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Abstract

This paper describes the 2025 wave of the Jordan Labor Market Panel Survey (JLMPS). The 2025 JLMPS is a longitudinal survey, following households and individuals fielded in waves in 2010 and 2016. Waves starting in 2016 included a refresher sample that over-sampled areas with a high share of non-Jordanians. This paper describes the design of the sample and questionnaire and provides comparisons for some of the main results with other recent data sources from Jordan. The 2025 JLMPS is consistent with other labor force statistics in terms of key labor force participation, employment, and unemployment rates for Jordanians in 2025, although there are sometimes differences among sub-groups and for non-Jordanians. Demographics (household size, age distributions, years of schooling) are also generally similar. The 2025 JLMPS thus provides an important opportunity to update our understanding of Jordan's labor market and society.

Keywords: Survey, panel data, public use data, sample weights, labor market, Jordan
JEL Classifications: J00, C81, C83

ملخص

تصـف هذه الورقة موجة جديدة من المسـح التتبعي لسـوق العمل في الأردن لعام 2025. وهذه الموجة الجديدة عبارة عن مسح طولي، يتتبع الأسر والأفراد الذين اشتركوا في المسوحات التتبعية السابقة في عامي 2010 و2016. وتضمنت الموجات التي بدأت في عام 2016 عينة تنشيطية قامت بأخذ عينات زائدة من المناطق التي تضم نسبة عالية من غير الأردنيين. تصف هذه الورقة تصـميم العينة والاسـتبيان وتقدم مقارنات لبعض النتائج الرئيسـية مع مصـادر البيانات الحديثة الأخرى من الأردن. يتوافق المسـح التتبعي لسـوق العمل في الأردن لعام 2025 مع إحصـاءات القوى العاملة الأخرى من حيث المشـاركة الرئيسـية في القوى العاملة والتوظيف ومعدلات البطالة للأردنيين في عام 2025، على الرغم من وجود اختلافات في بعض الأحيان بين المجموعات الفرعية وغير الأردنيين. كما أن التركيبة السكانية (حجم الأسرة، والتوزيع العمري، وسنوات الدراسة) متشابهة بشكل عام. وبالتالي فإن المسح التتبعي لسوق العمل في الأردن لعام 2025 يوفر فرصة مهمة لتحديث فهمنا لسوق العمل والمجتمع في الأردن.

1. Introduction

Jordan has been, for decades, an island of relative political stability within a turbulent regional neighborhood. The conflicts in neighboring countries have led to Jordan serving as a place of refuge for large numbers of forcibly displaced people over the years, with Syrians being the most recent waves of such refugees (Krafft, Razzaz, et al. 2019; Krafft, Sieverding, et al. 2019). The instability in the region has also led to numerous external shocks and challenging macroeconomic conditions (Assaad and Khraise 2026). The Jordan Labor Market Panel Survey (JLMPS) 2025 allows us to ascertain how Jordan's labor market fared in the face of these challenges.

As with many countries in MENA, Jordan has very limited publicly available data (Ekhator-Mobayode and Hoogeveen 2022; Das et al. 2013). As of February 2026, the most recently publicly available labor market microdata for Jordan were from 2018 (OAMDI 2025). Jordan does have a long series of Jordan Population and Family Health (JPFHS, based on Demographic and Health (DHS) surveys (Department of Statistics (DoS) [Jordan] and ICF 2024)), but these do not capture key issues such as labor market trends, income sources, migration patterns, or job mobility. While official reports and tables from Jordan's quarterly Employment and Unemployment (EUS) survey are available, these tabulated data do not allow analysis of key inter-relationships, for instance between marriage and employment (see Assaad et al. 2022; Selwaness and Krafft 2021; Krafft and Assaad 2020 for how this topic has been explored using the JLMPS). Moreover, they do not allow causal identification around key policy issues, such as the impact and outcomes of Syrian refugees in Jordan (see Fallah et al. 2019; Assaad et al. 2023; Elmallakh and Wahba 2022; Al-Hawarin et al. 2021; Krafft et al. 2022; Sieverding et al. 2020 for examples of such analyses using the JLMPS).

This paper describes the new, publicly available JLMPS 2025 wave (OAMDI 2026),[4] which follows individuals and households from the preceding 2010 and 2016 waves, as well as adding a refresher sample that over-samples areas with a high share of non-Jordanians. While the JLMPS 2010 sampled 5,102 households and the 2016 wave 7,229, the 2025 wave captures 9,884 households and 42,012 individuals. In this paper, we discuss the questionnaire design, fieldwork, sample attrition, and sample weighting. We also compare the 2025 JLMPS to other Jordanian surveys to validate demographic and labor market representativeness. Demographics are generally similar, with small differences in the age distribution and household size composition across samples. Modest differences in demographic characteristics also do not suggest systematic bias; for instance, while the JLMPS finds slightly more individuals with no education than other sources, it also finds slightly more individuals with master's degrees. In 2025, overall Jordanian labor force participation, employment, and unemployment rates are consistent across data sources. There are differences in levels when analyzing by sex and for both levels and trends for non-Jordanians. However, the data sources agree on a troubling trend of declining labor force participation and

[4] The data are available at www.erfdataportal.com

employment, along with rising unemployment for Jordanians (see Krafft, Assaad, and Abushehab 2026 for details on labor market trends).

The paper initially describes data collection, including the design of questionnaires, preparations for fieldwork, and fieldwork (section 2), before turning to a discussion of the sample and attrition in the panel (section 3). The construction of weights is based on the sample design and attrition modeling and is detailed in section 4. Section 5 validates the JLMPS against other Jordanian data sources. The final section concludes with reflections on the value of the JLMPS and key opportunities for understanding Jordan's labor market, economy, and society.

2. Data collection

2.1. Questionnaires

Table 1 details the JLMPS questionnaire and its evolution over time. Certain data are collected at the household level. The individual roster captures data on all members of the household, including specific questions about childcare for those under age six. An individual questionnaire for those six and older covers a variety of topics at the individual level. Ideally the individual her or himself answers the questionnaire; a proxy respondent is allowed only if the individual him or herself is incapable of answering on the first visit, or if three visits are attempted and the individual is still not available, a proxy is allowed.

Table 1. Questionnaire modules

Household	Individual
• Statistical Identification	• Statistical Identification
• Tracking Splits^	• Residential Mobility^
• Individual Roster	• Father's Characteristics
• Housing Information	• Mother's Characteristics
• Current Migrants^	• Siblings
• Transfers from Individuals	• Health^
• Other Sources of Income	• Education
• Shocks and Coping*	• Training Experiences*
• Household Non-Farm Activities	• Skills*
• Agricultural Assets: Lands^	• Past Seven Days Subsistence Work
• Agricultural Assets: Livestock/Poultry^	• Employment
• Agriculture: Crops	• Unemployment
• Agricultural Assets: Equipment	• Characteristics of Main Job
• Other Agricultural Income^	• Secondary Job
	• Labor Market History
	• Marriage
	• Fertility
	• Female Employment
	• Earnings
	• Earnings in Secondary Job
	• Return Migration (Jordanians)
	• In Migration (non-Jordanians)^
	• Information Technology^
	• Savings & Borrowing^
	• Attitudes^
	• Time Use*

Source: Authors' construction based on JLMPS 2025 questionnaire
*Notes: ^ denotes sections added in 2016 (all included in 2025 as well). * denotes sections added in 2025*

The household modules have remained largely the same from 2016 to 2025, with the exception of a new "shocks and coping" section. A version of this module first appeared in the Egypt Labor Market Panel Survey (ELMPS) 2018, along with the Sudan Labor Market Panel Survey (SLMPS) 2022 and ELMPS 2023. However, some household modules have been substantially updated. For instance, the "other sources of income" section was updated to reflect a number of new social assistance programs that were implemented between 2016 and 2025. Other key policy areas have been incorporated, for instance new policies around childcare subsidies.

