Information about the world and how it works is often hard to locate and difficult to understand. The objectives and activities in this teaching guide were developed to complement the "World Military and Social Expenditures" (WMSE) report in the study of global issues in secondary school classrooms. The report contains well-documented and up-to-date statistics presented in concise narrative, charts, graphs, and maps. The WMSE report encourages the reader to make conscious and direct comparisons between expenditures for military and social needs worldwide. Students using the activities in this guide can expect to increase their skills in: (1) reading social and scientific data more critically, (2) using statistics as a tool for analyzing important global issues, and (3) recognizing the perspectives and bias that underlie the presentation of social and scientific data. The data in WMSE are applicable to such global issues as: (1) development, (2) arms and security, (3) global inequity, and (4) social and economic justice.
Teachers' Guide for World Military and Social Expenditures 1985

by Jan Drum and George Otero

The Stanley Foundation

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The Stanley Foundation works toward the goal of a secure peace with freedom and justice by encouraging study, research, and discussion of international issues. Programs strive to enhance individual awareness and commitment and to affect public policy.

This guide was prepared as a part of the programming for Educator Support, the foundation's global education project. The project provides a variety of program plans and ideas for educators throughout the Midwest and the nation. International conferences comprise a major portion of foundation activities. The foundation also sponsors Common Ground, a weekly world affairs radio series; the monthly magazine World Press Review; and the publication of Policy Papers. Conference reports, Policy Papers, and some other publications are distributed free of charge. A complete list of activities, publications, and cassettes is available.

You are welcome to duplicate or quote any part or all of this guide as long as proper acknowledgment is made. Additional copies of World Military and Social Expenditures 1985 ($5.00 each or $3.50 for orders of 25 or more) and this Teacher's Guide ($2.00 each) are available from:

The Stanley Foundation
420 East Third Street
Muscatine, Iowa 52761
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Dr. George G. Otero Jr.--George is program consultant and founder of Las Palomas de Taos, a nonprofit educational center devoted to helping individuals and groups manage change and diversity. Dr. Otero has authored hundreds of activities on global themes, skills and concepts, has conducted hundreds of training programs in global education nationwide, and has worked closely with schools and organizations as they seek to change.

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EVALUATION: TEACHERS' GUIDE FOR
WORLD MILITARY AND SOCIAL EXPENDITURES 1985

Please give us your reaction to this teachers' guide. Simply record your experience (even if minimal) below, fold the page in thirds, and fasten with tape. Postage will be paid.

Susan Koehrsen
Associate Director
(319) 264-1500

The Stanley Foundation
420 East Third Street
Muscatine, IA 52761

-Which activities did you use and for what kind of class?

-What worked best and why?

-Which activities seemed least useful and why?

-What would make this guide more useful to you?

And finally, we welcome any activities you may have developed in using World Military and Social Expenditures as a teaching tool or any other thoughts you'd like to share with us. We'd especially welcome advice about activity 15.
Using This Guide

Information about the world and how it works is often hard to locate and difficult to understand. One excellent source of data for classroom use is *World Military and Social Expenditures* (WMSE). The objectives and activities in this teaching guide were developed to complement WMSE in the study of global issues in secondary school classrooms. Although addressed to secondary school teachers, this guide is applicable to study groups at various levels.

In the words of the author, Ruth Leger Sivard, the purpose of WMSE is "to provide an annual accounting of the use of world resources for social and military purposes." The report contains well-documented and up-to-date statistics presented in concise narrative, charts, graphs, and maps. WMSE encourages the reader to make conscious and direct comparisons between expenditures for military and social needs worldwide.

The reader can easily detect from the wording, style, and tone of the writing that in the author's opinion, the world spends more on military needs than it should, especially in comparison to what is spent on social needs. We mention this bias not necessarily to disagree with the author's judgment but to acknowledge it. We considered both the statistics and the author's point of view as we developed our goals and objectives for this guide.

Goals and Objectives

Many students are overexposed to radio call-in shows and simplistic press interviews; they need to learn to distinguish between informed and uninformed opinion. Therefore, a major goal of this teaching guide is to provide students with tools for building, examining, and supporting personal opinions about global issues. A second, and equally important goal, is to enable students to read social science data more critically and consciously, and without being intimidated by the form and substance.
Students using the activities can expect to increase their skill in:
1. reading social/scientific data more critically,
2. using statistics as a tool for analyzing important global issues,
3. recognizing the perspectives and bias that underlie the presentation of social and scientific data.

