

Washington, DC 20548

May 29, 2002

Congressional Requesters

Subject: Review of Studies of the Economic Impact of the September 11, 2001, Terrorist Attacks on the World Trade Center

In response to your request, we identified and reviewed several key studies of the economic impact of the September 11, 2001, terrorist attacks on the World Trade Center buildings in New York City. On April 15, 2002, we briefed your staff on the results of our review. The information in enclosure I formed the basis for our briefing. We have since updated some of the information in enclosure I, using new information, which became available after the briefing.

Background

The terrorist attacks caused enormous destruction in New York City. The losses included the direct costs of the destruction to lives and property, as well as cleanup, and the indirect costs of lost income brought about by business closings and related spending reductions. It is expected that some of the losses will be covered by payments from private insurance, emergency federal relief funds, and charitable contributions. Other losses, however, may never be recovered because some individuals and businesses may not have been insured or may not qualify for federal relief or charity.

Summary

Eight studies from seven different organizations were identified as being the most comprehensive studies available on the economic impact of the September 11, 2001, terrorist attacks. The seven organizations (in the order in which the studies were published) are

- New York City Office of the Comptroller,
- New York Governor and State Division of the Budget,
- New York City Partnership and Chamber of Commerce,

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- Fiscal Policy Institute,¹
- New York State Senate Finance Committee,
- Milken Institute,² and
- New York State Assembly Ways and Means Committee.

In addition, recent studies by the Federal Reserve Bank of New York and the New York City Independent Budget Office include updated information on some of the economic impacts.

In general, the eight studies we reviewed varied in the extent to which they met standard economic criteria for analyzing economic impacts (see enclosure I for criteria). For example, most of the studies estimated only certain categories of losses and did not estimate the offsetting payments, nor the possible gains from the increased economic activity that the payments might generate. In addition, the studies used different lengths of time to estimate the costs that might be incurred in the future. For these reasons, the estimates that the different studies generated are generally not comparable.

Although it was not without some limitations—such as being based on some preliminary information that is now dated—we found that the study by the New York City Partnership provided the most comprehensive estimates, as follows: The attacks on the two World Trade Center buildings cost about \$83 billion (in 2001 dollars) in total losses (including both direct and indirect costs); about \$67 billion of the losses would most likely be covered by insurance, federal payments, or increased economic activity.

Only three of the eight studies used a national or regional perspective in estimating the indirect costs or losses in personal and business income. For example, a falloff in tourist and business travel affected popular destinations throughout the country. Some losses incurred by the New York City economy, in contrast, may have been offset within the national economy, given that some businesses that closed after the attack relocated to New Jersey and Connecticut. The study by the Milken Institute, for example, estimated that for 2001 alone, the economy of the New York-New

¹ Fiscal Policy Institute is a nonprofit research and education organization that focuses on New York tax, budget, and economic issues.

² Milken Institute is a nonprofit organization that conducts research in economics, business, and finance.

Jersey metropolitan area sustained income losses of about \$2.7 billion, while all the metropolitan areas in the country sustained losses of about \$191 billion.

In addition, since most of the studies were completed—or were based on information developed—in the immediate aftermath of the attack, the estimates of impact were based on preliminary information that is now, in some cases, dated. For example, the study by the New York City Partnership and the New York Comptroller's Office estimated that it would cost from \$5 to \$6 billion to clean up the site of the World Trade Center and the surrounding areas and that the cost in loss of life (in terms of foregone income) would be from \$10 billion to \$11 billion.

More recently, an official with the New York City Comptroller's Office indicated that, as of April 4, 2002, the cleanup of the World Trade Center site has been quicker and cheaper than initially estimated. Additional costs could be incurred, however, if the foundation at the World Trade Center site needs repair. New York City's Independent Budget Office reported that, as of March 15, 2002, the city had spent about \$825 million for World Trade Center-related costs, including about \$350 million to remove debris. In addition, the Federal Reserve Bank of New York recently reported that because fewer lives were lost than initially feared, the cost in loss of life would be about \$6 billion. Furthermore, the U.S. economy has rebounded from the slowdown that was already under way when the attacks occurred. Several studies estimated that the slowdown would continue into 2002. Although the economic recovery in New York may lag behind the national recovery, the stronger-than-anticipated U.S. growth may, to a certain extent, have mitigated the economic impact of the terrorist attacks.

Consequently, the estimates of losses from the attacks are likely to continue to evolve as activities, such as cleanup and stabilization, are completed and as factors, such as the long-term consequences of the attacks on the health of the survivors, become known. Finally, although more data on the performance of the economy since September 11 are becoming available, the more distant the attacks become in time, the less easy it may become to disentangle the economic impact from other events, such as the fallout from the Enron bankruptcy or changing macroeconomic conditions.

Agency Comments

We provided a draft of this letter to the seven different organizations for their review and comment. The chief economists at the Fiscal Policy Institute and the New York State Assembly Ways and Means Committee, the Associate Fiscal Analyst at the New York State Senate Finance Committee, and the Director of Regional and Demographic Studies at the Milken Institute provided oral comments. They generally agreed with the way we characterized their studies, but provided clarifications and editorial comments, which we incorporated throughout the letter, as appropriate. The New York City Office of the Comptroller declined to comment on the draft.

In a May 14, 2002, letter, the Director of the New York State Office of Federal Affairs (representing the New York Governor and State Division of the Budget) said we made substantive errors in describing the Governor's and state budget office's October 9, 2001, studies. In particular, the official said, these studies were not designed to be a comprehensive economic cost analysis; the estimate of the direct costs and loss of tax revenues associated with the terrorist attacks was \$46 billion, not the \$54 billion contained in the Governor's October *Rebuild NY-Renew America* plan and supporting budget documents. In his letter, the official noted that of the \$54 billion estimate, \$8 billion represented the estimate for a stimulus package for New York's economy and should not be included as a cost of the terrorist attacks.

We recognize the difficult task faced by the New York State and City offices, as well as other organizations, in attempting to estimate the economic impact of the terrorist attacks, especially in the immediate aftermath of the attacks. We agree that some of the \$54 billion estimate should not be attributed as a cost of the attacks. Nonetheless, the \$54 billion estimate was represented in state budget office documents as the total cost of the economic impact of the attacks. For example, the budget office's New York Federal Recovery Plan states, "Current estimates indicate that the State and City of New York will require approximately \$54 billion in Federal assistance in order to return New York to its economic status prior to the September 11th terrorist attacks on the United States." However, as we noted in our draft letter, of the total \$54 billion estimate, \$3 billion was identified as being needed for infrastructure improvements unrelated to the attacks and therefore should not be attributed as a cost of the attacks. The New York State Office of Federal Affairs' comments and our point-by-point responses are provided in enclosure II.

