or the 'Can't be Referenced' checkbox must be checked.	

Component	Field	Validation	Error Message	Notes & Tips
		If HESC involved='N', can't include this or 'HESC Cell Lines'	If the answer to 'HESC involved' is "No", HESC Cell Lines may not be included and the 'Can't be Referenced' checkbox must not be checked.	

PHS 398: Modular Budget

Component	Field	Validation	Error Message	Notes & Tips
Modular Budget, Years 1-5 (NIH)		Accept submission of modular budget or detailed budget, but not both	Both a modular and a detailed budget have been included with this submission. One or the other may be submitted.	
		Do not accept a modular budget for R13 applications (activity code on funding opportunity = 'R13' or 'U13')	Modular budgets may not be submitted for Conference Grant applications.	
		For a revision, if the parent grant budget is non-modular, only a detailed budget component may be submitted.	The parent grant for this revision uses the non-modular format; therefore, this application may include a detailed R&R budget component only.	
		For an R15 application (activity code on funding opportunity = 'R15'), return warning if more than one budget period has been included.	An AREA grant should be submitted for one budget period only. This may delay the peer review process.	
		Do not accept a modular budget for SBIR/STTR applications	Modular budgets may not be submitted for SBIR/STTR submissions.	
Modular Budget, Years 1-5 (NIH)	**Start Date**	For budget period 1, for new applications and revisions to new applications, must be the same as the Project Start Date listed on the SF 424 RR Face Page	For new applications and resubmissions, the modular budget year 1 start date must be the same as the proposed project start date listed on the SF 424 RR Face Page.	
Modular Budget, Years 1-5 (NIH)	**End Date**	Budget period end date must be greater than budget period start date.	The modular budget year <budget year> end date must be later than the modular budget year <budget year> start date.	
Modular Budget, Years 1-5 (NIH)	**Direct Costs, Direct Cost Less Consortium, F&A**	Must be <= 250K, must be a multiple of 25K for each budget year	The total direct costs for modular budget year <budget year> are greater than $250K, or are not in increments of $25K.	
		For R15 submissions, provide warning if this value for *any* budget year is >= 150K.	Direct cost requests are limited to $150k a year for AREA grants. Applications that exceed this limit may be delayed in the peer review process or rejected.	

Component	Field	Validation	Error Message	Notes & Tips
		For R03 submissions, provide warning if this value for any budget year is >50K (LV).	Direct cost requests are limited to $50k a year for this application. Applications that exceed this limit may be delayed in the peer review process or rejected.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable direct cost limitations for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For R21 submissions, provide warning if this value for any budget year is >200K (LV).	Direct cost requests are limited to $200k a year for this application. Applications that exceed this limit may be delayed in the peer review process or rejected.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable direct cost limitations for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For R34 submissions, provide warning if this value for any budget year is >225K (LV).	Direct cost requests are limited to $225k a year for this application. Applications that exceed this limit may be delayed in the peer review process or rejected.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable direct cost limitations for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
Modular Budget, Years 1-5 (NIH)	**Direct Costs, Consortium, F&A**	Must be less than 10,000,000,000	For NIH processing, the Consortium F&A amount must be less than 10,000,000,000.	Grants.gov accepts up to 14 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.
Modular Budget, Years 1-5 (NIH)	**Direct Costs, Total Direct Costs**	Must equal sum of Direct Cost Less Consortium, F&A and Consortium, F&A for the corresponding budget year (if both are submitted). If only Direct Cost Less Consortium, F&A is submitted for that budget year, must equal that.	The total direct costs for modular budget year <budget year> do not equal the sum of Direct Cost Less Consortium, F&A and Consortium, F&A	