In addition to the skill objectives, the activities seek to enhance the student's general ability to:
4. understand the complexity and be aware of interrelations of the issues and viewpoints presented,
5. identify and reject simple answers to complex issues,
6. recognize and identify the long-term aspects of issues,
7. discover ways to be personally effective addressing these issues.

The activities are annotated both by the seven objectives listed above and by possible subject areas. Many activities could be useful to current issues discussion groups; a few are so designated. An activity may address more than one objective but it will be found under the objective that we think it addresses best.

Use and adapt these activities as you see fit--individually, in conjunction with other activities, as a short unit, or as independent work for individual students.

**Teaching Considerations**

The data in WMSE are applicable to such global issues as:
1. development,
2. arms and security,
3. global inequity, and
4. social and economic justice.

Because we value good teaching and know that our materials are tools which can be greatly enhanced in the hands of a gifted educator, we include the following reminder:
1. motivate the learners by stimulating their initial interest and attention;
2. connect the activity to the personal experience of the learners so that they perceive them as meaningful;
3. incorporate reflection or debriefing by the learners;
4. provide for cumulative reinforcement without boring repetition; and
5. encourage active learning wherein learners apply knowledge and skills to the completion of tasks.
Activities

Data and Pictures

Translating the data from the Statistical Annex (pp. 34-43) to a map will test student understanding of the data and make the data available to students in visual form. Making the maps will help students become familiar with the data and help to make the data more meaningful. The blank map can be used in other activities, and the map itself may give students a new perspective of the world.

ACTIVITY 1
Objective 1: Reading data  Math, Science, Social Studies

Have students use the blank world map (see back cover) to visually represent the data in the Statistical Annex (pp. 34-43) of the WMSE. For example, have students take a factor that is recorded in the Statistical Annex, let's say military. Have each student show on a map the rank or expenditures in dollars for as many countries as possible. (Those countries spending 20 percent or more of their gross national product for military could be colored red, those spending 10-20 percent blue, less than 10 percent, green.) Such an activity will give students more familiarity with the figures and practice at interpreting and translating the data in the report.

ACTIVITY 2
Objective 2: Using statistics  Social Studies, Discussion Groups

Have students use blank maps to identify those countries that are considered part of the "West" and the "East." Have them do the same for the terms "Rich" and "Poor," "North" and "South." Select different color codes for each pair, or different hashing and pencil patterns. Review the work with students; such an exercise is a good introductory activity.

ACTIVITY 3
Objective 2: Using statistics  Social Studies, Language Arts, Humanities

Propose a declarative or a value statement regarding world military and social expenditures. (For example, Asians value education more than Europeans.) Ask students to prove or disprove the statement by creating a map to present their argument.
MULTIPLE VIEWS

ACTIVITY 4

Objective 3: Recognizing bias

Social Studies, Language Arts

Have students write a review of the report from the perspective of any two of the following actors:

A retired military officer from the US Marine Corps
A soldier in the Soviet Union
A young man looking for work who has just signed up for two years in the army
An engineer who works for a major defense contractor
A physicist working for a university laboratory under contract to the US military
A head of state from an extremely impoverished country in Africa who is also concerned about his or her nation's security
A director for a private voluntary organization, e.g., CARE, that assists people in the Third World through self-help programs that train local residents in skills needed to run the program.

For a good comparative activity, ask students how their own ideas match the ones expressed in their review.

ACTIVITY 5

Objective 4: Understanding complexity

Social Studies, Discussion Groups

Choose other roles like the ones in Activity 4 or have the students create their own. Time, Newsweek, U.S. News & World Report, The New York Times or The Christian Science Monitor are good sources for descriptions of additional actors. The views of the actors may be expressed by the students or in quotes from the sources identified. Once again the students may compare their own ideas with those reported either by their classmates or in the magazines or newspapers.

