IMPACT OF BEIRUT EXPLOSION ON ECONOMIC ACTIVITIES LOCATED IN THE AFFECTED NEIGHBORHOODS

Socio-Economic Impact Assessment

Acknowledgements

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Executive summary

On August 4th, 2020, a massive explosion in the Beirut port rocked the city, causing widespread destruction, hundreds of deaths, and thousands of injuries. In order to effectively design immediate assistance and recovery programs, a digital socio-economic impact assessment (SEIA) was conducted, surveying both households and businesses. Within a few weeks of the blast, the survey received over 5,000 responses from households and over 3,000 responses from businesses.

This research was organized and conducted by the United Nations Development Programme (UNDP) in Lebanon. The socio-economic impact assessment survey was designed and disseminated by the Accelerator Labs and the broader country office, in collaboration with UNDP's Crisis Bureau. The report presents the results of the business survey and highlights key insights, to enable effective recovery and relief.
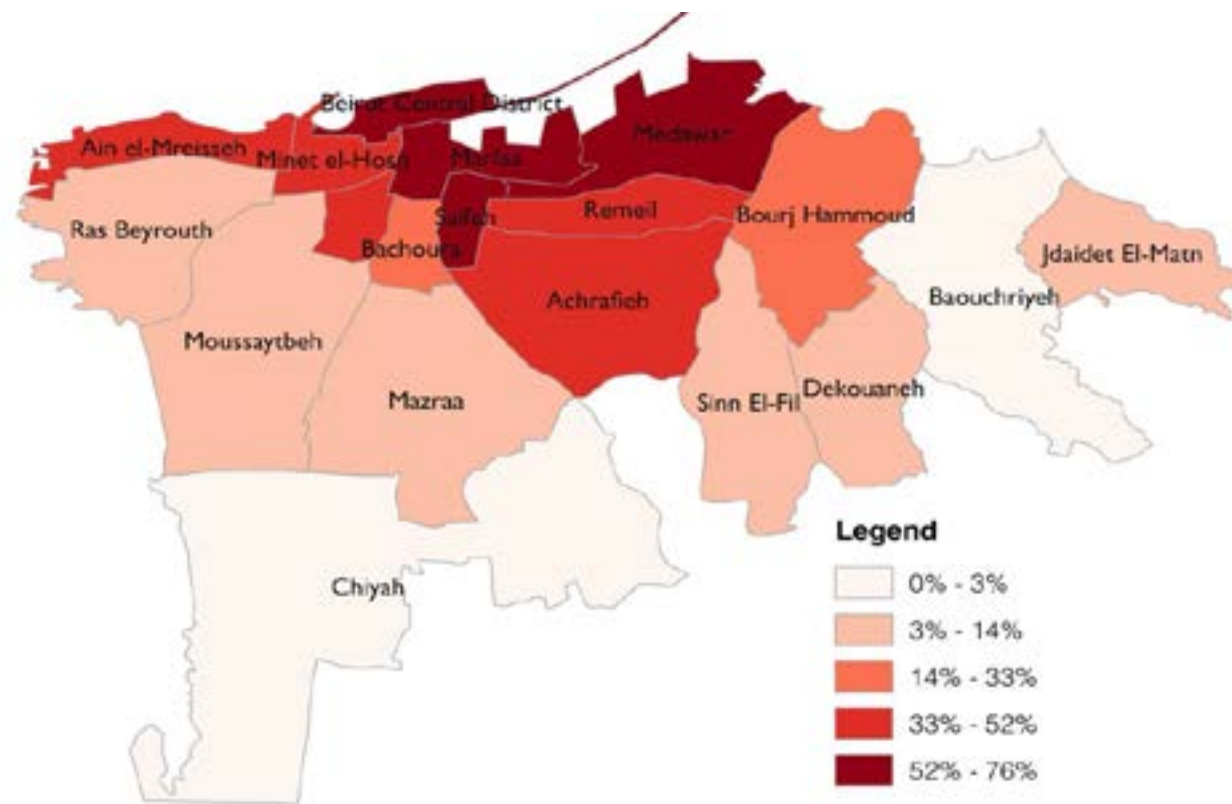
Map of proportion of businesses by neighborhood that sustained structural damage or were totally destroyed

The map shows that, as expected, the impact of the blast was highest closest to the site of the explosion. Below are key findings extracted from the report, which presents the results in further detail, with cross-tabulations as appropriate.

- Micro-businesses, businesses with less than 5 employees, make up 56% of all respondents.

- 75% of the owners or top managers are male, while 25% are female.

- The majority of surveyed businesses (around 87%) reported damages in their businesses ranging from minor damage (e.g., shattered glass, damage to equipment) to significant structural damages. Only 13% of business premises (out of 3,186) did not sustain any physical damage.

- A quarter of businesses experience structural damage, which includes the destruction of interior walls or other structural damage.

- Within weeks of the blast, when the data was collected, half of business remained operational, while the other half were closed, either temporarily or permanently.

- The majority of businesses that remained operational were operating at partial capacity. Only 17% of all businesses were able to operate at full capacity after the blast.

- In the weeks after the blast, two out of three businesses in Ain el-Mreisseh, Marfaa, Medawar, Minet el-Hosn and Remeil (the neighborhoods closest to the blast) were closed, mostly temporarily. However, 20%-30% of the businesses in those neighborhoods stated that they would not reopen.

- Considering the 50% of businesses that remained operational just after the blast, only half were relying on sales of their products and businesses for their cash needs, the rest were relying on other sources, such as savings or loans, for their financing needs.

- The top services that businesses lack sufficient access to are government utilities services such as electricity, water and wastewater.

- 40% of businesses that have employees, which is about half of all businesses, reported that their employees sustained minor injuries, serious injuries, or lost their lives.

- Only 5% of businesses report no direct or indirect financial loss. The majority (65%) estimate their losses to be less than USD 50,000.

- In the weeks after the blast, businesses expected to rely on their own funds as a main source for rehabilitation (37% of respondents), while 31% except support from UN organizations and NGOs. Only 14% of respondents expected to receive support from the government.

- Only one in five businesses responded that there was no risk of closure, indicating that about 80% of businesses were closed or were at risk of closure.

- The vast majority of businesses, nine out of ten, did not receive any assistance in the weeks after the blast, while 90% stated that they needed assistance.

Introduction

Background

On August 4th, 2020, a massive explosion in the Beirut port rocked the city, causing widespread destruction, hundreds of deaths, and thousands of injuries. Countless families were forced to leave their barely intact homes, while businesses near and far shuttered whatever remained of their operations. Estimates of the cost to recover from the explosion range from hundreds of millions to over $15 billion[1].

In order to effectively design relief and recovery programs, a digital socio-economic impact assessment (SEIA) was conducted, surveying both households and businesses. In collaboration with the UNDP Crisis Bureau, the survey was designed to understand the economic context prior to the blast as well as to assess the impact of the explosion. Because many families and businesses had vacated their homes and work premises, the SEIA was disseminated digitally through Facebook ads, which allowed rapid broad reach of the targeted audience. A second advantage of the digital SEIA is that it is optional and self-administrated when compared to in-person surveys, which were abundant immediately after the explosion leading to assessment fatigue. Within a few weeks of the blast, the survey received over 5,000 responses from households and over 3,000 responses from businesses.

This report presents the findings from the business socio-economic impact assessment. The research findings allow for a greater understanding of which groups were impacted most, how businesses were most affected, what their greatest needs are, and how hopeful they are regarding the future outlook.

While the SEIA primarily focuses on the impact of the blast, it is important to keep in mind that the socio-economic condition of businesses also reflects the concurrent crises that exist in Lebanon. These include the COVID-19 pandemic that has entailed extended periods of business lockdowns, which further deepened the economic contraction and widespread unemployment, a currency crisis that has wiped away saving accounts and reduced purchasing power for the entire country.

1 https://english.alarabiya.net/News/middle-east/2020/08/12/Beirut-explosion-Cost-of-damage-tops-15-billion-says-president

Methodology

To understand the impact of the Beirut August 4th explosion on households and businesses in the surrounding areas, UNDP Lebanon conducted a socio-economic impact assessment, in collaboration with the UNDP Crisis Bureau. The surveys achieved the following sample sizes:

1. **Household SEIA: N = 5,232**

2. **Business SEIA: N = 3,186**

This report will present and discuss the findings of the business survey. For details on the household survey, check the UNDP Lebanon website for further information.

Business SEIA

The business socio-economic impact assessment was a 23-question survey, which was built on Kobo Toolbox, a data collection suite of tools primarily for humanitarian crises.

The survey was disseminated using Facebook ads, which allowed targeted of users in relevant age groups and relevant geographic areas. Most of the data was collected between the 17th and 30th of August 2020.

The total sample size is 3186, including 2310 respondents declaring Beirut as their place of residence.

The dataset used was consolidated and cleaned by a team from the Digital Assessments Remote Support Unit, SURGE Data Hub, Country Support Management Team, Crisis Bureau, with the help of UNDP Lebanon country office.

Sample Distribution

Neighbourhood	Frequency	Percentage (%)
Achrafieh	738	23.2%
Ain el-Mreisseh	64	2.0%
Antelias	3	0.1%
Baabda	16	0.5%
Bachoura	76	2.4%
Baouchriyeh	34	1.1%
Beirut Central District	45	1.4%
Bourj El-Brajneh	6	0.2%
Bourj Hammoud	261	8.2%
Chiyah	46	1.4%
Choueifat El-Aamrousiyeh	5	0.2%
Dekouaneh	42	1.3%
Fanar	4	0.1%
Furn Ech-Chebbak	22	0.7%
Hadath Beyrouth	13	0.4%
Haret Hreik	6	0.2%
Jall Ed-Did	16	0.5%
Jdaidet El-Matn	33	1.0%
Laylaki	4	0.1%
Mansouriyet El-Matn	9	0.3%
Marfaa	238	7.5%
Mazraa	237	7.4%
Medawar	143	4.5%
Minet el-Hosn	73	2.3%
Mkalles	5	0.2%
Moussaytbeh	125	3.9%
Naqqach	7	0.2%
Other	259	8.1%
Ras Beyrouth	176	5.5%
Remeil	199	6.2%
Saifeh	141	4.4%
Sinn El-Fil	71	2.2%
Tahouitat El Ghadir	7	0.2%
Zalqa	7	0.2%
Zoukak el-Blatt	55	1.7%
Total	3186	100.0%

Table 1: Sample Distribution by Neighborhoods

Gender	Frequency	Percentage
Female	787	24.7%
Male	2,395	75.2%
Other	4	0.1%
Total	3186	100

Table 2: Sample Distribution by Gender

Business sector	Frequency	Percentage
Artisanal	198	6.2%
Hospitality (restaurant, hotel, pub, coffee shop, car rental, etc.)	535	16.8%
Knowledge (ICT, design, other)	349	11.0%
Manufacturing (food industry, clothing, etc.)	300	9.4%
Other services (banking, insurance, shipment, other)	876	27.5%
Retail (clothing, grocery, furniture, other)	476	14.9%
Services for the individuals (hairdresser, carpenter, designer, publicity, etc.)	452	14.2%
Total	3,186	100.0%

Table 3: Sample Distribution by Sector

Business size	Frequency	Percentage
Family business	306	9.6%
Freelancer (in the services sector)	487	15.3%
Self-owned business	929	29.2%
Between 1-5 employees	480	15.1%
Between 5 and 9 employees	289	9.1%
Between 10 and 49 employees	374	11.7%
More than 50 employees	321	10.1%
Total	3,186	100.0%

Table 4: Sample Distribution by Business Size

Business profiles

This chapter presents the survey results in terms of business profiles, to help gain an understanding of the MSMEs that typically operate in the areas most affected by the blast. The next chapter focuses on the impact of the blast on the businesses.

