

The Impact of the SARS Epidemic in Taiwan: Implications for Human Resources, Labor Markets, and Unemployment in the Service Sector

GRACE O.M. LEE AND MALCOLM WARNER

This article examines the links between epidemics and their economic and human resources consequences in a contemporary setting, specifically in terms of their impacts on human resources, labor markets, and jobs. To exemplify the above, we looked at severe acute respiratory syndrome (SARS), a phenomenon we have previously investigated in the People's Republic of China, Hong Kong, and Singapore. This specific study looks at the impact of SARS on the Taiwanese economy, its human resources, labor market, and its level of employment and unemployment. In this preliminary investigation, we worked on the assumption that the greatest impact would be on human resources in the service sector (and, in turn, on particular subsectors, such as the hotel industry). Our tentative conclusions, caveats notwithstanding, lead us to report that the crisis brought not only relatively discernable economic losses but also observable damage to "trust" in labor-management relations.

GRACE O.M. LEE is currently Associate Professor in the Department of Public and Social Administration, City University of Hong Kong. She can be reached at <sagrace@cityu.edu.hk>.

MALCOLM WARNER is currently Professor and Fellow Emeritus, Wolfson College and Judge Business School, University of Cambridge. He can be reached at <m.warner@jbs.cam.ac.uk>.

©Institute of International Relations, National Chengchi University, Taipei, Taiwan (ROC).

KEYWORDS: human resource management (HRM); labor market; severe acute respiratory syndrome (SARS); People's Republic of China (PRC); Republic of China (ROC)/Taiwan; unemployment.

* * *



On March 12, 2003, the World Health Organization (WHO) issued a "global alert" on severe acute respiratory syndrome (SARS), a newly emerging respiratory illness associated with potentially significant morbidity and mortality.¹ International travel appeared to have been responsible for the rapid intercontinental spread of this disease, and by May 31, 2003, SARS had affected thirty-two countries with a total number of 8,360 cases.² Taiwan reported the third largest number of SARS infections and deaths, followed by Hong Kong and mainland China.³

The outbreaks beyond the mainland of the People's Republic of China (PRC), namely in the Hong Kong Special Administrative Region, Taiwan, Singapore, and Vietnam, as well as in Toronto and elsewhere, were initiated by cases that were mostly imported from Guangdong (廣東), the southernmost Chinese province, before the virus had been identified and before appropriate measures had been put in place to prevent its transmission.⁴ Taiwan, like Hong Kong, has one of the busiest airports in Asia, and has numerous arrivals each day from countries in the region that may often be affected by public health risks. The nation was, and still is, therefore

¹World Health Organization (WHO), "Outbreak of Severe Acute Respiratory Syndrome—Worldwide, 2003," *Morbidity and Mortality Weekly Report* 52, no. 11 (March 21, 2003): 226-28.

²WHO, "Summary Table of SARS Cases by Country, 1 November 2002–7 August 2003," http://www.who.int/csr/sars/country/en/country/2003_08_15.pdf (accessed August 15, 2003).

³E. J. Esswein et al., "Environmental and Occupational Health Response to SARS, Taiwan" (July 2004), <http://www.cdc.gov/ncidod/EID/vol10no7/03-0728.htm>.

⁴L. Hsu et al., "Severe Acute Respiratory Syndrome (SARS) in Singapore: Clinical Features of Index Patient and Initial Contacts," *Emerging Infectious Disease* 9, no. 6 (2003): 713-17; S. M. Poutanen et al., "Identification of Severe Acute Respiratory Syndrome in Canada," *New England Journal of Medicine* 348, no. 20 (2003): 1995-2005; and Jong-Wha Lee and Warwick J. McKibbin, "Globalization and Disease: The Case of SARS" (Paper presented at the Asian Economic Panel Meeting, Tokyo, May 2003).

potentially vulnerable to the importation of SARS that could in turn initiate new cases.

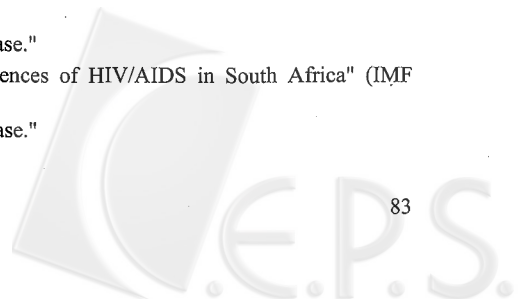
For some time, empirical studies have attempted to estimate the economic burden of an epidemic based on the private and non-private medical costs associated with the disease.⁵ The costs include both private and public expenditures on diagnosing and treating the disease. These may be magnified by the need to maintain sterile environments, implement prevention measures, and carry out basic research. The penalty can be substantial for major epidemics, such as AIDS. According to the UNAIDS (the Joint United Nations Program on HIV/AIDS), at present 42 million people globally live with HIV/AIDS. The medical costs of various treatments of HIV patients, including highly active antiretroviral therapies (HAARTS), are estimated to be more than US\$2,000 per patient per year. In Southern Africa, the total HIV-related health service costs, based on an assumed coverage rate of 10 percent, ranges from 0.3 to 4.3 percent of gross domestic product (GDP).⁶

The costs of disease also include incomes foregone as a result of the disease-related morbidity and mortality. Malaria, for example, kills as many as three million people a year, it is estimated. HIV/AIDS may have claimed a similar number in 2004. Foregone income is normally estimated by the value of lost workdays due to the illness. In the case of mortality, foregone income is estimated by the capitalized value of future lifetime earnings by the disease-related death, based on projected incomes for different age groups and age-specific survival rates. This cost can be substantial for large-scale epidemics.⁷ Given its ultimately relatively low morbidity and mortality, *why then had the economic impact of SARS appeared to be so apparently threatening?* Much of the potential economic impact appeared to stem from the high degree of uncertainty and apprehension generated by SARS, as we shall shortly see.

⁵Lee and McKibbin, "Globalization and Disease."

⁶Marcus Haacker, "The Economic Consequences of HIV/AIDS in South Africa" (IMF Working Paper, WP/02/38, 2002).

⁷Lee and McKibbin, "Globalization and Disease."



This article begins with a brief background account of the imported cases of SARS Taiwan and then goes on to analyze the impact on the Taiwan economy, its labor market, human resources as well as employment and unemployment, in one particularly vulnerable subsector of its now preeminent service sector, namely hotels (and hospitality). Thus, as will be apparent in our analysis, epidemics, mortality, and urbanization are now arguably increasingly interlinked and mass air travel has become a potentially critical transmission belt in the contemporary, globalized world.

Methodology and Limitations

In attempting to study the impact of SARS on the Taiwan economy, its labor market, and specifically on hotel industry employment, we adopted a two-pronged methodology. First, we generated a data-base of information about the SARS epidemic, its economic as well as its human resource management (HRM) implications, by using the Internet, library resources, and literature searches, taking into full account the limitations of official statistical sources, where used.

Second, we carried out on-site empirical field research in Taiwan at first-hand, although we faced a number of difficulties in this process. We started off by sending out an English-language questionnaire by e-mail to a comprehensive list of hotel operators in Taiwan provided by Taiwan's tourist authorities, but we had an unsatisfactory response rate, as many sites had apparently outdated addresses. To resolve this problem, we changed from a quantitative to *qualitative* research methodology, by approaching thirty hotels randomly selected from a more up-to-date list we later obtained, of which twelve replied, geographically evenly distributed in Taiwan. We arranged to interview at least two employees with managerial responsibilities in each hotel. Respondents were, however, generally reluctant to relive what they nearly all described as the "painful" experience, as it was, they noted, a very "unpleasant" one indeed. One of the authors of this article flew from Hong Kong to Taipei to conduct these field investigations and in turn managed to conduct interviews with the over two dozen

key stakeholders noted above, such as hotel CEOs, senior managers, and other senior employees, as well as liaising with trade union officials in the service sector over the period of the epidemic and its aftermath. Interviews were semistructured, often in-depth, and lasted over two hours each and in some cases longer.

