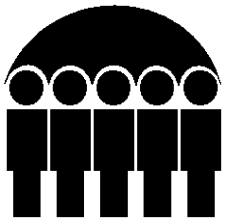

Iowa Department of Human Services

FORMS
ANALYSIS AND DESIGN
HANDBOOK

Comm. 203 October 2003

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OVERVIEW

"Forms analysis" is the means of determining what should go on a form, how the information should be placed on the form, and what kind of form should be used.

Forms analysis increases efficiency. Staff who use the form will be able to process work faster and more efficiently if the form was properly analyzed. When analyzing a form, ask yourself the following questions:

- Is the form easily accessible?
- Is the form pleasing to look at?
- Are the form fields easily understood so there is no question what type of data should be entered?
- Can the data be easily extracted or analyzed?

If the form is analyzed correctly and is designed appropriately, a smoother, more efficient form will be created. This also results in a more cost effective use of staff time. In government, a forms management program must place particular emphasis on forms that go out to the public.

FORMS ANALYSIS

All Department forms must be analyzed in the following areas:

- **Necessity of the information:**
  - Is the right kind of information collected?
  - Should more or less information be requested?
- **Preparation of this information:**
  - What is the best way of getting the information needed?
  - What is the easiest way of entering the information on the form?
- **Handling of the information:**
  - What equipment and methods will work the best?
  - Can the information be retrieved quickly and economically?
- **Designing the form:**
  - What sequencing and grouping of items will be most efficient?
  - What specific aids can be used to improve efficiency?

- **Selection of the proper form construction:**
  - What specific type of form will be most satisfactory in this procedure?
  - What are the printing specifications if applicable?
  - What are the specifications if the form will be electronic?

Forms should be analyzed individually when a new form is created, an existing form is revised, or a form is reprinted. By analyzing the forms at each of the previously mentioned intervals, each form can be reviewed on a case-by-case basis. Each form can be reviewed to ensure that all fields are necessary and that the format is the most time efficient and cost effective way to gather the requested data.

Forms are originated at the central office level, the local office level, or at an institution. The creator of the form knows how the form is intended to be used and how the form affects other programs in the Department. If a form is to be revised, the originator is the one who must decide what changes need to be made and then get approval of the final revision.

Gather the Facts

The first phase of forms analysis is gathering information about the form or its use. Answer these questions:

- What is the objective of the form?
- Why is the form used? Is there a statutory requirement?
- Who is responsible for the form?
- Where is the form used?
- How is the form used?
  - How many copies of the form are used per year?
  - Does the form tie in with other forms and procedures?
  - Can the form be made available electronically?
- Who completes the form?
- Who does the work involving the form?
- Who gets the form? How many copies are needed?
- What is the cost associated with creating the form?
- Can the contents of a form be combined with another form to reduce staff time?

Challenge the Form

After gathering the facts, challenge the form itself. Answer these questions:

- Is the form necessary? Is it needed enough to justify the work generated by its preparation and use?
- What would the consequences be if the form did not exist?
- Does the form really serve the stated purpose? If not, could it be changed to serve the stated purpose?
- Are there other forms in use that could serve the stated purpose? Can the form be combined with another form that already exists?
- If this is a new form:
  - Will the addition of another form simplify work?
  - Will the cost of producing the form justify bringing a new form into existence?
  - How will this affect staff time and their workflow?
- Have changing conditions eliminated the need for the form? A form should be eliminated if:
  - The system has changed but no one thought to dispose of the form.
  - A survey has brought out the duplication of information available elsewhere.
  - The cost of processing the information is out of proportion to the benefits gained.
- Do the related procedures need revision? Is there a better way to use the form?

Similar forms are often used for essentially the same purpose in different parts of the Department. By analyzing the forms, the development of one form may eliminate duplicate forms.

Remember, it may be possible to combine forms used in successive work steps. This eliminates copying information from one form to another by getting all the information common to several forms onto one form.

If the form is not necessary, there is no need to continue analyzing the form. Only continue to analyze the form if it appears the form is appropriate and necessary, and cannot be combined with another form.

Challenge Each Field

If the form is necessary, proceed to challenge the data collected on the form. Answer these questions:

- Is each field of the form necessary?
- Does each field serve a definite purpose?
- What would the consequences be if some fields were omitted?
- Has data merely been added to fill space or because it is nice to have?
- Is the information available elsewhere?
- Is there a better way of getting the data?
- Is additional data needed?

Challenge Each Copy

After examining the data on the form, evaluate the number of copies needed. Answer the following questions:

- Is each copy necessary?
- Does each copy serve a definite purpose?
- What would the consequences be if one or more copies did not exist?
- Does the cost of printing, preparing, handling, reading, and filing justify each copy's existence?
- For an "information" copy, would it be cheaper to route another copy to refer to in a central file location?
- Are there too few copies, resulting in costly photocopies and wasted staff time?

Evaluate Communication

When analyzing a form, examine the form to ensure that the intent of the form is met and the form has the capability to communicate. A form communicates in two basic ways:

- Through appearance of the form. (See **FORM DESIGN**.)
- Through the language of words used on the form.

When creating or analyzing a form, consider the following:

- Who will be reading the form?
- Are the words and phrases that are used familiar to the reader?
- Are the words simple and easy to understand?
- Does the form contain Department jargon that is difficult to understand?

Wording on a form should be clear and understandable to all of its intended users. Remember the audience for Department forms is wide and varied. Consider the educational levels of the readers and how the audience will use the form. Develop forms that can be understood by all intended users.