Component	Field	Validation	Error Message	Notes & Tips
		Must be less than 10,000,000,000	For NIH processing, the Total Direct Costs amount must be less than 10,000,000,000.	Grants.gov accepts up to 15 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.
Modular Budget, Years 1-5 (NIH)	**Indirect Costs, Indirect Cost Type 1-4**			
Modular Budget, Years 1-5 (NIH)	**Indirect Costs, Indirect Cost Rate 1-4**	Provide warning if greater than 0 and less than 1.	Indirect Cost Rate is less than 1 for budget year <budget year>. Please note that this figure represents a percentage.	
Modular Budget, Years 1-5 (NIH)	**Indirect Costs, Indirect Cost Base 1-4**	Must be less than 10,000,000,000	For NIH processing, the Indirect Cost Base amount for budget year <budget year> must be less than 10,000,000,000.	Grants.gov accepts up to 14 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.
Modular Budget, Years 1-5 (NIH)	**Indirect Costs, Funds Requested 1-4**	Must be less than 10,000,000,000	For NIH processing, the Funds Requested amount must be less than 10,000,000,000.	Grants.gov accepts up to 14 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.
Modular Budget, Years 1-5 (NIH)	**Indirect Costs, Cognizant Agency**			
Modular Budget, Years 1-5 (NIH)	**Indirect Costs, Indirect Cost Rate Agreement Date**			
Modular Budget, Years 1-5 (NIH)	**Indirect Costs, Total Indirect Costs**	Must equal sum of Indirect Costs, Funds Requested 1-4 for the corresponding budget year, if any Indirect Costs were entered.	The Total Indirect Costs do not equal the sum of Funds Requested for budget year <budget year>	
		Must be less than 10,000,000,000	For NIH processing, the Total Indirect Costs amount must be less than 10,000,000,000.	Grants.gov accepts up to 15 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.
Modular Budget, Years	**Total Direct and Indirect**	Must be greater than 0 for first budget period.	For Modular Budget Year 1, Total Direct and Indirect Costs must be greater than zero	

Component	Field	Validation	Error Message	Notes & Tips
		Must be equal to the sum of Total Direct Costs and Total Indirect Costs for the corresponding budget period.	For Modular Budget Year <budget year>, the Total Direct and Indirect Costs must be equal to Total Direct Costs plus Total Indirect Costs requested for that budget year.	
		Must be less than 10,000,000,000	For NIH processing, the Total Direct and Indirect Costs amount must be less than 10,000,000,000.	Grants.gov accepts up to 15 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.

PHS 398 Modular Budget: Period 5 and Cumulative

Component	Field	Validation	Error Message	Notes & Tips
Modular Budget, Cumulative (NIH)	**Total Direct Cost less Consortium F&A for Entire Project Period**	Must be equal to the sum of all Total Direct Cost less Consortium F&A values for all budget years	The Total Direct Cost less Consortium F&A for Entire Project Period must be equal to the sum of Total Direct Cost Less Consortium F&A values for all budget years	
		For R03 submissions, provide warning if this value is >100K (LV).	Cumulative direct cost requests are limited to a total of $100k for this application. Applications that exceed this limit may be delayed in the peer review process or rejected.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable cumulative direct cost limitations for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For R21 submissions, provide warning if this value is >275K (LV).	Cumulative direct cost requests are limited to a total of $275k for this application. Applications that exceed this limit may be delayed in the peer review process or rejected.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable cumulative direct cost limitations for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For R34 submissions, provide warning if this value is >450K (LV).	Cumulative direct cost requests are limited to a total of $450k for this application. Applications that exceed this limit may be delayed in the peer review process or rejected.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable cumulative direct cost limitations for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
Modular Budget, Cumulative	**Total Consortium F&A for**	Must be equal to the sum of all Consortium F&A values for all budget years	The Total Consortium F&A for Entire Project Period must be equal to the sum of Consortium F&A values for all budget years	

