

00:30:31 Jill Rice:Hi Mike!

00:30:53 Michael Bell: Audio is garbled.

00:31:22 ShaMecha Simms: Yes, he might need to move away from the mic?

00:31:29 Citizen Advisory Council - July 6 2022: He is speaking very low

00:32:34 Citizen Advisory Council - July 6 2022: Better?

00:32:46 ShaMecha Simms: Still a little garbled

00:32:57 Michael Bell: Now I can't hear him.

00:33:30 Michael Bell: Now the volume's good but he's garbled.

00:34:00 ShaMecha Simms: I guess we can always ask questions later -- if we have them.

00:34:40 ShaMecha Simms: Much better!

00:34:53 Citizen Advisory Council - July 6 2022: Good! I made a few tweaks

00:35:10 Michael Bell: Now I can't hear him.

00:36:00 Citizen Advisory Council - July 6 2022: Sorry Mike. I've made all the adjustments that I can on our end.

00:43:31 ShaMecha Simms: Hmm. That kinda gives me an idea for helping the unhoused with safety wear. ☹️

00:58:31 Jill Rice:Is this report available to the public?

00:58:49 Citizen Advisory Council - July 6 2022: Yes

00:59:35 Citizen Advisory Council - July 6 2022: The link will be included in the CAC presentation when it is posted online and it is listed below.  
<https://dashboards.mysidewalk.com/template-commprox1-template-phase-ii-3689b97d51ca>

00:59:43 Jill Rice:Thank you!

00:59:48 Citizen Advisory Council - July 6 2022: YW

01:00:38 Michael Bell: What exactly are the correlations between much of the demographic data presented and fire safety/prevention?

01:02:38 ShaMecha Simms: I have questions, but I just need to know what's the best way to ask them and who to direct them to. So I don't take up time.

01:03:51 Citizen Advisory Council - July 6 2022: Raise your hand if you have a question and I'll make sure that you are called on or put your question in the chat and I will ask

01:08:21 ShaMecha Simms: Mike I think that was your question being answered

01:09:08 Michael Bell: I guess. I'll follow up with the speaker later.

01:09:51 ShaMecha Simms: Yes, we're going to need best contact information for him -- or underlings.

01:10:07 Michael Bell: Yup.

01:11:30 Citizen Advisory Council - July 6 2022: Alan Stahl - astahl@topeka.org

01:11:54 Michael Bell: Thanks.

01:12:06 Citizen Advisory Council - July 6 2022: YW

01:21:56 Michael Bell: That's my concern. We're at about 45 mins. right now. Mtg started at 6:45.

01:22:58 Citizen Advisory Council - July 6 2022: Please add you name and NIA in the chat if you have not done so. Thank

01:44:50 ShaMecha Simms: It seemed similar to the one related to the United Way --

01:46:15 Jill Rice: Yes, I attended the United Way training which is why I didn't sign up for this one.

01:48:33 Jill Rice: Can't hear you LaToya

01:53:56 Citizen Advisory Council - July 6 2022: Sorry - not sure what's going on with the computer mic

01:55:34 ShaMecha Simms: Ours have been positive. I think having the conversation yearly, or so, we would have a better chance of getting on the same page. And a great educational opportunity for us to learn more about them.

01:55:55 Michael Bell: Agreed.

01:58:38 ShaMecha Simms: You may have to interject Mike

02:01:27 ShaMecha Simms: 👍

02:01:37 Jill Rice: Will do

02:06:40 ShaMecha Simms: I have nothing to add at this time.

02:10:44 Michael Bell: Jill Rice, not Thompson, on Aff. Hsg & Food Desert & Food/Nutrition Insecurity work group.

02:13:20 Citizen Advisory Council - July 6 2022: Good night

# Topeka Community Cycle Project

## Donate

Financial contributions are always welcome and appreciated. Financial contributions support our programs and allow us to provide services to the Topeka community. It takes on average \$10 in parts, grease, and other consumables to refurbish a well-loved bike.

We accept donations of bicycle parts to continue to maintain our community's bikes. We do not accept donations of whole bicycles or frames.

In addition, we can always use tools and general shop supplies.

For more details on all types of donation (parts, tools or financial) visit [cycleproject.org/donate](http://cycleproject.org/donate)

## Get Involved

**Volunteer:** Come to the shop during our open shop hours 5 to 7 p.m. Thursdays and 10 a.m. to 1 p.m. Saturdays. Volunteer opportunities include helping to fix and trouble shoot bike issues, sorting parts, organizing tools, sweeping and other general shop duties that keep the shop running. Help the shop with projects, meet other volunteers and build community. TCCP also has regularly scheduled events you can attend too!



**Learning Space:**  
Topeka Community  
Cycle Project  
1534 SW Clay St  
Topeka, KS 66604

**Mailing Address:**  
Topeka Community  
Cycle Project  
P.O. Box 504  
Topeka, KS 66601

**email:** [topeka@cycleproject.org](mailto:topeka@cycleproject.org)

<http://cycleproject.org>

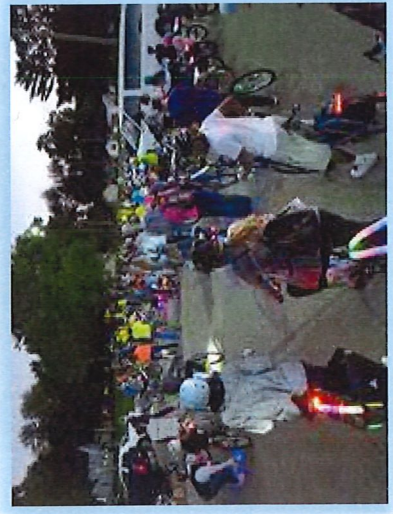
<http://facebook.com/cycleproject>

## Open Shop Hours

Thursdays 5 - 7 p.m.

Saturdays 1-3 p.m.

**Mission:** *Broadening access to cycling in Topeka through hands-on education and bike repair.*





A family friendly learning environment.

## What is TCCP?

The Topeka Community Cycle Project (TCCP) is a volunteer-run community bike shop that is committed to the making sure Topekans feel more comfortable working on and riding their bicycles. Our work and learning space in downtown Topeka allows people to use our shop stands and tools to repair their bicycles, to learn bicycle maintenance and repair, and to share information about all forms of fun on a bike.



Hands-on AND On-bike experiences! Look to our facebook for our next riding adventure!

## Programs

**Community Workshop Space:** Bring your bike over to fix a flat, install some new tires, put on the new seat you've been meaning to replace. We are hear to help you keep your bike rolling and keep you learning about how your bike works. If your bike is rolling, you're more likely to be on 2 wheels!

**Community Bike Rides:** Follow TCCP's Facebook page at [facebook.com/cycleproject](https://facebook.com/cycleproject) to keep track of upcoming rides around Topeka for all. Inclusive, family paced (slow enough for all) rides will help you get accustomed to riding around your neighborhood and surroundings. We aim to empower you and those you ride with to get out and enjoy Topeka on your bike!