Wording used on forms should be simple enough to be understood by everyone. All words and phrases on a form should be familiar. Legal terms and technical jargon can usually be rewritten so that everyone can understand the material. For example:

- "Date due" is clearer than "deadline."
- "Pay" is more familiar than "remuneration."
- "Before" is easier to understand than "prior to."
- "After" is recognized more easily than "subsequent to."

Forms can also have the opposite problem. If a form doesn't contain enough words, the form may be completed incorrectly and you may not get the type of information you need.

For instance, if your form asks for "birth place," people may consider this their home address, their city, their county, their state, or their country. In this case, "birth place" could be changed to "city where born" or "birth place state." This tells the person filling in the form exactly what information is wanted.

Evaluate Work Flow and Filing

Once a form is filled out, it usually gets sent somewhere. Whether that is somewhere else within the Department or out to the public, the process should be made as simple and fast as possible. Remember, the longer the process takes to complete, the less cost effective the form is. This will also affect the amount of staff time it takes to complete the process.

When analyzing a form, be sure to consider how the form will be filed. Think about the size of the form and how that affects what type of filing cabinet will be used. Legal-size filing cabinets cost more than letter-size cabinets and occupy 20 percent more space.

However, smaller size forms filed in with letter-size forms can be buried and difficult to find. If the file is referred to frequently, any printing savings from a smaller form can be more than offset by the cost of additional staff time required in filing.

FORM DESIGN

After you have analyzed your form, it is time to think about the design of the form. When designing a form, remember to integrate the aspects of your analysis on the form. This will help you to create a form that will meet the needs of those who will be using the form.

Simplicity is the basic goal of form design. People may disregard your form if it looks too complicated or too long. A well-designed form provides the following and promotes increased efficiency and will allow for reduced printing costs:

- Visual appeal
- Easier way to enter data
- Easier way to use data
- Reduced chance for error

Certain standards have evolved in forms design that define the best practices to use when designing a form. Standards of forms design cover such things as:

- Preparation of copy (the actual form layout)
- Specifications for production
- Composition methods
- Selection of process

Because these standards have proved to be successful, they should be applied to all forms design. When your form design does not follow the basic form design standards, you will need to provide a logical justification of why the form design principles cannot be followed.

Your justification must prove that more is to be gained by not following the basic design principles than there would be by complying with them. There is no guarantee that even applying all the standards in the design of a form will result in an efficient procedure, but better forms are bound to result when standards are applied.

Most forms are composed of five basic parts:

- **Identification.** Elements usually required for form identification include:
  - Department name
  - Title
  - Form number
  - Date of the latest revision
  - Page numbers for multi-page forms

- **Instructions.** Forms usually need directions to the user, such as:
  - How to fill in certain items
  - The number of copies required
  - When and where the form is to be sent
- **Introduction.** This part of a form introduces the body (the main part of the form). It may include items such as:
  - Who the form is going to
  - Where the form is coming from
  - The transaction date
  - Identifying numbers (purchase order number, customer number, etc.)
- **Body.** The body is the largest part of the form. It contains the main data and is usually located in the middle of the form. The content varies with the nature of the individual form.
- **Conclusion.** The closing groups together items which usually appear at the bottom of the form such as:
  - Summary data
  - Affidavits or qualifying statements
  - Approvals
  - Signatures
  - Authorization dates
  - Routing instructions

Not all five parts are necessarily required for every form. The sequence usually remains the same. Whenever possible the designer should place these five separate areas of information in the same relative positions on all forms.

Identification Section

The following identification elements are required for Department forms:

- The Department name
- The form title
- The form number
- The revision date
- Page numbers

Department Name

Place the Department name on all external forms and on internal forms if space permits. Division or bureau titles shall **not** be used.

Place the name, "Iowa Department of Human Services," on the first page of the form directly above the form title. Use a font that is smaller than the title font. The title font should be Times New Roman 12 point text, so the Department name should be 10 or 11 point text. **Note:** A separate Department name is not required for forms printed with a letterhead header.

Form Title

The first thing you look for when using a form for the first time is the title. Every form should have a descriptive title that is as short as possible and that indicates the purpose and function of the form. The title gives you a quick idea of what the form is about. It also facilitates requisitioning, stocking, and issuing of forms.

The title should be the dominant item in the identification area. The user should have no trouble finding or reading the title. The standard position for the title on most forms is the top center where it can be quickly found and read. It should be in bold type, and in capital letters. The title font should be Times New Roman 12 point text. The form text font is also in Times New Roman 12 point text.

Exceptions: A few forms obviously need no titles, such as envelopes and letterhead. The title for form letters is not on the form. These forms should, however, have form numbers and agency or state identification.

Placement of the title depends on how the form is used and the size of the form. The title should be short and tell exactly what the form does. Use simple familiar words. Avoid using extra unnecessary terminology, such as "card," "sheet," or "form," in a title. These words refer to the physical characteristics of a form, not to its use, and are unnecessary.

Form titles should be built around a keyword, which helps to identify a form and indicates its function. The following is a list of key words that can be used to title forms.

