

Withdrawal/Redaction Sheet

Clinton Library

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001. invite	re: personal (1 page)	03/09/1995	Personal Misfile

COLLECTION:

Clinton Presidential Records
Domestic Policy Council
Jose Cerda
OA/Box Number: 16956

FOLDER TITLE:

Fellows

2016-0931-S

rc2264

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P1 National Security Classified Information [(a)(1) of the PRA]
- P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P3 Release would violate a Federal statute [(a)(3) of the PRA]
- P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).

RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

- b(1) National security classified information [(b)(1) of the FOIA]
- b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

Clinton Presidential Records Digital Records Marker

This is not a presidential record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.

This marker identifies the place of a publication.

Publications have not been scanned in their entirety for the purpose of digitization. To see the full publication please search online or visit the Clinton Presidential Library's Research Room.

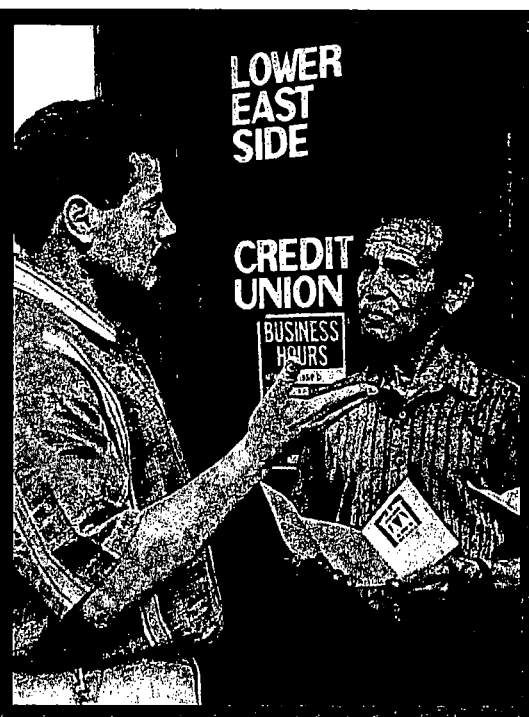
AMERICORP

30th

ANNIVERSARY

*"... eliminate poverty in the midst of plenty
by opening to everyone the opportunity to
work and the opportunity to live in decency
and dignity."*

Lyndon B. Johnson



AMER

*"The VISTA concept was ingenious. Its goal was great social advancements,
but it began its work in what we now see as the obvious place: in communities
where that need was the greatest. VISTA taught us the importance and power
of people building from within."*

William J. Clinton

To Mickey Leland Hunger Fellows

**(DEADLINE FOR PAYING THE CHEAP PRICE APPROACHETH
WEDNESDAY: I JUST RECEIVED THIS TODAY AND I KNOW PEOPLE
DO NOT ALWAYS RECEIVE FAXES A.S.A.P. PLEASE SHARE WITH
HOUSEMATES. THANKS!)**

Paul Brunswick

Dorothy Karayannis

Dienne Stanford

Vanna Whitney

R.P. Eddy

Casey Long

Jim Stipe

Josh Yates

Heidi Hattenbach

Angel Martinez

Scooter

Melissa Zook

Enclosed are three juicy opportunities for jobs in international development. Art gave me these sources so they've gotta' be cool.

- 1) Careers in International Development seminar, basically a job fair
- 2) Volunteers in Urban Development, a year long program which allows you to work in the US or overseas
- 3) Overseas Development Network, sponsors overseas development opportunities (jobs), development education, Bike-Aid, and the Partnership in Development program

Registration for the seminar on Careers in International Development must be postmarked by March 15 if you want the cheap price. After that the price goes up by increments. I asked about getting the cheap student price, but they said I couldn't. Maybe if enough of us called and explained our plight, they would reconsider. I'm definitely going. Call me if you are interested.

*Dorothy,
Please share
with H.S.
also. Thanks!*

Visions in Action and The Overseas Development Network present:

Careers in International Development

A national conference on the how, what and why of volunteer and job opportunities aimed at improving living conditions in the developing world

April 7-8, 1995

The American University, Washington DC



Friday, April 7:

Registration: 4:00-6:30 PM

Welcoming Remarks: 6:30-7:30 PM

Keynote Session- Why Should We Care About Development? 7:30-8:30 PM

Panel- What Is Really Needed from Development Workers? 8:30-9:30 PM

Reception: 9:30 PM-Midnight

Saturday, April 8:

Panels: 9:00-10:30AM, 11:00AM-12:30PM, 1:30-3:00PM

-Banking & Finance

-United Nations Agencies

-Engineering & Info systems

-Human Rights Groups

-Research Organizations

-Film, Video, TV & Radio

-Health Care & Nutrition

-Small Business Management

-Volunteer & Internship Opportunities

-Religious Organizations

-Democracy & Elections

-Social work, youth & children

-Getting that First Overseas Experience

-Teaching & Academia overseas

-Agriculture

-Art, writing, music

-Relief & Refugees

-Environment

-Development Education

-US Government options

-Print Journalism



Employer Networking Session: 10:00-4:00PM

Meet with representatives from a wide array of development organizations

Film Festival: 4:00-7:00PM

World Hunger Dinner and Reggae Band: 7:00PM-Midnight (optional)

Cost: By March 15: Students: \$20, Nonstudents: \$35 By April 1: Students: \$25, Nonstudents: \$40

At the Door: Students: \$30, Nonstudents: \$45

World Hunger Dinner and Reggae Band: (optional) \$10

Group Housing: Thursday, Friday & Saturday nights, April 6-8 (optional) \$20-60

Questions? Contact Visions in Action 3637Fulton St NW, Washington DC 20007 Tel: 202-625-7403

Registration Form: *Careers in International Development*

Name _____ Date _____

Address _____

City _____ St _____ Zip _____ EMail _____

Tel _____ Year in school(if applicable) _____

Occupation/Major _____ Employer/School _____

_____ Hunger Dinner & Band (Add \$10) _____ Housing Needed (details will be mailed)

Amount enclosed: \$ _____ (Write checks out to: *Visions in Action*)

Mail to: Visions in Action, 3637 Fulton St NW, Washington DC 20007. You will be mailed a conference program and housing details if received by April 1. Students must send a photocopy of their current ID. All fees support the conference costs directly.

PLEASE POST

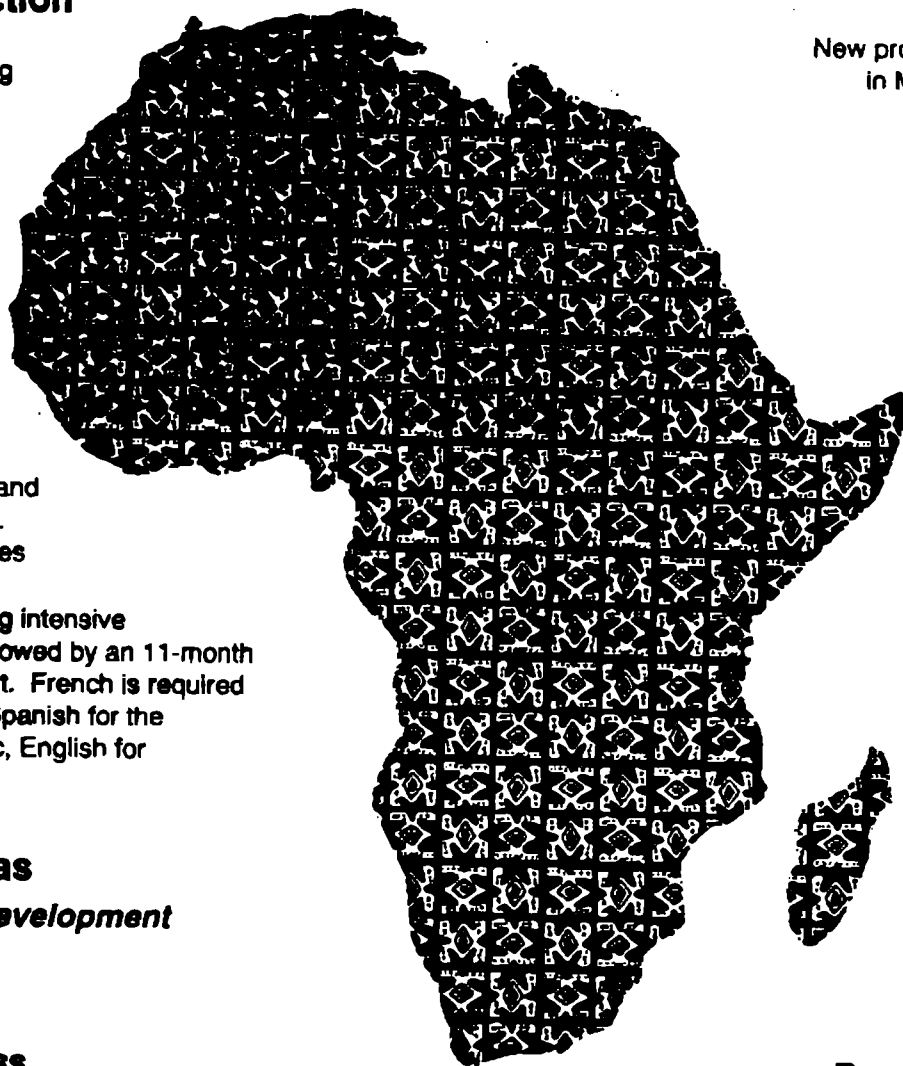
Volunteer in Urban Development

Visions in Action

is a nonprofit organization offering one-year volunteer positions in 8 African & Caribbean countries. Positions are available with nonprofit development organizations, research institutes, health clinics, community groups and news organizations. The program features a month-long orientation, including intensive language study, followed by an 11-month volunteer placement. French is required for Burkina, some Spanish for the Dominican Republic, English for the other programs.

Program Areas

- * *Community development*
- * *Health Care*
- * *Housing*
- * *Small Business*
- * *Youth and Children*
- * *Women's Issues*
- * *Environment*
- * *Scientific research*
- * *Social science research*
- * *Journalism*
- * *Human rights & democratization*



New Programs

New programs will be introduced in Mexico and Brazil in 1996

Housing

Volunteers are housed in major urban areas in coed group houses, living in a supportive community

Finances

Volunteers are required to cover their own costs for airfare, housing and living expenses; community and individual sponsorships are encouraged. Costs range from US\$4500-6000. Partial scholarships are available for nationals of developing countries

Program Departures & Application Deadlines

Program	Deadline	Start
Nairobi, Kenya ; Tanzania, Somaliland	Apr 15	Jul 1 95
Johannesburg & Durban, South Africa	Apr 15	Jul 1 95
Kampala, Uganda	Jun 1	Sep 1 95
Ouagadougou, Burkina Faso	Jul 1	Oct 1 95
Santo Domingo, Dominican Republic	Jul 1	Oct 1 95
Harare, Zimbabwe	Oct 1	Jan 10 96
Johannesburg & Durban, South Africa	Oct 1	Jan 10 96

For applications contact:

Visions In Action * 3637 Fulton St. NW * Washington DC 20007

Tel: 202-625-7403



Visions in Action

Who We Are

What We've Done



the Overseas Development Network

ODN is a national, student-based, non-profit organization. Since its creation in 1983, it has been a forum for thousands of young people to address global issues such as hunger, poverty, and social injustice.

Mission

To involve students in addressing global problems through education, activism and first-hand experience.

Philosophy

ODN believes that people can meet their basic needs, strengthen communities, and contribute to global welfare through grassroots action. ODN campus groups directly support community development projects and organizations around the world that are using their own resources and ideas to improve their lives.



"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever does."

- Margaret Mead

During the past ten years, ODN has:

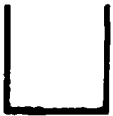
- * Funded more than 150 grassroots development projects on 3 continents
- * Funded more than 40 community development projects in the United States
- * Established chapters and trained student leaders on over 150 university and high school campuses
- * Placed over 200 interns with grassroots organizations in Asia, Africa, Latin America, the Middle East, and Appalachian (US)
- * Published eight resource books for people interested in international development opportunities both in the United States and overseas
- * Sponsored and organized a cross-country bicycle trek/community education program with over 700 participants since 1986.
- * Organized speaking tours at over 40 university campuses
- * Organized hundreds of local, regional, national, and international seminars, workshops, and conferences

Overseas Development Network

Students working together to solve
global issues of development throughout
the world.

Overseas Development Network
333 Valencia Street Suite 330
San Francisco, CA 94103
415. 431. 4204

Network
333 Valencia Street
Suite 330
San Francisco, CA
94103-3547
415.431.4204



The ways we do what we do...

Development Education

ODN chapters organize events including:

- films
- action campaigns
- workshops
- seminars
- discussion groups
- speakers
- fundraisers
- conferences

By sponsoring informative activities, chapters help their campus communities face the challenges of international development. In addition to ongoing campus work, the Development Education Program includes:

Global Objectives Conference

A biennial meeting of grassroots organizers, educators, policy makers, and students designed to strengthen grassroots networks and promote a spirited dialogue about critical issues in international development.

Summer Leadership Conference

An annual gathering of student leaders and campus activists interested in international issues. This intensive six-day conference trains participants in various leadership techniques while helping them identify the values and goals that guide their activism.

Bike-Aid

Bike-Aid is an annual cross-country cycling adventure that fuels community-initiated solutions to social problems affecting the world. The 3,600 mile ride combines global education, physical challenge, community service and outreach, fundraising, and personal growth while allowing participants to work directly with grassroots organizations.

Since its beginning in 1986, over 700 individuals from 25 countries have "pedalled for progress" and raised over \$1 million for international grassroots development.

Partnership in Development

The Partnership in Development Program builds partnerships between students and community groups working towards sustainable, locally-initiated development. Through these relationships, partners exchange ideas, information, and resources.

Students use this information to educate their peers and involve other students in activities that support community organizations overseas.

Development Opportunities

The Development Opportunities Program provides students a chance to gain experience, improve communication skills, and facilitate action in the field of international development. Through its publications and Opportunities Clearinghouse, ODN helps link qualified students with grassroots development organizations in the United States and abroad.

Benefits of Membership

- Reduced fees for ODN seminars, workshops, speaking tours, and conferences;
- Global Links, ODN's tri-annual newsletter;
- Access to ODN's educational videotape;
- Reduced rates on ODN publications;
- An invaluable opportunity to join a national student network devoted to working toward sustainable global change.



Sources of Support

ODN's work is possible thanks to individual donations, program revenues, special events, membership contributions, and foundation grants. The following have also provided significant backing.

Apple Computer, Inc.
Ford Foundation
Ryder System, Inc.
Gap Foundation
Barton Foundation
San Francisco Foundation
Mailman Foundation
Stanford University
The Uniserve Foundation
Threshold Foundation
USA for Africa
Garry Wang Memorial Trust
Aetna Foundation
Carnegie Foundation of New York
Charles E. Merrill Trust
Consortium for Global Development
Geraldine Dodge Foundation
Harvard Institute for International Development
William and Flora Hewlett Foundation
David and Lucille Packard Foundation
Rockefeller Foundation
Three Sigma Fund - Tidy Foundation
NAFSA
New World Foundation
Ryder System, Inc.

"I treasure the lessons of courage, caring, hope and perseverance that I have learned through ODN."

-Sri Indah Prihadi
Intern (1993)

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Phone

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to the



Join Us!

Yes! I'd Like to Join ODN's
Grassroots Development Efforts.

_____ State _____ ZIP _____

_____ E-mail _____

Membership Categories (check one)

Student	\$15	☐
Alumni	\$20	☐
Individual	\$25	☐
Contributing	\$50	☐
Sustaining	\$100 and up	☐

Interested in learning more about:

- ☐ Annual Objectives Conference
- ☐ Summer Leadership Conference
- ☐ Disaster Aid
- ☐ Development Opportunities Program
- ☐ Starting an ODN chapter
- ☐ Strategic Partnerships
- ☐ _____

Please make all checks payable to
Grassroots Development Network.

Grassroots Development Network is a nonprofit 501c(3) tax-exempt
organization. All donations are tax-deductible
to the extent of the law.

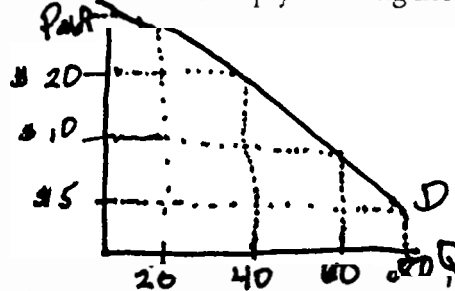
1. **Demand schedule, or the demand curve** shows the relationship between the market price of a good and the quantity demanded of that good, other things held equal

FOR
THE

ECON.
WKSH.P.

A. **Quantity (Q) and price (P)** are inversely related.

1. **law of downward-sloping demand:** as the price of a commodity is raised (other things held constant), buyers tend to buy less of the commodity.
2. Example: during the 1980's personal computers were extremely expensive and only the wealthy could afford them. But today, prices have fallen sharply enabling more people to buy computers:



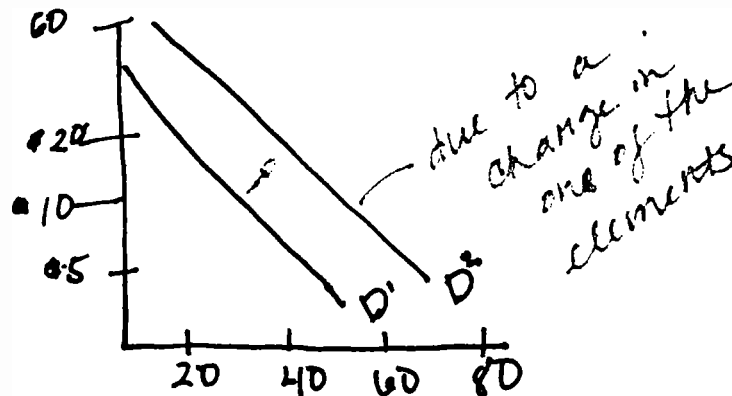
2. Elements affecting demand (example of automobiles)

1. **The price of the good**
 - a. the higher the price reduce the quantity demanded
2. **Average income**
 - a. as income rise, people increase car purchases
3. **Population**
 - a. larger population increases car purchases
4. **Prices of related goods**
 - a. lower gasoline prices raise the demand for cars
5. **Tastes**
 - a. Americans buy more cars than Europeans, other things equal.
6. **Special influences**
 - a. availability of subways, quality of road and rail network, expectation of future price increases

3. How these elements affect the demand curve

A. **increase in demand:** when the demand curve shifts due to a non-price factor, such as change in income.

1. For example, between 1950-1990, the demand (not the quantity demanded) for cars increased.
 - a. population more than doubled
 - b. average real income of Americans almost doubled



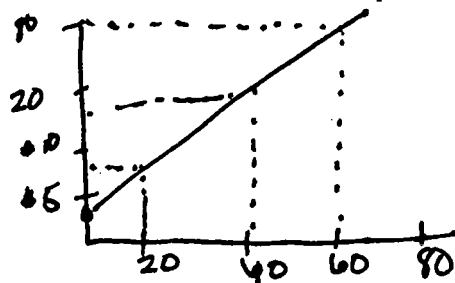
4. The **supply schedule** (and **supply curve**) for a commodity shows the relationship between its market price and the amount of the commodity that producers are willing to produce and sell, other things help equal

A. **upward and to the right**

1. **law of diminishing returns**

- a. For example: If society wants more wine, then more and more labor will be added to the same limited sites suitable for growing grapes. Each new worker added will - according to the law of diminishing marginal returns - be adding less and less extra product; hence the price needed to coax out additional output will have to rise. By raising the price of wine, society can persuade producers to produce and sell more wine; the supply curve for wine is therefore upward-sloping

- B. Producers are profit maximizers in that they will supply more of the commodity at higher prices because it is profitable, not for charity or for fun.



5. Elements that affect supply decisions (example of automobiles)

A. **Cost of production**

1. When production costs for a good are low relative to the market price, then profitable for producers to supply a create deal.

B. **Technology**

1. Computerized manufacturing lowers production cost and increases supply

C. **Input prices**

1. Autoworkers' wage cuts lower production costs and increase supply

D. **Prices of related goods**

1. If bus and truck prices fall, supply of cars increase

E. **Market organization**

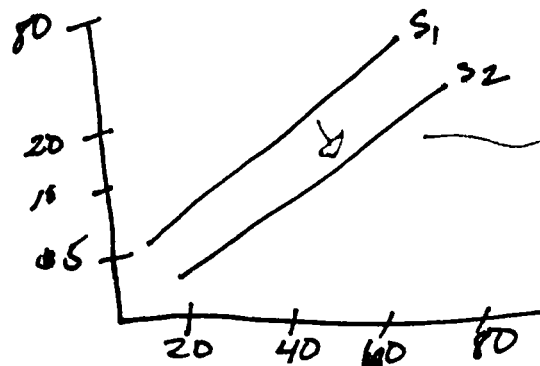
1. Removal of quota on Japanese car imports increases supply

F. **Special influences**

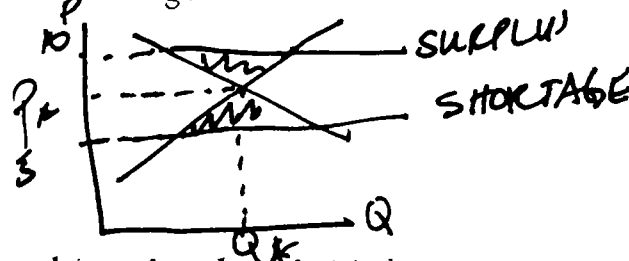
1. If government lowers standards on pollution-control equipment, supply of cars may increase.

6. How these elements affect the supply curve

- A. Increase in supply: when the supply curve shifts due to influences other than the commodity's own price changes.

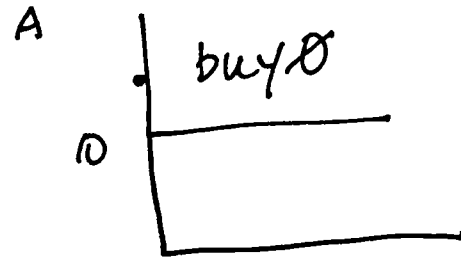
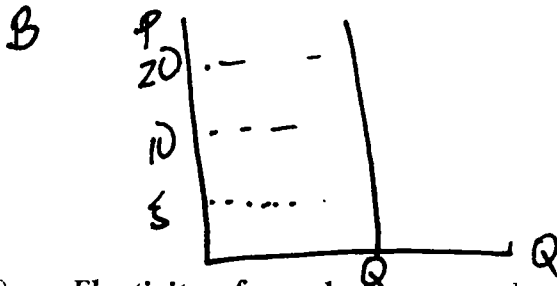


6. **Equilibrium** with supply and demand curves
- A. intersection of the supply and demand curves
1. Where price is \$10, $Q_{\text{supply}} = Q_{\text{demanded}}$
7. **Surplus**
1. At the high price of \$20/cd, sellers want to sell more than demanders want to buy, so there is excess, or a surplus of cds.
8. **Shortage**
1. At the low price of \$5, sellers want to sell less than demanders want to buy, so there is a shortage.



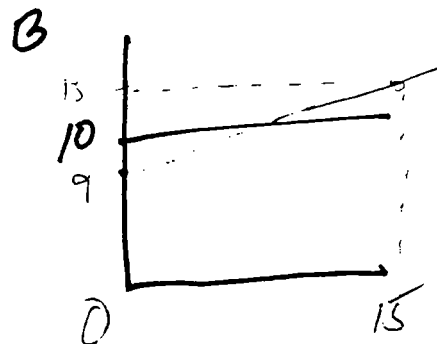
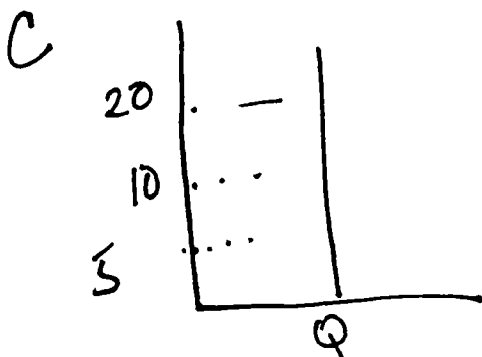
9. **Elasticity of demand** (or **price elasticity**) is the responsiveness of the quantity demanded of a good to changes in the good's price.

- A. **Price-elastic demand:** when the price changes, you respond, say buy less. (1% change in price = more than 1% change in Q_D)
- B. **Price-inelastic demand:** when the price changes, you respond by continuing to buy the same amount (1% change in price = less than 1% change in Q_D) depending on the good, sometimes you'll buy more



10. **Elasticity of supply:** measures the percentage change in Q supplied in response to a 1% change in the good's price.

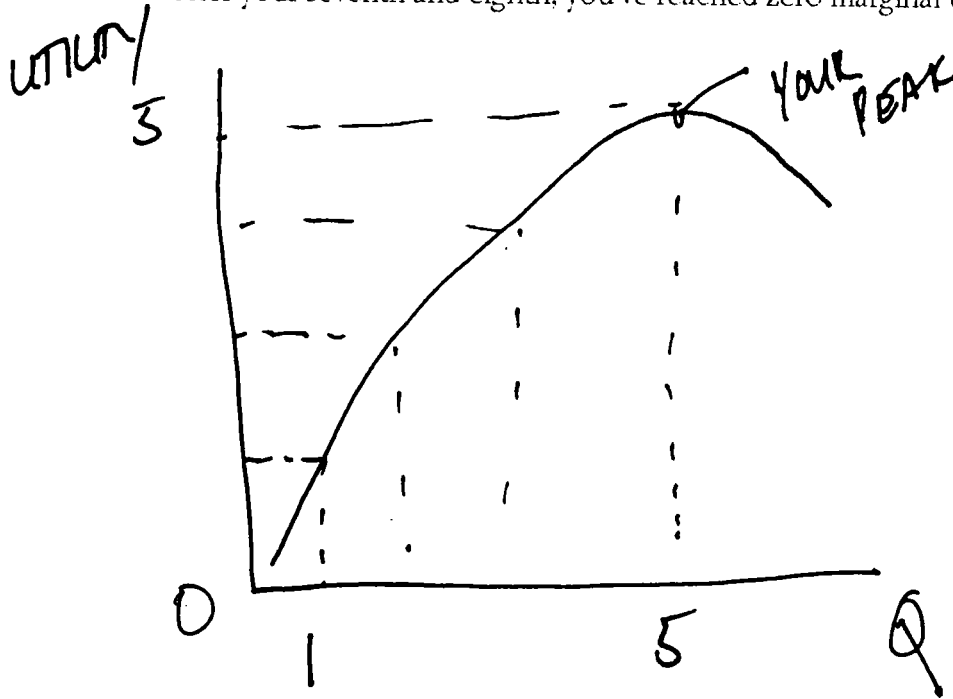
- A. Factors that determine supply elasticity
1. The extent to which production in the industry can be increased.
- a. if inputs can be easily found at going market prices, then the output can be greatly increased with little increase in the P
- B. **Price-elastic supply:** the 1% change in price causes more than a 1% change in the quantity supplied
1. For example, if the price of computers slightly rose, the producers will respond drastically by producing large quantities.
- C. **Price-inelastic supply:** the 1% change in price causes less than a 1% change in quantity supplied
1. For example, if the quantity of computers is perfectly fixed, the producer will sell at Q regardless of the price.



if price ↑, will sell large Q if $P \downarrow$ will sell 0

11. **Law of diminishing marginal utility:** the amount of extra or marginal utility declines as a person consumes more and more of a good.

- A. As you consume more and more of a good, your total utility will grow at a slower and slower rate, and eventually drops off after you reach your peak.
- B. Example: after you've mowed the lawn during a hot summer day, you crave for beer. The first beer you have gives you tremendous utility; the second, still great utility; the third and fourth, your utility is still going up; but after your fifth beer, your marginal utility starts to go down, slowly; after your seventh and eighth, you've reached zero marginal utility.



Background Info. for Housing Panel of 3.31.95 (FOR AID PANEL)

The state of affordable housing market place:

*incomes haven't increased with the cost of housing. Housing expenses used to account for 32% of a person's budget now it takes 38% of their income.

*-HUD serves low & low-mid.-income people, the market place serves the mid-hi & hi-income people, the middle class have been left out, they feel put upon to absorb the cost of affordable housing while having a need themselves.

*non-profit affordable housing industry hasn't found a voice.

*previously non-profits and/or developers were driven more by the availability of gov't funds than the prospect of an equitable venture that would serve community needs

*we cannot serve people below 50% of the median income without government funds.

*1 in 5 low-income households needing affordable housing receives assistance.

*proposed tax cuts benefits the top 10% most wealthy families.

FROM THE NAT'L LOW-INCOME HOUSING COMMISSION

Current acts in Congress related to HUD:

*Jan 20-HUD Sec. Cisneros introduces cuts to the "crazy hodge-podge" agency in the "HUD Reinvention Blueprint" (reducing its 240 programs, regulatory, insurance and subsidizing functions): folding 59 programs into 3 block grant funds; consolidate 29 insurance functions into 2; and terminate 37 duplicative or no longer necessary progs. Thousands of irreparable HUD subsidized apts. would be torn down. He up his proposal saying "We still need HUD...The number of inner city residents in need of rent subsidies has jumped from 700,000 in 1889 to 5.6 million in 1983." The streamlined blueprint for HUD doesn't call for reduced funds.

*Mid Feb.-Rep. Sue Myrick, Sen. Faircloth, Sen. Bond & former HUD Sec. Kemp propose elimination of HUD

*Feb. 23- HUD-VA-IA- Appropriations Subcommittee rescinded & 7.26 billion of HUD's housing and community development funds.

*March 20-Cisneros elaborates on "Reinvention Blueprint", aimed at reducing admin. costs replacing public housing with the voucher system for rent subsidies and closing up 100,000 properties considered beyond repair. In 6 years public housing would be phased out and salvageable buildings would be transferred to private ownership and opened to the general public.

*CRA- Community Reinvestment Act, 1977- legislation that prohibits red lining, or discriminating against a qualified client on the basis of income, race, gender

How to stimulate/ encourage affordable housing:

*offer/ require Pre and Post-Home ownership counseling.

*Must have a market oriented approach. Banks need to see the low income people as "customers" not "clients." Loans to Low-income customers have proven to be extremely safe. Banks need to have a product, volume and geographic distribution that fits the market, ie. if rehab is predominant in a community, then establish a rehab home financing.

*Offer thoughtful loans, 100% loan financing usually leads to failure of the community.

*Partnering of residents, community, priv. business, non-profs., & gov't is most effective

*Lower downpayments on mortgages- due to community activism, some down payments are as low as 2%, they used to be at 25%.

*Non & for-profits must make a profit, what they do with it is different.

The State of the American Community: Empowerment for Local Action

Partners for Livable Communities has spent nearly twenty years identifying aspects of communities that constitute the elusive quality known as "livability." The State of the American Community: Empowerment for Local Action is a final report on a major part of that work, Partners' Shaping Growth in American Communities program.

During five years of work in seventy-two communities in the United States and abroad, Partners examined the nature of livability, concluding that livability is more than a matter of amenities. It is also a matter of basics--safety, health, jobs, justice, environmental concerns. This 176-page volume examines livability and its components, and shows us that all communities share in the need for opportunity, equity, and a life-supporting environment.

The State of the American Community outlines more than one hundred "Best Practices of Community Action" gathered from sites across the United States and the globe. It also includes thought-provoking commentary on the nature of communities--what constitutes livability, what it takes to make a community livable, and what is needed to empower communities.

The State of the American Community is more than a final report on Partners' Shaping Growth in American Communities program. It is a testament to the vitality of American communities and a call for their empowerment.

ORDER FORM

Name: _____

Organization: _____

Address: _____

Phone: _____ Fax: _____

Number of books requested: _____ Amount enclosed: _____

The book is \$19.95 per copy plus \$2.50 for postage and handling.
Orders of five or more are \$13.95 per copy plus UPS shipping costs.

VOCABULARY:

-Collateral- paralell. Property (as security) pledged by a borrower to protect the lender.

-default- failure to make a mortgage payment on a timely basis or to otherwise comply with other requirements of a mortgage. The default rate of low-income customers is low.

-down payment-the part of the prchase price which the buyer pays in cash and does not finance with a mortgage.

-equity- a homeowner's financial interest in a property; the difference btw. the fair market value of a property and the amount sitll owed on the mortgage.

-Housing Vouchers-

-HUD- Department of Housing and Urban Development

-Low Income Housing Tax Credit-provided to states at \$1.25 per capita, the state allocates the tax credits to qualifing property owners on a first come first serve basis.

To qualify a project must have 20% of the units set aside for people earning 50% of the median income or below, or 40% of the units set aside for people at 60% of the median income or below.

-Loan packages-

VA loan- loan guaranteed by the Dept. of Veterans Affairs.

-mortagage-a legal document that pledges a property to the lender as security or payment of a debt.- **FHA mortgage** -mortgage insured by the Federal Housing Authority (FHA)

-underwriting- the process of evaluating a loan applicaton to determine the risk involved for the lender, it involves an analysis of the borrower's creditworthiness an the quality of the property itself.

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effectiveness of programs, not the extent to which federal rules are being followed. HUD would collect and disseminate information on program results to program recipients, Congress and the public.

HUD would reward exceptional performance with bonus funding and may reduce funds where results are not being achieved.

Why do we need HUD?

HUD has a vital mission: making America's communities better places to live by supporting economic development, affordable housing, homeownership, and job opportunities. In the 30 years since it was established, millions of Americans have benefited from HUD programs:

- 23 million families have become homeowners through the FHA;
- More than 7 million people have relied on federally supported public housing;
- Nearly 12.5 million households, including senior citizens and people with disabilities, have lived in federally assisted, privately owned rental housing.

There are responsibilities which no other federal agency handles and which HUD oversees. To name a few: we meet the housing needs of our nation's poorest and most vulnerable people; we protect Americans' rights to fair housing and equal opportunity; we partner with and advocate for the housing industry to meet the needs of more Americans.

The new HUD will continue to perform these vital responsibilities, but in a new way.

Over the last two years, we have identified our key priorities, streamlined programs, resolved the multifamily housing disposition crisis we inherited and reduced our overhead — while continually looking for new and better ways to serve communities and people.

Who will benefit?

Individuals, governments, the private sector, advocates and taxpayers will benefit from the new HUD.

- Individuals will receive greater choice in where they live.

