

**THE ECONOMIC COST OF MARCH 11:  
MEASURING THE DIRECT ECONOMIC COST OF THE  
TERRORIST ATTACK ON MARCH 11, 2004 IN MADRID**

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# **THE ECONOMIC COST OF MARCH 11: Measuring the direct economic cost of the terrorist attack on March 11, 2004 in Madrid.**

**MIKEL BUESA, AURELIA VALIÑO, JOOST HEIJS, THOMAS BAUMERT  
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## ***ABSTRACT***

This paper measures the direct costs that the terrorist attacks of March 11 caused on the economy of the region of Madrid. The evaluation has been made applying a conservative criterion, and the results obtained have to be considered as *minimum*. The result indicates that the terrorist attacks caused a loss of nearly 212 million euros to the regional economy of Madrid, equivalent to 0,16 per cent of the regional GDP (0,03 of the national GDP). This confirms that the immediate economic dimension of a terrorist attack such as the one of March 11 —apart from human catastrophic consequences— is relatively low.

**Keywords:** Terrorism, Costs of Terrorism, Terrorist Attacks March 11, Region of Madrid

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working paper by the same authors “Evaluación del coste directo de los atentados terroristas del 11 M para la economía de la Comunidad de Madrid”, Working paper n°51 in <http://www.ucm.es/bucm/cee/iaif>.

## 1. INTRODUCTION

At 7:39 a.m. of March 11, 2004, and without any previous warning, in the middle of the rush hour, three backpacks exploded in a suburban train entering the *Atocha* Railway Station of Madrid. Another four exploded in a convoy that was circulating near *Atocha* Station. Simultaneously, one more exploded in a train standing at the *Santa Eugenia* Station—one of Madrid's East districts— while two more exploded inside the Station of *El Pozo del Tío Raimundo*, located in the southeast of Madrid. First estimations given by the experts on explosives of the national security forces indicated that the terrorists had planted between thirteen and fifteen bombs in order to commit the cruellest and most devastating terrorist attack in the history of Spain.<sup>1</sup>

Immediately after the attacks, the emergency services started to work. The Madrid Metro and *Atocha* Station were closed to the citizens and the first wounded were treated in the field hospitals that were put to use in the areas surrounding the places of the explosions.

At the beginning, the injured were transferred in ambulances, buses, police cars and private vehicles to the main hospitals of Madrid (*Gregorio Marañón*, 12<sup>th</sup> of October, *La Paz* and *La Princesa*) which, according to the Emergency Plan coordinated by the 112 emergency service, evacuated the slightly injured to their homes, in order to avoid a collapse.

The citizens responded in an excellent way to the calls of the health services asking for blood donations. At the last hours of the morning it was no longer necessary, in spite of the incessant activity of all the hospitals of Madrid. The dead were taken to the Pavilion number 6 of IFEMA (one of Madrid's Trade Fair sites), where a group of forensic surgeons was in charge of identifying the corpses. In total, 191 people lost their life and more than 1.500 were injured.

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<sup>1</sup> A detailed description of the attacks of March 11 is to be found in the works of E. de Diego, *Días de Infamia*, (Madrid; Letras Libres 2004); C. García Abadillo, *11-M, La venganza*, (Madrid; La Esfera de los Libros 2004) and C. Álvarez de Toledo, *4 días de marzo*, (Barcelona; Ed. Planeta 2004). With analytically larger claims about the Islamic terrorist phenomenon and its incidence in the case that centres our attention here, see the works of F. Reinares y A. Elorza, *El Nuevo terrorismo islamista*, (Madrid, Temas de Hoy 2004) and A. Blanco, R. del Águila and J.M. Sabucedo, *Madrid 11-M. Un análisis del mal y sus consecuencias*, (Madrid; Trotta 2005). On the internal political context and the reactions of Spanish society to the attacks, see the interesting contribution of E. Uriarte, *Terrorismo y democracia tras el 11-M*, (Madrid; Espasa 2004). On the solidarity with the victims, it is important to make reference to the work F. Benzo, *Héroes inesperados. La otra cara del 11-M*, (Madrid; Temas de hoy 2004).

Spain had been suffering terrorist attacks from different organizations from 1968 onwards,<sup>2</sup> but those perpetrated on March 11, by a group of islamistic terrorists,<sup>3</sup> were the cruellest and most devastating up to that time.

In recent years, terrorism has become one of mankind's biggest threats. Globalisation has put many countries within the transnational, and even international,<sup>4</sup> terrorists' reach. National borders do not present nearly impassable barriers any longer. The threat has extended, becoming a general one and, as has been proven by the most recent attacks, has steadily increased its scale.

The costs derived from this sort of attack have an immediate manifestation in the destruction of human lives, of infrastructures and of other tangible assets, as well as in the efforts that its society must realize to palliate the effects of the violence. In general, these costs, even when the attacks are of great dimension, tend not to be very significant in terms of the size of the attacked economy. But if terrorism persists, the indirect costs to be registered can be very important.

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<sup>2</sup> From 1968 onwards, when ETA began to carry out terrorist attacks, the balance of mortal victims of this organization reaches in total a number of more than 800, among them Guardias Civiles, National Police and civil victims.

<sup>3</sup> Nevertheless, it was not the first Islamic attack perpetrated in Madrid. On April 12, 1985, Madrid had suffered an attack claimed by Islamic Yihad. It was carried out in the restaurant El Recreo, frequented by Americans, with the result of 18 dead (all Spaniards) and 84 wounded, of which 11 were American citizens.

<sup>4</sup> The economic literature on terrorism defines *International or Transnational Terrorism* as an attack carried out in a country that affects victims, objectives, institutions, governments or citizens of another country or either gives rise to consequences of costs and benefits on people and properties in other countries. But, occasionally, it is necessary to specify a little more. Fernando Reinares considers that, although *International and Transnational Terrorism* are often confused, the latter includes the former, but not the other way around. According to this author, *Transnational Terrorism* is characterized by the fact that "those who carry it out maintain organizational structures or develop activities in more than one country". Nevertheless, it seems difficult nowadays to keep a terrorist structure of solely domestic character. See also Fernando Reinares, 'Conceptualizando el terrorismo internacional', Análisis Real Instituto Elcano, 2005.

On the other hand, *International Terrorism* differs from the previous type because "it is practiced with the deliberate intention of affecting the structure and distribution of power in whole areas of the planet or even on a worldwide scale". This second group includes the attacks in Madrid on March 11, 2004, those of September 11, 2001 in New York, those of October 12, 2002 in Bali, and the most recent ones of July 2005 in London.

This differentiation is especially important in the case of Spain, as, although it has a long experience in attacks of a *transnational* character, and devoted a large amount of resources to counteracting it, the unexpected attack of March 11 and its *international* character, has led it to review the defence and antiterrorist policies, now also focusing on the external threat. On the economic consequences of the terrorist attacks of ETA, see: A. Abadie and J. Gardeazabal, 'The economic costs of conflict: a case control study for the Basque country', NBR Working Paper, 8478, 2001, M. Buesa (dir.), Economía de la secesión. El proyecto nacionalista y el País Vasco, (Madrid; Instituto de Estudios Fiscales 2004), W. Enders and T. Sandler, 'Causality between Transnational Terrorism on tourism: the case of Spain', Tourism, 14 (1), 1991, pp. 49-58 and W. Enders and T. Sandler, 'Terrorism and Foreign Direct Investment in Spain and Greece', Kyklos, 49 (3), 1996, pp. 331-352.