Neighborhood

As Figure 1 shows the majority of respondents were, unsurprisingly, from the areas closest to the blast location. 54% of respondents are from the neighborhoods adjacent to the port, namely Marfaa, Medawar, Remeil, Achrafieh, Saifeh, Bachoura, Zoukak el-Blatt, Minet el-Hosn, Beirut Central District. The remaining 46% of respondents are from neighborhoods further away, however many of these businesses still suffered significant losses due to the far-reaching impact of the blast. Also, many businesses, regardless of location, relied on the port for their operations so that the explosion may have affected their supply chain or destroyed inventory held at the port.
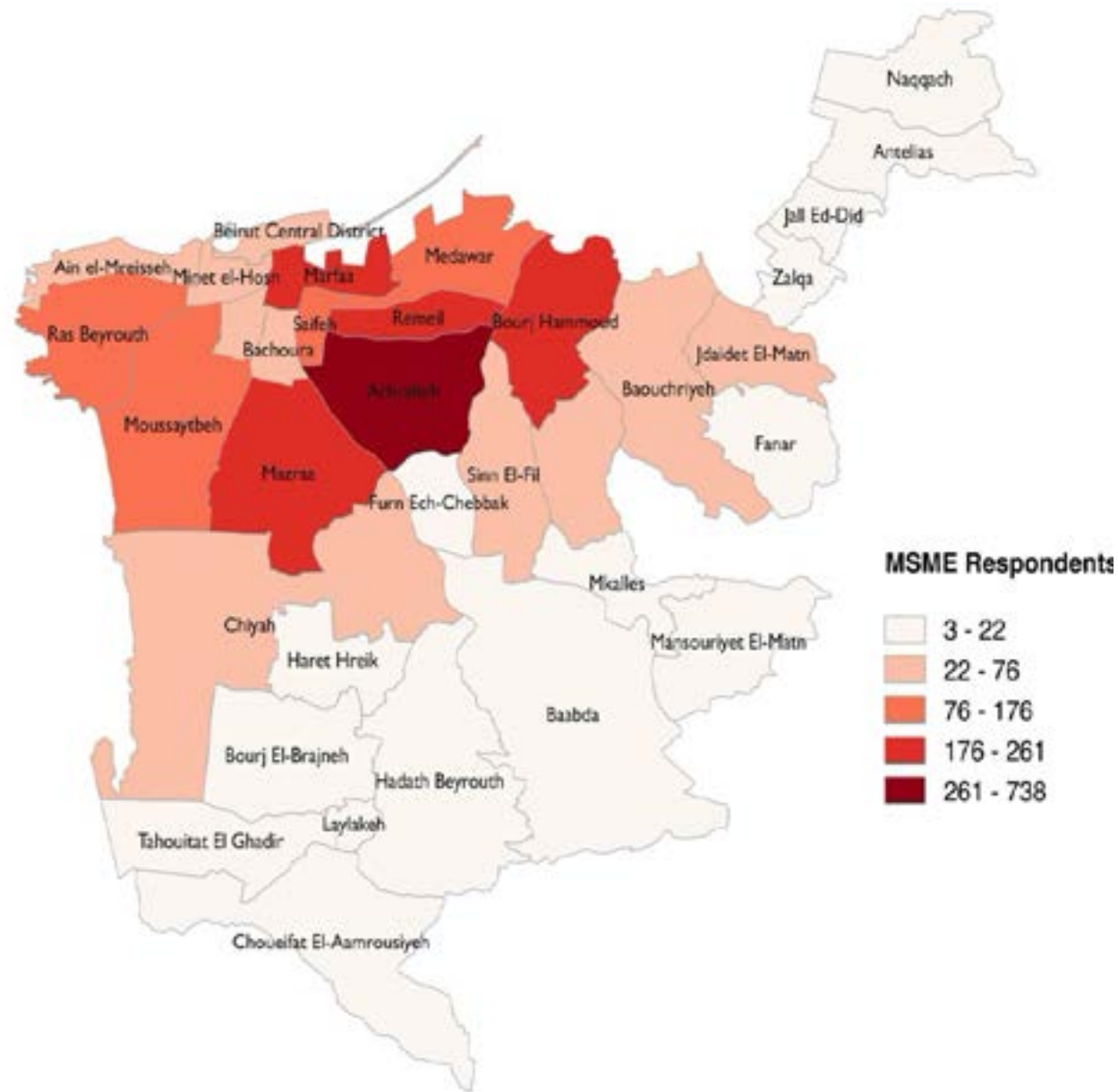
Figure 1. Map of respondents' location by neighborhood

Sectors

Other services (banking, insurance, shipment, other) — 27.5%

Hospitality (restaurant, hotel, pub, coffe shop, car rental, etc) — 16.8%

Retail (clothing, grocery, furniture, other) — 14.9%

Services for the individuals (hairdresser, carpenter, designer, publicity, etc) — 14.2%

Knowledge (ICT, design, other) — 11.0%

Artisanal — 6.2%
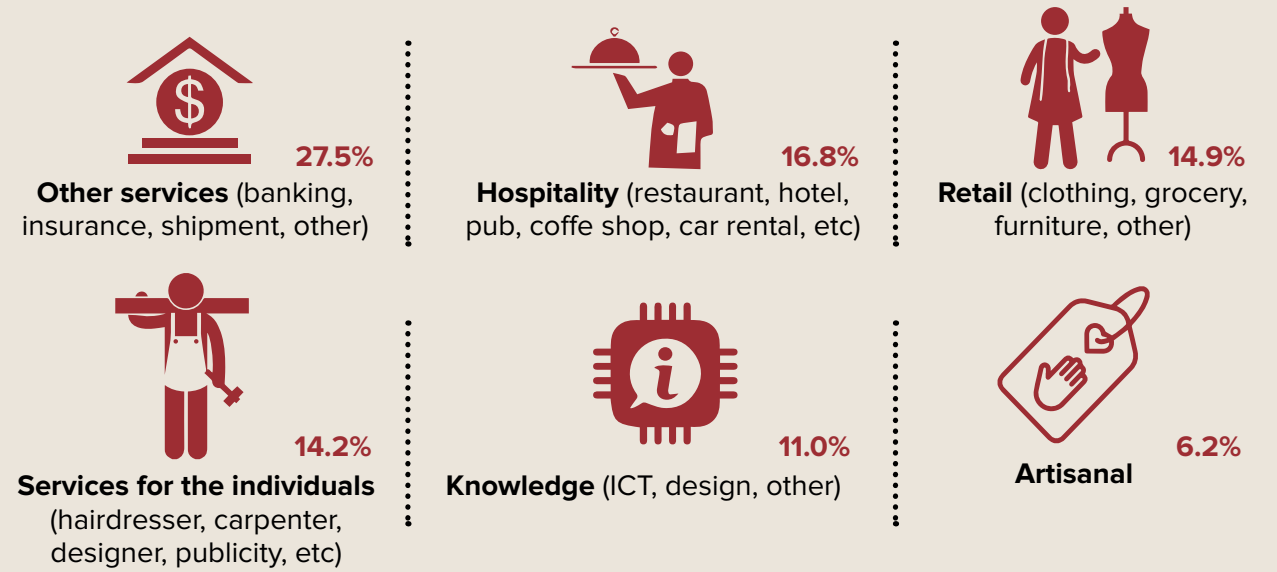
Figure 2: Share of businesses by sector

The majority of business respondents are in the "other"" service sector (27.5%), that includes banking insurance, shipment and others, followed by hospitality (16.8%), and retail (14.9%).

Considering gender from across sectors reveals some notable observations; on average women-owned businesses make up 17% (hospitality) to 30% (services for individuals) of each sector, which is on par with the overall 25% representation of women among respondents. Comparing to the 25% female representation, retail, manufacturing, services for individuals, and other services have slightly above average representation of women, while the artisanal, hospitality, and knowledge sectors have slightly below.

Sector	Female	Male	Other	Total
Artisanal	20.7%	79.3%	0.0%	198
Hospitality	16.8%	82.8%	0.4%	535
Knowledge	18.9%	81.1%	0.0%	349
Manufacturing	25.7%	74.0%	0.3%	300
Other services	26.9%	72.9%	0.1%	876
Retail	29.0%	71.0%	0.0%	476
Services for the individuals	30.8%	69.2%	0.0%	452
Total	**24.7%**	**75.2%**	**0.1%**	3186

Table 5: Gender by sector

Business size

29.2%
Self - owned business

15.3%
Freelancer
(in the services sector)

9.6%
Family business

15.1% Between 1 and 5 employees
11.7% Between 10 and 49 employees
10.1% More than 50 employees
9.1% Between 5 and 9 employees
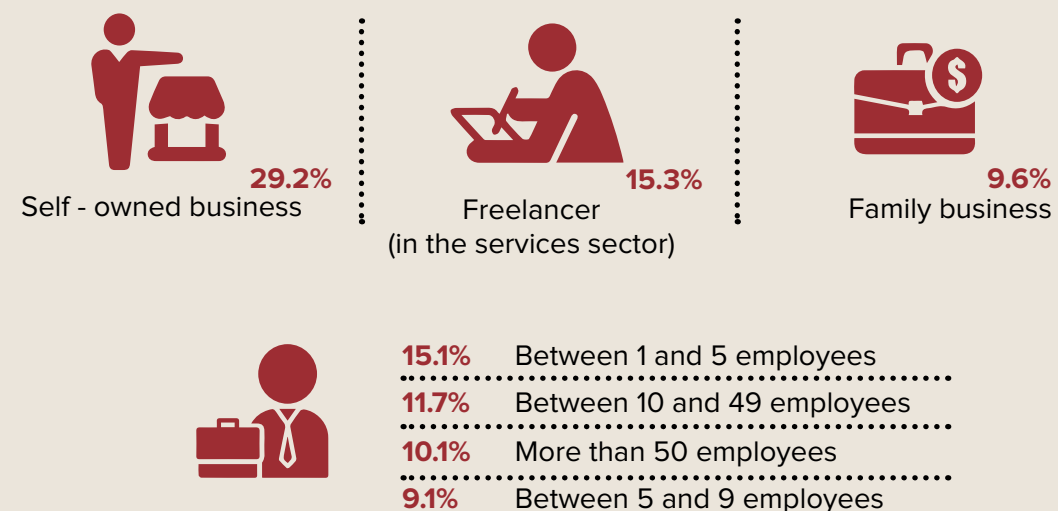
Figure 3: Share of businesses by size

Micro-businesses, defined as 1) self-owned businesses where the owner is the only person operating the business, 2) freelancers, and 3) businesses with 1-5 employees, make up 60% of all respondents.