There are several new modules at the individual level in 2025 that were not present in previous waves of the JLMPS, but which originated in the SLMPS 2022. This includes a "training experiences" section, which captures the details of training experiences outside of the course of regular education, including apprenticeships, internships, non-school courses, non-school training programs, non-formal education, and employer-provided trainings. A new section on skills assesses what soft and hard skills individuals have; this section is essential for assessing skill supply and also mismatch, as it is comparable to questions in the job characteristics module where employed workers report the skill requirements of their jobs. Although some questions about subsistence and time use in domestic activity were asked in previous JLMPSs, in 2025 a full 24-hour time use diary was added for those aged 10+ (and a shorter set of activity questions for children 6-9).

Within modules, a number of updates were incorporated in 2025. For example, green job detection questions first implemented in ELMPS 2023 (Abou-Ali and Amer 2024) were include in the JLMPS 2025. Given the very low rates of female labor force participation and gender norms that constrain women's employment in Jordan (Gauri et al. 2019; Krafft et al. 2024), the section on gender attitudes has been substantially updated to assess gender role attitudes specifically about women's employment. Other questions were added to reflect current economic or policy issues. For instance, questions on platform (gig) work and questions relating to electronic payments and e-wallets were incorporated, along with questions about different (new) types of work permits for refugees and other non-Jordanians.

2.2. Preparations and Training

Pre-planning for the JLMPS 2025 wave began in 2021, with a goal of fielding six years after the 2016 wave. Fieldwork was initially targeted for late 2022. Fundraising to secure sufficient funds to cover the costs of fieldwork took longer than anticipated. In mid-2024, preparations had advanced sufficiently for the principal investigators to do an initial update of the questionnaire in preparation for a questionnaire review workshop, held in June 2024 in Amman. At both the workshop and in further correspondence with key stakeholders, academic experts, donors, and the Jordania Department of Statistics (DoS), questionnaire updates were proposed, which the principal

investigators reviewed, consolidated, and incorporated. The surveys were then programmed into CSPro (to be fielded on tablets using CSEntry).

A training of the trainers (ToT) was held from September 1 to 5, 2024 at DoS, covering the full questionnaire and field logistics, as well as preparations for the enumerator training. A subsequent pilot data collection effort was held from September 17 to 24, 2024 with 31 households and 102 individuals to test the questionnaires and programming, with updates based on pilot experiences. Training of the enumerators was delayed until final cabinet approvals were received in late November. These approvals had been delayed by the change in cabinet after the Jordanian legislative elections.

Ultimately, the enumerators' training took place December 15, 2024-January 5, 2025. The training participants included 84 enumerators, 36 supervisors, and technical staff members from the three regional DoS offices. In parallel, ERF staff worked with IT and other DoS experts on areas such as data management, locating the 2016 households, and drawing the refresher sample.

2.3. Fieldwork

Fieldwork began January 24, 2025, and primary fieldwork was completed July 8, 2025. During quality control, some individuals and households were identified as having data issues that required callbacks. The main issue targeted was households that reported no source of income, who had targeted callbacks on income and employment. Secondarily, households with Syrians but where the members said they were born in Jordan (before 2011) in the residential mobility section were targeted for callbacks on residential mobility. Two callbacks were attempted with 3,818 individuals in 2,870 households and 2,444 individuals were successfully reached. Callbacks took place in Fall 2025.

3. Sample and attrition

The sample for the JLMPS 2025 includes two components: panel households (made up of 4,849 original households and 1,916 split households) and a refresher sample of 3,119 households. In this section, we discuss attrition of households, then attrition of split households, the resulting panel sample, and the refresher sample.

3.1. Attrition of households from 2016 to 2025

During JLMPS 2016 fieldwork, 7,229 households were successfully interviewed. During preparations for 2025 fieldwork, it was determined that only 6,787 of the 2016 households had sufficiently detailed information on their locations to attempt to field again. Table 2 presents the disposition of the 2016 sample in 2025 with the households lacking sufficiently detailed

information to field included among the "unable to locate household." Of the 7,229 households from 2016, 4,849 (67.1%) were located in 2025. A sizeable fraction of households (7.9%) was lost to natural attrition – either being all deceased (1.7% of households) or leaving the country or sample frame. The sample frame did not cover those households that moved entirely outside of Jordan, nor does it include those who moved to group housing (e.g., prisons, dormitories). The category of natural attrition therefore captures households that would not have been in the population during 2025 fielding even if a new sample were being taken.

Type I attrition, in contrast, is the loss of a household that should have, to the best of our knowledge, been included in 2025. Type I attrition (25.0% of households) includes those households that refused (3.6%) and cases where we were unable to locate the household (21.4%) during fielding. The Type I attrition rate is calculated relative to the initial households *less* natural attrition and so is 27.2%. This rate is a substantial reduction from 2016, when the rate was 38%, but higher than the ELMPSs (24% in 2006 to 12% in 2023) (Assaad and Krafft 2013; Krafft, Assaad, et al. 2021; Assaad and Krafft 2024; Barsoum 2009; Krafft and Assaad 2021). Jordan has a more mobile population than Egypt, both in terms of use of rental housing (Assaad et al. 2017) and nationalities. The former is potentially problematic attrition that could bias the sample; the latter possibility, that some of those we are unable to locate left the country, is less problematic, as our weights later account for the share of non-Jordanians at the time of fielding, although misclassification and its correlation with covariates could still generate bias.

Table 2. Status of 2016 households in 2025

	Number	Percentage
Initial households from 2016	7,229	100
Households located in 2025	4,849	67.1
Natural attrition	572	7.9
Left country or frame	447	6.2
All deceased	125	1.7
Type I attrition	1,808	25.0
Unable to locate HH	1,548	21.4
Refused	260	3.6
Type I attrition rate		27.2

Source: Authors' calculations based on JLMPS 2016 and 2025

Table 3 presents a model for Type I attrition, estimated for the sample of households interviewed successfully in 2016 but excluding those lost to natural attrition. The explanatory variables are household and household head characteristics from 2016. This model indicates the extent of observable attrition and is subsequently used in the estimation of weights, discussed below, to correct for observable attrition. The overall model has a pseudo R-squared of 10.1%, very similar to the estimate obtained from ELMPS 2023 (9.9% (Assaad and Krafft 2024)), and appreciably lower than JLMPS 2016 (14.7% (Krafft and Assaad 2021)). This indicates that either attrition is becoming more random, or more closely related to characteristics we do not observe.

There are some significant demographic and geographic determinants of attrition, but only a few significant socioeconomic differences in attrition, which bodes well for the representativeness of the data, since geographic and demographic differences are readily accounted for in weighting. Those households with more young children in 2016 were significantly but only slightly more likely to attrite, while those with more children aged 6-14 in 2016 (15-23 in 2025) were significantly less likely to attrite. There were not significant differences by the number of working age or elderly men or women, nor by the sex composition of households. Compared to urban Amman, households residing in urban Madaba and urban Irbid in 2016 were significantly more likely to attrite. Several other combinations of governorate and location were significantly less likely to attrite, including urban areas of Jarash, Karak, and Tafileh, rural and camps Mafraq, and rural areas of Karak, Tafileh, and Ma'an. Renters and those living in work housing were significantly more likely to attrite than those who owned their home.

In terms of 2016 household head characteristics, compared to heads who were under 25 in 2016, households with heads aged 45-54 or 55+ were significantly less likely to attrite. There were no significant differences by head sex or marital status for the main effects. The single and female interaction indicates significantly lower attrition for single women, but largely washes out insignificant female and single main effects. The only differences by education of the head were significantly higher attrition for those with university or post-graduate degrees, compared to illiterate heads. Compared to heads who were government wage workers, private formal wage and private irregular wage workers were significantly more likely to attrite. Compared to households from the poorest quintile, households from the richest quintile were significantly more likely to attrite. We model attrition based on the year the household was first observed and for 2016 the stratum (low vs. high non-Jordanian). Those observed first in 2016 were significantly less likely to attrite than those first observed in 2010. There were not any significant differences by head nationality (non-Jordanian versus Jordanian) in Type I attrition, although there are of course some differences in natural attrition, which is not modeled here.