For the purposes of our analysis, we have differentiated between short term costs and costs in the medium and long term,<sup>5</sup> dividing these again into direct and indirect costs. Therefore in the present study on the economic consequences of March 11, we have distinguished the following main aspects:

1) Short term costs:

a) Direct Costs: they include the costs that are an immediate consequence of the attacks and result from the loss of human lives and the attendance of the injured; loss of property (buildings, infrastructures, etc) and possessions (furniture, vehicles, transportation equipment); costs of care and immediate security after the attack (firemen and police); costs of removing the debris; costs of immediate psychological help to the survivors of the attack and the families of the victims, losses due to pauses or delays in the economic activities affected directly or indirectly by the attacks.

b) Indirect costs: they are the costs that correspond to the short term damage inflicted on productive activity, such as losses in tourism due to the fear of new attacks, with losses in hotel occupation, in the use of such services as shows, restaurants, etc. This would also include the costs stemming from uncertainty in the behaviour of the consumers and the investors and the effects of restriction in specific or local industries mentioned by Saxton (2002).

2) Medium and long term:

a) The only direct costs in the medium or long term that may result from the attacks are those of the rehabilitation of the affected areas, given that they indeed have this dimension. For example, in the case of the September 11 the costs derived from the new design of the “ground zero” and the work on construction of the new buildings could be viewed as long term. Direct long term costs would also include the costs involved in helping to the relatives of the victims if they are established in the form of payment of salaries of life-long help, or the disability pensions for injured survivors.

b) Most are indirect costs. These include the costs of the re-routing of the tourism permanently toward other areas (for example if they do not recover the levels and trend of the tourism before the attack). They also include most of the costs pointed out by Frey

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<sup>5</sup> By doing so, we follow an approach similar to that of J. Saxton, *The economic costs of terrorism*, (Washington DC, Joint Economic Committee 2002), who considers the following short term costs: (1) Immediate loss of human and non-human capital; (2) Effects of uncertainty on the behaviour of the consumers and investors; (3) Effects of restriction on specific or local industries.

These are completed by following long term costs: (1) increased costs of security; (2) Displacement of productive activity caused by the increased budget destined to fight terrorism; (3) Other long term costs derived from the permanent threat, such as anxiety, stress, etc. [Cfr. Also B. Frey, S. Luechinger, A. Stutzer, ‘Calculating tragedy: assessing the costs of terrorism’, CESifo Working Paper, 1341, 2004.]

et al. (2004) such as re-routing of direct foreign investment, the decrease of consumption, a general reduction in investment, increased security expenditures, reduction of economic growth, and reduction of foreign transactions and lags in productive activity due to higher safety measures. They also include the long term ones mentioned by Saxton (2002): increased security costs, rise in costs for the antiterrorist fight, and costs derived from the sensation of permanent threat.

The valuation of all these costs presents some problems, especially in those cases that refer to changes in the economic activity and, in general, to the long term costs which other facts or events may involve. Saxton (2002), when evaluating the costs derived from September 11 highlights three main obstacles:

- 1) Measurement problems: The most important forms of long term costs are frequently the most complicated to value. Frictions, inefficiencies or costs of transactions, for example, are important but difficult to quantify.
- 2) Particular aspects of the macroeconomic costs of terrorism: Another reason to treat the obtained results with caution is that the estimations can be partial, due to the fact that aspects associated with the new forms of terrorism cannot be included in the cost evaluation of “traditional” terrorism, e.g. the costs of prevention of nuclear or biological terrorism.
- 3) Characteristics of terrorist behaviour: Terrorism differs from other series of disasters in the fact that the terrorist organizations act with a certain “rationality”. When the controls or institutions raise the costs, making the use of violence in political action more difficult, the terrorists will change quickly to another, less expensive form, of causing damage.

In synthesis, we observe that in spite of the uncertainty that surrounds the economic valuation of the terrorist attacks, there is a valuable and considerable effect as far as macroeconomic aspects, are concerned mainly in important sectors for the economy like those ones previously mentioned.

For the valuation of the September 11 attack in New York several studies have been carried out,<sup>6</sup> which, nevertheless, are difficult to compare, according to the very

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<sup>6</sup> This fact is pointed out by the General Accounting Office, Impact of Terrorist Attacks on the World Trade Center, (Washington, DC; GAO 2002) and Saxton (2002). From the important list of publications referring to the consequences of September 11, we may pick out the following: New York City Office of the Comptroller, ‘The impact of the September 11 WTC Attack on NYC’s Economy and City Revenues’, October 4, 2001; J. Bram, J. Orr, C. Rapaport, ‘Measuring the Effects of the September 11 Attack on New York City’, FRBNY Economic Policy Review, November 2002; Fiscal Policy Institute, The Employment Impact of the September 11 World Trade Center Attacks: Updated Estimates Based on the Benchmarked Employment Data, (New York; FPI 2001); Fiscal Policy Institute, World Trade Center Job Impacts Take a Heavy Toll on Low Wage Workers (New York; FPI 2001); International Monetary Fund, World Economic Outlook – The Global Economy After September 11, (City; IMF 2001);



same experts that have analyzed them. Some of the comparison problems come from the different level of analysis (local, state or national consequences),<sup>7</sup> or of the estimation of only certain categories of losses; others, because of the absence of an explanation of the methodology followed, and some may fall into the error of doubling the costs.

In the specific case that centres our attention, the evaluation of the direct costs caused by the attacks of 11 M on the economy of the Region of Madrid, we have kept in mind the following aspects:

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Milken Institute, The impact of September 11 on U.S. Metropolitan Economies, (Santa Monica, Milken Institute 2002); 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, (New York; October 9, 2001); New York City Partnership and Chamber of Commerce, Economic Impact of the September 11th Attack on New York City, (New York; November 2001; rev. February 11, 2002); New York State Assembly Ways and Means Committee Staff, New York State Economic Report, (New York; March 2002); New York State Senate Finance Committee Staff, ‘Financial Impact of the World Trade Center Impact’, prepared by DRI-WEFA, January 2002; OECD, ‘Economic Consequences of Terrorism’, OECD Economic Outlook, June 2002 and OECD, The impact of the terrorist attacks of 11 September 2001 on international trading and transport activities, (Paris, Working Party of trade Committee, TD/TC/WP(2002) 9/FINAL, March 2002). These studies mainly take into account the following costs: *Direct costs*: Human lives; Property loss: buildings, business fixtures, computer equipment, phone and power utilities, subway stations, plans, 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. *Indirect costs*: Lost employee income and business profits associated with firms closed or cut back, temporarily or permanently, because office space and infrastructure were destroyed or damaged; Lost employee income and business profits associated with other firms that depend on those that closed or cut back; Spending reductions from other income losses triggered by the firms that closed or cut back; Fiscal impacts such as reduced tax revenues; and Delays to travellers and commuters. Academic studies have also been carried out, although, especially in the valuation of the immediate and direct costs, they take references of the “official” studies. As for example: G. Becker and K. Murphy, ‘Prosperity Hill Rise Out of the Ashes’, Wall Street Journal, October 29, 2001; P.Lenain, M. Bonturi and V. Koen, ‘The Economic Consequences of Terrorism’, OECD Economic Department Working Paper, ECO/WKP 20, 2002; P. Navarro and A. Spencer, ‘September 11, 2001: Assessing the Costs of Terrorism’, Milken Institute Review, Fourth Quarter 2001; C. Rubin and I. Renda-Tanali, The Terrorist Attacks on September 11, 2001: Immediate Impacts and their Ramifications for Federal Emergency Management, Quick Response Report # 140 (University of Colorado; Colorado Natural Hazards Research and Applications Information Center 2001) and S. Wesbury, ‘September 11: One Year Later’. The Economic Cost of Terrorism, International Information Programs Electronic Journal, 2002.