**Classes:** TCCP provides a variety of classes from learning to ride and basic safety to bicycle camping tips that are open to anyone. Classes are offered free, but donations are always appreciated. Like us on Facebook to find out more about upcoming classes: [facebook.com/cycleproject](https://facebook.com/cycleproject).

**Bike Repair Stands and Racks:** TCCP has partnered with local resources to deliver dozens of student manufactured painted bike rack to assist in making local businesses more bicycle friendly. You may have also seen one of our bicycle repair stands around town. Equipped with all the tools necessary for basic bike repair and maintenance, these stands can assist cyclists who need a quick fix.

**BLAST:** TCCP helps administer "Bike Lessons and Safety Training" in the USD 501 school district. Students learn the safe way to ride bicycles in their neighborhoods and on public roads with a fleet of bicycles and a transport trailer donated generously by Heartland Healthy Neighborhoods and the Topeka Community Foundation. This course is taught during the PE class at Topeka area elementary schools. BLAST educates more than 1000 students a year on the safe and fun ways to ride Topeka! If you are interested in volunteering, donating funds for future bikes for other school districts, or generally getting involved, let us know at the contact info on the back!



Kids on the BLAST fleet.



Installing a bike rack in NOTO.

# Emergency Repair Program

JANUARY - JUNE 2022

Planning & Development  
Housing Services Division



## About:

The Housing Services Division administers the **Emergency Repair Program** which assists low-income homeowners who need to make immediate repairs to their homes in order to deal with immediate health or safety problems such as the following:

- Furnace Replacement
- Sewer Line Collapse
- Water Heater Replacement
- Significant Waterline, Wasteline, or Gas Line Leakage
- Medically Required and Documented Mechanical Systems
- Roof Replacement (not repair)

### Emergency Repair Program Grant January-June

Funds	Paid	Committed	Uncommitted	Grant Amount
2022	\$143,919	\$34,181	\$111,247	\$289,347

### Emergency Repair Statistics

Number of Households Assisted	20
Average Cost of Repairs	\$7,195.95
30% LMI or Below	50%
60% LMI to 30%	50%
Applicants in Intensive Care or At Risk	24%
Applicants in NIA Neighborhood	64%

### Emergency Repair Demographics

# of White Households	15
# of Black Households	4
# of Asian Households	1
# of Black and White Households	0
# of Hispanic Households	0
# of Women Head of Household	15
# of Disabled Households	0
# of Seniors Households	14

"The Staff went above and beyond. I can't say enough good things about this service"

# Emergency Repair Program

JANUARY - SEPTEMBER 2021

Planning & Development  
Housing Services Division



## Completed Projects

### Roof Replacement



before



after



before



after

### Furnace Placement

### Hot Water Heater Placement



before



after

### Replacement of Collapsed Sewer Line





# Property Maintenance Rehabilitation

JANUARY 2019- JUNE 2022

Planning & Development  
Housing Services Division



## About

The Housing Services Division administers the **Property Maintenance Repair Program** which assists low-income homeowners who need repairs to bring their homes up to code and make the home safe, livable, and healthy. City of Topeka Property Maintenance staff refer homeowners into the program. All eligible households must have an active property maintenance code violation and be on the deed of the property. Housing code violations must be for the home the person is residing in. Detached garages, weed violations, tree and trash removal are not eligible. The program is funded through a grant from the Federal Home Loan Bank (FHLB) of Topeka. For assistance, contact Shane Wilson by phone (785-368-3711) or email ([swilson@topeka.org](mailto:swilson@topeka.org)).

before



after



before



after



### Property Maintenance Rehab Grant

Funds	Paid	Committed	Uncommitted	Grant Amount
TOTALS	\$750,000	\$0	\$0	\$750,000

### Property Maintenance Rehab Statistics

# of Households Approved	48
# of Persons Approved	108
# of Persons over 50 years old	67
# in Help Area	10
# in NRA Area	46

### Property Maintenance Rehab Demographics

# of White Households	79
# of Black Households	13
# of Asian Households	3
# of Black and White Households	1
# of Hispanic Households	12
# of Non Hispanic Households	84
# of Women Head of Household	60
# of Disabled Households	46

### Property Maintenance Rehab Grant Programs

Applications Received	96
Applications Declined	48
Incomplete Applications in Process	0
Applications in Reimbursement Process	9
Applications Complete	48



# Property Maintenance Rehabilitation

JUNE 2022-

Planning & Development  
Housing Services Division



## About

The Housing Services Division administers the **Property Maintenance Repair Program** which assists low-income homeowners who need repairs to bring their homes up to code and make the home safe, livable, and healthy. City of Topeka Property Maintenance staff refer homeowners into the program. All eligible households must have an active property maintenance code violation and be on the deed of the property. Housing code violations must be for the home the person is residing in. Detached garages, weed violations, tree and trash removal are not eligible. The program is funded through a grant from the Federal Home Loan Bank (FHLB) of Topeka. For assistance, contact Shane Wilson by phone (785-368-3711) or email (swilson@topeka.org).

before



after



## Property Maintenance Rehab Grant

Funds	Paid	Committed	Uncommitted	Grant Amount
TOTALS	\$0	\$0	\$750,000	\$750,000

## Property Maintenance Rehab Statistics

# of Households Approved	3
# of Persons Approved	4
# of Persons over 50 years old	4
# in Help Area	3
# in NRA Area	3



before



after

## Property Maintenance Rehab Demographics

# of White Households	17
# of Black Households	11
# of Asian Households	1
# of Black and White Households	2
# of Hispanic Households	3
# of Non Hispanic Households	28
# of Women Head of Household	13
# of Disabled Households	13

## Property Maintenance Rehab Grant Programs

Applications Received	31
Applications Declined	12
Incomplete Applications in Process	2
Applications in Reimbursement Process	0
Applications Complete	0



# City of Topeka Housing Services

# 2021 Customer Satisfaction Survey

Interactions with  
Housing Services

98%

Satisfied/Very Satisfied

- Staff treated me with respect & courtesy
- Staff provided individual attention to my issues
- Staff responded promptly to my questions, calls, and attempts to contact
- Staff answered my questions clearly & professionally
- Staff thoroughly explained the paperwork I signed

Work performed  
by contractors

91%

Satisfied/Very Satisfied

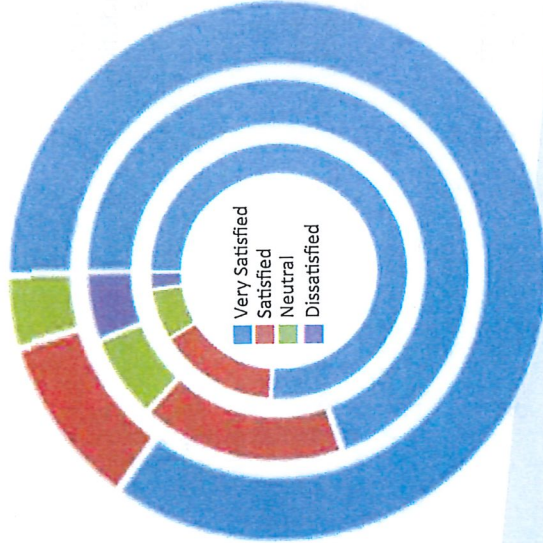
- Contractors were competent and agreeable
- Contractors were receptive to change and helpful throughout the process
- Overall Satisfaction with quality of work performed

Overall Process

93%

Satisfied/Very Satisfied

- The application process was easy and understandable
- Overall satisfaction with Housing Services experience



## “Comments”

"The Housing Services Inspector and the two contractors were fantastic. They helped us very quickly, very very nice people. We are so very grateful for all you have done. Can't thank you enough."