The Senior Vice President for Research & Policy at the New York City Partnership provided written comments, which characterized our review as a useful summary of the studies of the economic impact of September 11. The official said, however, that in discussing the Partnership's estimates of the economic value of lives lost in the attacks, we said that the foregone earnings approach implied that the lives of high-income workers have greater "value" than low-income workers. The Partnership said that they did not intend this implication. We incorporated their explanation in enclosure I.

Scope and Methodology

To review the studies, we compared the studies' methods and assumptions with basic principles of economic analysis. We also talked to federal, state, and local officials and conducted an Internet search. Our review focused on the studies that were the most comprehensive. We performed our work from February through May 2002 in accordance with generally accepted government auditing standards. As agreed with your staff, we will conduct some additional follow-up work to evaluate the estimates of losses in tax revenues to the State of New York and New York City.

As agreed with your offices, unless you publicly announce this letter's contents earlier, we plan no further distribution of it until 7 days after the letter date. We will then send copies to interested members of the Congress. This letter will also be available at no cost on the GAO Web site at http://www.gao.gov.

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If you have any questions or would like to discuss the letter further, I can be reached at (202) 512-2700. Major contributors to this letter include Scott Farrow, Tim Guinane, Penny Pickett, Kathleen Scholl, and Mark Stover.

Naucy R. Kurgsbury

Nancy R. Kingsbury Managing Director, Applied Research and Methods

Enclosures

List of Congressional Requesters

The Honorable Carolyn Maloney House of Representatives

The Honorable Charles Rangel House of Representatives

The Honorable Nita Lowey House of Representatives

The Honorable John LaFalce House of Representatives

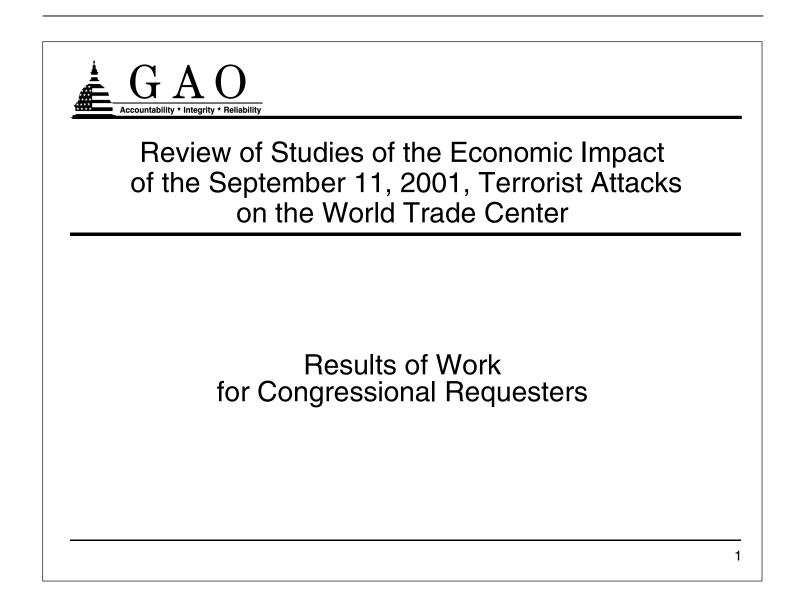
The Honorable Maurice Hinchey House of Representatives

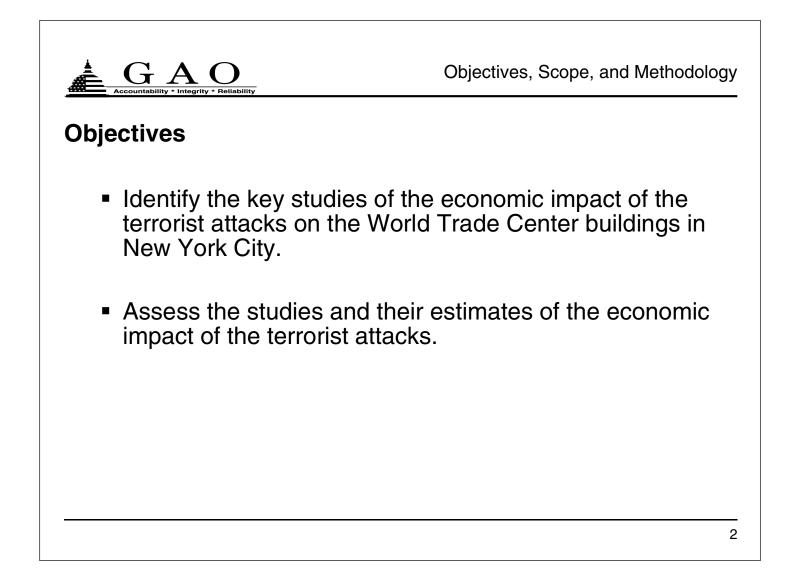
The Honorable Jerrold Nadler House of Representatives

The Honorable Jose Serrano House of Representatives

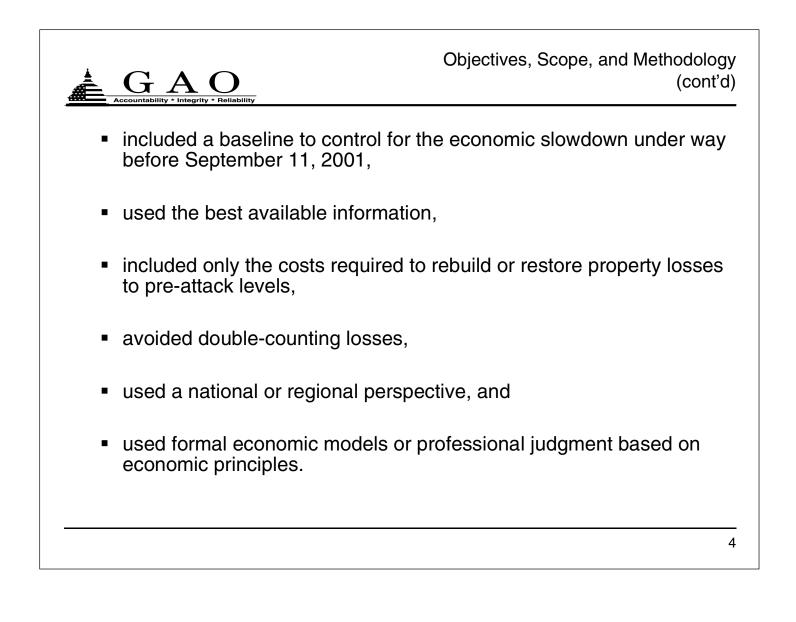
The Honorable Steve Israel House of Representatives