Keyword	Purpose of Form
Abstract	To make a summary
Account	To record debit and credit
Acknowledgment	To document the receipt of
Affidavit	To attest to the truth of
Agreement	To offer and accept in writing
Allotment	To distribute in parts
Appeal	To request the review of a decision
Application	To request something
Appointment	To constitute
Assignment	To specify
Authorization	To permit an action
Award	To bestow
Bid	To offer for a price
Bill	To itemize
Cancellation	To revoke
Certificate	To verify the truth of
Claim	To ask as due
Communication	To interchange information
Complaint	To formally allege
Contract	To agree to provide for a price
Designation	To indicate or identify
Diary	To record daily
Digest	To classify and condense
Document	To furnish information
Endorsement	To write; to assign
Estimate	To calculate approximately
Follow-up	To seek completion of an action
Guide	To direct the course
Identification	To name
Index	To list
Inquiry	To seek to know
Instruction	To furnish with direction
Inventory	To itemize
Invoice	To bill or charge for
Itinerary	To record a trip
Journal	To record daily transactions or status
Lease	To rent
Ledger	To record fiscal accounts
List	To catalog, enroll, or register
Log	To record daily progress
Memorandum	To record informally
Message	To communicate
Note	To assist the memory; to acknowledge a debt
Notice	To give information or directions
Order	To command
Pass	To permit to come and go
Payroll	To list persons receiving pay
Permit	To authorize a specific act
Petition	To request formally
Questionnaire	To ask questions to obtain data
Receipt	To acknowledge delivery or payment
Recommendation	To advise on course of action
Record	To retain an account of facts or events
Register	To list events or actions in sequence
Release	To set free
Report	To make an account of action or status
Request	To ask for
Requisition	To apply for formally
Roster	To list names
Routing	To direct documents from one office or individual to another
Schedule	To catalog recurring events; to publish a plan of future action; to append
Specification	To state requirements; to particularize in detail
Statement	To communicate a declaration or report
Summary	To contain the substance of a fuller account; to brief
Survey	To inspect; to examine and report on condition and value
Transmittal	To send out an attachment
Transcript	To provide a written copy
Voucher	To bear witness; a receipt for payment
Warrant	To guarantee anything; to answer for the genuineness of

Form Numbers

The Department's forms manager will assign a number to all forms that require a form number. The form number is essential for control of the form. It is necessary for requisitioning, purchasing, storing, accessing and ordering. Numbers are a better means of identification than words.

Standard placement of the numbers shall be in the lower left-hand corner of the form. Do not make the font so small as to make it difficult to read the number. Depending on space, use Times New Roman 8 or 10 point text. The form number may not appear on forms using letterhead.

The proper format is 470-xxxx.

Revision Date

The revision date shall immediately follow the form number. The revision date shall be placed on the form at the time it is sent to printing or put into production. The month and year of the revision shall be used. The day is unnecessary.

As revisions to the form are made, the revision date must be updated. This is essential for:

- References in writing procedures
- Knowing whether the current edition of the form is being used
- Advising users if previous editions may be used
- Disposing of obsolete stocks

Depending on the amount of space you have, use Times New Roman 8 or 10 point text for the revision date.

If the form is new, the proper date format is (8/03). If the form is revised, the proper revision date format is (Rev. 8/03).

Page Identification

Forms that consist of one page do not contain page numbers. When a form consists of multiple pages that are folded or joined in some manner, each page should be numbered. Page numbers serve the following purposes:

- To aid the printer in assembling the material and in collating it after printing.
- To provide references to key instructions in a form.
- To aid in identifying the parts of a form. This kind of identification is particularly helpful when pages become separated when processing the form.

Instructions

Most forms should be easy to complete and understand. It should not be necessary to refer to a manual for detailed instructions on how to prepare or process a form. Proper instructions help the user interpret the form. If the user understands the form, the form will be completed quickly and properly. This will lead to more economical and efficient processing of the form.

Keep your instructions brief, simple, and familiar. Remember who will be using the form when you are writing instructions.

Only items that need explanation should have instructions. Clearly define the information wanted in a specific entry place on the form. Keep all instructions simple, but do not be afraid to use extra words to make the meaning clear.

Brief general instructions are placed at the top of the form, below or near the title, to tell the user immediately:

- How many copies are required
- Who should submit the form
- Where, when, to whom, and under what conditions copies should be sent
- Any required attachments

If the instructions apply to the entire form, place them at the top where the user will see them before the form is filled out. Include any instructions or directions that will make the form easier to read, complete, and route.

If instructions apply only to one item or to one particular section, the instructions should be placed at the top of the form or within that section.

If detailed instructions appear somewhere other than on the front of the form, you will need to make a brief statement in the general instructions about where the detailed instructions can be found. If the form requires lengthy detailed instructions, the instructions should be printed on the back of the form with a note on the face of the form near the top, such as "**Before filling out this form**, **read the instructions on the back.**"

Before you go to lengthy instructions, remember:

- Two-sided printing adds to the cost of the form.
- People frequently don't read lengthy instructions. If there is too much material to read, it will be ignored.

Take one last look at the form and see if any revisions can be made to make the form easier to understand. Determine if the form would be easier to read and understand if the fields contained captions. Captions are short versions of questions or instructions that help provide direction, while saving space.

Well-defined captions tell the user exactly what you want. If the form contains proper captions and instructions, no further explanation is necessary. Here again, simplicity and clarity are the key factors.

Data Collection

When creating a form that will collect data, make sure the questions or captions are easy to understand so the answers that you receive will be accurate.

Grouping Data

When designing a form, think about how the form will be used. Be sure to group all data that will be filled in or retrieved based on the user's workflow. This eliminates searching or backtracking for the necessary data.

When a form is used to collect data on different subjects, group items that relate to the same subjects together.

When forms are completed by multiple persons or at different offices, group items in separate sections for each office or person. By grouping items in sections, it can reduce the time it takes to complete the form and retrieve the data.

Remember, it is much easier to complete a form and retrieve the data if the items are arranged in sections. It is very difficult for the user to try to follow instructions that read, "office A will complete items 1, 5, 7, 21, etc.," especially when the groupings are not properly identified.

Establishing Item Sequence

Once you have grouped similar or related items together, place them in a logical sequence.