"I have heat in my house and am very happy!"

"Everyone was very very excellent. Thank you all for all your help. Everyone was professional".

“ ...went above and beyond. I can't say enough good things about this service. ”

"The Housing Services Inspector as well as the Contractor were excellent. Both were professional and friendly. Wonderful experience. I am so grateful!"

"Wonderful experience working with Housing Services. The contractor explained every detail to me. Very polite. I appreciate all the help this service has given me."

## Topeka DREAMS Consults Review

DATES	TYPE	GOALS	GOALS SCORE 5 MET to 1 UNMET	# OF PARTICIPATING NIAS	# OF MEETINGS
June 6-9, 2022	Neighborhood Planning, Priorities, & Goals Consultation Meetings	<ul style="list-style-type: none"> <li>Review current neighborhood plans</li> <li>Propose/discuss changes to current plans</li> <li>Discuss ideas for potential neighborhood projects</li> </ul>	4	8	8
June 13-16	Parks & Recreation Projects Consultation Meetings	<ul style="list-style-type: none"> <li>Review current neighborhood park plans</li> <li>Discuss ideas for proposed projects</li> <li>Staff determine/provide feasibility, scope, project budget, and other project requirements</li> </ul>	Waiting on staff recommendation forms	10	10
June 21-23, 2022	Utilities Projects Consultation Meetings	<ul style="list-style-type: none"> <li>Discuss ideas for proposed projects</li> <li>Staff determine/provide feasibility, scope, project budget, and other project requirements</li> </ul>	Waiting on staff recommendation forms	9	9
June 21-23, 2022	Public Works Projects Consultation Meetings	<ul style="list-style-type: none"> <li>Discuss ideas for proposed projects</li> <li>Staff determine/provide feasibility, scope, project budget, and other project requirements</li> </ul>	Waiting on staff recommendation forms	10	10
July 13, 2022	Housing Services Workshop	<ul style="list-style-type: none"> <li>Learn more about eligibility for Housing Rehab Programs (Major &amp; Minor Programs)</li> </ul>	N/A	N/A	N/A
FEEDBACK	Some NIAs - reported that they appreciated the opportunity to meet with staff to discuss project ideas and other improvements for their neighborhoods. Some Staff reported that they would like to see more collaborative meetings with Public Works/Utilities, more time to determine feasibility and budget estimates				
FUTURE IMPROVEMENTS	Plan to combine Public Works/Utilities meetings. Hold consults much earlier in the process, prior to the spring informational workshop, potentially starting in the Fall of each year to allow both NIAs and staff more time to prepare data needed for applications.				

**FEATURING  
THE "QI STORY"**

**Michael R. Kelly**

# **EVERYONE'S PROBLEM SOLVING HANDBOOK**

**Step-by-Step  
Solutions for  
Quality Improvement**

 **CRC Press**  
Taylor & Francis Group

A PRODUCTIVITY PRESS BOOK

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<b>TOOLS FOR QUALITY IMPROVEMENT</b>	
<b>TOOL</b>	<b>THIS TOOL WILL HELP YOU</b>
Bar Chart	Arrange data for quick and easy comparison.
Barriers & Aids	Document the hindering and supporting factors that can or do influence a planned activity.
Brainstorming	Collect a large number of ideas from a group of people.
Cause-and-Effect Diagram	Identify a set of related causes that lead to an effect or problem.
Checksheet	Collect data in an organized manner.
Flowchart	Differentiate between the activities in a process.
Histogram	Determine how data are distributed.
Interview	Collect data from direct conversation.
Line Graph	Display the output of a process over time.
List Reduction	Reduce a large list of items to a manageable few.
Matrix	Make comparisons between two or more sets of information.
Pareto Chart	Arrange data so that the most significant element in a set of elements is easily identifiable.
Pie Chart	Display the volume or quantity of one item in relation to others.
Survey	Collect data from a large number of people.

Figure 1-1

<b>MAJOR USES FOR THE TOOLS</b>			
<b>TOOL</b>	<b>USE</b>	<b>TOOL</b>	<b>USE</b>
Bar Chart	Analysis	Interview	Data Gathering
Barriers & Aids	Analysis/Data Gathering	Line Graph	Analysis
Brainstorming	Teamwork/Data Gathering	List Reduction	Teamwork
Cause-and-Effect (Fishbone) Diagram	Analysis	Matrix	Analysis/Data Gathering
Checksheet	Data Gathering/Analysis	Pareto Chart	Analysis
Flowchart	Analysis	Pie Chart	Analysis
Histogram	Analysis	Survey	Data Gathering

Figure 1-7

<b>FIVE PROBLEM-SOLVING STEPS</b>		
<b>Step</b>	<b>Actions</b>	<b>Useful Tools</b>
<b>1. IDENTIFY THE PROBLEM</b>	<ul style="list-style-type: none"> <li>a. Identify something that needs improvement</li> <li>b. Show the need for improvement in measurable terms</li> <li>c. State the problem</li> <li>d. Establish an interim target and a date for achieving this improvement</li> </ul>	Brainstorming, Interview, Survey, List Reduction, Matrix
<b>2. ANALYZE</b>	<ul style="list-style-type: none"> <li>a. Identify root cause(s) of the problem</li> <li>b. Verify each root cause</li> <li>c. Identify the root cause(s) most responsible for the problem</li> </ul>	Cause-and-Effect Diagram, Flowchart, Pareto Chart, Brainstorming, Checksheet
<b>3. EVALUATE ALTERNATIVES</b>	<ul style="list-style-type: none"> <li>a. Identify actions that will reduce or eliminate the root cause(s)</li> <li>b. Determine which actions will lead to the targeted level of improvement</li> <li>c. Plan the implementation of selected solutions</li> </ul>	Brainstorming, Interview, Survey
<b>4. TEST-IMPLEMENT</b>	<ul style="list-style-type: none"> <li>a. Implement the plan</li> <li>b. Help the solutions succeed</li> <li>c. Show measurable improvement</li> <li>d. If improvement is not evident, return to step 1c</li> </ul>	Line Graph, Pareto Chart, Pie Chart, Bar Chart, Histogram, Checksheet
<b>5. STANDARDIZE</b>	<ul style="list-style-type: none"> <li>a. Ensure that your solutions are made permanent</li> <li>b. Determine if the solutions will be effective elsewhere</li> </ul>	Flowchart, Brainstorming

Figure 2-2



# **Three**

## **Tools for Quality Improvement**

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## BAR CHART

### Definition

A bar chart uses a set of bars to compare the sizes, quantities, amounts, proportions, etc., of related items.