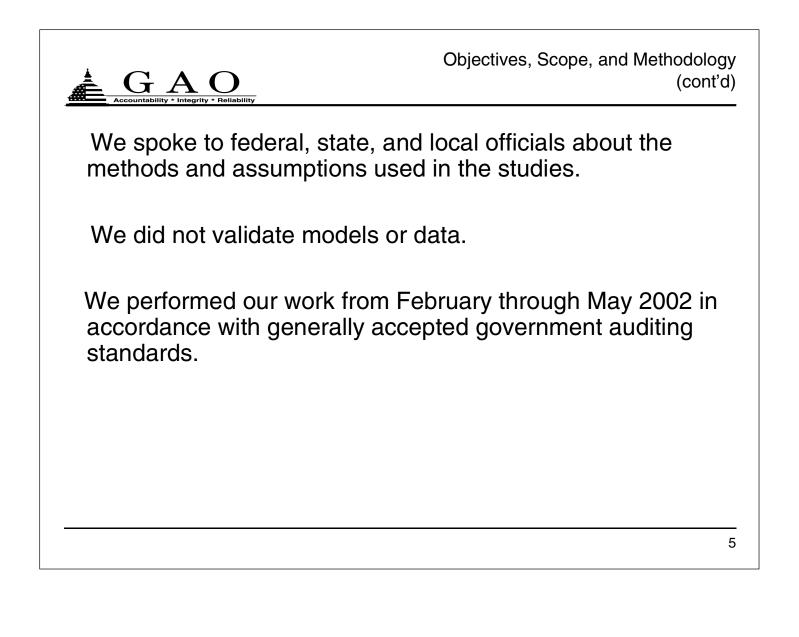
Enclosure I





Accountability * Integrity * Reliability	Objectives, Scope, and Methodology (cont'd)
Scope and Methodology	
 We reviewed comprehensive available, based on discussi- local government officials and 	ons with federal, state, and
 We assessed the extent to w and assumptions fulfilled bas economic analysis, including 	sic principles of standard
 accounted for major categories short and long run, 	of losses and payments over the
included documentation for sup	oporting data and assumptions,





Background

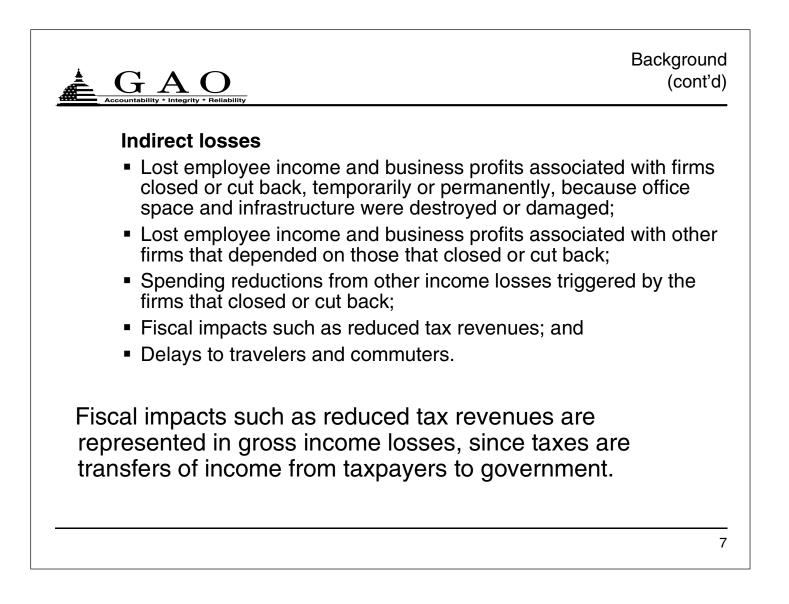
Accountability * Integrity * Reliability

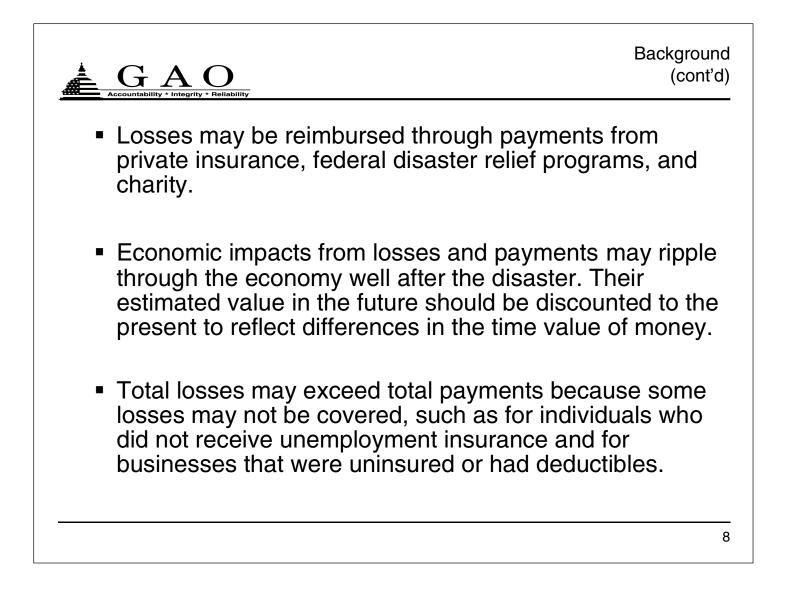
Background

Terrorists attacked the two World Trade Center buildings in New York City on September 11, 2001. Losses were direct and indirect. Federal, state, local, and nongovernment organizations responded by providing New York City with financial and other assistance.

Direct losses

- Human lives;
- Property loss: buildings, business fixtures, computer equipment, phone and power utilities, subway stations, planes, vehicles;
- Costs to respond to the emergency, remove debris, stabilize buildings, and clean up;
- Health effects, injuries, and emotional distress; and
- Costs to provide temporary living assistance.