Table 3. Type I attrition logit model: odds ratios for probability of attrition

Number of household members	
No. of Children 0-5 in HH	1.095*
	(0.041)
No. of Children 6-14 in HH	0.821***
	(0.025)
No. of Males 15-64 in HH	1.004
	(0.038)
No. of Females 15-64 in HH	0.968
	(0.038)
No. of Males 65+ in HH	0.905
	(0.155)
No. of Females 65+ in HH	0.875
	(0.123)

Table 3. Type I attrition logit model: odds ratios for probability of attrition (Continued)

Single sex households (mixed sex omit.)	
All male	0.781
	(0.179)
All female	1.178
	(0.229)
Governorate (Amman (urban) omit.)	
Amman # Rural	0.581
	(0.167)
Balqa # Urban	0.929
	(0.128)
Balqa # Rural	1.033
	(0.212)
Zarqa # Urban	0.875
	(0.091)
Zarqa # Rural	0.634
	(0.168)
Zarqa # Camps	1.231
	(0.350)
Madaba # Urban	1.464*
	(0.253)
Madaba # Rural	1.264
	(0.325)
Irbid # Urban	1.232*
	(0.118)
Irbid # Rural	0.574
	(0.170)
Mafraq # Urban	1.123
	(0.151)
Mafraq # Rural	0.670*
	(0.137)
Mafraq # Camps	0.219***
	(0.078)
Jarash # Urban	0.328***
	(0.057)
Jarash # Rural	0.666
	(0.163)
Ajloun # Urban	0.696
	(0.148)
Ajloun # Rural	0.546
	(0.183)
Karak # Urban	0.102***
	(0.031)
Karak # Rural	0.267***
	(0.067)
Tafileh # Urban	0.435***
	(0.108)
Tafileh # Rural	0.114**
	(0.084)
Ma'an # Urban	0.914
	(0.186)
Ma'an # Rural	0.381**
	(0.125)
Aqaba # Urban	1.161
	(0.218)

Table 3. Type I attrition logit model: odds ratios for probability of attrition (Continued)

Housing type (own omit.)	
Renter	2.843***
	(0.222)
Free of charge	1.066
	(0.159)
Work housing	1.979**
	(0.494)
Other	0.783
	(0.384)
Head age (<25 omit.)	
25-34	0.841
	(0.146)
35-44	0.733
	(0.132)
45-54	0.560**
	(0.106)
55+	0.435***
	(0.086)
Head sex (male omit.)	
Female	1.324
	(0.258)
Head marital stat. (married omit.)	
Single	1.302
	(0.318)
Divorced/separated	1.174
	(0.455)
Widow(er)	1.356
	(0.485)
Head marital stat. and sex int.	
Female # Single	0.404*
	(0.178)
Female # Divorced/separated	1.240
	(0.633)
Female # Widow(er)	0.618
	(0.258)
Head education (illit. omit.)	
Read & Write	1.186
	(0.134)
Basic	1.151
	(0.135)
Secondary	1.148
	(0.148)
Post-secondary	1.242
	(0.189)
University	1.413*
	(0.194)
Post-Graduate	1.566*
	(0.299)

Table 3. Type I attrition logit model: odds ratios for probability of attrition (Continued)

Head labor mkt. status (Government wage omit.)	
Out of manpower	1.214
	(0.203)
Out of labor force	1.089
	(0.109)
Unemployed.	1.288
	(0.215)
Public ent. wage	0.798
	(0.358)
Priv. formal wage	1.267*
	(0.143)
Priv. inf. reg. wage	0.981
	(0.133)
Priv. irreg. wage	1.386*
	(0.226)
Employer	1.254
	(0.216)
Self-emp./UFW ag.	1.071
	(0.472)
Self-emp./UFW non-ag.	1.073
	(0.147)
Wealth quintile (poorest omit.)	
Second	0.999
	(0.109)
Third	1.129
	(0.122)
Fourth	0.979
	(0.110)
Richest	1.291*
	(0.155)
Year first obs. (2010 omit.)	
2016 low non-Jordanian	0.643***
	(0.069)
2016 high non-Jordanian	0.823*
	(0.067)
Nationality (Jordanian omit.)	
Non-Jordanian	1.152
	(0.141)
Pseudo R-sq.	0.101
N (households)	6653

Source: Authors' calculations based on JLMPS 2016 and 2025

*Notes: *p < 0.05; **p < 0.01; ***p <0.001. Standard errors in parentheses. Mean values of predicted attrition used if characteristics were missing (N=4).*

3.2. Attrition of split households in 2025

In Table 4, we explore the disposition of individuals in 2025 among individuals who were members, in 2016, of a 2016 household that was found (at least one 2016 member) in 2025. There were 23,493 individuals who were members of a household in 2016 where the household was found in 2025. Among these, 81.7% were still in their 2016 household. A sizeable fraction of individuals who were no longer in their original household experienced natural attrition (5.3%), including deaths (3.1%), emigrating (2.1%), or moving to group housing (0.1%).

There were therefore 3,044 individuals who split from their 2016 households (13.0%), but remained in the sample frame. These individuals could have potentially moved together, e.g., a man and his wife who had been living with his parents while he built a house finish their house and move into it, splitting from their 2016 household but moving together. We capture those individuals who split together in the tracking information, so we know that there are 2,720 potential split households to be found. Of these, 1,916 (70.4% of split households) were found. The 29.6% of split households that were not found is referred to as Type II attrition. This rate is much lower than the 50.5% obtained in JLMPS 2016 and the 40.8% rate obtained in ELMPS 2023, but higher than other ELMPS waves, such as 18.4% in 2012, and similar to 30.3% in 2018 (Assaad and Krafft 2013; Krafft, Assaad, et al. 2021; Assaad and Krafft 2024; Krafft and Assaad 2021). Overall, 21,259 individuals from 2016 were found, including 2,062 who were in split households.

Table 4. Status of individuals and split households in 2025, conditional on 2016 household being found

	Number	Percentage
Individuals present in 2016 in original households found in 2025	23,493	100.0
Individuals still in original households in 2025	19,197	81.7
Individuals no longer in original households in 2025	4,296	18.3
Natural attrition	1,252	5.3
Died	732	3.1
Emigrated	490	2.1
Moved to group housing	30	0.1
Individual splits to form households within the sample frame	3,044	13.0
Potential split households (households accounting for individuals who split together)	2,720	
Split households found	1,916	70.4
Split households not found (attrited)	804	29.6
Type II attrition rate		**29.6**
Individuals from 2025 in split households found	2,062	67.7
Individuals from 2025 in split households not found	982	32.3
Total individuals from 2025 who were found	21,259	

Source: Authors' calculations based on JLMPS 2016 and 2025

Table 5 investigates the predictors of Type II attrition, using a logit model. As with Type I attrition, this both indicates non-random attrition and is used as an input into subsequent estimation of weights. There are no significant differences by number of household members in the split household in various age groups. There are a number of significant geographic differences compared to rural Amman, with some locations having higher or lower Type II attrition. Those who were previously in free of charge housing were significantly more likely to attrite compared to homeowners.

Head characteristics are those of the split household's most senior member (based on the roster in 2016). Compared to young heads (<15 in 2016; <24 in 2025), other age groups were significantly less likely to attrite. There were not significant interactions between age and sex, nor a significant female main effect, nor significant differences by marital status, nor interactions between marital status and sex. There also no significant differences in Type II attrition by head education or labor market status, which bodes well for the socioeconomic representativeness of the sample.

Compared to the poorest quintile, those in the third quintile were significantly more likely to attrite. How far a split household moved from their origin household was significantly related to attrition. Compared to those who stayed in the same building, there were not significant differences for those who moved to another building in the same area, but attrition was significantly higher (highest significant odds ratio in the model) for those who moved to another area, which may relate to the ability of the origin household to give an accurate address or contact information. Overall, the pseudo R-squared for the model was 12.2%, only slightly higher than for Type I attrition, and lower than both ELMPS 2023 (16.3% (Assaad and Krafft 2024)) but slightly higher than JLMPS 2016 (10.0% (Krafft and Assaad 2021)).