Prove It

ACTIVITY 6

Objective 5: Rejecting simple answers

Speech, Social Studies

WMSE is full of statements that make strong judgments. The first sentence of the third paragraph on page 26 is a good example. "When one billion people must live out their lives in destitution, without hope, there is no global security." On page 6, mid-page, is this statement, "A less equitable, less secure world, and growing violence, are the realities of 1985." Taking these or other statements found throughout the narrative, ask students to prove the statement true or false.
When students report to the class and/or write their case, have them mention not only the supporting data but also their standard of proof. Those standards could include similar statistics from more than two sources, the consensus of a number of experts, or documented cases or examples.

**Survey: Is This News?**

**ACTIVITY 7**

**Objective 7:** Being effective

There are several steps in this activity and it will probably need to be carried out over several days.

**Step 1.** Have students, working alone or in pairs, select or create declarative statements using the narrative, charts, graphs, or maps in the report. (For example, using the graph at the top of page 14, one could conclude: The US and the USSR are the world's two largest arms exporters.)

**Step 2.** Have students write their eight or ten statements on paper.

**Step 3.** Give students the following directions: Read each of your statements to ten people outside this class; then ask the following questions and record their responses.

1. Is this news to you?
2. If it is not news, why isn't it news to you?
3. Do you remember specifically where or when you first heard the statement?
4. Do you think you have heard the statement before and therefore do not believe it is news but cannot remember the source, time, or place when you heard the statement for the first time?

**Step 4.** Have students share their surveys in a class discussion. Some possible questions are:

- Are the data you chose common knowledge, or is it relatively unknown to the general public?
- What issues did your statements raise?
- What impact does public knowledge have on what is being done about the issues your statements raised?
- Does knowing that there is a problem guarantee that anything will be done to solve the problem?
- Does the information you have collected help you understand ways of solving the problems you have identified?
- What other questions were raised in your mind about knowledge and its relationship to action where global issues are concerned?
Questions for the Author

ACTIVITY 8

Objective 7. Being effective
Language Arts, Social Studies, Journalism, Discussion Groups

This activity has several steps but can be completed in one class meeting.

Step 1. Have students look through the report, reading some of the narrative and examining the charts, graphs, and maps. In small groups, have them list the questions they would ask the author if they had the chance.

Step 2. Ask student groups to reexamine the report to see if the answers to any of their questions can be found.

Step 3. Once they are convinced that the report does not address their questions, arrange for students to forward them to Ruth Leger Sivard at World Priorities, Inc., Box 25140, Washington, D.C. 20007.

Note: This information will be good feedback for the author as she plans next year's text, and the students will be reading the report more critically.

Step 4. Whether or not you convey the questions to the author, make sure you spend time with the students helping them find ways to answer their concerns.

Resource Allocation

ACTIVITY 9

Objective 6: Identifying long-term aspects
Speech, Science, Social Studies

WMSE focuses on issues of resource allocation, for example:

- How should governments allocate their resources for military and social needs?
- Does the world spend more than it should on military needs at the expense of social needs?
- Is there enough to go around?
- Can social and military needs both be adequately met, given the resources at hand?

This activity asks students to research and debate issues of resource allocation. This is another multistep activity that will take parts of two or three classes.

Step 1. Have students frame a resolution to research and debate or write one yourself. The debate coach might like to help on this activity. The resolution should deal with some aspect of the issues related to resource allocation between military and social needs.

Step 2. Develop the rules for a debate or obtain formal high school debate rules from the debate or speech teacher in your school.

Step 3. Have students form teams and give them time to research both the pro and con sides of the resolution. The report will be an excellent source of data, but the students should also use other data sources. We would call special attention to such
sources as *World Press Review*, *South*, or *World Eagle* in addition to more familiar sources like *Time* or *Newsweek*.

Step 4. Hold the debates as formally or informally as you choose.

Step 5. Have students write a summary essay stating their perspectives on resource allocation between military and social needs or hold a class discussion of students' perspectives on these issues. The questions at the beginning of this activity could be good discussion starters.

**Guns or Butter**

The two simulation games that follow can help students understand how decisions determining the allocation of resources to military and/or social needs are made.

**ACTIVITY 10—Resources and Arms**

**Objective 4:** Understanding complexity  Economics, Discussion Groups, Social Studies, Humanities

This simulation game which is adapted from the Sociological Resources for the Social Studies Project is effective in modeling for students the conflicts leaders face when trying to meet both the military and social needs of a country. The simulation game is easy to play in 30-45 minutes and takes only paper clips. The entire class can participate because the game is played between pairs of students.

