



Image: Products for sale from a grantee's grocery business, October 2022.

Income-Generating Activities for Cohort 1 of the Refugee Livelihoods Development Impact Bond

Estimated business metric: 98.5 percent

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Summary of findings

About 10 months after disbursement of grants funded by the Refugee Impact Bond, 98.5 percent of the first cohort of grantees were engaged in an active income-generating activity. Most grantees reported positive revenues and profits from their business in the month prior to the survey, modest overall business savings, and little overall business debt. Grantees also reported that their businesses provided a mean monthly income of 89 Jordanian dinars (JOD) (126 USD), with a median of 50 JOD (71 USD), to use for their personal or household expenses.

Background

The Near East Foundation's (NEF's) micro-enterprise creation and resilience-building program in Jordan includes training in life and business skills, cash grants to finance micro-enterprises, and additional support for these enterprises. The program, which serves vulnerable Jordanians and refugees, is being funded by a Development Impact Bond (DIB) and implemented through five *Siraj* centers across the country. The DIB-funded program will include three cohorts that began or will begin training in February 2022, January 2023, and April 2024, respectively. Training participants develop a business plan and can apply for the program's grants, which are awarded to successful applicants about five months after their cohort starts training, on average.

In May and June 2023, Mathematica and Mindset conducted a survey of a sample of grantees from the first cohort of the program, about 10 months after grant disbursal. The survey measured a variety of outcomes related to grantees' businesses, as well as their employment status and income from employment. The remainder of this brief summarizes the findings from this survey in further detail. A comprehensive set of data tables are in Appendix A and technical details about the survey and the analysis are in Appendix B.

Business metric

To meet the criteria for an active income generating activity (IGA, the DIB's "business metric"), a respondent needed to provide documentation of or details about a sales transaction, purchase transaction, or preparations

for a future sale related to their business within 60 days prior to the survey. Respondents who did not report an active business could also satisfy the conditions through formal employment.¹

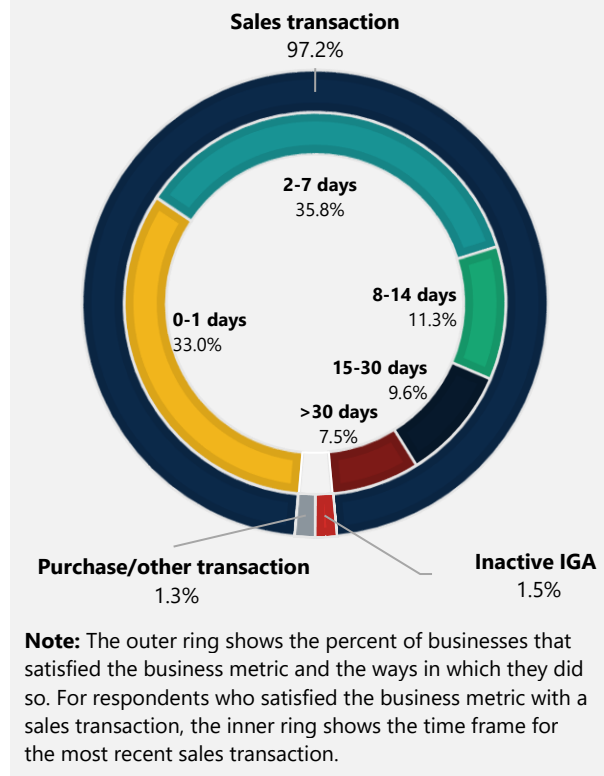
Our findings are based on a representative sample of 603 Cohort 1 grantees. Survey respondents were 85 percent women, 29 percent refugees, and 24 percent youth; 7 percent had a disability (Table A1a). Respondents' mean age was 38 years, about one-third were heads of their household, and their mean household size was 5 people. NEF had provided them grants averaging 566 JOD (798 USD)² to support their businesses. About 13 percent of respondents sought to improve an existing business through their grant while the remainder established a new business. The most common types of businesses were home food processing (28 percent), sales of clothes, shoes, and cosmetics (16 percent), and home sewing and tailoring (14 percent).