Table 5. Type II attrition logit model: odds ratios for probability of attrition

Number of household members	
No. of Children 0-5 in HH	1.100
	(0.206)
No. of Children 6-14 in HH	0.940
	(0.240)
No. of Males 15+ in HH	2.815
	(1.738)
No. of Females 15+ in HH	0.771
	(0.267)
Governorate (Amman (urban) omit.)	
Amman # Rural	0.612
	(0.201)
Balqa # Urban	0.622*
	(0.141)
Balqa # Rural	0.229***
	(0.094)
Zarqa # Urban	0.820
	(0.150)
Zarqa # Rural	0.661
	(0.225)
Zarqa # Camps	1.527
	(0.886)
Madaba # Urban	2.399**
	(0.649)
Madaba # Rural	1.262
	(0.483)
Irbid # Urban	1.108
	(0.191)
Irbid # Rural	2.033
	(0.754)
Mafraq # Urban	2.088**
	(0.491)
Mafraq # Rural	0.981
	(0.261)
Mafraq # Camps	0.382
	(0.189)
Jarash # Urban	1.026
	(0.217)
Jarash # Rural	0.709
	(0.201)
Ajloun # Urban	1.362
	(0.420)
Ajloun # Rural	1.304
	(0.642)

Table 5. Type II attrition logit model: odds ratios for probability of attrition (Continued)

Karak # Urban	0.334**
	(0.112)
Karak # Rural	0.250***
	(0.093)
Tafileh # Urban	0.196***
	(0.088)
Tafileh # Rural	0.236*
	(0.150)
Ma'an # Urban	1.259
	(0.398)
Ma'an # Rural	0.487
	(0.257)
Aqaba # Urban	0.719
	(0.269)
Aqaba # Rural	2.840**
	(1.085)
Housing type (own omit.)	
Renter	1.157
	(0.217)
Free of charge	2.235*
	(0.727)
Work housing	1.280
	(0.777)
Other	1.066
	(0.673)
Head sex (male omit.)	
Female	1.371
	(0.902)
Head age (<15 omit.)	
15-24	0.163*
	(0.132)
25-34	0.198*
	(0.161)
35-44	0.144*
	(0.134)
45+	0.132
	(0.154)
Head age and sex int.	
Female # 15-24	5.120
	(4.545)
Female # 25-34	5.594
	(5.044)
Female # 35-44	5.768
	(6.085)
Female # 45+	2.212
	(3.058)
Head marital stat. (married omit.)	
Single	0.613
	(0.275)
Divorced/Widow(er)	0.728
	(0.554)
Head marital stat. and sex int.	
Female # Single	0.595
	(0.310)
Female # Divorced/Widow(er)	0.609
	(0.523)

Table 5. Type II attrition logit model: odds ratios for probability of attrition (Continued)

Head education (illit. omit.)	
Read & Write	0.978
	(0.264)
Basic	1.050
	(0.285)
Secondary	1.125
	(0.316)
Post-secondary	0.748
	(0.261)
University	1.302
	(0.379)
Post-Graduate	1.491
	(0.677)
Head labor mkt. status (Government wage omit.)	
Out of manpower	0.880
	(0.425)
Out of labor force	1.001
	(0.174)
Unemployed.	1.039
	(0.210)
Public ent. wage	0.506
	(0.569)
Priv. formal wage	0.923
	(0.224)
Priv. inf. reg. wage	1.237
	(0.357)
Priv. irreg. wage	0.739
	(0.340)
Employer	0.421
	(0.484)
Self-emp./UFW ag.	5.713
	(8.267)
Self-emp./UFW non-ag.	1.882
	(0.801)
Wealth quintile (poorest omit.)	
Second	1.281
	(0.229)
Third	1.512*
	(0.268)
Fourth	1.206
	(0.218)
Richest	1.319
	(0.246)
Move dist. (same build. omit.)	
Moved to another building in the same area	0.861
	(0.134)
Moved to another area	3.237***
	(0.520)
Nationality (Jordanian omit.)	
Non-Jordanian	1.256
	(0.258)
Pseudo R-sq.	0.122
N (households)	2706

Source: Authors' calculations based on JLMPS 2016 and 2025

*Notes: *p < 0.05; **p < 0.01; ***p <0.001. Standard errors in parentheses. Mean values of predicted attrition used if characteristics were missing (N=14).*

3.3. Panel sample

Individuals in the JLMPS can appear in any combination of consecutive waves. Table 6 presents the distribution of the 65,654 unique individuals present in at least one wave, in terms of how many waves they were present. A sizeable fraction (15.1%) were in fact in all three waves. A further 6.9% were in both 2010 and 2016 but not 2025. There are even larger shares present in 2016 and 2025 (but not 2010), 17.2%. These different panels allow for dynamic analyses of labor market phenomenon, and also provide additional opportunities for causal identification strategies, e.g., individual fixed effects (Fallah et al. 2019). Some individuals were observed in only one wave (17.4% in 2010 only, 11.6% in 2016 only, 31.7% in 2025 only).

Table 6. Individuals present in different combinations of waves, 2010-2025

	N (obs.)	Percentage
In 2010 & 2016	4,557	6.9
In 2010 only	11,451	17.4
In 2016 & 2025	11,314	17.2
In 2016 only	7,634	11.6
In 2010 & 2016 & 2025	9,945	15.1
In 2025 only	20,753	31.6
Total	65,654	100.0

Source: Authors' calculations based on JLMPS 2010-2025

3.4. Refresher sample

The refresher sample for 2025 followed a similar design to the 2016 wave (Krafft and Assaad 2021). The refresher sample was designed to sample 3,000 households, divided into 200 primary sampling units (PSUs) from which 15 households each were drawn. As in 2016, strata were defined based on "high" versus "low" shares of the population that was non-Jordanian. Specifically, using 2015 population census data, the proportion of households headed by a non-Jordanian head at the neighborhood (*hayy*, sixth level of administrative geography in Jordan) was calculated. There were 1,475 residential neighborhoods in Jordan per the 2015 census. Neighborhoods were sorted from the highest to lowest share non-Jordanian, with the 90th percentile of the distribution (50.4% non-Jordanian) used as the cutoff for high non-Jordanian (versus low). High non-Jordanian neighborhoods thus include refugee camps as well as host communities with a high share of non-Jordanians. As well as stratifying on high/low non-Jordanian, the sample was stratified by urban/rural/camps and governorate (first-level administrative geography).

Table 7 presents the refresher PSUs by stratum.[5] As was the case in 2016, 75% (=150) of the PSUs in the refresher sample were selected from the high non-Jordanian stratum and 25% (=50) from

[5] PSUs are defined by DoS as a collection of blocks with roughly equal population counts. Refresher PSUs were fielded as planned, although some adjustments were made to the initial plan based on the details of the Census and updated data, e.g., when during preparations DoS determined there were fewer than 10 households per the Census or subsequent

the low non-Jordanian stratum. PSUs were selected from within the strata at a probability proportional to size.[6] Households in the PSUs were then listed,[7] and the required households per PSU randomly sampled (along with planning for two random backups).

Table 7. Refresher PSUs by stratum

	Strata											
	Low non-Jordanian households				High non-Jordanian households				Total			
Governorate	Urb.	Rur.	Camp	Tot.	Urb.	Rur.	Camp	Tot.	Urb.	Rur.	Camp	Tot.
Amman	9	1	0	10	39	2	0	41	48	3	0	51
Balqa	3	1	0	4	4	3	0	7	7	4	0	11
Zarqa	5	1	0	6	16	3	10	29	21	4	10	35
Madaba	2	1	0	3	0	5	0	5	2	6	0	8
Irbid	6	2	0	8	16	0	0	16	22	2	0	24
Mafraq	2	2	0	4	10	4	15	29	12	6	15	33
Jarash	2	1	0	3	9	2	0	11	11	3	0	14
Ajloun	1	1	0	2	0	0	0	0	1	1	0	2
Karak	2	1	0	3	0	1	0	1	2	2	0	4
Tafileh	1	1	0	2	0	0	0	0	1	1	0	2
Ma'an	1	1	0	2	0	1	0	1	1	2	0	3
Aqaba	2	1	0	3	7	3	0	10	9	4	0	13
Total PSUs	36	14	0	50	101	24	25	150	137	38	25	200

Source: Authors' construction

4. Sample weights

In order to ensure the sample represents the population of Jordan, accounting for attrition, the panel design, and the refresher design, sample weights are generated. The general approach to weighting and notation is as in Krafft and Assaad (2021), which discusses the 2016 weights. Here we detail the weights for panel and split households, weights for the refresher sample, and combined weights.