Component	Field	Validation	Error Message	Notes & Tips
(NIH)	**Entire Project Period**	Must be less than 10,000,000,000	For NIH processing, the Total Consortium F&A for Entire Project Period amount must be less than 10,000,000,000.	Grants.gov accepts up to 15 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.
Modular Budget, Cumulative (NIH)	**Total Costs, Total Direct Costs for Entire Project Period**	Must be equal to the sum of Total Direct Costs for all budget years	The Total Direct Costs for the Entire Proposed Project Period must be equal to the sum of the Total Direct Costs for all budget years	
		Must be less than 10,000,000,000	For NIH processing, the Total Direct Costs for Entire Project Period amount must be less than 10,000,000,000.	Grants.gov accepts up to 15 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.
Modular Budget, Cumulative (NIH)	**Total Costs, Total Indirect Costs for Entire Project Period**	Must be equal to the sum of Total Indirect Costs for all budget years	The Total Indirect Costs Requested for Entire Project Period must be equal to the sum of Total Indirect Costs for all budget years.	
		Must be less than 10,000,000,000	For NIH processing, the Total Indirect Costs for Entire Project Period amount must be less than 10,000,000,000.	Grants.gov accepts up to 15 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.
Modular Budget, Cumulative (NIH)	**Total Costs, Total Direct and Indirect Costs for Entire Project Period**	Must be equal to the sum of all Total Direct and Indirect Costs values for all budget years	The Total Direct and Indirect Costs for Entire Project Period must be equal to the sum of all Total Direct and Indirect Costs values for all budget years	
		Must be less than 10,000,000,000	For NIH processing, the Total Direct and Indirect Costs for Entire Project Period amount must be less than 10,000,000,000.	Grants.gov accepts up to 15 bytes (including 2 decimal places); NIH accepts no more than 10. Long-term db change is recommended.
Modular Budget, Cumulative (NIH)	**Budget Justifications, Personnel Justification**			
Modular Budget, Cumulative (NIH)	**Budget Justifications, Consortium Justification**			
Modular Budget, Cumulative (NIH)	**Budget Justifications, Additional Narrative Justification**			

PHS 398 Checklist

Component	Field	Validation	Error Message	Notes & Tips
Checklist (NIH)	**Type of Application**	Read only, pulled from R&R		
		Allow a submission with no Checklist component.		
Checklist (NIH)	**Federal Identifier**	Read only, pulled from R&R		
Checklist (NIH)	**Change of Investigator/ Change of Inst.; Change of PI**	Not accepted for revisions.	A revision may not be submitted with a Change of PI. Revisions must have the same PI as the parent grant.	
Checklist (NIH)	**Change of Investigator/ Change of Inst.: Name of former PI (Prefix, First Name, Middle Name, Last Name, Suffix)**	Must be included if application is for change of PI	The name of the former PI must be included if there has been a Change of PI for the grant.	If there has been a change in the Principal Investigator, you must include the name of the former PI so that the grant can be matched correctly.
Checklist (NIH)	**Change of Investigator/ Change of Inst.: change of grantee inst.**	Will not be accepted for the Grants.gov submission		
Checklist (NIH)	**Change of Investigator/ Change of Inst.: name of former inst.**	If >40 characters, truncate.		Grants.gov length is 120, our db length is 40. Consider long-term db change.
Checklist (NIH)	**Inventions and Patents, Yes**			
Checklist (NIH)	**Inventions and Patents, No**			

Component	Field	Validation	Error Message	Notes & Tips
Checklist (NIH)	**Inventions and Patents, Previously Reported (Yes or No)**	Must be answered if response to Inventions and Patents is 'Yes'	Inventions and Patents, Previously Reported must be answered if the answer to Inventions and Patents is 'Yes'	
		Should not be answered if response to Inventions and Patents is 'No'	Inventions and Patents, Previously Reported should not be answered if the answer to Inventions and Patents is 'No'	
Checklist (NIH)	**Program Income Anticipated (Y/N)**			
Checklist (NIH)	**Program Income, Budget Period 1-5**	Should only be completed if answer to Program Income Anticipated question was 'Y'.	If answer to Program Income Anticipated question is 'N', no program income detail may be entered.	
		Provide error if provided for S10 application.	No program income may be included for S10 applications.	
		The number of program income budget periods must be less than or equal to the number of budgets provided in the budget component.	Anticipated amount for program income has been provided for <x> budget years. Only <y> years of budgets were provided with this application.	
Checklist (NIH)	**Program Income, Anticipated Amount 1-5**	Must be less than 10,000,000,000	For NIH processing, the Program Income Anticipated Amount for budget period <budget period> must be less than 10,000,000,000.	Grants.gov accepts up to 14 bytes (including 2 decimal places); NIH accepts no more than 10, with 2 decimal places. Long-term db change is recommended.
Checklist (NIH)	**Program Income, Sources 1-5**			
Checklist (NIH)	**Assurances/ Certification: Explanation**			