About 10 months after grant disbursement, 98.5 percent of respondents had an active IGA (Table A2).³ Almost all respondents who satisfied the criteria of the business metric did so by providing documentation of a sales transaction within the prior 60 days or conducting one during the survey (Figure 1). More than two-thirds of respondents had conducted at least one such transaction within the previous 7 days, including 1.5 percent who conducted one during the survey. No additional respondents satisfied the business metric based on the employment-based criteria because the 3.2 percent of respondents who met the criteria for formal employment also had active

businesses.

The business metric was similarly high across demographic subgroups and sites. The metric was above 98 percent for both genders, for refugees and Jordanians, and for youth and adults. Grantees from two program sites, Russeifa and Zarqa, achieved a business metric of 100 percent, but the metric was also very high in the other three sites.

Figure 1. Most grantees reported conducting an eligible sales transaction in the past week



¹ These criteria were initially outlined in the DIB agreements and further defined in the evaluation framework report (Borkum et al. 2022). In Appendix B we provide additional details about the definition of the business metric.

² For clarity of presentation, we do not present conversions from JOD to USD for the remainder of this brief. This exchange rate is pegged, and JOD can be converted to USD by multiplying by 1.41.

³The 95-percent confidence interval around this estimate is 97.8 to 99.2 percent, meaning that there is a 95 percent probability that the business metric for the population of grantees is between 97.8 percent and 99.2 percent. The final survey response rate was 85 percent. We do not consider this rate of nonresponse a significant source of bias. Under the conservative assumption that the business metric for non-respondents is half that of respondents, the business metric would still be more than 91 percent overall.

Business financial metrics

In addition to questions needed to estimate the business metric, the survey also included questions about financial metrics: monthly revenues and costs—which we used to calculate a rough proxy for monthly profits—and current business savings and debt.⁴ Questions about revenues and costs referenced the calendar month immediately prior to the survey. Although these monthly metrics likely fluctuate from month to month, this provides a useful snapshot of the status of grantees’ businesses at the time of the survey.

Most respondents with active businesses reported that their businesses generated positive revenues and were profitable during the calendar month preceding the survey.

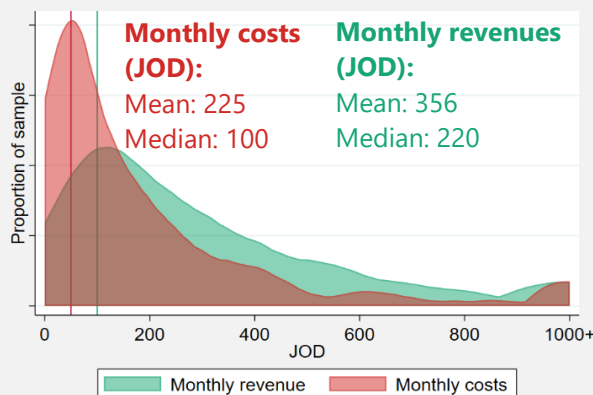
Across the sample, mean revenues for the full month prior to the survey were 356 JOD and median revenues were 220 JOD (Figure 2, Tables A3.1-A3.2). About 9 in 10 grantees reported revenues that were higher than their monthly costs, translating into mean estimated monthly profits of 130 JOD and median estimated monthly

profits of 94 JOD. Grantees reported modest overall business savings (mean 290 JOD, median 150 JOD), and relatively low overall business debt (mean 92 JOD, median 0 JOD).

Male grantees reported higher levels of revenues and profits than female grantees.

Male grantees reported mean revenues of 681 JOD, which translates into approximately 192 JOD in monthly profits after accounting for costs. Female grantees reported mean revenues of 297 JOD, less than half those of male grantees, and mean profits of 118 JOD. On average, female grantees reported 55 percent of the business savings of male grantees, but also had only 9 percent of males’ levels of business debt. These differences between men and women might be related to the different types of businesses they operate. Whereas almost half of female grantees operated home-based food processing or tailoring businesses, the type of businesses operated by male grantees were more variable and included business types that are likely to involve more frequent and/or higher-value transactions (for example, computer businesses, animal breeding, and mobile maintenance services) (Table A1b).

Figure 2. Grantees’ mean monthly revenues generally exceeded their mean monthly costs



Note: Vertical lines show the median value for each metric. Standard deviations are 478 JOD for monthly costs and 540 JOD for monthly revenues.