### Use

Bar charts are used to break something down into its component parts, to show trends and make comparisons between the items represented by the bars.

### Example

In the example of Figure 3-1, a bar chart is used to compare the volume of first quarter sales between four divisions within a company.

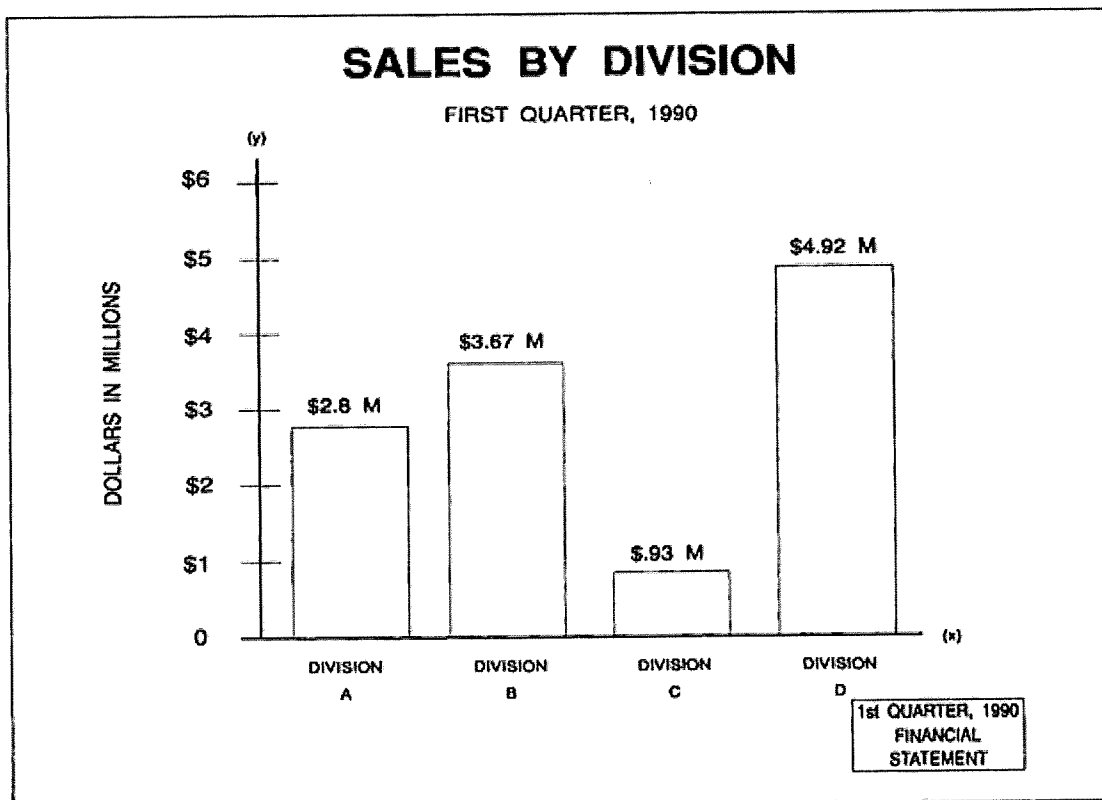


Figure 3-1

**BARRIERS & AIDS****Definition**

Barriers & Aids is an analysis and planning technique that identifies obstructing and helping forces.

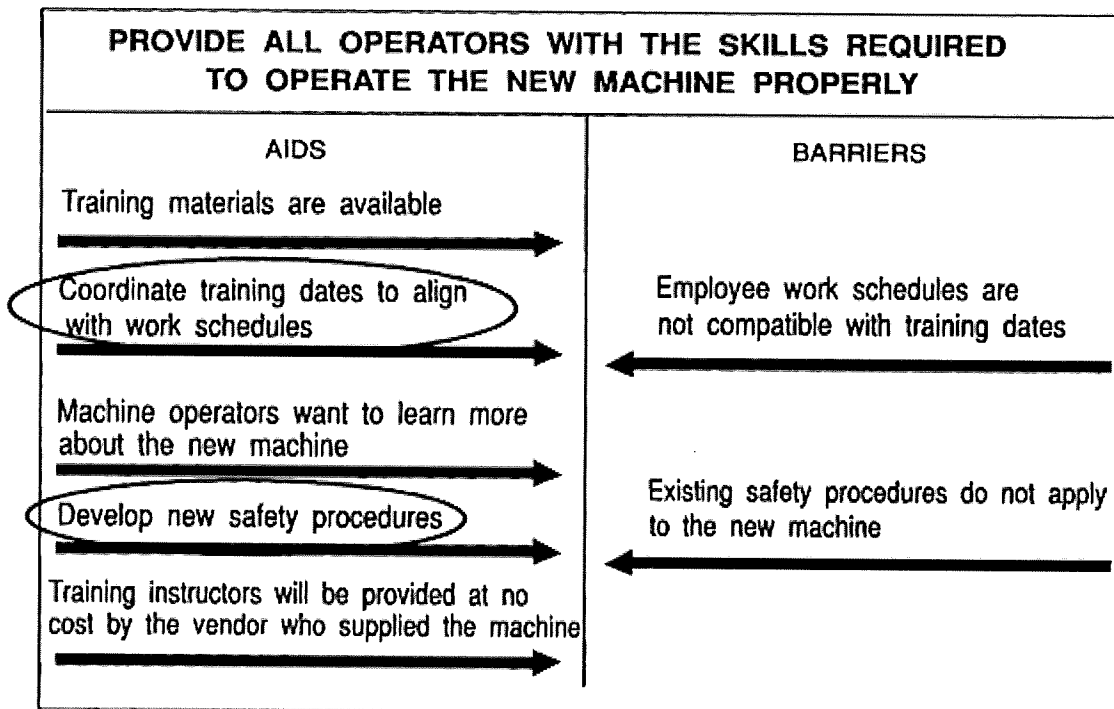
**Use**

Barriers & Aids is used to analyze the impact of a proposed change. It also helps in developing plans to make implementing the change easier. By using Barriers & Aids:

- forces are identified that represent barriers to the implementation of a proposed change,
- forces are identified that may aid in the implementation of a proposed change, and
- actions are developed that can counter the influence of barriers to the proposed change.

**Example**

In the example of Figure 3-4 Barriers & Aids is used to develop lists of hindering and helping forces that might influence the scheduling of a proposed training class for machine operators.



**Figure 3-4**

## BRAINSTORMING

### BRAINSTORMING

---

**Definition**

Brainstorming is a method for generating and collecting ideas about a given subject from the people who are most familiar with it in the workplace, office, etc.