Reasons to put items in logical sequence would be to:

- Coordinate the order of items on a form with the items on a source document.
- Coordinate the order of items with the flow of work.
- Coordinate the order of items with reading habits. (Reading is usually done from left to right and from top to bottom.)

By putting items in sequential order, you will eliminate any unnecessary data fields and make the form easier to understand. Items that are always filled in should be sequenced first.

Arrange items on all related documents in the same order. If this cannot be done, determine if completing the form or retrieving the data from the form takes more staff time, and therefore, makes the form less user-friendly. Choose the option that takes less staff time.

When staff must complete the data several times, consider sequencing the items by how often the data is used. This will also help to save staff time.

If the information on a form will be used to enter information into a database, the sequence of items on the form and on the database should be coordinated, so that the information is in the proper order for entering. This will help save staff time.

Preprinting Fill-in Data

Everything that is printed on a form is constant data. The word “name” in a box caption not only tells the person completing the form where to enter their name but really says “my name is,” saving the person time in writing those three words.

The person filling in the form is entering variable data. Variable data adds to the expense of processing the form. The more variable data that can be made constant, the cheaper it is to process.

When designing a form, determine if you are asking the user to repeat items. If so, determine if the form can be reworked so the information is asked only once. When data must be entered repeatedly on a form, it takes staff time. When it is being repeated hundreds and thousands of times during the course of a year, it is obvious that preprinting constant information can save staff time.

Forms analysis will indicate all the items that are essential to the form. Check the items thoroughly to see how much of that information can be preprinted to ensure the form is time and cost efficient.

The more variable data you can convert to constant data, the cheaper all those needed items will be. A familiar way of doing this is through check boxes.

Check Boxes

Check boxes are squares ranging in size depending on the method of writing and space available.

Check boxes are used when a statement may be answered "yes" or "no" or a number of definite, optional answers can be defined. You can also use check boxes when certain answers happen frequently.

Check boxes reduce the space that is needed to fill in a form. Check boxes also:

- Save the amount of writing space it takes to complete the form
- Provide uniform answers between users
- Save time in retrieving the data
- Reduce the tendency for errors

Not only is it easier to fill in the data in this manner, but when it comes to interpreting the answers or compiling statistical information, it is much easier and faster to work with the data.

The check box is always placed next to a preprinted statement or question, preferably preceding it. When the box is marked, it identifies which preprinted data is applicable.

A minimum amount of space should be allowed between the check box and the preprinted text so the two are clearly associated with each other. Sufficient space should be allowed between the preprinted text and the next check box so there is no doubt as to which box is to be selected.

Preferably, check boxes should be marked "X" instead of checked. If handwritten, the ✔ may extend the box and create a chance of error when reading:

The check box design has several advantages:

- By listing all possibilities, the user merely has to "X" the appropriate choice, saving time of filling out a longer entry.
- It forces a decision.
- The answers are standard and in predetermined positions for easy reading and compiling.
- Errors of interpretation are eliminated.

The incorrect format for check boxes is:

Marital status	Single	❑	
	Married	❑	
	Single, head of household	❑	
	Married, but spouse filing separately	❑	**NO**

The proper format is:

Marital status	❑	Single	
	❑	Married	
	❑	Single, head of household	
	❑	Married, but spouse filing separately	**YES**

Remember, check boxes can also be used to combine multiple forms. This is a way to reduce staff time if the forms require similar items, but are used for different purposes. Check boxes can be placed at the top of the form to allow the user to indicate the purpose of the form.

Captions

Captions are short versions of questions or instructions. Good captions help provide answers in less time, reduce training time for employees, and reduce or eliminate the need for detailed procedural instructions.

Captions help provide better information with less effort. For example, how would you fill out this question?

Date:

- Date needed?
- Date ordered?
- Date shipped?
- Date requested
- Date approved?
- Date signed?
- Today's date?

There are many ways of arranging the captions and related fill-in space on a form. Incorrect placement of a caption can cause the form to be inefficient and ineffective.

Examples of incorrect placement of captions:

Example 1

On the line

Employee Name_____ Employee No._____

Street Address_____ Phone No._____

City_____ State_____ Zip Code_____

Example 2

Under the line

_____ _____

Employee Name Employee No.

_____ _____

Street Address Phone No.

_____ _____ _____

City State Zip Code

Upper left-hand corner is the correct caption location.

Employee Name	Employee No.
Street Address	
City, State, Zip	Phone No. ( )

Placing the caption in the upper left-hand corner is better because:

- Captions become secondary after the data is entered.
- No writing space is used up by the captions.
- It is easier to provide the proper amount of space for each entry.
- It allows for a smaller, more compact and efficient form for the entry of data.

Columnar Design

When several entries of the same type are required, use columnar design instead of a box design. This will allow the entries of the same type to be listed under one heading. By using columns, you will save space by eliminating the repetition of descriptive items for each type of information.

Columnar design may consist of primary, or main headings, centered across the tops of the columns they head. Information to be collected under primary headings may be subdivided into secondary headings. If necessary, another subdivision, using third-level, or tertiary headings, may be made.

Box design and columnar design may be combined on the same form.

To help the user, columns and lines should be identified. Columns are identified by the lower-case alphabet in parentheses (for example, (a), (b), etc.) because rarely are more than 26 columns needed. All vertical lines are numbered (for example, (1), (2), etc.). If you have a large form, it may be beneficial to repeat the column identifiers at the bottom of the form.

Identification symbols are helpful when questions arise concerning a specific item. You can identify **Section I**, **Line 5, Column (b)** easily, even over the telephone and be sure you're being specific.