- Cities, counties and states will have maximum flexibility to address housing and community needs, helped by a HUD more interested in results than regulation, and product rather than process.
- Private-sector housing developers, long deterred by burdensome regulations and a cumbersome bureaucracy, would participate in the design of local plans, making it more attractive to leverage their own resources with government money. They would also find a federal government that operates in a more business-like environment.
- Advocates, like the private sector, will have a greater voice in how local plans address the needs of their constituents. They will continue to work with HUD in protecting vulnerable populations, including the elderly and disabled, homeless persons and people with AIDS.
- U.S. taxpayers will be able to influence how their tax dollars are being used by participating in the local planning process. They will also have access to user-friendly reports on how their tax dollars were spent. Most important, under the new HUD, tax dollars will be spent wisely, benefitting individuals and communities in need rather than bureaucratic organizations and outdated programs.

When will this plan go into effect?

Our plan for the new HUD will require legislation. As we develop this legislation, we will collaborate with individuals, local and state government officials, Congress, lenders, developers, advocates, and others. Ultimately, implementation of these programs will be a multi-year process.

How can I get more information?

The publication, *A Place To Live Is The Place To Start*, offers a more detailed description of our proposal for the new HUD. Single copies are available at no charge from:

HUD USER
P.O. Box 6091
Rockville, MD 20849
Phone: 1-800-245-2691

THE NEW HUD

The American people want and deserve a federal government that works for them . . . Together, Secretary Cisneros and I have made a commitment to . . . transform HUD into a strong and vital partner of the American people.

President Clinton
January 18, 1995

The State of the American Community: Empowerment for Local Action

Partners for Livable Communities has spent nearly twenty years identifying aspects of communities that constitute the elusive quality known as "livability." **The State of the American Community: Empowerment for Local Action** is a final report on a major part of that work, Partners' Shaping Growth in American Communities program.

During five years of work in seventy-two communities in the United States and abroad, Partners examined the nature of livability, concluding that livability is more than a matter of amenities. It is also a matter of basics--safety, health, jobs, justice, environmental concerns. This 176-page volume examines livability and its components, and shows us that all communities share in the need for opportunity, equity, and a life-supporting environment.

The State of the American Community outlines more than one hundred "Best Practices of Community Action" gathered from sites across the United States and the globe. It also includes thought-provoking commentary on the nature of communities--what constitutes livability, what it takes to make a community livable, and what is needed to empower communities.

The State of the American Community is more than a final report on Partners' Shaping Growth in American Communities program. It is a testament to the vitality of American communities and a call for their empowerment.

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What is the new HUD?

The new HUD is President Clinton's commitment to make sure that America's cities and the people who live in them have the full opportunity to participate in the nation's progress. The President has worked hard on an economic program and it is working. HUD's task is to provide flexible tools to cities and communities across the country so that they can create jobs, develop affordable housing and revitalize their communities. HUD will work in partnership with cities and communities to accomplish these goals.

How will the new HUD work?

First, we would consolidate 60 major programs into three flexible programs by 1998 that would provide cities with the tools of economic revitalization. They are: an *Affordable Housing Fund* and a *Community Opportunity Fund* for localities and states, and *Housing Certificates for Families and Individuals*.

Second, we would end the current federal public housing system, which simply has not worked for too many people and communities, by converting financial assistance that now goes to housing authorities to rental assistance that would go directly to residents. The residents could use the rental assistance to stay where they are or seek housing in the private rental market.

Third, we would transform the Federal Housing Administration (FHA) into a model of how government should work — streamlined, downsized, entrepreneurial and accountable. This FHA would reclaim its vital mission of helping people whom the private market would not otherwise serve become homeowners and renters — low-income families, minorities and new immigrants.

What is the Affordable Housing Fund?

This fund would support local efforts to buy, develop and rehabilitate affordable housing and promote homeownership. It would replace the myriad of existing affordable housing programs — each with separate requirements, applications, formulas and monitoring — with a single pool of money with common sense rules and simple criteria. We would allocate funds using the same formula we now use for the popular HOME program: 60% for localities and 40% for states, with set-asides for Native

Americans and community-based organizations.

What is the Community Opportunity Fund?

This fund would allow local and state governments to stimulate economic revitalization to meet the most critical needs of distressed communities. For instance, some might fund business loans to entrepreneurs for supermarkets in inner-city neighborhoods. Others might link residents with job opportunities elsewhere in the metropolitan area. We would allocate these funds using the formula for the CDBG program: 70 percent for localities and 30 percent for states, with set-asides for Native Americans and to reward metropolitan areas that create integrated economic development strategies.

*A place to live is the place
to start.*

Henry G. Cisneros
Secretary

How will these funds operate?

Cities, counties and states each year would receive grants to support economic development and housing strategies, based on locally designed plans. They would be held accountable for achieving the goals spelled out in their plans. These plans would have to meet certain national objectives such as targeting funds to benefit low- and moderate-income people, compliance with fair housing laws, attention to vulnerable populations and participation by community-based organizations.

Cities, counties and states for the first time would be able to design comprehensive plans for their communities based on: economic development and housing priorities, the ability to leverage other resources, citizen input, long-term goals, and other issues they identify in the planning process.

What are Housing Certificates for Families and Individuals?

Housing Certificates represent commitments by the federal government to pay the difference between 30 percent of a low-income resident's income and the rental cost of a modest apartment.

All current public housing, assisted housing and Section 8 rental assistance programs would be combined into a single housing assistance fund administered by local and state governments, which would then issue certificates to low-income renters. Federal support to owners of HUD-assisted apartments and to public housing authorities would cease as residents would be permitted — for the first time in 60 years — to make their own informed housing choices.

What will happen to public housing?

We would end subsidies to buildings and bureaucracies. Public housing subsidies would be converted to Housing Certificates. During a transition period, public housing authorities would be given the chance to improve existing housing, demolish deteriorating housing and improve their operations so they can compete with other providers for residents' business. Residents would be able to remain in public housing or use Certificates to move elsewhere. Well-operated public housing authorities would survive; poorly run authorities would not.

How will the Federal Housing Administration change?

FHA will be transformed into an entrepreneurial, government-owned corporation which will be able to work much more effectively with the private market, and with localities and states, to develop affordable rental housing, and to increase opportunities for affordable homeownership.

What is the role of the federal government?

HUD would shift from administering a multitude of prescriptive programs to supporting initiatives identified by localities and states in their plan for the Affordable Housing and Community Opportunity Funds. We would support the performance of localities and states by acting as a clearinghouse for information and innovative ideas.

We would ensure that federal funds are spent in ways that are fiscally prudent and adhere to national objectives by incorporating and monitoring rigorous performance standards. In monitoring performance, HUD would emphasize cost, quality, timeliness and

The State of the American Community: Empowerment for Local Action

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White House / Mickey Leland Fellows Linkages

I. WHITE HOUSE FELLOW EXPECTATIONS

- How and why the program began.
- The program candidate profile (fast professional track; strong community, extra-career contributions; demonstrated reach and growth potential; mature judgment, temperament to work a Cabinet level mentor).

- Results expected.

-- During the program (access; influence; recognition in the Fellow's work office and among his/her peers in the program).

-- After the program (return to the private sector for most; be a better community leader; perhaps pick up an even faster professional track after the Fellows experience; be a better citizen, and available for stints (at senior levels) back in the government, often as a political appointee).

II. LESSONS LEARNED FROM THE WHITE HOUSE FELLOWS PROGRAM

- Selection screening is good, but nowhere near perfect (too few "servants"; too little humility; too difficult to measure growth potential).

- The intensive education experience is unparalleled (it's easy to get top people to meet with WHF's -- it's even good for their c.v.'s)

- It's important to reach beyond producing inside-Beltway policy wonks (the experience must include exposure to different strata and situations of American life; there needs to be more exposure to major foreign policy issues, e.g., the Nixon Doctrine and Shocks in Asia of the early '70's).

- There is a pattern to success, as follows:

-- Start with the right attitude/philosophy toward the work experience (expect and take the snubs, put-downs from the career people around you; take the dirty, unwanted, but important tasks; earn the right to be on the team this way; earn the right to recognition, don't expect it to be handed you just because it's a prestigious program).

-- Start with a game plan, keep referring to it and adjusting as reality requires.

-- Work long and hard; the work experience could be the toughest thing you have done, or will do, because the people around you are more experienced, and some even better, than you. Therefore, you must get up earlier than they do.

-- Try to make an impact in a project you can start and stop during the Fellows year.

-- Consider the experience a solemn trust. From whom such an opportunity is given, much is expected the rest of your life. Don't measure that always in terms of titles, or salary. Measure it in terms of what you can do to make government better, and how you can make it perform better on behalf of people.

III. APPLICATIONS TO THE MICKEY LELAND PROGRAM

- Avoid being just a hunger wonk, or social worker, as a result of the program.
- See solutions as hunger-fighting success. Our ultimate objective is to work the soup kitchens and food banks out of business, not perpetuate them.
- Don't make the MLHF experience the be-all, end-all. It's a beginning. Reaching your full potential will involve many other stretching and preparedness opportunities. Get the graduate degrees, get management/business experience, prepare yourself to be a government civil, or foreign, servant sometime in your life, so as to use your vision and skills to make a difference where the clout is.
Don't make the MLHF experience the be-all, end-all. It's a beginning. Reaching your full potential will involve many other stretching and preparedness opportunities. Get the graduate degrees, get management/business experience, prepare yourself to be a government civil, or foreign, servant sometime in your life, so as to use your vision and skills to make a difference where the clout is.
- Recognize that professionalism and management skills are at a premium with nongovernmental organizations (NGO's), as well. When you work there, keep them focussed on productivity and hunger solutions with a human face.
bring together
- Extend your reach to recognize that hunger is hunger for food -- but it's also hunger for shelter, clothing, health care, employment, education, justice, and human rights.

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" " food entitlements.
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doing dirty work isn't always bad.

vision - weave in to: witty gritty for access
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On the Threshold

Environmental Changes as Causes of Acute Conflict

Thomas F.
Homer-Dixon

A number of scholars have recently asserted that large-scale human-induced environmental pressures may seriously affect national and international security.¹ Unfortunately, the environment-security theme encompasses an almost unmanageable array

Thomas F. Homer-Dixon is an Assistant Professor at University College, University of Toronto, and Coordinator of the College's Peace and Conflict Studies Program. He is co-director of an international research project on Environmental Change and Acute Conflict sponsored jointly by his Program and the American Academy of Arts and Sciences.

This article is an abridged version of a paper prepared for the Global Environmental Change Committee of the Social Science Research Council and for a conference on "Emerging Trends in Global Security" convened by York University in October, 1990. The full paper is available from the author. Portions have appeared in "Environmental Change and Economic Decline in Developing Countries," *International Studies Notes*, Vol. 16, No. 1 (Winter 1991), pp. 18-23; "Environmental Change and Human Security," *Behind the Headlines*, Vol. 48, No. 3 (Toronto: Canadian Institute for International Affairs, 1991); and "Environmental Change and Violent Conflict," *American Academy of Arts and Sciences, Occasional Paper No. 4* (June 1990). For their helpful comments, the author is grateful to Peter Cebon, William Clark, Daniel Deudney, Darya Farha, Peter Gleick, Ernst Haas, Fen Hampson, Roger Karapin, Jill Lazenby, Vicki Norberg-Bohm, Ted Parson, George Rathjens, James Risbey, Richard Rockwell, Thomas Schelling, Eugene Skolnikoff, Martha Snodgrass, Janice Stein, Urs Thomas, Myron Weiner, and Jane Willms. Financial support for research and writing was received from The Royal Society of Canada, the Donner Canadian Foundation, and the Social Sciences and Humanities Research Council of Canada.

1. See, for example, Janet Welsh Brown, ed., *In the U.S. Interest: Resources, Growth, and Security in the Developing World* (Boulder, Colo.: Westview, 1990); Neville Brown, "Climate, Ecology and International Security," *Survival*, Vol. 31, No. 6 (November/December 1989), pp. 519-532; Peter Gleick, "Climate Change and International Politics: Problems Facing Developing Countries," *Ambio*, Vol. 18, No. 6 (1989), pp. 333-339; Gleick, "The Implications of Global Climatic Changes for International Security," *Climatic Change*, Vol. 15, No. 1/2 (October 1989), pp. 309-325; Ronnie Lipschutz and John Holdren, "Crossing Borders: Resource Flows, the Global Environment, and International Security," *Bulletin of Peace Proposals*, Vol. 21, No. 2 (June 1990), pp. 121-33; Jessica Tuchman Mathews, "Redefining Security," *Foreign Affairs*, Vol. 68, No. 2 (Spring 1989), pp. 162-177; Norman Myers, "Environment and Security," *Foreign Policy*, No. 74 (Spring 1989), pp. 23-41; Michael Renner, *National Security: The Economic and Environmental Dimensions*, Worldwatch Paper No. 89 (Washington, D.C.: Worldwatch Institute, 1989); and Arthur Westing, ed., *Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action* (Oxford: New York, 1986). For a skeptical perspective, see Daniel Deudney, "The Case Against Linking Environmental Degradation and National Security," *Millennium*, Vol. 19, No. 3 (Winter 1990), pp. 461-476.

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of sub-issues, especially if we define "security" broadly to include human physical, social, and economic well-being.²

We can narrow the scope of this research problem by focusing on how environmental change affects *conflict*, rather than security, but still the topic is too vast. Environmental change may contribute to conflicts as diverse as war, terrorism, or diplomatic and trade disputes. Furthermore, it may have different causal roles: in some cases, it may be a proximate and powerful cause; in others, it may only be a minor and distant player in a tangled story that involves many political, economic, and physical factors. In this article, I accept the premise that environmental change may play a variety of roles as a cause of conflict, but I bound my analysis by focusing on *acute* national and international conflict, which I define as conflict involving a substantial probability of violence.

How might environmental change lead to acute conflict? Some experts propose that environmental change may shift the balance of power between states either regionally or globally, producing instabilities that could lead to war.³ Or, as global environmental damage increases the disparity between the North and the South, poor nations may militarily confront the rich for a greater share of the world's wealth.⁴ Warmer temperatures could lead to contention over new ice-free sea-lanes in the Arctic or more accessible resources in the Antarctic.⁵ Bulging populations and land stress may produce waves of environmental refugees⁶ that spill across borders with destabilizing effects on the recipient's domestic order and on international stability. Countries may fight over dwindling supplies of water and the effects of upstream pollution.⁷ In developing countries, a sharp drop in food crop production could lead to internal strife across urban-rural and nomadic-sedentary cleavages.⁸ If environmental degradation makes food supplies increasingly tight,

2. Readers interested in a careful argument for an expanded notion of security that includes environmental threats to national well-being should see Richard Ullman, "Redefining Security," *International Security*, Vol. 8, No. 1 (Summer 1983), esp. pp. 133 and 143.

3. For example, see David Wirth, "Climate Chaos," *Foreign Policy*, No. 74 (Spring 1989), p. 10.

4. Robert Heilbroner, *An Inquiry into the Human Prospect* (New York: Norton, 1980), pp. 39 and 95; William Ophuls, *Ecology and the Politics of Scarcity: A Prologue to a Political Theory of the Steady State* (San Francisco: Freeman, 1977), pp. 214-217.

5. Fen Hampson, "The Climate for War," *Peace and Security*, Vol. 3, No. 3 (Autumn 1988), p. 9.

6. Jodi Jacobson, *Environmental Refugees: A Yardstick of Habitability*, Worldwatch Paper No. 86 (Washington, D.C.: Worldwatch Institute, 1988).

7. Peter Gleick, "Climate Change," p. 336; Malin Falkenmark, "Fresh Waters as a Factor in Strategic Policy and Action," in Westing, *Global Resources*, pp. 85-113.

8. Peter Wallensteen, "Food Crops as a Factor in Strategic Policy and Action," Westing, *Global Resources*, pp. 151-155.

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exporters may be tempted to use food as a weapon.⁹ Environmental change could ultimately cause the gradual impoverishment of societies in both the North and South, which could aggravate class and ethnic cleavages, undermine liberal regimes, and spawn insurgencies.¹⁰ Finally, many scholars indicate that environmental degradation will "ratchet up" the level of stress within national and international society, thus increasing the likelihood of many different kinds of conflict and impeding the development of cooperative solutions.¹¹

Which of these scenarios are most plausible and why? In the following pages, I review some reasons for the current salience of environmental issues, and I note several examples of good research on links between environmental change and acute conflict. I then suggest a preliminary analytical framework that lays out a research agenda for exploring the issue. Using this framework, and drawing on the literature of conflict theory, I suggest hypotheses about the likely links between environmental change and acute conflict.

I propose that poor countries will in general be more vulnerable to environmental change than rich ones; therefore, environmentally induced conflicts are likely to arise first in the developing world. In these countries, a range of atmospheric, terrestrial, and aquatic environmental pressures will in time probably produce, either singly or in combination, four main, causally interrelated social effects: reduced agricultural production, economic decline, population displacement, and disruption of regular and legitimized social relations. These social effects, in turn, may cause several specific types of acute conflict, including scarcity disputes between countries, clashes between ethnic groups, and civil strife and insurgency, each with potentially serious repercussions for the security interests of the developed world.

I do not hypothesize that the causal links between these variables will be tight or deterministic. As anti-Malthusians have argued for nearly two centuries, numerous intervening factors—physical, technological, economic, and social—often permit great resilience, variability, and adaptability in human-environmental systems.¹² I identify a number of these factors in this article;

9. Ibid., p. 146–151.

10. Ted Gurr, "On the Political Consequences of Scarcity and Economic Decline," *International Studies Quarterly*, Vol. 29, No. 1 (March 1985), pp. 51–75.

11. "The disappearance of ecological abundance seems bound to make international politics even more tension ridden and potentially violent than it already is. Indeed, the pressures of ecological scarcity may embroil the world in hopeless strife, so that long before ecological collapse occurs by virtue of the physical limitations of the earth, the current world order will have been destroyed by turmoil and war." Ophuls, *Ecology*, p. 214.

12. In his classic formulation, the economist Thomas Malthus claimed that severe human

in particular, I examine whether free-market mechanisms may permit developing countries to minimize the negative impacts of environmental degradation. But I suggest that, as the human population grows and environmental damage progresses, policymakers will have less and less capacity to intervene to keep this damage from producing serious social disruption, including conflict.

These hypotheses should be thoroughly tested using both historical and contemporary data at the regional and societal levels. There is great need for empirical research by students of security affairs.

The Recent Salience of Environmental Issues

While the last decades have seen increasing environmental damage around the globe, for the most part this change has progressed incrementally rather than abruptly. Several factors explain the sudden attention recently given the issue. First, with the waning of the ideological and military confrontation between the superpowers, a space for other issues has opened in public discourse in Western societies. Second, public and media awareness of global environmental change was catalyzed in North America by the particularly hot and dry summer of 1988.¹³ These two factors are principally circumstantial. But there is a third factor at work: during the last decade there has been a genuine shift in the scientific community's perception of global environmental problems. The environmental system, in particular the earth's climate, used to be regarded as relatively resilient and stable in the face of human insults. But now it is widely believed to have multiple local equilibria that are not highly stable.¹⁴ In 1987, for example, geochemist Wallace Broecker reflected on recent polar ice-core and ocean-sediment data: "What these

hardship was unavoidable, because human population grows geometrically when unconstrained, while food production can only grow arithmetically. Thomas Malthus, *An Essay on the Principle of Population* (New York: Penguin, 1970 [1798]), pp. 70-71.

13. See Stephen Schneider in *Global Warming: Are We Entering the Greenhouse Century?* (San Francisco: Sierra Club, 1989), chapter 7.

14. The development of chaos theory has contributed to this understanding. A chaotic system has nonlinear and feedback relationships between its variables that amplify small perturbations, thereby rendering accurate prediction of the system's state increasingly difficult the further one tries to project into the future. In chaos (not to be confused with randomness), deterministic causal processes still operate at the micro-level and, although the system's state may not be precisely predictable for a given point in the future, the boundaries within which its variables must operate are often identifiable. See James Crutchfield, J. Dooyne Farmer, and Norman Packard, "Chaos," *Scientific American*, Vol. 255, No. 6 (December 1986), pp. 46-57; James Gleick, *Chaos: Making of a New Science* (New York: Viking, 1987).

records indicate is that Earth's climate does not respond to forcing in a smooth and gradual way. Rather, it responds in sharp jumps which involve large-scale reorganization of Earth's system. . . . We must consider the possibility that the main responses of the system to our provocation of the atmosphere will come in jumps whose timing and magnitude are unpredictable."¹⁵

A paradigm-shattering example of such nonlinear or "threshold" effects in complex environmental systems was the discovery of the Antarctic ozone hole in the mid-1980s.¹⁶ The hole was startling evidence of the instability of the environmental system in response to human inputs, of the capacity of humankind to significantly affect the ecosystem on a global scale, and of our inability to predict exactly how the system will change.

This altered perception of the nature of the environmental system has percolated out of the scientific community into the policymaking community.¹⁷ It may also be influencing the broader public's view of environmental problems. Scientists, policymakers, and laypeople are beginning to interpret data about environmental change in a new light: progressive, incremental degradation of environmental systems is not as tolerable as it once was, because we now realize that we do not know where and when we might cross a threshold and move to a radically different and perhaps highly undesirable system.

As compared to the first two factors accounting for the renewed salience of environmental issues, this one is not at all circumstantial; it is rooted in a maturing understanding of natural systems and the global damage humans

15. Wallace Broecker, "Unpleasant Surprises in the Greenhouse?" *Nature*, Vol. 328, No. 6126 (July 9, 1987), pp. 123-126. See also James Gleick, "Instability of Climate Defies Computer Analysis," *New York Times*, March 20, 1988, p. 30. William Clark has made a similar point about interlinked physical, ecological, and social systems: "Typically in such systems, slow variation in one property can continue for long periods without noticeable impact on the rest of the system. Eventually, however, the system reaches a state in which its buffering capacity or resilience has been so reduced that additional small changes in the same property, or otherwise insignificant external shocks, push the system across a threshold and precipitate a rapid transition to a new system state or equilibrium." See William Clark, *On the Practical Implications of the Carbon Dioxide Question* (Laxenburg, Austria: International Institute of Applied Systems Analysis, 1985), p. 41.

16. J.C. Farman, B.G. Gardiner, and J.D. Shanklin, "Large Losses of Total Ozone in Antarctica Reveal Seasonal ClO_x/NO_x Interaction," *Nature*, Vol. 315, No. 6016 (May 16, 1985), pp. 207-210. Significant depletion of stratospheric ozone over Antarctica began in the 1970s, but was not identified until the 1980s because ozone-measuring satellites had been programmed to discard anomalous results. See Schneider, *Global Warming*, p. 226.

17. See, for example, the speeches on the floor of the U.S. Senate by Senators Nunn, Gore and Wirth, June 28, 1990, *Congressional Record—Senate*, pp. S8929-S8937.

are inflicting on these systems. This understanding is likely to endure, as will strong concern about the environment. Over the next fifty years there will be no shortage of increasingly ominous environmental data to interpret through this new paradigm. Even if there are no dramatic, nonlinear shifts in the ecosystem (though their probability may be quite high), environmental problems will remain prominent on our scientific, policy, and public agendas.

Recent Research on Environmental Change and Conflict

Although there is an old and rich body of thought on the social impacts of environmental change,¹⁸ the literature on the specific connections between environmental change and acute conflict is surprisingly thin. Here I briefly review several important studies.

Angus MacKay examines the relationship between climate change and civil violence in the kingdom of Castile (much of modern-day Spain).¹⁹ During the fifteenth century, there were numerous well-documented episodes of popular unrest in Castile, and some seem to have been produced directly by climate-induced food shortages. In March of 1462, for instance, rioters rampaged through Seville after floods forced the price of bread beyond the means of the poor. Usually, however, the causal connections were more complex. An important intervening factor was the fabric of religious and social beliefs held by the people and promoted by preachers, especially those beliefs

18. Discussions of the relationship between environment and society date back to the classical Greeks. In the early twentieth century, many explanations tended towards a simplistic "environmental determinism" that gave little regard to the role in human-environmental systems of feedback loops, human adaptability, and social institutions. See, for instance, Ellsworth Huntington, *Civilization and Climate* (New Haven: Yale University Press, 1915). This perspective has seen something of a resurgence in recent decades; see, for example, Margaret Biswas and Arit Biswas, eds., *Food, Climate and Man* (New York: Wiley, 1979). A survey of some of the best modern literature is William Clark, "The Human Dimensions of Global Change," in Committee on Global Change (U.S. National Committee for the IGBP), *Toward an Understanding of Global Change: Initial Priorities for U.S. Contributions to the International Geosphere-Biosphere Program (IGBP)* (Washington, D.C.: National Academy Press, 1988), pp. 134-213. On the social impact of climate change, see Robert Kates, Jesse Ausubel, and Mimi Berberian, eds., *Climate Impact Assessment: Studies of the Interaction of Climate and Society*, Scientific Committee on Problems of the Environment (SCOPE) No. 27 (New York: Wiley, 1985).

19. Angus MacKay, "Climate and Popular Unrest in Late Medieval Castile," in T.M. Wigley, M.J. Ingram, and G. Farmer, *Climate and History: Studies in Past Climates and The Impact on Man* (Cambridge: Cambridge University Press, 1981), pp. 356-376. For other historical case studies of climate-society interaction, see Hubert Lamb, *Weather, Climate and Human Affairs* (London: Routledge, 1988).

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attributing weather fluctuations to the sin of someone in the community.²⁰ MacKay thus argues against a simplistic "stimulus-response" model of environment-conflict linkages and instead for one that allows for "culturally mediated" behavior.

Addressing a modern conflict, William Durham has analyzed the demographic and environmental pressures behind the 1969 "Soccer War" between El Salvador and Honduras.²¹ Because of the prominence in this conflict of previous migration from El Salvador to Honduras, and because of the striking evidence of population growth and land stress in the two countries (most notably in El Salvador), a number of analysts have asserted that the Soccer War is a first-class example of an ecologically driven conflict.²² A simple Malthusian interpretation does seem to have credibility when one looks at the aggregate data.²³ But Durham shows that changes in agricultural practice and land distribution—to the detriment of poor farmers—were more powerful inducements to migration than sheer population growth. Land scarcity developed not because there was too little to go around, but because of "a process of competitive exclusion by which the small farmers [were] increasingly squeezed off the land" by large land owners.²⁴ Durham thus contends that ecologists cannot directly apply to human societies the simple, density-dependent models of resource competition they commonly use to study asocial animals: a distributional component must be added, because human behavior is powerfully constrained by social structure and the resource access it entails.²⁵

20. Anger over food scarcity was sometimes turned against Jews and *conversos* (Jews who had converted to Christianity after Iberian pogroms in the late fourteenth century), and sometimes against small shopkeepers who were accused of the "sins" of creating shortages and overpricing food.

21. William Durham, *Scarcity and Survival in Central America: The Ecological Origins of the Soccer War* (Stanford, Calif.: Stanford University Press, 1979).

22. For instance, see Paul Ehrlich, Anne Ehrlich, and John Holdren, *Ecoscience: Population, Resources, Environment* (San Francisco: Freeman, 1977), p. 908.

23. El Salvador was the most densely populated country in the Western Hemisphere (190 people per square kilometer in 1976; compare India at 186), with a population growth rate of 3.5 percent per year (representing a doubling time of about twenty years). Most of the country had lost its virgin forest, land erosion and nutrient depletion were severe, and total food production fell behind consumption in the mid-50s. Per capita farmland used for basic food crops fell from 0.15 hectares in 1953 to 0.11 hectares in 1971.

24. Durham, *Scarcity and Survival*, p. 54.

25. The importance of variables intervening between population density and conflict is emphasized in Nazli Choucri, ed., *Multidisciplinary Perspectives on Population and Conflict* (Syracuse, N.Y.: Syracuse University Press, 1984); see also Jack Goldstone, *Revolution and Rebellion in the Early Modern World* (Berkeley, Calif.: University of California Press, 1991).

Others have analyzed environment-conflict linkages in the Philippines.²⁶ Although the country has suffered from serious internal strife for many decades, its underlying causes may be changing: population displacement, deforestation, and land degradation appear to be increasingly powerful forces driving the current communist-led insurgency.²⁷ Here, too, the linkages between environmental change and conflict are complex, involving numerous intervening variables, both physical and social. The Filipino population growth rate of 2.5 percent is among the highest in Southeast Asia. To help pay the massive foreign debt, the government has encouraged the expansion of large-scale lowland agriculture. Both factors have swelled the number of landless agricultural laborers. Many have migrated to the Philippines' steep and ecologically vulnerable uplands where they have cleared land or established plots on previously logged land. This has set in motion a cycle of erosion, falling food production, and further clearing of land. Even marginally fertile land is becoming hard to find in many places, and economic conditions are often dire for the peasants.²⁸ Civil dissent is rampant in these peripheral areas, which are largely beyond the effective control of the central government.

While these studies are commendable, a review of all of the recent work on environmental change and conflict reveals a number of difficulties, some methodological and some conceptual. First, researchers often emphasize human-induced climate change and ozone depletion to the neglect of severe terrestrial and aquatic environmental problems such as deforestation, soil degradation, and fisheries depletion. Second, much of the recent writing on the links between environmental change and conflict is anecdotal. These pieces do not clearly separate the "how" question (how will environmental change lead to conflict?) from the "where" question (where will such conflict occur?). I address the "how" question in the following sections of this article.

26. See especially Gareth Porter and Delfin Ganapin, Jr., *Resources, Population, and the Philippines' Future: A Case Study*, WRI Paper No. 4 (Washington, D.C.: World Resources Institute [WRI], 1988).

27. Other works on the Philippines used in this article are Gary Hawes, "Theories of Peasant Revolution: A Critique and Contribution from the Philippines," *World Politics*, Vol. 42, No. 1 (January 1990), pp. 261-298; Gregg Jones, *Red Revolution: Inside the Philippine Guerrilla Movement* (Boulder, Colo.: Westview, 1989); World Bank, *Philippines: Environment and Natural Resource Management Study* (Washington, D.C.: World Bank, 1989).

28. Leonard notes that, around the planet, population growth, inequitable land distribution, and agricultural modernization have caused huge numbers of desperately poor people to move to "remote and ecologically fragile rural areas" or to already overcrowded cities. See Jeffrey Leonard, "Overview," *Environment and the Poor: Development Strategies for a Common Agenda* (New Brunswick, N.J.: Transaction, 1989), p. 5.

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Third, environmental-social systems are hard to analyze. They are characterized by multiple causes and effects and by a host of intervening variables, often linked by interactive, synergistic, and nonlinear causal relations. Empirical data about these variables and relations are rarely abundant. Although the underlying influence of environmental factors on conflict may be great, the complex and indirect causation in these systems means that the scanty evidence available is always open to many interpretations. Furthermore, understanding environmental-social systems involves specifying links across levels of analysis usually regarded as quite independent.²⁹

Fourth, the prevailing "naturalistic" epistemology and ontology of social science may hinder accurate understanding of the links between physical and social variables within environmental-social systems.³⁰ In particular, it may be a mistake to conjoin, in causal generalizations, types of physical event with types of intentional social action.³¹ Fifth, researchers must acquire detailed knowledge of a daunting range of disciplines, from atmospheric science and agricultural hydrology to energy economics and international relations theory.

Sixth and finally, the modern realist perspective that is often used to understand security problems is largely inadequate for identifying and explaining the links between environmental change and conflict. Realism focuses on states as rational maximizers of power in an anarchic system; state behavior is mainly a function of the structure of power relations in the system.³² But this emphasis on states means that theorists tend to see the world as divided into territorially distinct, mutually exclusive countries, not broader environmental regions or systems. Realism thus encourages scholars to deemphasize transboundary environmental problems, because such prob-

29. For example, researchers might need to be able to show how countless individual actions affect global climate variables (thus moving "up" through several levels of analysis), and how, in turn, these global variables influence conflict behavior (thereby moving back "down" to group and individual behavior).

30. A naturalistic view of social science holds that there is no qualitative difference between the domains of investigation of the natural and social sciences, suggesting that the procedures used for research and explanation can be basically the same in both domains.

31. For over three decades, issues surrounding intentionality and causal generalization have been the subject of heated debate in philosophy of mind, language, and science. For the purposes of this article, however, I treat as unproblematic causal generalizations that include physical and social variables.

32. My comments here principally refer to the influential "neorealist" school. See in particular Kenneth Waltz, *Theory of International Politics* (Reading, Mass.: Addison-Wesley, 1979); and Robert Gilpin, *War and Change in World Politics* (Cambridge: Cambridge University Press, 1981).

lems often cannot be linked to a particular country, and do not have any easily conceptualized impact on the structure of economic and military power relations between states. Realism induces scholars to squeeze environmental issues into a structure of concepts including "state," "sovereignty," "territory," "national interest," and "balance of power." The fit is bad, which may lead theorists to ignore, distort, and misunderstand important aspects of global environmental problems.

Mapping Causes and Effects

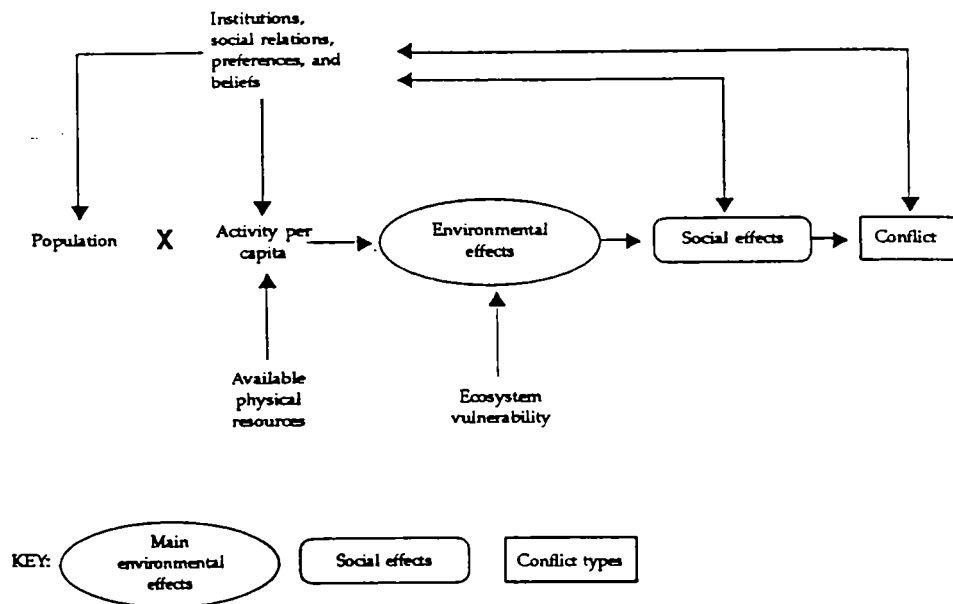
This article proposes a research agenda to guide the study of environmental change and acute conflict. Before we can formulate plausible hypotheses, however, we need a clear analytical framework, such as suggested by Figure 1. This and subsequent figures in this article provide the basis for a detailed causal-path analysis of the links between environmental change and conflict. Such an analysis can help bring some order into the profusion of predictions concerning these issues, and it can also help researchers address several of the impediments to research mentioned above.³³

Figure 1 suggests that the total effect of human activity on the environment in a particular ecological region is mainly a function of two variables: first, the product of total population in the region and physical activity per capita, and second, the vulnerability of the ecosystem in that region to those particular activities. Activity per capita, in turn, is a function of available physical resources (which include nonrenewable resources such as minerals, and renewable resources such as water, forests, and agricultural land) and ideational factors, including institutions, social relations, preferences, and beliefs.³⁴ The figure also shows that environmental effects may cause social effects that in turn could lead to conflict. For example, the degradation of agricultural land might produce large-scale migration, which could create

33. Most notably, it can help them gauge the causal power of distant environmental forces, identify potentially important interactions of simultaneous environmental problems, specify intervening variables, and identify causal links across levels of analysis.