Step 1. Distribute 20 paper clips (RESOURCES) to each student.

Step 2. Tell the class that the object of the game is to end up with as large a RESOURCE pile as possible. Anyone with 15 or more clips at the end of the game is a winner.

Step 3. Read the following rules of the game to the class:

1. Start—Place all twenty clips in your RESOURCE pile.

2. Each Round—You may either
   a) shift ONE clip from RESOURCES to ARMS, or
   b) shift ONE clip from ARMS to RESOURCES, or
   c) leave things as they are

   Note: Conceal both your RESOURCE and ARMS piles.

3. Attack—You may attack only if you have at least four clips in your ARMS pile. If you want to attack, raise your hand when I ask if there are any attacks. I will ask after each round is called. If you attack, the referee will then count your ARMS clips, your opponent's ARMS clips, and tell you if the battle was decisive. (Select a referee at this time.)

4. Results of Attack—Based on ARMS only, a battle may be decisive or indecisive.
   a) Decisive Battle—If one player leads by four or more ARMS clips, he/she wins: six clips or the looser's remaining RESOURCES are shifted from the loser's RESOURCE pile to the winner's RESOURCE pile.
b) Indecisive Battle—If ARMS piles are within three clips of each other, no one wins: Resources are unchanged.

c) As a result of any attack, all ARMS clips of both players are destroyed (permanently removed by the referee).

5. Final Score—Count the number of clips in your RESOURCE pile.

Step 4. Use the following debriefing questions in a class discussion of the game.

- What do the resource clips represent in the "real world"?
- How did it feel to be "picked on," attacked?
- How did it feel to "win"?
- Did anyone "cheat" and move more than one clip at a time?
- How is this game similar and yet very different from the "real world"? Is it relevant to the real world? How or why?

ACTIVITY 11—Buy a Buck

Objective 4: Understanding complexity

Economics, Discussion Groups
Social Studies, Humanities

This short simulation game will help students understand the assumptions and beliefs that guide participants in an arms race. Directions:

Step 1. Tell the class that you are going to auction a fresh new dollar bill to the highest bidder. Ask who in the class would be interested in bidding for the dollar. Pick two highly motivated students to play. You can pick more than two, but two will demonstrate the aspects of cold war decision making better. (SPECIAL NOTE: MAKE SURE THAT YOU WILL NOT BE BREAKING SCHOOL OR SOCIAL NORMS BY CONDUCTING THIS AUCTION.)

Step 2. Explain the rules that will apply to this particular auction. You might even post the rules on the board:

a) The bidding will begin with a nickel and increases of a penny each bid are allowed. A bidder can bid more than one penny at any time.

b) The dollar bill goes to the highest bidder.

c) The second highest bidder also must pay the auctioneer the amount they bid last. THIS IS THE RULE THAT IS NOT COMMON IN AUCTIONS. MAKE SURE STUDENTS ARE VERY CLEAR ABOUT THIS RULE.

Step 3. Conduct the auction. If the bidders operate with the assumptions that guide an arms race they will likely end up bidding more than a dollar for the dollar bill you are offering. That is what you want. If they don't bid more than a dollar, their behavior will still serve as a basis for talking about the assumptions and beliefs that would result in people bidding more than a dollar and those are the assumptions you are trying to identify.

Step 4. If you can, try to collect the money from the second highest bidder and give the highest bidder the dollar in exchange for the amount of the final bid.

Step 5. Hold a discussion about the game. Here are some questions to guide the discussion:
Why would anybody spend more than one dollar to get a dollar?

What does someone have to be thinking to spend more than one dollar to get a dollar?

Consider the arms race between the United States and the Soviet Union; in what ways are the assumptions of the two countries like those of the participants in the auction?

If no one would spend more than a dollar to get the dollar, why?

What assumptions and beliefs would have to change in order to stop the arms race?

Can the arms race be stopped or only slowed down?

Would slowing down the arms race release resources for social needs?

Step 6. At the end of the simulation, return all the money, stating that you were only playing a game.

"Imaginary Numbers"

Many of the numbers contained in WMSE have no meaningful reference point for the reader because they are so large. Making comparisons or using the numbers in thinking about the issues of resource allocation is difficult at best. What does it mean to save $1 billion out of $800 billion? Is that good, bad, hopeful, or helpful? What do all these big numbers mean? The ideas in these activities are designed to help make the numbers found in the report more real to the reader.