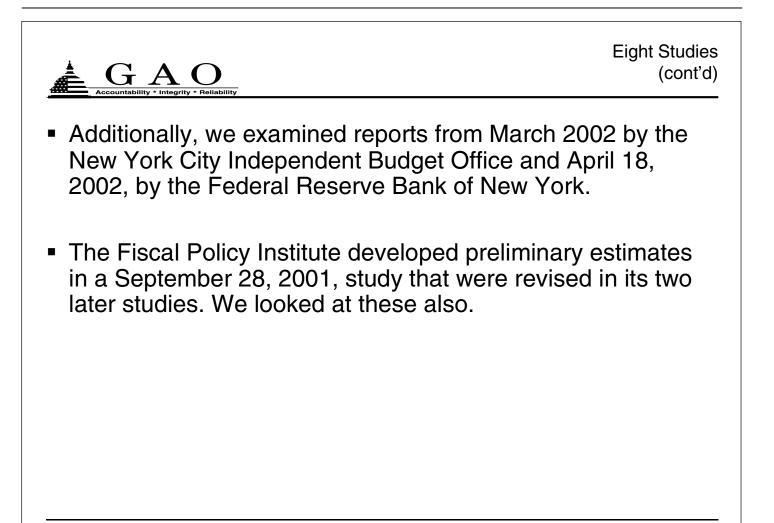
The Eight Studies We Identified

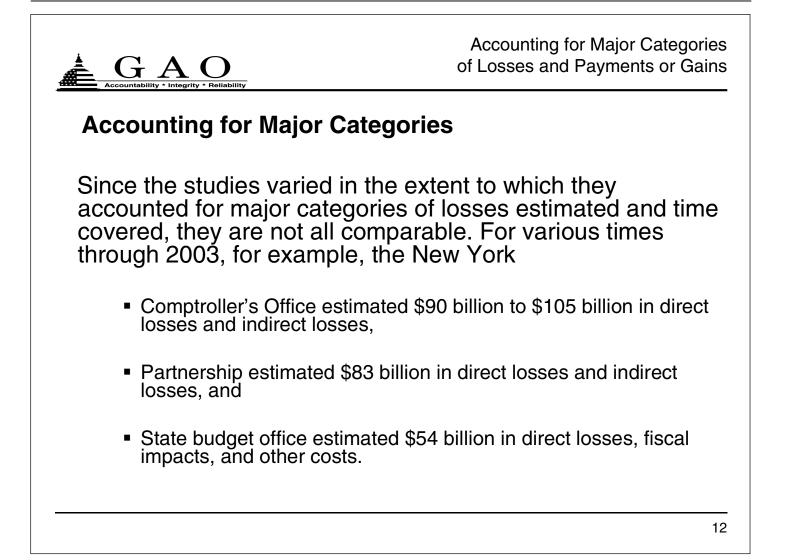
The Studies

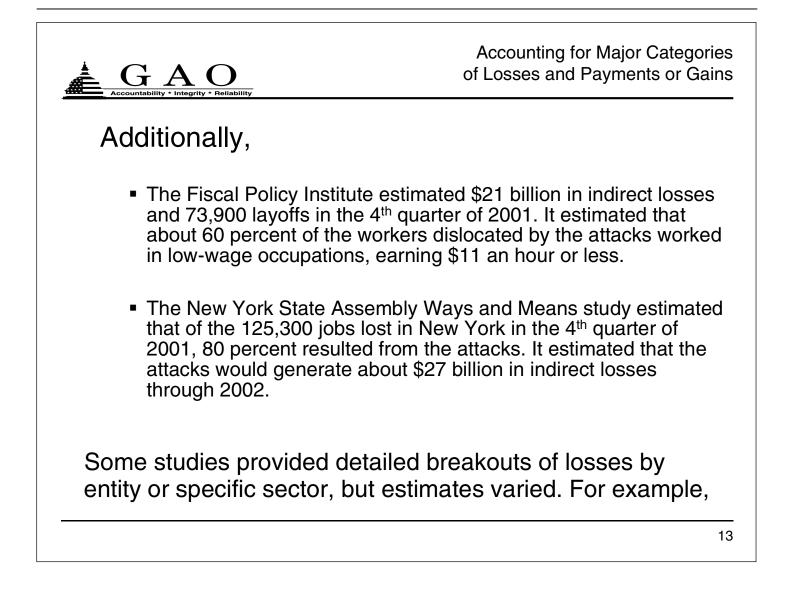
We identified eight studies from seven organizations as generating a range of estimated economic impacts. In the order they were issued, they are

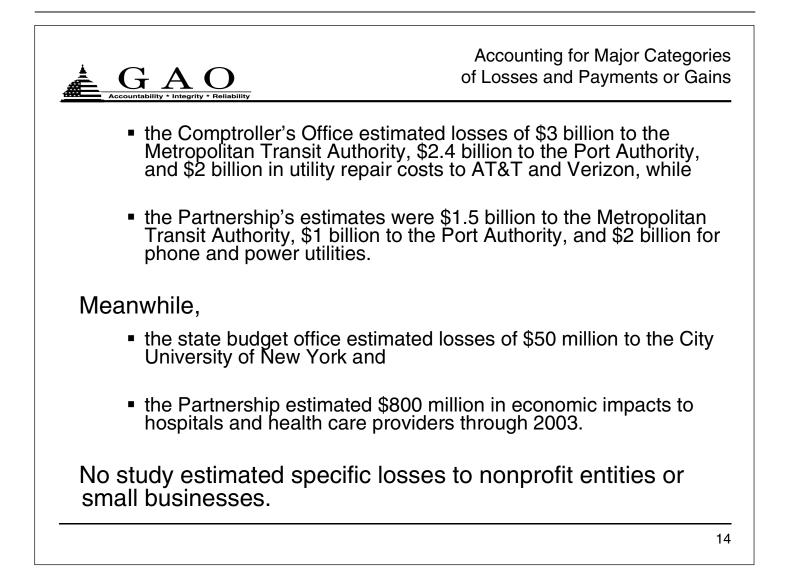
- City of New York Office of the Comptroller, The Impact of the September 11 WTC Attack on NYC's Economy and City Revenues (Oct. 4, 2001).
- New York Governor and State Division of the Budget, Rebuild New York–Renew America: The World Trade Center Attacks; Current Estimated Cost; and other supporting documents (Oct. 9, 2001).
- Fiscal Policy Institute, World Trade Center Job Impacts Take a Heavy Toll on Low Wage Workers (Nov. 5, 2001).