**Use**

Brainstorming is used to obtain important information about a subject or process. Brainstorming is also used to enlist participation and generate enthusiasm in a group.

**Example**

The example of Figure 3-6 is from a brainstorming session on ideas for reducing overtime.

<b>WAYS TO REDUCE OVERTIME</b>
<ul style="list-style-type: none"><li>• Increase the number of personnel</li><li>• Rearrange the flow of activities in the work for increased efficiency</li><li>• Change work assignments to spread the work more equitably among all employees</li><li>• Identify causes of rework and reduce or eliminate them using the problem-solving steps</li><li>• Train people to accomplish their work efficiently</li><li>• Prioritize work assignments so that the most important work gets done first</li><li>• Don't commit to completion dates before verifying that they can be achieved</li><li>• Require a manager's approval for all overtime worked</li><li>• Communicate the need to reduce overtime to all employees and seek to implement their suggestions for improvement where applicable</li></ul>

**Figure 3-6**

## CAUSE-AND-EFFECT DIAGRAM

### CAUSE-AND-EFFECT DIAGRAM

**Definition**

Cause-and-effect analysis identifies the factors (causes) that lead to an outcome (effect).

**Use**

Cause-and-effect analysis employs a *fishbone diagram* to separate and identify the root causes of a problem when many causes exist.

**Example**

In Figure 3-7, causes are identified for the problem, "Johnny has been late for his first class eight times during the past three months." Root causes have been circled.

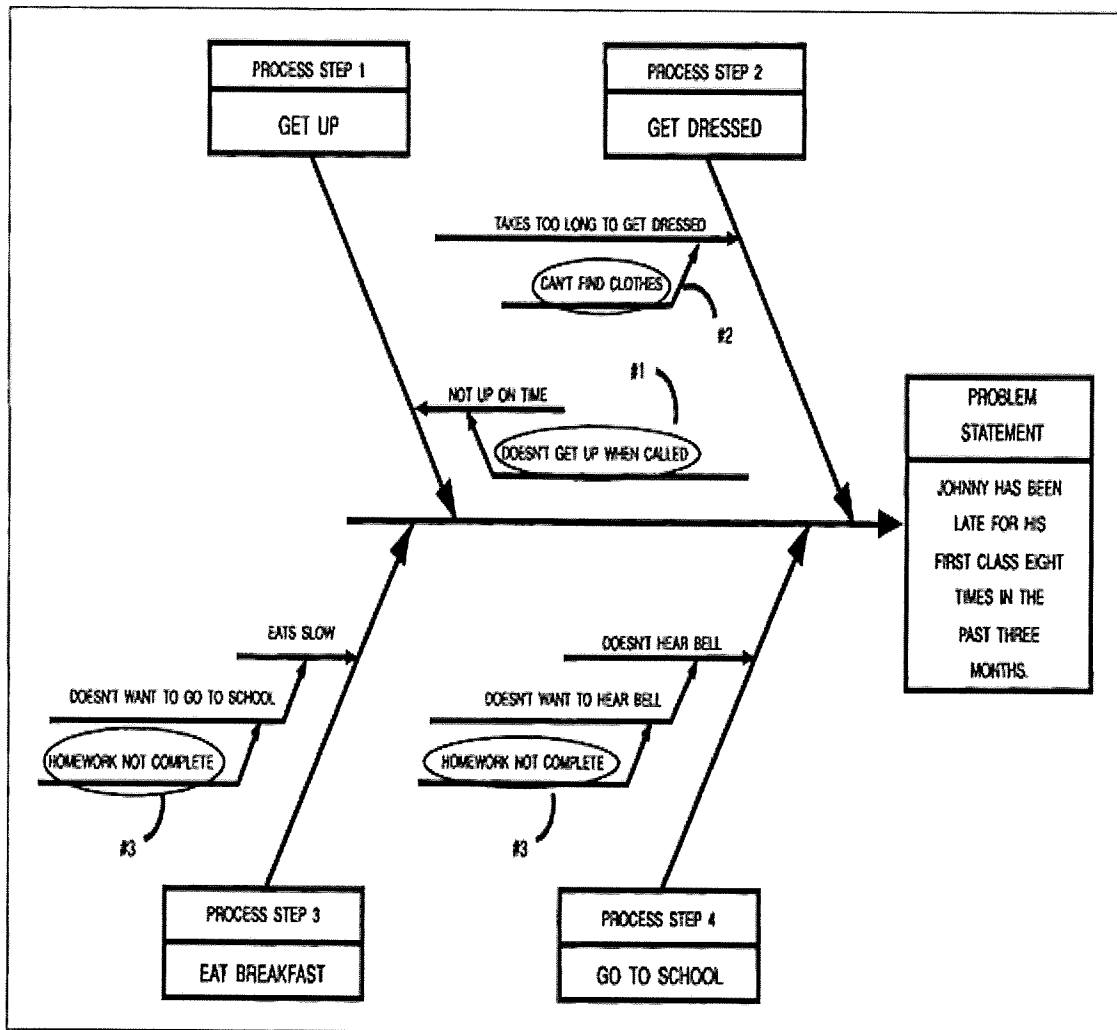


Figure 3-7

**CHECKSHEET****CHECKSHEET****Definition**

The checklist is a simple but powerful data-gathering tool.

**Use**

A checklist is used to gather and classify information (data). Effective checklists collect data that can be easily analyzed to identify patterns in the work being studied.

**Example**

In Figure 3-15 a checklist is used to collect information about machine breakdowns that occur over a one-week period. This example assumes that the cause of each breakdown is being tracked elsewhere.

<b>DAILY BREAKDOWN SHEET</b>						
FREQUENCY ITEM	MON 2/24/90	TUE 2/25/90	WED 2/26/90	THU 2/27/90	FRI 2/28/90	TOTAL
MACHINE 1 (RJ 706)	✓✓✓		✓✓			5
MACHINE 2 (RB 403)		✓				1
MACHINE 3 (RT 955)	✓			✓✓		3
TOTAL	4	1	2	2	0	9

BETA PLANT  
DETERGENT LINE

**Figure 3-15**

**FLOWCHART**

**FLOWCHART**

**Definition**

A flowchart is a graphic illustration of the activities in a process.

**Use**

The flowchart is used to clarify a process by documenting the activities involved and their sequence. A flowchart enables everyone involved in the process to understand how his or her work contributes to the product or service produced. Flowcharts are also used to improve processes. Flowcharts highlight inefficiencies, along with missing, repetitive, or unnecessary steps.

**Example**

The example of Figure 3-19 is a flowchart of the activities involved in handling customer telephone inquiries.