ACTIVITY 12—Change the Language

Objective 1: Reading data

Have students go through any five pages of the report and rewrite the big numbers. For example, whenever they come across a billion of something, rewrite it in thousands. A thousand dollars is a quantity that we can picture in our heads; we can see a thousand of something. For example, 5 billion becomes 5 million thousands, or a thousand thousands, 5000 times. It may seem a little cumbersome, but it will help if students use a more familiar language in talking about big numbers.

ACTIVITY 13—Find Your Imaginary Numbers

Objective 7: Being effective

This activity will work best as a follow-up to the previous one.

Step 1. Have the students look through any five pages of the report and identify those numbers that are "imaginary," that is, too large to comprehend.

Step 2. Individually or in small groups, list five examples.

Step 3. Have a class discussion or have students work in small groups to figure out better ways to convey the meaning of the number. They might create their own graphs or comparisons in which one bomb, for example, represents 100 bombs.
Comparing Apples and Oranges

ACTIVITY 14
Objective 3: Recognizing bias Math, Social Studies

The meaning of any number depends on the scale in which it is located. The problem of scale and comparability is a major one in WMSE. A good example is the chart found on page 6 which shows a comparison of the changes in the destructiveness of modern weapons and the relative health and well-being of humans. Firepower can and has grown exponentially in the last 40 years, while life span has only grown—can only grow—arithmetically. Comparing two phenomena that change mathematically in different ways is like comparing apples and oranges. Numbers can measure firepower and life span, just as apples and oranges can both be counted. But can you then compare the two as though they are similar in every respect? Probably not.

Have students look through the report and on a sheet of paper titled "Apples and Oranges" list comparisons in the report that seem to be comparing apples and oranges. Have them write down the reason they feel the comparison cannot be made. Their findings should initiate a good classroom discussion of how statistics are used and misused.

Hard and Soft Data

ACTIVITY 15
Objective 1: Reading data Social Studies

The data in WMSE were collected with a variety of measures and techniques. Some of the statistics you read are basically extrapolations from data collected some years ago. Some of the data consist mainly of estimates based on trends that have occurred or might occur. Although in the last forty years there has been a lot of progress in the reliability of data, nevertheless in the author's words "any world compendium of this sort inevitably represents subjective judgements in selecting and presenting statistics ...." Refer to the author's Notes on Data p. 44.

The handout which follows will help students to be more conscious about the source and nature of data in general.

Ask students to read the student handout and the first column on page 44 in World Social and Military Expenditures. Conduct a group discussion around these questions: What sources of data seem to predominate in the book? What kinds of data would you collect if you were writing a summary of social and military expenditures? Are there some kinds of data and sources you trust more than others?
Student Handout: Hard and Soft Data

Although social and economic processes are difficult to measure, there are many devices available to assess, evaluate, and summarize them. These can be located on a continuum from "soft" to "hard" data. "Soft" refers to highly subjective data that are often difficult to measure quantitatively and difficult to recreate. "Hard" refers to objective and quantifiable information. Both have validity, but the validity of soft data is harder to demonstrate empirically.

The chart that follows gives examples of the range of data that might fit on a continuum running from soft to hard.

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Examples

Basic Assumptions—"All people are well intentioned."
Religious Views—Buddhism, Christianity, Islam
World Views—Capitalism, Communism
Testimonies—Reports from refugees
Journalism—Newspapers and television documentaries
Surveys—TV ratings
Polls—Gallup or Harris Polls
Rating Scales—Football rankings
Structured Observation—Medical reports
Inventories—Accountings of natural resources or manufacturing capacities
Tests—Scientific experiments
Census figures—Population counts
Expenditures—Record of actual dollars spent

NOTE: Based on a continuum presented in the 1976 Annual Handbook for Group Facilitators, University Associates, Inc., 8517 Production Avenue, San Diego, CA 92121
Ho-hum, Interesting Fact, That's a Problem

ACTIVITY 16
Objective 3: Recognizing bias

Language Arts, Social Studies

When we read print material, especially charts, graphs, and maps, much of what is remembered is colored by feelings. In interpreting statistical information, the background, experience, and intent of the reader is most important. In this activity, students are encouraged to uncover their own bias toward the information they are reading. This is accomplished by having them categorize information in one of three ways:

Step 1. Have students look at a statement or fact in the book (for example, chart 2 on page 7 or the maps on page 20); whether the data be print, chart, graph, map, or drawing, have them respond with Ho-Hum, Interesting Fact, or That's a Problem. Have students raise their hands, voting style, to respond.