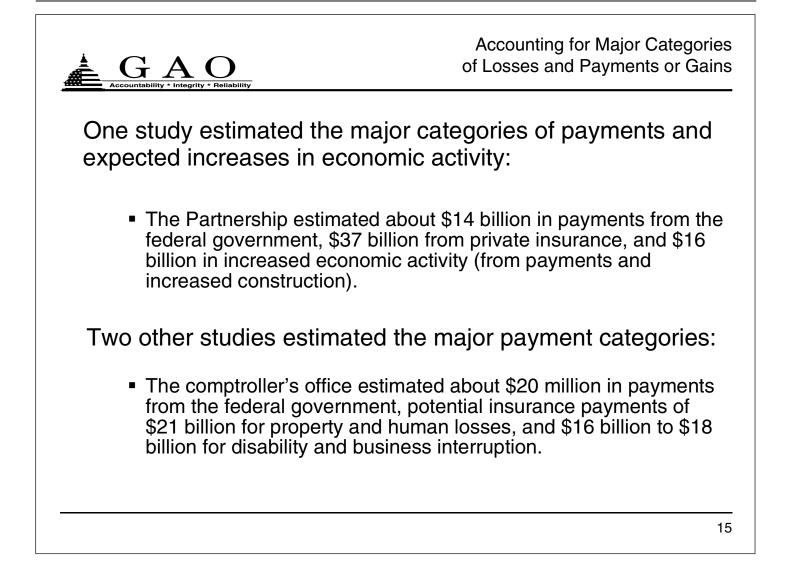
Accountability * Integrity * Reliability	Eight Studies (cont'd)
 New York City Partnership and Chamber of Cor Impact of the September 11th Attack on New Yo rev. Feb.11, 2002). 	mmerce, <i>Economic</i> ork City (Nov. 2001;
 Milken Institute, The Impact of September 11 or Economies (Jan. 2002). 	n U.S. Metropolitan
 New York State Senate Finance Committee Sta of the World Trade Center Impact, prepared by 2002). 	aff, <i>Financial Impact</i> DRI-WEFA (Jan.
 New York State Assembly Ways and Means Co York State Economic Report (Mar. 2002). 	ommittee Staff, <i>New</i>
 Fiscal Policy Institute, The Employment Impact World Trade Center Attacks: Updated Estimates Benchmarked Employment Data (Mar. 8, 2002). 	of the September 11 s Based on the

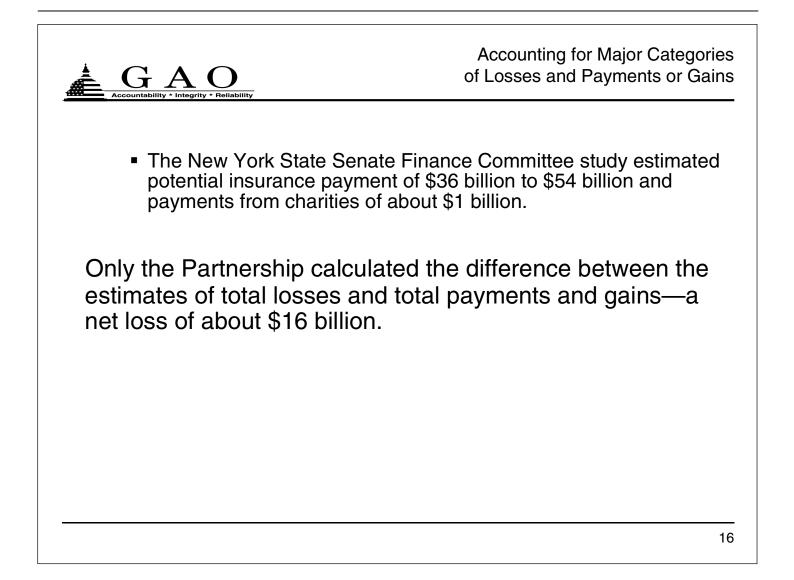


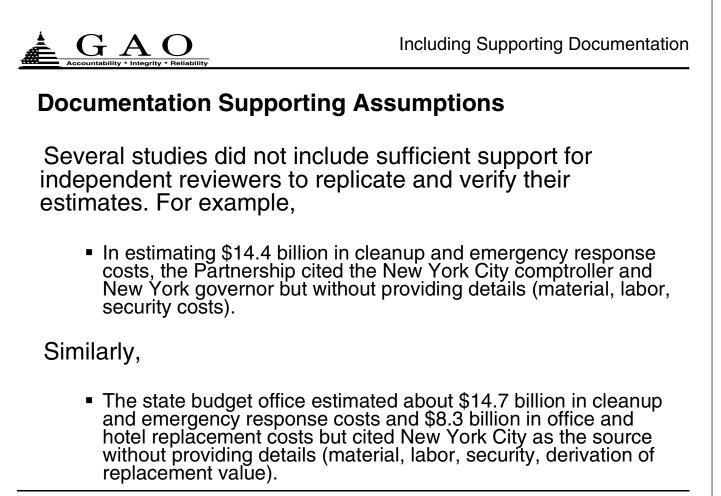














Measuring Impact Relative to a Baseline

Using a Baseline

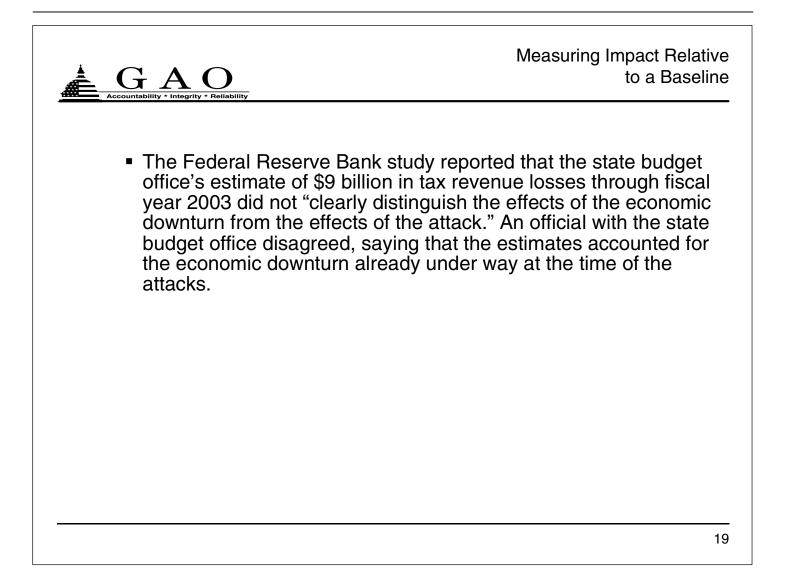
Most of the studies indicated using a baseline to reflect the way the economy would have proceeded if the attacks had not happened. But some studies may not have fully disentangled the effects of the attacks from income and job losses that would have occurred anyway.