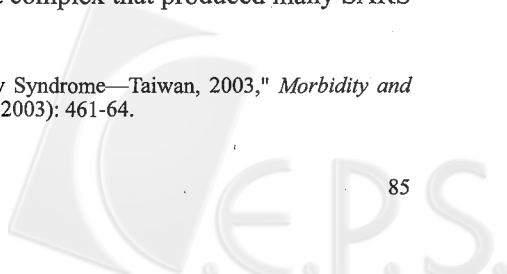
With such a limited sampling and the other limitations of our methodology, it is only possible for us to discuss the human resource policies adopted by a specific number of different hotels, instead of explaining why varying but specific policies were adopted. However, we were assured that their experiences were "typical" over the period concerned, a view that was endorsed by the trade association and trade unions. The parallels with our similar ongoing studies of SARS in China, Hong Kong, and Singapore were sufficiently persuasive to lead us to believe that we were on the right track. Therefore, we trust that this exploratory study, *caveats notwithstanding*, will meaningfully focus on the impact of SARS on the labor market and employment in the Taiwan hotel sector and provide a "snapshot" of a critical time for this key sector for jobs, in terms of what was seen as an "unprecedented" event, different from, say, the 1997 Asian financial crisis or the September 11 incident in 2001, in terms of its much heightened psychological dimension.

Importation of SARS into Taiwan

As of May 22, 2003, a total of 483 probable SARS cases had been reported in Taiwan. All probable SARS patients were hospitalized; 84 (17 percent) had been discharged, and 60 (12 percent) had died.⁸ Three hundred and forty-one (71 percent) cases were from Taipei City (台北市) and Taipei County (台北縣), the largest metropolitan region of Taiwan.

The first case in Taiwan was the result of a visit by a resident of Amoy Gardens in Hong Kong, an apartment complex that produced many SARS

⁸M. L. Lee et al., "Severe Acute Respiratory Syndrome—Taiwan, 2003," *Morbidity and Mortality Weekly Report* 52, no. 20 (May 23, 2003): 461-64.



cases.⁹ The man, surnamed Tseng (曾), flew to Taiwan on March 26, took a train to Taichung (台中) to see his brother the following day—to carry out the traditional "sweeping of the graves"—and flew back to Hong Kong the day after.¹⁰ His brother was infected with the virus, was admitted to hospital on April 3, and had the dubious distinction of becoming Taiwan's first SARS-related fatality.

Up until April 21, Taiwan reported twenty-eight probable SARS cases. During this period, SARS was characterized by sporadic cases among business travelers who were cared for primarily at large academic hospitals; the secondary spread was limited to identified contacts. Initial actions by Taiwan's Department of Health (衛生署) included the formation of a SARS advisory committee, infection-control training, contact tracing and quarantine, and airport and border surveillance. Because of Taiwan's apparent success with SARS control, in early April, the WHO changed Taiwan's designation from an "affected area" to an "area with limited local transmission."¹¹ Taiwan, interestingly enough, hosted an international conference on SARS on April 20 to 21 to showcase its "achievements."

However, Taiwan's relative complacency over SARS was destroyed on April 22 when Taiwan's Department of Health was notified of seven cases of SARS among health-care workers (HCWs) at a large municipal hospital in Taipei, the Taipei Municipal Heping Hospital (台北市立和平

⁹Amoy Gardens was the second major epicenter in Hong Kong, accounting for over three hundred cases. The source has been attributed to a patient with renal failure receiving haemodialysis at the Prince of Wales Hospital who stayed with his brother at Amoy Gardens. He had diarrhea, and infection may have spread to other residents by a leaking sewage-drain, allowing an aerosol of virus-containing material to escape into the narrow light-well between the buildings and spread in rising air-currents. Sewage had also back-flowed into bathroom floor drains in a number of apartments. Spread to people in nearby buildings also occurred, probably by person-to-person contact and contamination of public installations. See note 8 above, and Grace O.M. Lee and Malcolm Warner, "Epidemics, Labor Markets, and Unemployment: The Impact of SARS on Human Resources Management in the Hong Kong Hotel Industry," *International Journal of Human Resource Management* 16, no. 5 (May 2005): 752-71.

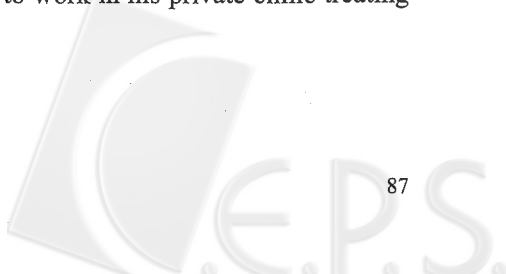
¹⁰Laurence Eyton, "SARS: Taiwan's WHO Bid Nothing to Sneeze at," *Asia Times*, May 3, 2003.

¹¹Ibid.

醫院; Hospital A). After that, SARS cases in Taiwan increased and were associated primarily with health-care settings. The "index patient" for the first outbreak of SARS through local transmission in Taiwan was a female fellow traveler on the train Tseng (the first SARS-related fatality in Taiwan) took to Taichung. Feeling ill, she went to Hospital A, where she was thought to have passed the virus on to several medical staff and a laundry worker. They had had multiple exposures with patients, visitors, and HCWs who were not protected adequately in order to prevent the acquisition of SARS. The number of potentially exposed persons was estimated at around 10,000 patients and visitors and 930 staff.

On April 24, Hospital A was contained, and all patients, visitors, and staff were quarantined within the building. All 930 staff and 240 inpatients were to be confined for fourteen days. Any staff not in the hospital when the quarantine order was issued were to return to the hospital immediately to start their isolation. Inside the hospital, all recognized SARS patients were concentrated on two floors. Personal protective equipment and disinfection materials were distributed, and active surveillance was enforced for all HCWs. However, SARS cases in Hospital A continued to increase. The result of the quarantine order had seen several displays of personal selfishness and lack of concern about the public good that kept newspaper opinion pages and radio call-in shows busy for a week.¹² April 25 saw a demonstration at the hospital that involved bottle-throwing by staff angry about being quarantined. Meanwhile, some 32 of the staff that were out of the hospital when the order was imposed refused to return and went into hiding. A nurse, hiding from the quarantine order, wrote to a newspaper complaining that "no punishment can exceed the terror cast by the shadow of SARS" and claiming that quarantine was a death sentence. While the public was still wondering about the professional ethics of a nurse who was afraid of catching an infectious disease, it was presented with the less-than-edifying behavior of an ear, nose, and throat specialist at Hospital A, who not only dodged the quarantine but continued to work in his private clinic treating

¹²Ibid.



patients. Only when threatened with arrest by the police did he return to the hospital.

During April 22-May 1, the number of probable cases in Taiwan more than tripled, from 28 to 89. Subsequent HCW clusters at eight hospitals were associated with exposures at Hospital A. Many of these clusters occurred when presymptomatic patients or patients with SARS symptoms attributed to other causes were discharged or transferred to other health-care facilities. SARS then extended to other cities and regions of Taiwan, including several university and private hospitals. On May 3, the WHO put Taiwan in the same risk category as Beijing and Hong Kong, the epicenters of SARS.¹³

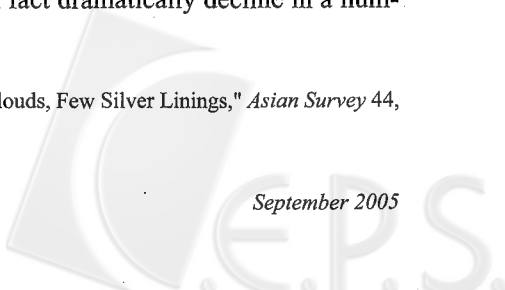
Six days after the above-mentioned conference on "SARS achievements" wound up, a seriously panicking Taiwan enacted draconian measures, placing all visitors from Hong Kong, mainland China, Singapore, and the Canadian city of Toronto in compulsory ten-day quarantine, as well as imposing extensive quarantine measures locally. Home quarantine was also mandated for discharged patients and visitors who had been at Hospital A since April 9. As of May 22, a total of 137 probable cases were associated with exposures at Hospital A, including 45 (33 percent) cases among HCWs; 26 persons died (19 percent). We now turn to the *economic* costs of the phenomenon.