When considering both sector and business size, Table 6 shows that self-owned businesses is the most prominent category for all sectors. Notably, artisanal and retail businesses have a business size distribution that is heavily skewed towards micro and small sizes, with 88% of artisanal and 80% of retail businesses employing 5 employees or less. On the other hand, the manufacturing sector seems to have two distribution peaks with 24% of businesses as self-owned and 28% employing greater than 10 employees. No major differences were noticed when considering the gender of the business owner.

	Self-owned business	Freelancer	Family business	1-5 employees	5 and 9 employees	10 and 49 employees	> 50 employees
Artisanal	48.5%	16.2%	11.6%	12.1%	6.1%	2.0%	3.5%
Hospitality	22.1%	14.8%	6.5%	14.2%	10.3%	17.9%	14.2%
Knowledge	28.9%	14.6%	5.4%	18.3%	12.9%	9.7%	10.0%
Manufacturing	24.0%	3.7%	18.7%	15.7%	10.3%	17.3%	10.3%
Other services	20.1%	20.5%	8.6%	13.2%	9.2%	13.9%	14.4%
Retail	42.2%	5.9%	14.9%	16.6%	5.9%	8.2%	6.3%
Services for individuals	36.5%	23.5%	6.0%	16.4%	8.2%	6.0%	3.5%
Total	29.2%	15.3%	9.6%	15.1%	9.1%	11.7%	10.1%

Table 6: Business size by sector

Market for business

Outside Lebanon
5.8%

Lebanon
33.9%

Beirut
48.9%

The neighborhood
11.7%
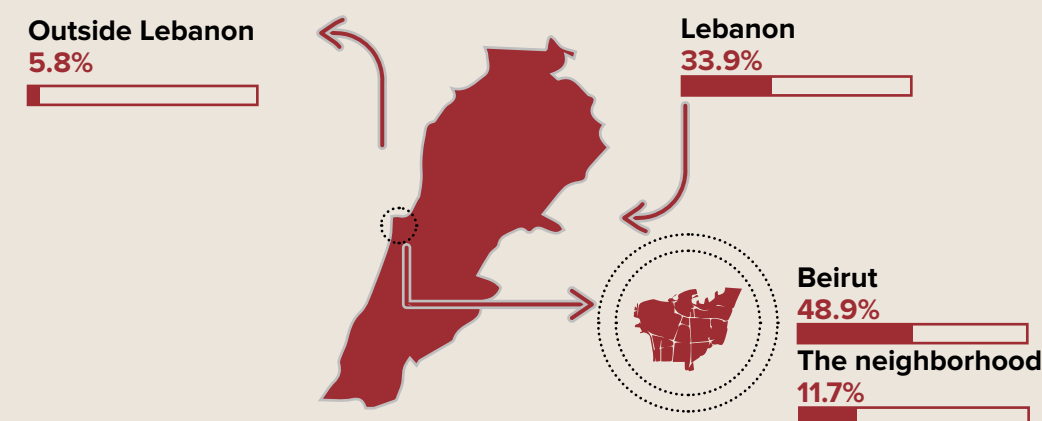
Figure 4: Market for business

Beirut is the main market for 48.6% of businesses, while Lebanon broadly is the market for 34% of respondents. This shows that the implication of the blast went beyond Beirut at least in terms of supply/demand value chain. When considering the sector relationship across markets, the distribution changes slightly. For the knowledge, manufacturing, and other services sectors, the main market is Lebanon, but with only a few percentage points more than Beirut. In terms of businesses that are considered as exporters, i.e. serving customers or clients outside Lebanon, these are estimated at 5.8% of surveyed businesses. Other services, manufacturing, knowledge, and hospitality sectors make up 85% of those businesses. However, taken from a sector perspective, outside Lebanon is the main market for 14% of manufacturing businesses and 11% of knowledge businesses, while exporting outside Lebanon only accounts for a small minority of the other sectors. The local neighborhood is the main market for 14%-18% of businesses from the retail, services for individuals, artisanal, and hospitality sectors.

Sector	Neighborhood	Beirut	Lebanon	Outside Lebanon
Artisanal	13.6%	50.0%	31.8%	4.5%
Hospitality	13.5%	63.2%	17.6%	5.8%
Knowledge	6.3%	40.7%	41.8%	11.2%
Manufacturing	9.3%	35.7%	41.0%	14.0%
Other services	8.2%	42.2%	44.2%	5.4%
Retail	18.1%	51.3%	28.6%	2.1%
Services for individuals	14.4%	54.6%	29.2%	1.8%
Total	11.7%	48.6%	33.9%	5.8%

Table 7: market for business by sector

Owned / Rented

Rented 61%	Owned 26%	Other 13%

Figure 5: Business premises owned or rented

61.5% of businesses are in rented premises and 25.9% either fully own their premises or via mortgage. The old rent versus new rent divide is valuable to better understand vulnerability and likely costs faced by MSMEs. Those on old rent contracts typically pay substantially less rent but the displacement caused by the blast may have enabled landlords to end such contracts as the business may have had to vacate the premise. Data reveals around 11 % of surveyed businesses have old rent contracts.

The distribution of owner or rented arrangement are fairly consistent across sectors. The only notable points are that manufacturing, and retail businesses are slightly more likely to fully own their premises, while hospitality and knowledge businesses are slightly more likely to have new rent contracts, when compared with the other sectors.

Sector	Owned - fully	Owned - mortgage	Rented - new rent	Rented - old rent[2]	Other
Artisanal	19.70%	4.00%	49.00%	9.60%	17.70%
Hospitality	13.30%	5.00%	59.10%	6.90%	15.70%
Knowledge	19.50%	5.40%	56.70%	6.90%	11.50%
Manufacturing	27.70%	3.30%	44.30%	15.30%	9.40%
Other services	26.70%	4.30%	43.00%	11.20%	14.80%
Retail	21.20%	4.80%	46.00%	17.90%	10.10%
Services for individuals	18.60%	3.10%	54.40%	11.70%	12.20%
Total	21.30%	4.40%	49.80%	11.40%	13.10%

Table 8: owned versus rented by sector

Owner demographics

In terms of gender distribution, 75% of the owners or top managers are male, while 25% are female. When also taking into account age groups, it is evident that the main category of owners or top managers are men in the 30s. The age distribution is consistent across the gender. 60% of respondents are in the 30-50 age range.
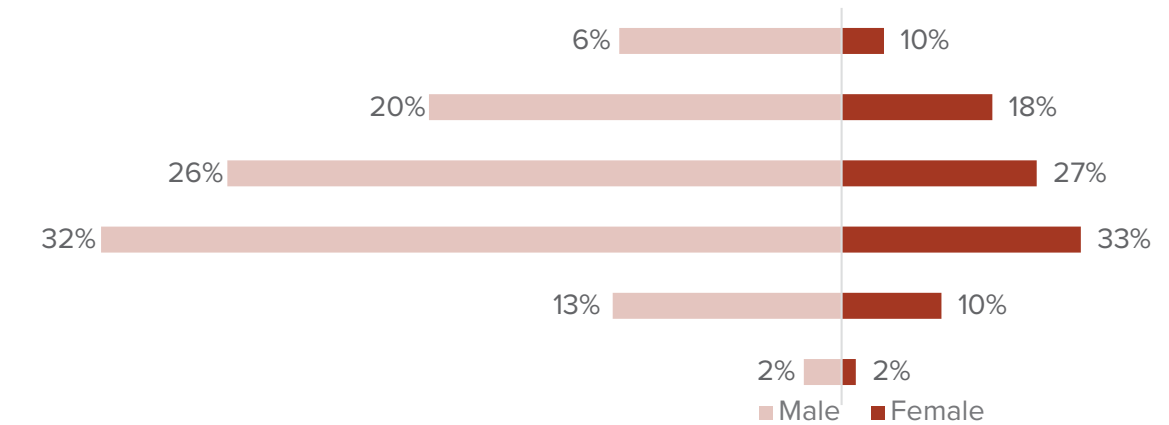
Figure 6: Age and gender of owner/top manager

Nationality
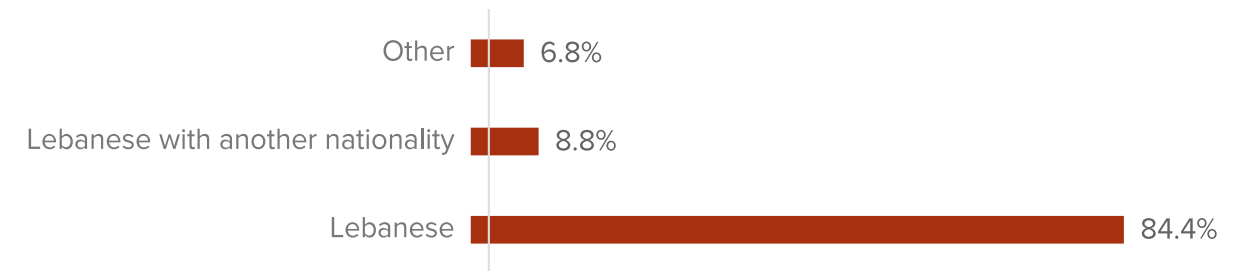
Figure 7: Nationality of owner/top manager

The vast majority (93%) of owners and top managers are Lebanese or Lebanese with another nationality. The only sector with a notable portion of non-Lebanese is the artisanal sector, where 4% of owners are Palestinian and 10% are Syrian. Approximately 5% of hospitality and manufacturing have Syrian owners or top managers.

Sector	Lebanese	Lebanese with another nationality	Syrian	Palestinian	Other	Total
Artisanal	152	17	20	7	2	**198**
Hospitality	438	50	31	11	5	**535**
Knowledge	300	29	8	10	2	**349**
Manufacturing	250	28	16	1	5	**300**
Other services	771	70	22	6	7	**876**
Retail	403	42	22	6	3	**476**
Services for individuals	375	43	19	10	5	**452**
Total	2689	279	138	51	29	3186

Table 9: Nationality of owner / top manager by sector [3]

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2 The survey differentiated between tenants holding old rent contracts and the new ones as old tenants are at a high risk of eviction.