Revenues and profits were also higher for refugees than Jordanians and for adults than youth, although these subgroup differences were not as large as those by gender. We do not have a definitive explanation for these differences. However, a much higher rate of existing businesses for refugees than Jordanians (23 versus 8 percent), plus a higher proportion of males (20 versus 13 percent), might be contributing factors.

Take-home business income

The survey also asked respondents how much business income they used for personal and household expenses during the full month prior to

⁴ Revenues and costs were estimated from respondents’ written records, where available (about three-quarters

of cases for both revenues and costs), or else self-reported. Business savings and debt were self-reported.

the survey.⁵ We consider this an important measure of whether grantees’ IGAs are likely to translate into increased consumption, as anticipated by the program logic and as will be measured as part of the impact evaluation.

The mean take-home business income among active businesses was 89 JOD, and the median was 50 JOD (Figure 3, Tables A3.1-A3.2). About 86 percent of respondents with active businesses reported a positive take-home business income in the month prior to the survey. As with revenues and profits, mean take-home incomes were higher for men than women (142 JOD versus 80 JOD), for refugees than Jordanians (115 JOD versus 79 JOD), and for adults than youth (96 JOD versus 68 JOD). Overall mean take-home income amounts to about one-third of the Jordanian minimum monthly wage (260 JOD). For refugees, it amounts to about one-third of mean monthly household

expenditures, estimated in recent UNHCR survey (321 JOD).⁶

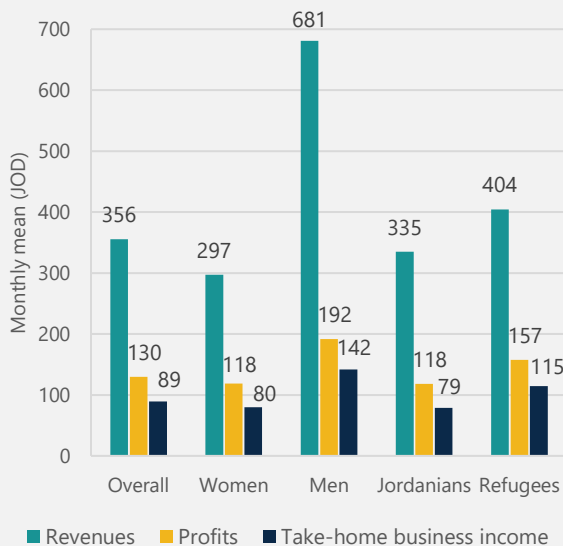
Grantees anticipate growing their take-home business incomes over the coming year (Tables A3.1-A3.2). The survey also asked respondents how much monthly income they hoped to take home from their business one year from the survey, which is one measure of their aspirations for their business. Median anticipated take-home incomes across subgroups were about double current levels, except for refugees, who expect more modest increases, and youth, who expect more substantial increases.

Business practices

Drawing on a business practice measurement approach that was developed by researchers at the World Bank and has been implemented in several other low- and middle-income countries, we assessed the extent to which grantees reported implementing business management best practices in four different domains: (a) business records, (b) financial planning, (c) buying and stock management, and (d) marketing. These scores have been found to be positively correlated with business sales and profits.⁷ A summary of the components of the various scores is available in Appendix C.

The overall business practices score was 16.4 out of 21, or 78 percent of the maximum score (Table A4). Respondents scored relatively well on business records practices (a mean of 6.5 out of 7, or 93 percent), which is consistent with the large share of grantees who were able to provide documentation of a recent transaction. The lowest scores were for financial planning practices (mean 2.7 out of 4, or 66 percent), and buying and stock management practices (mean 2.1 out of 3, or 70 percent). The mean marketing practices score was

Figure 3. Mean monthly revenues, profits, and take-home business incomes were higher for men and for refugees