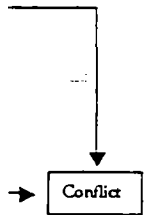
34. Over short and medium terms, activity per capita is also a function of the economy's current capital stock, which reflects the society's prevailing level and type of technological development. Over the long term, we can assume that a society's technology is a result of two components of Figure 1: certain ideational factors (most importantly, beliefs about the nature of physical reality held by particular knowledge-oriented groups in the society) and available physical resources. I use the adjective "ideational" to emphasize that factors such as institutions, social relations, and beliefs are products of the human mind.

Figure 1. Environmental Change and Acute Conflict.



ethnic conflicts as migratory groups clash with indigenous populations. There are important feedback loops from social effects and conflict to the ideational factors and thence back to activity per capita and population. Thus, ethnic clashes arising from migration could alter the operation of a society's markets and thereby its economic activity.³⁵

35. Numerous writers, especially those considering the social impact of climate change, have generated similar diagrams. See in particular the excellent survey article by Richard Warrick and William Riebsame entitled "Societal Response to CO₂-Induced Climate Change: Opportunities for Research," *Climatic Change*, Vol. 3, No. 4 (1981), pp. 387-428. Two points should be noted about Figure 1: First, there are many ways it could be made more accurate, but at the cost of greater complexity. For example, there are feedback loops from social effects and conflict to environmental effects. The diagrams in this article highlight what I believe are the variables and causal linkages most important to our discussion. Second, each variable in Figure 1 aggregates many sub-variables. For instance, "activity per capita" encompasses sub-variables ranging from the extent of cattle ranching to the rate of automobile use. Consequently, an arrow in Figure 1 may represent either a positive or a negative correlation, depending on the specific sub-variables considered. In Figures 2-4, which identify more specific variables, all arrows represent positive correlations.



To clarify the research agenda, we can divide the "how" question (how will environmental change lead to conflict?) into two independent questions. First, what are the important social effects of environmental change? Second, what types of acute conflict, if any, are most likely to result from these social effects? The first question asks about the nature of the arrow in Figure 1 between "environmental effects" and "social effects," while the second asks about the arrow between "social effects" and "conflict."

My focus on these two causal linkages does not deny the importance of the other variables and linkages in the figure. We must be aware of the role of population growth, demographic structure, and patterns of population distribution.³⁶ And we must understand the effect of the ideational factors at the top of the diagram. This social and psychological context is immensely broad and complex. It includes patterns of land distribution (as in the Soccer War); family and community structure; the economic and legal incentives to consume and produce goods, including the system of property rights and markets; perceptions of the probability of long-run political and economic stability; historically rooted patterns of trade and interaction with other societies (as with debt and export relations between the Philippines and the North); the distribution of coercive power within and among nations; the form and effectiveness of institutions of governance; and metaphysical beliefs about the relationship between humans and nature (as in medieval Castile).

Without a full understanding of these intervening factors we cannot begin to grasp the true nature of the relationships between human activity, environmental change, social disruption, and conflict.³⁷ These factors largely determine the vulnerability and adaptability of a society when faced with environmental stresses. There is historical evidence that certain societies have technological, institutional, or cultural characteristics that make them very

36. Experts vigorously dispute the effects of population growth on the environment, economic well-being, and social organization. Julian Simon is optimistic in *The Ultimate Resource* (Princeton: Princeton University Press, 1981); Paul and Anne Ehrlich reiterate their well-known pessimism in *The Population Explosion* (London: Hutchinson, 1990). The question is surveyed by Geoffrey McNicoll in "Consequences of Rapid Population Growth: An Overview and Assessment," *Population and Development Review*, Vol. 10, No. 2 (June 1984), pp. 177-240.

37. Recognition of the role of these factors distinguishes simplistic environmental determinism from sophisticated accounts of the nature of the environmental threat posed to humankind. Perhaps the most extreme example of the former in the environmental-security literature is Brown, "Climate, Ecology and International Security," pp. 523-524. Brown implies that climate change was an important and relatively proximate cause of social upheaval in Europe in the 1840s, imperial expansion between 1850 and 1940, the Cold War, and the 1974 Ethiopian coup.

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Figure 1 clarifies these aspects of our research agenda. If we wish to understand a society's capacity to prevent severe social disruption (where the preventive action could be either mitigation of, or adaptation to, the environmental stress), we need to understand the arrows between the ideational factors at the top of the figure and "population," "activity per capita," and "social effects" along the main spine of the figure. If we wish to understand a society's propensity toward conflict (given certain social effects due to the environmental stress), we need to understand the arrow between the ideational factors and "conflict." When sufficiently advanced, this research should help identify key intervention points where policymakers might be able to alter the causal processes linking human activity, environmental degradation, and conflict. These interventions will fall into two general categories: those that seek to prevent negative social effects and those that seek to prevent the conflict that could result from these social effects. In the following pages I refer to these as "first-stage" and "second-stage" interventions.

THE RANGE OF ENVIRONMENTAL PROBLEMS

Developing countries are likely to be affected sooner and more severely by environmental change than rich countries. By definition, they do not have the financial, material, or intellectual resources of the developed world; furthermore, their social and political institutions tend to be fragile and riven with discord. It is probable, therefore, that developing societies will be less able to apprehend or respond to environmental disruption.³⁹

Seven major environmental problems (the "environmental effects" in Figure 1) might plausibly contribute to conflict within and among developing countries: greenhouse warming, stratospheric ozone depletion, acid deposition, deforestation, degradation of agricultural land, overuse and pollution

38. Social vulnerability and adaptability have been the focus of much research and thought. See Warrick and Riebsame, "Societal Response." On the conditions and variables that determine vulnerability, see Diana Liverman, "Vulnerability to Global Environmental Change," in Roger Kasperson, et al., eds., *Understanding Global Environmental Change: The Contributions of Risk Analysis and Management*, report of an international workshop at Clark University, October 11-13, 1989 (Worcester, Mass.: Clark University, 1989), pp. 32-33.

39. Gurr, "Political Consequences of Scarcity," pp. 70-71.

of water supplies, and depletion of fish stocks.⁴⁰ These problems can all be crudely characterized as large-scale human-induced problems, with long-term and often irreversible consequences, which is why they are often grouped together under the rubric "global change."⁴¹ However, they vary greatly in spatial scale: the first two involve genuinely global physical processes, while the last five involve regional physical processes, although they may appear in locales all over the planet. These seven problems also vary in time scale: for example, while a region can be deforested in only a few years, and severe ecological and social effects may be noticeable almost immediately, human-induced greenhouse warming will probably develop over many decades⁴² and may not have truly serious implications for humankind for half a century or more after the signal is first detected. In addition, some of these problems (for instance, deforestation and degradation of water supplies) are much more advanced than others (such as greenhouse warming and ozone depletion) and are already producing serious social disruption. This variance in tangible evidence for these problems contributes to great differences in our certainty about their ultimate severity. The uncertainties surrounding greenhouse warming, for example, are thus far greater than those concerning deforestation.⁴³

40. I have left off this list a number of environmental problems. Declining biodiversity, for example, might contribute to acute conflict (by weakening agricultural productivity over the long term), but even more indirectly than the seven environmental stresses discussed here. Increased dumping of toxic wastes in the South, and accidents in the South involving subsidiaries of Northern companies (such as the Bhopal tragedy), will probably do no more than strain economic and diplomatic relations, although such incidents could lead to sporadic, localized violence. Perceptions of environmental damage or potential damage (whether or not the perceptions are justified) might also induce tensions; for instance, the siting of a nuclear plant close to an international border could lead to protests in neighboring countries. However, it seems unlikely that such perceptions by themselves could cause widespread conflict.

41. Readers interested in technical background on these problems should consult *World Resources 1990-91* (New York: Oxford University Press, 1990) and *World Resources 1988-89* (New York: Basic Books, 1988). This publication, produced biennially by the World Resources Institute (WRI) in collaboration with the United Nations Environment Programme and other organizations, is widely regarded as the most accessible, accurate, and comprehensive source for information on global change issues. The more popular *State of the World* report published annually by the Worldwatch Institute is useful but sometimes selective and tendentious.

42. However, as Broecker has pointed out, nonlinear or threshold effects in the atmospheric system could produce a sudden shift of the climate to a new equilibrium by altering, for example, the direction of major ocean currents such as the Gulf Stream. Broecker, "Unpleasant Surprises in the Greenhouse?" p. 124.

43. However, the uncertainties remain substantial for deforestation. See Vaclav Smil, *Energy, Food, Environment: Realities, Myths, Options* (Oxford, U.K.: Oxford University Press, 1987), pp. 231-237.

Many of these problems are causally interrelated. For instance, acid deposition damages agricultural land, fisheries, and forests. Greenhouse warming may contribute to deforestation by moving northward the optimal temperature and precipitation zones for many tree species, by increasing the severity of windstorms and wildfires, and by expanding the range of pests and diseases.⁴⁴ The release of carbon from these dying forests would reinforce the greenhouse effect. The increased incidence of ultraviolet radiation due to the depletion of the ozone layer will probably damage trees and crops, and it may also damage the phytoplankton at the bottom of the ocean food chain.⁴⁵

Finally, when we consider the social effects of environmental change, especially of climate change, we should be especially aware of changes in the incidence of "extreme" environmental events. Social impacts result "not so much from slow fluctuations in the mean, but from the tails of the distribution, from extreme events." While a two-to-three degree celsius mean global warming might not seem too significant for agricultural production, it may produce a large increase in crop-devastating droughts, floods, heat waves, and storms.⁴⁶

FOUR PRINCIPAL SOCIAL EFFECTS

Environmental degradation may cause countless often subtle changes in developing societies. These range from increased communal cooking as fuelwood becomes scarce around African villages, to worsened poverty of Filipino coastal fishermen whose once-abundant grounds have been destroyed by trawlers and industrial pollution. Which of the many types of social effect might be crucial links between environmental change and acute conflict? This is the first part of the "how" question. To address it, we must use both the best knowledge about the social effects of environmental change and the best knowledge about the nature and causes of social conflict.

44. WRI, et al., *World Resources 1990-91*, p. 111.

45. Robert Worrest, Hermann Gucinski, and John Hardy, "Potential Impact of Stratospheric Ozone Depletion on Marine Ecosystems," in John Topping, Jr., ed., *Coping with Climate Change: Proceedings of the Second North American Conference on Preparing for Climate Change* (Washington, D.C.: The Climate Institute, 1989), pp. 256-262.

46. T.M.L. Wigley, "Impact of Extreme Events," *Nature*, Vol. 316, No. 6024 (July 11, 1985), pp. 106-107. Since the probability distributions for most climate variables describe a bell curve, Wigley calculates that a shift in the mean by one standard deviation would change a 1-in-20-year extreme to one that occurs on average 1 year in 4, while the 1-in-100-year extreme would become a 1-in-11-year event.

In thus working from both ends towards the middle of the causal chain, I hypothesize that four principal social effects may, either singly or in combination, substantially increase the probability of acute conflict in developing countries: decreased agricultural production, economic decline, population displacement, and disruption of legitimized and authoritative institutions and social relations. These effects will often be causally interlinked, sometimes with reinforcing relationships. For example, the population displacement resulting from a decrease in agricultural production may further disrupt agricultural production. Or economic decline may lead to the flight of people with wealth and education, which in turn could eviscerate universities, courts, and institutions of economic management, all of which are crucial to a healthy economy.

AGRICULTURAL PRODUCTION. Decreased agricultural production is often mentioned as potentially the most worrisome consequence of environmental change,⁴⁷ and Figure 2 presents some of the causal scenarios frequently proposed by researchers. This illustration is not intended to be exhaustive: the systemic interaction of environmental and agricultural variables is far more complex than the figure suggests.⁴⁸ Moreover, no one region or country will exhibit all the indicated processes: while some are already clearly evident in certain areas, others are not yet visible anywhere.

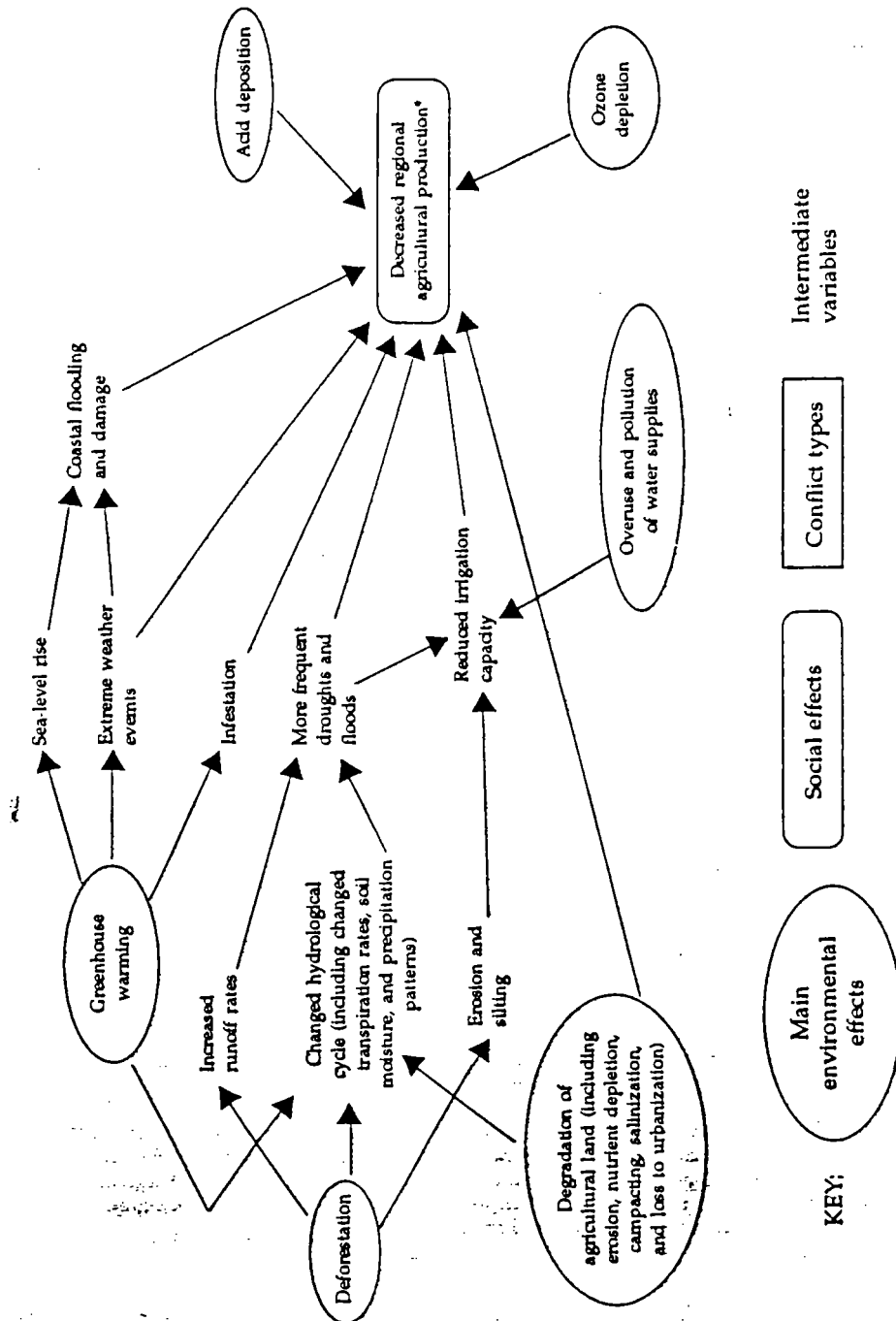
The Philippines provides a good illustration of deforestation's impact, which can be traced out in the figure. Since the Second World War, logging and the encroachment of farms have reduced the virgin and second-growth forest from about sixteen million hectares to 6.8–7.6 million hectares.⁴⁹ Across the archipelago, logging and land-clearing have accelerated erosion, changed regional hydrological cycles and precipitation patterns, and decreased the land's ability to retain water during rainy periods. The resulting flash floods have damaged irrigation works while plugging reservoirs and irrigation channels with silt. These factors may seriously affect crop production. For ex-

47. See, for example, Lester Brown, "Reexamining the World Food Prospect," in Worldwatch Institute, *State of the World 1989* (New York: Norton, 1989), pp. 41–58.

48. Useful discussions of these systems include World Commission on Environment and Development (commonly known as the Brundtland Commission), "Food Security: Sustaining the Potential," in *Our Common Future* (Oxford: Oxford University Press, 1987), chapter 5, pp. 118–146; WRI, et al., *World Resources 1988–89*, pp. 18–21, 51–68, and especially 215–234, 271–284; WRI, et al., *World Resources 1990–91*, pp. 5–6, 83–100; United Nations Food and Agriculture Organization (FAO), *The State of Food and Agriculture 1989* (Rome: FAO, 1989), pp. 65–74.

49. Porter and Ganapin, *Resources, Population, and the Philippines' Future*, p. 24. These authors call this "perhaps the most rapid destruction of forest reserves in the world." The figures cited refer to adequately stocked forested land, and are approximate.

Figure 2. Possible Effects of Environmental Change on Agricultural Production.



*See Figures 3 and 4.

ample, when the government of the Philippines and the European Economic Community commissioned an Integrated Environmental Plan for the still relatively unspoiled island of Palawan, the authors of the study found that only about half of the 36,000 hectares of irrigated farmland projected within the Plan for 2007 will actually be irrigable because of the hydrological effects of decreases in forest cover.⁵⁰

Figure 2 also highlights the importance of the degradation and decreasing availability of good agricultural land, problems that deserve much closer attention than they usually receive. Currently, total global cropland amounts to about 1.5 billion hectares. Optimistic estimates of total arable land on the planet, which includes both current and potential cropland, range from 3.2 to 3.4 billion hectares, but nearly all the best land has already been exploited. What is left is either less fertile, not sufficiently rainfed or easily irrigable, infested with pests, or harder to clear and work.⁵¹

For developing countries during the 1980s, cropland grew at just 0.26 percent a year, less than half the rate of the 1970s. More importantly, in these countries arable land per capita dropped by 1.9 percent a year.⁵² In the absence of a major increase in arable land in developing countries, experts expect that the world average of 0.28 hectares of cropland per capita will decline to 0.17 hectares by the year 2025, given the current rate of world population growth.⁵³ Large tracts are being lost each year to urban encroachment, erosion, nutrient depletion, salinization, waterlogging, acidification, and compacting. The geographer Vaclav Smil, who is generally very conservative in his assessments of environmental damage, estimates that two to three million hectares of cropland are lost annually to erosion; perhaps twice as much land goes to urbanization, and at least one million hectares are abandoned because of excessive salinity. In addition, about one-fifth of the

50. Christopher Finney and Stanley Western, "An Economic Analysis of Environmental Protection and Management: An Example from the Philippines," *The Environmentalist*, Vol. 6, No. 1 (1986), p. 56.

51. Experts generally describe a country as "land scarce" when 70 percent or more of the arable land is under production. In Asia about 82 percent of all arable land is cultivated. See WRI, et al., *World Resources 1990-91*, p. 5.

52. Nafis Sadik, *The State of the World Population 1990* (New York: United Nations Population Fund, 1990), p. 8.

53. WRI, et al., *World Resources 1990-91*, p. 87. Nearly 73 percent of all rural households in developing countries are either landless or nearly landless. Using this figure, Leonard estimates that "935 million rural people live in households that have too little land to meet the minimum subsistence requirements for food and fuel. These data exclude China, which could add as many as 100-200 million more people to the category." See Leonard, "Overview," p. 13.

world's cropland is suffering from some degree of desertification.⁵⁴ Taken together, he concludes, the planet will lose about 100 million hectares of arable land between 1985 and 2000.⁵⁵

Figure 2 also depicts some of the effects that greenhouse warming and climate change may have on agricultural production.⁵⁶ Coastal cropland in countries such as Bangladesh and Egypt is extremely vulnerable to storm surges. Such events could become more common and devastating, because global warming will cause sea levels to rise and might intensify storms. The greenhouse effect will also change precipitation patterns and soil moisture; while this may benefit some agricultural regions, others will suffer. Many plants grow faster and larger in a warm environment rich in carbon dioxide, and they often use water more efficiently.⁵⁷ But optimistic estimates of greatly increased crop yields have usually been based on laboratory experiments under ideal growing conditions. In addition, these estimates have ignored the influence on yields of more frequent extreme climate events (especially droughts and heat waves), increased pest infestation, and the decreased nutritional quality of crops grown in a carbon dioxide-enriched atmosphere.

ECONOMIC DECLINE. If we are interested in environment-conflict linkages, perhaps the most important potential social effect of environmental degra-

54. Experts give "desertification" a variety of meanings. In general, it implies a complex syndrome of very low soil productivity, poor rain-use efficiency by vegetation, and consequent adverse changes in the hydrological cycle. It can therefore encompass several of the variables identified in Figure 2. See Michel Verstraete, "Defining Desertification: A Review," *Climatic Change*, Vol. 9, No. 1/2 (August/October 1986), pp. 5-18.

55. Smil gives a startling account of the situation in China. From 1957 to 1977 the country lost 33.33 million hectares of farmland (30 percent of its 1957 total), while it added 21.2 million hectares of largely marginal land. He notes that "the net loss of 12 million hectares during a single generation when the country's population grew by about 300 million people means that per capita availability of arable land dropped by 40 per cent and that China's farmland is now no more abundant than Bangladesh's—a mere one-tenth of a hectare per capita!" See Smil, *Energy, Food, Environment*, pp. 223 and 230.

56. There is scientific debate about the likely magnitude, rate, and timing of greenhouse warming and about its climatic, ecological, and social impacts. The current consensus is summarized in the reports prepared by Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC) under the auspices of the World Meteorological Organization and the United Nations Environment Programme. The complete report of Working Group I has been published as J.T. Houghton, G.J. Jenkins, and J.J. Ephraums, eds., *Climate Change: The IPCC Scientific Assessment* (Cambridge: Cambridge University Press, 1990). For a thorough assessment of climate change and agriculture, see M.L. Parry, T.R. Carter, and N.T. Konijn, eds., *The Impact of Climatic Variations on Agriculture*, Volume 1: *Assessments in Cool Temperate and Cold Regions*; Volume 2: *Assessments in Semi-arid Regions* (Dordrecht, Netherlands: Kluwer, 1989).

57. See R.A. Warrick, R.M. Gifford, and M.L. Parry, "CO₂ Climatic Change and Agriculture: Assessing the Response of 100 Crops to the Direct Effects of Increased CO₂ and Climatic Change," in Bert Bolin, et al., eds. *The Greenhouse Effect, Climatic Change, and Ecosystems*, SCOPE No. 29 (New York: Wiley, 1986), pp. 393-474.

dation is the further impoverishment it may produce in developing societies. In Figure 3, I suggest some key causal processes. The figure shows that economic productivity may be influenced directly by environmental disruption, or indirectly via other social effects such as decreased agricultural production. While few developing countries will exhibit all causal links indicated in Figure 3, most will exhibit some.

A great diversity of factors might affect wealth production. For example, increased ultraviolet radiation caused by ozone depletion is likely to raise the rate of disease in humans and livestock,⁵⁸ which could have serious economic results. Logging for export markets may produce short-term economic gain for the country's elite; but increased runoff can damage roads, bridges, and other valuable infrastructure, while the extra siltation reduces the transport and hydroelectric capacity of rivers. As forests are destroyed, wood becomes scarcer and more expensive, and it absorbs an increasing share of the household budget for the poor families that use it for fuel.⁵⁹

Agriculture is the source of much of the wealth generated in developing societies. Food production soared in many regions over the last decades because the green revolution more than compensated for inadequate or declining soil productivity;⁶⁰ but some experts believe this economic relief will be short-lived. Jeffrey Leonard writes: "Millions of previously very poor families that have experienced less than one generation of increasing wealth due to rising agricultural productivity could see that trend reversed if environmental degradation is not checked."⁶¹ Damage to the soil is already producing a harsh economic impact in some areas.⁶²

Gauging the actual economic cost of land degradation is not easy. Current national income accounts do not incorporate measures of resource depletion: "A nation could exhaust its mineral reserves, cut down its forests, erode its soils, pollute its aquifers, and hunt its wildlife to extinction—all without

58. Janice Longstreth, "Overview of the Potential Health Effects Associated with Ozone Depletion," in Topping, *Coping with Climate Change*, pp. 163–167.

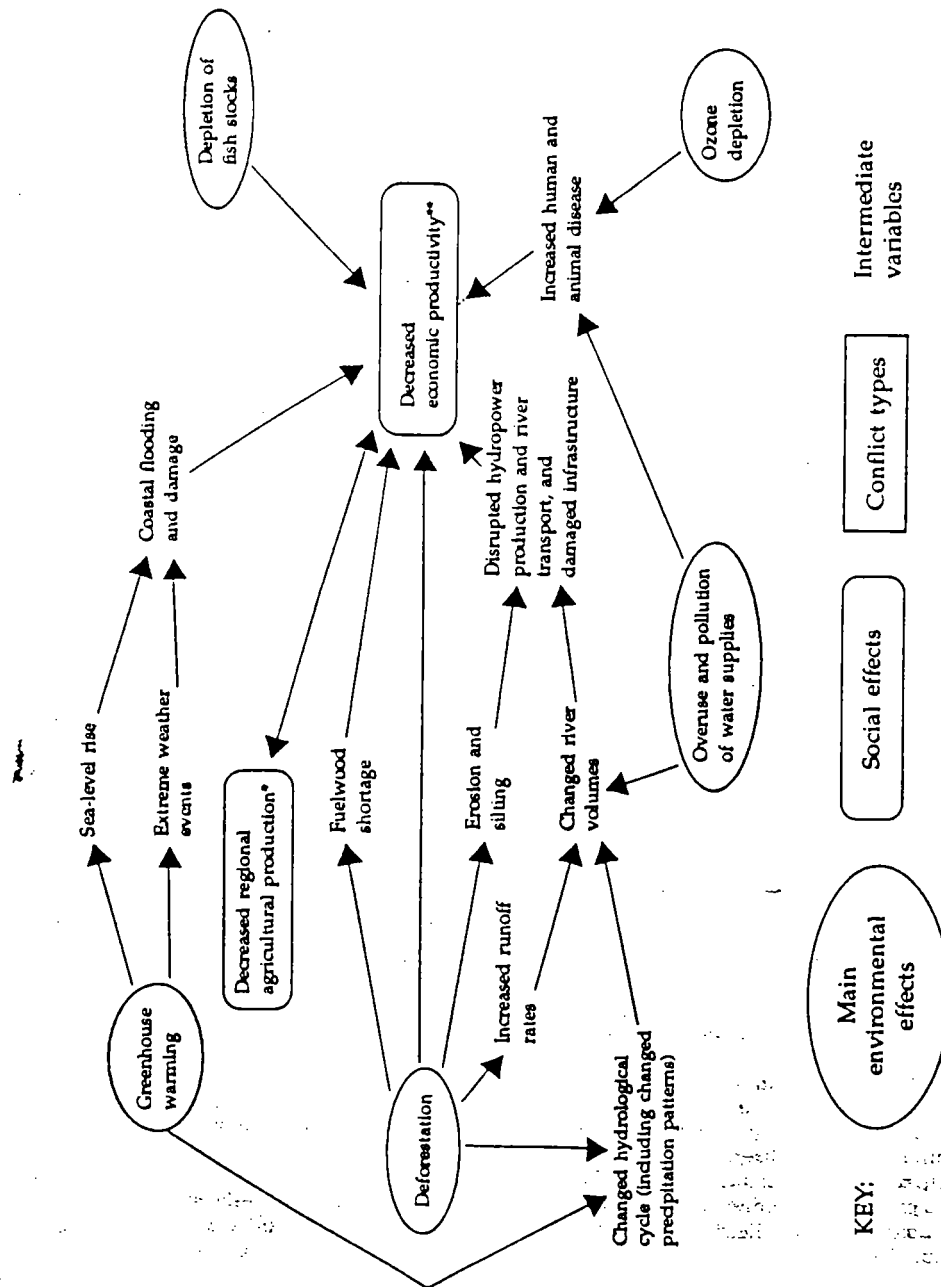
59. The FAO estimates that up to 2.5 billion people in the developing world will face acute fuelwood shortages by the year 2000. FAO, *Fuelwood Supplies in the Developing Countries*, FAO Forestry Paper No. 42 (Rome: FAO, 1983).

60. The term "green revolution" refers to the dramatic gains in crop output in the developing countries from the 1960s into the 1980s due to higher-yielding grains and the intensive use of irrigation, chemical fertilizers, and pesticides.

61. Leonard, *Environment and the Poor*, p. 27.

62. For a case study of Indonesia, see Robert Repetto, "Balance-Sheet Erosion—How to Account for the Loss of Natural Resources," *International Environmental Affairs*, Vol. 1, No. 2 (Spring 1989), pp. 103–137.

Figure 3. Possible Effects of Environmental Change on Economic Productivity in Developing Countries.



*See Figures 2 and 4.
**See Figure 4.

Devel-

affecting measured income."⁶³ The inadequacy of measures of economic productivity reinforces the perception that there is a policy trade-off between economic growth and environmental protection; this perception, in turn, encourages societies to generate present income at the expense of their potential for future income.⁶⁴

POPULATION DISPLACEMENT. Some commentators have suggested that environmental degradation may produce vast numbers of "environmental refugees."⁶⁵ Sea-level rise may drive people back from coastal and delta areas in Egypt; spreading desert may empty Sahelian countries as their populations move south; Filipino fishermen may leave their depleted fishing grounds for the cities. The term "environmental refugee" is somewhat misleading, however, because it implies that environmental disruption could be a clear, proximate cause of refugee flows. Usually, though, environmental disruption will be only one of many interacting physical and social variables, including agricultural and economic decline, that ultimately force people from their homelands. For example, over the last three decades, millions of people have migrated from Bangladesh to neighboring West Bengal and Assam in India. While detailed data are scarce (in part because the Bangladeshi government is reluctant to admit there is significant out-migration), many specialists believe this movement is a result, at least in part, of shortages of adequately fertile land due to a rapidly growing population. Flooding, caused by deforestation in watersheds upstream on the Ganges and Brahmaputra rivers, might also be driving people from the area.⁶⁶ In the future, this migration could be aggravated by rising sea-levels coupled with extreme weather events (both perhaps resulting from climate change).

DISRUPTED INSTITUTIONS AND SOCIAL RELATIONS. The fourth social effect especially relevant to the connection between environment change and acute conflict is the disruption of institutions and of legitimized, accepted, and

63. Robert Repetto, "Wasting Assets: The Need for National Resource Accounting," *Technology Review*, January 1990, p. 40.

64. Repetto carefully analyzes soil types, cropping practices, logging, and erosion rates in upland areas of Java. Applying a 10 percent discount rate to the future stream of lost income, Repetto calculates the total economic cost of one year of erosion to be \$481 million; this is about 40 percent of the annual value of upland cropland production. He writes: "Nearly 40 cents in future income is sacrificed to obtain each dollar for current consumption." He also estimates that off-site costs, including the higher expense of clearing waterways and irrigation channels of silt, come to \$30-\$100 million a year. Repetto, "Balance-Sheet Erosion," pp. 129-132.

65. E.g., Jacobson, *Environmental Refugees*.

66. Lester Brown and John Young, "Feeding the World in the Nineties," in Worldwatch Institute, *State of the World: 1990* (New York: Norton, 1990), p. 61.

authoritative social relations. In many developing societies, the three social effects described above are likely to tear this fabric of custom and habitual behavior. A drop in agricultural output may weaken rural communities by causing malnutrition and disease, and by encouraging people to leave; economic decline may corrode confidence in the national purpose, weaken the tax base, and undermine financial, legal, and political institutions; and mass migrations of people into a region may disrupt labor markets, shift class relations, and upset the traditional balance of economic and political authority between ethnic groups.

The Capacity of Developing Countries to Respond: First-Stage Interventions

Can developing countries respond to environmental problems effectively enough to avert these negative social effects? The aggregate data on world food production might give us reason for optimism. Between 1965 and 1986, many developing regions suffered serious environmental problems, including erosion, salinization, and loss of land to urbanization. Yet global cereal production increased at 3 percent a year, meat and milk output increased 2 percent annually, while the rate for oil crops, vegetables, and pulses was 2.5 percent.⁶⁷ At the regional level, increased food production kept ahead of population growth, except in Africa, and local shortfalls were alleviated by exports from developed countries with huge surpluses. We might therefore conclude that developing countries have sufficient capacity, with intermittent assistance from Northern grain exporters, to respond to environmental problems.

But aggregate figures hide significant disparities in food availability among and within developing countries.⁶⁸ Moreover, these figures are becoming less promising than they once were: many developing countries have already reaped most of the green revolution's potential benefit, and the rate of increase in global cereal production has declined by over 40 percent since the 1960s.⁶⁹ For three successive years—from 1987 through 1989—estimated

67. WRI, et al., *World Resources 1988-89*, p. 52.

68. In 1985, for example, average caloric intake was insufficient for health, growth, and productive work in eight countries in Asia, and six in Latin America and the Caribbean. *Ibid.*, p. 53.

69. From 1962-72, global cereal production increased at an annual rate of 3.7 percent; from 1972-82, at 2.5 percent; and from 1982-86, at 2.1 percent. See Pierre Crosson and Norman Rosenberg, "Strategies for Agriculture," *Scientific American*, Vol. 261, No. 3 (September 1989), p. 130.

global cereal consumption exceeded production.⁷⁰ Bumper grain crops were again harvested in 1990, but carry-over stocks can be depleted rapidly, and we remain within one or two years of a global food crisis.