3 When the number of responses is low upon disaggregation, the absolute numbers are presented instead of the proportions.

Employee residential location

The area where my business is located — 26.4%
Beirut and its suburbs (outside the area where my... — 53.7%
All lebanese regions — 1.4%
North Lebanon — 1.0%
Mount Lebanon — 7.3%
South Lebanon — 0.9%
Bekaa — 0.4%
Other — 1.1%
Self-employed/freelancers/works alone/family business — 7.8%
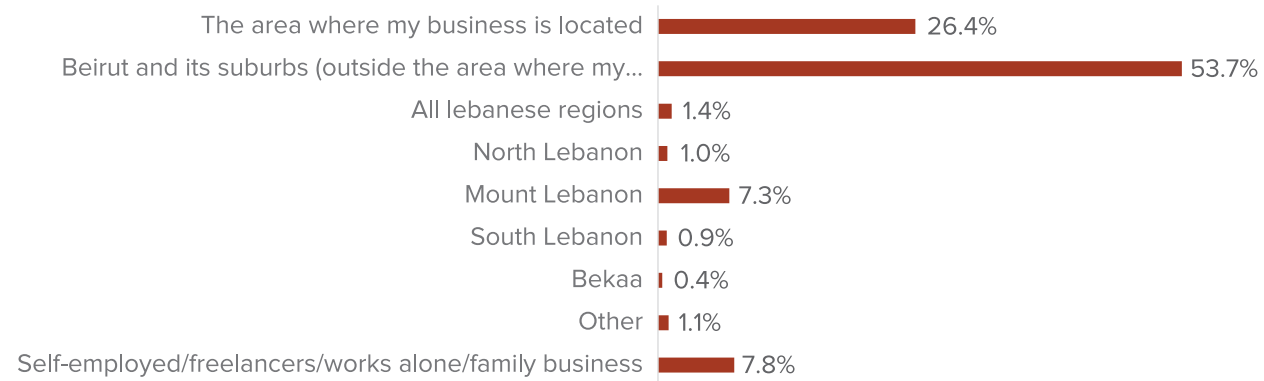
Figure 8: Employees residential location

Four out of five businesses report that their employees live near the business or in Beirut and its suburbs. Only 5% of businesses have employees that live outside of Beirut or Mount Lebanon. In terms of sectors, the distribution is similar across the categories, with small differences. For example, the artisanal sector has higher than average proportion of employees living near the business, while artisanal and retail have a lower-than-average proportion that live in Beirut and its suburbs.

Sector	Beirut and its suburbs	The area where my business is located	Mount Lebanon	Other	Self-employed / freelancers / family business
Artisanal	41%	35%	7%	6%	11%
Hospitality	58%	28%	6%	4%	5%
Knowledge	56%	23%	9%	7%	5%
Manufacturing	53%	30%	8%	5%	4%
Other services	60%	21%	8%	6%	5%
Retail	44%	31%	8%	3%	14%
Services for the individuals	50%	27%	7%	4%	13%
Total	54%	26%	7%	5%	8%

Table 10: employee residential location by sector

Impact of blast on MSMEs

This objective of this chapter is to understand how the blast specifically impacted businesses, given the contextual business profiles presented in the previous chapter. The sub-sections below cover physical damage, impact on business operations, impact on employees, and overall business losses due to the blast.

Physical damage

| 8% | 26% | 52% | 13% |
| Totally destroyed | Sustained structural damage | Sustained minor damage | My business was not affected |
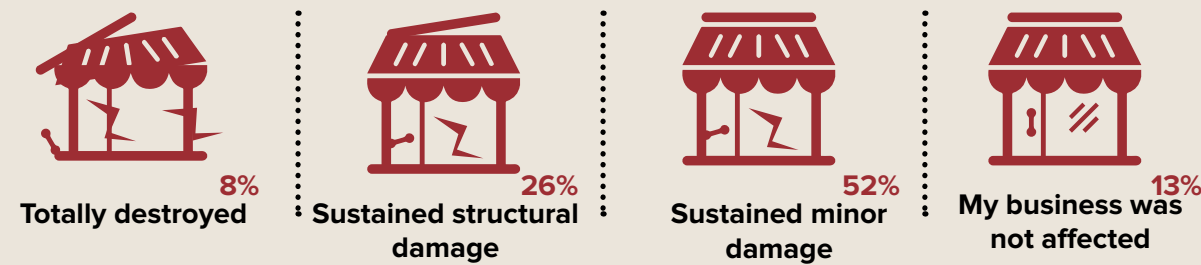
Figure 9: Impact of the explosion on business premises

Only 13% of business premises (out of 3,186) did not sustain any physical damage. The majority suffered minor damage e.g., shattered glass, damage to equipment and no perceived structural damage. A quarter of businesses experience structural damage, which includes the destruction of interior walls or other structural damage. Finally, 8% of businesses were totally destroyed, i.e., the whole business premises collapsed.

	My business was not affected	Sustained minor damage	Sustained structural damage	Totally destroyed
Artisanal	17%	57%	20%	6%
Hospitality	14%	44%	33%	10%
Knowledge	13%	53%	27%	7%
Manufacturing	20%	51%	24%	6%
Other services	11%	48%	30%	11%
Retail	12%	62%	23%	3%
Services for the individuals	13%	58%	21%	8%

Table 11: Impact of the explosion on business premises by sector

When considering the sector perspective, a similar distribution is generally noticed as approximately half of businesses per sector sustained minor damage and about 10% or less were totally destroyed. That said, there are notable differences when comparing to the cross-sector average. 62% of retail business sustained minor damage, which is above the cross-sector average of 52%, suggesting that retail businesses were more likely to suffer minor damage and less likely to sustain structural damage or be totally destroyed. The "other services" and the hospital sectors seem to be skewed slightly towards greater levels of damage as their proportions for structural damage and totally destroyed are above the cross-sector averages.

In terms of absolute numbers, the other services and the hospitality sectors have the highest number of businesses that were totally destroyed and the highest number of businesses that sustained structural damage. For the minor damage category, other services, retail and services for individuals are the top three sectors. Total number of businesses per sector impacts these results, but justifiably so as it is important to understand where the greatest needs lie.
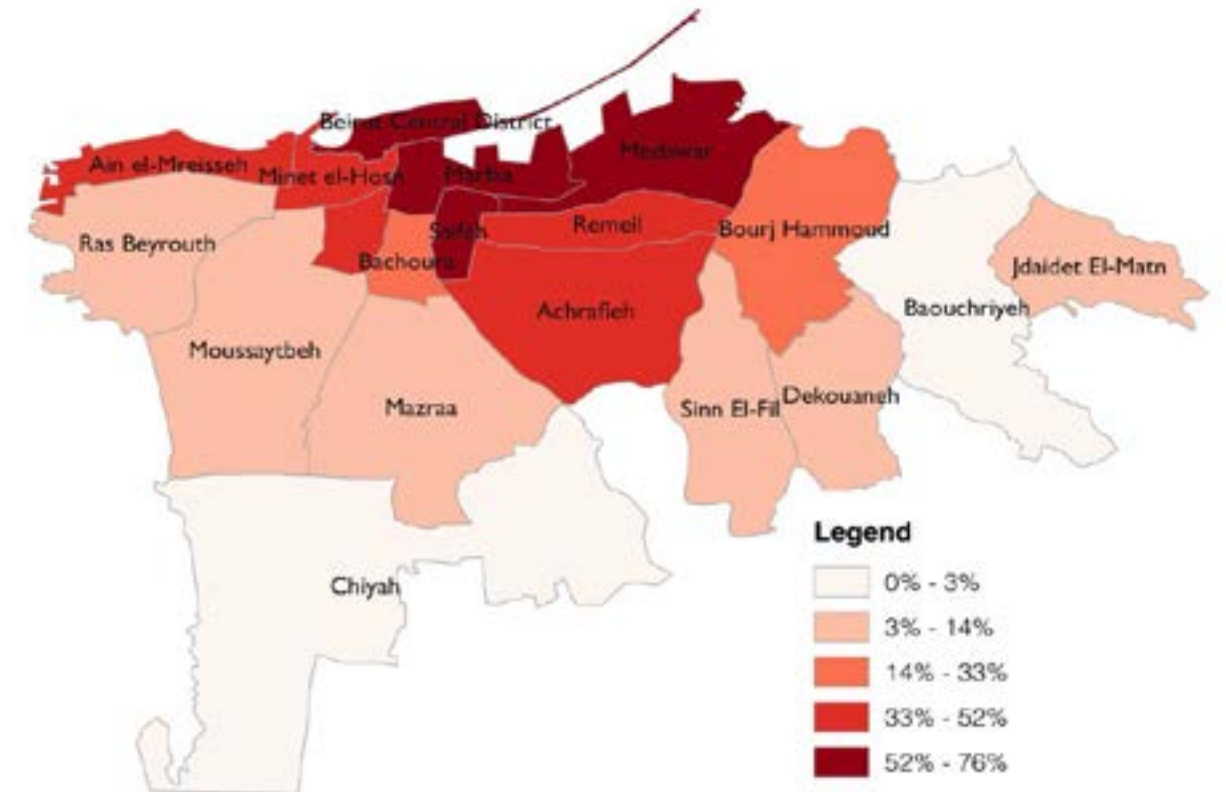
Figure 10. Map of proportion of businesses by neighborhood that sustained structural damage or were totally destroyed

Unsurprisingly, the neighborhoods closest to the blast location had the highest proportions of businesses that sustained high levels of damage. Over 50% of the businesses in neighborhoods shaded darkest in the map experiences structural damage or complete destruction.

It is important to recall that the sample sizes vary significantly across the neighborhoods. See table 1 and Figure 1 for the number of respondents across all neighborhoods. In Figure 10, only neighborhoods with a sample size greater than 30 are displayed.