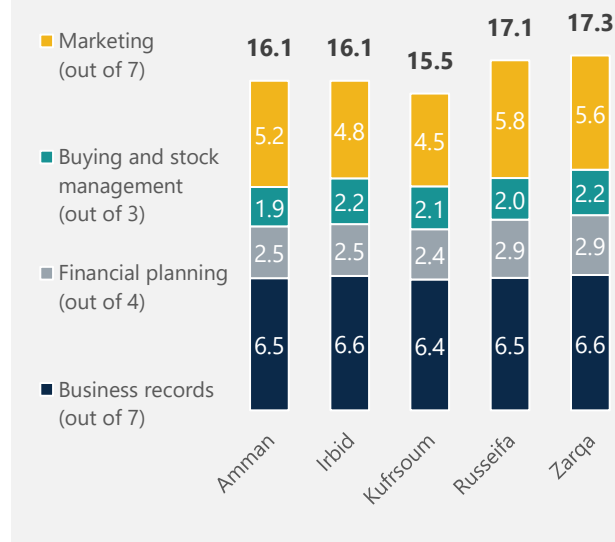
⁵ Take-home business income was self-reported and was not linked directly to estimated profits.

⁶ UNHCR collected these data from a representative sample of refugees across Jordan in Q2 2023. <https://data.unhcr.org/en/documents/details/103118>.

⁷ McKenzie, David, and Christopher Woodruff. “Business Practices in Small Firms in Developing Countries.” *Management Science*, vol. 63, no. 9, 2016, pp. 2967-2981. <https://doi.org/10.1287/mnsc.2016.2492>.

5.2 out of 7, or 74 percent. Grantees in Zarqa and Russeifa received the highest mean overall scores, driven by higher scores for marketing and financial planning practices (Figure 4).⁸

Figure 4. Grantees in Zarqa and Russeifa had the highest business practice scores (out of 21)



Income from employment

The survey also asked all respondents whether they were employed in a wage-paying job, and for those who were, requested additional information about their jobs and employers. These questions were designed to assess whether any respondents without currently active businesses could satisfy the business metric via formal employment, and to gain a broader understanding of the economic activities in which grantees are engaged.

About 8 percent of respondents reported being employed in a wage-paying job in

addition to operating an active business. These respondents reported working a mean of 40 hours per week and earning mean monthly wages of 277 JOD (not shown). Of the employed respondents, about one-half met additional requirements for formal employment, including social security contributions or labor contracts, working at least 20 hours per week, and earning a monthly wage above the established Jordanian minimum wage. As mentioned earlier, all formally employed respondents also had active businesses. Overall, although some grantees are balancing running a business and employment, most are relying on their businesses as a source of income.

Next steps

We will continue to explore the implementation and results of the program for the first and subsequent cohorts using additional methods and data. The next steps for each evaluation activity are as follows:

- / **Process evaluation:** Integrated International completed the first round of qualitative data collection during the first week of August 2023. We will share preliminary results in September 2023.
- / **Impact evaluation:** Mathematica will share a draft survey instrument in November 2023. Mathematica and Mindset will collaborate to pretest the instrument in February 2024 and conduct the survey in May and June 2024.
- / **Business metric:** Mathematica and Mindset will conduct the IGA survey for Cohort 2 beginning in February 2024. Mathematica will provide our key findings in May 2024.

⁸ Zarqa and Russeifa are located near one another and share NEF implementation staff. The pattern of findings

might indicate a combination of shared implementation characteristics and similar contexts.

Appendix A. Data tables

Table A1a. Cohort 1 sample characteristics

Characteristic	All Cohort 1 grantees	Cohort 1 IGA survey sample
Demographic and household characteristics:		
Women (%)	83.4	84.7
Youth (%)	26.0	23.7
Refugees (%)	28.3	29.2
Mean age (years)	37	38
Head of household (%)	29.1	28.9
Has a disability (%)	7.3	7.5
Literate (%)	97.5	97.5
Mean household size	5.3	5.0
Program site (%):		
Amman	27.2	26.4
Irbid	15.8	15.4
Kufrsoum	19.8	20.2
Russeifa	12.9	13.3
Zarqa	24.3	24.7
Grant characteristics:		
Mean grant amount (JOD, NEF-reported)	566	566
Mean number of months between grant disbursement and survey date	n.a.	10.3
Had a business before training began (% , NEF-reported)	12.3	12.6
Business type (%):		
Home food processing	23.5	27.5
Trade in clothes and shoes, fabrics, accessories, perfumes, and make-up	18.9	15.6
Home sewing, tailoring and repair of clothes, shoes, and leather	11.9	14.4
Grocery and food trade	13.5	11.6
Men's and women's salons, beauty centers, and gyms	7.1	7.8
Other	25.1	23.1
Sample sizes	823	603

Sources: Gender, age, refugee status, program site, grant amount, grant disbursement date, and preexisting business at time of training are from NEF activity data. Head of household status, household size, and literacy are from the NEF's vulnerability assessment. Business type for all grantees is from NEF's activity data; business type for the survey sample was provided by the respondents at the time of the IGA survey.