Conclusion Section

Elements that may appear in the "conclusions" section include:

- Signatures
- Preprinted names and titles
- Footnotes

Signatures

A signature should not be required unless there is need for verification. When a signature is required, it should be placed at the bottom of the page, or with the part or section of the form to which it pertains. This will avoid wasting time trying to find where the user is supposed to sign the form and also help the person who reviews the form to ensure it was completed properly.

When a signature is required on a form, the form name and number must be referenced in the Iowa Administrative Code.

If needed, the title of the person who signs and dates the form should be grouped with the signature.

It is good practice to place two or more signatures in the same sequence as the processing steps. Two or more signatures may be placed side by side or one below the other.

When identifying the signature space or box, define it completely, such as "Signature of Issuing Officer," "Employer Signature," or "Approved by."

To assist in deciphering the signature and to avoid error, the caption may require the signer to type or print his or her name in addition to the hand-written signature.

When a signature is imperative, be sure to draw attention to the signature line by using a symbol or decorative mark. A decorative mark can be accomplished by using a different font style, such as Dingbats or Wingdings.

Preprinted Names and Titles

Personal names or signatures should be preprinted only when justified or by legal requirement. This avoids making stocks of forms obsolete when personnel changes occur.

Preprinting of titles only, the use of rubber stamps, or automatic signature inscribers are alternatives to be considered.

When the title of an official is not preprinted, it aids the official in delegating signing authority to subordinates.

Footnotes

Footnotes should be avoided because the person filling in the form must look in two or more places to learn what information is to be entered, or the person may overlook them completely and enter the wrong information.

Careful wording of items or brief explanations immediately after the items usually will eliminate the need for footnotes.

If footnotes are absolutely necessary, such as quotations from official directives and laws, they should be numbered, confined to short statements, and placed at the bottom of the sheet on which the items are located.

In the case of a single footnote, an asterisk (*) may be used.

Visual Effects

The aesthetic value of a form can be very important. Every form can have a pleasant appearance by using the proper choices of ink color and paper color in combination with good layout design. Even though ink and paper color can make a form pleasing to the eye, remember this will cause printing costs of the form to increase.

When you want to emphasize specific areas on a form, you may want to highlight the area. This is often done to make certain features eye-catching. Highlighting is also used to improve readability, reduce eye travel, and help eliminate costly errors. Some of the techniques used are:

- Type specifications
- Spacing
- Margins
- Lines
- Screening (Shading)
- Blockouts
- Reverse printing

These techniques may be a bit more costly than traditional printing, but in many cases they may actually lower the cost of a form by reducing the time that it takes to process it.

Type Specifications

The selection of type is important to the development of a form because the type selected will either increase or decrease:

- Readability
- Speed of comprehension
- Good appearance
- Uniformity

Font

When designing a form, there are two font styles that are most commonly used:

- Times New Roman
- Arial

The best choice for most form design is Arial. The font style is simple and adds to the appearance of the form, especially on a computer screen. After the form is filled in, the captions fade into the background, and the fill-in data may be quickly read and processed.

When there is considerable text matter in the form, choose Times New Roman instead of Arial. This font is easier to read when there is concentrated printing. Selection depends on personal preference and the impression or message the form is to convey.

No matter what style you select, always put it in **upper and lower case**. When you capitalize all letters, it is more difficult to read.

If the form will serve as an aid to public relations, choose special typefaces of a promotional or advertising nature. However, such type should not be used in the data portions of the form design. Choosing several font styles may cause a form to loose its aesthetic appeal, so choose wisely when choosing a font style or using various fonts.

Type Size

"Type size" is the height of the letters or characters and is usually referred to in points. Type size will vary because of the overall size of the form or the amount of printed matter in relation to space available.

Be sure that the type size is large enough to be read by the intended audience. For example, forms that are intended for use by elderly people or people who are not used to filling out forms should be in a larger type size.

The most commonly used type sizes are:

- Box caption: 9, 10 or 11 point (regular)
- Instructions and text: 11 or 12 point (regular)
- Titles: 12, 13 or 14 point (**bold**)

Type Face

There are many variations in faces, sizes, and intensity that can be used. "Type face" is the appearance of the letters or characters. Variations can be obtained by:

- Intensity of the letters:
  - Regular
  - **Bold**
- Letters can be:
  - UPPER CASE
  - lower case
  - Title Case
  - SMALL CAPS
  - *Italics*
- Spacing:
  - Condensed
  - E x p a n d e d

Italics are frequently used for brief instructions, for amplifying statements with box captions, and for emphasis of words within the text. When instructions are lengthy, it is better to use a straight typeface.

Spacing

Providing the right amount of space to enter the information requested is probably the most important element in forms design.

Giving too much or too little space leads people to wonder if they are giving the appropriate answer. It looks as if the originator expected either a longer or shorter answer than what is apparently correct. Spacing also has a significant impact on the ease of using the form (completing it, reading it, interpreting, etc.).

Margins

A good form will have a margin on all four sides. Margins make the form look better, but, more than that, they allow the form to work better. They provide space needed to physically handle the form without smudging the information.

Margins are also a requirement in order for most printing presses to provide enough space to create a negative of the form and hold it in place during printing. Forms without margins are either printed with two plates or printed oversize and then cut down. In either case, this should be avoided at all times as unnecessary expenses would be incurred when printing.

If you are not planning on printing the form, you will still need to be careful when setting your margins. If the form margins are too small, a portion of your form may not print. Remember, all staff do not have the exact same printer. Keep that in mind when setting the margins for the form.