Impact on business operations

The survey measured impact on MSME operations in several ways. First, it asked which businesses are still operational, and which are closed, temporarily or permanently. For those still operational, the approximately half of all businesses surveyed, the survey asked whether they are operating at partial or full capacity, and whether they remained in the same location.
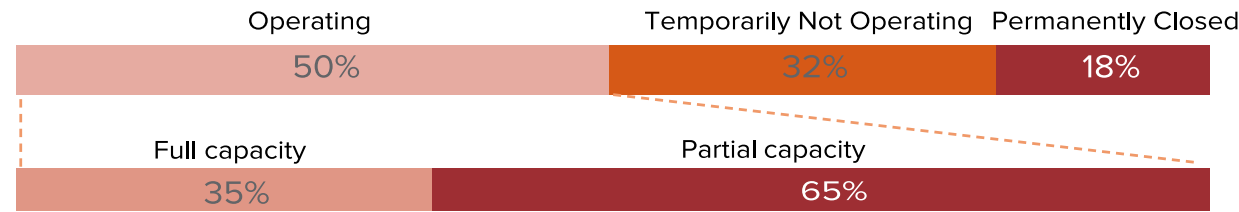
Figure 11: Current business situation

Within days of the blast, when the data was collected, only half of business remained operational, while the other half were closed, either temporarily or permanently. Furthermore, the majority of businesses that remained operational were operating at partial capacity leading to the finding that **only 17% of all businesses were able to operate at full capacity immediately after the blast.**

In terms of relocation, 15% of the business in partial or full operation relocated premises, while the rest remained in the same location.

	Operating - Full	Operating - Partial	Closed - Permanently	Closed - Temporarily
Artisanal	10%	27%	21%	42%
Hospitality	7%	23%	28%	41%
Knowledge	21%	38%	13%	27%
Manufacturing	26%	35%	15%	23%
Other services	20%	38%	14%	28%
Retail	21%	28%	15%	36%
Services for individuals	15%	33%	20%	32%

Table 12: business operational status by sector

There are notable differences between sectors. The hospitality and artisanal sectors seem to be the hardest hit with 70% and 64% of businesses, respectively, closed permanently or temporarily. On the other hand, knowledge, manufacturing, and other services businesses are most likely to be operating in some capacity, but even among these sectors approximately 40% of businesses were closed in some way after the blast.

| Neighborhood	Operating - Full	Operating - Partial	Closed - Permanently	Closed - Temporarily
Achrafieh	12%	34%	19%	36%
Ain el-Mreisseh	16%	19%	20%	45%
Bachoura	18%	41%	18%	22%
Baouchriyeh	29%	47%	6%	18%
Beirut Central District	16%	29%	18%	38%
Bourj Hammoud	21%	33%	15%	31%
Chiyah	33%	22%	17%	28%
Dekouaneh	33%	29%	10%	29%
Jdaidet El-Matn	30%	48%	12%	9%
Marfaa	6%	34%	25%	35%

Mazraa	32%	28%	13%	27%
Medawar	3%	33%	27%	36%
Minet el-Hosn	18%	22%	29%	32%
Moussaytbeh	32%	31%	4%	33%
Ras Beyrouth	27%	38%	15%	20%
Remeil	7%	31%	21%	41%
Saifeh	8%	33%	23%	37%
Sinn El-Fil	24%	39%	11%	25%
Zoukak el-Blatt	22%	29%	16%	33%

Table 13: business operational status by neighborhood

In the weeks after the blast, two out of three businesses in Ain el-Mreisseh, Marfaa, Medawar, Minet el-Hosn and Remeil were closed, mostly temporarily. However, 20%-30% of the businesses in those neighborhoods stated that they would not reopen. Distance from the blast site seems to have a considerable impact; the four neighborhoods mentioned previously are the closest to the post, while the areas furthest away have the least proportions of businesses that closed. This suggests that although there are many simultaneous crises occurring in Lebanon, the explosion was the main driver of business closure in this instance.

Businesses in operation
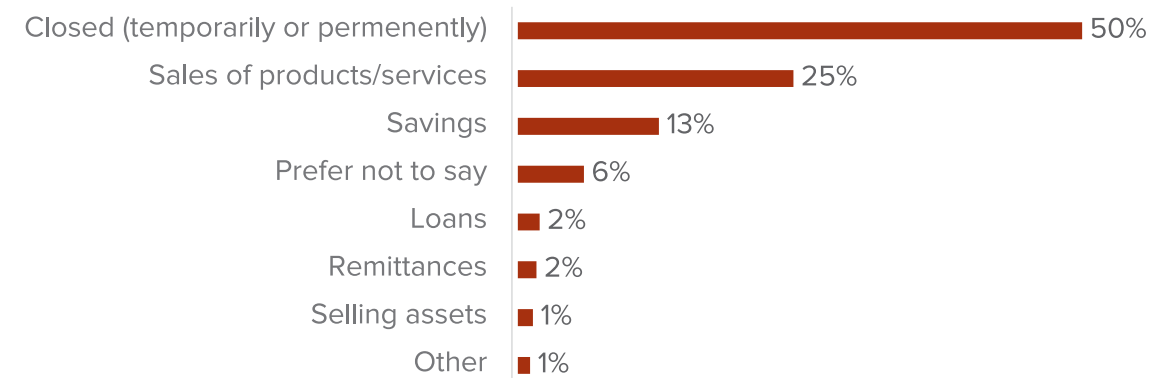
Figure 12: Business operation cash source

Of the 50% of businesses that remained operational just after the blast, only half were relying on sales of their products and businesses for their cash needs. In other words, out of all businesses surveyed, only 25% were relying on business sales to remain operational, the other 75% were either closed or must rely on other sources of financing, such as savings or loans, for financing needs. This highlights the issue of dissaving opted for by a significant majority of businesses.

	Sales of products/ services	Savings	Other	Closed
Artisanal	17%	11%	9%	64%
Hospitality	14%	8%	8%	70%
Knowledge	25%	16%	18%	41%
Manufacturing	43%	10%	9%	39%
Other services	22%	17%	19%	42%
Retail	33%	8%	8%	51%
Services for individuals	25%	14%	10%	52%
Total	50%	25%	13%	13%

Table 14: Business Operation Cash Source by Sector

Due to low sample sizes in some of the response categories, the categories that got less than 6% were combined under "Other" for the sector disaggregation. In terms of sector, manufacturing and retail businesses seem to be most able to sustain their operations by relying on sales of products and services. The other sectors also rely most heavily on sales, however at a significantly lower proportion. Considering the businesses that were still operational, about a third of those businesses relied on their savings. Very few businesses, across sectors, rely on the other categories, namely loans, remittances, selling assets, cash grants, or prefer not to say.

Access to assets, utilities and infrastructure services

55% I have sufficent access to all of the above

25% Electricity

14% Water

11% Fuel for equipment (generator, etc.)

8% Wastewater and sanitation

6% Gas for cooking/ heating

4% Appliances/ furnishing/equipment/ stock/car (if taxi)

9% Other

Figure 13: Items the business now lacks sufficient access to (Multiple choice question)

As a result of the explosion, approximately half of businesses lack sufficient access to one or more essential assets, utilities and infrastructure services. Electricity is the main service that most businesses lack sufficient access to, which is unsurprising given the condition of the electricity sector in Lebanon, which has continued to deteriorate through over the subsequent and overlapping social, economic, and political crises. In fact, the top five services that businesses lack sufficient access to are all utilities or utility services provided by the government. Only 4% of business lack access to required appliance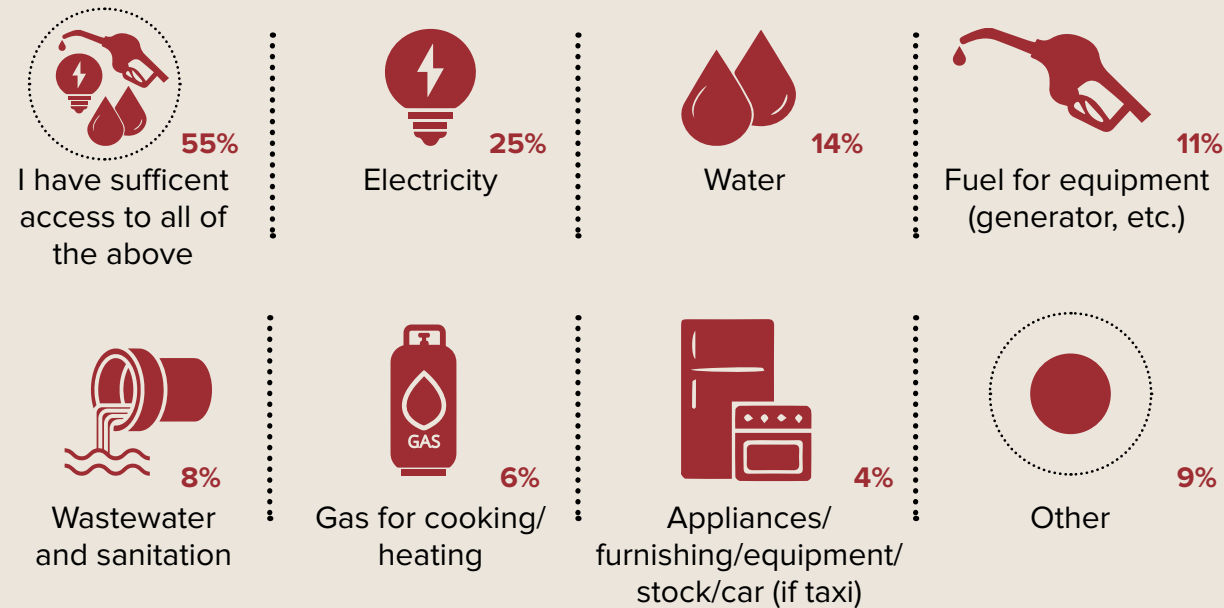s, furnishing, equipment, stock, or cars (if taxi). The other category encompasses internet, cash, primary structures, secondary structures, and an "other" option that was available on the survey; each of those categories were selected by very few businesses so the results were aggregated. Interestingly, zero businesses claimed that they lack access to internet.

	Sufficient access to all of the above	Electricity	Water	Fuel for equipment	Wastewater / sanitation	Gas for cooking / heating	Appliances/ stock	Other
Artisanal	52%	23%	10%	11%	5%	5%	4%	15%
Hospitality	47%	33%	22%	15%	12%	14%	4%	10%
Knowledge	58%	26%	13%	10%	9%	4%	5%	10%
Manufacturing	56%	26%	12%	14%	7%	6%	5%	3%
Other services	58%	24%	16%	11%	10%	4%	5%	8%
Retail	60%	24%	10%	7%	5%	4%	2%	10%
Services for the individuals	59%	24%	12%	11%	6%	5%	4%	7%

Table 15: Items the business now lacks sufficient access to by Sector

The sectors generally follow the same pattern as the aggregated results, however there are a few notable observations. Given their likely greater reliance on gas for cooking, 14% of retail businesses do not have sufficient access to gas for cooking / heating, which is more than double the cross-sector average. Similarly, given that the hospitality sector heavily relies on water and wastewater to run their operations, businesses may require greater access to wastewater and sanitation services, which may explain why more hospitality businesses have insufficient access to these services. Overall, businesses in the hospitality sector are less likely to have sufficient access to all the mentioned assets, utilities and infrastructure services, and more likely to have stated that they lack access to one or more of the other assets, utilities and infrastructure services. In fact, the sector leads in all categories.