The Economic Impact of SARS

We will first set out the economic background based on our data-base, as well as the HRM data collected at first-hand by ourselves, albeit with the limitations acknowledged earlier, followed by a discussion of their implications, and last, our conclusions.

SARS, we believe, initially affects the economy mainly by reducing demand. Consumer confidence did in fact dramatically decline in a num-

¹³Shelley Rigger, "Taiwan in 2003: Plenty of Clouds, Few Silver Linings," *Asian Survey* 44, no. 1 (2004): 182-78.



ber of economies, leading to a significant reduction in private consumption spending. Much of the impact stemmed from the great degree of uncertainty and apprehension generated by SARS. The *Asia Times* depicted Taipei as a place where people wore masks, and taxi drivers drove with all their windows open.¹⁴ Taxi drivers had virtually no business. A self-employed taxi owner-cum-driver informant tried her luck at the National Palace Museum (故宮博物院), a popular tourist attraction, two times a day but there were no visitors at all.¹⁵ The taxi driver said that the plight of those drivers who had to pay rent for their taxis was even worse.

Nightlife was virtually nonexistent. Nobody, unless very sick indeed, would visit a hospital. The city government doled out bleach to every household in Taipei to encourage what it called a "mass sterilization of communities."¹⁶ The government also required all passengers on the Rapid Transit railway system to wear masks, or else pay a penalty of NT\$3,000 (just a little under US\$100)!¹⁷ Furthermore, the Taiwan government imposed a mandatory fourteen-day quarantine on all incoming travelers from nearby China, Hong Kong, Singapore, and Macau, and even from as far away as Canada. It later relaxed this to let passengers who had only transited in Hong Kong avoid the quarantine, pretty much an essential measure since so many of Taiwan's connections with the outside world were routed through Hong Kong. Taiwan residents had to go home and stay there for two weeks; non-residents were put up at Taoyuan's (桃園) Chiang Kai-shek Airport Hotel, while an army camp was also being prepared for detainees near the airport. Some lawmakers even suggested that the government declare a state of emergency over the SARS outbreak. This did not materialize because the principal concern of the government, apart from containing SARS, was the potential economic impact of the disease.¹⁸

¹⁴See note 10 above.

¹⁵Field interviews, May 2005.

¹⁶See note 10 above.

¹⁷Field interviews, May 2005. The price of masks had risen to a few hundred New Taiwan dollars each and became a commodity of speculation.

¹⁸Field interviews, May 2005.

Investment was affected by reduced overall demand, heightened uncertainties, and increased risks. SARS highlighted Taiwan's economic interdependence with China, the birthplace of the virus that had spread across Taiwan.¹⁹ Attempting to accurately assess the impact of SARS on Taiwan's economy would require knowledge of how bad the outbreak had become in China, particularly the Shanghai/Yangtze River Delta area, and Fujian (福建) and Guangdong provinces, which in recent years have become manufacturing centers—and increasingly, development centers as well—for Taiwanese companies. Unfortunately, accurate information on mainland China was not forthcoming at that time. Although Taiwan's key technology sector reported no interruptions in their chains across the Taiwan Strait, many did note that downstream customers in the United States and Europe had requested that they stock up on inventories to prepare for possible SARS-related interruptions.²⁰ And some had even been asked to move their manufacturing bases to Southeast Asia, which seemed to have contained outbreaks of SARS, or to Latin America.²¹ Wang Yung-ching (王永慶), chairman of the massive Formosa Group (台塑集團), the core businesses of which revolve around basic materials such as plastics and rubber—and which had invested heavily in hard-hit southern China—said that he expected "a severe blow" to his companies in terms of fewer orders from overseas clients who were fearful that the spread of the disease might impact Formosa's ability to fulfill the orders in a business environ-

¹⁹The first fatal cases of "atypical pneumonia," as it was first called, probably occurred in Guangdong Province in southern China in November 2002. The term "SARS" appears to have been first used for a patient in Hanoi who was visiting Vietnam, became ill on February 26, 2003, and was evacuated to Hong Kong, where he died on March 12. This first case in Hanoi had stayed at a hotel in Kowloon, Hong Kong, at the same time as a 64-year-old doctor who had been treating pneumonia cases in southern China. This doctor stayed at the Metropole Hotel and was admitted to hospital on February 22. He died from "respiratory failure" soon afterwards. His was the first known case of SARS in Hong Kong and appears to have been the source of infection for most, if not all, cases in Hong Kong, as well as possibly for the cohorts in Singapore, Taiwan, Thailand, Vietnam, Canada, a number of European countries, such as Germany and Ireland, and the United States. See Lee and Warner, "Epidemics, Labor Markets, and Unemployment" (cited in note 9 above).

²⁰Michael Taylor, "SARS: Taiwan Thinks the Unthinkable," *Asia Times*, May 20, 2003.

²¹Field interviews, May 2005.

ment that required minimal inventory to remain competitive. Furthermore, unlike the majority of foreign-invested firms operating in the PRC, Taiwanese businesses were not only focused on manufacturing for export, but also on internal Chinese demand.

Although SARS affected every component of aggregate demand, private consumption particularly bore the brunt of the impact. Services involving face-to-face contact were dealt a severe blow by the widespread fear of infection through such interactions. In Taiwan, the major impact of SARS centered on the hospitality, travel, and tourism industries. In large part, this was due to a dearth of business travel after foreign companies postponed or canceled plans for employee travel to Taiwan and other SARS-affected nations as standard corporate policy. Meanwhile, the normal flood of tourists from Japan, by far Taiwan's main source of incoming tourism, failed to materialize during the recent weeklong series of Japanese holidays. Despite cut-rate deals on luxury hotels, occupancy rates in Taipei and elsewhere were at or near rock bottom. Meanwhile, domestic tourism, which accounted for the bulk of the industry, melted away as Taiwanese avoided public transport, and air travel in particular. The indefinite postponement of Computex, Taiwan's most important industry convention and the third largest information technology show in the world, struck a further blow to the hotel industry.²² Originally scheduled for early June 2003, the show's organizers postponed it, citing the unwillingness of registered exhibitors to attend. It was thus very likely that there would be closely linked implications in terms of human resources and labor markets.

Asian economies, as we have noted earlier, are heavily dependent on tourism, which accounts for as much as 10 percent of GDP in many of the affected countries. Destinations such as Hong Kong, Singapore, and Taiwan are heavily dependent on the sort of service industries that demand regular and varied human contact—something many in the region were eager to avoid during the alert: these sectors are very labor-intensive²³ (see

²²"Tourist Numbers Fall 50 Percent in SARS-hit Taiwan," BBC, May 23, 2003.

²³Field interviews, May 2005.