Over the long term, the capacity of developing countries to respond effectively to the consequences of environmental change on agriculture will depend on the complex interactions within each society of the factors indicated in Figure 1. Of particular importance are the society's prevailing land-use practices, land distribution, and market mechanisms within the agricultural sector.⁷¹ Market factors are especially relevant today as numerous developing countries are relinquishing state control over the marketplace, reducing government spending, and removing impediments to foreign investment. Economists often contend that—in a market economy with an efficient price mechanism—environmentally induced scarcity will encourage conservation, technological innovation, and resource substitution. Julian Simon, in particular, displays an unwavering faith in the capacity of human ingenuity to overcome scarcity when spurred by self-interest.⁷² Many economists point to the success of the green revolution, which was often driven by market forces; it involved both new technologies and the substitution of petroleum resources (in the form of fertilizer) for inadequate or degraded nutrients in the soil. This argument supports the policies for market liberalization and "structural adjustment" currently promoted by international financial and lending institutions, such as the International Monetary Fund and World Bank. Below, however, I suggest why these policies will not be an effective response to environmental scarcity in the future.

CORNUCOPIANS AND NEO-MALTHUSIANS

Experts in environmental studies now commonly use the labels "cornucopian" for optimists like Simon and "neo-Malthusian" for pessimists like Paul and Anne Ehrlich.⁷³ Cornucopians do not worry much about protecting the stock of any single resource, because of their faith that market-driven human ingenuity can always be tapped to allow the substitution of more abundant

70. FAO, *The State of Food and Agriculture 1989*, p. 13.

71. For a thorough review, see Piers Blaikie and Harold Brookfield, *Land Degradation and Society* (London: Methuen, 1987).

72. Simon, *The Ultimate Resource*. Population growth, by Simon's analysis, is not necessarily a bad thing; in fact, it may be helpful because it increases the labor force and the pool of potential human ingenuity. See also Ester Boserup, *The Conditions of Agricultural Growth: The Economics of Agrarian Change Under Population Pressure* (Chicago: Aldine, 1965).

73. Ehrlich, Ehrlich, and Holdren, *Ecoscience*; Ehrlich and Ehrlich, *The Population Explosion*.

resources to produce the same end-use service. Simon, for example, writes: "There is no physical or economic reason why human resourcefulness and enterprise cannot forever continue to respond to impending shortages and existing problems with new expedients that, after an adjustment period, leave us better off than before the problem arose."⁷⁴ Neo-Malthusians are much more cautious. For renewable resources, they often distinguish between resource "capital" and its "income": the capital is the resource stock that generates a flow (the income) that can be tapped for human consumption and well-being. A "sustainable" economy, using this terminology, is one that leaves the capital intact and undamaged so that future generations can enjoy an undiminished income stream.⁷⁵

Historically, cornucopians have been right to criticize the idea that resource scarcity places fixed limits on human activity. Time and time again, human beings have circumvented scarcities, and neo-Malthusians have often been justly accused of "crying wolf." But in assuming that this experience pertains to the future, cornucopians overlook seven factors.

First, whereas serious scarcities of critical resources in the past usually appeared singly, now we face multiple scarcities that exhibit powerful interactive, feedback, and threshold effects. An agricultural region may, for example, be simultaneously affected by degraded water and soil, greenhouse-induced precipitation changes, and increased ultraviolet radiation. This makes the future highly uncertain for policymakers and economic actors; tomorrow will be full of extreme events and surprises. Furthermore, as numerous resources become scarce simultaneously, it will be harder to identify substitution possibilities that produce the same end-use services at costs that prevailed when scarcity was less severe. Second, in the past the scarcity of a given resource usually increased slowly, allowing time for social, economic, and technological adjustment. But human populations are much larger and activities of individuals are, on a global average, much more resource-intensive than before. This means that debilitating scarcities often develop much more quickly: whole countries may be deforested in a few

74. Simon, *The Ultimate Resource*, p. 345.

75. For example, if average topsoil creation on farmed land is about 0.25 millimeters per year (or about 3.25 tons/hectare), then to be sustainable, agriculture should not, on average, produce soil loss greater than this amount. According to neo-Malthusians, such a limit on human activity should rarely be breached: topsoil is a resource essential to human well-being; human beings cannot create it themselves; and petroleum-based substitutes such as fertilizers and pesticides are only short-term remedies.

decades; most of a region's topsoil can disappear in a generation; and critical ozone depletion may occur in as little as twenty years. Third, today's consumption has far greater momentum than in the past, because of the size of the consuming population, the sheer quantity of material consumed by this population, and the density of its interwoven fabric of consumption activities. The countless individual and corporate economic actors making up human society are heavily committed to certain patterns of resource use; and the ability of our markets to adapt may be sharply constrained by these entrenched interests.

These first three factors may soon combine to produce a daunting syndrome of environmentally induced scarcity: humankind will face multiple resource shortages that are interacting and unpredictable, that grow to crisis proportions rapidly, and that will be hard to address because of powerful commitments to certain consumption patterns.

The fourth reason that cornucopian arguments may not apply in the future is that the free-market price mechanism is a bad gauge of scarcity, especially for resources held in common, such as a benign climate and productive seas. In the past, many such resources seemed endlessly abundant; now they are being degraded and depleted, and we are learning that their increased scarcity often has tremendous bearing on a society's well-being. Yet this scarcity is at best reflected only indirectly in market prices. In addition, people often cannot participate in market transactions in which they have an interest, either because they lack the resources or because they are distant from the transaction process in time or space; in these cases the true scarcity of the resource is not reflected by its price.

The fifth reason is an extension of a point made earlier: market-driven adaptation to resource scarcity is most likely to succeed in wealthy societies, where abundant reserves of capital, knowledge, and talent help economic actors invent new technologies, identify conservation possibilities, and make the transition to new production and consumption patterns. Yet many of the societies facing the most serious environmental problems in the coming decades will be poor; even if they have efficient markets, lack of capital and know-how will hinder their response to these problems.

Sixth, cornucopians have an anachronistic faith in humankind's ability to unravel and manage the myriad processes of nature. There is no *a priori* reason to expect that human scientific and technical ingenuity can always surmount all types of scarcity. Human beings may not have the mental capacity to understand adequately the complexities of environmental-social

systems. Or it may simply be impossible, given the physical, biological, and social laws governing these systems, to reduce all scarcity or repair all environmental damage. Moreover, the chaotic nature of these systems may keep us from fully anticipating the consequences of various adaptation and intervention strategies.⁷⁶ Perhaps most important, scientific and technical knowledge must be built incrementally—layer upon layer—and its diffusion to the broader society often takes decades. Any technical solutions to environmental scarcity may arrive too late to prevent catastrophe.

Seventh and finally, future environmental problems, rather than inspiring the wave of ingenuity predicted by cornucopians, may instead reduce the supply of ingenuity available in a society. The success of market mechanisms depends on an intricate and stable system of institutions, social relations, and shared understandings (the ideational factors in Figure 1). Cornucopians often overlook the role of *social* ingenuity in producing the complex legal and economic climate in which *technical* ingenuity can flourish. Policymakers must be clever "social engineers" to design and implement effective market mechanisms.⁷⁷ Unfortunately, however, the syndrome of multiple, interacting, unpredictable, and rapidly changing environmental problems will increase the complexity and pressure of the policymaking setting. It will also generate increased "social friction" as elites and interest groups struggle to protect their prerogatives. The ability of policymakers to be good social engineers is likely to go *down*, not up, as these stresses increase.

Population size and growth are key variables producing the syndrome of environmental scarcity I have described. While sometimes population growth does not damage the environment, often this growth—in combination with prevailing social structures, technologies, and consumption patterns—makes environmental degradation worse. During the 1970s and early 1980s, family size dropped dramatically in many countries from six or seven children to three or four. But family planners have discovered that it is much more

76. On chaotic processes, see footnote 14. Our technological interventions might increase the probability of dramatic threshold effects in environmental-social systems. For example, the cultural ecologist Roy Rappaport notes that our quest for higher crop yields has produced "some of the most delicate and unstable ecosystems ever to have appeared on the face of the earth." Roy Rappaport, "The Flow of Energy in an Agricultural Society," *Scientific American*, Vol. 225, No. 3 (September 1971), p. 126.

77. Development experts dispute the extent to which such social engineering is possible. On the determinants of the "social capability" to seize opportunities for economic growth, see James Bradford De Long, "The 'Protestant Ethic' Revisited: A Twentieth Century Look," *The Fletcher Forum of World Affairs*, Vol. 13, No. 2 (Summer 1989), pp. 229–241.

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difficult to convince parents to forgo a further one or two children to bring family size down to replacement rate. As a result, the growth rates of some of the world's most populous countries—including India and China—are hardly declining at all.⁷⁸ India's rate has leveled off at around 2.1 percent (17.9 million people) per year, China's at around 1.3 percent (14.8 million) per year. These developments have recently led the United Nations to increase its mid-range estimate of the globe's population when it stabilizes (predicted to occur towards the end of the twenty-first century) from 10.2 to 11 billion, which is over twice the size of the planet's current population.⁷⁹

Consequently, many countries will have to keep boosting their agricultural production by 2 to 4 percent per year well into the next century to avoid huge food imports.⁸⁰ But, for the seven reasons discussed above, the social and technical engineers in these countries might not be able to supply the ever-increasing ingenuity required over this extended period. In particular, in many developing countries the effects of land scarcity and degradation are likely to become much more evident as the potential gains from green revolution technologies are fully realized. Unfortunately, there is no new generation of agricultural technologies waiting in the wings to keep productivity rising. Genetic engineering may eventually help scientists develop nitrogen-fixing, salinity-resistant, and drought-resistant grains, but their widespread use in the developing world is undoubtedly decades in the future.

Although we must be careful not to slip into environmental determinism, when it comes to the poorest countries on this planet we should not invest too much faith in the potential of human ingenuity to respond to multiple,

78. Sadik, *The State of World Population 1990*; Griffith Feeney, et al., "Recent Fertility Dynamics in China: Results from the 1987 One Percent Population Survey," *Population and Development Review*, Vol. 15, No. 2 (June 1989), pp. 297-321.

79. Demographers have long assumed that developing countries would pass through a "demographic transition" similar to that exhibited by currently developed countries in the nineteenth and twentieth centuries, during which a decline in death rate was eventually followed by a compensating decline in birth rate. This transition is thought to have resulted from increased material prosperity and certain social changes, such as higher literacy rates and the emancipation of women. However, if some developing countries cannot maintain a steady growth in social and economic prosperity, their demographic transition may be in doubt.

80. Assuming that the necessary foreign exchange or financial aid is available, such imports might seem a reasonable way to compensate for Southern shortfalls, even over an extended period. However, a dependence on agricultural areas in the North will make importers vulnerable to vagaries of climate, economics, and politics in the exporting countries. As the redundancy of food-growing regions is reduced, the likelihood of a sudden and severe global shortfall increases.

interacting, and rapidly changing environmental problems once they have become severe. The most important of the seven factors above is the last: growing population, consumption, and environmental stresses will increase social friction. This will reduce the capacity of policymakers in developing countries to intervene as good social engineers in order to chart a sustainable development path and prevent further social disruption. Neo-Malthusians may underestimate human adaptability in *today's* environmental-social system, but as time passes their analysis may become ever more compelling.⁸¹

Types of Conflict

It seems likely that first-stage policy interventions will not be fully successful in preventing the four principal social effects posited above. We therefore turn to the second part of the "how" question: if agricultural production drops, if developing societies slide further into poverty, if large numbers of people are forced from their homelands, and if institutions and social relations are disrupted, what kinds of conflict are likely to develop? At present, we can bring only limited empirical evidence to bear on this question. This may be partly because environmental and population pressures have not yet passed a critical threshold of severity in many developing countries; also, there has been little case-study research on environment-conflict linkages. In what follows, therefore, I propose some further hypotheses for testing.

THREE THEORETICAL PERSPECTIVES ON CONFLICT

Three types of theory on the nature and etiology of social conflict—one each at the individual, group, and systemic levels of analysis—are particularly important in light of the four general social effects identified.

Frustration-aggression theories use individual psychology to explain civil strife, including strikes, riots, coups, revolutions, and guerrilla wars. They

81. While I contend that cornucopian policies are unlikely to prove successful in the long run, their failure will occur in different ways and at different rates in different societies. Notably, some rapidly industrializing societies—such as Thailand, South Korea, and Indonesia—seem to have successfully shaped their social, economic, and political structures to promote the production of material wealth. As this development is often at stunning cost to the environment, it represents in part a massive conversion of current and future ecological wealth to current economic wealth, in the form of physical and intellectual capital and materials for consumption. This wealth may give these countries greater ability to respond and adapt to environmental change, thus weakening the force of the fifth factor above. But the other six factors will still have force, which suggests that these societies are only postponing the crisis, not escaping it.

suggest that individuals become aggressive when they feel frustrated by something or someone they believe is blocking them from fulfilling a strong desire. An important subset of these theories suggests that this frustration and aggression can be caused by relative deprivation, when people perceive a widening gap between the level of satisfaction they have achieved (often defined in economic terms) and the level they believe they deserve.⁸²

Group-identity theories use social psychology to help explain conflicts involving nationalism, ethnicity, and religion. The focus is on the way groups reinforce their identities and the "we-they" cleavages that often result. Individuals may have a need for a sense of camaraderie or "we-ness" that can be satisfied in a group when it discriminates against or attacks another group; similarly, a person's sense of self-worth may be strengthened when his or her group's status is enhanced relative to that of other groups. By attacking outside groups, leaders may try to exploit these needs in order to increase their political power within their own groups, but this behavior makes divisions between groups deeper and more acrimonious.⁸³

Structural theories, which are often grounded in the assumptions of microeconomics and game theory, explain conflicts that arise from the rational calculations of actors in the face of perceived external constraints. The structure of an actor's social situation is the perceived set of possible interactions with other actors and the perceived likely outcomes of these interactions. This structure is determined by physical factors such as number of actors, resource limits, and barriers to movement or communication; by social factors such as shared beliefs and understandings, rules of social interaction, and the set of power relations between actors; and by psychological factors such as the beliefs and preferences of other actors.⁸⁴

82. John Dollard, et al., *Frustration and Aggression* (New Haven: Yale University Press, 1939); Leonard Berkowitz, *Aggression: A Social Psychological Analysis* (New York: McGraw-Hill, 1962). On relative deprivation, see James Davies, "Toward a Theory of Revolution," *American Sociological Review*, Vol. 6, No. 1 (February 1962), pp. 5-19; Ted Gurr, *Why Men Rebel* (Princeton, N.J.: Princeton University Press, 1970); and Ted Gurr and Raymond Duvall, "Civil Conflict in the 1960s: A Reciprocal Theoretical System with Parameter Estimates," *Comparative Political Studies*, Vol. 6, No. 2 (July 1973), pp. 135-169.

83. See M. Sherif, *Group Conflict and Cooperation: Their Social Psychology* (London: Routledge and Kegan Paul, 1966); Henri Tajfel, ed., *Differentiation between Social Groups* (London: Academic Press, 1978); Henri Tajfel, *Human Groups and Social Categories: Studies in Social Psychology* (Cambridge: Cambridge University Press, 1981); Edward Azar and John Burton, *International Conflict Resolution: Theory and Practice* (Sussex, U.K.: Wheatsheat, 1986); Lewis Coser, *The Functions of Social Conflict* (London: Free Press, 1956); Donald Horowitz, *Ethnic Groups in Conflict* (Berkeley: University of California Press, 1985).

84. As Alexander Wendt notes, the view of structure as constraint is only one of three possible

General structural theories suggest that external constraints can encourage or even compel actors to engage in conflict.⁸⁵ Domestic structural theories hold that civil strife will be more likely if there are well-organized groups within a society that can quickly articulate, channel, and coordinate discontent. These theories suggest that insurgency is a function of the "opportunity structure" that confronts groups challenging the authority of elites. This opportunity structure depends on the relative power and resources of challenger and elite groups, on the power of groups that might ally themselves with challenger or elite groups, and on the costs and benefits that groups believe they will accrue through different kinds of collective action in support of or in opposition to elite groups.⁸⁶

Drawing on these theories, I hypothesize that severe environmental degradation will produce three principal types of conflict. These should be considered ideal types: they will rarely, if ever, be found in pure form in the real world.

SIMPLE SCARCITY CONFLICTS. Simple scarcity conflicts are explained and predicted by general structural theories. They are the conflicts we would expect when state actors rationally calculate their interests in a zero-sum or negative-sum situation such as might arise from resource scarcity.⁸⁷ We have seen such conflicts often in the past; they are easily understood within the realist paradigm of international relations theory, and they therefore are likely to receive undue attention from current security scholars. In Figure 4, I propose that simple scarcity conflicts may arise over three types of resource

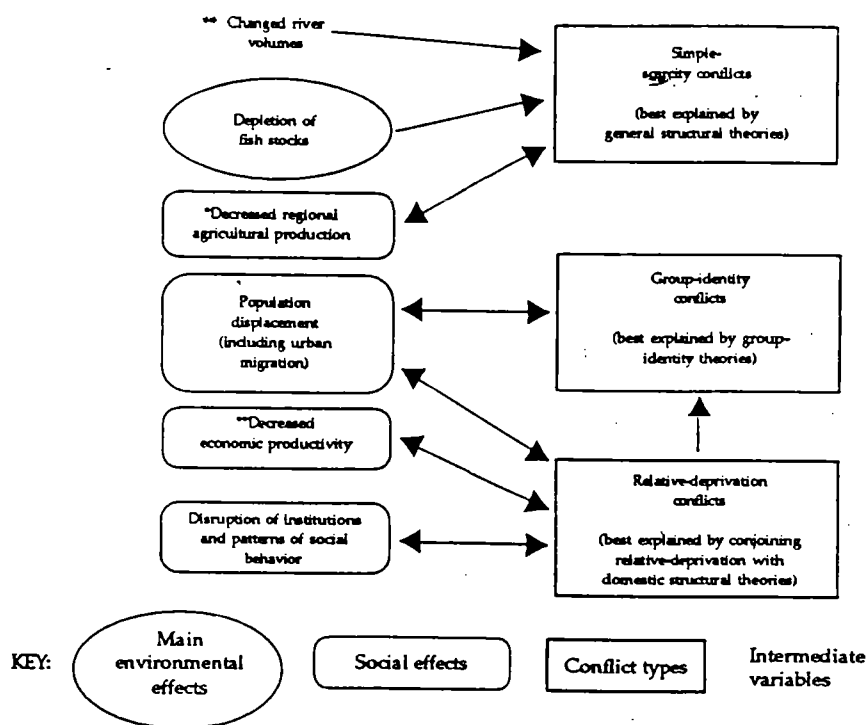
positions on the issue. Structure can also be thought of as generating the actors rather than constraining them, or structure and actor can be seen as dialectically related—that is, as Anthony Giddens suggests, generating but not reducible to each other. Alexander Wendt, "The Agent-Structure Problem," *International Organization*, Vol. 41, No. 3. (Summer 1987), pp. 335–370; Anthony Giddens, *The Constitution of Society: Outline of the Theory of Structuration* (Cambridge, U.K.: Polity Press, 1984).

85. Those scholars who emphasize such constraints usually also acknowledge the causal importance of internal factors, such as the actor's particular interests and beliefs. By stressing power relations almost exclusively, perhaps Waltz comes closest to presenting a purely structural theory of international behavior and war. De Mesquita contends that the geographic proximity of actors is an important structural determinant of international conflict, while Choucri and North emphasize differences in states' resource endowments. See Waltz, *Theory of International Politics*; Bruce Bueno de Mesquita, *The War Trap* (New Haven: Yale University Press, 1981); and Nazli Choucri and Robert North, *Nations in Conflict* (San Francisco: Freeman, 1975).

86. See in particular Doug McAdam, *Political Process and the Development of Black Insurgency, 1930–1970* (Chicago: University of Chicago Press, 1972); and Charles Tilly, *From Mobilization to Revolution* (Reading, Mass.: Addison-Wesley, 1978).

87. The adjective "simple" does not mean "unimportant." Rather, it distinguishes this type of conflict from others that involve psychological and social processes more complex than those posited by rational-choice theorists.

Figure 4. Types of Conflict likely to Arise from Environmental Change in the Developing World.



*See Figures 2 and 3.

**See Figure 3.

in particular: river water, fish, and agriculturally productive land. These renewable resources seem particularly likely to spark conflict because their scarcity is increasing rapidly in some regions, they are often essential for human survival, and they can be physically seized or controlled. There may be a positive feedback relationship between conflict and reduced agricultural production: for example, lower food supplies caused by environmental change may lead countries to fight over irrigable land, and this fighting could further reduce food supplies.

The current controversy over the Great Anatolia Project on the Euphrates River illustrates how simple scarcity conflicts can arise. By early in the next

century, Turkey plans to build a huge complex of twenty dams and irrigation systems along the upper reaches of the Euphrates.⁸⁸ This \$21 billion project, if fully funded and built, would reduce the average annual flow of the Euphrates within Syria from 32 billion cubic meters to 20 billion.⁸⁹ The water that passes through Turkey's irrigation systems and on to Syria will be laden with fertilizers, pesticides, and salts. Syria is already desperately short of water, with an annual water availability of only about 600 cubic meters per capita.⁹⁰ Much of the water for its towns, industries, and farms comes from the Euphrates, and the country has been chronically vulnerable to drought. Furthermore, Syria's population growth rate, at 3.7 percent per year, is one of the highest in the world, and this adds further to the country's demand for water.

Turkey and Syria have exchanged angry threats over this situation. Syria gives sanctuary to guerrillas of the Kurdish Workers Party (the PKK), which has long been waging an insurgency against the Turkish government in eastern Anatolia. Turkey suspects that Syria might be using these separatists to gain leverage in bargaining over Euphrates River water. Thus in October, 1989, then Prime Minister Turgut Ozal suggested that Turkey might impound the river's water if Syria did not restrain the PKK. Although he later retracted the threat, the tensions have not been resolved, and there are currently no high-level talks on water sharing.⁹¹

GROUP-IDENTITY CONFLICTS. Group-identity conflicts are explained and predicted by group-identity theories. Such conflicts are likely to arise from the large-scale movements of populations brought about by environmental change. As different ethnic and cultural groups are propelled together under circumstances of deprivation and stress, we should expect intergroup hostility, in which a group would emphasize its own identity while denigrating, discriminating against, and attacking outsiders. The situation in the Bangladesh-Assam region may be a good example of this process; Assam's ethnic

88. Alan Cowell, "Water Rights: Plenty of Mud to Sling," *New York Times*, February 7, 1990, p. A4; "Send for the Dowsers," *The Economist*, December 16, 1989, p. 42.

89. On January 13, 1990, Turkey began filling the giant reservoir behind the Ataturk Dam, the first in this complex. For one month Turkey held back the main flow of the Euphrates River, which cut the downstream flow in Syria to about a quarter of its normal rate.

90. Peter Gleick, "Climate Change and International Politics," pp. 333-339.

91. The issue of Euphrates water is entwined with concerns about territorial integrity and relations with ethnic minorities. Consequently, although water scarcity is a source of serious tensions between Syria and Turkey, and may trigger interstate violence in the future, this dispute is not a pure example of a simple-scarcity conflict. As suggested above, pure examples may be impossible to find.

strife over the last decade has apparently been provoked by migration from Bangladesh.⁹²

As population and environmental stresses grow in developing countries, migration to the developed world is likely to surge. "The image of islands of affluence amidst a sea of poverty is not inaccurate."⁹³ People will seek to move from Latin America to the United States and Canada, from North Africa and the Middle East to Europe, and from South and Southeast Asia to Australia. This migration has already shifted the ethnic balance in many cities and regions of developed countries, and governments are struggling to contain a xenophobic backlash. Such racial strife will undoubtedly become much worse.

RELATIVE-DEPRIVATION CONFLICTS. Relative-deprivation theories indicate that as developing societies produce less wealth because of environmental problems, their citizens will probably become increasingly discontented by the widening gap between their actual level of economic achievement and the level they feel they deserve. The rate of change is key: the faster the economic deterioration, it is hypothesized, the greater the discontent. Lower-status groups will be more frustrated than others because elites will use their power to maintain, as best they can, access to a constant standard of living despite a shrinking economic pie. At some point, the discontent and frustration of some groups may cross a critical threshold, and they will act violently against other groups perceived to be the agents of their economic misery or thought to be benefiting from a grossly unfair distribution of economic goods in the society.

Relative-deprivation theories are often contrasted with domestic structural theories of civil strife, but, as suggested by Figure 4, these points of view can be usefully combined. The emphasis of domestic structural theories on the "opportunity structure" that confronts potential challenger groups is important, because a principal social effect of environmental change in developing countries is likely to be the disruption of institutions and of regular and legitimized social relations. Thus, environmental problems may not only increase the frustration and anger within developing societies (by increasing relative deprivation), but by disrupting institutions and social relations, they may also open up structural opportunities for challenger groups to act on

92. Myron Weiner, "The Political Demography of Assam's Anti-Immigrant Movement," *Population and Development Review*, Vol. 9, No. 2 (June 1983), pp. 279-292.

93. Ullman, "Redefining Security," p. 143.

their grievances and overthrow existing authority. Doug McAdam contends that "any event or broad social process that serves to undermine the calculations and assumptions on which the political establishment is structured occasions a shift in political opportunities."⁹⁴

The relative-deprivation and domestic-structural perspectives together tell us that severe civil strife is likely when: 1) there are clearly defined and organized groups in a society; 2) some of these groups regard their level of economic achievement, and in turn the broader political and economic system, as wholly unfair; and 3) these same groups believe that all peaceful opportunities to effect change are blocked, yet regard the balance of power within the society as unstable; that is, they believe there are structural opportunities for overthrowing authority in the society.⁹⁵

Figure 4 reflects these two theoretical perspectives: I hypothesize that decreased economic productivity and disrupted institutions will jointly contribute to relative-deprivation conflicts. I again suggest that positive feedbacks may operate: relative-deprivation conflicts may cause further economic decline and institutional dislocation. In addition, the figure reflects the idea that the arrival of refugees in an area, even if the event does not reduce total economic productivity, will probably result in a dilution of existing resources and aggravate a sense of deprivation in the indigenous population. This stress may also manifest itself as inter-ethnic tension. Thus causal arrows point from population displacement to relative-deprivation conflicts and from these conflicts to group-identity conflicts.⁹⁶

The probability of civil strife is also strongly influenced by whether challenger groups have the organizational and leadership capacity to provide themselves with adequate information and coordination. Leaders are impor-

94. McAdam, *Political Process*, p. 41.

95. A wealth of literature exists on the theoretical and empirical relationships between economic deprivation and civil strife. Mark Lichbach provides a survey in "An Evaluation of 'Does Economic Inequality Breed Political Conflict?' Studies," *World Politics*, Vol. 41, No. 4 (July 1989), pp. 431-470.

96. Population displacement into urban areas may be of particular importance. Many cities in developing countries are already surrounded by sprawling squatters' settlements rife with disease, crime, and violence. Whether these poor millions will be a source of civil strife remains to be seen. Ullman suggests that modern revolutions have rarely started in cities, because recent arrivals in urban areas are usually too preoccupied with retaining and expanding their economic niches to join revolutionary organizations. See Ullman, "Redefining Security," 142. But urban masses may not remain so quiescent in the future. Heavy urban subsidization in many developing countries of food, transport, and other amenities indicates that governments believe there is a real threat of unrest in the cities.

tant in causing the members of a challenger group to believe that the group's situation should and can be changed. McAdam calls this a group's "cognitive liberation." Leaders define the categories through which challenger groups see their situations and themselves. By developing and exploiting a particular view of the "social good," leaders can shift the preferences of the members of a challenger group so they come to view their situation as illegitimate and intolerable, thus increasing their sense of relative deprivation. In addition, by altering group members' self-perceptions, their understandings of the nature of power, and their assumptions about the possible means to achieve change, leaders can change the perceived opportunity structure.

This theoretical perspective on civil strife can be applied to the Filipino situation. The insurgency is motivated by the relative deprivation of the landless agricultural laborers and poor farmers displaced to the uplands where they try to eke out a living from the failing land; it exploits the structural opportunities provided by the crumbling of the central government's authority in the country's hinterland; and it is facilitated by the creative leadership of the cadres of the New People's Army (NPA) and the National Democratic Front (NDF). These revolutionary groups shape the peasants' understandings of their situation, focus their discontent, and assist them in extracting concessions from landlords. Gary Hawes points out that the rationality of Filipino peasants must be understood within their own world of meaning, which includes a strong commitment to family and community. The NDF has sought to build on this world of meaning to create "a national community linked not by kinship, but by something analogous, a commitment to a vision of a better future for all those who are exploited."⁹⁷

Assessing the prospect for civil strife arising from environmental degradation in a particular society requires a thorough understanding of the society's social relations and institutions; its class, ethnic, religious, and linguistic structure; the culture of leadership in these groups and in the society as a whole; and the beliefs about the social good that motivate challenger and elite groups.⁹⁸ Since analysis must be so specific to each case, we cannot hope for more than rough, probabilistic generalizations about the relationship between environmental degradation, economic decline, and civil strife.

97. Hawes, "Theories of Peasant Revolution," pp. 297-298.

98. In technical terms, we need to use the techniques of anthropology, ethno-methodology, and interpretivism to develop a detailed "internal" understanding of these societies. See Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973).

CONFLICT OBJECTIVES AND SCOPE

Table 1 compares some attributes of the principal types of acute conflict that I hypothesize may result from environmental change. The table lists the objectives sought by actors involved in these conflicts (which are, once again, ideal types). There is strong normative content to the motives of challenger groups involved in relative-deprivation conflicts: these groups believe the distribution of rewards is unfair. But such an "ought" does not necessarily drive simple-scarcity conflicts: one state may decide that it needs something another state has, and then try to seize it, without being motivated by a strong sense of unfairness or injustice.

Table 1 also shows that the scope of conflict can be expected to differ. Although relative-deprivation conflicts will tend to be domestic, we should not underestimate their potentially severe international repercussions. The correlation between civil strife and external conflict behavior is a function of the nature of the regime and of the kind of internal conflict it faces. For example, highly centralized dictatorships threatened by revolutionary actions, purges, and strikes are especially prone to engage in external war and belligerence. In comparison, less centralized dictatorships are prone to such behavior when threatened by guerrilla action and assassinations.⁹⁹ External aggression may also result after a new regime comes to power through civil strife: regimes borne of revolution, for example, are particularly good at mobilizing their citizens and resources for military preparation and war.¹⁰⁰

While environmental stresses and the conflicts they induce may encourage the rise of revolutionary regimes, other results are also plausible: these pres-

Table 1. Comparison of Conflict Types.

Conflict Type	Objective Sought	Conflict Scope
Simple scarcity	Relief from scarcity	International
Group identity	Protection and reinforcement of group identity	International or domestic
Relative deprivation	Distributive justice	Domestic (with international repercussions)

99. Jonathan Wilkenfeld, "Domestic and Foreign Conflict Behavior of Nations," *Journal of Peace Research*, Vol. 5 (1968), pp. 56-69.

100. See Theda Skocpol, "Social Revolutions and Mass Military Mobilization," *World Politics*, Vol. 40, No. 2 (January 1988), pp. 147-168.

asures might overwhelm the management capacity of institutions in developing countries, inducing praetorianism¹⁰¹ or widespread social disintegration. They may also weaken the control of governments over their territories, especially over the hinterland (as in the Philippines). The regimes that do gain power in the face of such disruption are likely to be extremist, authoritarian, and abusive of human rights.¹⁰² Moreover, the already short time horizons of policymakers in developing countries will be further shortened. These political factors could seriously undermine efforts to mitigate and adapt to environmental change. Soon to be the biggest contributors to global environmental problems, developing countries could become more belligerent, less willing to compromise with other states, and less capable of controlling their territories in order to implement measures to reduce environmental damage.

If many developing countries evolve in the direction of extremism, the interests of the North may be directly threatened. Of special concern here is the growing disparity between rich and poor nations that may be induced by environmental change. Robert Heilbroner notes that revolutionary regimes "are not likely to view the vast difference between first class and cattle class with the forgiving eyes of their predecessors." Furthermore, these nations may be heavily armed, as the proliferation of nuclear and chemical weapons and ballistic missiles continues. Such regimes, he asserts, could be tempted to use nuclear blackmail as a "means of inducing the developed world to transfer its wealth on an unprecedented scale to the underdeveloped world."¹⁰³ Richard Ullman, however, argues that this concern is overstated. Third world nations are unlikely to confront the North violently in the face of the "superior destructive capabilities of the rich."¹⁰⁴ In light of the discussion in this article, we might conclude that environmental stress and its attendant social disruption will so debilitate the economies of developing countries that they will be unable to amass sizeable armed forces, conven-

101. "Praetorian" is a label used by Samuel Huntington for societies in which the level of political participation exceeds the capacity of political institutions to channel, moderate, and reconcile competing claims to economic and political resources. "In a praetorian system, social forces confront each other nakedly; no political institutions, no corps of professional political leaders are recognized or accepted as the legitimate intermediaries to moderate group conflict." Samuel Huntington, *Political Order in Changing Societies* (New Haven: Yale University Press, 1968), p. 196.

102. Ophuls notes that ecological scarcity "seems to engender overwhelming pressures toward political systems that are frankly authoritarian by current standards." Ophuls, *Ecology*, p. 163.

103. Heilbroner, *Inquiry*, pp. 39 and 95. These North-South disputes would be the international analogues of domestic relative-deprivation conflicts.

104. Ullman, "Redefining Security," p. 143.

tional or otherwise. But the North would surely be unwise to rely on impoverishment and disorder in the South for its security.

SECOND-STAGE INTERVENTIONS

Many factors could break the causal links between the four main social effects of environmental change and the three types of conflict hypothesized above. Some of these factors could be open to intentional manipulation by policymakers. Focusing first on domestic conflict, it appears that regime repressiveness is a critical variable. For instance "semi-repressive" regimes may be more vulnerable to insurgency induced by income inequality than are either highly repressive or democratic regimes. In semi-repressive societies, dissident groups can develop relatively strong organizations, but opportunities to engage in effective and nonviolent forms of political action are blocked.¹⁰⁵

Another key variable is the perceived legitimacy of the regime, that is, its perceived fairness, appropriateness, and reasonableness. Seymour Martin Lipset shows that this variable mediates the relationship between economic crisis and political instability: economic crisis must first lead to a crisis of legitimacy before widespread civil strife can occur.¹⁰⁶ A perception that the political and economic system is legitimate will moderate a citizen's sense of relative deprivation and will hinder the mass mobilization of discontent. Through various techniques of persuasion and distraction, policymakers may be able to sustain a perception of legitimacy even in the face of environmentally induced economic decline.