Reliance on port

No major impact — 38%
Not sure — 15%
Impact is indirect (damaged premises, decreased or halted business operations due to damages or relocation of... — 15%
Yes, my business is related to the port operation — 13%
Yes, I import raw materials through the port — 11%
Other — 5%
Yes, I export through the port — 2%
Respondent is/was an employee — 1%
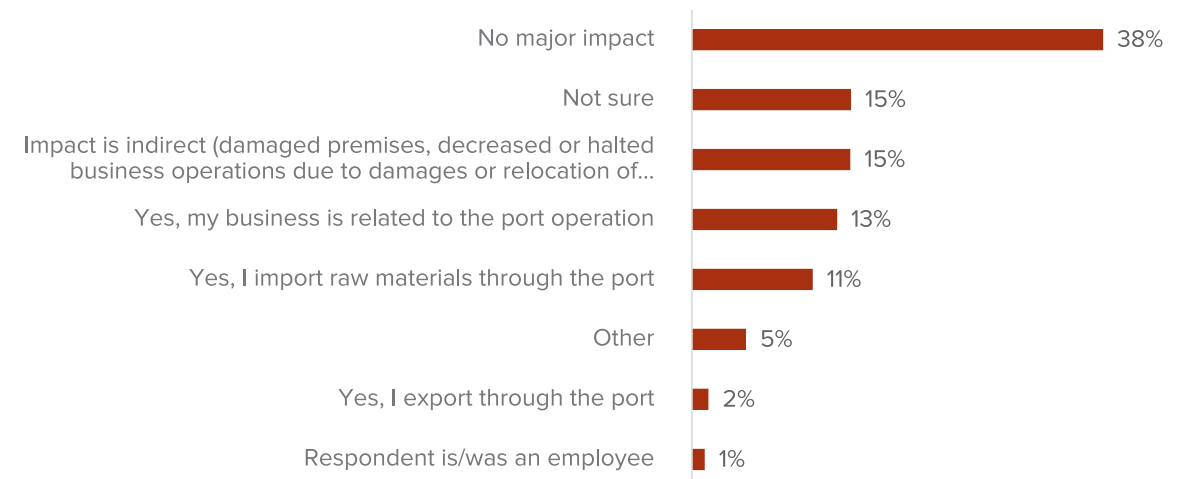
Figure 14: Direct impact of the explosion on business operations

The majority, 68%, of businesses did not experience any major impact, experienced an indirect impact or are not sure about the impact of the port on their business. 13% of businesses that responded work in relation to the port. Considering imports versus exports, five times as many businesses import raw materials when compared to the 2% that export through the port.

	Yes, I export through the port	Yes, I import raw materials through the port	Yes, my business is related to the port operation	Other / Indirect impact
Artisanal	3%	10%	9%	79%
Hospitality	1%	10%	7%	81%
Knowledge	1%	14%	7%	78%
Manufacturing	6%	19%	13%	62%
Other services	1%	8%	23%	68%
Retail	2%	17%	17%	64%
Services for the individuals	0%	6%	5%	88%

Table 16: Reliance on port by Sector

Similar to the previous section, categories with low response rates were combined to ensure significant results when disaggregating by sector or neighborhood. Artisanal, hospitality, knowledge, and services for individuals are least related to the port. Manufacturing, retail, and other services sectors have the highest proportions of businesses that either import, export, or operate related to the port. Approximately one in five manufacturing businesses import through the port, while one in four other services business are related to port operations. Generally, few business export items through the port across all sectors.

	Yes, I export through the port	Yes, I import raw materials through the port	Yes, my business is related to the port operation	Other / Indirect impact
Achrafieh	2%	10%	8%	80%
Ain el-Mreisseh	0%	11%	13%	77%
Bachoura	1%	8%	8%	83%
Baouchriyeh	3%	18%	0%	79%
Beirut Central District	0%	2%	9%	89%
Bourj Hammoud	2%	13%	16%	69%
Chiyah	0%	9%	13%	78%
Dekouaneh	2%	12%	2%	83%
Jdaidet El-Matn	0%	3%	9%	88%
Marfaa	2%	8%	53%	38%
Mazraa	1%	16%	8%	74%
Medawar	3%	17%	24%	56%
Minet el-Hosn	0%	10%	8%	82%
Moussaytbeh	2%	12%	8%	78%
Ras Beyrouth	2%	11%	14%	74%
Remeil	0%	12%	7%	81%
Saifeh	2%	11%	20%	67%
Sinn El-Fil	1%	14%	6%	79%
Zoukak el-Blatt	2%	9%	16%	73%

Table 17: Reliance on port by neighborhood

As the neighborhood closest to the port, half of the businesses in Marfaa are related to the port operation. Medawar is the area with the second highest proportion if businesses that work with the port and with the highest proportion of businesses that import raw materials through the port.

Employee injuries

Businesses that have employees, 45% of the 3,186 respondents, were asked to report on the impact on their employees. The other 55% are freelancers, self-owned businesses where the owner is the only one operating the businesses, or family businesses where the owner is operating only with the support of family members. Given that the number of respondents is lower for this section (1,464) cross-tabulations across sector and neighborhood were not always possible as precision of results were reduced significantly. No notable difference was observed between the distribution across gender.

Your personnel haven't sustained any type of injuries — 59.1%
personnel have sustained minor injuries — 33.6%
personnel have sustained serious injuries — 5.8%
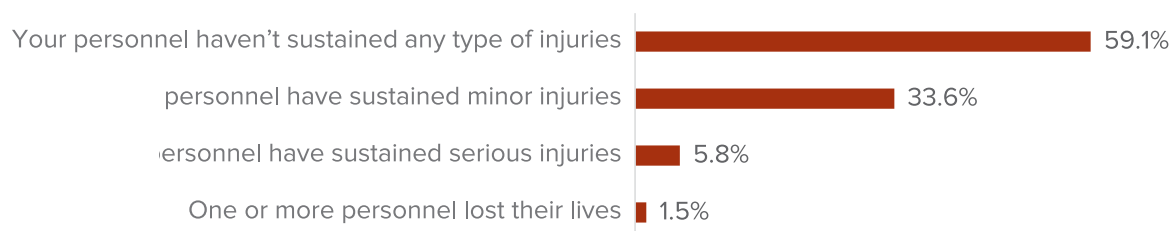One or more personnel lost their lives — 1.5%

Figure 15: Impact on the personnel of the business

Across all sectors, 40% of businesses have employees that sustained minor injuries, serious injuries, or lost their lives. When taking into account the sector perspective, hospitality and retail businesses' employees sustained the most injuries. The table is presented as absolute numbers instead of proportions because the number of responses were low for most categories, reducing accuracy and making percentages misleading. The absolute numbers offer some level of insight, but caution is advised to avoid drawing broader trends from the data. Disaggregating by neighborhood resulted in too few responses per category. However, as expected, neighborhoods closest to the blast seemed to have higher rates of injury.

	Personnel sustained minor injuries	Personnel sustained serious injuries	Personnel lost their lives	No injuries	Total
Artisanal	14	4	1	28	**47**
Hospitality	124	23	8	148	**303**
Knowledge	54	9	4	111	**178**
Manufacturing	40	7	-	114	**161**
Other services	119	25	15	286	**445**
Retail	75	10	-	91	**176**
Services for the individuals	57	6	1	90	**154**
Total	483	84	29	868	1464

Table 18: Employee injuries by sector

Business losses (USD) due to blast

No direct or indirect loss — 4.9%
Less than USD 10,000 — 40.5%
Between USD 10,000 and USD 50,000 — 24.5%
Between USD 50,000 and USD 100,000 — 7.1%
Between USD 100,000 and USD 250,000 — 4.3%
Between USD 250,000 and USD 1,000,000 — 4.2%
More than USD 1,000,000 — 5.5%
Do not know — 9.1%
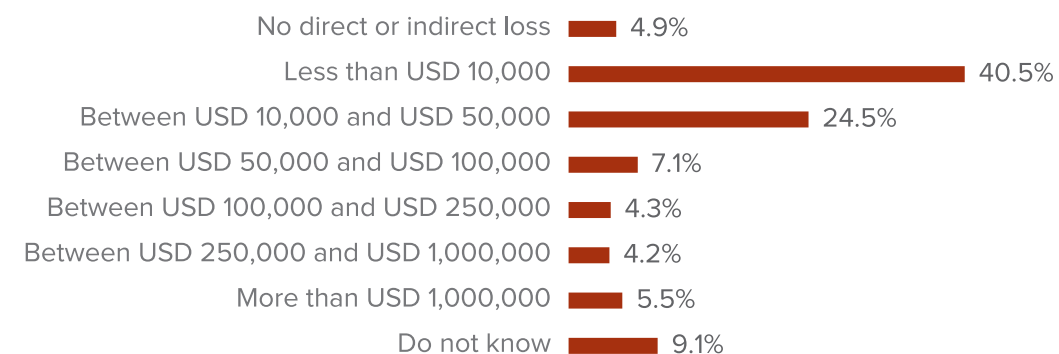
Figure 16: Direct and indirect losses due to the explosion

Only 5% of businesses report no direct or indirect loss. The majority (65%) estimate their losses to be less than USD 50,000, with 40% estimating to be less than USD 10,000. However, it is important to recall the concurrent currency crisis that has seen the Lebanese lira devalue from approximately USD 1 : LBP 1,500 to USD 1 : LBP 7,500 (the approximate average rate in August 2020). The currency devaluation may result in further inflating these losses when valuated in Lebanese Pounds.

In terms of sectors, they follow similar distributions with very minor differences. The other services sector is most represented in the USD 1M+ category, while retail seems skewed towards lower estimated loss categories.

