

The Toll for

By Ross DeVol and Perry Wong



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Metropolitan Economies

We have all come to know more than we wish about the pain caused by terrorism. Yet while violence generates terrorism's most immediate and enduring impact, the economic ripples can register far more widely. Egypt's tourism industry has never really recovered from attacks on tourists by religious fundamentalists in the last decade. And suicide bombers have severed most links between the Israeli and Palestinian economies, effectively shutting down once-thriving cottage industries on the west bank of the Jordan River.

By the same token, the impact of the September 11 attacks on the World Trade Center and the Pentagon are still pulsing through the American economy. And because these effects are concentrated in a handful of sectors, the consequences for individuals and localities can be quite dramatic: think of restaurant workers in Honolulu and Miami, or baggage handlers at O'Hare and LAX.

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For New York, perhaps the best analogies for recovery are natural disasters, such as the Northridge earthquake in Los Angeles and Hurricane Andrew in Miami. But not quite: as the rebuilding commences, economic activity generally recovers in the quarter following the event. New York City, however, will be coping with the rubble for many months, delaying reconstruction. And in light of the

tionately by a handful of cities. This is due to the unusual nature of the downturn, which is very much a business investment-led recession. A collapse of investment in information technology products and services, precipitated by excessive spending earlier, weighed heavily on the economy before the attacks. Tech-centric areas, such as Silicon Valley, Austin, Seattle and Portland, have been reeling for many months. Meanwhile, more tradi-

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psychological impact on business, it is far from clear that the office capacity lost in lower Manhattan will be replaced anytime soon.

Another important difference is that the disaster in New York affects business confidence in every major city. When Los Angeles suffers an earthquake, Houstonians don't worry about the aftershocks.

Transportation has also been affected in complex ways. Consumers are, of course, apprehensive about the safety of airline travel. But the economic impact of heightened security at airports may be more enduring, since screening has increased transit times and rendered airline travel less appealing. Moreover businesses, already reeling from years of rising airfares, have responded by reassessing travel needs.

Note, too, that the recession, on which Sept. 11 is layered, has been felt dispro-

portional manufacturers of heavy capital goods are now feeling the pain. Manufacturing centers like Cleveland and St. Louis in the Midwest, and Atlanta, Greenville-Spartanburg-Anderson, SC and Birmingham in the South have been victims.

The consensus forecast is for a modest recovery to begin in the second quarter of 2002. Nevertheless, 2002 will witness additional declines in employment – especially relative to what the economic environment would have been in the absence of Sept. 11. And it is going to take considerably longer for some local economies to escape the doldrums.

SECTORAL IMPACT

A locality's economic exposure to the consequences of Sept. 11 is largely determined by the composition of its industrial base. The most directly affected industry is travel and tourism. Travelers generate jobs and a substantial share of income for millions of Americans.

We've estimated the impact using standard

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tools of regional economic analysis. Of the total direct estimated metropolitan job loss of 760,000, relative to the baseline (no terrorism scenario) in 2002, two-thirds are in travel and tourism and related sectors. Overall, roughly 1.6 million jobs will be lost in America's metropolitan economies as a result of Sept. 11. The largest percentage declines are in air transportation (roughly 20 percent), followed by amusement and recreational services, and hotels and motels. The most exposed metros are destinations with high concentrations of foreign tourists as well as domestic tourists who generally arrive by air. New York is the (unfortunate) exception because many tourists who could come by car or train are staying away anyway.

Localities dependent on international trade are also feeling the pain. Global growth is slowing, and Japan and much of the rest of Asia are in recession. Europe is experiencing a dramatic reduction in growth. Supply chains are being shortened and terrorist concerns are harming economies around the globe.

Commercial aircraft orders have been cut as airlines lay off workers and reduce manufacturing capacity. We expect that aircraft and aircraft parts employment in metropolitan areas will be reduced by 42,000 compared to a no-terrorist attack scenario – not a very large number in the context of the whole economy, but a big hit for the handful of cities in which aircraft production is concentrated.

Entertainment and advertising are also

feeling the consequences of September 11. As a hedge against possible actors' and writers' strikes last spring, many studios overproduced films and TV programming early in 2001. The strike was avoided, but production activities still fell during the spring and summer. Before they could resume production in the fourth quarter, the uncertainty associated