Finally, we must not forget the role of *politics* in shaping a society's response to social stress. For example, analyzing variance in the effects of the depression on European societies in the 1930s, Ekkart Zimmermann and Thomas Saalfeld emphasize the explanatory power of coalitions between politically powerful groups such as agrarian classes, labor, the bourgeoisie/business class, and the state. Whether stabilizing coalitions form, in spite of economic stress, is influenced by a host of factors, including political culture, the nature and extent of socioeconomic cleavage, the "channels and proce-

105. Edward Muller and Mitchell Seligson, "Inequality and Insurgency," *American Political Science Review*, Vol. 81, No. 2 (June 1987), pp. 425-452.

106. See Seymour Martin Lipset, *Political Man: The Social Bases of Politics* (Garden City, N.Y.: Doubleday, 1959), pp. 77-83; and Mitchell Seligson and Edward Muller, "Democratic Stability and Economic Crisis: Costa Rica, 1978-83," *International Studies Quarterly*, Vol. 31, No. 3 (September 1987), pp. 301-326.

dures" for political bargaining and, as emphasized above, political leadership.¹⁰⁷

Several variables might offer opportunities for second-stage policy intervention to prevent war. The spread of liberal democracy in the developing world might reduce the chance that environmental stress (and its social effects) will cause interstate conflict.¹⁰⁸ Similarly, increased trade between states could increase their economic interdependence and thereby strengthen disincentives to engage in conflict.¹⁰⁹ Also important are the nature and rate of change of power relations among states; these relations may be affected by environmental degradation, yet they may also be open to independent manipulation by political leaders. Numerous scholars of international affairs, especially those of the realist school, have claimed that shifting power relations can prompt war. Robert Gilpin and others suggest that war may be started by a dominant state suffering declining power, while A.F.K. Organski and Jacek Kugler contend the initiator will usually be a weaker state gaining in power and challenging the hegemon.¹¹⁰ Whichever view is more accurate, these theories suggest that statesmen might hold in check the risk of interstate conflict despite the effects of environmental change, if they can keep power relations among states relatively stable.

Conclusions

This article sets out a research agenda for studying the links between environmental change and acute conflict. Given current theories and data, we probably cannot go much further than the preliminary analysis offered here. Case studies of specific societies focused on the "where" question—where are the different kinds of environmentally derived conflict most likely to

107. Ekkart Zimmermann and Thomas Saalfeld, "Economic and Political Reactions to the World Economic Crisis of the 1930s in Six European Countries," *International Studies Quarterly*, Vol. 32, No. 3 (September 1988), p. 326.

108. The argument that democracies are less inclined to war is often traced to Kant. For a thorough discussion, see Michael Doyle, "Liberalism and World Politics," *American Political Science Review*, Vol. 80, No. 4 (December 1986), pp. 1151–1170. This kind of second-stage intervention may be particularly difficult because environmental change may reduce the prospects for success of democratic regimes.

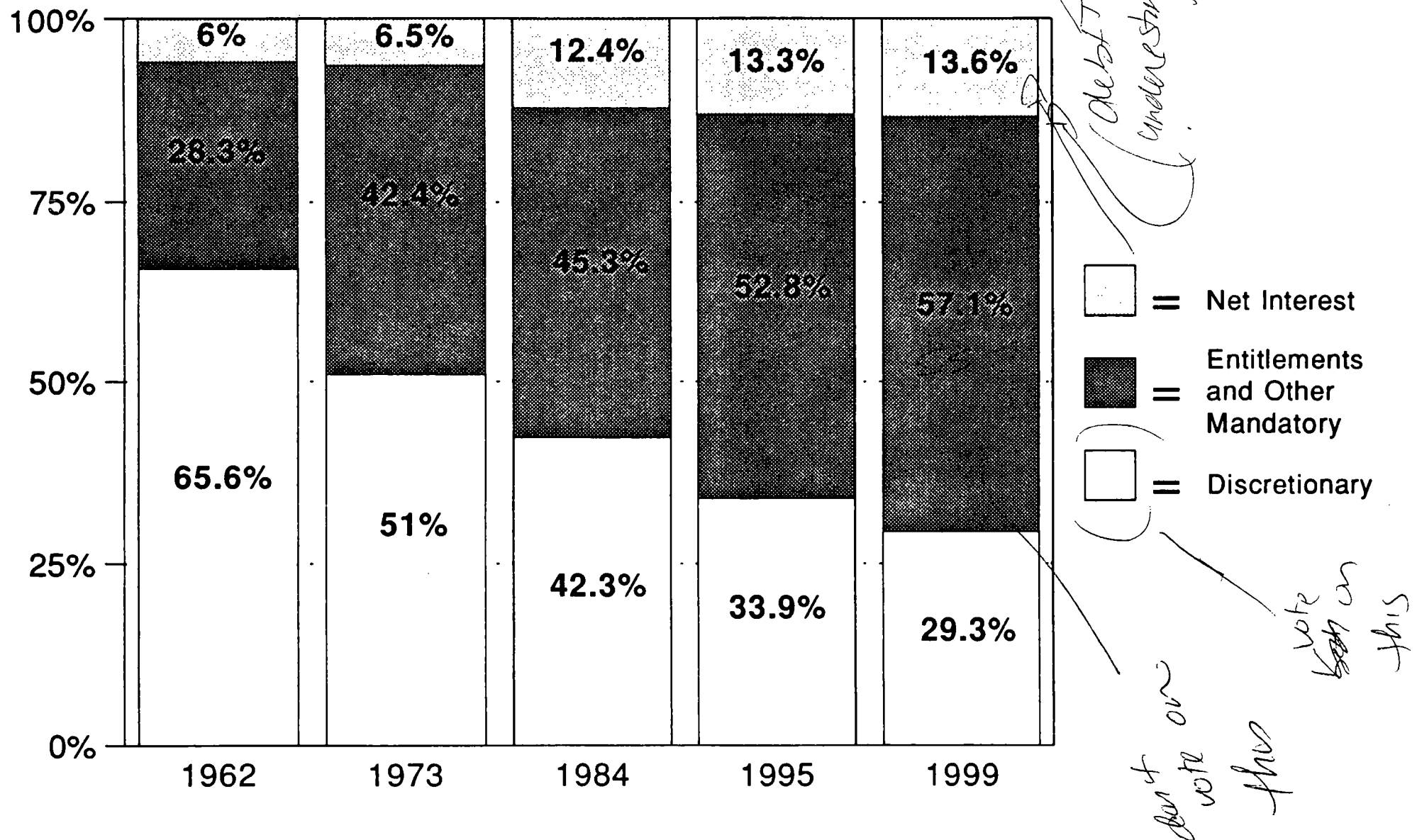
109. See Richard Rosecrance, *The Rise of the Trading State* (New York: Basic Books, 1986).

110. Gilpin, *War and Change in World Politics*, pp. 94 and 191; A.F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980); and Jack Levy, "Research Note: Declining Power and the Preventive Motivation for War," *International Politics*, Vol. 40, No. 1 (October 1987), pp. 82–107.

occur?—will help us test our hypotheses about *how* environmental change might contribute to conflict.

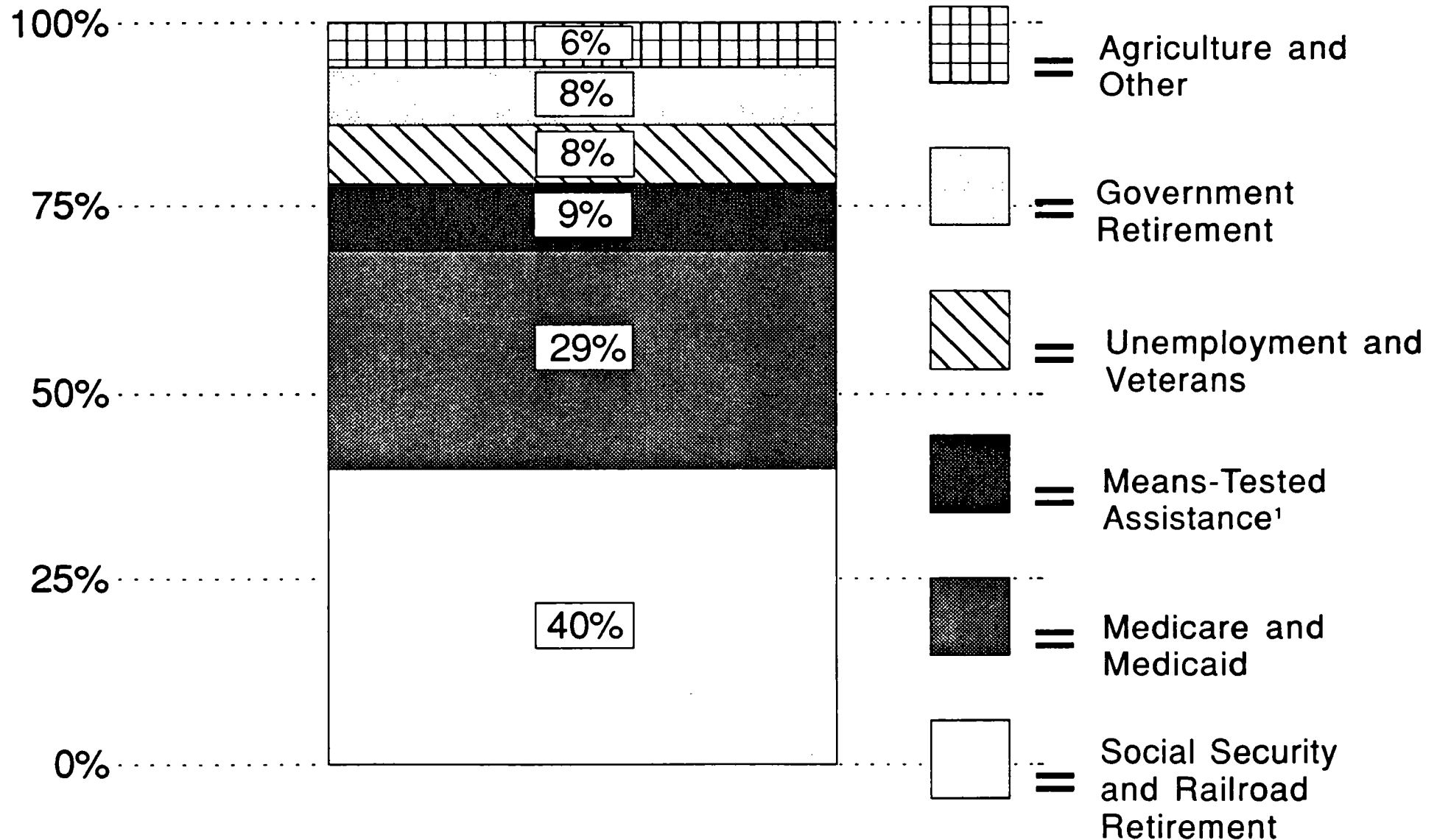
Such research will also reveal important things about real societies in the real world. We must in particular look for intervening variables—including institutions, technologies, and market mechanisms—that humankind might influence in order to change the course of environmental-social systems. We may learn that there are real opportunities for intervention; hardship and strife are not preordained. But it seems likely that, as environmental degradation proceeds, the size of the potential social disruption will increase, while our capacity to intervene to prevent this disruption decreases. It is therefore not a reasonable policy response to assume we can intervene at a late stage, when the crisis is upon us. Developing countries, in concert with the North, should act now to address the forces behind environmental degradation.

MAJOR SPENDING CATEGORIES AS PERCENTAGE OF TOTAL FEDERAL OUTLAYS¹



¹Deposit insurance and offsetting receipts are not included in total federal outlays.
 Source: Congressional Budget Office (1994)

MANDATORY FEDERAL SPENDING BY CATEGORY, FY 1993



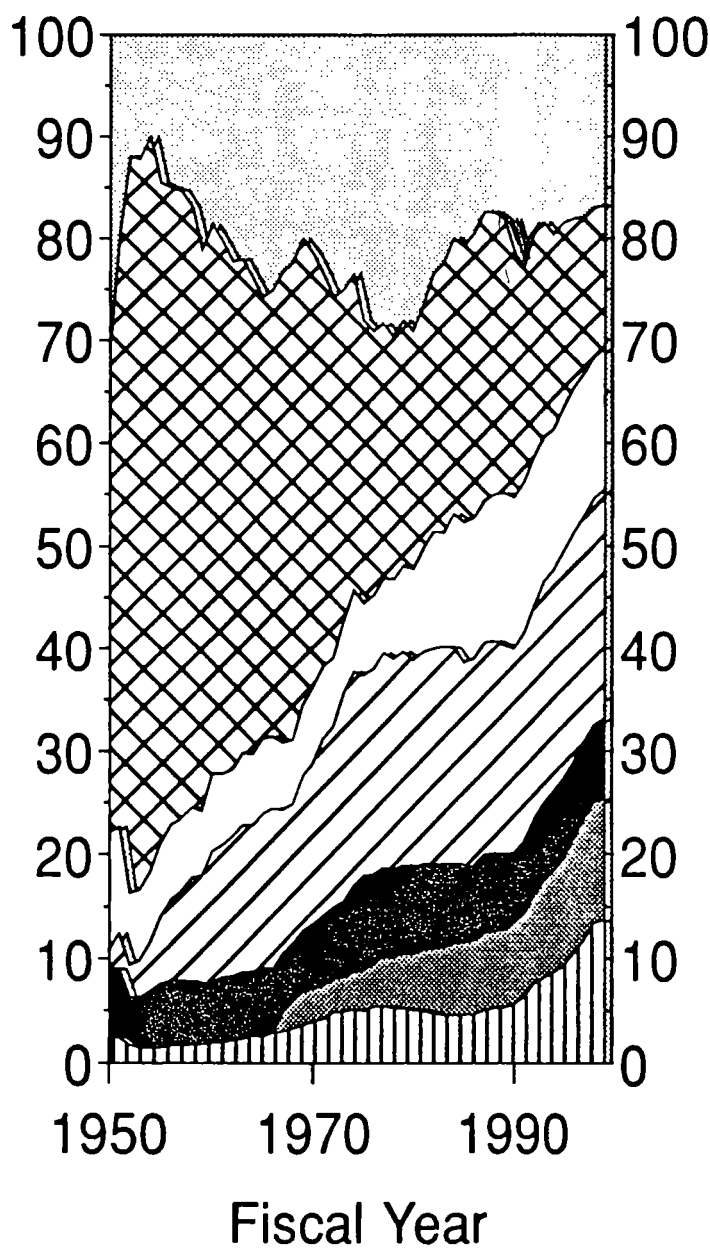
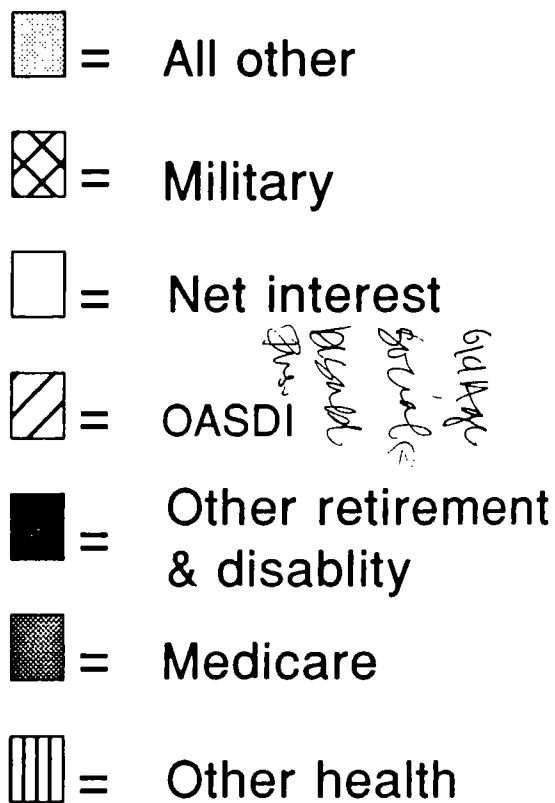
¹Includes AFDC, SSI, Food Stamps, and EITC.

Source: Congressional Budget Office (1994)

CHANGE IN THE COMPOSITION OF THE FEDERAL BUDGET, 1950 - 1998

% of Total Federal Spending

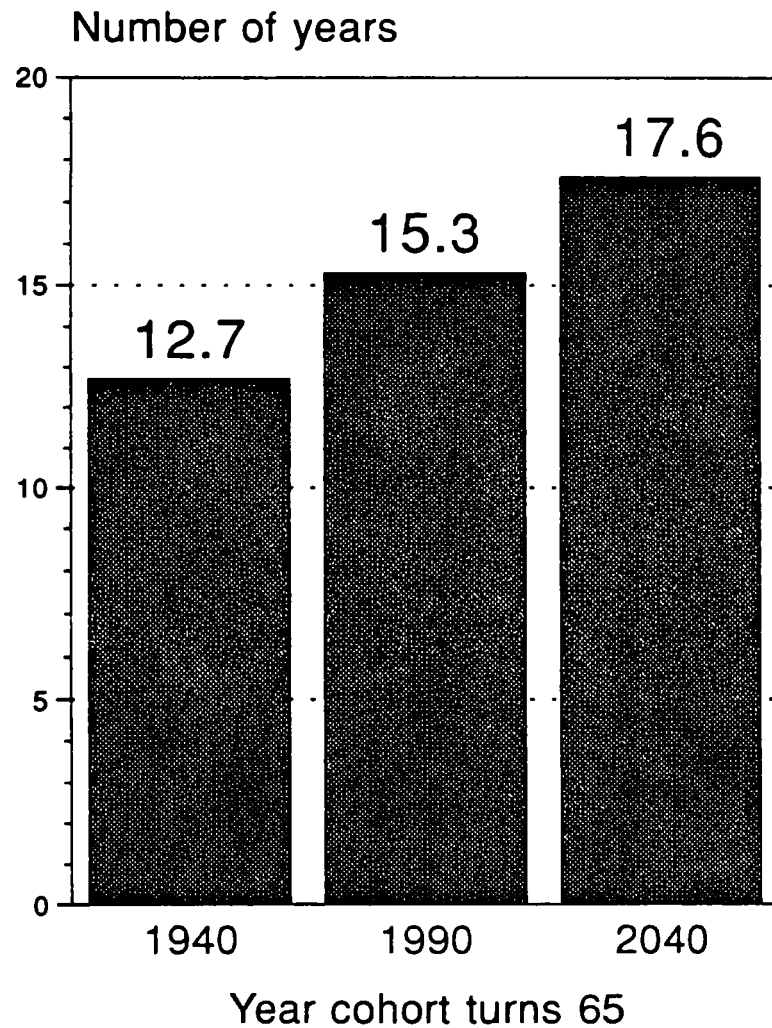
Spending
Category:



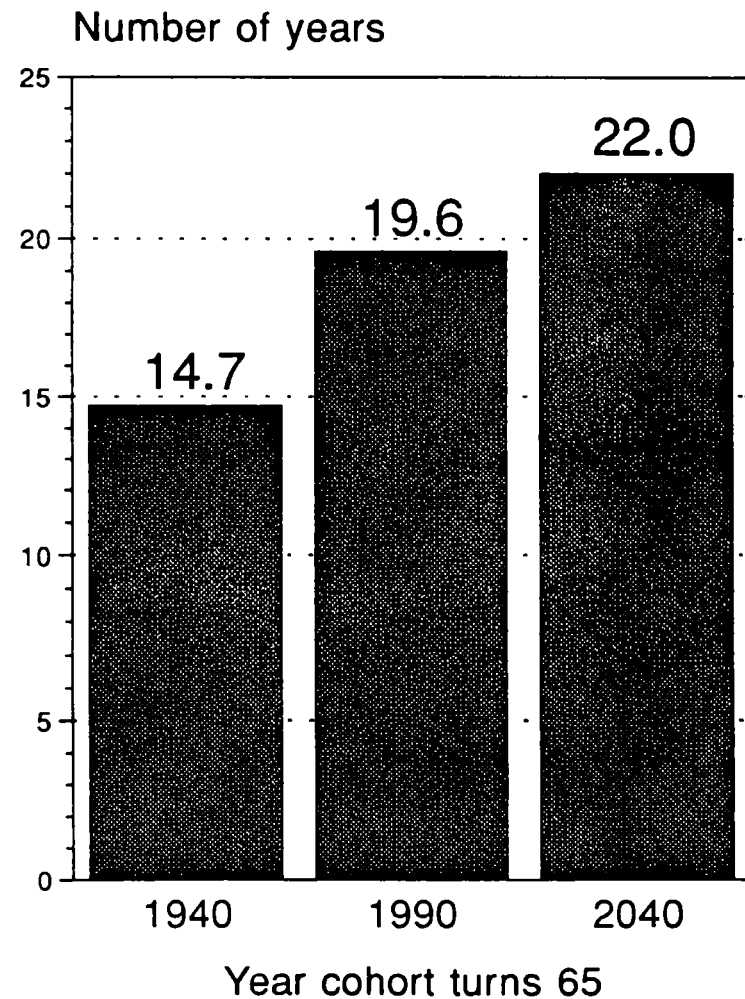
Source: Authors' calculations based on data from OMB (1993 and 1994).

LIFE EXPECTANCY AT AGE 65

MALE

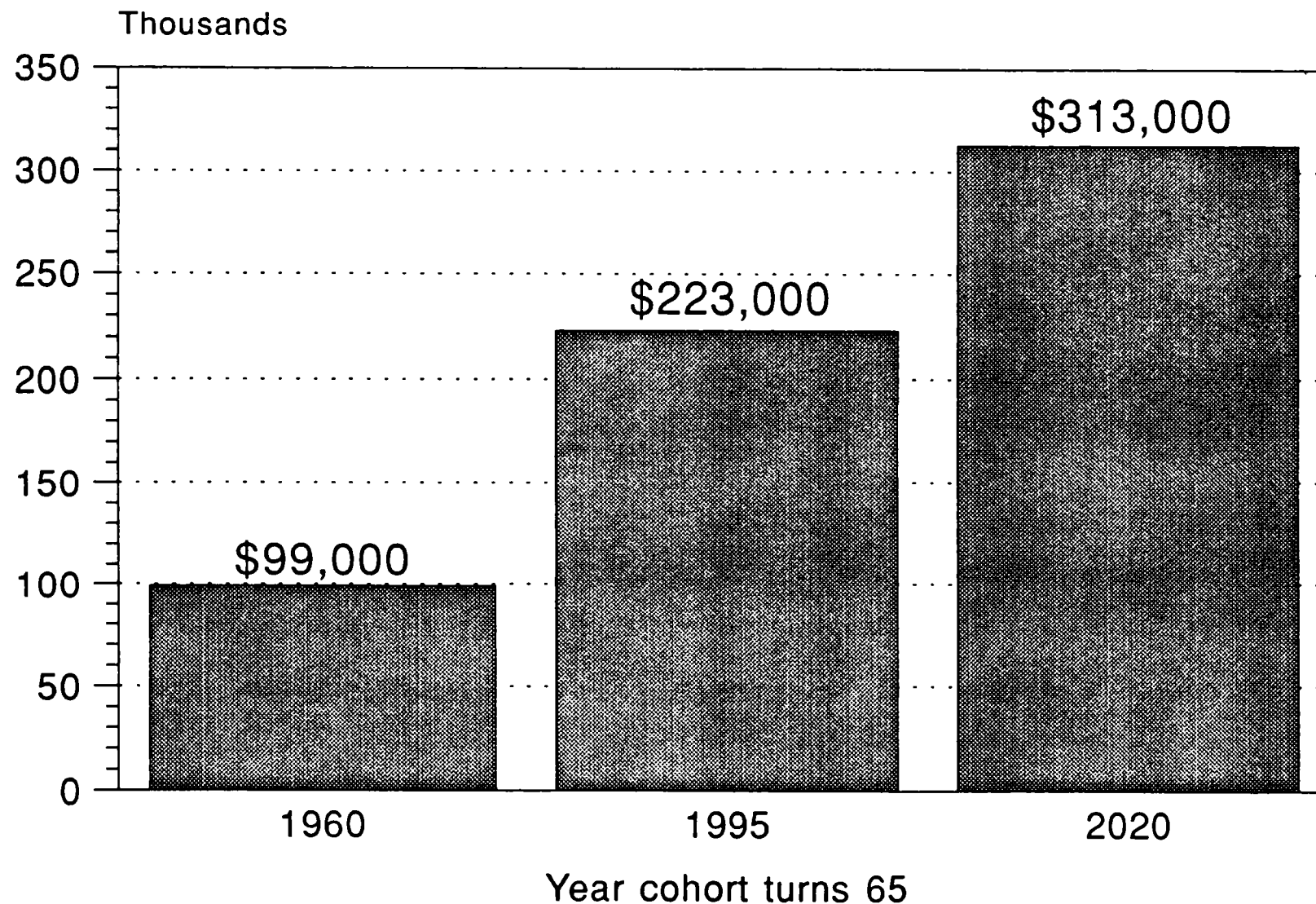


FEMALE

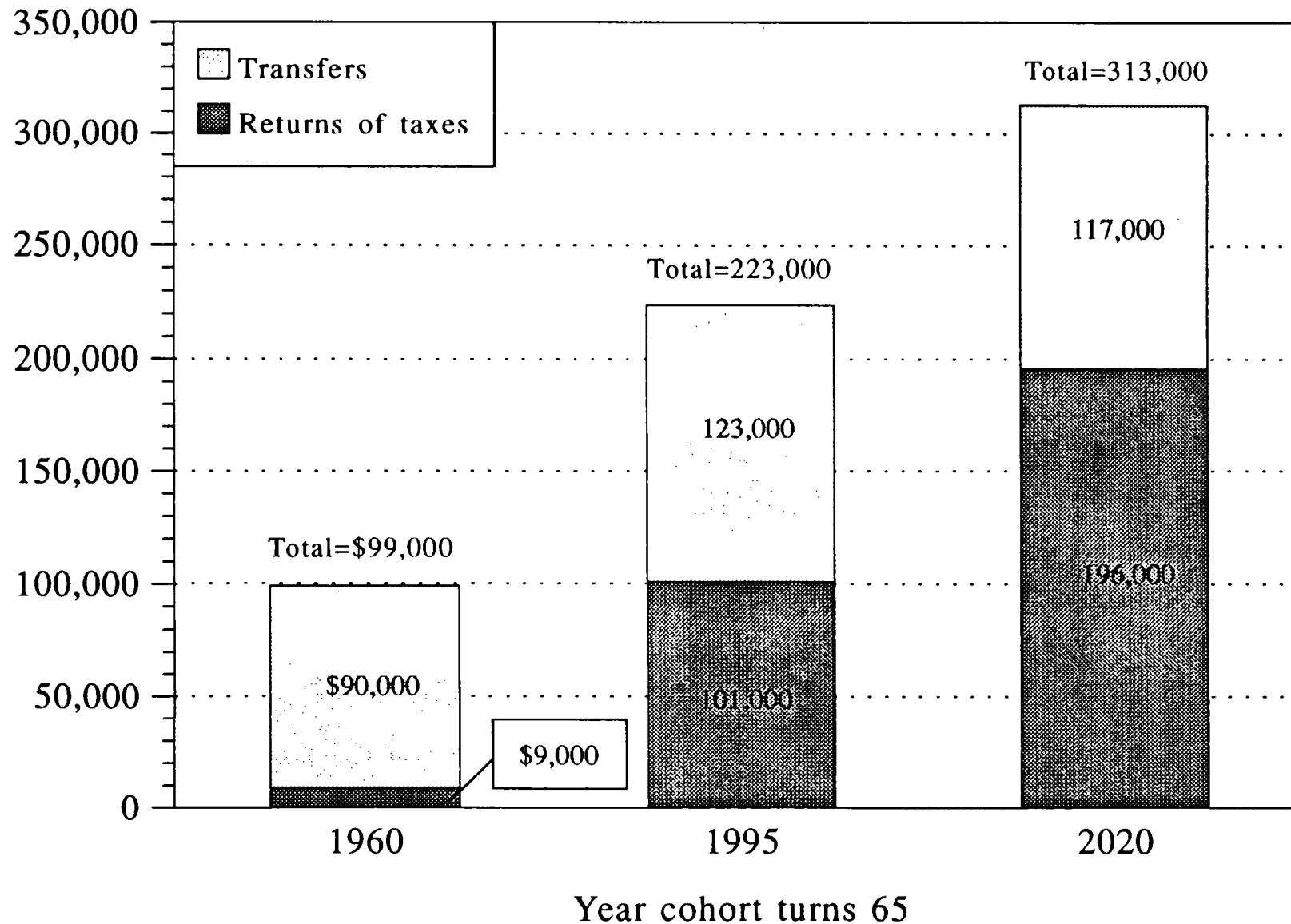


LIFETIME OASI BENEFITS FOR AN AVERAGE-WAGE ONE-EARNER COUPLE

(1993 DOLLARS) *adjusted* *inflated*

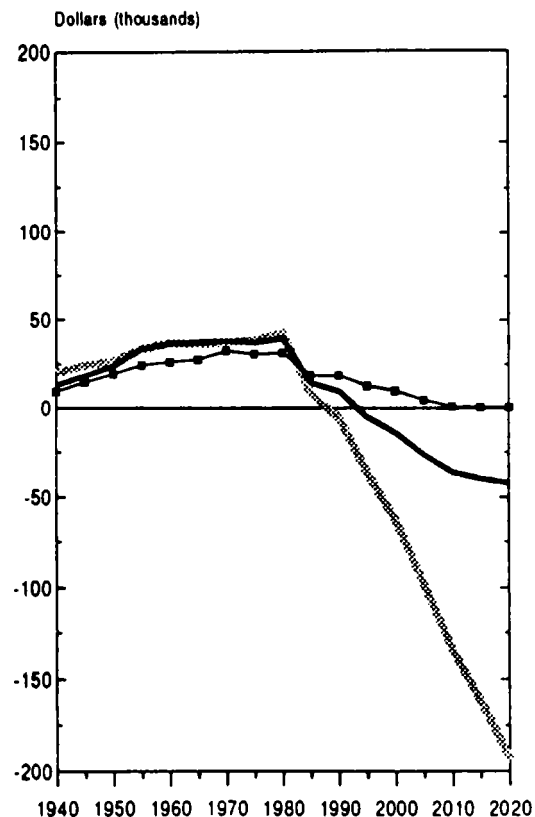


LIFETIME OASI BENEFITS, TAXES, & TRANSFERS FOR AN AVERAGE-WAGE ONE-EARNER COUPLE

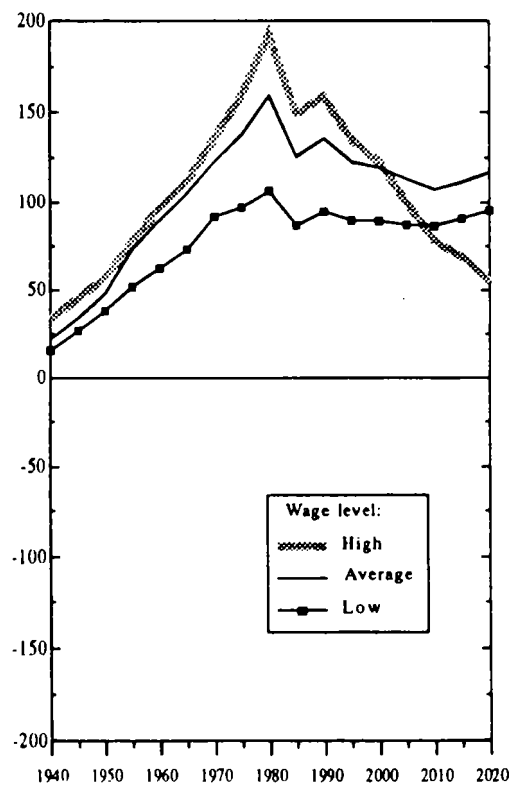


NET LIFETIME OASI TRANSFER IN THOUSANDS OF CONSTANT 1993 DOLLARS

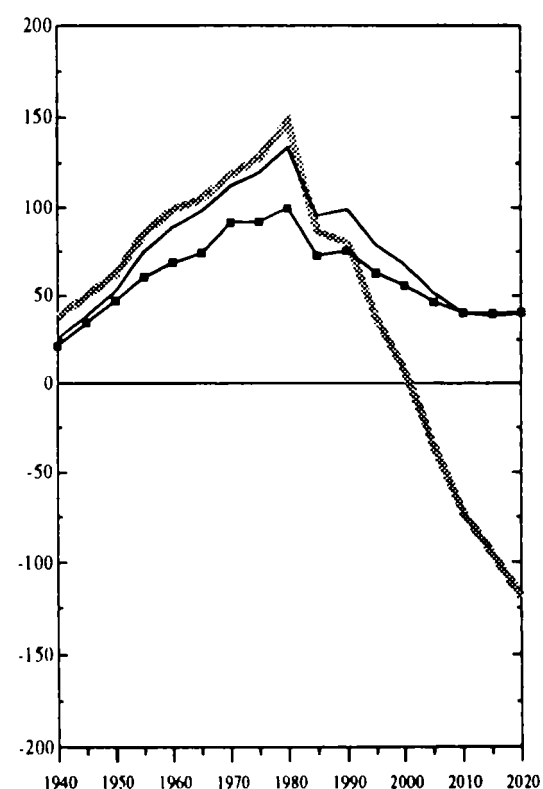
SINGLE MALE



ONE-EARNER COUPLE



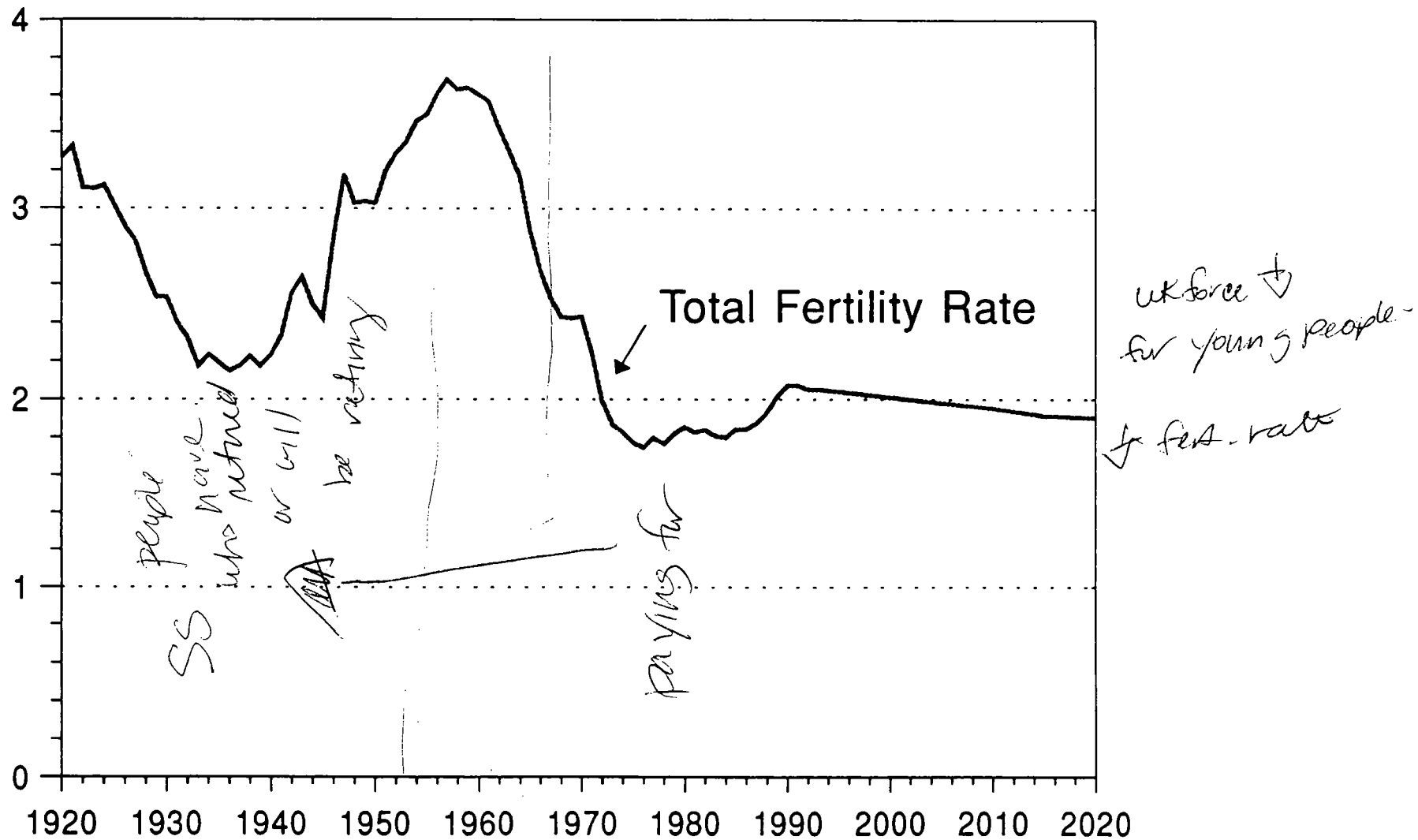
TWO-EARNER COUPLE



YEAR COHORT TURNS 65

Discounted to present value at age 65 using a 2% real interest rate. Adjusts for the chance of death in all years after age 21. Includes actuarial value of all OASI worker's, spousal, and survival benefits payable over a lifetime. Couples are assumed to be the same age and to have two children, born when parents are aged 25 and 30. Assumes retirement at the normal retirement age. Data covers cohorts born every five years beginning in 1875.