PHS 398 Research Plan

Component	Field	Validation	Error Message	Notes & Tips
Research Plan (NIH)	**Type of Application**	Read only, pulled from R&R		
		Allow applications to come in without this component.		
Research Plan (NIH)	**Research Plan Attachments: Introduction**	Required for resubmission for non-S10 applications.	An Introduction must be included for resubmissions.	
		Required for revisions.	An Introduction must be included for revisions.	
		Limited to 1 page for revisions.	The Introduction for a revision is limited to one page.	
		Limited to 3 pages for non-SBIR/STTR and non-R36 submissions.	The Introduction is limited to three pages.	
		Introduction limited to 1 page for Phase I SBIR/STTR, R03 (LV) , R21 (LV), and R36	The Introduction is limited to one page for this submission.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable page limitations for the Introduction for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		Introduction limited to 3 pages for Phase II and Fast Track SBIR/STTR, R33 (LV), R21/R33 (LV), and R34 (LV) applications	The Introduction is limited to three pages for this submission.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable page limitations for the Introduction for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		Provide warning if Research Plan Attachments 2-5 together are greater than 25 pages and less than or equal to 28 pages (applies to all applications not specifically listed below including Fast Track) ((LV) for R33, R21/R33, and R34).	The Research Plan is limited to 25 pages. This may span 28 pages due to page breaks but the total space occupied by text should not exceed 25 pages.	

Component	Field	Validation	Error Message	Notes & Tips
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable page limitations for the Research Plan for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
Research Plan (NIH)	**Research Plan Attachments: Specific Aims**	Provide warning if Research Plan Attachments 2-5 together are greater than 25 pages and less than or equal to 28 pages (applies to all applications not specifically listed below, including Fast Track) ((LV) for R33, R21/R33, and R34).	The Research Plan is limited to 25 pages. This may span 28 pages due to page breaks but the total space occupied by text should not exceed 25 pages.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable page limitations for the Research Plan for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		Research Plan Attachments 2-5 together must be less than or equal to 28 pages (applies to all applications not specifically listed below, including Fast Track) ((LV) for R33, R21/R33, and R34)	The Research Plan is limited to 25 pages. This may span 28 pages due to page breaks but the total space occupied by text should not exceed 25 pages.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable page limitations for the Research Plan for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For SBIR/STTR Phase I and R21 (LV), provide warning if Research Plan Attachments 2-5 together are greater than 15 pages and less than or equal to 18 pages	The Research Plan is limited to 15 pages. This may span 18 pages due to page breaks but the total space occupied by text should not exceed 15 pages.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable page limitations for the Research Plan for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For SBIR/STTR Phase I and R21 (LV), Attachments 2-5 together must be less than or equal to 18 pages	The Research Plan f is limited to 15 pages. This may span 18 pages due to page breaks but the total space occupied by text should not exceed 15 pages.	

Component	Field	Validation	Error Message	Notes & Tips
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable page limitations for the Research Plan for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For conference grant applications (activity code on funding opportunity = 'R13' or 'U13'), Research Plan Attachments 2-5 together must be less than or equal to 10 pages.	The Conference Plan for a Conference Grant application is limited to 10 pages	Applicants will be instructed to submit one attachment only, in the Research Design and Methods attachment.
		For R13 or U13 applications submitted to AHRQ, Research Plan Attachments 2-5 together must be less than or equal to 15 pages	The Conference Plan for an AHRQ Conference Grant application is limited to 15 pages.	AHRQ applications can be identified by a value of 'HS' in rfa_pa_notices_t.phs_org_code.
		For R36, X01, and R03 (LV) applications, provide warning if Research Plan Attachments 2-5 together are greater than 10 pages and less than or equal to 13 pages.	The Research Plan is limited to 10 pages. This may span 12 pages due to page breaks but the total space occupied by text should not exceed 10 pages.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable page limitations for the Research Plan for this FOA. Otherwise, your application may be delayed and rejected in the review process.	
		For R36, X01, and R03 (LV) applications, Research Plan Attachments 2-5 together must be less than or equal to 13 pages.	The Research Plan is limited to 10 pages. This may span 13 pages due to page breaks but the total space occupied by text should not exceed 10 pages.	
			Warning message for 'opt out' announcements: Be sure that you have complied with the allowable page limitations for the Research Plan for this FOA. Otherwise, your application may be delayed and rejected in the review process.	