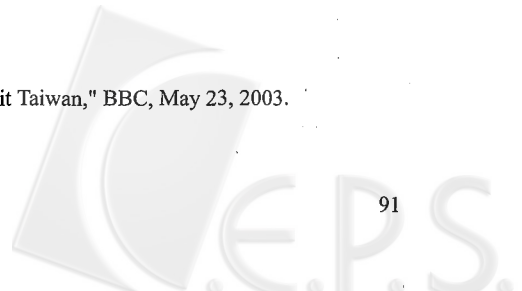


Table 1
Number of Employees by Industry, 1981-2004

Year	Agriculture	Industry	Services
1981	1,257,000	2,828,000	2,587,000
1982	1,284,000	2,813,000	2,713,000
1983	1,317,000	2,909,000	2,844,000
1984	1,286,000	3,089,000	2,934,000
1985	1,297,000	3,088,000	3,044,000
1986	1,317,000	3,215,000	3,201,000
1987	1,226,000	3,431,000	3,366,000
1988	1,113,000	3,443,000	3,551,000
1989	1,066,000	3,476,000	3,717,000
1990	1,064,000	3,382,000	3,837,000
1991	1,093,000	3,370,000	3,977,000
1992	1,065,000	3,419,000	4,148,000
1993	1,005,000	3,418,000	4,323,000
1994	976,000	3,506,000	4,456,000
1995	954,000	3,504,000	4,587,000
1996	918,000	3,399,000	4,751,000
1997	878,000	3,502,000	4,795,000
1998	822,000	3,523,000	4,944,000
1999	774,000	3,492,000	5,118,000
2000	738,000	3,534,000	5,220,000
2001	706,000	3,377,000	5,299,000
2002	709,000	3,332,000	5,413,000
2003	696,000	3,334,000	5,543,000
2004	642,000	3,446,000	5,698,000

Source: *Annual Report on Manpower Survey 2004*, <http://www.stat.gov.tw/public/Attachment/53910445671.xls> (accessed April 6, 2005).

table 1). Governments had actively encouraged tourism in their policies to create jobs.

According to an analysis of the International Labor Organization (ILO), reduced travel due to new concerns over SARS, combined with the ongoing economic downturn, was set to cut up to eight million jobs in the

Asian tourism sector in 2003.²⁴ What evidence was there to justify such a prediction? The number of airline passengers coming to Asia dropped by up to 70 percent, and overall hotel reservations in Asia were down 30 to 40 percent in 2003, according to the World Tourism Organization.²⁵ According to official statistics in April 2003, passenger rates had fallen by 60 percent in Hong Kong, as compared to 40 percent in Singapore and South Korea, 37 percent in Bangkok, and 36 percent in Kuala Lumpur.²⁶ The decline in tourist arrivals shocked Taiwan. Passenger arrivals totaled 866,498 in the first four months of 2003, down by 8.39 percent from the same period in 2002. During the period between March 19 and May 18 following the SARS outbreak, the decrease was 49.46 percent. Some carriers, such as Singapore Airlines and United Airways, canceled direct and indirect flights to Taiwan. Chiang Kai-shek Airport recorded the lowest number of passengers since it opened twenty-four years previously.²⁷

At the same time, the number of outbound departures fell to 1.86 million for the January to April period, a 23.41 percent decline as compared to 2002. About 90 percent of tours to China were canceled in March 2003; virtually 100 percent of individual bookings of flights to Hong Kong were canceled.²⁸ The number of outbound departures suffered a 60.94 percent decline during the March 19 to May 18 period.²⁹ Around 80 percent of outbound tours were canceled in April and May 2003. In mid-May the number of visitors to Taiwan dropped to less than 6,000 a day. Over 80 percent of the 100,000-strong travel industry workforce were on half-pay or even received no pay at all. The potentially deadly disease also took a heavy toll on domestic travel.³⁰ Occupancy rates at tourist hotels across Taiwan aver-

²⁴Dirk Belau, "New Threats to Employment in the Travel and Tourism Industry—2003," ILO Report (Geneva: ILO, 2003).

²⁵*USA Today*, June 20, 2003.

²⁶*Ming Pao*, May 7, 2003.

²⁷*The Taiwan Economic News*, April 15, 2003.

²⁸*Ibid.*

²⁹See note 22 above.

³⁰Field interviews, May 2005.



aged 37.44 percent in April 2003, compared to a normal occupancy rate of over 80 percent when Japanese tourists flock to Taiwan in April, with those in northern Taipei, and the Taoyuan, Hsinchu (新竹), and Miaoli (苗栗) regions being the most affected. After the mass outbreak of SARS in April 2003, visitor arrivals to privately-run recreational parks dropped by between 60 and 80 percent. Including similar establishments on outlying islands, a total of 277 tourist resorts across Taiwan recorded an average contraction of 15.26 percent, with large indoor facilities suffering the largest impact.³¹ Taiwan lost at least US\$350 million in tourism revenue in May and June 2003 because of the SARS outbreak.³²

Stores, restaurants, hotels, and travel agencies temporarily reduced staff, halted hiring, and forced workers to take unpaid leave as the SARS epidemic kept residents at home and tourists away. However, the official unemployment total in Taiwan lingered at 4.99 percent, compared with Taiwan's all-time high of 5.17 percent recorded in 2002, as the short-term human resources impact appears not to have led those adversely affected to register as officially jobless, as most people were not actually fired once and for all (see table 2).

Discussion and Evaluation

We now turn to a discussion and evaluation of the economic and HRM impact of SARS on Taiwan, specifically focusing on tourism and hotels. The first imported cases began in late March and April 2003, and the WHO global alert was issued on March 12, 2003. This led to a fall in the percentage of the GDP generated by the service sector compared to the corresponding period in 2002.

The number of tourist arrivals drastically declined after the travel advice was issued by the WHO on March 12, 2003 (see fig. 1). The number

³¹See note 22 above.

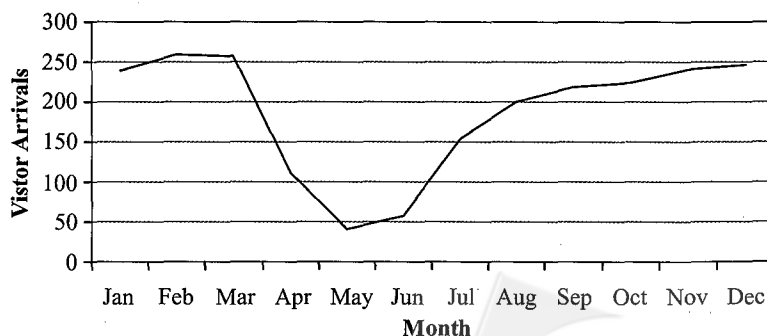
³²"After SARS, Taiwan Plans \$68 Million Tourism Sweeteners," *South China Morning Post*, July 7, 2003.

Table 2
Number of Unemployed Persons and Unemployment Rate, 1987-2004

Year	Unemployed Persons	Unemployment Rate (%)
1987	161,000	1.97
1988	139,000	1.69
1989	132,000	1.57
1990	140,000	1.67
1991	130,000	1.51
1992	132,000	1.51
1993	128,000	1.45
1994	142,000	1.56
1995	165,000	1.79
1996	242,000	2.60
1997	256,000	2.72
1998	257,000	2.69
1999	283,000	2.92
2000	293,000	2.99
2001	450,000	4.57
2002	515,000	5.17
2003	503,000	4.99
2004	454,000	4.44

Sources: *Annual Report on Manpower Survey 2004*, <http://www.stat.gov.tw/public/Attachment/53910461771.xls>; and <http://www.stat.gov.tw/public/Attachment/53910463571.xls>.

Figure 1
Visitor Arrivals, January-December 2003 (Unit: 1,000 persons)



Source: *Monthly Bulletin of Statistics*, April 2004, National Statistics of Taiwan website, <http://www.stat.gov.tw/bs2/bulletin/xls/K-3.xls>.



of visitor arrivals plunged from 258,128 in February to 40,256 in May 2003. Hong Kong and Singapore also experienced a broadly comparable decline in tourist numbers.

There had already been a marked slowdown in the growth rate of international tourism, brought about by the 1997 Asian financial crisis and the 9/11 terrorist attacks in the United States in 2001. Despite the bombings on Indonesian island of Bali in 2002, which raised questions about security throughout Southeast Asia, recovery seemed under way as there were more than 2.9 million visitors that year. The uncertainties relating both to Middle East tensions and SARS dominated expectations, and over time these were made worse by the onset of the epidemic being totally unexpected.