BABY BUST, BABY BOOM, BABY BUST

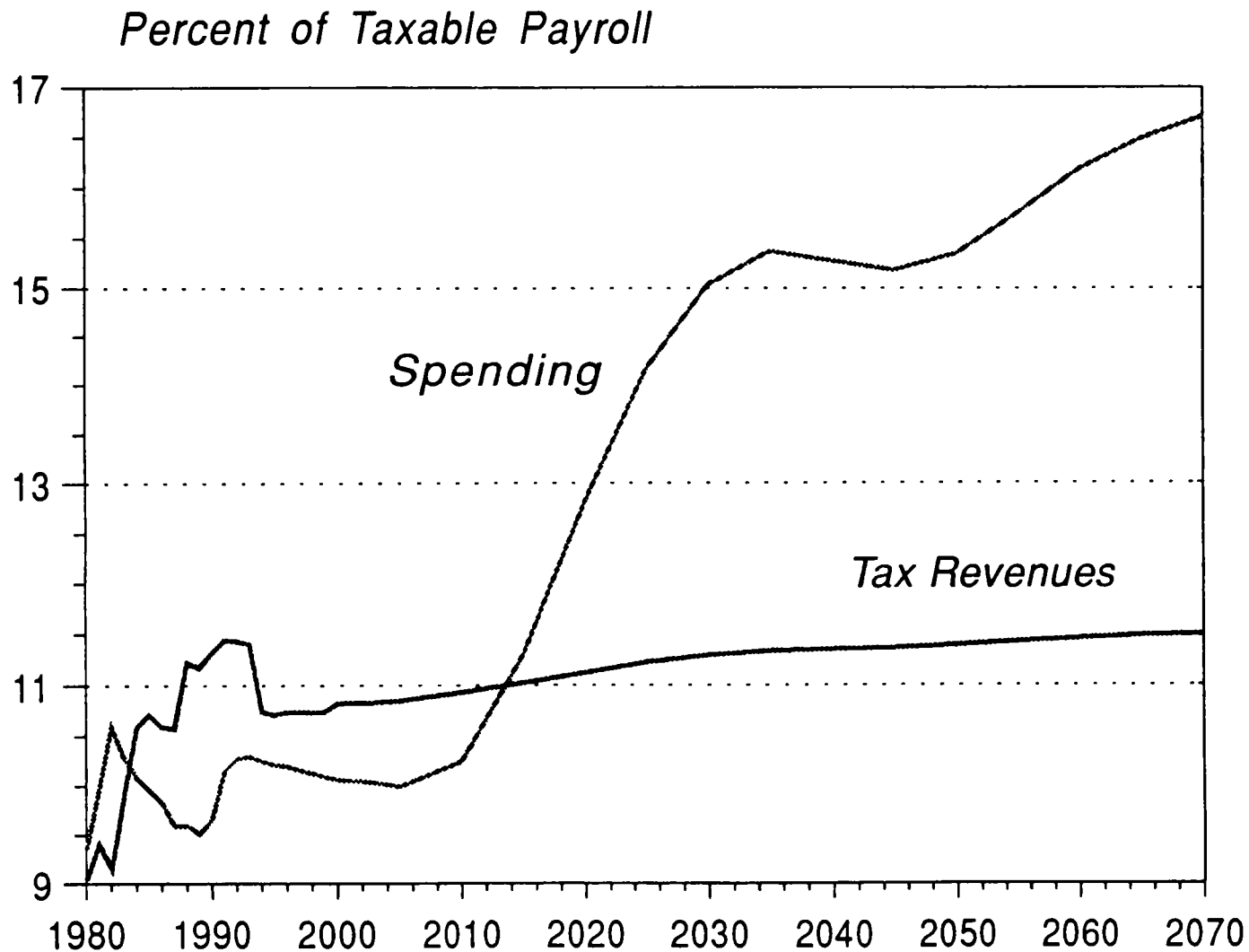


Source: U.S. Social Security Administration Office of the Actuary (1992a), and intermediate projections from the U.S. Board of Trustees of the OASDI Trust Funds (1994).

SOCIAL SECURITY BENEFICIARIES PER WORKER GROW



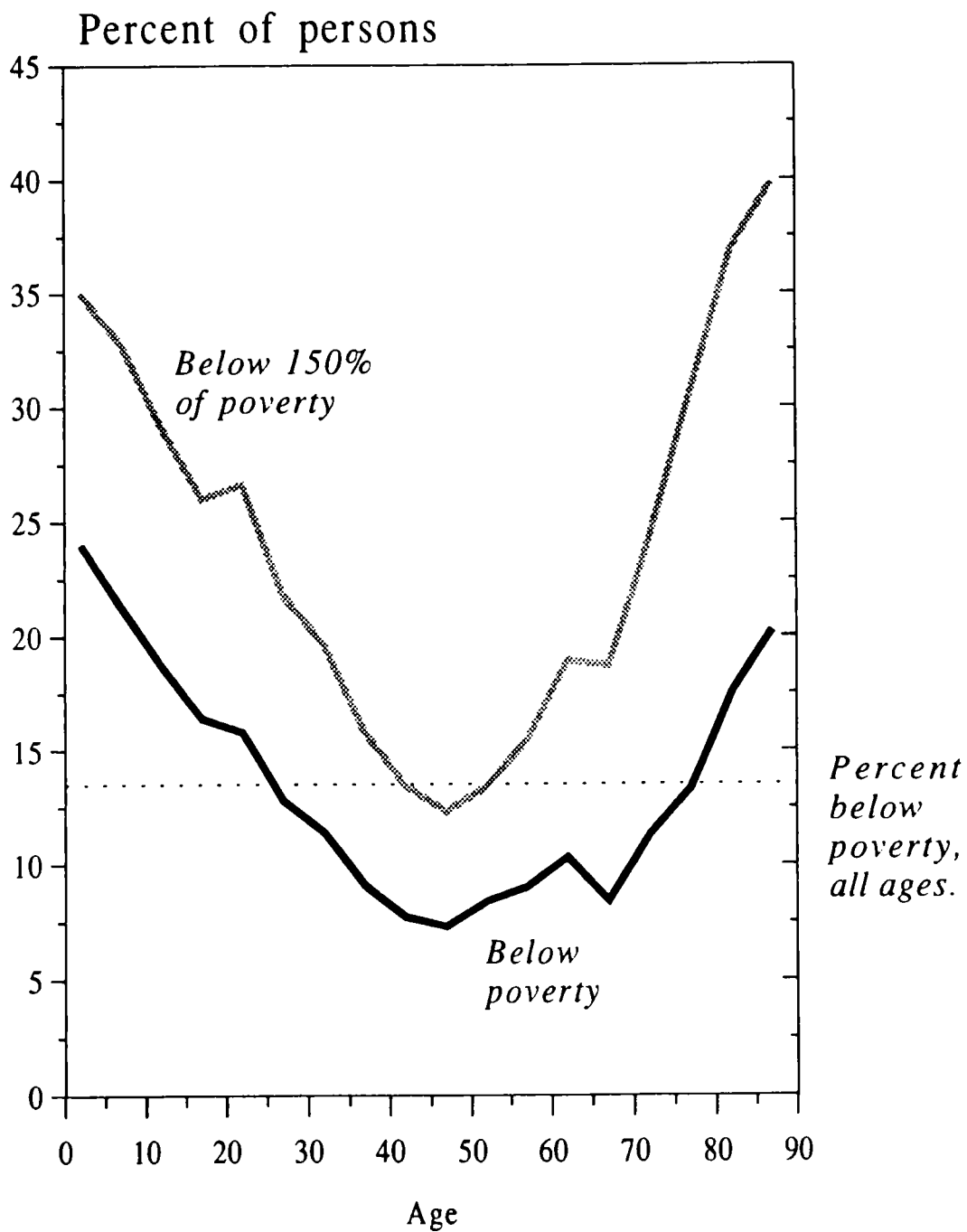
OASI TAX REVENUES AND SPENDING AS A PERCENTAGE OF TAXABLE PAYROLL



Note: Tax revenues include payroll tax and income taxation of benefits.

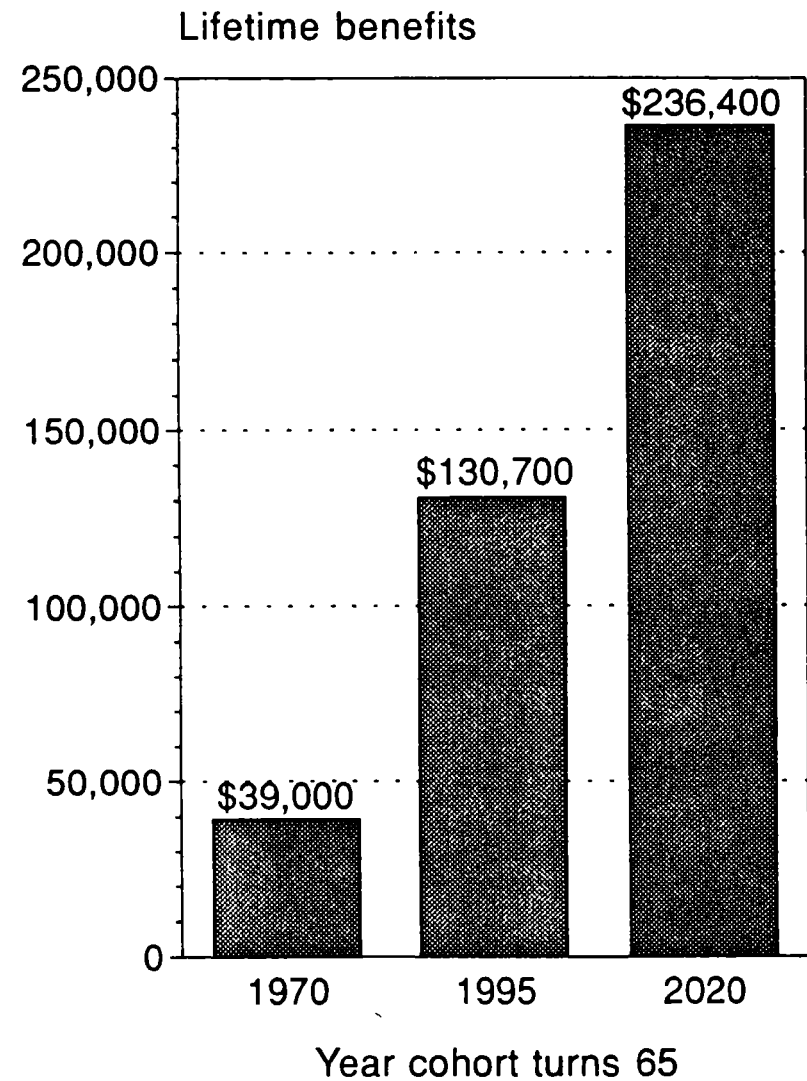
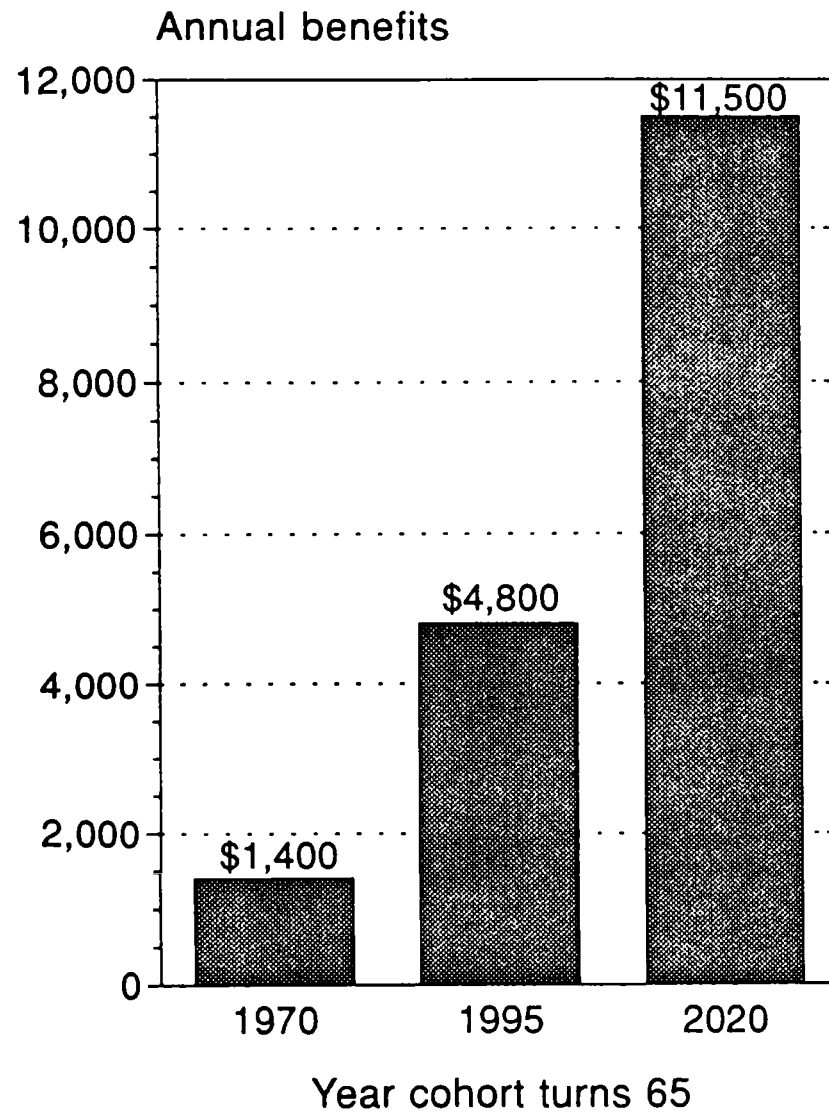
Source: U.S. Board of Trustees of the OASDI Trust Funds (1994), intermediate projections, adjusted to reflect 1994 reallocation of tax rates between OASI and DI.

PERCENT OF PERSONS BELOW POVERTY
AND NEAR-POVERTY THRESHOLDS, BY AGE, 1990



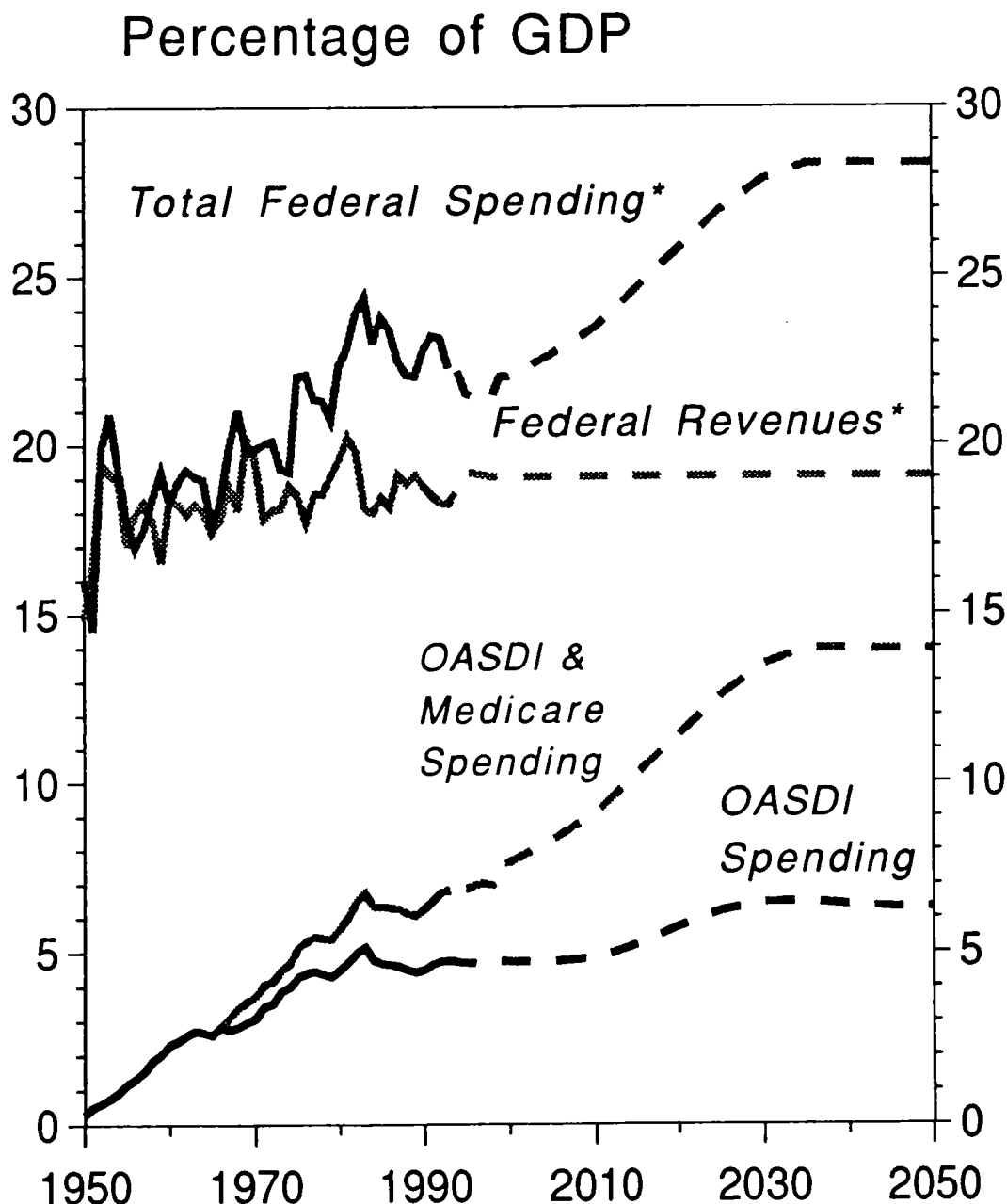
Source: Radner (1992), based on tabulations from the March 1991 CPS.

ANNUAL AND LIFETIME MEDICARE BENEFITS FOR FEMALES



*In constant 1993
dollars

FUTURE GROWTH IN SOCIAL SECURITY AND MEDICARE MEANS HIGHER TAXES, LARGER DEFICITS, OR LOWER SPENDING ON EVERYTHING ELSE

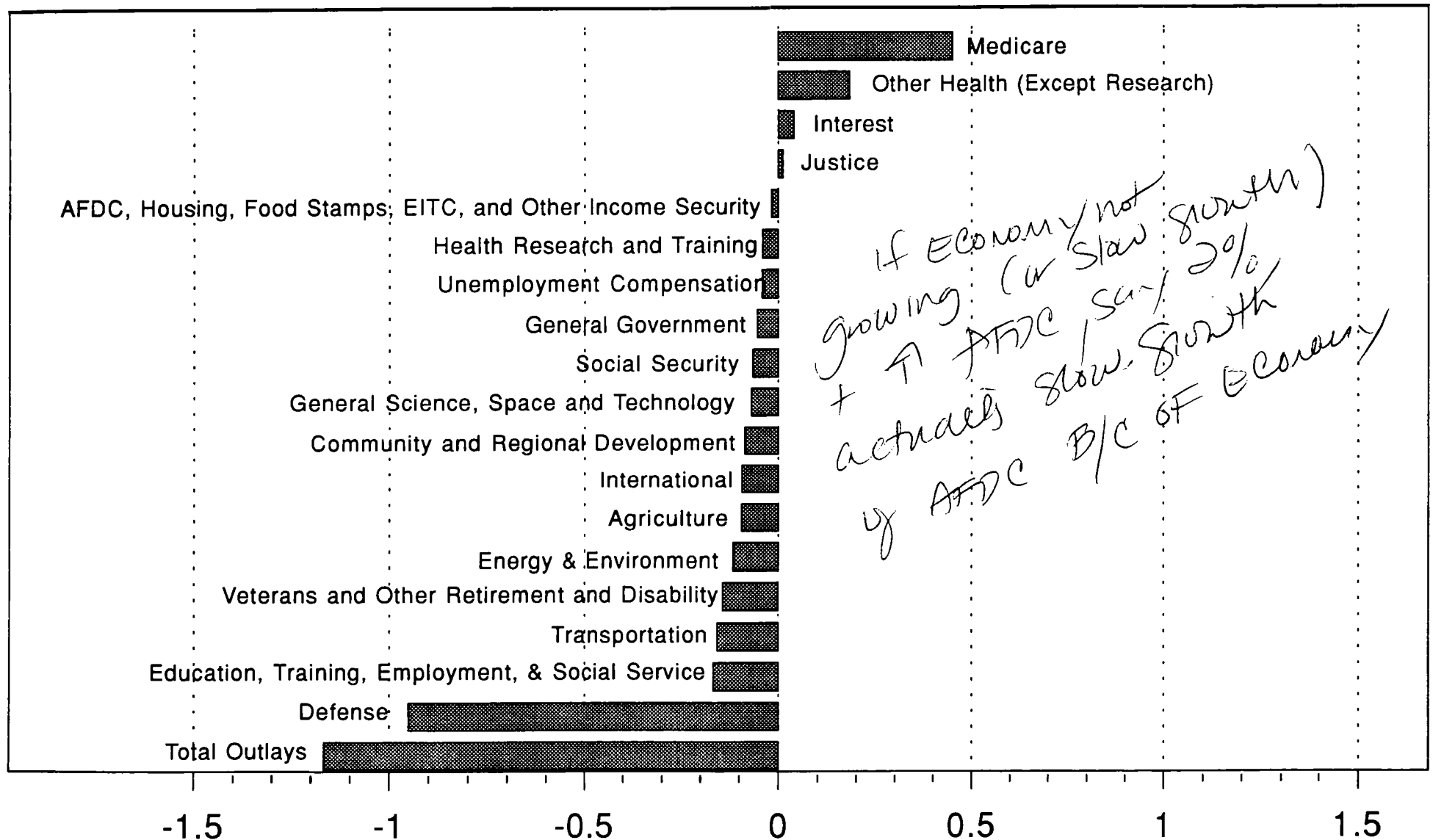


* Projections assuming spending -- besides OASDI and Medicare -- and taxes remain constant as a percentage of GDP after 1998.

SMI premiums and income taxes on benefits are counted as expenditure reductions. Assumes SMI premiums remain at 25% of program costs indefinitely.

Source: Authors' calculations based on data from 1994 Social Security Trustees Reports intermediate projections, and OMB (1994).

Projected Change in Federal Outlays, 1995-2000 (Percentage Points of GDP)

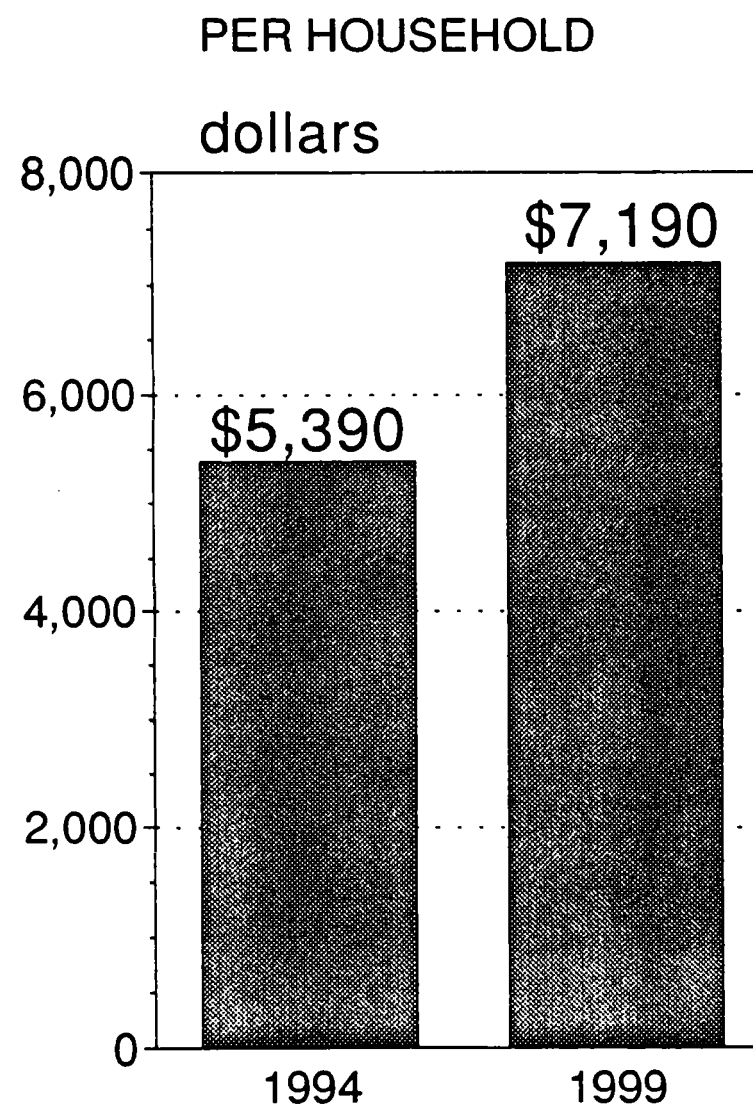
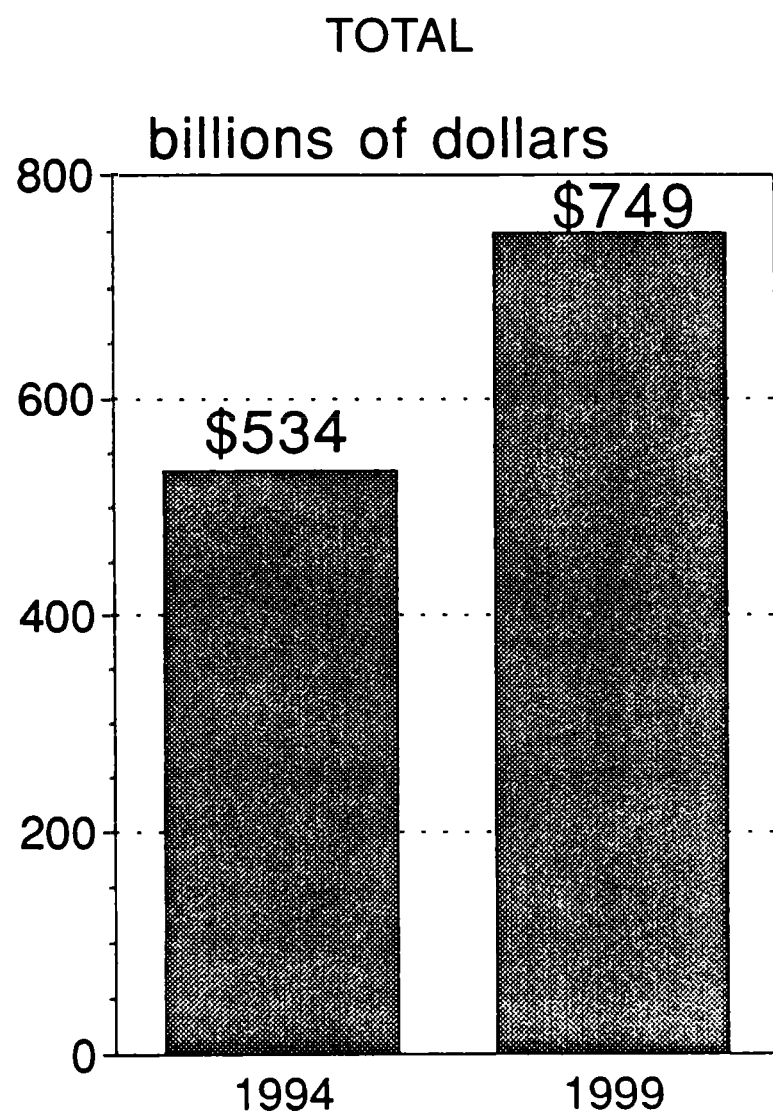


Mortgage Credit, Postal Service, Deposit Insurance, Other Advancement of Commerce, Undistributed Offsetting Receipts, and Allowances are not included in the categories but are included in Total Outlays

Gene Steuerle and Gordon Mermin, THE URBAN INSTITUTE

Based on data from the Budget of the United States Government FY 1996

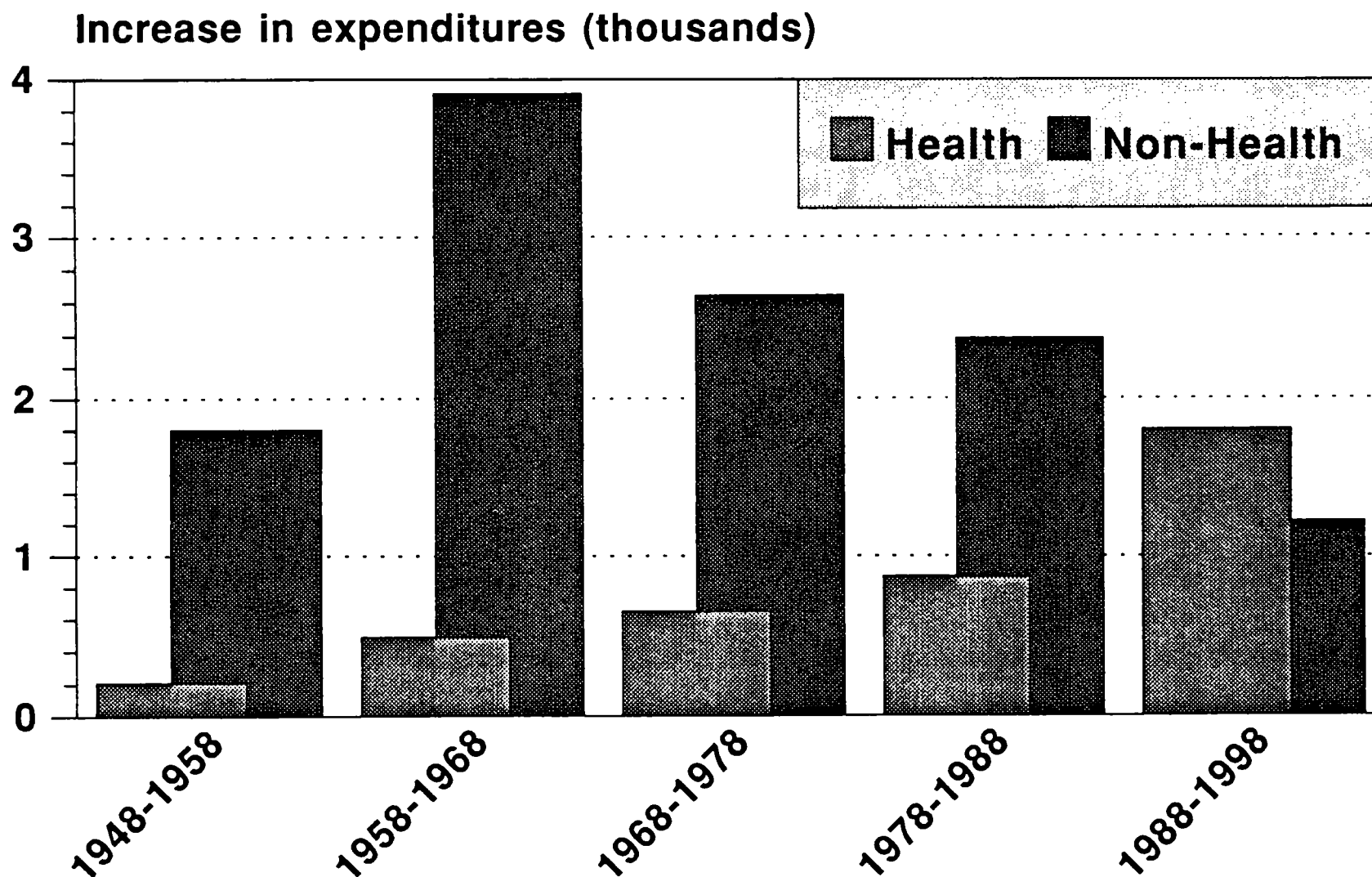
Government* Expenditures and Tax Subsidies for Health Under Current Law (In 1994 Dollars)



* Federal, State & Local

Source: C. Eugene Steuerle and Deborah Chien, The Urban Institute

DOLLAR INCREASES IN HEALTH AND NON-HEALTH EXPENDITURES PER PERSON (constant 1993 dollars)



Source: C. Eugene Steuerle and Deborah Chien, The Urban Institute

Capstone Project

Questions

Who is the audience of this project?