Notes: n.a. = Not applicable. Youth are defined as being under age 25 at the beginning of the program.

Table A1b. Cohort 1 sample characteristics, by subgroup

Sample	Overall	Men	Women	Jordanians	Refugees	Youth	Adults
Grant characteristics (%):							
Mean grant amount (JOD, NEF-reported)	566	592	562	561	578	575	563
Had a business before training began (% , NEF-reported)	12.6	7.6	13.5	8.4	22.7	10.5	13.3
Business type (%):							
Home food processing	27.5	6.5	31.3	22.5	39.8	24.5	28.5
Trade in clothes and shoes, fabrics, accessories, perfumes, and make-up	15.6	9.8	16.6	19.0	7.4	14.7	15.9
Home sewing, tailoring and repair of clothes, shoes, and leather	14.4	6.5	15.9	12.6	18.8	7.7	16.5
Grocery and food trade	11.6	15.2	11.0	14.8	4.0	7.7	12.8
Men's and women's salons, beauty centers, and gyms	7.8	6.5	8.0	7.7	8.0	9.1	7.4
Hotels, wedding halls, party facilities, musical equipment, studios	2.2	3.3	2.0	2.3	1.7	2.8	2.0
Breeding and trading of sheep, livestock, fish, birds and bees	2.0	9.8	0.6	1.9	2.3	2.8	1.7
General maintenance (mobile business)	2.0	12.0	0.2	1.4	3.4	2.1	2.0
Agriculture, agricultural materials, feed and veterinary medicine	1.5	4.3	1.0	1.2	2.3	0.0	2.0
Furniture, furnishings, children's toys, home electrical and maintenance work	1.5	2.2	1.4	1.9	0.6	2.1	1.3

Sample	Overall	Men	Women	Jordanians	Refugees	Youth	Adults
Trade and maintenance of cellular, internet, computer equipment and accessories	1.2	5.4	0.4	0.9	1.7	3.5	0.4
Libraries, stationery, printing press	1.2	1.1	1.2	1.4	0.6	2.1	0.9
Restaurant, butchery, poultry and fish, bakery and pastries, sweets and ice cream	1.2	3.3	0.8	0.9	1.7	2.8	0.7
Other	10.4	14.1	9.8	11.5	8.0	18.2	8.0
Sample sizes	603	92	511	427	176	143	460

Source: Grant amount and preexisting business at time of training are from NEF activity data. Business type was provided by the respondents at the time of the IGA survey.

Notes: Totals for business type do not always sum to 100.0 percent because of rounding. Youth are defined as being under age 25 at the beginning of the program.

Table A2. Business metric, by subgroup

Sample	Sample size	Active business: at least one sales transaction in past 60 days (%)	Active business: no sales transaction but at least one purchase transaction in past 60 days (%)	Active business: no sales or purchase transaction but productive activity in past 60 days (%)	No active business but formally employed (%)	Total value of business metric (%)	95-percent confidence interval
Full sample:							
All	603	97.2	1.2	0.2	0.0	98.5	[97.8, 99.2]
By gender:							
Women	511	97.3	1.0	0.2	0.0	98.4	[97.7, 99.2]
Men	92	96.7	2.2	0.0	0.0	98.9	[97.5, 100.0]
By age:							
Youth	143	97.9	1.4	0.0	0.0	99.3	[98.3, 100.0]
Adult	460	97.0	1.1	0.2	0.0	98.3	[97.4, 99.1]
By refugee status:							
Refugees	176	98.3	0.6	0.6	0.0	99.4	[98.7, 100.0]
Jordanians	427	96.7	1.4	0.0	0.0	98.1	[97.2, 99.0]
By program site:							
Amman	159	96.9	1.3	0.0	0.0	98.1	[96.6, 99.6]
Irbid	93	95.7	1.1	1.1	0.0	97.8	[95.8, 99.9]
Kufrsoum	122	95.1	1.6	0.0	0.0	96.7	[94.4, 99.0]
Russeifa	80	98.8	1.3	0.0	0.0	100.0	n.a.,
Zarqa	149	99.3	0.7	0.0	0.0	100.0	n.a.,