According to Richard Stirland, leader of the Association of Asia-Pacific Airlines, the region's airline trade group, the impact of SARS was unprecedented, inflicting damage on some carriers as much as five times greater than the September 11 attacks.³³ The International Air Transport Association expected the world's carriers to lose US\$10 billion in 2003 as a result of the health crisis, a generally dismal world economy, and fear of flying associated with terrorism and the Iraq war. Singapore Airlines (SIA) cut nearly 40 percent of its capacity at the peak of the epidemic, grounded thirty-four aircraft, and phased out its Airbus A310-300 and A340-300 fleets ahead of schedule. It laid off 414 workers and asked others to take pay cuts. Hong Kong's Cathay Pacific Airways grounded twenty-two of its eighty-two aircraft at the peak of the epidemic. Hong Kong's other passenger carrier, China-specialist Dragonair, had to ground nearly half its fleet (eleven out of twenty-one aircraft) because both Hong Kong and China were the epicenters of the SARS outbreak. Dragonair's China network of nineteen destinations was reduced to a skeletal service.³⁴

Taiwan's airline industry also reported heavy losses due to flight cancellations. The cancellation rate for flights to Hong Kong, Macau,

³³W. Dennis, N. Mathews, E. Sekigawa, and M. Mecham, "Taking off with Discounts," *Aviation Week & Space Technology* 159, no. 3 (July 21, 2003): 22-24.

³⁴Ibid.

Singapore, and Vietnam from March 17 to April 11 amounted to 16.2 percent. From late March to the end of April, local airlines canceled 796 flights, or 22.95 percent of their usual total.³⁵ The number of passengers from Hong Kong dropped by 10,000 daily while the number of passengers from Macau dropped by 3,200 per day. Most tour guides did not receive any work assignments for months on end; one tour guide interviewed had no income for three months.³⁶ A coach driver interviewed had no income for *six* months (from March to August 2003). Yet, according to this driver with thirty years' experience, there were very few complaints as employees were said to understand the fact that their employer had no business and hence no revenue to pay its employees.³⁷

The director of human resources of a five-star hotel in Taipei reported that the hotel's room occupancy rate fell from a normal 85 percent to 20 percent in March 2003 when SARS hit Taiwan.³⁸ As the hotel association in Taiwan had not discussed the situation and did not operate a "cartel" system, individual hotels had to think of ways to survive. The Westin Taipei (台北六福皇宮) was the first hotel to target the local market and introduced free twin-bed accommodation for the purchase of breakfast and dinner buffet combos at NT\$2,900.³⁹ Such marketing efforts proved to be very attractive to the local Taiwanese population. The personnel manager of a five-star hotel reported that 15,000 room nights had been sold in five months from the end of March to August 2003.⁴⁰

By April and May 2003, when SARS was at its worst, virtually all hotels were offering steep discounts to encourage consumer spending (and boost employment).⁴¹ The Howard Plaza Hotel (福華大飯店) offered a

³⁵"Taiwan Drafts Rescue Plan for Hard-hit Travel Industry," *South China Morning Post*, May 1, 2003.

³⁶Field interviews, May 2003.

³⁷Field interviews, May 2003.

³⁸Field interviews, May 2003.

³⁹Field interviews, May 2003.

⁴⁰Field interviews, May 2003.

⁴¹*Minsheng bao* (People's Livelihood), April 26, 2003.



night's stay for a single at around NT\$3,000 (around US\$100), including breakfast and afternoon tea (NT\$1,400 for two, excluding breakfast); the Grand Hyatt Taipei (台北君悅大飯店) offered one night's twin accommodation at NT\$3,300 (original price at NT\$9,100). Other five-star hotels used gimmicks to attract customers: the Grand Formosa Regent Taipei (台北晶華酒店) offered a night's stay in a super-deluxe room for two at NT\$4,000, including buffet breakfast, free Chinese herbal tea, and imported music from Germany to enhance guests' natural resistance to SARS; and the Evergreen Laurel Hotel (長榮桂冠酒店) offered meals and spa treatment for two at NT\$9,999 (about a 65 percent discount on the original price of NT\$30,000).

Some hotels offered "cutthroat" bargains. For example, the Gloria Prince Hotel (華泰大飯店) offered local Taiwanese a night's stay in a super-deluxe room for two at NT\$3,999, plus a transferable coupon for one night's free accommodation; the Caesar Park Taipei (台北凱撒大飯店) offered a night's accommodation at NT\$2,500 (including NT\$2,000 worth of vouchers for meals in the hotel, the purchase of souvenirs, and Internet service); and the Landis Ritz Hotel (亞都麗緻大飯店) offered a two-bedroom apartment for four at NT\$4,888 (originally NT\$21,450), including breakfast and extensions of stay at a rate of NT\$1,000 per person per night. Hotel groups that operate in different cities offered twin-cities packages to lure customers: Caesar Park Taipei and Caesar Park Hotel Kenting (墾丁凱撒大飯店; in the north and south of Taiwan, respectively) jointly offered promotional packages that ranged from NT\$999 to NT\$29,999 (including airfare, presidential suite, all meals, day trips, and ecotours).

Some hotels offered low rates through packages put together with airlines.⁴² For example, the Grand Hotel (圓山大飯店) in Taipei offered Taiwanese attractive hotel-plus-airfare packages that ranged from NT\$3,088 to NT\$4,900, while the Grand Hotel Kaohsiung (高雄) in the south offered similar packages for four people at a price of around NT\$10,000.⁴³

⁴²Field interviews, May 2005.

⁴³See note 33 above.



Taiwan's Executive Yuan (行政院, the cabinet) called an emergency meeting on April 7 to discuss methods for helping Taiwan's tourism sector to tide over its financial difficulties triggered by the outbreak of SARS.⁴⁴ The emergency meeting, presided over by the minister of transport and communications and attended by officials from the Tourism Bureau and other cabinet-level agencies, including the Council for Economic Planning and Development, the Ministry of Finance, and the Council of Labor Affairs, was aimed at working out expedient contingency measures to help the domestic tourism industry, particularly travel agencies, at the time when SARS was scaring tourists away from mainland China. The China trade had been a major source of business for Taiwan travel agencies for the past few years. A rescue plan was announced on May 1 to bail out the faltering airline and travel industries, and a tax cut or tax exemption was being considered for some industries.⁴⁵ The vice chairwoman of the Council for Economic Planning and Development remarked that the Taiwan government had already reduced fees for local airlines and that would "cost the government almost NT\$2 billion in lost revenue."⁴⁶ The finance committee of the Legislative Yuan (立法院) also approved a proposal to stop local banks from cutting loans for industries in need of short-term financing during the SARS outbreak.⁴⁷

The CEO of an Internet employment agency reflected that SARS impacted hardest on the tourism industry, the aviation industry, and wholesale and retail businesses (in that order). Demand for labor in the tourism industry in the short term was worst hit: the number of vacancies they recorded fell from 8.63 percent in February to 6.32 percent in late March when SARS broke out, to a further 5.82 percent in mid-April—a 30 percent drop in one and a half month's time.⁴⁸ Yet, the aviation industry and the

⁴⁴"Taiwan Government Offers Help to Tourism Industry in Light of SARS," BBC, April 7, 2003.

⁴⁵*Zhongguo shibao* (China Times), April 15, 2003.

⁴⁶See note 33 above.

⁴⁷*Ibid.*

⁴⁸*Pacific News Taiwan*, April 25, 2003.



wholesale and retail sector, which are more capital-intensive, could endure the temporary economic setback and avoided massive retrenchment.⁴⁹ This could have accounted for the moderate fall in the overall demand for labor in the service sector's industries, with the biggest drop in the number of employees in the hotel and hospitality industry. It was natural that all hotels in Taiwan resorted to the tactic of frozen recruitment during the period of SARS. One personnel manager remarked that even the interns⁵⁰ were sent back to the universities; part-time workers, like chefs and service staff, normally recruited for big functions such as wedding banquets, were no longer required.⁵¹

To survive in such a turbulent environment, hotels in Taiwan resorted to various HRM measures to cut costs. We now go on to discuss these HRM implications, of changing labor demand and labor supply consequences, as noted above (see fig. 2). Compared with our earlier studies in Singapore⁵² and Hong Kong⁵³ on the same subject, Taiwan shares a flexible labor market with Hong Kong, as well as a paternalistic organizational culture.⁵⁴ Singapore's labor market, on the other hand, is more directly affected by government intervention.