WHERE THE JOBS AREN'T

	NET JOB LOSSES (in thousands)			
	2001	2002	2003	2004
Eating & Drinking Places	-17.95	-150.56	-174.18	-105.22
Hotels & Motels	-49.17	-140.61	-99.40	-38.64
Miscellaneous Amusement & Recreational Services	-33.00	-100.36	-76.28	-42.30
Air Transportation, Scheduled	-46.16	-85.89	-35.19	-28.63
Advertising	-13.32	-79.30	-52.07	-35.47
Theatrical Producers, Bands & Recreational Services	-10.53	-52.77	-34.67	-18.61
Aircraft & Parts	-3.44	-42.41	-49.05	-44.36
Airports & Airport Terminal Facilities	-9.98	-19.19	-13.29	-0.24
Fire, Marine & Casualty Insurance	-4.77	-17.44	-19.77	-11.85
Life Insurance	-9.32	-17.04	-12.64	-6.38
Medical Services & Health Insurance	-8.07	-14.49	-14.93	-7.30
Radio & TV Broadcast Stations	-3.18	-12.68	-4.29	-3.39
Arrangement of Passenger Transport	-7.56	-10.27	-2.32	-0.03
Museums & Art Galleries	-5.09	-9.31	-0.45	-0.60
Communications Equipment	-0.48	-7.02	-5.21	-2.20
Cable & Other Pay TV Services	-2.27	-4.74	-0.44	-0.03
Ship & Boat Building and Repair	-0.23	-3.31	-2.46	-1.04
Railroads	46.93	0.57	0.35	0.28
Search & Navigation Equipment	0.66	3.47	2.58	1.09
Guided Missiles & Space Vehicles	4.42	4.42	6.63	3.98
Total Cumulative Employment Loss	-172.53	-758.92	-587.07	-340.97

Ranked by Net Job Losses in 2002.

with the terrorist attacks led to cutbacks. And layoffs are percolating through every segment of the entertainment industry.

With corporate advertising budgets being cut, television ad revenues are in deep decline. Theatrical productions are suffering in tourist destinations, particularly in New York. We estimate that entertainment and advertising related sectors will lose 150,000 more jobs than in the baseline no-terrorist recession.

Financial services, a swath of industries including securities, insurance and real estate brokerage, were adversely impacted by the attacks. New York, which is headquarters to most of the nation's major financial services

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firms, was hit directly by the destruction of property, while others felt immediate losses from suspended market activity. Insurance firms' profits were sliced by the payouts to victims' families. We expect financial services to lose 96,000 jobs in 2002 – again compared to the baseline of a no-terrorism recession. This represents a loss of 1.4 percent of all jobs

TOURISM DESTINATIONS HIT HARDEST

	PERCENTAGE JOB LOSSES			
	2001	2002	2003	2004
Las Vegas NV	-1.06	-4.98	-2.42	-0.79
Myrtle Beach, SC	-0.71	-3.60	-1.85	-0.74
New York-Newark NY-NJ-PA	-1.01	-3.42	-2.07	-1.10
Reno NV	-0.84	-3.15	-1.89	-0.72
Atlantic-Cape May NJ	-1.99	-2.98	-2.04	-1.94
Orlando FL	-0.62	-2.85	-1.59	-0.68
Wichita KS	-0.26	-2.81	-2.73	-2.14
Flagstaff AZ	-0.55	-2.61	-1.33	-0.51
Honolulu HI	-1.41	-2.57	-1.83	-1.48
Fort Worth-Arlington TX	-0.42	-2.45	-1.91	-0.88
New London-Norwich CT	-1.32	-2.36	-1.60	-1.46
Anchorage AK	-0.52	-2.33	-1.58	-0.82
Seattle-Bellevue-Everett WA	-0.33	-2.30	-1.79	-1.19
San Angelo TX	-0.31	-2.23	-1.11	-0.54
Dubuque IA	-0.30	-2.22	-1.11	-0.39
Biloxi-Gulfport-Pascagoula MS	-0.83	-2.11	-1.34	-0.91
Naples FL	-0.40	-2.01	-1.04	-0.46
Panama City FL	-0.39	-2.01	-1.05	-0.44
San Francisco CA	-0.35	-1.94	-1.18	-0.61
Miami FL	-0.36	-1.86	-1.37	-0.45

Ranked by Projected Job Losses in 2002.

in the industry – with a considerably higher percentage in New York.

Some sectors, and thus some regional economies, will see job growth related to the attacks. These include producers of goods and services required to battle terrorism – high-tech reconnaissance aircraft, unmanned craft sensors, ultrasensitive communications devices and other precision instrumentation. These high-tech sectors should see an increase in employment of about 8,000.

WHERE WE GET THE NUMBERS

The Milken Institute's metropolitan area econometric models incorporate structural link-

ages between “export” sectors and dependent supplier industries derived from an input-output framework. Export sectors, such as casinos and commercial aircraft, produce goods and services that are primarily consumed outside the local economy. These export industries serve national rather than local markets. The income they generate, however, is concentrated in local economies.