<sup>7</sup> One of the aspects that differentiates the conclusions of the studies according to their geographical scope of analysis, lies in the appraisal of the employment losses, since some were lost definitively, while others were relocated in other areas outside New York.

- 1) The cost of the rescue and initial attention for the victims of the attacks.
- 2) The health cost of attention for the injured by Madrid's hospital network.
- 3) The cost of the human lives lost and of the injuries inflicted on the injured, considering the value of the compensation to be received by them.
- 4) The loss of wages imputable to people that were injured in the attacks.
- 5) The damages caused in the rail infrastructure, the rolling stock and in the houses that were damaged by the effect of the explosions.
- 6) The cost of usage of the infrastructure available for the identification of the mortal victims and the attention to their relatives.
- 7) The cost of the services of psychological attention created immediately after the attacks, together with those that have operated afterwards.
- 8) And, finally, the opportunity cost which the citizens incurred in order to express their solidarity with the victims the day after the attacks.

The evaluation of the direct costs imputable to the 11-M has taken place taking into account four main aspects: number of victims (dead and injured), number of people mobilized in tasks of service to the victims, material resources employed in these tasks such as vehicles and facilities and the inventory of damages to rail infrastructures and housings.

For quantifying these variables we have two sources of information: journalistic—containing data referring to the biographies of the victims, to the events and the perceptions of the agents— and official ones—of the municipal, regional, national and professional institutions— whose data have been served mainly by the press offices. These sources have been supplemented with the carrying out of personal interviews with those responsible for the services involved.

The evaluation of the personal damages, carried out in terms of compensations, has been made taking into account the scales settled down by the Ministry of the Interior in accordance with the Law 32/1999 of Solidarity with the Victims of Terrorism and the Law 13/1996 of Fiscal, Administrative Measures and of the Social Order, of the Region of Madrid for the specific regulation of the same question, and to the Insurance Claims Department for the mandatory insurance of travellers. Also, regarding the personal biographies of the victims and the available data on the injured, we have settled a complementary valuation in terms of losses of human capital, following the habitual models in this kind of studies.

On the other hand, the attention to the victims—mainly health and psychological— has been evaluated in terms of applying the standardized rates of the hospital and health system of Madrid, supplementing these data with the budgetary valuation of the newly-created service of psychological care.

Concerning the property damages, we have used the information on the queries presented in the Insurance Claims Department and in the Ministry of the Interior, together with the data provided by the City Council of Madrid. The information has been used on the queries presented in the Insurance Claims Department and in the Ministry of the Interior, as well as the data provided by the City Council of Madrid. Finally the valuation of the other services —mainly the ones stemming from the police and sanitary mobilization for the rescue and the initial attention of the victims, including the identification tasks and the funeral services— has been carried out taking into account the available data on the mobilized resources, their temporary duration, and the wages and other items budgeted for the corresponding institutions. In this respect, the only excluded concept, due to the lack of data, is the one referring to the mobilization of the national police during the hours immediately following the attacks.

The figures obtained have been valued in comparative terms with regard to the size of the regional economy of Madrid and to the Spanish economy, as well as with regard to other terrorist events for which similar valuations were available —mainly the September 11 in the United States—.

## **2. RESCUE AND THE INITIAL ATTENTION OF THE VICTIMS OF THE ATTACKS**

Just a few minutes after the attacks took place, still in the midst of the initial confusion that this type of events produces and under an unprecedented mobilisation, all available resources in Madrid to attend the victims were put into action. The apparatus of civil protection, the municipal and regional services, the national police and numerous voluntaries, including, in a special way, those coordinated by the College of Psychologists started the task of rescuing the injured travellers, attending and transferring them to the hospital's emergency services; of removing the corpses, to transport them to the morgue set up in the IFEMA installations (one of Madrid's trade fair sites) and to proceed to their identification; and to the one of giving comfort, psychological care and accompaniment to the thousands of families of the affected ones. In this section we evaluate the costs of this mobilization, but no assessment is made of the part corresponding to the psychological care. That is analyzed later on, although without taking into consideration, due to the lack of data, the amount corresponding to the police forces of the State and to the work carried out by the citizens who, without being enlisted as volunteers in the services of civil protection, and impelled by a feeling of solidarity, helped in the rescue tasks.

The quantifying of the number of agents of the municipal police, Emergency Health Services, firemen and funeral services, of clean-up and social workers is based on the data published by the City Council of Madrid in their balance-sheet of the management of the March 11, and in the information broadcast by the media that, generally, are based on the documents cited.<sup>8</sup> In total, as we show in table 1 slightly more than 5,000 people participated in the municipal apparatus.

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<sup>8</sup> See also SAMUR-Protección Civil, Clave 20, Revista interna del SAMUR-Protección Civil "Villa de Madrid", (Madrid; June 2004).

For the evaluation of the attributable cost to this apparatus we have established first, two categories of employment depending on their salary, considering as high level employments those corresponding to professional health workers, firemen, social workers, psychologists and educators, and as half-level employments the remaining ones. Disaggregating in this way the group of mobilized people, we have charged to those of the lower category a cost of 16.4 euros/hour—and double that figure to those of the higher group— considering in both cases a working time of 20 hours, given the duration of the tasks carried out. These figures correspond to the estimation of the mean salary cost in the service sector of the Community of Madrid, for the first trimester of 2004, according to the Quarterly Survey of Labour Costs elaborated by the National Statistical Office (INE). Its amount for each income level is confirmed by the data available on the remuneration of the police corps provided by the Police Federal Union and by those provided by the Firemen-Corps of the City Council of Madrid. The results obtained, which are reflected in table 1 allows us to estimate the cost after mobilizing staff at rather more than 1.95 million euros.

On the other hand, in the different rescue tasks 1,213 municipal vehicles were used. For the valuation of this use, a standardized cost of 70 euros per day and vehicle considering the different types of vehicles used, their equipment and their operational lifetime. Keeping in mind that the mentioned tasks lasted for two days, the result that is shown in table 1 gives a total cost of nearly 0.17 million euros.

Finally, we have considered the cost of the legal processes requiring that a judge must authorize the removal of a corpse from the scene of an accident and its transfer to the morgue, according to the 2004 rates of *Funespaña*—a Spanish group of companies specializing in funeral services, which includes the Combined Company of Funeral Services of Madrid, who were responsible for carrying out the task—. The result throws up a figure of 0.05 million euros.

Summing up, the rescue activities and initial attention for the victims of the attacks of the March 11 accounted for something more than 2.17 million euros. Nevertheless it should be noted, that this figure has to be considered as a minimum, because it has not been possible to obtain data of the mobilization of the national police, nor on the civilians that participated in them voluntarily.