In order to cut costs and sharpen competitiveness, job-sharing was common in the businesses affected. An employee of a travel agency reported that even though he and his colleagues were on duty on a rotational basis, not many of them thought of changing jobs because they were con-

⁴⁹Ibid.

⁵⁰Taiwan hotels have sponsored internship programs for local university hospitality schools for over ten years. Students serve two six-month periods of internship during their two-year study, earning about HK\$4,500 (around US\$600) per month, about 65 percent of the salary of regular staff.

⁵¹Field interviews, May 2005.

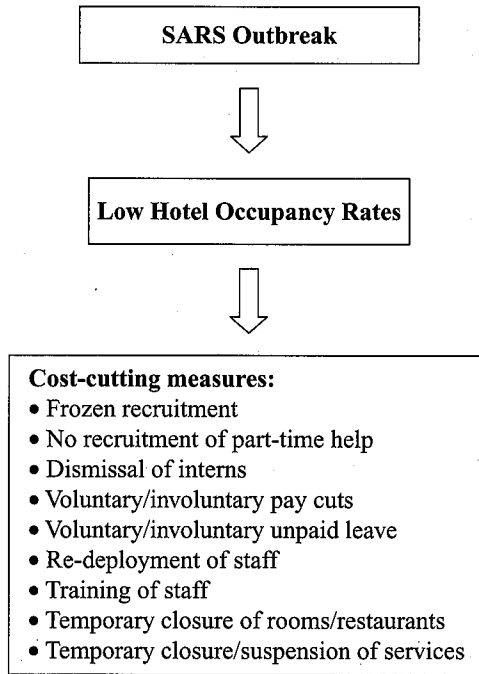
⁵²See Grace O.M. Lee and Malcolm Warner, "Epidemics, Labor Markets, and Unemployment: The Impact of SARS on Singapore," *Asia-Pacific Business Review* (forthcoming).

⁵³See Lee and Warner, "Epidemics, Labor Markets, and Unemployment" (cited in note 9 above).

⁵⁴See Y. Zhu, I. Chen, and Malcolm Warner, "HRM in Taiwan: An Empirical Case Study," *Human Resource Management Journal* 10, no. 4 (2000): 32-44; and Y. Zhu and Malcolm Warner, "Taiwanese Business Strategies vis-à-vis the Asian Financial Crisis," *Asia-Pacific Business Review* 7, no. 3 (2001): 139-56.

Figure 2

Cost-cutting HRM Measures Adopted by the Taiwan Hotel Industry



fidant that the crisis would someday be over,⁵⁵ some younger colleagues made use of the opportunity to upgrade their qualifications by taking professional examinations. On the other hand, a travel agency accountant contemplated looking for a part-time job at a convenience store as her half-pay at a rate of NT\$15,000 (around US\$500) per month was inadequate. To help relieve the pain, the Taiwan government embarked on a series of retraining initiatives in tourism, hotel, and leisure management. Employers could receive a subsidy worth up to 80 percent of training costs, capped at NT\$500,000.⁵⁶

⁵⁵Field interviews, May 2005.

⁵⁶*Taiwan ribao* (Taiwan Daily), April 28, 2003.



Table 3
Human Resources Responses of Major Hotels in Taiwan

Hotel A in Taipei (台北市)	All 744 staff received training.
Hotel B in Taipei	All 700 employees took involuntary unpaid leave of 12 days; all staff received training on the wearing of masks to prevent SARS.
Hotel C in Taipei	Annual leave was cleared; 120 out of 450 staff were re-deployed; one out of 8 restaurants was closed.
Hotel D in Taipei	All part-time employees were laid off for 3 months; other 333 staff took 2 days unpaid leave per month for 4 months; all staff received training on the nature of SARS and its prevention.
Hotel E in Taipei	All 228 employees took involuntary unpaid leave that ranged from 4 days to 10 days from April to July 2003 (4 days in April, 6 days in May, 10 days in June, 6 days in July).
Hotel F in Taipei	Hotel was closed for 3 months; all 200 staff were on unpaid leave.
Hotel G in Taichung (台中市)	All 200 employees were required to take 1 day unpaid leave per week, and 10% pay cut.
Hotel H in Ilan (宜蘭)	10% of part-time workers were laid off for 2 months; all other hotel operators in Ilan met to discuss pay cuts, but their operator did not cut staff salaries.
Hotel I in Ilan	All 110 staff were on unpaid leave of 4 days a week for 2 months; 50% of staff resigned.
Hotel J in Kaohsiung (高雄市)	All 325 employees took involuntary unpaid leave of 3 days a month from May to August 2003.
Hotel K in Hualien (花蓮)	All 120 employees were on unpaid leave for 2 to 3 days a month for 3 months.
Hotel L in Hualien	All 228 employees were on 2 days unpaid leave in May.

Sources: Self-administered questionnaires and field interviews, 2005.

At the organizational level, the HRM consequences were noteworthy although not unduly dire, as our questionnaires and on-site interviews revealed (see table 3).

Part-time workers were as usual the most vulnerable group as most hotels temporarily laid off all or part of their part-time workers when SARS

hit the hotel business. At the height of the outbreak, Hotel F, where one group of tourists from Hong Kong were kept for ten days' quarantine because a six-year-old child had a fever, actually closed down for several months, and all employees were put on unpaid leave. Most hotel employees were required to take an average of two to four days unpaid leave over up to four months from April to August 2003.⁵⁷ With certain exceptions, which we shall shortly see, it seemed that the smaller the hotel in Taipei (the worst-affected city in Taiwan) in terms of numbers of employees, the more drastic the human resources measures. For example, employees of the biggest hotel in our sample (Hotel A with 744 employees) took no action other than organizing training courses; in other bigger hotels in our survey (Hotels B and D that had 700 and 333 employees, respectively), employees were required to take up to twelve days unpaid leave, while a 228-employee hotel (Hotel E) made them take four to ten days of unpaid leave *per month* from April to July, peaking in June 2003. In other parts of Taiwan, a relatively small hotel with 110 employees in Ilan (宜蘭; Hotel I) made its staff take unpaid leave of as much as four days a week for two months. Another 200-employee hotel (Hotel G) introduced a 10 percent pay cut on top of the unpaid leave scheme of one day per week. Training on the nature of SARS and how to prevent it was held in few hotels, as one HR manager said that "people were too afraid of SARS to hold public meetings."⁵⁸

Most HR managers empathized with the income loss suffered by their employees but they opined that employees expressed a sense of helplessness and some were able to understand and accept the consequences that were brought about by the decline in business. As one HR manager, who declined to be named, succinctly put it, "No guests, no business and no income. The only way to survive, both for the hotel and the employee, was to cut down on expenses... It was no good complaining, as everyone knew the situation."⁵⁹

⁵⁷Field survey, April 2005.

⁵⁸Field interviews, May 2005.

⁵⁹Field interviews, May 2005.



Yet, there were exceptions. Fifty percent of the employees in Hotel I in Ilan protested against the policy of four-day unpaid leave per week for two months, and resigned.⁶⁰ On the other hand, the customer services manager of the relatively small, 41-employee Spring Resort (Hotel H) reported that the hotel's employees were not asked to take unpaid leave or a pay cut, even though other hotel operators in the district had met to discuss collective measures, because their CEO was benevolent. The hotel operator was of the view that the SARS crisis would not last and saw the decision not to introduce pay cuts as a kind of employment benefit. Thus, according to this respondent, employees in the resort did not suffer any loss of income because all the losses were absorbed by the boss.⁶¹ Income was drastically reduced but the laying off of a mere 10 percent of part-time employees for two months hardly made an impact on expenditure.