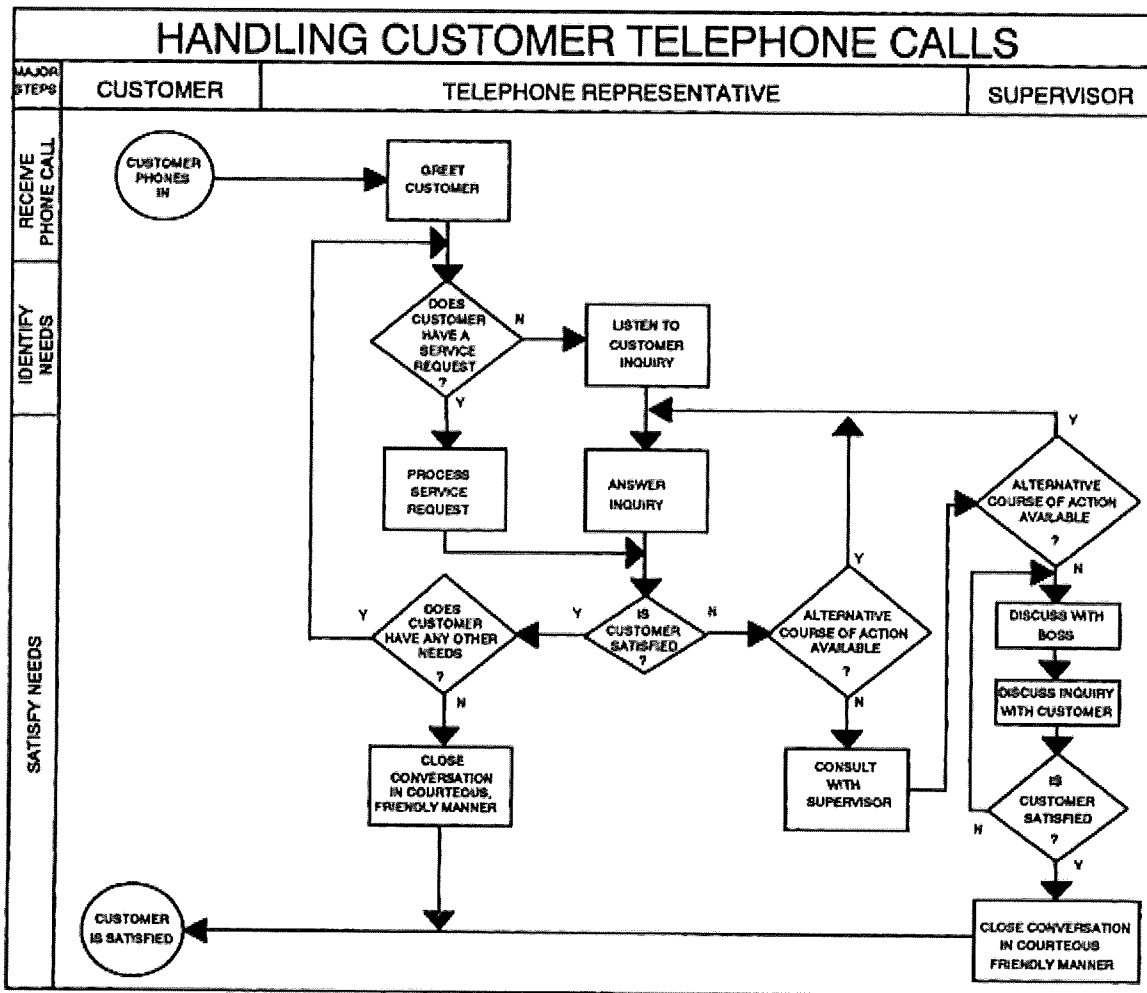


Figure 3-19

## HISTOGRAM

### HISTOGRAM

**Definition**

A histogram illustrates the frequency with which related things or events occur.

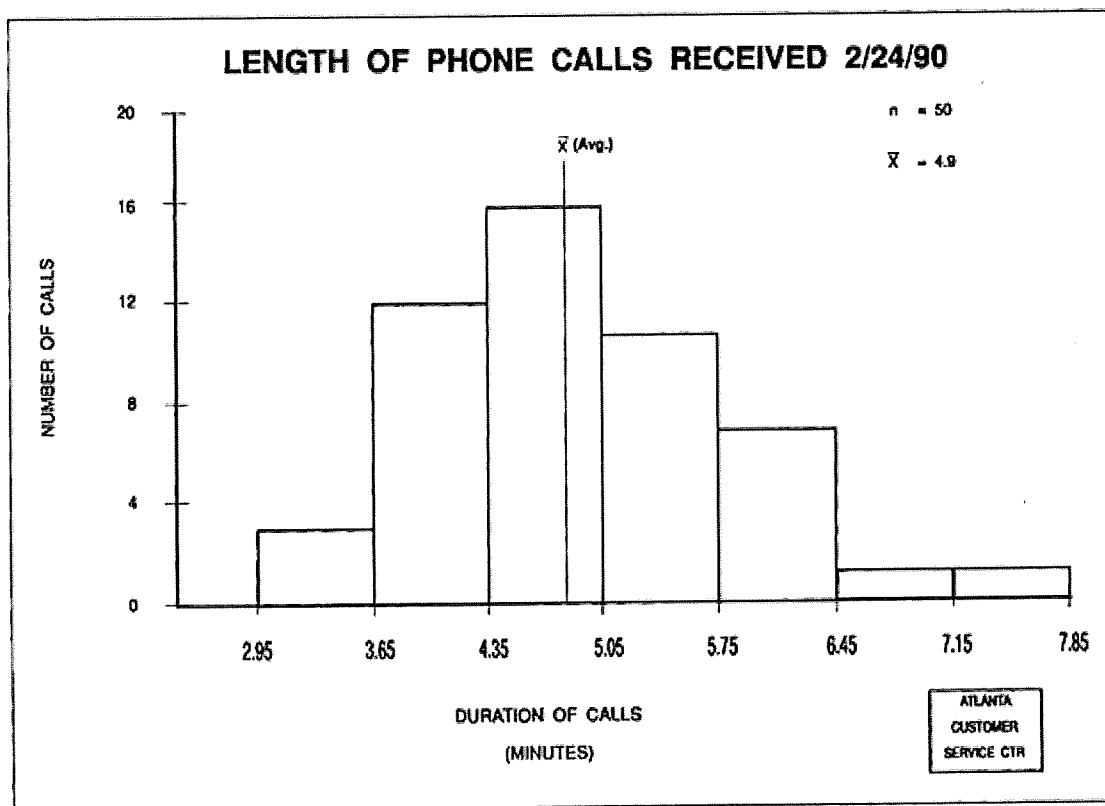
**Use**

Histograms are used to improve processes, products, and services by identifying patterns of occurrence.

**Example**

In the example of Figure 3-22, a histogram is used to display the time required to complete 50 different phone conversations. Several interesting facts can be observed in the histogram:

- No call took less than 3 minutes and no call took 8 minutes or more.
- The average phone call took 4.9 minutes.
- Most of the phone calls took between 3.65 and 5.75 minutes.



**Figure 3-22**

---

**INTERVIEW****Definition**

An interview is an exchange of information utilizing face-to-face or telephone communication.