Two examples are that

 The comptroller's office did not measure economic impact relative to a baseline because (according to an official who worked on the study) pre-September 2001 payroll jobs data indicated that New York City's economy had performed well relative to the national economy through August. Thus, the study assumed that the economic slowdown after September 11 resulted from the effects of the terrorist attacks.

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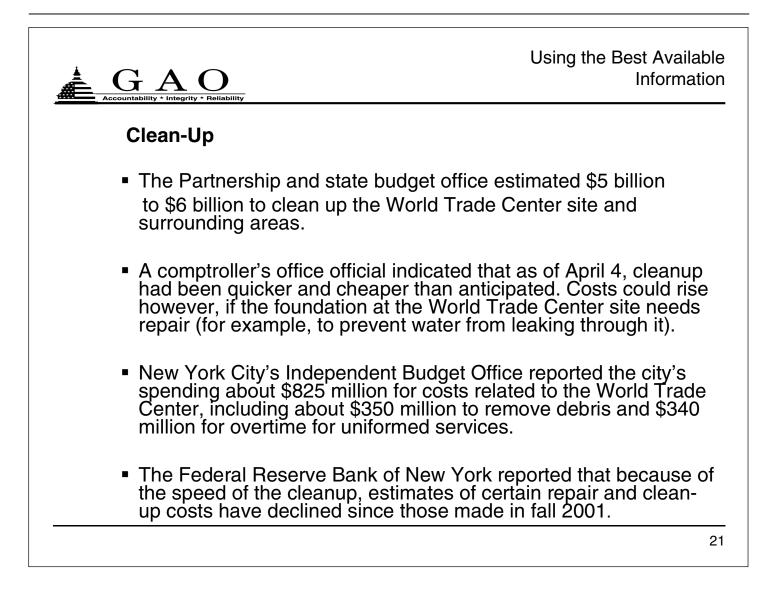
Using the Best Available Information

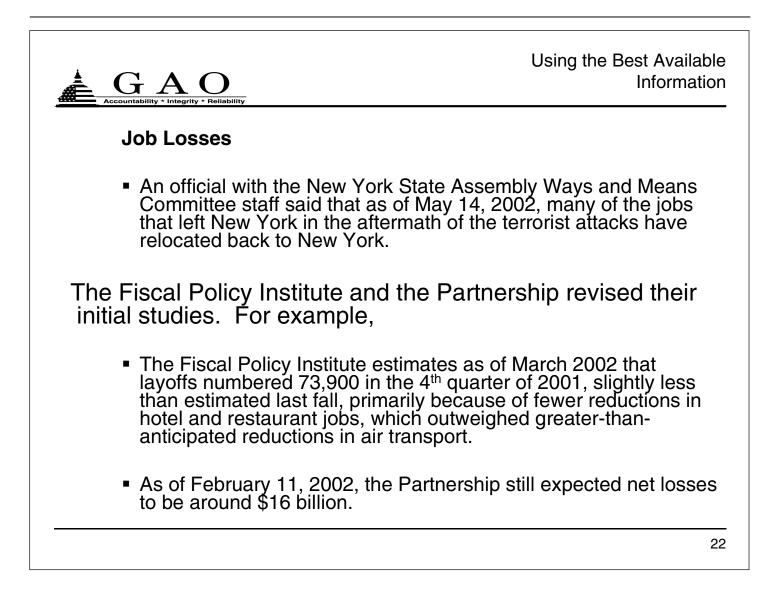
Best Available Information

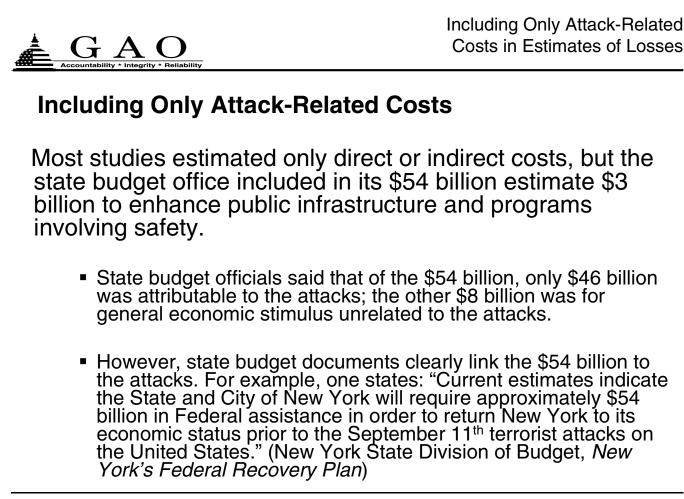
Although the studies may have used the best available information when they were developed, most were based on information developed in fall 2001. Some information is therefore now dated. For example,

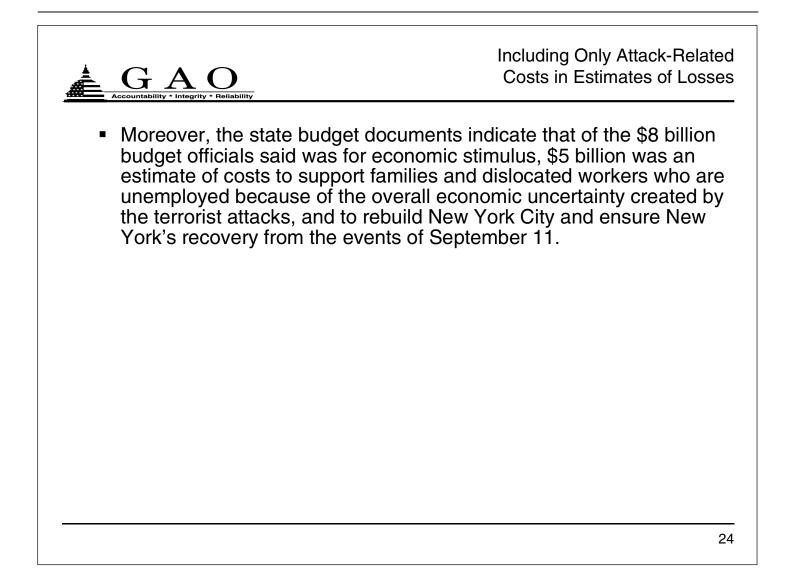
Human Loss

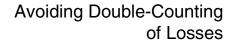
- The Partnership and Comptroller's Office estimated the cost of human loss at \$10 billion to \$11 billion (in forgone lifetime income), based on 5,000 or more deaths.
- The Federal Reserve Bank of New York reported as of April 18 that because deaths were fewer than initially feared, costs were about \$6 billion.