- ☐ The Fellows.
- ☐ Future and prospective fellows.
- ☐ Funding agencies.
- ☐ General public.
- ☐ Major motion film producers.

What do we want to convey through this project?

- ☐ Our accomplishments.
- ☐ Who we are.
- ☐ What the political climate of this year was.
- ☐ How this program influenced our opinions and perspectives.
- ☐ How this program influenced the course of our life.
- ☐ What our field placements were.
- ☐ Problems we faced.
- ☐ Inspirational moments.
- ☐ What we learned about hunger in America.
- ☐ What we learned about the relationship between policy and grassroots.
- ☐ Our relationship with each other.

What can we put in this project.

- ☐ Interviews with individual fellows (background, opinions, experiences, and perspectives. Reason for involvement. Changes they see in themselves.)
- ☐ Partner interviews.
- ☐ Explanation of the program.
- ☐ Profile of field site placements (the agencies and our projects.)
- ☐ Overview of the political climate in DC (can use news clippings) and reaction of field agencies in November to the change in power.
- ☐ Comments by field placement supervisors.
- ☐ Pictures.
- ☐ Stories from the field.
- ☐ Creative writing samples from fellows related to experience in the field, policy placement, or with and poverty and hunger issues.
- ☐ Memorable moments (fellows hanging out, funny political faux pas, Melissa's inability to get out of bed safely at the William Penn house, ect..)
- ☐ Effect on the communities we worked in.

What form will this project take?

- | | | |
|--|---------------------------------------|--|
| ☐ Scrapbook or yearbook for the fellows. | ☐ Video. | ☐ College of pictures & essays |
| ☐ Book. | ☐ Performance Art | |
| ☐ Annual report. | ☐ Dance | ☐ |

MEMO

To: Participants in the AmeriCorps Panel
Fr: Roberta Lamb, AmeriCorp*VISTA Leader
Mark Kennedy, Mickey Leland Hunger Fellows Program
Re: Agenda for Professional Development Day 3-10
Dt: 3-7-95

Thank you for agreeing to participate in our panel on Professional Development Day.

We hope that the first panel will (1) explain the programs under the AmeriCorps umbrella, (2) update the Fellows on the cuts proposed in the rescission package by the House for AmeriCorps and (3) answer any questions that will enable the Fellows to better understand AmeriCorps and the National Service concept.

The Fellows will also hear from Heather Mizeur, an AmeriCorps member who will discuss her project and duties in working in a congressional office.

Our last discussion will take place at the offices of Youth Service America. Frank Slobig will discuss Youth Service America, its mission and programs. Mr. Slobig has also agreed to give a perspective on the positive and negative media concerning AmeriCorps and national service.

Here is the agenda for Friday:

AmeriCorps/National Service Day

Arrive at Corporation for National Service

1201 New York Avenue NW, Room 8412

Metro Stop: Metro Center (Exit on the "Hecht's" side). Walk two blocks North. The Corporation is on the corner of New York and "G" Street NW.

12:00 - 1:00 **Check-in\ Lunch\ Announcements**

1:00 - 2:30 **Panel - Q & A Session with AmeriCorps**
Facilitators: Roberta, Mark
Guest: Sondra Friedman, Program Specialist
AmeriCorps*VISTA Leaders

Jim Schiebel - Director, AmeriCorps*VISTA

Diana London - Deputy Director, AmeriCorps*VISTA

Pat Booker - Director, AmeriCorps*VISTA Recruitment

Kelly Daly - Program Specialist, VA\DC State Office,
AmeriCorps*VISTA

Verna Kuo - Program Specialist, Human Needs, AmeriCorps USA

2:30 - 3:00

AmeriCorps in the House

Heather Mizeur, AmeriCorps Member with
Rep. Sheila Jackson-Lee (TX)

Youth Service America, Conference Room

1101 15th Street NW, Suite 200

Metro: McPherson Square. Walk up 15th Street. YSA is on the corner of 15th and "K", on the second floor.

3:30-

National Service: Another Prospective

Frank Slobig - Director, Center for Training and Technical Assistance,
Youth Service America

Wrap-up

Withdrawal/Redaction Marker

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- b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]



COMPETITIVE ENTERPRISE INSTITUTE

THE WORLD BANK'S TRAIL OF SORROWS

**Paul Georgia
Research Analyst**

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INTRODUCTION

As Congress looks for ways to reduce the federal budget, it should start by cutting those programs with the largest gap between the program's stated objectives and the actual outcomes. Under this criterion the World Bank is a prime candidate for elimination. The World Bank, officially called the International Bank for Reconstruction and Development (IBRD), began operations in 1947. Its stated objectives were the reconstruction of war-torn Europe and the economic development of the less developed countries (LDCs). Instead, the World Bank has been the source of human rights abuses, environmental disaster and economic stagnation.

This paper argues that the United States should withdraw from the World Bank and terminate all funding. The U.S. contributes roughly \$1 billion per year to the Bank and is liable for up to \$30 billion dollars of callable capital. Reform has failed in the past and will not likely lead to a more effective Bank in the future. While a partial cut in funding would be desirable, only total defunding will stop the shameful abuse of the U.S. taxpayer's money by the Bank.

Although this paper focuses on the activities of the World Bank, the arguments made herein apply to all programs of international wealth redistribution. Both bilateral aid and multilateral aid suffer from the same problems which exist within the World Bank. Therefore, this paper implicitly calls into question the efficacy of all foreign aid.

DEVELOPMENT ASSISTANCE: THE FATAL FLAW

Foreign aid is based on the false premise that government can successfully direct the economic development of a country. The evidence to the contrary is overwhelmingly abundant. The socialist states of the Soviet Union and Eastern Europe are prime examples of the failure of government-directed economic development. For years the West marveled at the reports of meteoric economic growth in the communist bloc. However, when the iron curtain fell, the reality of socialism was revealed. Instead of Utopia we saw the worst manmade environmental disasters ever witnessed. Economic stagnation, rampant alcoholism, crime, declining mortality rates, and general misery were the norm, not the exception. Human rights were unheard-of, except when piously expounded upon by communist leaders at international conferences.

Nonetheless, the fallacious belief that governments can create economic prosperity is alive and well within the foreign aid community. In fact, aid agencies depend on the acceptance of this belief for their continued existence. It is time for Congress to critically rethink the intellectual foundation upon which aid programs are based.

FOREIGN AID OR FOREIGN HINDERANCE?

Foreign aid by its very nature cannot lead to economic development. The reason is very simple; aid to LDCs is equal to a very small fraction of GNP, generally less than 3 percent. For example, total aid from all sources to India in the late 1970s was equal to approximately 3 percent of GNP. In 1980, that amount dropped to 1.6 percent.¹ Such a small sum is not capable of jump-starting an economy.

Many argue that even though small, these sums of money do benefit the poor somewhat and are therefore desirable. However, this money cannot benefit the poor because it is given directly to the governments who are primarily responsible for the miserable condition of their people. For example, Official Development Assistance (ODA) makes up 50 percent of Burundi's government budget. It makes up more than 38 percent of government expenditures in Tanzania, over 40 percent in Honduras, 49 percent in Zaire, 31 percent in Rwanda, 60 percent in Mali and Malaysia, and 67 percent in both Niger and Somalia.² Third World governments do not spend this money to alleviate poverty, but rather use it as a tool of oppression and a means to prolong their autocratic rule.

HUMAN RIGHTS

The consequences of increasing government budgets by this magnitude have been shocking. Placing such large funds in the hands of governments has increased the power of government over the people they rule with disastrous results.

Often human rights are abused so that countries can qualify for aid. President Mobutu of Zaire expelled all traders and middlemen from the country, thereby lowering that country's per capita income and qualifying it for increased aid.³ Other methods used to lower per capita income have been the outlawing of entire occupations, discrimination, expulsion, harassment and the slaughter of entire minority groups just because their income was above the national average. Algeria, Burma, Burundi, Egypt, Ethiopia, Ghana, Indonesia, Iraq, Kenya, Malaysia, Nigeria, Sri Lanka, Tanzania, Uganda, Zaire, and Zambia have all engaged in such practices in order to qualify for aid.⁴

The following are examples of World Bank money being used directly by Third World governments to oppress their people.

Tanzania

In the early 1970s, with World Bank aid and advice, Julius Nyerere, president of Tanzania, implemented a villagization program. The military drove peasants from their land, burned their homes, loaded them into trucks and moved them to the *ujamaa* villages and ordered them to build new homes. Approximately 90 percent, or 13 million, of Tanzania's people were herded into these collective farms against their will.⁵

Ethiopia

During the Ethiopian famine in 1983-1984, the World Bank and other aid agencies gave millions of dollars in loans and grants to the government. This aid was intended to lessen the impact of the famine. However, the Ethiopian government spent much of the aid buying trucks which were used to implement a resettlement program. This involved forcefully moving millions of Ethiopians from the rebel-dominated northern region to the government-controlled southern region. The humanitarian group, Doctors Without Borders, reported that more Ethiopians died from the resettlement program than died from the famine. This program was continued until the Ethiopian government fell in 1991. The goal was to move 33 million people or 75 percent of the population. In spite of these actions the World Bank continued sending millions of dollars of aid throughout the resettlement.⁶

Indonesia

The World Bank, together with other aid agencies, beginning in the late 1970s, gave funds to Indonesia for a massive resettlement program to alleviate the "population problem". Half of its population lives on seven percent of its land mass. The project involved the forceful transmigration of millions of Javanese to the tropical forests of Kalimantan, Sulawesi, and Irian Jaya.

According to the Indonesian government this project was designed to "sedentari[ze]" and "assimilat[e]" all Indonesian tribes into the mainstream. The Minister of Transmigration stated that "the different ethnic groups will in the long run disappear...and there will be one kind of man."⁷ This goal was quite ambitious considering that Indonesia contains over 300 ethnic groups.

Between 1976 and 1986 the World Bank contributed \$600 million directly to the project, which has already resulted in the forceful relocation of six million people. Furthermore, the Indonesian government wishes to move all 800,000 members of the indigenous tribes' people in Irian Jaya from their traditional lands and relocate them in settlement sights on the island by 1998. Resistance to these attempts have met with brutal repression by the Indonesian military. The Irianese have reported bombings from the military. In East Timor, resistance to resettlement has led to the death of an estimated 150,000 Timorese. Peasants, relocated to tropical rain forests are suffering from starvation and destitution. The World Bank continues to "aid" Indonesia but it claims that its money no longer directly finances transmigration. However, this case demonstrates that the World Bank's money is fungible. Any money sent to Indonesia contributes to the financing of transmigration.⁸

CORRUPTION

Third World corruption is another by-product of foreign aid. Many Third World leaders have become fantastically rich while in office. They have all been recipients of foreign aid. Ferdinand Marcos of the Philippines, whose fortune was estimated at \$10 billion, is notorious for raiding his country's treasury, much of which was supplied by foreign aid.⁹ President

Mobutu Sese Seko of Zaire, worth approximately \$5 billion, puts more into his Swiss bank account each year than the \$45 million his country receives in foreign aid. The Shah of Iran was worth \$20 billion, and the Sultan of Brunei, \$30 billion. The Duvaliers of Haiti, Trujillo of the Dominican Republic, Argentina's Peron, and Perez Jimenez of Venezuela also pocketed large sums of money, entirely through embezzlement.¹⁰ Much of that money originated in the developed world and was distributed as development assistance.

Emergency food relief to Ethiopia during the 1973-74 famine was seized by the Haile Selassie government and sold on international markets to line the pockets of regime members, while the rebels were starved into submission. During the 1984-85 famine the Mengistu regime spent \$200 million to celebrate the tenth anniversary of the Marxist revolution. It also earned \$15 million by charging cargo ships loaded with emergency relief a port-entry fee of \$50.50 a ton. Ships unable to pay the fee were turned away.¹¹ According to Ghanaian economist George Ayittey, most African development projects suffer from "corruption and pilfering."¹² Brazil, Haiti, Peru and many other aid recipient countries have suffered from similar kleptocratic regimes.

COLOSSAL AND WASTEFUL PROJECTS

There are many examples of wasteful projects which are literally scattered across the Third World. A project is wasteful if its construction and operation costs exceed the financial benefits. The following projects are once again only a small sampling of an enormous problem.

Akosombo Dam

In the 1950s and 1960s the World Bank contributed to the construction of the Akosombo Dam in Ghana. This hydroelectric dam does not benefit the poor as the power lines from the dam pass over the poor areas and go directly to wealthy areas of the country. It has also been a source of electricity for the U.S.-owned VALCO aluminum plant. Not only do the poor not benefit from this project but they have borne the costs. When the dam was completed rising waters displaced thousands of Ghanians from their land without compensation. Disease has also been a result of the dam. Over 100,000 people have contracted river blindness and 80,000 more have been permanently disabled from schistosomiasis, a parasitic disease which is carried by the two most common molluscs in the Volta reservoir.¹³

Ranching in Botswana

In 1972 the World Bank contributed \$1.65 million towards a \$5.4 million project which established cattle and sheep ranches in the savanna grasslands in Botswana. It was estimated that the project would yield a 21 percent return. However, the result was serious overgrazing of the savanna, a negative return and a \$2.9 million budget overrun. In spite of this failure, the World Bank and other contributing agencies returned in 1977 to the same area with another ranching project. This one cost \$13.4 million to create 100 ranches. After it was completed in 1984, an audit judged the rate of return to be "inconsequential." Finally, in 1989, the Bank approved yet another loan of \$10.7 million for another livestock project in the same area.¹⁴

Kenana Sugar Complex

In what was originally estimated to be a \$150 million dollar project, the Kenana sugar complex in Sudan was completed in 1981 at the cost of \$613 million. The project included a 40 megawatt power-station, a network of conduits and canals, a pumping station to lift water from the Nile river 150 feet to the fields and a factory which could crush 17,000 tons of sugar a day. This project was intended for the exporting of sugar which would increase the country's foreign exchange earnings. However, the factory was located more than a thousand miles across a desert from the nearest sea port. The exorbitant transportation cost makes it impossible to compete on the world market. Nearly all sugar produced in Kenana is sold in Sudan at prices higher than imported sugar.¹⁵

Namasigoungou Irrigation Project

An International Development Agency (IDA, the soft-loan affiliate of the World Bank) grant of \$15 million dollars was given to the Niger government to construct a high-tech irrigation project. However it was abandoned because the government could not afford the high costs of operating it. Now, money is being given for a nearly identical project just a few miles away.¹⁶

Phuket Tantalum-Processing Plant

On the island of Phuket in Thailand, a \$44 million tantalum-processing plant was constructed with funds from the World Bank. The islanders knew that the ore factory would be noisy and messy and would threaten the local tourist industry. They also found out that the capital-intensive factory would provide few jobs. Being rational individuals, the islanders burnt the factory to the ground shortly before it was scheduled to open for business.¹⁷

Far from being the exception, these cases are the rule with the World Bank.

ENVIRONMENTAL COSTS

The World Bank has become particularly notorious among environmental groups for the environmentally destructive uses of the projects it funds. For example, the Indonesian transmigration project has led to the destruction of 2.3 million hectares of tropical rain forest. Subsidized ranching in Botswana and the Akosombo Dam project are other examples. The World Bank has funded thousands of environmentally destructive hydroelectric, mining, irrigation and forestry projects. Many of these projects would have been huge money losers in the private sector and therefore would have never been undertaken. However, they exist because construction and operation of these projects are heavily subsidized by the World Bank and by Third World governments. In effect, taxpayers in both the industrialized world and in the Third World are being forced to subsidize environmental destruction.

Brazil

The Polonoroeste project in the Brazilian Amazon is one of the most egregious projects undertaken by the Bank. Between 1982 and 1985 the World Bank loaned \$685 million to the Brazilian government to complete BR-346, a 900-mile highway which runs into the province of Rondonia (approximately the size of Oregon) in support of the Polonoroeste colonization project. As a result of the building of this highway, and the active encouragement of the government, hundreds of thousands of Brazilians have relocated to the province in search of economic opportunity.¹⁸ However, the government's promises have turned out to be hollow. The soil in Rondonia cannot sustain profitable agriculture. In fact, after two to five years of farming, the soil cannot even support subsistence agriculture, forcing people to clear new land every few years increasing the total deforestation of Rondonia from 1.7 percent of the total to 16.1 percent. Life for most of the poor who migrated is worse than it was before they arrived.¹⁹

Also in the Amazon, the Balbina hydroelectric dam project was floundering until the Bank provided a \$500 million loan. This small 250 megawatt dam, which has flooded 4,000 square-kilometers, has been a human and environmental disaster of epic proportions. From the moment that the state-owned electric utility, Eletronorte, closed the floodgates there has been nothing but disaster. Because the area to be flooded was not cleared of vegetation, decomposition depleted the rivers oxygen, producing hydrogen sulfide gas and making the water highly acidic. Moreover, many of the flooded plants are very toxic. The result has been the poisoning and complete death of the Uatuma river. Thousands of people who live along the river have depended on it for fish, irrigation, and drinking water. An epidemic of skin rashes, intestinal disorders, headaches, and nausea broke out. Malaria has also become a serious problem. Last but certainly not least, the Brazilian government relocated the Waimiri-Atroari Indians away from the reservoir sight. As a result their population has dwindled from 3,500 to 374. Those left are mostly children.²⁰

Such environmental horror stories are common throughout the Third World and they are not caused by greedy capitalists out to make a buck, but rather by governments. The bottom line is that most of these projects are intrinsically uneconomic. They represent a massive drain on the economies where they are located, not economic development. The late political economist, David Osterfeld said it best:

Although these projects are undertaken in the name of industrialization, they do not contribute to economic growth. They are the modern counterpart of the Egyptian pyramids: colossal, impressive, and a wasteful drain on the resources of the country. As a result, foreign aid has historically led to a 'notable increase in the amount of capital devoted to economically wasteful projects.'²¹

ECONOMIC POLICY

Additionally, Third World governments have engaged in economic policies which are directly responsible for the impoverished condition of their people. Price and wage controls, import restrictions, persecution and expulsion of economically successful minorities, suppression of private trade, property confiscation, forced collectivisation, nationalization of foreign

enterprises, licensing restrictions, and confiscatory taxation, have all been used at one time or another by most aid-recipient countries. Despite the free-market rhetoric of many Third World leaders, they continue to exercise extensive control over the economic life of their people. By procuring a steady flow of aid dollars, Third World leaders are able to avoid necessary economic reforms. Foreign aid conceals the real damage being done by bad policies and preserves the status quo.

The Clinton administration's recent \$50 billion loan guarantee package to bail out the Mexican government is a prime example of protecting a government against its own failed economic policies. Mexico could bail out itself by selling off national enterprises such as PEMEX, the state owned oil monopoly. PEMEX is the 10th largest company of its kind in the world, but is also one of the most inefficient and debt ridden. If PEMEX were sold, it would free the Mexican people from a huge drain on the economy and encourage a more efficient and profitable oil industry. By bailing out Mexico the U.S. has taken away the incentive for further liberalization of the Mexican economy.

Foreign aid is thus an hindrance to economic liberalization. Osterfeld has stated:

The influx of aid not only centralizes economic control in the hands of the government, it simultaneously enables the recipient government to camouflage the ill effects of its statist policies, thereby reducing pressure on the government to maintain an environment favorable to private enterprise. Since this discourages private investment, both domestic and foreign, the result is often a net reduction in the amount of capital available.²²

THE AID GAME

The World Bank assumes that when it distributes money to Third World governments the money will be used responsibly. It has done very little in the past to insure that loans are used effectively. As criticism has increased the Bank has begun to put conditions on loans believing that these conditions will be met. However, these conditions are seldom met and the Bank continues to lend money without verifying the results. LDCs know full well that the Bank will not enforce the conditions. They also know that no matter how poorly the money is used and no matter how the government ruins the economy, the Bank will continue to lend money. Ironically the more they ruin their own economy, the more aid they are eligible for.

Former U.S. Ambassador to Equatorial Guinea, Frank Ruddy, tells of the game that is played in that tiny nation. Equatorial Guinea has a population of 300,000 and receives \$30 million a year in foreign aid. The World Bank and the International Monetary Fund (IMF) come every year to negotiate lending terms. The Guineans agree to the terms, break them, and then lie when the officials return for a new round of negotiations.

In 1986 Equatorial Guinea agreed to a whole series of tough austerity measures, including an agreement not to spend any government money on the Central African states meeting which was being hosted there. However, the government went ahead and built 5 villas for visiting heads of state and purchased 29 Mercedes for the participants' use. When the World Bank and

IMF officials returned the Guineans simply denied these actions, the aid officials believed them, and the money continued to flow. This silly game is played out over and over again in many recipient countries.²³

THE WORLD BANK

Why is the World Bank incapable of achieving better results? The reason is the incentives which Bank officials face. One Bank official described the nature of the incentives as follows: "We are like a Soviet factory. The push is to maximize lending. The . . . pressures to lend are enormous and a lot of people spend sleepless nights wondering how they can unload projects." An audit done in 1987 by the Operations Evaluations Department concluded that "the drive to reach lending targets . . . is a major cause of poor project performance."²⁴

World Bank bureaucrats attain job security, promotions, privileges and perks all based upon their ability to find new projects to finance. Their very existence is dependent on their ability to loan huge amounts of money, and to expand the World Bank's operations.

The perks and privileges of World Bank employment are considerable.²⁵ The World Bank spent \$85 million in 1989 to send its staff members around the world.²⁶ When flights are twelve hours non-stop, over twelve hours long or when business class is not available, all staff members fly first-class. Otherwise they fly business class, but never economy class. Michael Irwin, the director of the World Bank's Health Services Department, wrote a letter to the editor in *The Bank's World*, a World Bank publication, arguing that by flying business or economy class the Bank could save a lot of money. There was an immediate backlash as Mr. Irwin received many letters chastising him for advocating such a plan. One letter stated: ". . . It is appalling that the director of the Bank's Health Services argues publicly for financial savings over staff members' health *My family and I will not feel safe again until Mr. Irwin has been replaced by someone who really cares* (emphasis in original)." Thierry Sagnier, the editor of *The Bank's World*, wrote to Mr. Irwin saying:

I have been associated with *The Bank's World* since its creation in 1981 and do not recall ever running a story prompting so many angry responses. My in-box, All-in-1, and doorway were jammed with missives and staff denouncing me for having run the letter. The issue is obviously a highly sensitive one, with staff concerned that management will take away what they deem is not so much a luxury as a necessity. Even though the opinion you stated was your own and not management's, I fear we ruffled the feathers of many at all levels. I'm therefore somewhat reluctant to pursue the issue.²⁷

Salaries

The salaries of the World Bank bureaucrats are excellent. For the Africans and Asians working there, pay is sometimes even orders of magnitude above what they would make in government service in their own countries. Even for the Europeans and Americans, salaries in the aid business are much higher than in other lines of work.²⁸

The World Bank president earns \$190,000 a year plus a \$90,000 expense allowance.²⁹ The 19 vice presidents earn \$165,000 a year, and the 58 directors earn on average \$105,000 per year. The hundreds of technical advisors, under the top levels just mentioned, earn between \$80,000 to \$105,000 per year. Salaries of World Bank staffers have been rising faster than the U.S. inflation rate.³⁰ Additionally, these salaries are tax- free making their taxable equivalent even higher. The Executive Board which represents the member governments, and sets World Bank policy, has very little incentive to lower Bank salaries since board member salaries and benefits are adjusted with rises in bank salaries.

Pensions

Pensions at the World Bank are very generous. Mr. Irwin states that had he finished his two year assignment he would have been entitled to a \$5,872 a year pension from the age 62 until his death. In their pension plans, staff members pay seven percent of their salary, while the Bank pays an amount equal to twice the amount contributed by staffers, plus all other amounts required to cover the costs of the plan. All retired staff are guaranteed a lifetime pension with cost-of-living adjustments, and financial security for their survivors.³¹

Other Perks

World Bank employees also enjoy many other perquisites. These include:

- ▶ \$3,500/yr. grant if spouse earns less than \$10,000/yr.
- ▶ \$600/yr. grant for each dependant child.
- ▶ Subsidized meals at work.
- ▶ Medical and Dental insurance (staff pay 1/3 of premium).
- ▶ Excellent Life insurance.
- ▶ Internationally recruited staff get \$5,480 in education grants for each child from age 5 to 24.
- ▶ Expatriate staff get home-leave travel for themselves and their family. They fly first-class if they go home every three years and business class if they go home every two years.
- ▶ For every home-leave trip, expatriate staff receive a grant of \$1,070 and a spouse and dependant child each get \$534 per trip.
- ▶ All staff with green cards having arrived prior to 1985 get expatriate benefits.

Washington-based professional staff who are reassigned to overseas posts in developing countries receive additional benefits, including:

- ▶ Free air-conditioned housing with utilities paid and free security guard service if local conditions warrant.
- ▶ \$5,000/yr. assignment allowance.
- ▶ In most locations staff receive an additional "special overseas allowance" from 10 percent of salary in Ankara or Brasilia to a 25 percent bonus in Addis Ababa or Brazzaville, for example.
- ▶ In places where cost of living is higher than Washington, D.C. an additional allowance is granted.
- ▶ Finally, there are installation and "settling in" grants a "grant on return," as well as allowances for shipping personal effects.

As a result of these overseas benefits staffers can save most if not all of their Washington-based salaries. In speaking of international civil servants, Peter Bauer wryly twisted Adam Smith's invisible hand. He said, "those who sought the public good achieve what was no part of their intention, namely personal wealth."³²

Other Outrages

The World Bank, along with the IMF, host annual conferences in which they pull out all the stops. In 1986, for example, one such conference was held on Washington, D.C. The 700 planned social events cost an estimated \$10 million. The 10,000 attendees were treated to \$200 a plate catered dinners, chauffeured limousines, and many other luxuries. Ridgewells, a well known Washington caterer, prepared 29 parties in one day. The Shoreham Hotel estimated that its revenue from the 69 parties it hosted to be \$1 million. One party, hosted by the World Bank and attended by 1,500 delegates, offered thirty different foods, ranging from gravadlax to steak tartare to jambalaya. Limousine companies in Washington were doing a brisk business. One manager said that requests outnumbered available limos three to one. A chauffeur commented, "they each have to have their own car."³³

In 1985 the Bank-Fund conference was held in Korea. In order to insure sufficient parking for the fleet of limos the Korean government destroyed 128 buildings in the impoverished red light district.³⁴

In 1991 the government in Thailand spent \$100 million to construct the most expensive building ever built in that country. The new building was to be the sight for the IMF/World Bank conference of that year. The area in Bangkok where the building was erected is one of the fastest growing, most congested and most polluted areas in the city. In order to spare the delegates the inconvenience and to make room for their private limos the government simply shut down Bangkok. All banks, government offices, schools and state enterprises would be

closed over the two day conference. They also set up a special medical care system with a helicopter, two ambulances, 830 doctors, nurses and technicians to provide free medical care to the delegates. Eight of Bangkok's leading hospitals were placed on emergency alert.

The new conference center was surrounded by slums. The Army was given the responsibility to remove the communities in sight of the conference center. Many of the slum dwellers were relocated to different areas far from their jobs and were given only army tents to live in. Those who were lucky enough to keep their homes were employed in beautification programs to plant trees and grass to improve the appearance of their dwellings. The rest of the homes were bulldozed.³⁵

The World Bank is currently constructing new lavish headquarters in Washington, D.C. It covers an entire city block. The project was originally expected to cost \$206 million. However, it is now \$84 million over budget.³⁶ If the World Bank can't even properly manage the construction of its own headquarters how can we expect it to conduct reasonable development in the Third World?

THE FUTILITY OF REFORM

In 1987 the World Bank was facing rising criticism of inefficiency and poor project performance from donor countries. It embarked on a reorganization scheme which lasted several months claiming to cut costs and downsizing staff. This reorganization was then given as a reason why the Bank deserved a \$75 billion increase in capital, which it received, nearly doubling its lending capacity.³⁷ The total cost of the reorganization was \$148 million and it was estimated that this action would result in a savings of \$50 million a year. In 1987 before the reorganization regular staff numbered 6,150 and the administrative budget was \$816 million. In 1991 regular staff numbered 6,100 and the administrative budget had increased to \$900 million.

There are also 500 long-term consultants, 500 temporary staff, and 375 contractual staff. In 1989 William Cosgrove, the vice president of personnel said that the Bank "could do twice as much with its present staff or only needs half the staff for the present workload."³⁸ Reorganization has turned out to be a lot of smoke and mirrors, not real budgetary cuts or increases in efficiency. The result however was a massive increase in the Bank's lending power and therefore its primary goal of continued growth was met.

THE PENDING FINANCIAL CRISIS

A study by Patricia Adams warns of a serious financial crisis brewing at the World Bank.³⁹ This may come as a surprise since the Bank has always been perceived as a financial powerhouse. There are several reasons why the Bank is perceived as a solid institution. The first is the conservative rhetoric of the Bank itself. Second, the Bank has recorded a profit every year of its existence. Third, the Bank's bonds which are sold on international markets have consistently received an AAA rating by Standard & Poor's. Fourth, no World Bank loan has ever been defaulted, even though other lenders have continually had to reschedule, rollover, and forgive debts.⁴⁰

On the other hand, the World Bank lends money to some of the riskiest nations on earth and is one of the world's largest borrowers. The IBRD has \$103 billion in loans outstanding and the IDA has \$56 billion outstanding. How is the Bank able to maintain such a precarious position? The Bank's financial position is backed up by the taxpayers of the member nations. If several Third World debtor nations default at once, U.S. taxpayers stand ready to bail out the Bank's bondholders. Currently the U.S. is liable for up to \$30 billion. This "strong membership [read: taxpayer] support" which "virtually eliminat[es] the possibility of insolvency," is the reason behind the AAA rating.⁴¹

There is reason to be concerned. As Adams states, "Rather than a financial powerhouse governed by market discipline and exercising investment prowess, the World Bank is a financial cripple propped up by state guarantees and disguised government bailouts."⁴² Contrary to Bank assurances that it "does not make loans which in its opinion, cannot be justified on economic grounds," the Bank is neck deep in money-losing debt.⁴³ A report prepared by Willi Wapenhans, a high-ranking Bank official, found that 37.5 percent of its \$140 billion in projects were failing, putting considerable pressure on the Bank's portfolio. The report further stated that the Bank's investment analysis is plagued by bias and in some cases by fraudulent claims to make unviable projects look viable.

In the debt crisis of the 1980s, when Third World debtors were beginning to default on their loans, the World Bank kept the financial ruin of themselves and others at bay by implementing structural adjustment loans (SALs). It was announced that these loans were to be used to help poor countries implement free market reforms. In reality these loans were given to those countries so that they could pay-off old debts to various creditors. These loans were not investments which were meant to garner a positive return but simply balance of payment supports to hide the insolvency of the World Bank and various other lending institutions. Those loans now represent one-fifth of the Bank's portfolio, with zero chance of positive return.

Other results of the debt crises were the so called Baker and Brady plans. These plans were simply a bail out of commercial banks who had made bad loans in the Third World. The private debt was replaced by public debt by a "slow transfer of relative LDC debt exposure from the commercial banks to Western taxpayers . . . by using international institutions." To pay for the bailout of private banks, IBRD shareholders contributed \$75 billion.⁴⁴ In 1989, under the Brady plan, the IBRD lent \$3.3 billion to restructure over half of the developing countries' total commercial debt.⁴⁵

These actions have only prolonged the inevitable. With such a heavy and unstable debt load it is only a matter of time before the U.S. taxpayer will be asked to bail out the World Bank. However, the U.S. and other rich Western countries have already been protecting the Bank from fiscal insolvency by encouraging bilateral lending institutions such as U.S. AID and the Export-Import Bank to reschedule and forgive debts to those Third World countries who are in danger of defaulting on World Bank loans. A whole host of other "tricks" have been and are being used to keep the world debt structure in place -- all of them financed on the backs of Western taxpayers. Because the U.S. is the largest supporter of the World Bank, contributing 20 percent of the paid-in and callable capital, it is the U.S. taxpayer who will bear the brunt of the coming crisis.

IS THE WORLD BANK NECESSARY?

The World Bank has certainly declined in popularity over the years. This is not surprising considering its record to date. The U.S. Congress has come very close to ending the Bank's funding on several occasions. These near misses have come as a wake up call to the Bank's supporters and they have come up with several arguments as to why any decrease in funding for the Bank would be unwise.

The first argument is one that politicians find hard to resist. It is being argued by the administration and other Bank supporters that giving money to the World Bank means jobs for American citizens. Former Chairman of the Foreign Operations Subcommittee, Patrick Leahy in hearings on the matter stressed the importance of this point. He said, "we have to do a much better job of getting that important message across to the American people . . . a better selling job, making them understand what the pay-off is for the taxpayer's money as we invest in that [the World Bank]."46

With the dismal and destructive actions of the Bank revealed, Bank supporters have resorted to appealing to the voters self-interest. However, the selling of foreign aid as a job creator is the most fraudulent argument made yet in support of the Bank. Treasury Secretary Lloyd Bensten has been one the primary disseminators of this argument. At the above mentioned hearings he said: "Their [the multilateral development banks] lending programs have helped turn developing countries into the most rapidly expanding export market for U.S. goods and services . . . the lesson is clear -- the dollars we send abroad through the banks come home in increased U.S. exports and more U.S. jobs."47

Perhaps such thinking should become a part of our domestic economic policy. Government could take money away from business, and give it to their customers, thereby creating more demand for their products. Better yet let's legalize robbery in those cases where the thief spends the money in the store from which he stole it. Stated in these terms the absurdity of such arguments suddenly become apparent.

Certainly much of the money that leaves as aid does come back into this country. Large, U.S. based multinationals often land lucrative contracts to construct the huge development projects financed by the World Bank. Other U.S. business interests such as agriculture and weapons manufacturers also benefit from foreign aid. But the money extracted from U.S.

taxpayers for foreign aid is simply a large but hidden subsidy to a few select big business interests. The majority of Americans only pay the costs without receiving any of the benefits.

Another argument put forth by Secretary Bensten is the need to finance the "economic and political transition" of countries like the former Soviet Union. As has been already stated: Giving money to governments does not lead to liberalizing economic and political reforms but rather further centralizes power in the hands of the rulers. Even if wealth redistribution could lead to a democratic and market oriented Russia it is foolishness to believe that the West could marshal enough resources to effect such a change.