Step 2. Ask them to clarify their reasoning by discussing some of the following questions:
- How much of their response is based on feelings?
- How much of their response is based on what they think about the world and how it should work?
- How diverse is the class' response?
- What accounts for the diversity in student responses?
- What would have to happen for all the students to respond to the data in the same way?
- If all, or a majority, of the students respond to the data in the same way, does that mean their interpretation is the right one?

Step 3 Repeat steps 1 and 2 several times. Think of other categories for evaluation of the data in the report. Have fun and let the students create their own categories.

Good News/Bad News

When reading statistics, especially when they are presented in a comparative format, the reader's first and often unconscious response is a quick judgement about the statement. These activities help students become conscious of their ability to judge what they read and allow them to explore how those initial judgements determine what the data will mean to them. Another equally important objective is to help students see that what is good news to one person can be bad news to another person.
ACTIVITY 17
Objective 4: Understanding complexity Social Studies, Language Arts

In this activity students are asked to document how different points of view or frames of reference determine how data are viewed, judged, and evaluated. On page 5 is this statement: "Over 1 billion people live in countries controlled by military governments." Ask students the following questions:

-Is that good or bad news?
-What do you think the author thinks?
-What would make the statement good news?
-What would make it bad news?
-Who in the international system would consider this to be bad news? Why?
-Who would consider this to be good news? Why?

Find five or ten more statements in the report and answer the questions for each statement. Have students share their lists with the class.

ACTIVITY 18
Objective 4: Understanding complexity Social Studies, Language Arts Discussion Groups

This activity and the next prompt students to closely examine their personal views.

Step 1. Before class, select ten or more statements from WMSE.

Step 2. Have students make two columns, "Good News" and "Bad News," on a piece of paper. Then have them place the statements you selected in the column that seems most appropriate from their perspective. As an alternative, individual students can look through WMSE finding statements to classify as good news and bad news.

Step 3. Give students some time to write a supporting paragraph for their evaluation of two or three of the statements.

Step 4. After students share some of their reasoning in small groups or before the class, ask the following questions:

- Would the rest of the class respond to the statement as you did? (Take a poll and see.)
- Would any data or information change your evaluation?
- If you saw the statement as bad news, what would have to change for it to become good news, or if you saw it as good, bad?
ACTIVITY 19

Objective 5: Rejecting simple answers  Language Arts, Social Studies

Step 1. Have students select a statement they perceive to be good news or bad news and then rewrite the statement, adding the information needed to read the data within the context they applied when making their judgement. For example, the statement, "World military expenditures totaled $709 billion in 1983," could read, "When one considers that world military expenditures have skyrocketed from $339 billion in 1960 to $709 billion in 1983, it's clear we've not made significant progress toward addressing social and economic needs." Such a rewrite would convey the data as bad news.

Step 2. After students write statements giving their rationale, have them rewrite the statement to demonstrate the opposite opinion. This activity will generate good discussion.

Step 3. Even though students have now rewritten the statements to more clearly justify their evaluation and their reasoning, the validity of the new information can also be questioned. Have students question and research the rewritten statements. You can see that using this activity could result in statements going through a number of rewrites.

ACTIVITY 20

Objective 4: Understanding complexity  Social Studies, Discussion Groups

Once students have classified statements as good news or bad news, have them categorize them as either fact or opinion. Have them look up definitions of fact and opinion to support their evaluations.

Students should understand that a fact can be seen as good or bad news and that an opinion can also be seen as good or bad news. In class discuss the following questions:

-Which has more to do with how people act: whether a statement is fact or opinion, or whether it is viewed as good or bad news?
-Is it some combination of the two?
-How might the class do some research to determine how information relates to how people choose to act?
Resources

The resources listed here will provide students with additional information on world military and social expenditures and issues. The activities in this guide would be useful with these materials also.