The models allow an assessment of the ripple effects (in economic jargon, the multipliers) from the directly affected industries as they spread through local economies. The income from export sectors, such as travel and tourism, multiplies through the indirect effect on the demand for construction, local transportation, utilities and communications, wholesale and retail trade, government services and so forth.

METROPOLITAN IMPACTS: SOME HIGHLIGHTS

With its large gambling industry and related infrastructure primarily accessible by air, Las Vegas is the single most vulnerable metropolitan economy. Lodging employment in Las Vegas is 16 times more important to the local economy than to the national economy. We expect employment in Las Vegas to fall by 5.0 percent in 2002 relative to the baseline, compared to 1.4 percent for the average metro area. Approximately half of these jobs should be recovered in 2003.

Myrtle Beach, SC is the second most impacted metro area; we expect employment to fall 3.6 percent. This beach resort has the highest concentration of restaurant employment in the nation. It ranks eighth in concentration of amusement parks and recreational

services employment (three times greater than the US average) and fourth in hotel employment concentration (six times greater than average).

The New York-Newark metro area ranks third in job loss at 3.4 percent in 2002. However, in absolute terms, it is the biggest job loser by far, with a projected decline of almost 150,000.

Obviously, New York City's economy has been severely disrupted. It will lose some 31,000 jobs in the finance, insurance and real estate sectors in 2002 – most of them high-paying jobs. Advertising is another important industry for the New York economy, with 5.3 times as many jobs per capita as for the nation as a whole. The same goes for entertainment employment (14th in the nation), and museums and art galleries (15th in the nation). Service-sector employment is projected to fall by 68,000, and wholesale and retail employment by 24,000 in 2002. All told, wage and salary income in the New York metro area will decline by \$9.1 billion in 2002.

Reno is fourth on our list with a 3.2 percent job loss expected for 2002. Reno ranks third nationwide in concentration of hotel and motel employment, and 18th in concentration of scheduled air transportation employment.

Atlantic City-Cape May ranks as the fifth most impacted metro area with 3.0 percent loss of jobs. It has the distinction of having the highest concentration of hotel and motel employment in the country – a whopping 20 times greater than the US average. Atlantic City avoided being the hardest-hit metro overall only because so many tourists arrive

on the boardwalk by car.

Orlando, home to Disney World and other theme parks, is the sixth most impacted with a 2.8 percent job decline projected. Next comes Wichita, which has the highest concentration of aircraft and aircraft parts employment in the nation. Flagstaff ranks eighth on the list, thanks to its dependence on tourists from distant places. Honolulu, where wage

LOSSES BY METRO AREA

	JOB LOSSES IN THOUSANDS			
	2001	2002	2003	2004
New York-Newark, NY-NJ-PA	-43.66	-149.27	-91.32	-48.88
Los Angeles-Long Beach, CA	-10.14	-69.01	-49.45	-33.94
Chicago IL	-8.52	-68.27	-41.90	-17.30
Las Vegas NV	-8.36	-40.77	-20.75	-7.04
Boston MA	-4.14	-36.08	-20.78	-7.24
Seattle-Bellevue-Everett WA	-4.80	-33.94	-27.05	-18.26
Atlanta GA	-4.59	-32.17	-20.40	-8.96
Washington DC-MD-VA-WV	-2.69	-31.60	-19.49	-9.29
Detroit MI	-3.70	-31.43	-18.96	-6.33
Dallas TX	-4.30	-29.30	-18.47	-8.70
Houston TX	-4.92	-29.04	-18.32	-8.52
Phoenix-Mesa AZ	-4.23	-27.79	-17.72	-9.09
Orlando FL	-5.79	-27.03	-15.44	-6.75
Philadelphia PA-NJ	-1.96	-26.99	-16.23	-5.98
Orange County CA	-3.39	-26.61	-15.23	-6.80
St. Louis MO-IL	-2.42	-22.14	-15.10	-7.29
San Francisco CA	-3.88	-21.77	-13.49	-7.07
Fort Worth-Arlington TX	-3.37	-20.27	-16.18	-7.59
Miami FL	-3.68	-19.52	-14.61	-4.83
San Diego CA	-3.22	-19.14	-11.51	-5.03

Ranked by Projected Job Losses in 2002.

income is expected to decline by about \$360 million in 2002, is ninth on the list. Fort Worth-Arlington rounds out the top 10 on economic impact stemming from Sept. 11. The Fort Worth airport is a major airline hub, and the city is heavily dependent on aircraft and parts production.

In the next tier, Seattle-Bellevue-Everett stands out at 13th. Thanks to Boeing, the Seattle region is the second-most dependent metro on aircraft and aircraft parts production employment in the nation. San Francisco ranks 19th overall on economic impact with a job loss of 1.9 percent projected for 2002. Miami rounds out the top 20. **M**