Accountability * Integrity * Reliability

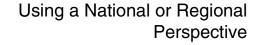
Avoiding Double-Counting

Two of the eight studies may have double-counted some losses:

 In estimating total indirect losses, the comptroller's office estimated \$21 billion in losses in gross city product (GCP) through 2002—personal income plus business profit—associated with firms estimated to have closed or cut back, plus \$3 billion in wages lost to employees whose firms moved to other states.

But GCP would include wages of employees whose firms closed or cut back and moved.

 The state budget office included a \$3 billion request for payment of federal aid in a \$54 billion estimate of costs without providing support that it represented a loss, not a gain, to New York.

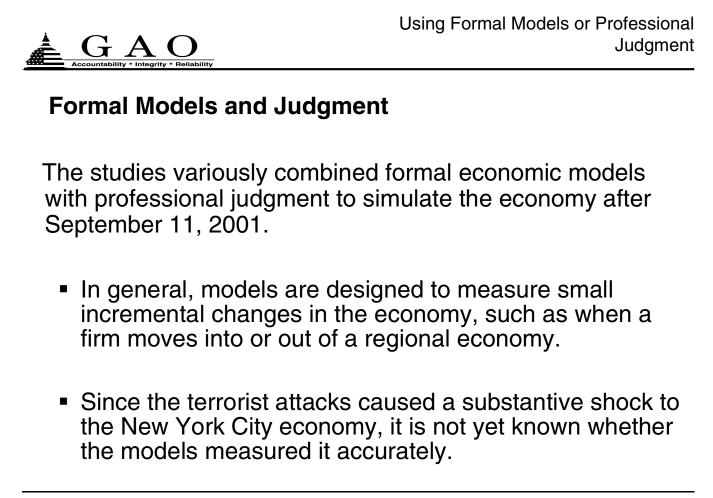


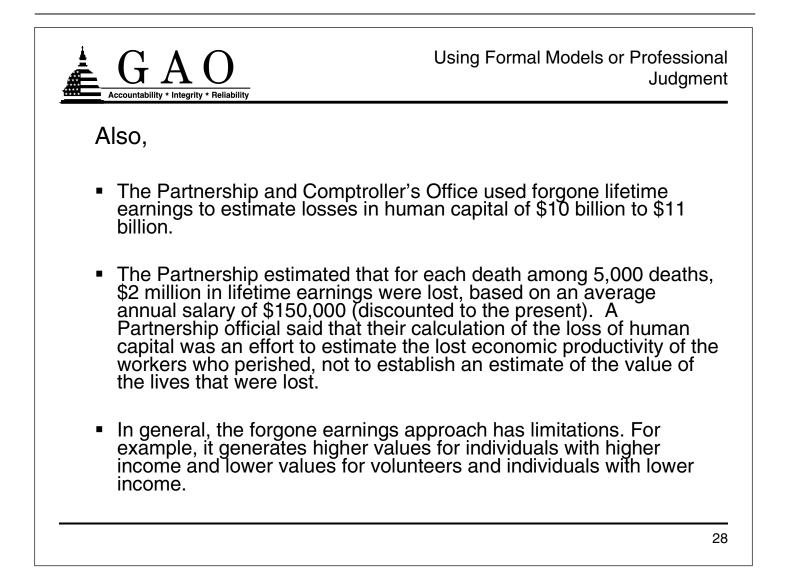
Accountability * Integrity * Reliability

National or Regional Perspective

Falloffs in tourism and business travel affected areas beyond New York. Some of the city's losses were offset in the national economy as some businesses that closed moved to New Jersey and Connecticut. But only a few studies' estimates took a national or regional perspective.

- The New York State Senate Finance Committee estimated losses of \$639 billion to the United States through 2003 and \$22 billion to New York State (in current dollars).
- The Milken Institute estimated losses of \$2.7 billion to the New York–New Jersey metropolitan area in 2001 and \$191 billion to all 315 U.S. metropolitan areas (in constant 2001 dollars).
- New York State Assembly Ways and Means estimated that about 40 percent of the gross domestic product slowdown in 2001 resulted from the September 11 attacks.





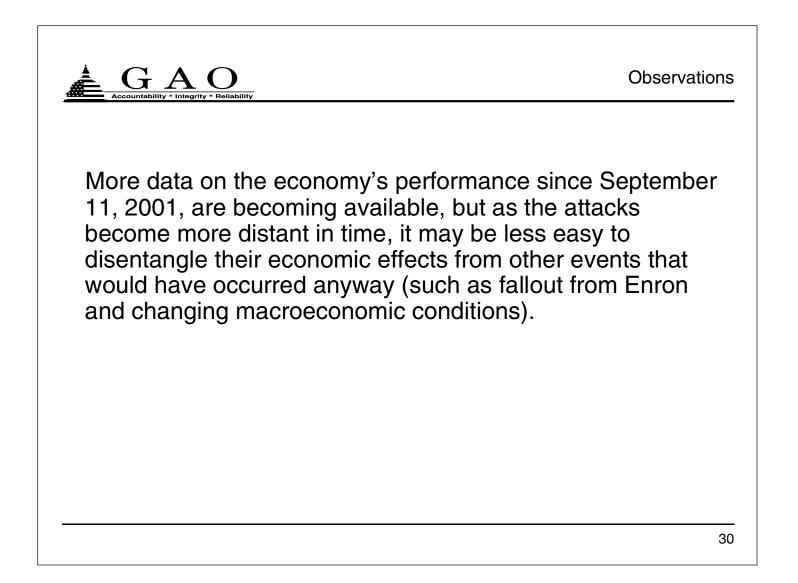
Observations



Observations

The New York City Partnership and Chamber of Commerce study generated the most comprehensive estimates—direct and indirect losses, payments, and increased economic activity—but it is not without some limitations, such as some outdated data.

All the studies' estimates are moving targets because cleanup and other activities are still going on, and the attacks' full consequences on factors such as survivors' health may not be known for years.