A minimum for most flat forms is 0.5" margin at the top and bottom and 0.5" margin on both sides. This must be increased for hole punching or other binding requirements. A normal 3-hole punch requires at least 0.7" on the side with the holes, but preferably 0.75" or 1".

On some types of forms, the image must extend to the edge of the paper. If a line prints on the extreme edge of a form, the line is said to **bleed**. If the image extends to the edge of the paper, this requires printing on a sheet of paper larger than the finished form size, then trimming to the desired finished size. Bleeding should be avoided whenever possible, as it increases the overall costs of printing the form.

If you are not planning on printing the form, you will still need to be careful when using bleeding lines. If the form will be made available electronically, keep in mind that all printers are not the same. The bleeding line may not print on all printers.

Lines

Solid or dotted lines on a form serve two purposes:

- Guide the eye of the user
- Separate data entries

Typical lines are:

Hairlines or leader lines are used primarily to guide the eye across the page	..... ----- _____
Medium lines or one-half-parallels are used primarily to attract the eye to a particular section	_____ ═══
Bold lines are used to stop the eye	▬▬▬▬

Design a form using the hairline type. Only, use a heavier line if you have a good reason to do so.

A **border** is a light or heavy rule or design around a particular section of the form or around the entire form. When a border is around a particular section, it lends emphasis to that section.

Example 1

Example 2

Borders on such forms as certificates and licenses are frequently used for decorative purposes.

Screening (Shading)

An effective way to emphasize or de-emphasize certain areas of a form is by screening. If you are using black text, use grayscale shading. It will give your form the illusion of two colors. The illusion of many colors can be obtained by using varying degrees of screening through printing in one color. If the shading is done in a separate color, it becomes a bright signal.

Screening can be both functional and decorative. The designer must be careful in choosing screening to obtain the desired results. A busy screened pattern might be desirable on a license or identification card to give a distinctive effect. A very light plain pattern, or black with a 10% to 15% screen, should be used on a form that is to have subsequent processing.

Screens can be used to indicate:

- Where entries are to be made
- Where entries are not to be made
- Spaces reserved for later entry
- Easy eye travel
- Highlight and separate caption

Blockouts

Blockouts are used to discourage or prohibit reading areas that have confidential information printed. Blockouts are placed on parts of a form where **NO** transfer of information is desired. As this is a very costly procedure used when printing, this is not a recommended option for all forms. If you determine that it is necessary for a form, you will need to justify the additional costs to the forms manager.

Printed blockouts should be in the color the image will appear. As an example:

> If the paper chosen is blue print carbonless paper, the blockout should be in blue.
>
> If the form has black print, the blockout should be in black and so forth.

Other methods of restricting copy are by the use of **restricted or desensitizing ink** or **pattern carbons**:

- Desensitizing ink is a clear colorless ink applied by the printing press to the carbonless or NCR paper's coated surface, to cover the coating to prevent carbonless paper print in any selected area, but still leaving that area available for later writing when the set is separated.

  This is an additional expense. Be sure to evaluate how the form will be used and whether the benefits will outweigh the extra costs when developing a form.

- Pattern carbon is special-order carbon paper that has specific areas without the carbonized coating. It is usually the most expensive method of blocking out.

  The time it takes to print the form will increase because the pattern carbons must be special-ordered from a carbon supplier after proof approval in all cases. Avoid this option, if possible. Evaluate how the form will be used and whether the benefits will outweigh the extra costs when developing a form.

To ensure **maximum** results of a blockout, combine both the printed blockout and restricted ink (carbonless paper sets) or a printed blockout and pattern carbon (bond paper sets). Examples of the three most common types of printed blockouts are:

- Scrambled number
- Bullet
- Chinese

Reverse Printing

A good method of highlighting specific areas or separating distinct areas of a form is reverse printing. A reverse print is exactly that, a reverse copy of a positive image.

Example
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FORM CONSTRUCTION

Form construction is the actual physical form itself.

Paper

It is important to distinguish the characteristics of the paper, especially when multiple parts are required in a form set.

Basic paper weight is defined as the weight in pounds of a ream (1 ream = 500 sheets) of paper cut to given standard size. For example, "20-pound bond" means that 500 sheets of the standard size 17-inch by 22-inch will weigh 20 pounds. The symbol "#" is often used as an abbreviation for basic weight.

Types of papers include the following:

- **Bond:** A grade of writing or printing paper with a weight range from 9# to 24#. It accepts printing inks well and has good press run capabilities. It is used where strength, durability, and permanence are essential. (Good for general office use, handling, writing, erasing, etc.). This is also the most cost effective type of paper.
- **Ledger:** A grade of paper ranging in weight from 24# to 36# used for various types of ledgers in handwritten, carriage and noncarriage posting applications. Ledgers are available in various finishes depending on their usage.
- **Index Bristol:** Heavyweight ledger, ranging form 110# to 140#. It is available with or without rag content and is used for index cards, tab cards and other visible records.
- **Rag:** Any paper may have rag (cotton or linen) fiber mixed with the pulp ingredients for added strength and durability. There is a usage of rag content paper in business forms. However, it is most often used for indexed ledger (usually 140#) and sometimes other ledger production. High rag content paper (50%, 75%, or 100% rag content) is often used for legal documents and fine stationery.

  It is suggested that rag content paper not be used when specifying papers for forms, unless the requirement arises and its added cost is justifiable.

Size

The size of a form is primarily controlled by:

- The amount of data to be collected,
- The size of the type that will be used,
- The amount of entry space needed, and
- How the form will be transmitted.

A form should be large enough to provide ample fill-in space and to accommodate print that can be read under less than ideal lighting conditions. At the same time, a form should not be so large that it is hard to handle. If several forms are to be used in the same operation, it is a good practice to make the forms a standard size.