Source: Cohort 1 IGA survey

Notes: n.a. = Not applicable; it is not possible to calculate confidence intervals when the value does not vary. Subtotals may not match the total due to rounding. Youth are defined as being under age 25 at the beginning of the program.

Table A3.1 Business financial metrics, active businesses only (means)

Sample	Sample size	Number of days since last sale	Monthly revenues (JOD)	Monthly costs (JOD)	Estimated monthly profits (JOD)	Grantees with positive profits (%)	Current monthly take-home income (JOD)	Anticipated monthly take-home income in one year (JOD)	Business savings (JOD)	Business debt (JOD)
Full sample:										
All	594	9	356	225	130	88.5	89	164	290	92
By gender:										
Women	503	9	297	178	118	87.9	80	151	258	36
Men	91	9	681	485	192	92.1	142	241	467	398
By age:										
Youth	142	9	278	162	117	87.9	68	170	306	72
Adult	452	9	380	245	134	88.7	96	163	286	98
By refugee status:										
Refugees	175	9	404	248	157	94.2	115	172	204	120
Jordanians	419	9	335	216	118	86.1	79	161	327	80
By program site:										
Amman	156	11	345	205	142	91.6	91	223	197	153
Irbid	91	11	314	203	106	83.7	103	166	402	163
Kufrsoum	118	7	453	297	154	80.9	66	92	466	115
Russeifa	80	8	310	174	137	88.6	86	161	238	2
Zarqa	149	8	340	231	109	94.0	98	145	208	14

Source: Cohort 1 IGA survey

Note: Sample sizes vary slightly across outcomes. The sample sizes reported here are the number of grantees who reported any of the outcomes in the table. The incidence of missing values was low (2 percent or less), except for the anticipated monthly take-home income measure, for which about 15 percent of responses were missing due to refusals and "I don't know" responses. Youth are defined as being under age 25 at the beginning of the program.

Table A3.2 Business financial metrics, active businesses only (medians)

Sample	Sample size	Number of days since last sale	Monthly revenues (JOD)	Monthly costs (JOD)	Estimated monthly profits (JOD)	Current monthly take-home income (JOD)	Anticipated monthly take-home income in one year (JOD)	Business savings (JOD)	Business debt (JOD)
Full sample:									
All	594	3	220	100	94	50	100	150	0
By gender:									
Women	503	3	200	95	90	50	100	150	0
Men	91	3	380	195	152	100	180	200	0
By age:									
Youth	142	4	180	80	74	40	100	120	0
Adult	452	3	245	112	99	60	100	150	0
By refugee status:									
Refugees	175	3	250	106	120	80	100	100	0
Jordanians	419	3	200	100	88	50	100	173	0
By program site:									
Amman	156	4	200	96	90	50	100	100	0
Irbid	91	3	198	75	92	60	100	250	0
Kufrsoum	118	2	249	150	89	45	60	465	0
Russeifa	80	3	200	100	81	50	75	120	0
Zarqa	149	4	250	103	115	75	100	100	0

Source: Cohort 1 IGA survey

Note: Sample sizes vary slightly across outcomes. The sample sizes reported here are the number of grantees who reported any of the outcomes in the table. The incidence of missing values was low (2 percent or less), except for the anticipated monthly take-home income measure, for which about 15 percent of responses were missing due to refusals and "I don't know" responses. Youth are defined as being under age 25 at the beginning of the program.