*Table 1: Valuation of the costs of the services of rescue and initial attention for the victims of the attacks of March 11.*

<i>Mobilized persons (excluding National Police) and vehicles</i>	<i>Number</i>	<i>Standard cost (€)</i>	<i>Estimated cost (€)</i>
Municipal police	2,488		
SAMUR-Health professionals*	215		
SAMUR-Health volunteers	330		
Firemen*	259		
Volunteer firemen	50		
Funeral services	540		
Urban clearing services	120		

<i>Social services:</i>			
Social workers*	260		
Psychologists*	150		
Educators*	60		
Intercultural mediators	35		
Auxiliaries	20		
Administrative	28		
Volunteers	460		
<i>Distribution by income level:</i>			
High income (*)	944	656	619,264
Mean income (rest)	4,071	328	1,335,288
<b>TOTAL</b>	<b>5,015</b>		<b>1,954,552</b>
Vehicles - Municipal Police	942		
Vehicles - SAMUR	119		
Vehicles - Firemen	38		
Vehicles - funeral services	68		
Clearing machines	46		
<b>TOTAL</b>	<b>1,213</b>	<b>140</b>	<b>169,820</b>
<i>Funeral transport:</i>			
Dead	191		
Died in Hospitals	14		
Total dead transported	177	297	52,503
<b>TOTAL</b>			<b>52,503</b>
<b>Total cost of rescue (€)</b>			<b>2,176,875</b>

Source: Instituto de Análisis Industrial y Financiero (IAIF) – Universidad Complutense

### 3. THE HEALTH SERVICES

The injured in the attacks, after being attended *in situ*, were transferred to different centres of the hospital network of the Community of Madrid. The Health and Consumer Board published from the same March 11 on the main data regarding the number of people attended and to their diagnosis, classifying them in different categories of severity. This has allowed us to carry out a detailed tracking of the situation of the victims during the three months following the attacks of March 11.

In accordance with the official data of Health and Consumer Board, the hospitals from Madrid attended a total of 2,062 injured in the attacks. However, for 478 of them there is a complete lack of information as for their destination, so that we do not know if they were discharged or if they finished up in a hospital. It is probable that it has been a consequence of the initial confusion and the overflow of the emergency departments, so that double accounting costs may have taken place, due to incomplete registers that, later on, have not been corrected. Anyway, since there has been no information on these cases, following our conservative approach, we opted to exclude them from the valuation. In consequence, this last figure refers to the 1,584 injured for those is known to have hospitalised after being attended—which happened in 286 cases— or who were sent to casualty services—which corresponds to the 1,298 not hospitalized—. This

global figure of injured is similar to the one that has been issued from the judicial media by the Ministry of the Interior.<sup>9</sup>

On the other hand, in the case of the hospitalized injured, we have estimated two categories for the estimation of the costs: one that includes those classified as slightly injured or of under observation, to whom we assigned a normal cost; and another one that includes the serious, very serious and critically injured, to whom we have imputed the cost of care in the intensive care units (ICU).

The monetary values corresponding to these categories of costs are based on the standardized rates published by INSALUD,<sup>10</sup> the public prices approved by the Community of Madrid<sup>11</sup> and in the information given by the hospital *Gregorio Marañón*, which makes reference to the *Report of Results of the Analytic Management* of the financial year 2002, published by Madrid's Health Institute. On the other hand, the cost allocated to the surgical operations is based on the information published by the Ministry of Health,<sup>12</sup> taking into account the average of the prizes assigned to the most significant surgical operations in accordance with the necessities of those wounded in the attacks.

The results obtained, which are presented in table 2, indicate a cost of health care of more than 5.15 million euros, caused in their biggest part by the necessities of the most seriously injured's hospital stay, as well as for the performance of 160 surgical operations. This estimation is, once again, incomplete, because of the lack of the information necessary to calculate the attributable value to the casualty care that had to be given to many victims of the attacks.

Table 2: Costs of care for the victims

Concepts	Number	Standard cost (€)	Estimated health cost (€)
Injured attended	1,584		
From which			
Injured not hospitalized	1,298	270	350,460
Injured hospitalized	286		
Day-person normal cost	4,512	430	1,940,160
Day-person cost ICU	864	1,453	1,255,392
TOTAL			3,195,552

<sup>9</sup> In the Ministerio del Interior, Balance 2004, (Madrid; Dirección General de Relaciones Informativas y Sociales 2005), p. 191, the number of the wounded in the attacks of the March 11 are quoted as 1,600.

<sup>10</sup> resolution of December 26, 2001 of the General Direction of INSALUD (Official Bulletin of the State, of January 5 2001), on price review to apply to the health centres for care provided where the amount must be claimed from third parties responsible for payments or for users not covered by Social Security.

<sup>11</sup> agreement of August of 2001 (Official Bulletin of the Community of Madrid, of September 17 2001), 2 for which you/they modify the total sums of the public prices for the benefit of the services and activities of the network of Sanitary Centers of the Community of Madrid.

<sup>12</sup> Actual Ordinance 1247/2002, of December (Official Bulletin of the State, of December 4, 2002) 3, by which the management of the Health Care Compensation Fund is regulated.



Injured hospitalized on 11-06-04	9		
Mean hospitalization (days-person)	18,7		
Future hospital stay of the wounded not yet hospitalized	168	430	72,258
Surgery operations	160	9,616	1,538,608
<i>Total estimation health cost (€)</i>			<i>5,156,878</i>

Source: Instituto de Análisis Industrial y Financiero (IAIF) – Universidad Complutense

#### 4. THE COMPENSATION TO THE VICTIMS

The loss of human lives and the temporary or permanent physical disability of those who were injured in the attacks, over and above the moral consideration, involves an important cost for the whole society. This cost could be evaluated by different procedures related to the estimation of the human capital if enough information were available, but it is not our case. For this reason, it has been considered that this cost should be included in the compensations that the victims must receive for different concepts.<sup>13</sup>

This aspect is the topic that has mainly attracted the attention of the written media, and different estimations have been published throughout the successive months after the attacks. In our case, we have preferred to make the necessary calculations so that, keeping in mind the laws that regulate these compensations,<sup>14</sup> it could be possible to evaluate the final cost that will be assumed by the competent Public Administrations in this matter.

<sup>13</sup> The studies about the September 11 have valued the loss of human lives following criteria based on the loss of earnings or income throughout the life (forgone lifetime income or earnings), for which some of them have used the average annual salary discounted to the present and others have tried to evaluate the losses of productivity considering the high remunerations of the workers of the World Trade Center. The General Accounting Office, Impact of Terrorist Attacks on the World Trade Center, (Washington, DC; GAO 2002), indicates some limitations to this method as "it generates higher values for individuals with higher income and lower values for volunteers and individual with lower income". In our study we attempted to avoid this criticism by giving the official valuation as to the extent of compensation. This could be taken as a strict valuation of a life, regardless of its productive capacity. In the Madrid attack there were no highly qualified workers with high wages, at least at a significant level, in contrast to the 9/11 attack in New York. Since it was perpetrated against the public means of transportation the deceased were workers with low skill levels, in their majority immigrants, unemployed, and students.