Enclosure II: Agency Comments and Our Response

GEORGE E. PATAKI GOVERNOR JAMES A. MAZZARELLA DIRECTOR		444 NORTH CAPITOL STREET, SUITE 301 WASHINGTON, D.C. 2000 (202) 434-7100
	STATE OF NEW YORK OFFICE OF FEDERAL AFFAIRS	
	May 14, 2002	
Mr. Tim Guinane U.S. General Accour Washington, DC 20		
via fax 202-512-617	1	
Dear Mr. Guinane,		
	e draft Review of Studies of the Econom Terrorist Attack on the World Trade Cent	
survey of the various different reports sho amount of time elaps	r the opportunity to comment on your dr s cost estimates of the September 11th at ws that cost estimates differ widely base sed since the attack, but all surveys show her than New York State outlined in Octo	tack. Your survey of the d on the criteria used and v that the losses to New York
Rebuild NY-Renew A conclusions of your be an important tool response to the tragic	ort makes substantive errors, however, in <i>America</i> plan, and therefore the State of I report without changes. We feel these e for policy makers in Washington in dete c events of September 11th. We hope to have attached a list of some of the errors	New York cannot support the errors undermine what could ermining the long-term fiscal be able to work with you to
<i>America</i> plan as a co designed or intended the attack was calcul the disaster. The pla any future insurance New York, which to and City budgets, an which have now bee accounts for roughly	problem stems from GAO's categorization omprehensive economic cost analysis, a p l. The blueprint provided by the State of lated to assist Congress and the President on included gross cost estimates for actual coverage, based on preliminary numbers taled \$34 billion, detailed the revenue low d also included a number of economic st n adopted by Congress. The final catego \$8 billion of the \$54 billion <i>Rebuild NY</i> usion in your survey of direct economic in	purpose for which it was not New York a few weeks after t in determining the scope of al physical losses, excluding s provided by the City of ss estimates of both the State imulus proposals, many of ory, economic stimulus, <i>-Renew America</i> plan and is

See comment 1.

See comment 2.

In addition, the GAO draft reports that the State's plan does not try to delineate See comment 3. between the direct impact of the terrorist attacks and the preceding economic slowdown. This is, in fact, broken out in detail in the "Analysis of Revenue Losses Resulting from the World Trade Center Attack" which accompanied the proposal and can be provided to you. We agree with GAO that the reports were written when "the best available information" required analysts to produce estimates while the crisis was still unfolding See comment 4. and base those estimates on events never before contemplated. As a result, some of the assumptions and estimates used by the City of New York in developing their \$34 billion in costs on September 24th are, in hindsight, dated. Still, that report is the basis of several other reports, and should be analyzed in the context of the immediate crisis during which it was issued. We strongly urge GAO to make the City's report of economic loses the basis of their comparison. We are also concerned about the lack of thorough discussion with State budget analysts prior to the GAO briefing of congressional staff on April 15, 2002. Any such briefing would be premature, even if based on preliminary findings, before getting a more through understanding and clarifying information. In addition, while GAO has initiated a very helpful process to collect additional information regarding the tax revenue impacts See comment 5. on the State and the City resulting from the terrorist attacks, the release of your Economic Impact Study prior to the completion of that data collection compromises the usefulness of both reports. We look forward to working with GAO to ensure that Congress is provided with the most useful and timely information possible about the economic costs associated with tragic events of September 11th and request that GAO reevaluate its methodology as discussed and attached before the report is released. Please call me with further questions at 202-434-7100. Sincerely, James Mazzarella

The following are GAO's comments on the State of New York Office of Federal Affairs' letter dated May 14, 2002.

GAO Comments

- 1. We believe that we have correctly characterized the Governor's *Rebuild NY-Renew America* plan and the supporting budget office documents. As we noted in the draft correspondence, of the total \$54 billion estimate stated in the Governor's plan, \$3 billion should not be attributed as a cost of the attacks because it is for activities, such as infrastructure improvements, that are unrelated to the attacks.
- 2. We selected the eight studies for our review because we found that they were the most comprehensive available at the time of our review. As noted in our draft letter, we agree that \$3 billion of the \$54 billion in estimated costs should not be attributed to the attacks. However, the \$54 billion estimate was represented by the state budget office as the total cost of the economic impact of the attacks. For example, the budget office's New York's Federal Recovery Plan states that "Current estimates indicate the State and City of New York will require approximately \$54 billion in Federal assistance in order to return New York to its economic status prior to the September 11th terrorist attacks on the United States." In addition, The World Trade Center Attacks: Current Estimated Cost provides a "preliminary" cost estimate of \$54 billion. Based on our review, of the \$8 billion identified by the Governor's office as economic stimulus, about \$5 billion should be attributable as costs associated with the attacks. This is because the \$5 billion represents an estimate of the costs to (1) support families and dislocated workers who are unemployed because of the overall economic uncertainty created by the terrorist attacks and (2) rebuild New York and ensure that the New York economy recovers from September 11. Moreover, after providing comments to us, an official with the state budget office clarified that at least some of the \$5 billion could be considered to be an estimate of the direct costs of the terrorist attacks.
- 3. Our draft letter cited an April 18, 2002, study by the Federal Reserve Bank of New York, which stated that the state budget office's estimate of \$9 billion in tax revenue losses through fiscal year 2003 does not "clearly distinguish the effects of the economic downturn from the effects of the attack." After providing comments to us, an official with the state budget office clarified that they disagree with the Federal Reserve Bank's findings. We will examine the state budget office's tax

revenue analysis as part of our follow-up work reviewing estimates of the fiscal impacts of the terrorist attacks.

- 4. We agree that some of the information used by the different studies is now dated. Moreover, the estimates are likely to change as efforts to clean up and stabilize the World Trade Center site and surrounding areas are completed and other factors, such as the long-term consequences on the health of the survivors, become known. In an effort to assist Congress as it considers issues relating to recovering from the economic effects of the terrorist attacks, we reviewed the eight studies in terms of the extent to which they met standard economic criteria, including whether they included best available information.
- 5. We reviewed the Governor's plan and the supporting documents prepared by the state budget office, including *New York's Federal Recovery Plan, The World Trade Center Attacks: Current Estimated Cost, Economic Recovery Plan Summary, 4-Point Economic Plan Recovery,* and *Analysis of Revenue Loss Resulting from World Trade Center Attack.* Moreover, we discussed the estimates with an economist and another official in the state budget office. Based on this review, we briefed the congressional staff on the results of our work up to April 15, 2001. Moreover, the purpose of our review was to assess studies of the economic impacts of the September 11, 2001, terrorist attacks, not to develop our own economic impact analysis. Finally, as discussed earlier, we plan to review the state budget office's tax revenue analysis as part of our follow-up work reviewing estimates of the effect of the terrorist attacks on tax revenues to New York.