4.1. Weights for panel and split households

Weights for the panel sample and split households are initially constructed at the household level. The Type I and Type II attrition models are essential inputs into these weights as they are used to estimate the probability of attrition for remaining original and split households as a function of their observable characteristics. We denote an original (2016) household as *h*. We denote a split household (which may or may not be found in fielding) as *s*. The Type I attrition model allows us

updates in the stratum (combination of high/low, governorate, and urban-rural-camps); these issues were primarily for the rural high non-Jordanian areas.

[6] Multiple blocks could be selected from within the same hayy; this only occurred in the sample in the high non-Jordanian strata, which was substantially over-sampled.

[7] Although in the listing outside of camps, fewer non-Jordanians were found, on average, than in the 2015 census, the correlation between the block proportion non-Jordanian and the 2015 census hayy share non-Jordanian was high, at 0.634, particularly given that the block is a sub-unit of the hayy.

to predict the probability of attrition of the entire original household, which we denote Pr(A_h). For split households, we calculate the probability of attrition as Pr(A_{hs}):

$$\begin{aligned} \Pr(A_{hs}) &= 1\text{-}\Pr(h \text{ found } \& \ s \text{ found}) \\ &= 1\text{-}\Pr(h \text{ found})*\Pr(s \text{ found} \mid h \text{ found}) \end{aligned} \quad (1)$$

Pr(s found | h found) is predicted using the Type II attrition model. We then compute a response adjustment factor, r_h for original households as:

$$r_h = \frac{1}{1 - \Pr\,(A_h)} \quad (2)$$

For split households the response adjustment factor is given by:

$$r_{hs} = \frac{1}{[1 - \Pr(A_{hs})] * c_s} \quad (3)$$

Here the adjustment includes c_s, the number of component households. Component households are the number of different originating households in the population (not the sample) that are found in 2025. If a split contains only individuals from our 2016 sample, the number of component households is one. If the split contains individuals not from a 2016 household, and who were born before 2016, there are multiple component households. This correction for component households maintains population representativeness.[8]

The calculation of our panel sample weights incorporates the household's 2016 weight. We denote as e the expansion weight from 2016. Our panel weights, w, initially are $w=e*r_{h(s)}$. We normalize these weights (dividing by the mean to have a mean of one), which enables subsequent combination with the refresher sample on a one-to-one basis.

4.2. Weights for refresher sample

We calculate refresher sample weights as both a component of the overall sample weights and as stand-alone weights that can be used to cross-validate the overall sample (since the refresher does not suffer from the panel's issues with attrition). Weights are initially calculated on a household level. The starting point of the refresher weights is the PSU response rate.

Because the refresher sample was based on a listing of the PSU, although the time interval between listing and fielding was short, households may have moved or relocated. We therefore consider refresher non-response to be refusals or inability to reach the household, but exclude from these calculations the cases where the household left the country in its entirety or where all members

[8] For panel analyses, the specific panel weight does not include the division by component households.

died. DoS attempted 3,250 households and actually completed 3,119 households when 3,000 were planned.[9]

Denote the PSU as p, the number of observed households as m_p, and the initial weight w_p, is:

$$w_p = \frac{15}{m_p} \tag{4}$$

Clusters with more than the planned 15 households have their households weighted down; clusters with fewer than the planned 15 households have their households weighted up; otherwise this weight is one.

The refresher sample in 2025, as in 2016, was stratified by governorate, g, urban/rural/camps location l, and high/low non-Jordanian strata s. Denote as $h_{g,l,s}$ the planned number of households in the sample specific to a location, governorate, and stratum, based on summing across the PSUs in each location, governorate, and stratum, $P_{g,l,s}$, specifically:

$$h_{g,l,s} = \sum_{p=1}^{P_{g,l,s}} 15 \tag{5}$$

To create ex-post population expansion weights, we use population projections from 2025 by governorate for Jordanians, as this aggregation is what DoS was able to provide. In the absence of a recent census and given the volatility of the non-Jordanian populations, we effectively create ex-post weights for Jordanians and then use the ratio of non-Jordanians to Jordanians observed in our refresher sample data at the urban/rural/camps and governorate level to create ex-post weights for non-Jordanians; we re-use these population numbers when combining the refresher and panel samples in the combined weights. The weights are thus nationality-specific to Jordanians (*n=j)* versus non-Jordanians (*n=n-j)*.[10] We start with 2015 populations (as measured in the census) at a more disaggregated level and update to the 2025 populations at a more aggregated level, using the governorate level population projections. Using the 2015 census, we have the location, governorate, stratum population estimates $c_{g,l,s,2015}$[11] and can create the household-level expansion weight:

$$w_{p,g,l,s,2015} = w_p \frac{c_{g,l,s,2015}}{h_{g,l,s}} \tag{6}$$

[9] The number of successfully completed households per PSU ranged from 6-17; there were two PSUs with six households, one PSU with seven households, five PSUs with nine households, four PSUs with 10 households, six PSUs with 11 households, five PSUs with 12 households, three PSUs with 13 households, 13 PSUs with 14 households, 19 PSUs with 15 households, 31 PSUs with 16 households, and 111 PSUs with 17 households.

[10] See Krafft et al. (2019) for a comparison of ex-post and ex-ante weights using the JLMPS 2016.

[11] Because our sample included no PSUs from the high non-Jordanian stratum for rural Ajloun, Tafileh, or Irbid, nor urban Madaba (these were locations where there were very few households per the census or updates), we reassigned those populations, by nationality, to the low non-Jordanian stratum in the same urban/rural and governorate location.

We then calculate the ratio of non-Jordanian to Jordanian households (based on the nationality of the household head) in our refresher sample on the governorate and urban/rural/camps level. We use this later to create non-Jordanians' weights. Specifically, we calculate the ratio:

$$r_{g,l} = \frac{\sum_{p,s,n=n-j} w_{p,g,l,s,2015}}{\sum_{p,s,n=j} w_{p,g,l,s,2015}} \quad (7)$$

We update the population estimates to the 2025 population projections by governorate for Jordanians and subsequently non-Jordanians. The projected total population was 1,788,272 Jordanian households. Denote the projections for household populations in 2025 by governorate for Jordanians as $J_{2025g,n=j}$. We estimate Jordanians' household weights as:

$$w_{p,g,l,s,n=j,2025} = w_{p,g,l,s,2015} * \frac{J_{2025,g,n=j}}{\sum_{p,l,s,n=j} w_{p,g,l,s,n,2015}} \quad (8)$$

where the denominator is the sum of all the 2015 expansion weights within a certain governorate for Jordanians.

We then use this weight at the governorate and location level and the ratio of non-Jordanians to Jordanians at that same level to calculate non-Jordanians weights as:

$$w_{p,g,l,s,n=n-j,2025} = w_{p,g,l,s,2015} * r_{g,l} * \frac{\sum_{p,s,n=j} w_{p,g,l,s,n=j,2025}}{\sum_{p,s,n=n-j} w_{p,g,l,s,2015}} \quad (9)$$

This uses the expansion weight in 2025 for Jordanians, the ratio of non-Jordanians to Jordanians observed in our data, and the sampling weights for non-Jordanian households based on the sample design to create non-Jordanians' weights.

For the official refugee camps, rather than the non-Jordanian to Jordanian ratio, we instead use the mid-2025 individual populations from UNHCR (UNHCR 2025b, 2025a) and our observed household sizes to estimate household weights based on the number of individuals in the camp, per UNHCR, divided by the number of individuals observed in our data.