**Use**

The interview can be used to understand and measure customer needs, attitudes, and satisfaction with products and services. It is best applied when the information required is available from a relatively small group of people who can answer questions directly.

**Example**

Examples of an interview can be seen during any television newscast, as reporters utilize this technique to obtain information from people who are knowledgeable about the subject being reported.



## LINE GRAPH

### LINE GRAPH

#### Definition

A line graph charts the variation in data over time.

#### Use

Line graphs are used to display change. They are useful for showing improvement, identifying problems, and communicating trends. Line graphs show progress toward, or deviation from, an established target.

#### Example

In Figure 3-31 a line graph is used to track the number of late payment notices mailed to customers over a five-year period.

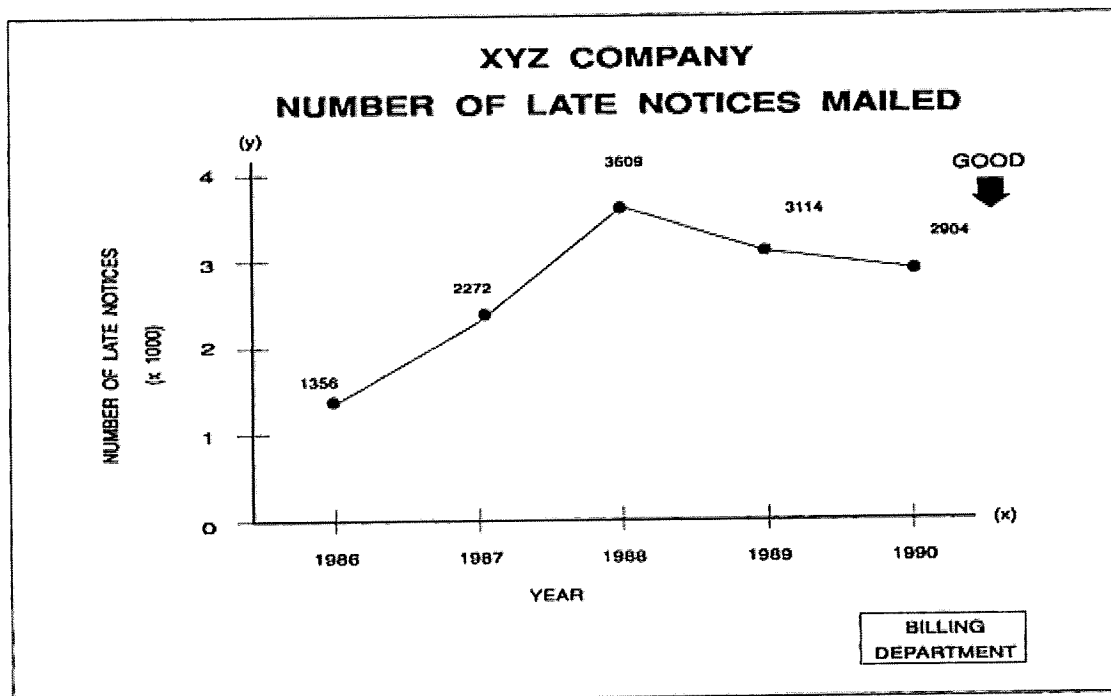


Figure 3-31

**LIST REDUCTION****LIST REDUCTION****Definition**

List reduction reduces a large list of items to a manageable few.

**Use**

List reduction is frequently used to decrease the number of items identified during a brainstorming session.

**Example**

In Figure 3-32 votes have been tallied to reduce a brainstormed list from nine items to three.

<b>A BRAINSTORMED LIST OF KNOWN WAYS TO REDUCE OVERTIME</b>	<b>VOTES PER ITEM</b>
1. Increase the number of personnel	✓
2. Rearrange the flow of activities in the work for increased efficiency	✓✓
3. Change work assignments to spread the work more equitably among all employees	✓✓✓✓✓
4. Identify causes of rework and reduce or eliminate them by using the problem solving steps	✓✓✓✓✓✓✓✓
5. Train people to accomplish their work efficiently	✓✓✓✓✓✓
6. Prioritize work assignments so that the most important work gets done first	✓✓
7. Don't commit to completion dates before verifying that they can be achieved	✓
8. Require a manager's approval for all overtime worked	✓
9. Communicate the need to reduce overtime to all employees and seek to implement their suggestions for improvement where applicable	✓

**Figure 3-32**

**MATRIX****Definition**

A matrix is a grid of intersecting horizontal and vertical lines.

**Use**

The matrix is used to evaluate and define the strength of the relationship that exists between a set of options and a set of criteria. The matrix is useful for selecting one option from a brainstormed list that has already been reduced by list reduction.

**Example**

In Figure 3-33 a matrix is used to evaluate and select one problem from four that are under consideration.

<b>PROBLEM-SELECTION MATRIX</b>					
PROBLEMS UNDER CONSIDERATION	EVALUATION CRITERIA				TOTAL
	IMPACT ON THE CUSTOMER	RELATIONSHIP TO BUSINESS OBJECTIVES	NEED FOR IMPROVEMENT	RESOURCES REQUIRED	
1. Equipment not properly installed	1	1	1	2	5
2. Operators not trained	2	1	3	1	7
3. Not enough time to comply with operating standards	2	1	3	2	8
4. Work space too cluttered	1	1	3	1	6

LEGEND: 3 = HIGH    2 = MEDIUM    1 = LOW

**Figure 3-33**

## PARETO CHART

### PARETO CHART

#### Definition

Pareto analysis is the study of related subjects to determine if one is more significant than the others.

#### Use

The Pareto chart is used to identify the most important item in a group of items. A Pareto chart breaks down an item into its component parts and then arranges and displays those parts in order of importance. Pareto analysis is used to focus problem-solving activities, so that the area causing the most difficulty is addressed first.

#### Example

In Figure 3-37, a family has compiled all of their unbudgeted expenses for the first six months of the year. A Pareto chart is used to display these expenses and arrange them so that the most significant expense item becomes obvious.