Table A4. Business practice scores, active businesses only

Sample	Sample size	Business records (0-7 points)	Financial planning (0-4 points)	Buying and stock management (0-3 points)	Marketing (0-7 points)	Total (0-21 points)	Total (%)
Full sample:							
All	594	6.5	2.7	2.1	5.2	16.4	78.3
By gender:							
Women	503	6.6	2.7	2.1	5.2	16.5	78.6
Men	91	6.2	2.7	2.0	5.1	16.1	76.5
By age:							
Youth	142	6.2	2.6	2.0	5.0	15.8	75.4
Adult	452	6.6	2.7	2.1	5.2	16.6	79.2
By refugee status:							
Refugees	175	6.7	2.7	2.0	5.4	16.7	79.4
Jordanians	419	6.5	2.7	2.2	5.1	16.3	77.8
By program site:							
Amman	156	6.5	2.5	1.9	5.2	16.1	76.7
Irbid	91	6.6	2.5	2.2	4.7	16.0	76.4
Kufrsoum	118	6.5	2.5	2.1	4.5	15.6	74.4
Russeifa	80	6.5	2.8	2.0	5.8	17.1	81.4
Zarqa	149	6.6	2.9	2.2	5.6	17.3	82.5

Source: Cohort 1 IGA survey

Note: Scales adapted from McKenzie and Woodruff (2021). Appendix C provides additional details on the practices included in each subscale. Youth are defined as being under age 25 at the beginning of the program.

Appendix B. Technical details for the Cohort 1 IGA survey

Sampling

Before sampling, we divided Cohort 1 grantees into strata that were defined by mutually exclusive combinations of program site (five different locations), gender (men and women), age group (youth and adults), and refugee status (Jordanians and refugees). We then selected a random sample of 600 grantees, distributed across strata in proportion to strata's share of the population of grantees. We designated these 600 grantees as the primary sample and the remaining grantees as potential replacements.

When respondents from the primary sample were unreachable, unwilling to participate, or unavailable, we selected replacements from a randomly sorted list of potential replacements from the same stratum. If replacements from that stratum were exhausted, we drew replacements from the most similar stratum with replacements remaining.

Data collection approach

The data collection team participated in a five-day in-person training on the survey. The training included training on protection of human subjects and vulnerable populations, a detailed review of the survey questions, and practice conducting interviews using a series of respondent scenarios.

Data collection occurred between May 24, 2023, and June 22, 2023, a mean of 10.3 months following grant distribution. The minimum follow-up period was 9.9 months, and the maximum was 10.8 months. Eleven different enumerators conducted the survey in teams of two or three, each with the support of a logistical coordinator who coordinated with potential respondents while in the field. The study used a verbal informed consent statement and procedure approved by the King Hussein Cancer Center Institutional

Review Board (IRB) in Jordan and Health Media Lab IRB in the United States.

The final response rate was 85 percent, and the final analysis sample consists of 603 unique grantees. Surveys lasted a mean of 15 minutes.

Definition of business metric

The business metric considers the survey respondent to have an active IGA if they reported that their business is active and met at least one of the following criteria:

1. The data collection team observed a sales or purchase transaction during the survey.
2. The respondent provided transaction records for a sale to a customer (sales transaction) or purchase of inputs (purchase transaction) that was dated within 60 days prior to the survey.
3. The respondent reported a sales transaction within the last 60 days, and provided key details on the transaction, including the service provided or item sold, the amount and payment method, and the demographic characteristics of and their preexisting relationship with the customer.⁹
4. The respondent reported a purchase transaction within the last 60 days, and provided key details on the transaction, including the amount of the purchase and mode of payment, the good or service purchased, and their preexisting relationship with the good or service provider.
5. The respondent provides evidence of engaging in production-related activities in the last 60 days. This could be accomplished by showing the enumerator a sample of a product produced within 60 days, describing an upcoming event where goods will be sold,

⁹ We did not seek to verify these details for this or other active IGA criteria; rather, we view the respondent being

able to provide these details as making it more plausible that they were reporting a valid activity.

or reporting a down payment and the total expected payment for an ongoing order.

6. Respondents did not have an active business but were formally employed as of the survey date. Formal employment required the respondent to: (a) hold an employment contract or contributing to the social security system; (b) work at least 20 hours weekly; (c) earn at least the Jordanian minimum wage; and (d) describe details about their job, such as the job location, mode of commuting, and job schedule.

We considered respondents who reported that their business was inactive (3 grantees) or who reported having a business but did not unambiguously meet at least one of the above criteria (6 grantees) not to have an active IGA.