<sup>14</sup> A complete compilation of the applicable legislation, as well as a summary of its main aspects, can be found in the website of the Ministry of the Interior [www.mir.es]. Also, another text of great interest regarding this topic has been published by the Asociación Víctimas del Terrorismo, Manual de autoayuda para víctimas de atentados terroristas, (Madrid; AVT 2004).

The compensations for the victims of the terrorism are paid by the State based on the legislation regarding solidarity with the victims of terrorism (Law 32/1999, of October 8th, of solidarity with the victims of the terrorism) that establishes a scale of minimum compensations that possibly can be increased by judicial decisions, as well as of the norms of compensations for damages as a result of terrorist attacks (Law 13/1996, of December 30th, of Fiscal, Administrative and Social Order Measures) referring both to injuries and to material damages. In the same way, the region of Madrid has set compensations for death in the case of terrorist attacks (Law 12/1996, of December 19th, of Help to the Victims of Terrorism. In addition, we have to take into account in this case the compensation of the Insurance Claims Department, which is the entity that must assume the corresponding compensation regarding the obligatory insurance of travellers.

In the same way, since most of the victims were workers on their way to their job centres, the compensation for accidents “*in itinere*” charged to the National Health System must also be considered. Finally an estimation of the compensations of the private insurance that could have been taken out by the deceased as a consequence of having bank accounts or of the existence of business life insurance has also been taken into account.

In order to carry out the calculation of the compensations it has been necessary to establish the level of the injured’s physical disability, because this variable sets the quantities owed to the people that survive a terrorist attack. Since this information is not available, the hypothesis has been considered that a connection exists between the initial classification of the injured, according to their injuries and the handicap level, as explained in the table 3. For the cases of temporary physical disability that are assimilated to the non-hospitalized injured it has been considered a 15-day absence from work in order to evaluate the compensations paid by the Spanish Government.

*Table 3: Relation between injured categories and degrees of physical disability*

<i>Grade of physical disability</i>	<i>Category</i>
Critical and very seriously injured, not deceased	Critical disability
Seriously injured	Permanent physical disability (total)
Slightly injured and under observation	Permanent physical disability (partially)
Treated and non-hospitalized	Temporary physical disability

Moreover, in the case of damages paid, in order to calculate compensation for children, an estimate of how many there were has been made, on the basis of the data which it has been possible to collect for the dead victims. More specifically, the latter are considered to be representative of the whole, so their characteristics of age and



family makeup have been projected onto the former.<sup>15</sup> Thus, it has been possible to establish how many children are entitled to compensation, with those under 55 being considered as such.

For the *in itinere* compensations paid to the heirs of the deceased, the calculation has been made according to the regulations of the Spanish National Health System and taking into account the social and demographic characteristics of the victims. Furthermore it has been supposed that the annual mean income of the victims was 29,224 euros.

With regard to private insurance, it has been considered that the workers killed in the attacks had signed an accident insurance policy as well as a life insurance policy with charge to the company in which they were working. In order to evaluate the compensations due to this kind of risks it has been supposed that the characteristics of the policy in the first case are the same as those established by one of the biggest national banks—specifically the *BBVA*<sup>16</sup>— and in the second case to the ones stipulated in a standard policy of *Vitalicio Seguros* for the low income level victims, using the criteria of assigning an amount equivalent to twice the mean annual income in the Region of Madrid in 2004 in the case of the workers with a high income level.

Finally, the information given by the Insurance Claims Department has been used for the compensations covered by this institution which is responsible for the whole of the possible proceedings that could be opened due to the attacks.

The results of the estimates made in this chapter are shown in table 4. The total sum of compensations is 134.12 million euros, of which 62.8 per cent belongs to the compensations of the Law of Solidarity with victims of terrorist attacks (41.1 per cent) and also the general compensations (21.7 per cent) paid by the Spanish Interior Ministry, which is the mainly responsible body for economic attention to the victims in this terrorist event.<sup>17</sup> It is also important to consider the contributions of the Insurance Claims Department,<sup>18</sup> with 27.8 per cent; private insurance, with 4.2 per cent; the

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<sup>15</sup> The number of deceased workers, their distribution by types of employment and the number of children per worker has been evaluated considering the information collected in the obituaries of the victims published by the “El Mundo” newspaper.

<sup>16</sup> Banco Bilbao Vizcaya Argentaria

<sup>17</sup> The definitive balance of the compensation managed from the Ministry of the Interior will still take some time to be completed, because of the administrative requirements and the definitive verifications of the damage which inevitably delay the processing of the open dossiers. The latest published information on this matter points out that in June of 2005 the completed dossiers added up to 47.57 million euros; that is, only 56 per cent of the amount estimated by us. See “El Mundo”, June 19, 2005, regional supplement of Madrid, page 3, for the data of the Ministry of the Interior.

<sup>18</sup> The Insurance Claims Department (*Consortio de Compensación de Seguros*) is a public organization, assigned to the Ministry of Economy, created provisionally in 1941, which acquired a definitive character in 1945. It has a subsidiary character, acting generally as a direct insurer, where the private market is not involved, or as a Guarantee Fund when certain circumstances arise, for example, lack of insurance, insolvency of the insurer, etc. The existence of this Institution has reduced the costs which the private sector has incurred as a result of March 11, in contrast to the attacks of the September 11 which originated serious insurance problems to the private organizations, most of

compensations of the regional government of Madrid, with 3.1 per cent and finally the contribution of the Spanish National Health System with 2.1 per cent.

*Table 4: Cost of the compensations to the victims*

<i>Concepts</i>	<i>Equivalent to:</i>	<i>Number</i>	<i>Compensation (€)</i>	<i>Estimated cost (€)</i>
<b>1. NATIONAL GOVERNMENT</b>				
Decease	Deceased	191	138,232	26,402,312
Critical disability	Critical and very seriously injured not deceased	43	390,657	16,798,251
Permanent physical disability (total)	Seriously injured	140	48,080	6,731,200
Permanent physical disability (partially)	Slightly injured and under observation	90	36,060	3,245,400
Temporary physical disability	Treated and not hospitalized	1,297	1,514	1,963,658
<b>TOTAL</b>				<b>55,140,821</b>
<b>2. DAMAGES PAID</b>				
Decease	Deceased	191	59,865	11,434,215
Critical disability	Critical and very seriously injured not deceased	43	64,470	2,772,210
Permanent physical disability (total)	Serious injured	140	32,235	4,512,900
Permanent physical disability (partially)	Slight injured and under observation	90	23,025	2,072,250
Temporary physical disability	Treated and not hospitalized	1,297	461	597,269
Compensation for children		841	9,210	7,744,505
<b>TOTAL</b>				<b>29,133,348</b>
<b>3. REGION OF MADRID</b>				
Decease	Deceased	191	21,869	4,176,979
<b>TOTAL</b>				<b>4,176,979</b>
<b>4. ICD (Insurance Claims Department)</b>				
Paid compensations	Personal and material damage			29,355,505
Predicted compensations	Personal and material damage			7,923,812
<b>TOTAL</b>				<b>37,279,317</b>
<b>5. "IN ITINERE" ACCIDENTS (Spanish NHS)</b>				
Decease (Workers)	[6 monthly payment+1 per child (0.52 children)]*	174	15,890	2,764,860

them from Europe, thus exporting the impact of the costs of the attack. The insurance losses of the insurance agencies after the September 11 were valued between 30 and 58 billion dollars. As a consequence, the insuring companies raised the premiums and reduced the coverage.