	No direct or indirect loss	< USD 10,000	USD 10,000 - 50,000	USD 50,000 - 100,000	USD 100,000 - 250,000	USD 250,000 - USD 1M	USD 1M+	Do not know
Artisanal	6%	42%	23%	8%	5%	1%	4%	13%
Hospitality	3%	35%	26%	9%	4%	4%	7%	12%
Knowledge	5%	41%	25%	7%	5%	6%	5%	6%
Manufacturing	8%	45%	25%	4%	4%	5%	2%	7%
Other services	5%	33%	26%	8%	5%	6%	9%	8%
Retail	3%	50%	22%	7%	3%	3%	2%	9%
Services for the individuals	6%	49%	22%	6%	2%	2%	4%	9%

TABLE 19: BUSINESS LOSSES (USD) BY SECTOR

Future outlook

This chapter presents future outlook insights. Business expectations are typically a good indicator of economic climate. In this situation, it also reflects their level of confidence in support from the government and other actors, as well as their own ability to recovery.
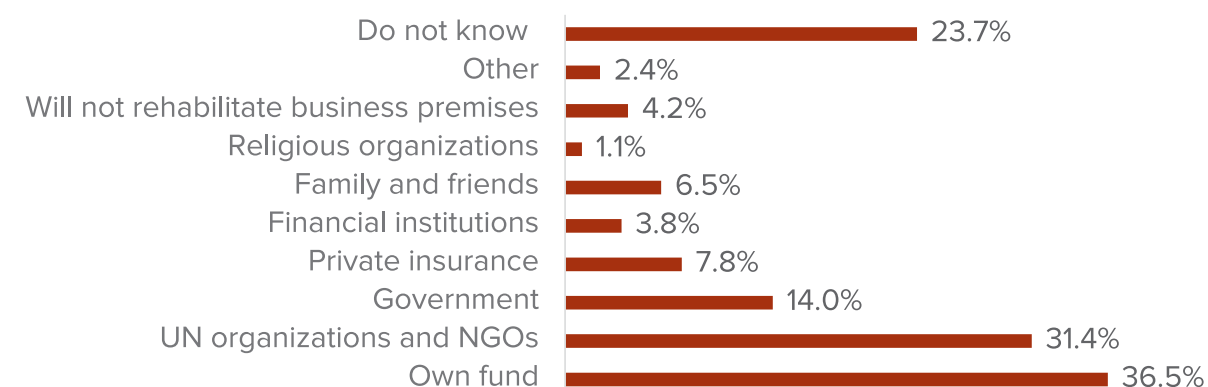
Rehabilitation spending expectation

FIGURE 17: EXPECT TO REHABILITATE THE BUSINESS BY RELYING ON (MULTIPLE CHOICE QUESTION)

Respondents were asked how they expect to rehabilitate their businesses; the question allowed for multiple selections as they may rely on several sources of funding[4]. Businesses mainly expect to rely on their own funds for rehabilitation, or support from UN organizations and NGOs. Only 14% of respondents expected to receive support from the government. It's also notable that approximately a quarter of businesses still did not know how they will rehabilitate in the weeks after the blast.

Considering how businesses from different sectors responded reveals similarities and some differences. Generally, the distribution of responses is similar and follows the trend visible in the above figure. Notably, more businesses in the knowledge sector (45%) expect to rely on their own funds when compared to the cross-sector average of 37%, and they expect to receive less support across the different categories. The hospitality sector also deviates slightly from the overall trend, with fewer businesses expecting to rely on their own fund and more businesses expect to receive support from private insurance and financial institutions.

	Own fund	Govt	UN and NGOs	Private insurance	Financial institutions	Family and friends	Religious organizations	Will not rehabilitate	Other	Do not know
Artisanal	32%	16%	31%	4%	1%	10%	0%	4%	2%	26%
Hospitality	26%	15%	36%	11%	7%	9%	2%	4%	2%	27%
Knowledge	45%	11%	25%	6%	3%	6%	1%	6%	3%	20%
Manufacturing	40%	13%	24%	7%	4%	6%	1%	4%	5%	23%
Other services	39%	16%	31%	9%	3%	4%	2%	4%	2%	23%
Retail	37%	13%	36%	9%	3%	8%	0%	3%	2%	24%
Services for the individuals	36%	12%	32%	5%	4%	5%	1%	6%	2%	23%

TABLE 20: EXPECTED SOURCE OF REHABILITATION SUPPORT BY SECTOR

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4 Multiple items could be selected per respondent, the percentages in Figure 17 add up to greater than 100%.
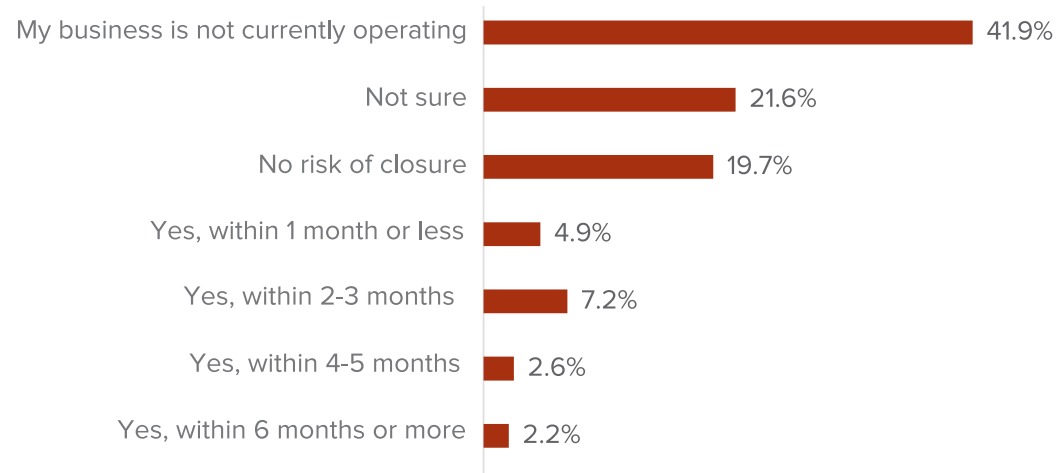
Expected closure of business

FIGURE 18: RISK OF PERMANENTLY SHUT DOWN BECAUSE OF THE EXPLOSION

Only one in five businesses responded that there was no risk of closure, indicating that about 80% of businesses are either closed or at risk of closure. Although the survey was intended to measure the impact of the blast, the concurrent longer term economic crisis have left businesses extraordinarily vulnerable to shock.

Compared to other sectors, the manufacturing, knowledge, and other services sector have the lowest risk of closure, however the proportions of business at risk of closure is still high.

	Not operating	Within 1 month or less	Within 2 –3 months	Within 4 –5 months	Within 6 months or more	No risk of closure	Not sure
Artisanal	54%	4%	6%	3%	3%	17%	14%
Hospitality	59%	5%	7%	2%	1%	9%	18%
Knowledge	32%	7%	10%	4%	4%	24%	19%
Manufacturing	36%	3%	6%	1%	2%	34%	19%
Other services	33%	5%	5%	3%	2%	25%	26%
Retail	43%	5%	8%	3%	3%	14%	22%
Services for the individuals	43%	6%	9%	2%	1%	15%	23%

TABLE 21: EXPECTED CLOSURE OF BUSINESS BY SECTOR

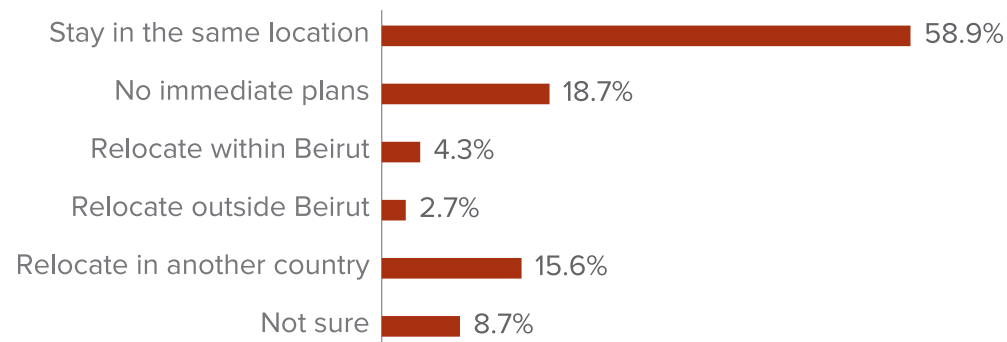## Immediate plans regarding business operations

FIGURE 19: IMMEDIATE PLAN REGARDING THE BUSINESS OPERATIONS

The majority of businesses (78%) are planning to stay in the same location or have no immediate plans to relocate. However, notably, 15.6% of respondents are planning on relocating to another country. Interestingly, the sector does not seem to have a large impact on the likelihood to relocate or remain in the same location. Businesses in the manufacturing sector are most likely to remain in the same location, and least likely to relocate anywhere.

	No immediate plans	Stay in the same location	Relocate within Beirut	Relocate outside Beirut	Relocate in another country	Not sure
Artisanal	17%	53%	4%	3%	15%	9%
Hospitality	18%	51%	4%	2%	16%	10%
Knowledge	17%	52%	5%	4%	16%	6%
Manufacturing	16%	64%	2%	2%	10%	6%
Other services	17%	55%	5%	2%	13%	8%
Retail	16%	59%	3%	2%	13%	8%
Services for the individuals	19%	48%	4%	4%	18%	8%

TABLE 22: EXPECTED RELOCATION PLANS BY SECTOR

Assistance received & needed

Within weeks of the explosion, countless local and international organizations mobilized to provide assistance to those in need. However, there was limited understanding of the needs of the impacted households and businesses, and where needs were being met. The SEIA survey attempted to bridge this information gap by asking businesses what their needs are, what type of assistance they received, and which groups provided the assistance.
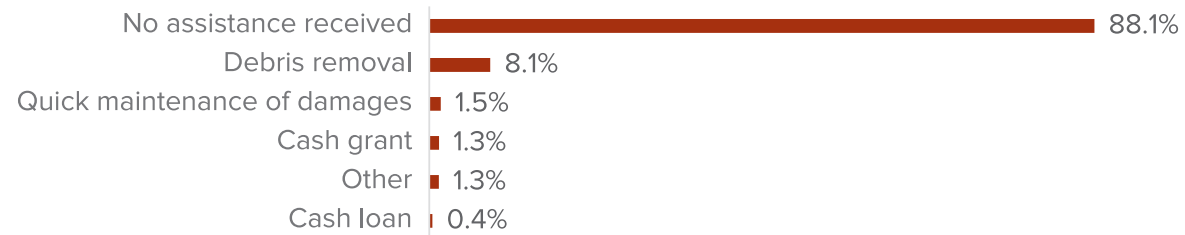
Type of assistance received

Figure 20: Assistance received (Multiple choice question)

The vast majority of businesses, nine out of ten, did not receive any assistance in the weeks after the blast. Most of the businesses that did receive assistance received debris removal assistance. Given that the SEIA was conducted within a month of the blast, debris removal was the priority. It is possible that in the months following the explosion, businesses received other forms of assistance.

Table 23 shows that there is little difference between the sectors. Hospitality and retail businesses received higher than average support in terms of debris removal, while manufacturing received lower than average.