Analysis approach

The business metric is a count of the number of grantees with active IGAs divided by the sample size. For calculations of the confidence intervals around the business metric, the analysis takes into account the proportion of grantees in each sampling stratum who responded to the survey by incorporating a finite population correction (FPC). The FPC narrows the confidence intervals as the proportion of grantees included in the survey sample approaches 100 percent.

Other statistics provided in the memorandum were calculated using simple descriptive methods.

Data collection challenges

We encountered only minimal challenges during data collection:

- We addressed some challenges with question interpretation that arose during training and practice by revising, adding explanations to, or dropping some survey questions.
- We faced challenges reaching some potential respondents using phone contact information provided by NEF. Further, it was not always possible to replace non-respondents with other grantees in the same stratum because

some strata were small. Nevertheless, the final response rate was relatively high, we reached our targeted sample size, and the final sample is representative of the full group of grantees in key characteristics.

Lessons

- Close collaboration between Mathematica, Mindset, and NEF prior to and during the survey was critical to gaining the trust and increasing the responsiveness of the program participants. Text messages sent by NEF to participants alerting them to the survey were especially helpful.
- Given challenges reaching some respondents, Mathematica and Mindset are developing a respondent tracking process to track Cohort 1 participants for the impact evaluation survey to reduce sample attrition. Our approach will likely include tailored text messages and follow-up phone calls to those who do not respond.
- The variation in business financial metrics and business practices across sites and demographic subgroups merits further investigation. We will consider adding questions to the next IGA survey that might shed further light on this (for example, about time spent on the business by household members, and other sources of funds for the business). The process study might yield further insights about this variation; we can explore some of these findings directly with respondents in the second round of that study.
- Although the IGA survey was designed around an inclusive definition of the business metric for the DIB, the findings would have been very similar using a narrower definition focusing on recent sales transactions only. For future iterations of the program, this simpler definition might be sufficient to capture the vast majority of active IGAs while reducing the effort to collect these data for monitoring and evaluation purposes.

Appendix C. Business practice scores

Below we describe the calculation of each of the four separate business practice scores, which we summed to generate the total business practices score. We also provide Cronbach's alpha for each score, which is a measure of scale reliability across different items, ranging from 0 to 1. An alpha of 1 corresponds to perfect alignment across items (for example, on a two-item scale, one item always equals 1 when another equals 0, and vice versa). The alpha for the total score is 0.52.

Business records

The business records score adds one point for each of the following, if the respondent:

1. Keeps written business records;
2. Records every sale and purchase made by the business;
3. Can use business records to see how much cash the business has on hand;
4. Uses their records regularly to know whether sales of a particular good are increasing or decreasing;
5. Has worked out the cost to the business of the most common good or service they sell;
6. Knows which good or service they make the most profit per unit from selling; and
7. Has a written monthly budget for the business.

Maximum score: 7 / Cronbach's alpha: 0.33

Marketing

The marketing score adds one point for each of the following that the respondent reports doing.

In the last three months:

1. Visited at least one of their competitors' businesses to see what prices they are charging;
2. Visited at least one of their competitors' businesses to see what goods or services they are offering;

3. Asked their existing customers whether there are any other goods or services they would like the respondent to sell;
 4. Talked with a former customer to find out why they have stopped buying from their business;
 5. Asked a supplier about which products are selling well in their industry;
 6. Used a special offer to attract customers; and
- In the last six months:
7. Did any form of advertising.

Maximum score: 7 / Cronbach's Alpha: 0.63

Buying and stock management

The buying and stock management score adds one point for each of the following, if the respondent:

1. Attempted to negotiate with a supplier for a lower price for goods or raw material within the last three months;
2. Compared prices or quality from alternate suppliers against current suppliers within the last three months; and
3. Runs out of supplies or raw materials for their business less than once a month.

Maximum score: 3 / Cronbach's Alpha: 0.29

Financial planning

The financial planning score adds one point for each of the following, if the respondent:

1. Reviews the financial performance of their business and analyzes where there are areas for improvement at least once per month;
2. Has a specific, quantitative target for sales over the next year;
3. Compares actual to targeted sales at least once per month; and
4. Has a written budget of the likely costs their business will have to face over the next year.

Maximum score: 4 / Cronbach's Alpha: 0.56