<i>TOTAL</i>				2,764,860
<b>6. PRIVATE INSURANCE</b>				
Decease (Workers)	Bank accounts	175	6,000	1,050,000
Decease (Workers)	Company insurance (High level jobs)	38	55,500	2,109,000
	Company insurance (Low-Medium level jobs)	137	18,000	2,466,000
<i>TOTAL</i>				5,625,000
<i>Total compensations (€)</i>				134,120,325

Source: Instituto de Análisis Industrial y Financiero (IAIF) – Universidad Complutense

## 5. THE WAGE LOSSES OF THE INJURED

As a consequence of the injuries suffered, the workers affected by the attacks had to go on sick leave during a certain period of time. Such situation caused important wage losses that, apart from being compensated by social benefits, should be taken into account when assessing the costs of the terrorist acts of March 11. Therefore, the number of people affected by this situation is the first element that must be analyzed. Due to the lack of data on the social and demographic profile of the injured, as done in the previous epigraph for the calculation of the compensations, it has been considered that the proportion of employed among the injured is the same as the one estimated for the deceased —91.6 per cent—.

On the other hand, the data about the injured used in this section are those provided by the Region of Madrid and they are summarized in Annex 1. In addition, it has been supposed that the non-hospitalized injured attended by the sanitary services have had a two-week sick leave, which corresponds to 10 working days. In the case of the hospitalized injured, the wage loss has been estimated per natural days, and not per working days. With regard to the injured who still remained hospitalized in June 2004, it has been supposed, again with a conservative criterion, that their sick leave would extend with an additional time corresponding to the average sick leave of the total group of the injured registered until that moment.

The cost assigned to each one of the lost working days is equivalent to the average that has been calculated by the Spanish National Statistics Institute (INE) in its Quarterly Survey of Labor Costs for the whole group of the employed people in the Region of Madrid in the first quarter of 2004. The data are summarized in table 5.

Table 5: Working hours and labor costs in the region of Madrid during the first quarter of 2004.

<i>Concepts</i>	<i>Values</i>
Effective hours per worker and month (Madrid)	146,1

Daily working hours	7,305
Labor cost of effective hour (Madrid)	16,45 €
Working day standard cost	120,2 €
Average monthly wage cost in 2004 (Madrid)	2,435.3 €

Source: INE

Taking all the considerations made into account, in table 6 are shown the results of the estimate carried out, which concludes that the loss of wages of the injured in the attacks of March 11 turned out to be of 2.37 million euros.

*Table 6: Wage loss suffered by the injured in the terrorist attacks*

<i>Concepts</i>	<i>Number</i>	<i>Standard cost (€)</i>	<i>Estimated cost (€)</i>
Non-hospitalized Injured	1,189		
Days of Sick leave (injured)	10		
Days-Person	11,890	120,20	1,429,178
Hospitalized injured	262		
Days-Person	11,728	80,11	939,530
Hospitalized injured at 11-06-04	8		
Average sick leave	11,36		
Future average sick leave of non-discharged injured	90,88	80,11	7,280
<i>Total losses (€)</i>			<i>2,375,988</i>

Source: Instituto de Análisis Industrial y Financiero (IAIF) – Universidad Complutense

## **6. THE DAMAGES IN INFRASTRUCTURES AND HOUSINGS.**

The attacks of March 11, apart from the loss of human lives, caused serious damages in the suburban railway infrastructure of Madrid, as well as in some houses near the place of the attack. In the first case, the damage caused both the partial destruction of the trains where the bombs went off—which meant the loss of three locomotives and five coaches in three model 446 trains, and of another two coaches in model 450 train—and the damages caused to the railway installations and the stations. In the latter case, the attacks caused damage in 114 houses.

With regard to the damage to the facilities and infrastructures of the Spanish Railways (RENFE), the data provided by the Corporate Headquarters of Finances and Administration of this public company have been considered for the evaluation, as well

as the periodic financial information published by the National Commission of the Stock Market about the Spanish Railway Infrastructure Administrator (ADIF).<sup>19</sup>

The data published by the City Council of Madrid in their "Balance of intervention of the municipal services in the rescue and attention of the victims of 11-M" has been taken into account for the calculation of the damage in the houses. The number of damaged houses has been evaluated by the technicians of the City Council and a cost equivalent to the average of the compensation paid for damage caused by terrorism by the Insurance Claims Department in the period 2000-2002 has been applied.

The obtained results are shown in table 7. These data indicate a total cost of 5.26 million euros. 71.8 per cent corresponds to the railway rolling stock, that is to say, the residual value of the destroyed units estimated as 3.78 million euros. Following the established accounting criteria, the cost of replacement of the railway material has not been considered, estimated in 17 million euros, an amount which corresponds to the acquisition of three new suburban model CIVIA 465 trains. However, the damage caused in the RENFE installations hardly exceeds 0.21 million euros and that caused ones in houses has been estimated in 1.27 million euros.

*Table 7: Damage in infrastructures and housing*

<i>Concepts</i>	<i>Number</i>	<i>Standard cost (€)</i>	<i>Estimated cost (€)</i>
Repair of damage to housing	114	11,136	1,269,542
Damage in RENFE installations		218,000	218,000
Damages in RENFE trains		3,782,000	3,782,000
<i>Total damages (€)</i>			<i>5,269,542</i>

Source: Instituto de Análisis Industrial y Financiero (IAIF) – Universidad Complutense

## **7. THE PAVILLION N° 6 IN IFEMA.**

<sup>19</sup> Several of the items of information on the costs of the September 11 have used the estimations of the U.S. national accounts in order to evaluate the destruction of physical assets. The property losses are reflected as an increase in the consumption of fixed capital. Others, as made by the Federal Reserve Bank of New York, use the replacement value of the destroyed building, contents of the destroyed buildings, cost of repairs to damaged buildings and infrastructure (public transportation and utilities) and site cleanup.

Due to the space limitations of the Anatomical and Forensic Institute of Madrid, in order to be able to perform the autopsy and identification tasks of the fatal victims of the attacks in suitable conditions, the competent authorities made the decision to transfer those activities to pavilion 6 of the Trade Fair of Madrid (IFEMA). In these facilities, as well as in some additional rooms of pavilions 7, 8 and 9, an important activity took place aimed at offering attention to the hundreds of relatives who went there to seek information and to take charge of the mortal remains of their relatives.

In order to evaluate the costs of the use of the IFEMA facilities —including service contracted to take care of the catering needs during the days in which the events happened— the details published in the report elaborated by the Official College of Psychologists have studied the first organised psychological attention, as well as the news appearing in the “*El País*” newspaper exactly one year after the attacks. It has been possible to establish accurately which and how long the facilities were used. With this data evaluation of the costs has been carried out taking into account the tariffs that, in each case, IFEMA applies. As regards the cost of catering, the average of the prices applied by the accredited companies that carry out this kind of services in the Trade fair of Madrid has been considered.

The obtained results are shown in table 8 which indicates that the total cost caused by the use of IFEMA facilities was 0.18 million euros.