Standardizing the size of forms does not merely reduce printing costs. The greatest economies are found in using standardized form sizes that are compatible with machines, equipment, and supplies, such as file folders, dividers, and paper.

Whenever a nonstandard-size form requires the use of nonstandard machines, equipment, or supplies, costs increase rapidly. Nonstandard-size filing cabinets, for example, cost more than standard-size filing cabinets.

When specifying the dimensions of a form, the reading width should always be the first dimension to be specified. A letter size form is often 8½ by 11 inches. If the paper is printed sideways and completed sideways, it would be specified as 11 by 8½ inches.

In selecting standard form sizes, a designer must consider:

- The amount of information to be entered on a form. (The space allotted for the fill-in should allow uncrowded, easy-to-read entries.)
- The requirements imposed by files, binders, envelopes, and other supplies and equipment.
- The size of other forms used in the same procedure. (Size uniformity is desirable.)
- The method of printing to be used, if applicable.

Color

When colored paper is used, each color should be used for a specific purpose. Color may help to identify copies of a form quickly for routing or filing and may be used as an attention catcher. For example, colored paper may draw attention to the copy on which a user should take action.

On the other hand, using colored paper may introduce drawbacks that should be carefully examined. For example, using colored paper may result in:

- Longer production time.
- Difficulty in matching colors when reordering.
- Inability to reproduce on office copiers or on microfilm.

The use of black ink on white paper provides the greatest contrast. Light colors, such as buff and green, keep eye fatigue to a minimum and also provide good contrast. Pink and salmon tend to tire people's eyes if extensive reading is involved. Keep that in mind when choosing a color of paper for the form. Remember, using colored paper may increase the cost of printing the form.

Carbon and Carbonless "NCR" Paper

"Carbon" is a pigmented coating used to effect image transfer between parts of a form set under impact or pressure. The carbon coating can be applied directly to the back side of a form or on a piece of carbon paper inserted between sheets of bond paper. Carbon colors are:

- Black: Generally used with accounting machine forms.
- Blue: Primarily used for handwritten forms (also called "pencil carbon").

Due to the time it saves staff, most forms are printed with the carbon coating already applied to the backside of the form.

"Reusable carbon" means carbon paper that can make multiple impressions and is used many times before being discarded. **Example:** Simple carbon paper or a carbon jacket.

"Carbonless" or NCR paper is paper stock specially treated or coated to achieve image transfer without the use of carbon.

Single Sheet vs. Specialty Forms

There are two broad categories of form construction:

- Single
- Specialty forms

The single sheet is the most widely used form. It can be filled in by hand or electronically. It can be printed on any size and weight of paper and in any color or ink. It is the most economical form and the fastest to print. It can also be versatile, adapting to various uses by folding or perforating.

Usually a single sheet form is thought of as a printed sheet of paper. In fact, it includes forms printed on index cards, labels, or envelopes.

The following three types fall into one broad area called **specialty forms**:

- Set
- Continuous
- Book

The cost of specialty forms is higher than single sheet forms. However, when they are properly used, cost reduction is possible in processing the forms, which is a primary goal of forms analysis.

Use of specialty forms eliminates such unproductive staff operations as:

- Inserting carbons
- Jogging forms into alignment
- Removing carbons
- Rewriting identical information

Consider using a specialty form when:

- A large quantity of the same form must be written in multiple copies at one place.
- One person must prepare many forms in a short period, even if the total usage is not too great.
- Several copies of the same form must be prepared simultaneously, but certain information is to appear only on selected copies.
- More copies are needed than can be obtained from a multiple copy form.

Printing Options

Double Sided Printing

Frequently printing a form on both sides of a sheet of paper is advantageous to:

- Reduce a form to standard size
- Eliminate additional sheets

Printing on both sides can produce worthwhile savings. Not only is paper cost reduced by 50 percent, but also printing, collating, and binding time is greatly reduced. Also, additional savings may be made in postage, filing time and space.

When a form is to be printed on both sides, the printer must know how the reverse side is to be printed in relation to the front. This will depend on how the form is used, filed or bound. The printing methods are:

- Head to head: Top of form is the same position front and back.
- Head to foot: Top of form is in opposite positions front and back.

Consider printing head to head if the form is bound in a three-ring binder. If the form is bound at the top when filed, print head to foot.

When printing a form on two sides, a heavier paper must be used, so the printing or writing will not show through. Use a minimum paper weight of 20 lbs.

Prenumbering

Forms should be preprinted with serial numbers only when a high degree of control must be maintained (bonds, checks, receipts, etc.).

Collating

Collating is the process of assembling forms into sets. Although collating is an extra bindery operation, it is usually justified, not only in staff time saved, but in reduced errors.

When preparing specifications for collating, show the sequence of each page of a set so that the assembly will result in finished sets in the proper order.

Padding

Making up forms into pads involves gumming one edge and fastening to a chipboard backing. Most forms are padded at the top, 50 or 100 sheets per pad. If the form has wide distribution and limited usage, however, it may be more economical to pad fewer sheets per pad.

Padding of forms results in savings in storage, distribution, and use of the forms at various work stations.

Punching

Forms should be punched at the time of printing if they are:

- Filed in binders
- Filed in folders with fasteners

The 1/4 inch round hole is the one most commonly used for such things as two or three-ring binders, and prong fasteners.

Transmitting the Form

Routing information often can be part of the form itself, eliminating the step of having to attach a routing slip, letter of transmittal, etc., and expediting distribution because of standard routing placement and fewer pieces of paper to handle.