There were also rare cases of five-star hotels (Hotels A and C) forgoing retrenchment, unpaid leave, and pay cuts. According to the HR director of Hotel C, the hotel took several measures to cope with the situation as the room occupancy rate fell drastically from the normal 85 percent to 20 percent.⁶² First, at the beginning of the SARS outbreak, staff were required to use up their annual leave, and about 2,000 days of annual leave were taken; second, one Cantonese restaurant was closed and the redundant staff, twenty-two altogether, were absorbed by the remaining nine restaurants. The HR director confided that this tactic of re-deployment was not very effective in cutting costs as labor costs amounted to 25 percent to 30 percent of total hotel revenue. The "no retrenchment" policy reflected, to a certain extent, the influence of the national culture. Hotel C, though a franchise of a U.S.-based international hotel group, was managed by a Korean general manager of the group, described as a "family person" by the HR director. The Korean general manager was well aware of the fact that each "associate" (typical U.S. terminology for "employee") had a family

⁶⁰Field survey, April 2005.

⁶¹Field survey, April 2005.

⁶²Field interviews, May 2005.



to support and any retrenchment would adversely affect a large number of families.⁶³

Hence the hotel came up with a promotional package in collaboration with a credit card company. About one-third of its workforce received two days' training before being re-deployed to sell the hotel-credit card package. Every new card applicant would get discounts on dining at the hotel. For this, the hotel received a commission of NT\$2,500, equivalent of a night's room revenue, for each new credit card issued. The 126-strong sales force was drawn from various departments including the front office, housekeeping, and reservations. In this way, all employees could keep drawing their monthly salaries.

As the promotional packages aiming at local Taiwanese became very popular, the room occupancy rate rocketed from 20 percent to 95 percent in the first two months of their introduction.⁶⁴ With one-third of the hotel's regular employees re-deployed to selling credit cards, senior management staff from various departments such as finance, human resources, and engineering had to help with the increase in demand for service staff. The senior managerial staff were required, on top of their normal duties, to clear tables in the buffet restaurant during breakfast, lunch, and dinner, starting from 7 o'clock in the morning. These senior staff could only leave the hotel at around 8 or 9 o'clock in the evenings. Even the general manager and the HR director served at the reservation desk so that the hotel could "survive as a team."⁶⁵ Thus, it seems that the senior staff were victimized by being forced to work longer hours in heavier and more menial jobs, while only drawing their regular salaries.

According to the HR director, there were pros and cons in the arrangements. On the one hand, he said, it provided an excellent example to other

⁶³This culture of "paternalistic benevolence" was also reflected in practices such as annual staff outings, both local and overseas, sponsored by the welfare committee of the hotel, funded by a 5 percent monthly contribution from the employees and 5 percent of the total monthly revenue of the hotel; a year-end party with a prize lottery; and hotel gift vouchers for employees to dine with their families. Field interviews, May 2005.

⁶⁴Field interviews, May 2005.

⁶⁵Field interviews, May 2005.

"associates" as they were "inspired" by the effective managerial skills, and became "closer" to the senior staff.⁶⁶ On the other hand, it provoked complaints from managerial staff, and serious complaints were raised when the hotel contemplated introducing involuntary unpaid leave (three days a month for managers, five days for directors, and seven days for the general manager) in July and August 2003 when the number of local visitors dwindled as a result of the cutthroat competition created by the introduction of different hotel packages.

To make matters worse, complaints were also raised by many employees who had been re-deployed to selling credit cards.⁶⁷ Hotel management was puzzled by these complaints as the sales staff could earn commission of NT\$500 per new credit card application on top of their salaries and they had a lighter workload compared to the managers' long hours working in the buffet restaurant. The HR director reported that most sales staff could reach the monthly target of twenty-five credit card applications early in the month, as some could sell up to five applications per day. However, the re-deployed staff found it a "humiliating" experience approaching strangers and "begging" for credit card applications.⁶⁸ The difference in perception suggested a breakdown in communication between staff and management. What seemed to be a win-win approach had a price to pay. Some staff actually complained to the Labor Bureau⁶⁹ which, according to the HR director, was very "protective" of the workers. The Labor Bureau issued a memo to the hotel and held a meeting with the hotel management to ask for evidence of communication and employee consent to re-deployment.

As a matter of fact, as reported by the HR director, heads of different departments had been asked to draw up a list of staff suitable for marketing.

⁶⁶Field interviews, May 2005.

⁶⁷Field interviews, May 2005.

⁶⁸Field interviews, May 2005.

⁶⁹Industry-wide hotel unions were not popular among hotel employees, although all but one Taiwan government-owned hotel has a trade union affiliated to the hotel; accordingly, hotel employees resorted to seeking help from the state. Field interviews, May 2005.

It was later discovered that the list was made up of "associates" who were on leave, and they were then asked to report for duty at the marketing department upon their return to work. Although the re-deployed staff had signed consent forms and did not express their objections during the two-day training, they found the job very "humiliating" when they were actually working on the streets, and wanted to resume their normal duties, but failed. In the end, the case was closed by the Labor Bureau, but was referred to the Labor Inspection Unit for monitoring for another month. The HR director reflected upon the experience and lamented that better communication with the "associates" was essential, as instances and rumors of pay cuts and unpaid leave prevalent in the hotel industry led to a "breach of trust" in labor relations.⁷⁰

Conclusion

Although we regard our findings as tentative, we can conclude that the impact of SARS on the Taiwan economy and specifically on human resources in the service sector may be seen as a matter of concern in the time period in question. Both the quantitative and the qualitative data we have gathered point in this direction, although we must be cautious about over-generalizing. We have placed many caveats regarding our study in the body of the article and we are aware of the limitations of our investigation.

Despite these problems, however, the Taiwanese economy proved to be highly resilient, and the industry and the government were soon able to come up with new promotions. Learning that Taiwan had been removed from the WHO travel advisory list on June 17, the Tourism Bureau organized a three-day festival to kick off an international campaign to lure back foreign visitors.⁷¹ The Taiwanese economy, given its market-oriented

⁷⁰Field interviews, May 2005.

⁷¹See *The China Post*, June 18, 2003. Altogether NT\$2 million worth of dinner coupons were distributed at the festival, 10,000 cans of beer were provided by the Taiwan Tobacco and Liquor Company, while 200 discounted airline tickets were offered as raffle prizes.

flexibility, fortunately recovered fairly quickly. The aviation and tourism sectors did in fact soon experience a tangible rebound after the end of the SARS outbreak.

As the economy revived by mid-2003,⁷² it was thought that recovery in service-sector jobs, above all in hotel and hospitality industries, both in low and high value-added products and services, would compensate for earlier job losses. The SARS epidemic of early and mid-2003 was no doubt a sharp reminder to Hong Kong, Singapore, and Taiwan, all *Nanyang* (南洋) city-state economies, of their economic vulnerability and their reliance on tourism to generate both revenue and jobs. The Tourism Bureau director remarked that Taiwan had "lost at least US\$350 million in tourism revenue" in May and June 2003 because of the SARS outbreak.⁷³ The case of China

The government spent NT\$300 million (around US\$8.7 million) on promotional activities targeting visitors from Hong Kong, Japan, Europe, the United States, New Zealand, Australia, and other Southeast Asian countries, including Singapore and Malaysia. The government and private tourist agencies organized a delegation to five major cities in Japan, including Tokyo and Osaka, to exchange views with travel agents on how to promote tourism in Taiwan. The Tourism Bureau invited 3,000 travel agents from the targeted countries to "experience safe travel to Taiwan." Prize draws were held in Japan which gave 1,000 Japanese the chance to visit Taiwan for free; cheap sightseeing packages were also offered to 5,000 Japanese. A HK\$999 (around US\$128) three-day, two-night package was offered for Hong Kong people, while cheap tours were also available for Southeast Asians. Beginning from July 1, foreign passengers arriving at Taipei were given a half-day city tour free of charge; an overnight stay cost only 49 Euros. The Taipei Food Festival took place from August to September 2003, and the Taiwan Visitors Association sent delegates to a series of meetings abroad to promote travel to Taiwan.