*Table 8: Cost of IFEMA facilities*

<i>Concepts</i>	<i>Number</i>	<i>Standard cost (€)</i>	<i>Estimated cost (€)</i>
Pavillion 6:			
Days	6	15,785	94,710
Extra hours	16	1,579	25,264
“Retiro” conference hall:			
Days	2	2,297	4,594
Extra hours	16	230	3,680
Conference halls (6) in pavillion 7,8 y 9:			
Days	2	2,130	4,260
Hours	16	216	3,456
Catering:			
People	3,000	15	45,000
<i>Total IFEMA (€)</i>			<i>180,964</i>

Source: Instituto de Análisis Industrial y Financiero (IAIF) – Universidad Complutense

## **8. THE PSYCHOLOGICAL ATTENTION TO THE VICTIMS.**

Just a few hours after the terrorist attacks, the psychological attention services for the victims and their relatives were put into operation. These services consisted of direct interventions among the affected people —mainly in IFEMA and the hospitals— and a telephone attention coordinated with the 112 emergency services. The Official College of Psychologists of Madrid<sup>20</sup> took care of the coordination of these services and has offered, as already indicated, detailed information of this work, which has allowed us to obtain the necessary data in order to carry out an economic evaluation. Also, after the attacks, the Region of Madrid made the decision to organize a special service of psychological attention by means of the engagement of new staff for 18 months in order to take care of the additional necessities.

In order to evaluate the cost of the voluntary services given by the psychologists of Madrid, their opportunity cost has been considered according to the information detailed below. The average duration of the psychological services has been estimated as 2 hours/case for direct attention, 4 hours/case for attention at home and 0.25 hours/case for telephone attention. The cost of each working hour corresponds to 32.8 euros/hour, equivalent to double the 2004 average wage cost for the service sector in the Madrid Region. The service of the special group organized by the 112 emergency service carried out 351 eight-hour shifts with a cost similar to the previously mentioned (32.8 euros/hour).

Regarding the cost of the engagement of new psychiatrists and psychologists by Region of Madrid to reinforce the services in this medical field, it has been assigned double the 2004 average wage cost in the Madrid Region; that is, 58,448 euros/year, during a year and a half.

The results of the estimation are shown in table 9. It can be appreciated that the psychological attention of the victims is valued at almost 4.94 million euros; an amount that emerges as a result of the activities carried out after the attacks by the Madrid Region. In fact, these services include the 88.6 per cent of the cost considered in this chapter, whereas the remaining 11.4 per cent is completed by the cost of the immediate attention services at the moment of the attacks.

Table 9: Cost of psychological attention to the victims

Concepts	Number	Standard cost (€)	Estimated cost (€)
Immediate assistance after the attacks :			
People attended <i>in situ</i>	5,000	66	328,000
People attended at home	183	131	24,010

<sup>20</sup> See A. Lillo et al., ‘Intervención psicológica tras los atentados del 11 de marzo en Madrid’, *Clínica y Salud, Revista Colegio Oficial de Psicólogos de Madrid*, vol. 15, 2004. and ‘Asistencia psicológica urgente: organización y desarrollo durante el 11-M’ in A. Blanco, R. del Águila and J.M. Sabucedo, *Madrid 11-M. Un análisis del mal y sus consecuencias*, (Madrid; Trotta 2005).



People attended by telephone	13,540	8	111,028
TOTAL			463,038
112 Special Group (11 to 15 of march)	351	262	92,102
Psychological attention service of the Region of Madrid (18 meses): Engagement of 35 psychiatrists and 15 psychologists	50	87,672	4,383,600
Total psychological assistance (€)			4,938,740

Source: Instituto de Análisis Industrial y Financiero (IAIF) – Universidad Complutense

### 9. THE COST OF SOLIDARITY: THE DEMONSTRATION OF 12-M

On the 12th March 2004, one day after the attacks, more than two million Madrileños expressed their solidarity with the victims by taking part in the demonstration organized in the streets of the Spanish capital. That day, the accesses to Madrid were completely blocked by the enormous amount of people who came from the surrounding towns and villages of Madrid from early afternoon. Working activity was suspended in a great number of companies in order to facilitate attendance at the demonstration. This cessation of the activities during half a day must be considered if we try to establish the cost of solidarity.

It has been considered that the people who attended the demonstration constitute a representative sample of the Madrid population, so that the employment rate of the whole Region of Madrid can be applied to them. An estimation is therefore obtained of the number of employed people present in the demonstration and it has been assumed that the people worked only half a working day, the other half being used to express solidarity. The data about the number of people present have been collected through information published in press and the data offered by the National Statistics Institute (INE) about the working population of Madrid.

As is shown in table 10, it has been considered that if the number of people who attended the demonstration was 2,300,000, more than 950,000 people were active workers. The total cost of the working hours lost, considering the data shown in table 5, has been estimated at something more than 57.36 million euros.

Table 10: Cost of the March 12th demonstration

Concepts	Number	Standard cost (€)	Estimated cost (€)
March 12th demonstration			
Population of the Region of Madrid	5,804,829		
Per cent of Active population (employed) of the whole population in the	42		



Region of Madrid			
Attendance at the demonstration	2,300,000		
People at the demonstration (employed) (relative to the active population in the Region of Madrid)	954,500	60,10	57,365,450
<i>Total cost of the demonstration (€)</i>			<i>57,365,450</i>

Source: Instituto de Análisis Industrial y Financiero (IAIF) – Universidad Complutense

### 10. FINAL CONCLUSIONS.

The results of the evaluation of the economic costs that can be attributed to the attacks of March 11 are shown in table 11. This evaluation has been made by means of the application of conservative criteria to avoid any exaggeration in the obtained amounts. Therefore, these quantities have to be considered as the minimum direct cost that the attacks have involved for the Madrilenian economy.

The studies about the incidence of terrorism on the economy of the countries or the regions in which their actions happen emphasize that, generally, even when the attacks are of great significance, the damages caused usually have a limited effect, only if they are considered individually and the terrorist threat is not persistent over time. Terrorism is a war of low intensity that produces a certain weakening on the economy of the societies that are attacked. This weakening only becomes significant when the campaigns of attacks persist over time. This hypothesis is confirmed by the data collected in this work which confirm that the direct influence of the attacks of March 11 in Madrid has been limited. Furthermore, the effectiveness of the police and legal control has contributed decisively to the lack of the terrorist persistence.

*Table 11: Summary of the immediate economic costs of the terrorist attack on March /11 at Madrid.*

<i>Concepts</i>	<i>Euros</i>
RESCUE AND INITIAL ATTENTION TO THE VICTIMS	2,176,875
HEALTH COST OF THE ATTENTION TO THE VICTIMS	5,156,878
COMPENSATION TO THE VICTIMS	134,120,325
WAGE LOSS OF THE VICTIMS	2,375,988
DAMAGES IN INFRASTRUCTURE AND HOUSING	5,269,542



IFEMA	180,964
PSYCHOLOGICAL ASSISTANCE TO THE VICTIMS	4,938,740
MARCH 12th DEMONSTRATION	57,365,450
<i>TOTAL COST (€)</i>	<i>211,584,762</i>

Source: Instituto de Análisis Industrial y Financiero (IAIF) – Universidad Complutense

The total amount obtained turns out to be more than 211.58 million euros. 63.4 per cent of this number corresponds to the loss of 191 human lives and to the injuries caused in almost 1,600 people affected directly by the attacks. The damages have been valued based on the compensation that the victims are eligible to perceive. A second important concept is the amount caused by the expression of the solidarity of the society with those affected by the attacks. More than one quarter of the total cost considered by this study is related to the demonstration of March 12, 2004. In third and fourth place, with an equivalent value around 2.5 per cent appears the damage caused in railway infrastructures and housing, as well as the health cost of attention to the victims. Finally, with smaller participation the remaining evaluated concepts appear.