Using these weights, we get an estimated individual 2025 population of 7.8 million individuals (7.0 million Jordanians and 0.9 million non-Jordanians); the individual population projections state there should be 8.3 million Jordanians. Furthermore, some individuals did not consent to the individual questionnaire (for the refresher, 301 of them). We have only the basic characteristics from the roster to model non-consent, and use those, the household weights, and the individual population projections to create individual-level weights. Specifically, we adjusted the household level weight by the age group, *e*, sex, *x*, and nationality, *n* (here distinguishing between Jordanians, Syrians, Egyptians, Other Arab and Other), interacted non-response rate, $r_{e,x,n}$:

$$w_{p,g,l,s,n,e,x,2025} = \frac{w_{p,g,l,s,n,2025}}{1 - r_{e,x,n}} \quad (10)$$

For non-Jordanians, this was the final individual weight. For Jordanians, we summed this weight by governorate, and used this weight and the Jordanian individual population projections by governorate, $J_{g,2025}$ to generate an individual expansion weight, *i*, of:

$$i_{p,g,l,s,x,e,n=j,2025} = w_{p,g,l,s,e,x,n=j,2025} * \frac{J_{g,2025}}{\sum_{p,l,s,e,x} w_{p,g,l,s,e,x,n=j,2025}} \quad (11)$$

This approach mathematically generates the 8.3 million Jordanian individuals from the projections.

4.3. Combined weights

The normalized panel and refresher weights are the starting point for our combined sample weights. We undertake ex-post weighting with the same approach as for the refresher sample. Denote the normalized weights for a household as $\widetilde{w}_h$. We use the same populations as for the refresher sample, at the Jordanian/non-Jordanian, governorate, and location level, to calculate a weight as:

$$w_{g,l,n,2025} = \frac{\sum_{g=1}^{G} \sum_{l=1}^{L_g} \sum_{n=1}^{n} w_{p,g,l,s,n,2025}}{\sum_{g=1}^{G} \sum_{l=1}^{L_g} \sum_{n=1}^{n} \widetilde{w}_h} \quad (12)$$

Here the numerator is the expanded population at the governorate, location, and nationality level per the refresher sample approach, and the denominator is the normalized number of households in that same geography. As with the refresher sample, this yields an individual population of 8.1 million that is short of the individual population estimates of 9.2 million generated with the refresher sample approach. Individual expansion weights are therefore adjusted by, first, age group, nationality, and sex for non-response, as with the refresher sample, and subsequently adjusted to match the refresher sample method of creating ex-post weights on the governorate and nationality level.

5. Validation of JLMPS 2025 results

5.1. Comparator data sources

In order to assess the representativeness of the 2025 JLMPS wave, we compare key demographic and labor market indicators to those from other contemporaneous Jordanian data sources. Specifically, we benchmark our JLMPS 2025 estimates against the 2025 Jordanian Employment and Unemployment Survey (EUS), the official quarterly labor force survey conducted by DoS as well as the 2023 Jordanian Population and Family Health Survey (JPFHS), also implemented by DoS (Department of Statistics (DoS) [Jordan] and ICF 2024).

For JPFHS 2023, we use the publicly available microdata (Department of Statistics (DoS) [Jordan] and ICF 2024). Because raw microdata for the EUS after 2018 are not publicly available, we rely

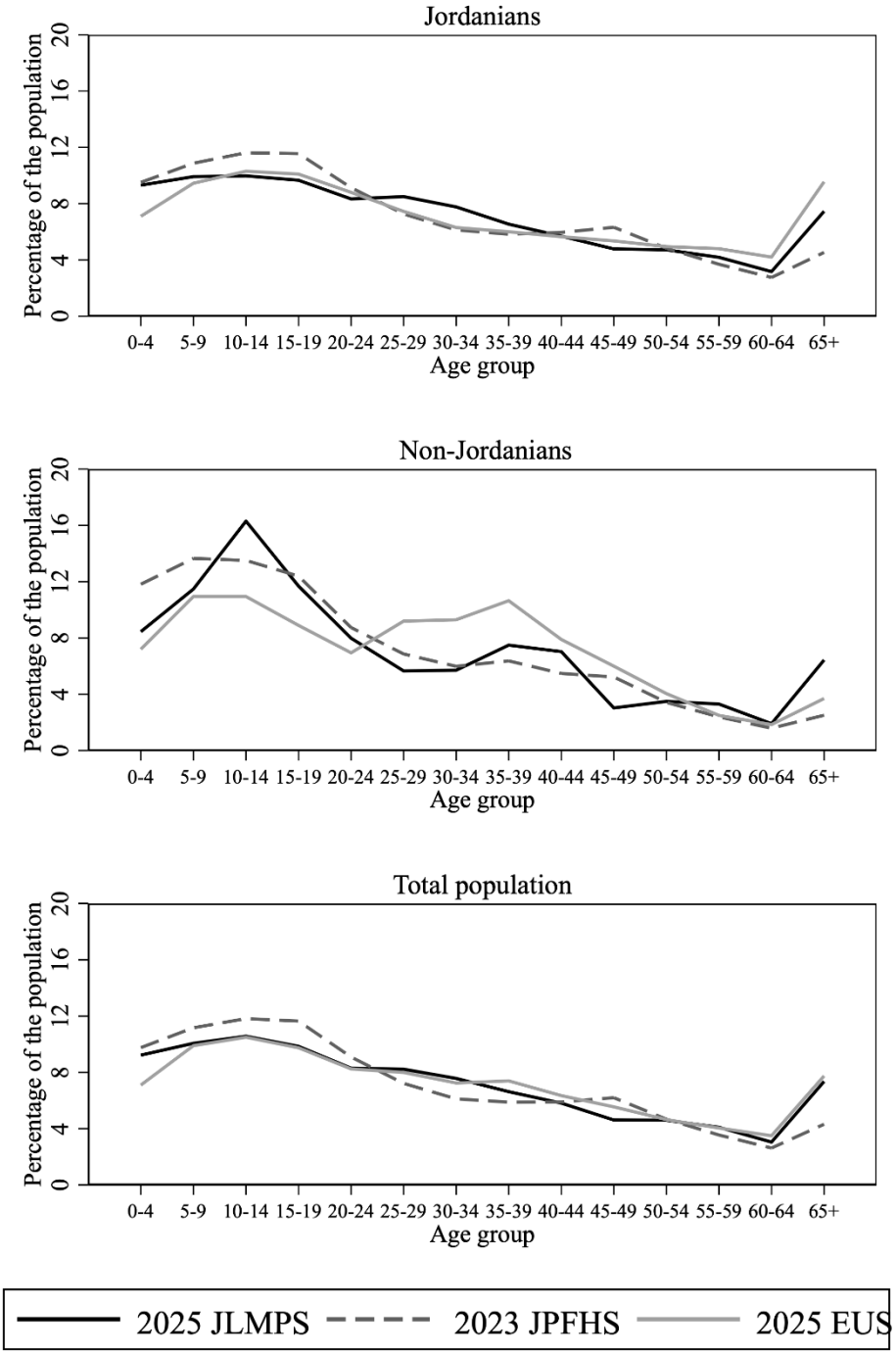
on quarterly tabulated estimates for 2025. To ensure comparability with the JLMPS, for which fieldwork was conducted primarily during the first and second quarters of 2025, we compute averages across the first two EUS quarters. Our analysis disaggregates results by sex and nationality, examining trends for Jordanians, non-Jordanians, and the overall population.

5.2. Demographic comparisons

In this section, we explore the distribution of key demographic variables across data sources. The distribution of five-year age groups is broadly comparable across all three surveys (Figure 1). All three agree that Jordan's population of young children, aged 0-4, is smaller than the population aged 5-9, signs of a demographic shift and the resumption of fertility decline after a stall (Krafft, Assaad, and Abushehab 2026; Krafft, Kula, et al. 2021). The JLMPS generally falls between the other two data sources and is more similar to the EUS 2025 than the 2023 JPFHS (not just due to the differences of two years). Among Jordanians, the JLMPS lies between the EUS and JPFHS for children aged 0–4, then closely aligns with the EUS through the 30–34 age group. For ages 35-49, the JLMPS reports a slightly lower share of the Jordanian national population in the age groups than the EUS, but divergences are similar in magnitude to those between the JPFHS and EUS, after which the JLMPS realigns with the trends observed in both the EUS and JPFHS.

Differences across surveys are more pronounced for non-Jordanians than Jordanians, which is expected given greater sampling variability for the relatively smaller non-Jordanian population across data sources. Key patterns, such as a relatively smaller young child population are consistent across data sources. Aside from a noticeable spike in the JLMPS for the 10–14 age group, the age distribution for non-Jordanians fluctuates between the other two surveys and somewhat more closely aligns with the JPFHS. Overall, the close similarity in age distributions, particularly among Jordanians, supports the demographic representativeness of the JLMPS.