⁷²See "Affected Industries Experience Boost in Wake of SARS," *Taipei Times*, July 13, 2003. The Council for Economic Planning and Development officials said that the aviation industry showed an obvious rebound, with the cancellation rate on international flights dropping to 20 percent in the first week of July 2003, compared with a high of 50 percent in early June. Although the number of passengers on international flights in the first week of July was down 33 percent compared with the same period the previous year, it marked an improvement over May, when the figure was down 82 percent over the same period in 2002. Although the number of passengers on domestic flights in May was down 55 percent, it was up 4 percent in the first week of July over the previous year's figure. Meanwhile, the entertainment and tourism sectors also saw a rebound. Ticket sales at Taipei theaters in June were up 57 percent over May, while the average occupancy rate at hotels in the second part of June was 51 percent as compared to 22 percent in May. At Taiwan's various scenic spots, the number of tourists decreased by 62 percent in May, but showed a growth of 24 percent in June. The council officials reported that the number of travel agencies remained steady, while the number of staff continued to decrease, though the level of decrease had slowed down.

⁷³See note 32 above.

Table 4
Economic and Social Indicators Comparing 2003 and 2004

Indicators	2003	2004
Economic growth rate (%)	3.33	5.71
GDP (100 million, US\$)	2,860	3,054
Per capita GDP		
US\$	12,715	13,529
NT\$	437,638	452,168
Employed persons	957,000	979,000
Unemployed persons	503,000	454,000
Unemployment rate (%)	4.99	4.44
Annual rate of inbound departure of nationals (%)	-24.5	31.2
Annual rate of outbound departure of nationals (%)	-19.9	31.4
Annual rate of visitors to the principal scenic spots (%)	15.7	15.1
Annual changes of tax revenue (%)	2.2	10.5
Tax revenue/GDP (%)	12.7	13.6
Stock price index (average)	5,162	6,034

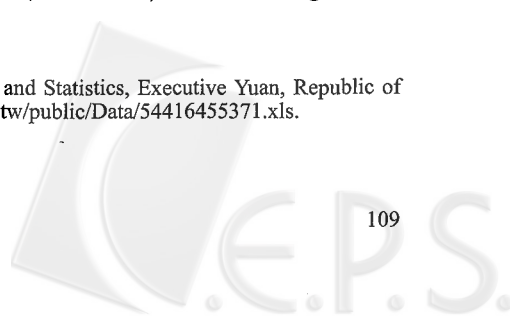
Source: Directorate-General of Budget, Accounting, and Statistics, Executive Yuan, Republic of China, March 29, 2005. <http://eng.dgbas.gov.tw/public/Data/54416455371.xls>.

was somewhat different, given the lower weighting of the service sector in that economy. Today, there is less of a major "crisis of confidence" but spirits remain low as the economy recovers, with the labor market still remaining "fragile."

The growth rate of the Taiwan economy surged by 71.5 percent from 3.33 percent in 2003 to 5.71 percent in 2004, while GDP per capita rose from US\$12,715 in 2003 to US\$13,529 in 2004.⁷⁴ Tourism helped the economy recover; the total number of visitor arrivals jumped from 2.24 million in 2003 to 2.95 million in 2004. Total officially registered employment rose by 22,000, from 957,000 in 2003 to 979,000 in 2004; total officially registered unemployment dropped from 503,000 in 2003 to 454,000 in 2004; the government's jobless rate also fell from 4.99 percent to 4.44 percent from 2003 to 2004 (see table 4).⁷⁵ The average stock

⁷⁴Directorate-General of Budget, Accounting, and Statistics, Executive Yuan, Republic of China, March 29, 2005, <http://eng.dgbas.gov.tw/public/Data/54416455371.xls>.

⁷⁵Ibid.



market index jumped from 5,162 in 2003 to 6,034 in 2004; the annual increase in tax revenue also surged from 2.2 percent in 2003 to 10.5 percent 2004.

Yet a note of caution must be signaled here: it is clear that if the crisis brought about discernable economic losses at the time, there were also clearly negative direct consequences for many employees, particularly part-time workers, in the wide range of firms affected at the time. It is also clear that there was observable damage to "trust" in labor-management relations, as was seen in both the Hong Kong and Singapore experiences of SARS, some of it very visible but in some other cases less so and more subtle in its impact. As can be seen from this study, the HRM evidence is mixed. Many employees in our Taiwan study, for example, thought that they had been made to lose "face." Even managers in some instances said they felt that their treatment had been "cynical." Perceptions such as the above may have indirect consequences in terms of HRM implications that in their turn do not help to reinforce a positive workplace climate and their ultimate impact may be hard to predict.

BIBLIOGRAPHY

- Belau, Dirk. 2003. "New Threats to Employment in the Travel and Tourism Industry—2003." ILO Report, Geneva: ILO.
- Dennis, W., et al. 2003. "Taking off with Discounts." *Aviation Week & Space Technology* 159, no. 3 (July 21): 22-24.
- Esswein, E. J., et al. 2004. "Environmental and Occupational Health Response to SARS, Taiwan." July. <http://www.cdc.gov/ncidod/EID/vol10no7/03-0728.htm>.
- Eyton, Laurence. 2003. "SARS: Taiwan's WHO Bid Nothing to Sneeze at." *Asia Times*, May 3.
- Haacker, Marcus. 2002. "The Economic Consequences of HIV/AIDS in South Africa." IMF Working Paper, WP/02/38.
- Hsu, L., et al. 2003. "Severe Acute Respiratory Syndrome (SARS) in Singapore: Clinical Features of Index Patient and Initial Contacts." *Emerging Infectious Diseases*

Disease 9, no. 6:713-17.

- Lee, Grace O. M., and Malcolm Warner. 2005. "Epidemics, Labor Markets, and Unemployment: The Impact of SARS on Human Resources Management in the Hong Kong Hotel Industry." *International Journal of Human Resource Management* 16, no. 5 (May): 752-71.
- _____. 2005. "Epidemics, Labor Markets, and Unemployment: The Impact of SARS on Singapore." *Asia-Pacific Business Review* (forthcoming).
- Lee, Jong-Wha, and Warwick J. McKibbin. 2003. "Globalization and Disease: The Case of SARS." Paper presented at the Asian Economic Panel Meeting, Tokyo, May.
- Lee, M. L., et al. 2003. "Severe Acute Respiratory Syndrome—Taiwan, 2003." *Morbidity and Mortality Weekly Report* 52, no. 20 (May 23): 461-64.
- Poutanen, S. M., et al. 2003. "Identification of Severe Acute Respiratory Syndrome in Canada." *New England Journal of Medicine* 348, no. 20:1995-2005.
- Rigger, Shelley. 2004. "Taiwan in 2003: Plenty of Clouds, Few Silver Linings." *Asian Survey* 44, no. 1:182-78.
- Taylor, Michael. 2003. "SARS: Taiwan Thinks the Unthinkable." *Asia Times*, May 20.
- World Health Organization (WHO). 2003. "Outbreak of Severe Acute Respiratory Syndrome—Worldwide, 2003." *Morbidity and Mortality Weekly Report* 52, no. 11 (March 21): 226-28.
- _____. 2003. "Summary Table of SARS Cases by Country, 1 November 2002–7 August 2003." http://www.who.int/csr/sars/country/en/country/2003_08_15.pdf.
- Zhu, Y., I. Chen, and Malcolm Warner. 2001. "HRM in Taiwan: An Empirical Case Study." *Human Resource Management Journal* 10, no. 4: 32-44.
- Zhu, Y., and Malcolm Warner. 2000. "Taiwanese Business Strategies vis-à-vis the Asian Financial Crisis." *Asia-Pacific Business Review* 7, no. 3:139-56.