If we consider the relative dimension of the attacks with respect to the size of the regional economy instead of its absolute value, it can be verified that the cost of the attacks was equivalent to 0.16 per cent of the GIP of the Region of Madrid in 2004. With regard to the economy of Spain, that cost hardly reaches 0.03 per cent of the national GDP. As we can see, they are relatively small numbers, which confirms the previously enunciated hypothesis. This conclusion is similar to that obtained by the studies on other attacks of great significance. Thus, in the case of the attacks of 11 September 2001 in New York, the New York City Partnership has considered that the direct costs rose to 0.79 per cent of the GDP of the United States in that year.

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*Annex 1: Evolution of the injured in the attacks for three months after the 11-M.*

Day	People attended	Deceased	Discharged from hospital	Not available	Hospitalized	Critical	Very seriously injured	Seriously injured	Slightly injured	Under observation	Surgical operations (accumulated)
11-M	1430	9	457	464	500						
12	1463	9	713	455	286	18	38	140	47	43	
13	1511	9	758	478	266	17	41	138	42	28	
14	1579	9	843	472	255	14	38	123	56	25	
15	1647	11	928	465	243	11	34	108	69	21	108
16	1668	11	972	465	220	9	24	120	47	20	
17	1763	12	1079	478	194	7	19	112	37	19	
18	1771	12	1092	478	189	7	19	109	36	18	
19	1793	12	1123	478	180	6	18	106	35	15	
20	1815	12	1154	478	171	5	17	103	34	12	
21	1838	12	1185	479	162	4	16	100	33	9	
22	1860	12	1216	479	153	3	15	97	32	6	
23	1882	12	1247	479	144	2	14	94	31	3	
24	1905	13	1280	478	134	2	13	89	28	2	122
25	1918	13	1303	478	124	2	12	81	27	2	125
26	1920	13	1319	478	110		14	72	23	1	143
27	1936	13	1339	477	107		14	69	23	1	
28	1952	13	1359	476	104		14	66	22	2	
29	1969	13	1378	478	100		13	64	21	2	143
30	1986	14	1400	478	94		10	61	21	2	144
31	2016	14	1434	478	90		10	54	25	1	147
1-A	2029	14	1454	478	83		10	49	22	2	148
2	2044	14	1474	478	78		8	42	25	3	149
3	2046	14	1479	478	75		7	40	25	3	
4	2048	14	1484	478	72		7	38	25	2	
5	2050	14	1489	478	69		6	36	25	2	
6	2051	14	1493	478	66		6	34	24	2	
7	2053	14	1498	478	63		5	32	24	2	
8	2055	14	1503	478	60		5	30	24	1	
9	2057	14	1508	478	57		4	28	24	1	
10	2058	14	1512	478	54		4	26	23	1	
11	2060	14	1517	478	51		3	24	23	1	
12	2061	14	1523	478	46		2	20	23	1	159
13	2062	14	1525	478	45		2	20	22	1	159
14	2062	14	1526	478	44		2	20	21	1	160
15	2062	14	1526	478	44		2	20	21	1	160
16	2062	14	1529	478	41			20	21		160
17	2062	14	1529	478	41			20	21		
18	2062	14	1529	478	41			20	21		
19	2062	14	1530	478	40			18	22		160
20	2062	14	1531	478	39			18	21		160
21	2062	14	1532	478	38			17	21		160
22	2062	14	1536	478	34			15	19		160
23	2062	14	1540	478	30			13	17		160
24	2062	14	1540	478	30			13	17		
25	2062	14	1544	478	26			11	15		
26	2062	14	1547	478	23			9	14		160
27	2062	14	1547	478	23			8	15		160

Day	People attended	Deceased	Discharged from hospital	Not available	Hospitalized	Critical	Very seriously injured	Seriously injured	Slightly injured	Under observation	Surgical operations (accumulated)
28	2062	14	1547	478	23			7	16		160
29	2062	14	1548	478	22			7	15		160
30	2062	14	1549	478	21			7	14		160
1-M	2062	14	1549	478	21			7	14		
2	2062	14	1549	478	21			7	14		
3	2062	14	1549	478	21			7	14		160
4	2062	14	1549	478	21			7	14		160
5	2062	14	1549	478	21			7	14		
6	2062	14	1549	478	21			7	14		
7	2062	14	1550	478	20			7	13		
8	2062	14	1550	478	20			7	13		
9	2062	14	1551	478	19			7	12		
10	2062	14	1551	478	19			7	12		
11	2062	14	1552	478	18			6	12		
12	2062	14	1552	478	18			6	12		
13	2062	14	1552	478	18			6	12		
14	2062	14	1553	478	17			6	11		
15	2062	14	1553	478	17			6	11		
16	2062	14	1553	478	17			6	11		
17	2062	14	1553	478	17			6	11		
18	2062	14	1554	478	16			6	10		
19	2062	14	1554	478	16			6	10		
20	2062	14	1554	478	16			6	10		
21	2062	14	1555	478	15			6	9		
22	2062	14	1555	478	15			6	9		
23	2062	14	1555	478	15			6	9		
24	2062	14	1555	478	15			6	9		
25	2062	14	1556	478	14			6	8		
26	2062	14	1556	478	14			6	8		
27	2062	14	1556	478	14			6	8		
28	2062	14	1557	478	13			5	8		
29	2062	14	1557	478	13			5	8		
30	2062	14	1557	478	13			5	8		
1-J	2062	14	1557	478	13			5	8		
2	2062	14	1558	478	12			5	7		
3	2062	14	1558	478	12			5	7		
4	2062	14	1558	478	12			5	7		
5	2062	14	1559	478	11			5	6		
6	2062	14	1559	478	11			5	6		
7	2062	14	1559	478	11			5	6		
8	2062	14	1560	478	10			5	5		
9	2062	14	1560	478	10			5	5		
10	2062	14	1561	478	9			5	4		
11	2062	14	1561	478	9			5	4		160

Source: Own elaboration from data provided by the Region of Madrid

*Annex 2: Dossiers of the Insurance Claims Department related to 11-M.*

<i>Concept</i>		<i>Number</i>
Personal injuries		
By decease		
	Finished	185
	Refused	2
	Unresolved offer	4
	Offer not paid	1
	Total	192
By injuries		
	Finished	647
	Refused	106
	Payment pending	84
	Pending	73
	Without payment	102
	Total	1,012
	Refused	130
	Total	1,335
Material damages		
	Finished	36
	Not finished	22
	Unresolved offer	1
	Pending without offer	2
	Total	61
<i>Total Dossiers</i>		<i>1,396</i>

Source: Own elaboration from data provided by the ICD

*Note: According to the Insurance Claims Department, a total amount of 29,355,505 € has been already paid for compensation, as well as the foreseen amount of 7,923,812 € (still not paid) which represents a total sum of 37,279,317 €.*



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