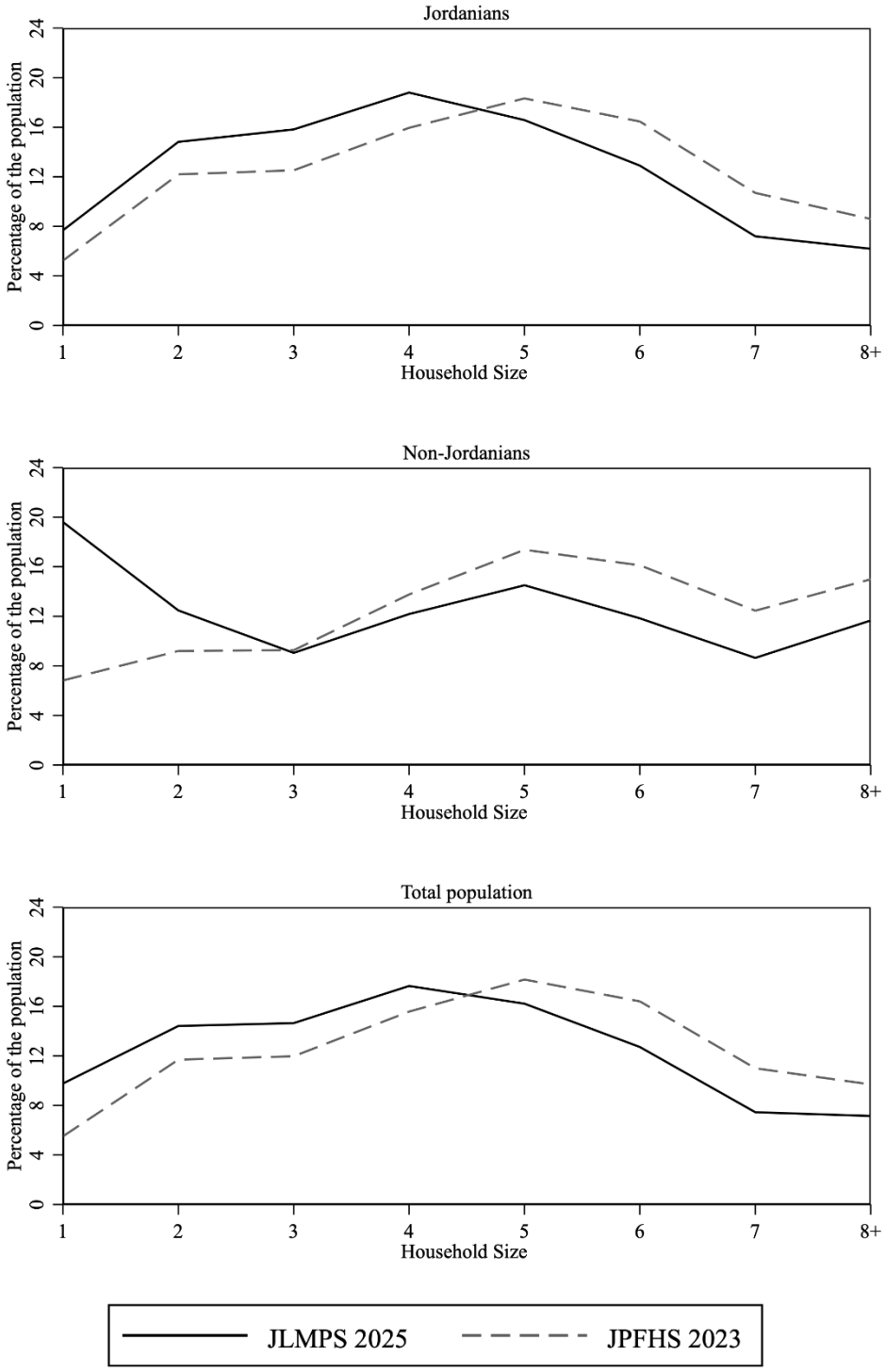
Figure 1. Distribution of age structure (percentage in 5-year age group) by nationality and data source



Source: Authors' construction based on calculations from 2025 JLMPS and 2023 JPFHS, published tables for 2025 EUS (Department of Statistics (Jordan) 2025a, 2025b).

Figure 2 presents the distribution of household size for Jordanians, non-Jordanians, and the overall population across the JPFHS and JLMPS (not available from the EUS). The data sources broadly agree that the modal household is four (JLMPS) or five (JPFHS) individuals and that there is a wide distribution of household sizes. The JLMPS reports shares that are roughly two percentage points higher for households with one to four members and correspondingly fewer households 5+ than the JPFHS. Differences across surveys are more pronounced for non-Jordanians. The JLMPS reports a higher share of non-Jordanian single-person households (almost 20%) compared to 7% in the JPFHS), which may reflect differences in the composition of non-Jordanians. For non-Jordanian households with three or more members, differences between the JLMPS and the JPFHS diminish.

Figure 2. Distribution of household size (percentage of households), by nationality and data source

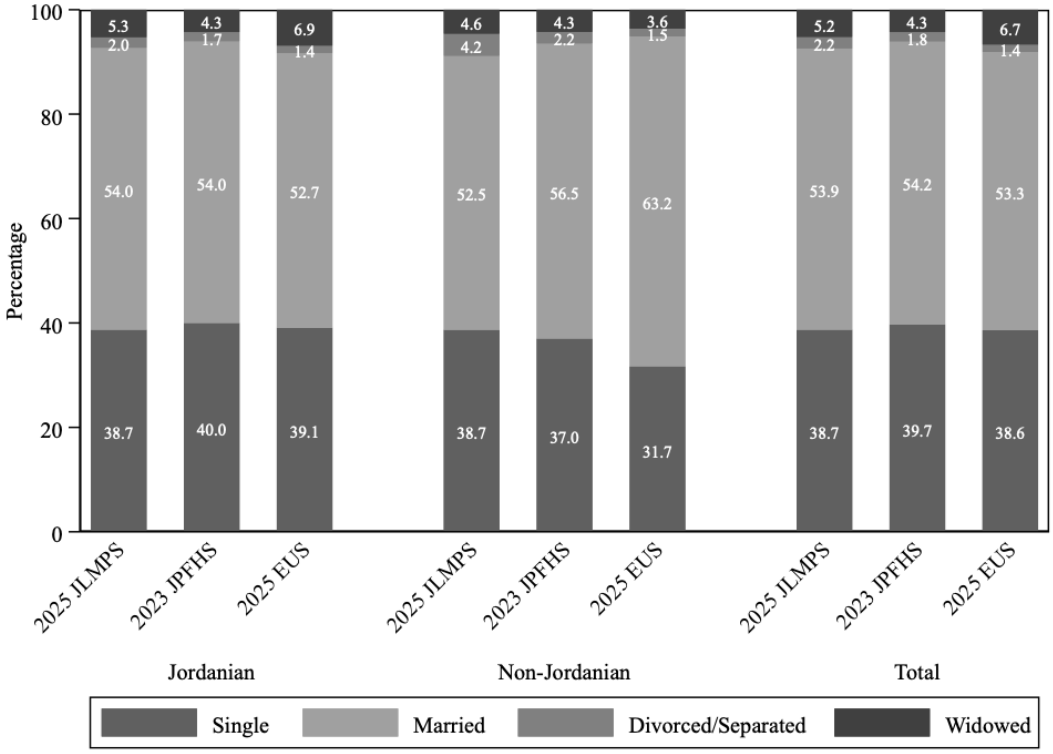


Source: Authors' construction based on calculations from 2025 JLMPS and 2023 JPFHS.

With respect to marital status among respondents aged 15 years and older, patterns are consistent across nationalities and across all three surveys Figure 3. Among Jordanians, the share of single individuals is approximately 40 percent, with differences of at most 1.3 percentage points across data sources. The proportion of married individuals (54%) is identical in the JLMPS and JPFHS and is 1.3 percentage points lower in the EUS. Shares of divorced or separated individuals are uniformly low across all three surveys, (1.4-2.0%). Modest variation is observed in the proportion of widowed individuals, at 5.3% in the JLMPS versus 4.3% in the JPFHS and 6.9% in the EUS.