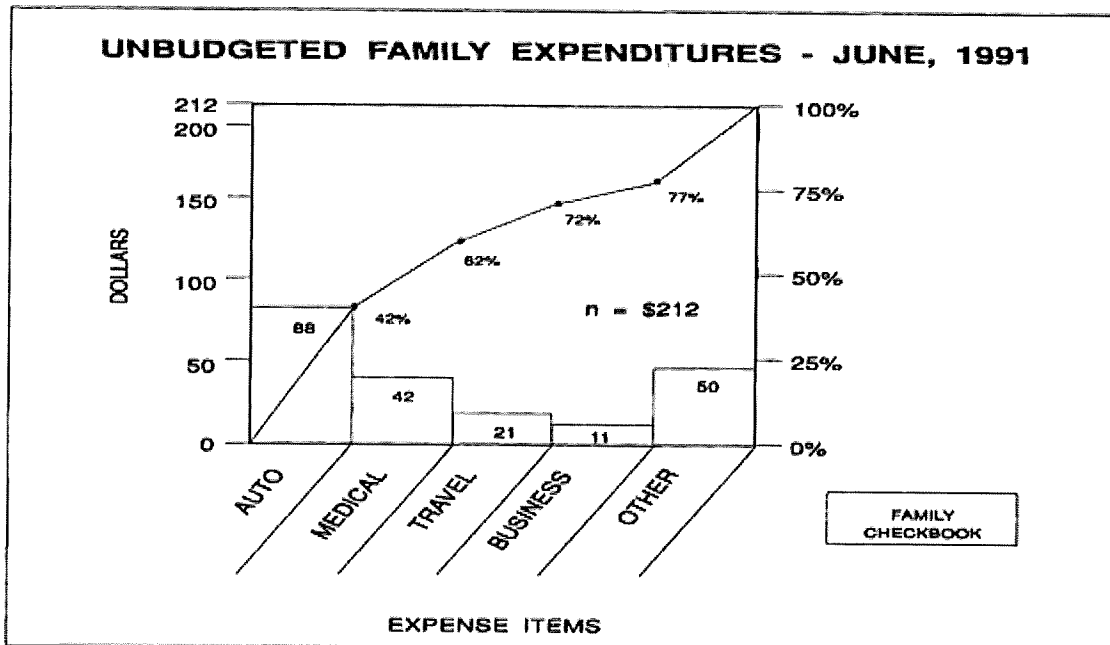


Figure 3-37

## PIE CHART

### Definition

A pie chart illustrates the relative sizes of components that make up a whole.

### Use

The pie chart is used to show how individual parts relate to the whole and to each other. Pie charts are often used to show when the size of a component has changed as a result of some action.

### Example

In Figure 3-41 a pie chart is used to display the various sources of revenue for XYZ Manufacturing.

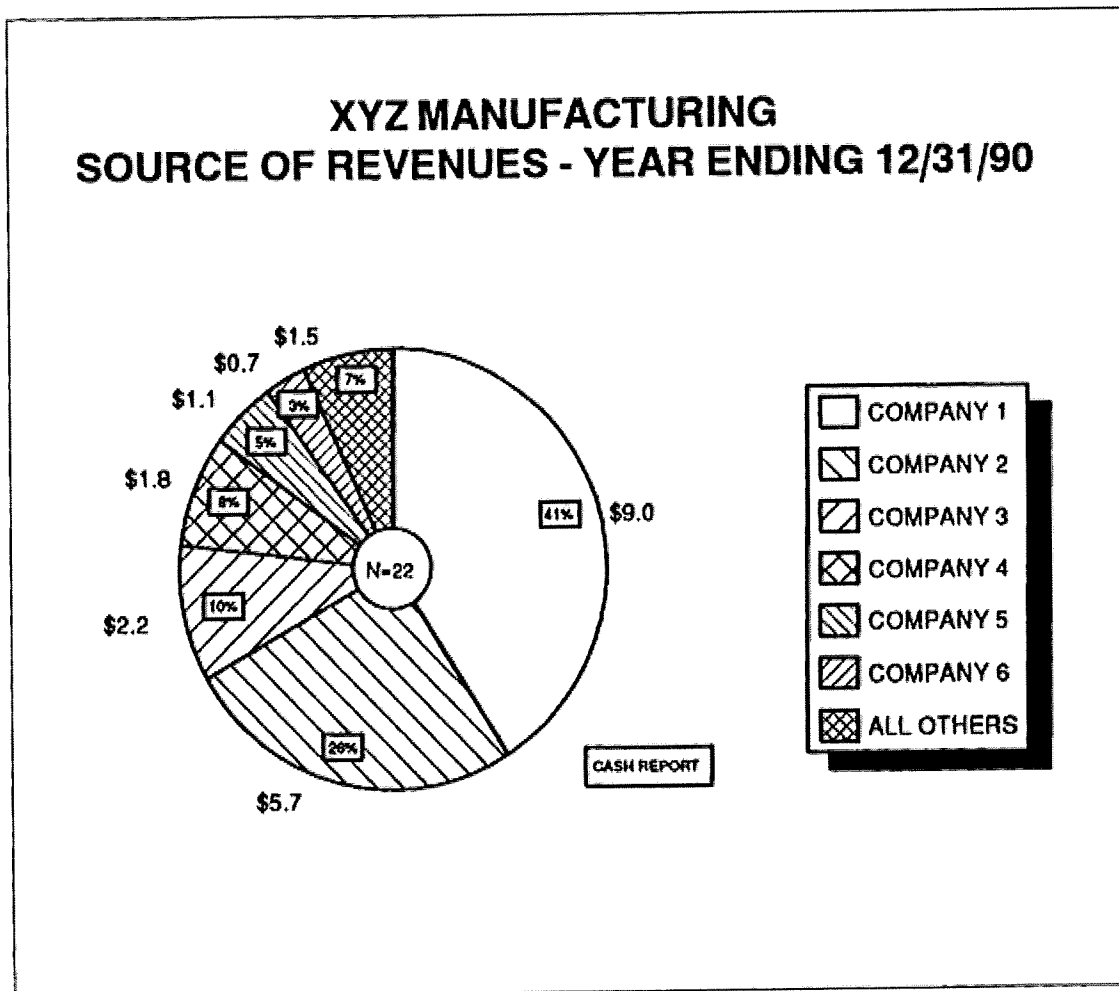


Figure 3-41

## SURVEY

### SURVEY

#### Definition

The survey is a means of gathering information using questionnaires.

#### Use

The survey is frequently used to understand and measure customer needs, attitudes, and satisfaction with products and services. It is best applied when the number of people to be questioned is large or difficult to speak with personally.

#### Example

The example of Figure 3-43 is a simple survey prepared by the Rachel's Restaurant to measure customer attitudes and satisfaction.

### RACHEL'S RESTAURANT SURVEY

1. To what extent was our service courteous? (Circle One)

1 NOT AT ALL	2 TO A SMALL EXTENT	3 TO A MODERATE EXTENT	4 TO A GREAT EXTENT	5 TO A VERY GREAT EXTENT
-----------------	---------------------------	------------------------------	---------------------------	--------------------------------

Why? \_\_\_\_\_

2. To what extent was the food satisfactory? (Circle One)

1 NOT AT ALL	2 TO A SMALL EXTENT	3 TO A MODERATE EXTENT	4 TO A GREAT EXTENT	5 TO A VERY GREAT EXTENT
-----------------	---------------------------	------------------------------	---------------------------	--------------------------------

Why? \_\_\_\_\_

3. To what extent was our atmosphere pleasant? (Circle One)

1 NOT AT ALL	2 TO A SMALL EXTENT	3 TO A MODERATE EXTENT	4 TO A GREAT EXTENT	5 TO A VERY GREAT EXTENT
-----------------	---------------------------	------------------------------	---------------------------	--------------------------------

Why? \_\_\_\_\_

Figure 3-43