	Cash grant	Cash loan	Debris removal	Quick maintenance of damages	Reconnection to utilities	Other	No assistance received
Artisanal	3%	1%	9%	2%	0%	1%	86%
Hospitality	2%	0%	11%	1%	0%	1%	86%
Knowledge	1%	0%	8%	1%	0%	2%	89%
Manufacturing	2%	0%	4%	1%	0%	3%	89%
Other services	1%	0%	7%	1%	0%	1%	90%
Retail	1%	0%	10%	1%	0%	0%	89%
Services for the individuals	1%	1%	8%	4%	0%	2%	86%

Table 23: Type of assistance received by sector

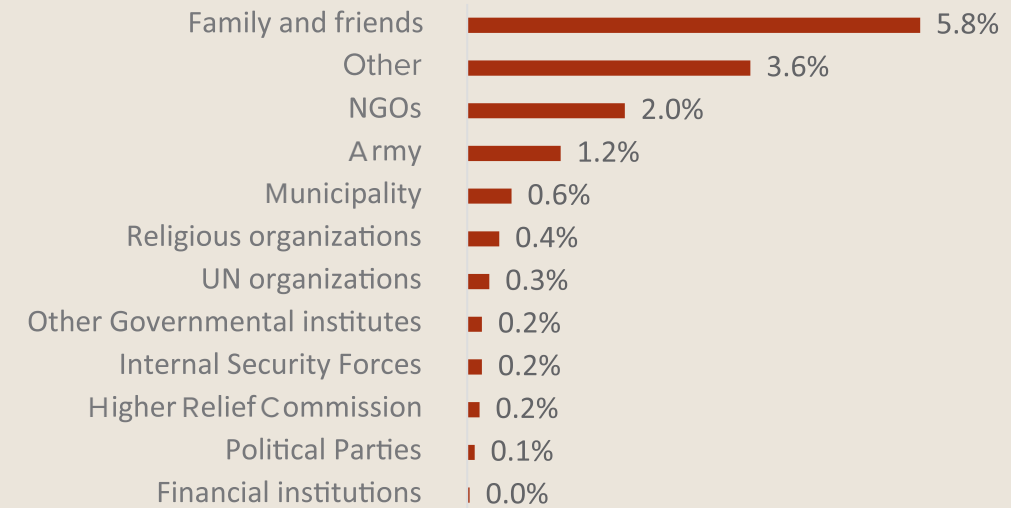## Assistance received from different actors

Figure 21: Source of assistance received (Multiple choice question)

Given that only 12% of respondents received any assistance, the number of responses per category was relatively low. Family and friends were the most common source of assistance, but only 5.8% of businesses received assistance from that source. Less than 2% of businesses received support from any government organization, non-governmental organization, or financial institutions.

	UN organizations	Religious organizations	The municipality	The army	NGOs	Other	Family and friends
Artisanal	3	1	0	4	3	9	12
Hospitality	0	3	5	4	10	27	42
Knowledge	1	1	1	3	8	17	19
Manufacturing	1	0	1	2	2	14	14
Other services	3	6	4	9	13	33	34
Retail	0	2	5	10	12	16	29
Services for the individuals	1	0	2	6	16	20	34

Table 24: Source of assistance received by sector[5]
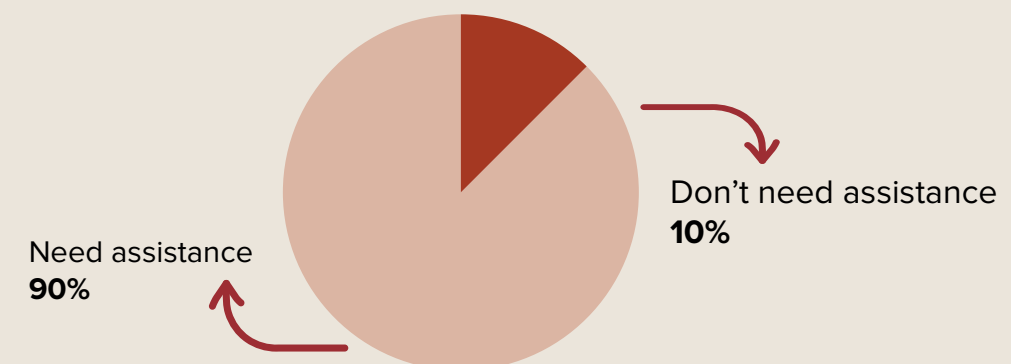
Assistance needed

Figure 22: Assistance immediately needed

5 Due to the low number of businesses that received assistance, the sector breakdown is presented in absolute numbers. The sample size is too low to conclude any trends. The categories that had the lowest number of respondents were combined under "other".

While only 12% of businesses received assistance in the weeks after the blast, 90% stated that they need assistance, which illustrates a sizable gap.

While debris removal was indicated to be the most frequent type of assistance received, it is still low with 8% of businesses receiving that assistance. Businesses expressed their needs for further assistance mainly in terms of financial resources and support repairing / rebuilding businesses with about half of all respondents explicitly referring to these two needs. Also, access to market was expressed as a potential area for support by around 15% of respondents. Also access to loans was specified by 13%. It is natural to have the majority of businesses prioritizing recovery support to rehabilitate and repair their business premises, however, longer term support to bring back these businesses to full functionality was also seen as priority.
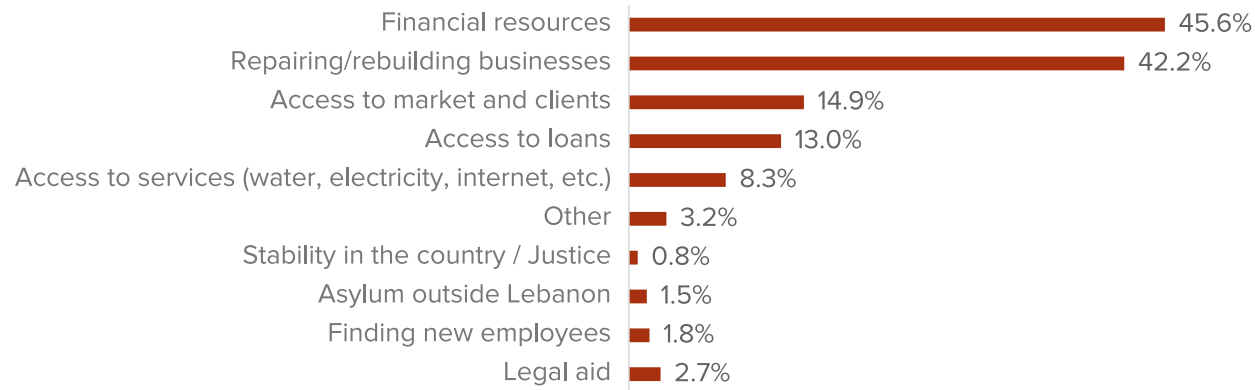
Type of assistance	Percentage
Financial resources	45.6%
Repairing/rebuilding businesses	42.2%
Access to market and clients	14.9%
Access to loans	13.0%
Access to services (water, electricity, internet, etc.)	8.3%
Other	3.2%
Stability in the country / Justice	0.8%
Asylum outside Lebanon	1.5%
Finding new employees	1.8%
Legal aid	2.7%

Figure 23: Type of assistance immediately needed (Multiple choice question) [6]

Needs generally follow a similar trend across sectors with some notable differences. The proportion of hospitality businesses that needs financial resources (55%) is higher than the cross-sector average of 45.6%. Knowledge sector are less likely to need help repairing or rebuilding businesses, but more likely to need help accessing markets and clients. There is a high likelihood that the latter can work independently of a physical location, however, they are clearly affected by the broader economic crisis that was further aggravated by the blast.

	Financial resources	Repairing / rebuilding businesses	Access to market and clients	Access to loans	Access to services	Other	Don't need any assistance
Artisanal	40%	40%	16%	14%	6%	12%	7%
Hospitality	55%	42%	13%	12%	10%	15%	7%
Knowledge	47%	35%	19%	16%	11%	9%	16%
Manufacturing	45%	42%	21%	16%	8%	10%	15%
Other services	41%	44%	12%	11%	8%	9%	12%
Retail	49%	44%	16%	14%	7%	6%	8%
Services for the individuals	42%	44%	15%	12%	7%	10%	9%

Table 25: Type of assistance needed by sector[7]

Location appears to have a greater impact than sector on business needs. Businesses closer to the blast site have more needs across all categories, which is indicated by those that said they do not need any assistance. It is notable that in all areas, the vast majority of businesses need some form of assistance, ranging from 99% of businesses in Medawar to 78% of businesses in Ras Beirut.

There are also differences concerning the type of assistance required. The neighborhoods closest to the port have more businesses that need support in repairing and rebuilding their premises, for example 73% of businesses in Marfaa need rebuilding support versus 27% in Ain el-Mreisseh. The relationship of location to the need for financial resources is less conclusive because the need financial support may not be necessarily linked only to the impact of the explosion.

	Financial resources	Repairing / rebuilding business	Access to market and clients	Access to loans	Access to services	Other	Don't need any assistance
Achrafieh	49%	54%	12%	11%	10%	9%	7%
Ain el-Mreisseh	38%	27%	11%	19%	6%	9%	20%
Bachoura	41%	49%	14%	16%	4%	9%	8%
Baouchriyeh	32%	47%	26%	21%	0%	9%	6%
Beirut Central District	27%	62%	13%	7%	7%	4%	9%
Bourj Hammoud	49%	38%	12%	12%	4%	7%	11%
Chiyah	30%	17%	20%	20%	2%	7%	22%
Dekouaneh	45%	38%	21%	12%	7%	10%	12%
Jdaidet El-Matn	45%	27%	30%	27%	0%	15%	18%
Marfaa	53%	46%	8%	14%	17%	12%	5%
Mazraa	40%	21%	16%	13%	5%	8%	19%
Medawar	56%	73%	13%	15%	20%	5%	1%
Minet el-Hosn	42%	55%	14%	5%	4%	11%	12%
Moussaytbeh	39%	37%	22%	15%	4%	6%	13%
Ras Beyrouth	42%	20%	14%	16%	5%	11%	22%
Remeil	50%	71%	16%	14%	14%	8%	5%
Saifeh	49%	62%	12%	13%	10%	11%	5%
Sinn El-Fil	37%	38%	20%	11%	6%	14%	10%
Zoukak el-Blatt	44%	36%	20%	5%	9%	9%	15%

Table 26: Type of assistance needed by neighborhood

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6 Multiple items could be selected per respondent, the percentages could add up to greater than 100%.
7 Categories with few responses when disaggregated by sector or location were combined under "other".

Conclusions

The digital SEIA proved to be an efficient tool to capture people's own assessment of the blast's implications on business activities.

A follow-up assessment six or nine months after the blast would allow for a better understanding of the needs of these businesses beyond the immediate physical damages caused by the blast.

In-depth interviews, ideally in the format of a panel study, where the same respondents are re-interviewed at intervals, could capture the complex and continuously evolving socio-economic conditions of impacted businesses.

Such studies, or any further surveys, are essential to record the medium- and long-term impact of the explosion and the other concurrent and persistent crises including the currency devaluation, the pandemic, and the political instability.