When preprinting routing information on a form, always use position titles or work areas, never use names. Staff names should not be used due to staff turnover or job function changes. This happens too often to justify using someone's name.

Be sure the sequence preprinted on the form is the same as the actual flow of the paper.

Using different colored paper for copies of the form can aid in distribution of the form, especially if a large number of forms are written, sorted and routed at one spot. You will need to determine if this extra cost is justifiable.

Note: Forms routed within Central Office, delivered by courier, or sent from one agency to another in the state capitol complex must comply with procedures in 24-B, ***SUPPORT SERVICES***.

Window Envelopes

The use of window envelopes has definite advantages:

- Eliminates need for retyping names and addresses
- Prevents transcribing errors when typing on envelopes
- Eliminates possibility of putting the letter or form in the wrong envelope

Every effort should be made to use window envelopes. Window envelopes are the most efficient and economical manner possible.

When designing forms that are to be mailed, be sure to check with the forms manager to ensure the proper information on the form will show through the window in the envelope. Postal requirements allow only the consumer's name and address to show in the window. **Any additional information could breach confidentiality or create problems with the post office**.

The federal government once figured out the savings by using window envelopes as follows:

Window Envelope Benefits	
Typing time saved: 20 seconds or 3 envelopes per minute (inserting envelope in typewriter, typing, and removing from typewriter)	2¢
Envelopes saved: Reduction of envelope requirements by eliminating 10 percent waste because of errors.	1¢
Reviewing time saved: 5 seconds verifying envelope address against letter address.	1/2¢
Total	3.5¢

The U.S. Post Office has established standards for envelopes, and for window sizes and placement of the windows on the envelopes. All envelopes must comply with these standards. Contact the forms manager if you need to create an envelope or have questions about a form and which envelope to use.

Self-Mailers

A **self-mailer** is a mail piece that has no outer cover, wrapping, or envelope for the material being mailed.

If the form can be designed as a self-mailer, not only is the cost of the envelopes saved, but also the cost of inserting and sealing.

The self-mailer can be a postcard, a single sheet, or a number of sheets. The number of sheets could be a continuous form, a unit set, or a booklet. The income tax-mailer would be a good example of a booklet.

A clear rectangular space not less than 5" x 3" should be provided on the self-mailer for return address, penalty or postage indicia, name and address of addressee, postage endorsements, and any other pertinent matter. If practical, it should be folded to letter size to facilitate handling.

Check with the forms manager regarding postal regulations for mailing procedures or if you think a form would make a good self-mailer.

TEMPLATES

Templates are created in Microsoft Word using the same basic principles of form design and construction. Templates are blank forms that can be used over and over. Adding form fields to a template makes it possible to use a computer to complete the entries. Sections of a template can be set up to expand or "grow" to allow unlimited space for entries. See **Expanding Templates**. Templates may also contain macros that automate some entries or functions. See **Macros**.

Templates are password protected for forms and read-only protected. The protection is necessary to activate the form fields and macros. It also prevents unauthorized changes to the templates.

The Department's templates are available in the public state-approved forms folder on Outlook. Policy Analysis staff will work with you to create, program, and maintain a copy of your template on Outlook.

Form Fields

There are three types of form fields:

- Text form fields
- Check box form fields
- Drop-down form fields

Help text can be added to each form field. Help text is displayed below the status bar at the bottom of your screen or by pressing F1. Help text can also be programmed as a message or dialog box macro that displays as a window on your computer screen.

Text Form Fields

The types of text form fields most commonly used are regular text, date, and number. The maximum length of a regular text form field can be set to accept an unlimited amount of text. It can also be set for a specific number of characters and spaces. Previously created AutoCorrect entries will not work unless the form field is set for a specific number.

Text form fields have a few format options to choose from (Examples: lower case or UPPER CASE, June 25, 2003 or 6/25/03, $1,000.00 or 1000). Date form fields have the option to automatically update to the current date.

Text form fields can be created with an optional default entry that can be changed when necessary.

Check Box Form Fields

Check box form fields are boxes that allow the user to select items by checking or unchecking the box. Macros can be created to allow only one box to be checked.

Drop-Down Form Fields

Drop-down form fields allow the user to choose **one** item from a list of items. Items in a drop-down form field must be no longer than 50 characters and spaces. There is a limit of 25 items for each drop-down form field. A dialog box macro can be created for lists with more than 25 items, items longer than 50 characters, or more than one item needs to be chosen.

Expanding Templates

Restricting form field entries prevents the template from expanding or "rolling" to another page. Entries made in text form fields are usually limited by:

- The size restriction on the form field, or
- The height and width restriction placed on the table cell surrounding the form field.

There are times it may be desirable to not limit the amount of space for entries. Sections of a template can be set up to expand. These sections can be either protected or unprotected.

An expandable section that is **protected** contains regular text form fields and may contain macros. The user is limited to any other restrictions placed on the form field.

An expandable section that is **unprotected** does not contain form fields or macros. Unprotecting sections of a template allows some of Microsoft Word's features to be used in those sections (e.g., format and spell check text, insert and format tables).

Macros

Macros are programming code (Visual Basic) that, when executed, perform automated functions. Macros can be programmed to execute:

- Upon entering or leaving a form field,
- With a button on a toolbar, or
- With a "macrobutton" embedded in the template. Macrobuttons can be placed anywhere on the template, but are usually found at the end of the template.

A few of the macro possibilities include:

- Performing simple or complex calculations
- Displaying choices and explanations of those choices
- Inserting standardized language
- Copying information from one form field to another
- Verifying accuracy of an entry
- Displaying instructions, information, print options, or error messages