The cost of German reunification is now running at \$100 billion per year and it is estimated that it will cost \$1 trillion by the year 2000. Yet, East Germany with a population of only 17 million is suffering from a 35 percent unemployment rate. The huge infusions of cash have done next to nothing fix the East German economy.

It has been estimated by German economists that if the West were to make the same aid commitment to Russia as West Germany has to East Germany it would cost \$6 trillion. The few billion dollars that will be sent to Russia through World Bank loans will be completely ineffective in enhancing economic development. It will however make large sums of money available to Russian rulers who have, since 1985, plundered billions of dollars from their country.⁴⁸

CONCLUSION

A look at the record shows that the World Bank (and indeed the entire aid industry) has done nothing to facilitate economic development in the LDCs. Instead it has perpetuated regimes which have been responsible for human rights abuses, environmental destruction and economic ruin.

Bank projects have a long and established history of failure. Since the Bank is supported by a huge, taxpayer guaranteed capital base it is not dependent upon the viability of its projects for survival. This situation has lead to profligate and fraudulent lending practices. Under no circumstances should the U.S. taxpayer be asked to subsidized the tragedies perpetuated by the World Bank. Nor should they be asked to bail out its extravagance.

Finally, the U.S. Congress has no constitutional authority spend the people's money to promote economic development, to establish or uphold democracy in corrupt foreign regimes or to capture foreign markets for specific U.S. exports. Such mercantilist and interventionist practices were abhorred by the Founding Fathers and such powers were purposely withheld from the government of the United States. It is time for the U.S. Congress to end this blatantly unconstitutional support of the World Bank. All funding should be withdrawn immediately.

ENDNOTES:

1. It is generally recognized that the GNP of LDCs is greatly understated. This miscalculation is caused by circumstances which prevail in the Third World. First, LDCs have a large subsistence sector. That is, goods which are produced and consumed within the same household and therefore do not enter the economy. Second, LDCs have a large underground or black market economy. It has been estimated that in India the black market is one half the size of its official economy. In Peru more than 50 percent of all business operates illegally. Since this business activity is not counted in GNP statistics, contribution of aid to economic growth is much smaller than officially stated. See P.T. Bauer, *The Development Frontier*. (Cambridge: Harvard University Press, 1991), p. 50; and David Osterfeld, *Prosperity Versus Planning: How Government Stifles Economic Growth* (New York: Oxford University Press, 1992), p. 10-13.
2. Osterfeld, pp. 150-151 (these are 1989 figures).
3. Osterfeld, p. 158.
4. Ibid
5. James Bovard, "The World Bank vs. the World's Poor," *The Freeman*, May, 1988 p. 184; and Osterfeld, p. 206.
6. Osterfeld, p. 143.
7. Graham Hancock, *Lords of Poverty: The Power, Prestige, and Corruption of the International Aid Business*, (New York: The Atlantic Monthly Press, 1989) pp. 134.
8. Hancock, pp. 133-138.
9. William McGurn, "Philippine Development and the Foreign Assistance Trap," in *Perpetuating Poverty: The World Bank, the IMF and the Developing World*, Doug Bandow and Ian Vasquez, eds. (Washington, D.C., Cato Institute, 1994), pp. 240-41.
10. Osterfeld, p. 210.
11. Osterfeld, p. 147.
12. George Ayittey, "Aid for Black Elephants: How Foreign Assistance Has Failed Africa," in *Perpetuating Poverty*, p. 139.
13. Hancock, pp. 140-141; Osterfeld, pp. 142-143.
14. Hancock, p. 139.
15. Hancock, p. 148.

16. Osterfeld, p. 157.
17. Hancock, p. 150.
18. Osterfeld, p. 143.
19. Hancock, p. 132; Bruce Rich, *Mortgaging the Earth: The World Bank, Environmental Impoverishment, and the Crisis of Development* (Boston: Beacon Press, 1994) p. 28.
20. Patricia Adams, *Odious Debts: Loose Lending, Corruption, and the Third World's Environmental Legacy* (London: Earthscan, 1991), pp. 16-20.
21. Osterfeld, pp. 149-150.
22. Osterfeld, p. 151.
23. Ayittey, pp. 143-144.
24. Osterfeld, pp. 156, 157.
25. For the most part the numbers presented in the following sections on remuneration are current. Some of the numbers are from 1990. This, however, is inconsequential. All comparisons, with the exception of travel policy, show that remuneration has risen in every category.
26. Osterfeld, pp. 153-54.
27. Michael Irwin, and members of the World Bank, "Let Them Eat Honey-Roasted Peanuts," *The Washington Monthly*, June 1990, pp. 34-37.
28. Hancock, p. 79-80.
29. Paul Lewis, "A 3-Way Race to Head the World Bank," *The New York Times*, February 13, 1995.
30. Irwin, pp. 36-38.
31. Irwin.
32. Osterfeld, p. 157.
33. Hancock, pp. 37-40.
34. Hancock, p. 40.
35. Rich, pp. 1-4.
36. Sharon Walsh, "World Bank Complex Costing \$84 Million More Than Budgeted," *The Washington Post*, September 23, 1993.

37.Doug Bandow, "What's Still Wrong With The World Bank?" *Orbis*, Winter 1989, pp. 73-89.

38.Irwin, p. 36.

39.Patricia Adams, "The World Bank's Finances: An International S&L Crisis," *Policy Analysis* No. 214 (Washington, D.C.: Cato Institute, October 3, 1994).

40.Hancock, pp. 53-54.

41.Adams, pp. 3-4.

42.Adams, p. 9.

43.Adams, p. 4.

44.Adams, p. 8.

45.Adams, p. 9.

46.U.S. Senate Appropriations Committee, Foreign Operations Subcommittee, "Hearing Regarding U.S. Role in Multilateral Development Banks," *Federal News Service*, March 22, 1994.

47.Ibid

48.Approximately \$30 billion in assets and hard currency has been stolen and sent abroad by high-ranking party officials between 1985 and 1991. Since Boris Yeltsin has taken over another \$15 billion has left the country in similar fashion. See, Arnaud de Borchgrave, "Eurogloom Foreshadows Social Upheaval," *The Washington Times*, October 4, 1993.

**Almost Everything You Need
To Know About Foreign Aid**

I. History:

- Started in 1947 with the Marshall Plan to reconstruct post-World War II Europe
- USAID established in 1961

Congress established 4 goals:

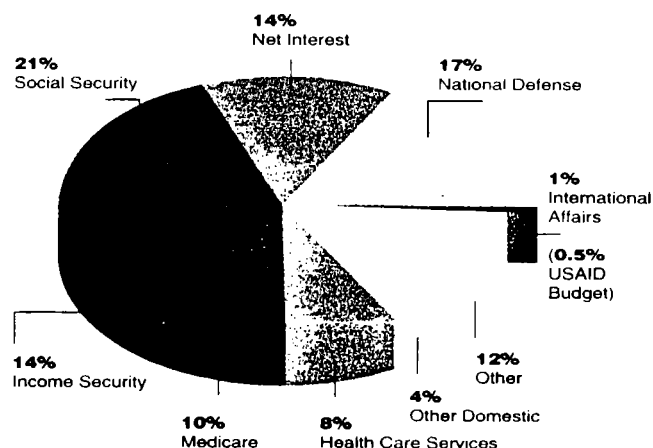
- alleviation of the worst physical manifestations of poverty among the world's poor majority;
- promotion of conditions enabling developing countries to achieve self-sustaining economic growth with equitable distribution of benefits;
- encouragement of development processes in which individual civil and economic rights are respected and enhanced; and,
- integration of the developing countries into an open and equitable international economic system. *mult. system.*

II. Where The Money Goes

Myth #1: U.S. spends a large percent of its federal budget on foreign aid.

Reality: The U.S. currently spends less than 1% of the federal budget on foreign aid.

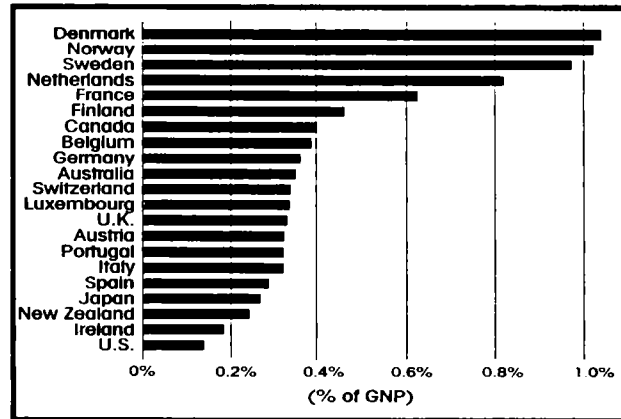
FY 1994 Federal Budget



150 Acct.

Chart does not total 100 percent because of rounding.
Source: *Budget of the U.S. Government*

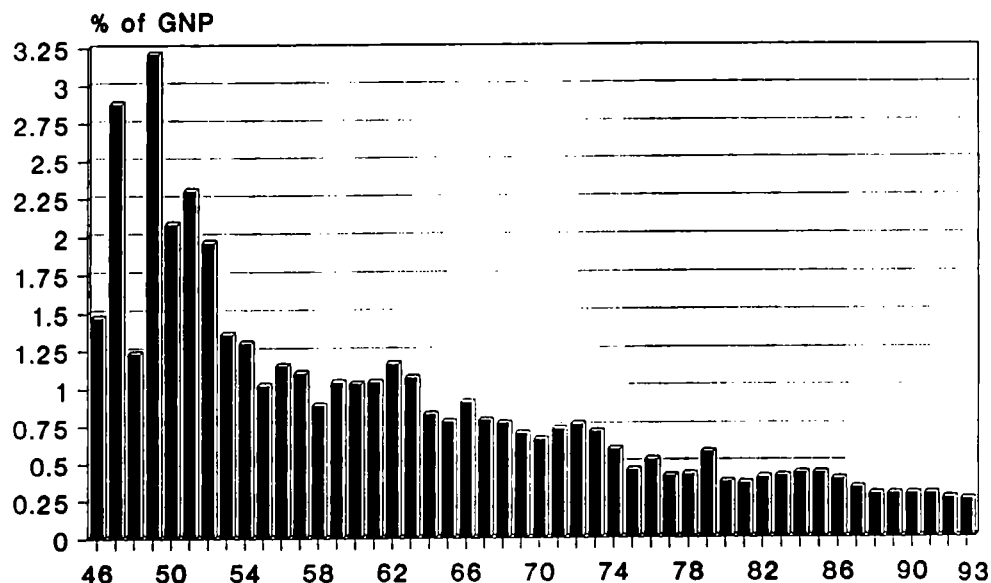
U.S. is 2nd in total dollars spent (Japan is first). But in terms of percent of the Gross National Product spent on foreign aid, U.S. is 21st out of 21 industrialized countries.



Economic Aid Donors Compared
(1993 Disbursements as a Percent of GNP) Source: OECD

Money allocated to foreign aid is currently at the lowest amount since its it started in 1947.

FOREIGN AID, AS A % OF U.S. GNP FY1946 - 1993

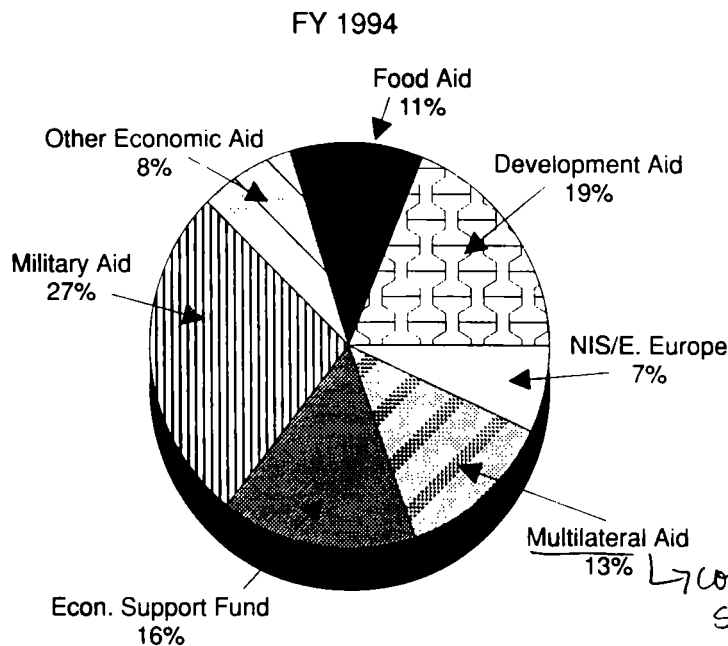


Myth #2: Most foreign aid goes toward disaster relief (like Rwanda) and food aid.

Reality: The largest percent goes toward military. It also includes things like the Peace Corps, hospitals overseas, American schools overseas, international narcotics programs, and anti-terrorist activities.

~~70%~~ of 1%

• 7% for aid
• 3% other not f.a.



Source: USAID.

↳ could be structural adjustmt. provision.

structural adjustments

World Bank
mandates rules
for for. country
to receive \$

Two types of assistance: bilateral and multilateral.

- Bilateral means from one country directly to another.
- Multilateral means from one country to an international organization, such as the U.N.

↳ anything goes to

structural adjustmt. progs. - hit @ poorest

countries. " "

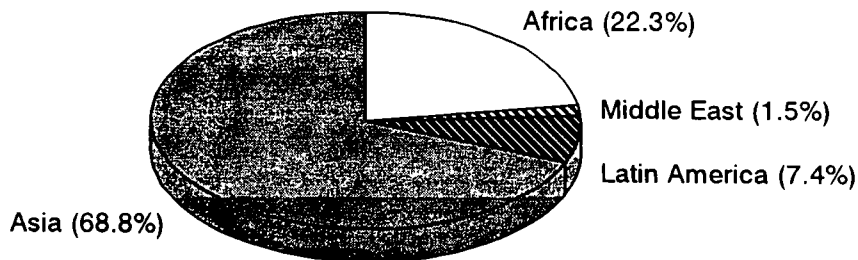
Myth #3: Most foreign aid goes to poor and hungry countries.

Reality: Historically, foreign aid is driven more by political motives than by hunger.

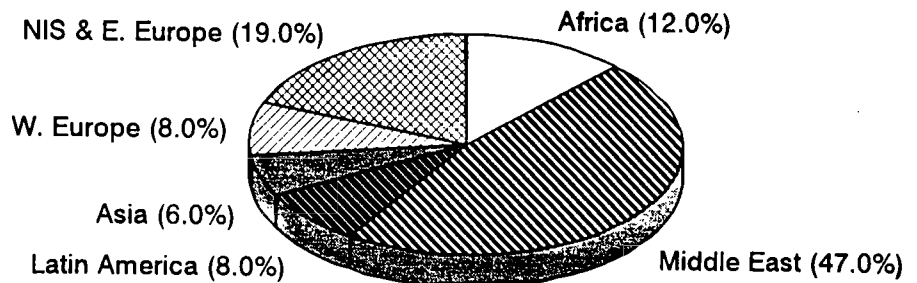
A Comparison of Hunger and U.S. Foreign Aid Allocation

FA driven by politics

The Proportion of Chronically Malnourished (1990)



U.S. Foreign Aid Allocated by Region in FY 1994



For Aid politically

— fr. 1 ltr div. to another ctry

Bilateral Assistance

Food Aid. Food aid (known as P.L. 480) is made up of three parts:

- **Title I:** About one third of food aid is supplied in the form of loans for the purpose of promoting U.S. food exports.
- **Title II:** About one half of food aid goes toward emergency and humanitarian relief. Much of this money is distributed through private organizations (such as CARE, Catholic Relief Services and World Vision) and the United Nations' World Food Program.
- **Title III:** The remainder is given to governments which agree to agriculture policy reforms.

Development (and Humanitarian) Aid. Included in this category are programs which assist in development in poorer countries. This includes programs such as population assistance, child survival, environment, agriculture and the Development Fund for Africa. Also includes international disaster assistance programs and refugee aid.

Aid to Eastern Europe and the NIS (the Newly Independent States of the former Soviet Union). In 1989, the U.S. began sending aid to Eastern Europe and the Newly Independent States (NIS) of the former Soviet Union. The goal of aid has been to assist in the region's move toward a free-market economy and democratic reform.

Economic Support Fund. Security aid is used to achieve political and security ends for the United States. In fiscal year 1994, eighty-five percent of security aid went to Israel and Egypt.

Military Aid. The largest block of foreign aid goes toward military support for other countries. Many of these military grants and loans allow other countries to buy military equipment from the United States. Military aid is also used to bring foreign military officers to the United States for training at the School of the Americas.

Other Economic Aid. This includes a range of programs such as export aid programs, the International Narcotics Control Program, the Anti-Terrorism Program and administrative costs.

Multilateral Assistance

— US \$ to VN. or another Intl. Agency —
then give \$ to country

In addition to bilateral aid programs, the U.S. contributes to a number of multilateral programs, including multilateral development banks (such as the World Bank) and other international programs, such as the United Nations Children's Fund (UNICEF).

PL 480 food aid

III. Who's Who in Foreign Aid

Brian Atwood:	head of USAID.
Jesse Helms:	Chair of the Senate Foreign Relations Committee
McConnell:	Chair of Senate Appropriations Subcommittee on Foreign Operations

↳ proposal
⊕ Russia

Figure 1. Agencies Administering U.S. Foreign Assistance Programs

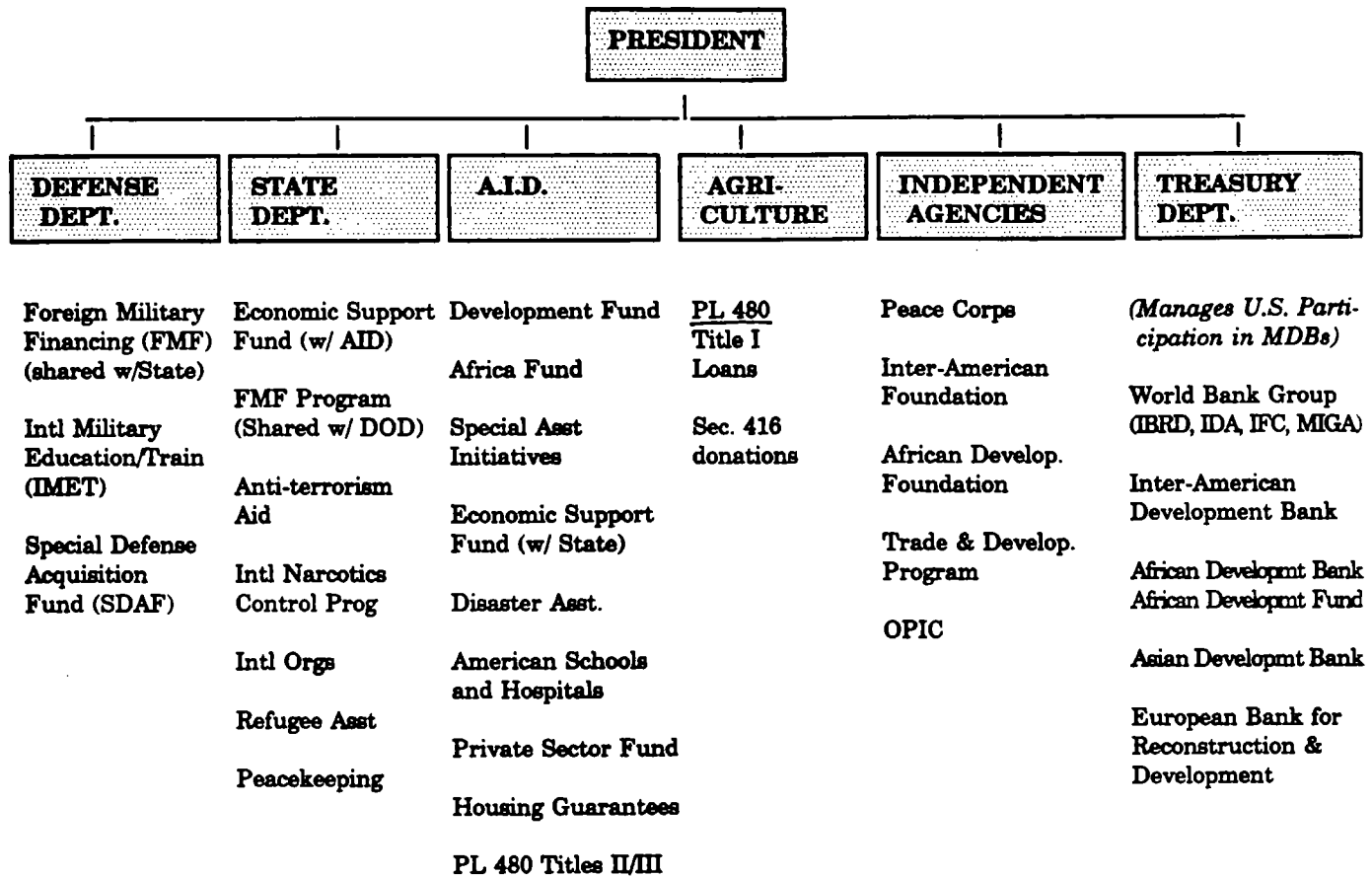
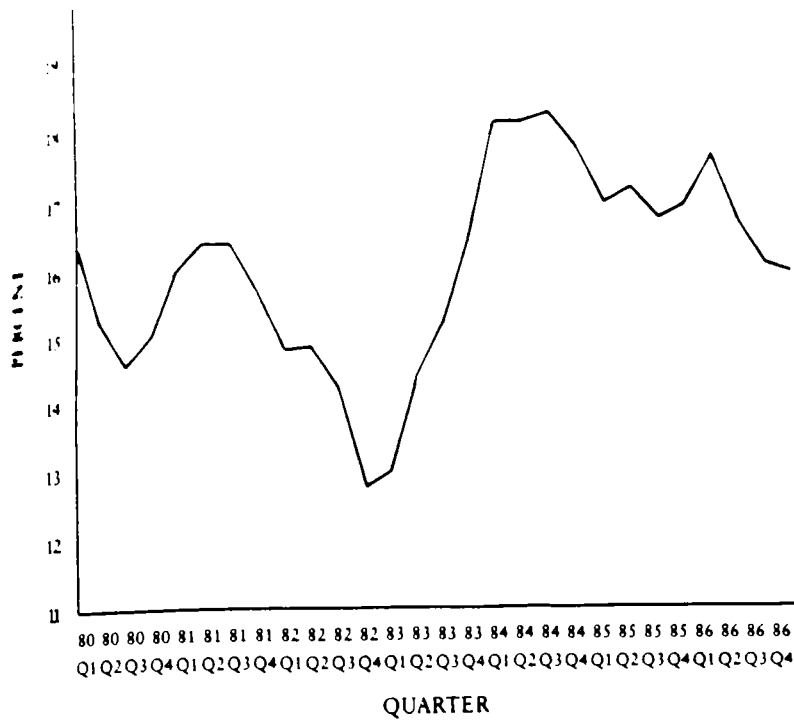
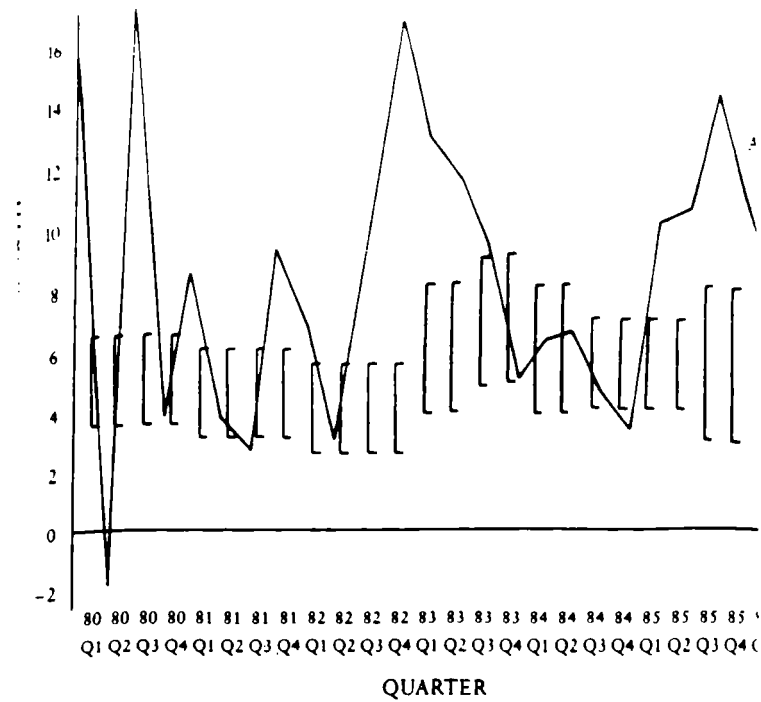


FIGURE 6-7 Gross Private Domestic Investment as a Percentage of GNP



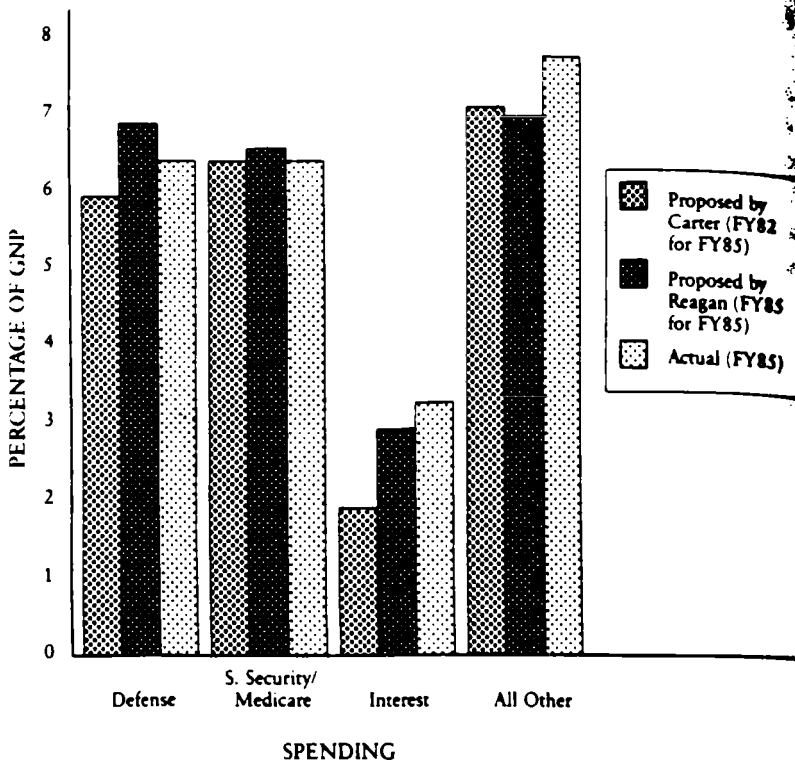
Source: Economic Report of the President, 1983-1987

FIGURE 6-10 Target Ranges and Actual Growth of M1, 1980-1986



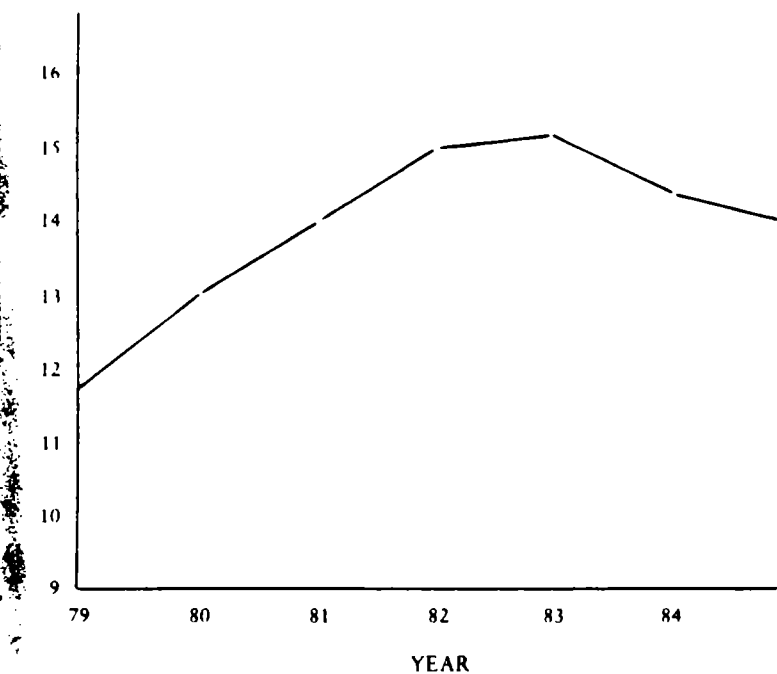
Source: Federal Reserve Bulletin, various issues

FIGURE 7-4 Comparison of Spending Composition as Proposed by President Carter in FY82 and President Reagan in FY85



Source: Budget of the United States, various years

FIGURE 10-1 Overall Poverty Rate



Source: Money Income and Poverty Status of Families and Persons, various issues

(1)

FIGURE 2-2 Inflation and Money Growth

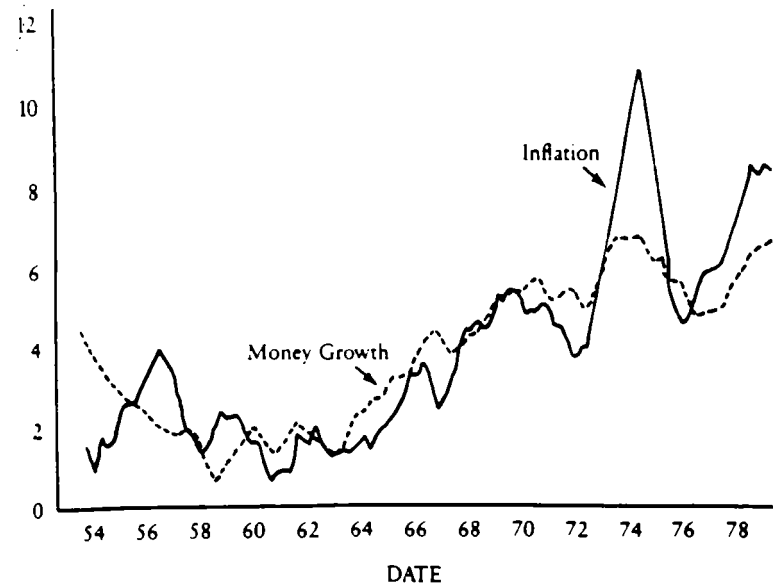
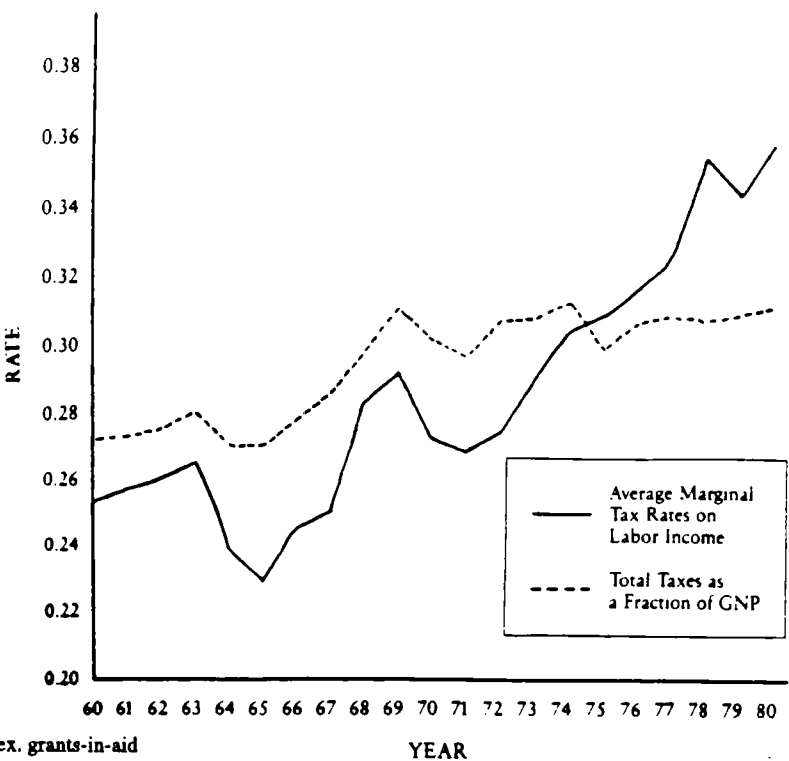


FIGURE 2-4 Growth in Taxes, 1960-1980



Federal Outlays

	Purchases of Goods & Services	of which Defense	Transfer Payments to Persons	Transfers as % of Transfers plus purchases	Other (ex. grants-in-aid)
1952	47.2	41.3	8.5	15.3	
1960	52.9	43.8	20.6	28	16.1
1970	97	74.6	55	36.2	41.6
1980	193.2	125.9	234.7	55.2	148.7

FIGURE 6-5 Unemployment Rate

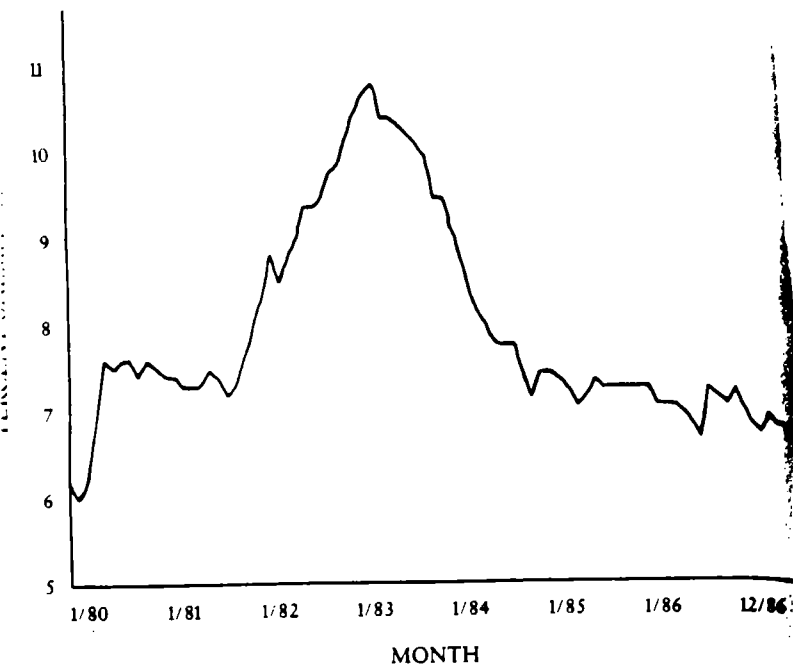


FIGURE 6-2 Inflation Rate