Component	Field	Validation	Error Message	Notes & Tips
Research Plan (NIH)	**Research Plan Attachments: Background and Significance**	.		.
Research Plan (NIH)	**Research Plan Attachments: Preliminary Studies/ Progress Report**	Must be included for renewals, revisions, and Phase II SBIR. Exceptions to this validation are S10 and R13.	A Progress Report attachment must be included for renewals (competing continuations), revisions (supplements), and Phase II SBIR/STTR applications	For grant image, bookmark should be set based on whether this is a new (should show Preliminary Studies) or a resubmission, revision, or renewal (should show Progress Report)
Research Plan (NIH)	**Research Plan Attachments: Research Design and Methods**	Required for all submissions except S10.	The Research Design and Methods section of the Research Plan must be attached to the application.	
Research Plan (NIH)	**Research Plan Attachments: Protection of Human Subjects**	Required for non-S10 applications, if Human Subjects is 'yes'.	A Protection of Human Subjects attachment must be included if human subjects are involved.	
Research Plan (NIH)	**Research Plan Attachments: Inclusion of Women and Minorities**	Required for non-S10 applications if Human Subjects is true and Exemption is not E4	The Inclusion of Women and Minorities Attachment must be included if the response to the Human Subjects question is 'Yes' and if the Exemption Number is not 4.	
Research Plan (NIH)	**Research Plan Attachments: Targeted/ Planned Enrollment Table**	Required for non-S10 applications if Human Subjects is true and Exemption is not E4	The Targeted/Planned Enrollment Table Attachment must be included if the response to the Human Subjects question is 'Yes' and if the Exemption Number is not 4.	
Research Plan (NIH)	**Research Plan Attachments: Inclusion of Children**	Required for non-S10 applications if Human Subjects is true and Exemption is not E4	The Inclusion of Children Attachment must be included if the response to the Human Subjects question is 'Yes' and if the Exemption Number is not 4.	

Component	Field	Validation	Error Message	Notes & Tips
Research Plan (NIH)	**Research Plan Attachments: Data and Safety Monitoring Plan**	Required for non-S10 applications if Human Subjects is true and Clinical Trial question is true.	The Data and Safety Monitoring Plan Attachment must be included if the response to the Human Subjects question is 'Yes' and the response to the Clinical Trial question is 'Yes'	
Research Plan (NIH)	**Research Plan Attachments: Vertebrate Animals**	Required for non-S10 applications if VertebrateAnimalsUsedQuestion is Y	A Vertebrate Animals attachment must be included if the response to the Vertebrate/Animals Subject Used Question is 'Yes'	
Research Plan (NIH)	**Research Plan Attachments: Consortium/ Contractual Arrangements**			
Research Plan (NIH)	**Research Plan Attachments: Letters of Support**	Required for an R36 application (activity code on funding opportunity = 'R36')	An R36 application must include a Letters of Support attachment. Certification Letters should be included in this attachment.	
Research Plan (NIH)	**Research Plan Attachments: Resource Sharing Plan**	Limited to 10 appendixes	You have submitted more than 10 appendixes. There is a limit of 10 appendix attachments allowed.	
Research Plan (NIH)	**Research Plan Attachments: Appendix**	Limited to 10 appendixes	You have submitted more than 10 appendixes. There is a limit of 10 appendix attachments allowed.	
		At least one appendix is required for an R36 application (activity code on funding opportunity = 'R36').	An R36 application must include at least one Appendix attachment. Transcripts should be included in this attachment.	
		Appendixes are not allowed for SBIR or STTR Phase I applications	Appendixes may not be submitted for a Phase I SBIR or STTR application.	

PHS 398 Cover Letter

Component	Field	Validation	Error Message	Notes & Tips
Cover Letter (NIH)	**Cover Letter attachment**	For an R13 application (activity code on funding opportunity = 'R13' or 'U13'), provide warning if the cover letter is not attached.	For NIH applications only, a cover letter should be attached indicating NIH institute approval for a Conference Grant application.	