For non-Jordanians, the JLMPS aligns more closely with the JPFHS in terms of the shares of single and married individuals, in contrast to the EUS, which reports a lower proportion of single individuals (31.7% in EUS versus 37.0% in the JPFHS and 38.7% in the JLMPS) and a correspondingly higher proportion of married individuals. All three surveys report very similar shares of widowed individuals, close to four percent, while the JLMPS indicates a somewhat higher share of divorced or separated individuals (4.2%) relative to the other data sources (1.5-2.2%).

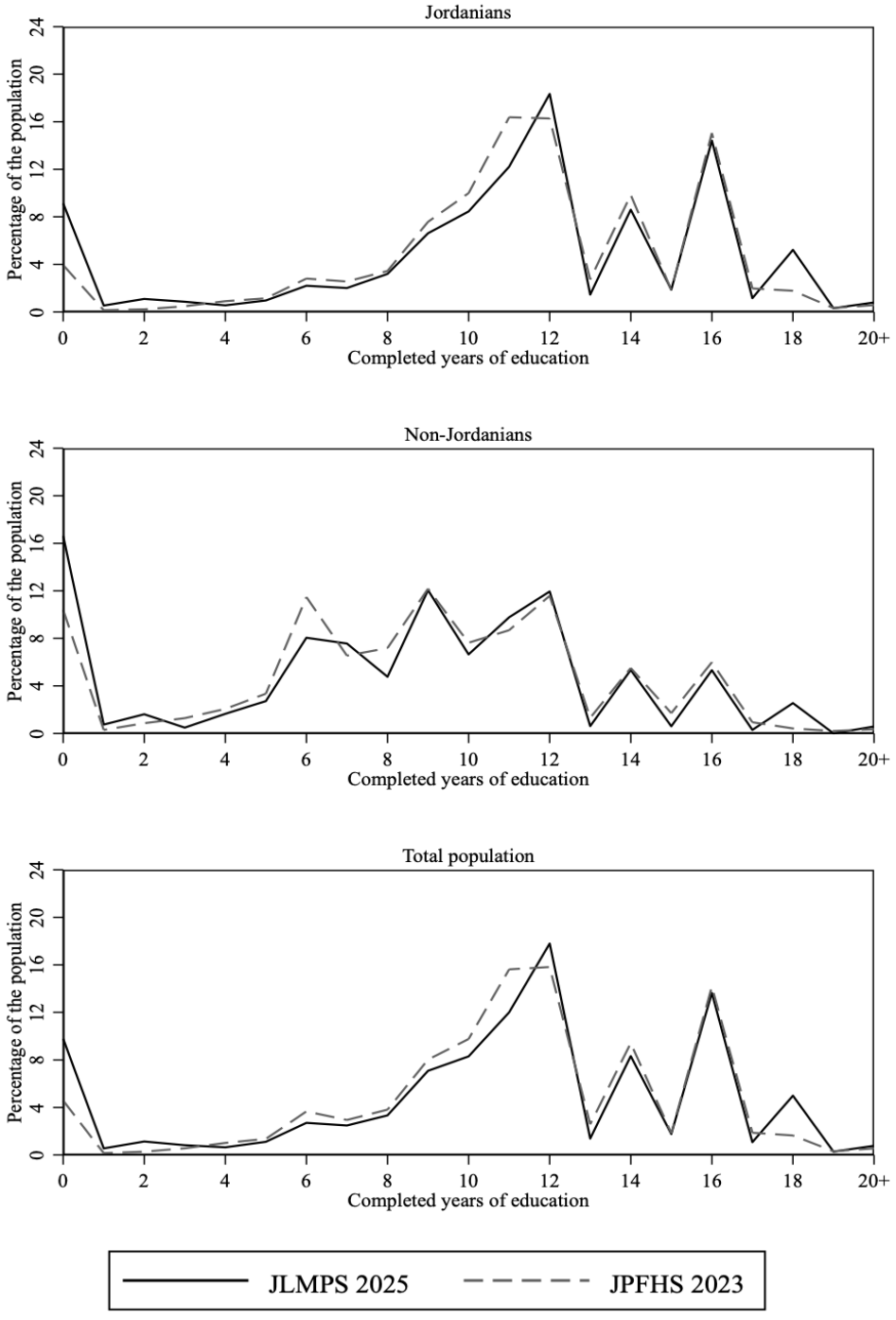
Figure 3. Distribution of marital status (percentage), individuals aged 15 years or older, by nationality and data source



Source: Authors' construction based on calculations from 2025 JLMPS, 2023 JPFHS, and 2025 EUS. EUS calculations undertaken at the Department of Statistics, averaging the first two quarters of 2025.

In Figure 4, we investigate education, specifically completed years of education for individuals aged 15+ using the JLMPS 2025 and JPFHS 2023. The EUS does not have this information, and it is not clear how to map education levels from the EUS. In general, the data sources align in terms of the distribution of years of education. The JLMPS does find more individuals with no years of schooling (10% in JLMPS and 4% in the JPFHS 2024). This pattern holds among both Jordanians and non-Jordanians. The other moderate disparity is at the other end of the distribution – the JLMPS 2025 finds more individuals with 18 years of school (master's degrees, 5%) than the JPFHS 2023. The rest of the distribution is quite similar. One other slight difference is between the percentage of particularly Jordanians who attained 11 vs. 12 years of education, which is likely related to passing the secondary exam (*tawjihi*) and may relate to differences in how completing vs. successfully completing were handled. Other years are quite closely aligned, e.g., both sources have 14% of individuals with 16 years (a bachelor's degree).

Figure 4. Distribution of completed years of education (percentage), individuals aged 15 years or older, by nationality and data source



Source: Authors' construction based on calculations from 2025 JLMPS and 2023 JPFHS.

5.2. Labor market comparisons

Having established the consistency of the JLMPS with other Jordanian data sources in terms of demographics, this section turns to an analysis of labor market statistics, trends over time, and their alignment between the EUS and JLMPS.[12] We include 95% confidence intervals around the overall JLMPS estimates and also present estimates and confidence intervals from the refresher sample,[13] to assess whether observed differences across data sources exceed what would be expected due to sampling variability as well as whether attrition in the panel might induce bias. Comparisons for 2025 rely on averages from Q1 and Q2 of the 2025 EUS, which aligns temporally with the 2025 JLMPS fieldwork. Other EUS statistics are annual. For 2004-2018, we draw on the publicly available EUS microdata (OAMDI 2025). For 2019 onwards, microdata are not available, and we use statistics from the publicly available tables. Also note that the sample of non-Jordanians was much larger beginning in 2016 for the JLMPS and 2017 for the EUS; accordingly, figures for non-Jordanians and for the total population begin in 2016 for the JLMPS and 2017 for the EUS.

Figure 5 presents labor force participation rates, as a percentage of the population, among the population aged 15 years and older,[14] disaggregated by nationality and sex. Both data sources show a clear trend of declining labor force participation for Jordanians, both men and women, although there are slight differences in levels and timing. For Jordanians, in 2010 the total, male, and female labor force participation rates and confidence intervals from the JLMPS are slightly higher than the annual average from the EUS. For Jordanians in 2016, the overall JLMPS estimate and the overall JLMPS male estimate confidence intervals include the EUS estimate. The estimate for women overall is higher and the confidence interval does not include the EUS with the JLMPS, but only a slight disparity (15% JLMPS vs. 13% EUS). The 2016 refresher sample confidence interval for women does include the EUS estimate, but the refresher sample total and male estimates and confidence intervals are below those of the EUS. For Jordanians in 2025, the total participation rate is very similar to the EUS (different by half a percentage point, and the confidence interval overlaps with the EUS). Men's participation rate is slightly higher in the JLMPS (55%), and the overall confidence interval excludes the EUS (52%), although the refresher overlaps. Women's rates are similar and the confidence interval of the JLMPS includes the EUS estimate.

The two data sources generally agree on a trend of increasing participation for non-Jordanians from 2016/17 to 2025. For non-Jordanians, confidence intervals are noticeably wider, reflecting greater sampling variability given the smaller number of observations. The JLMPS estimates are

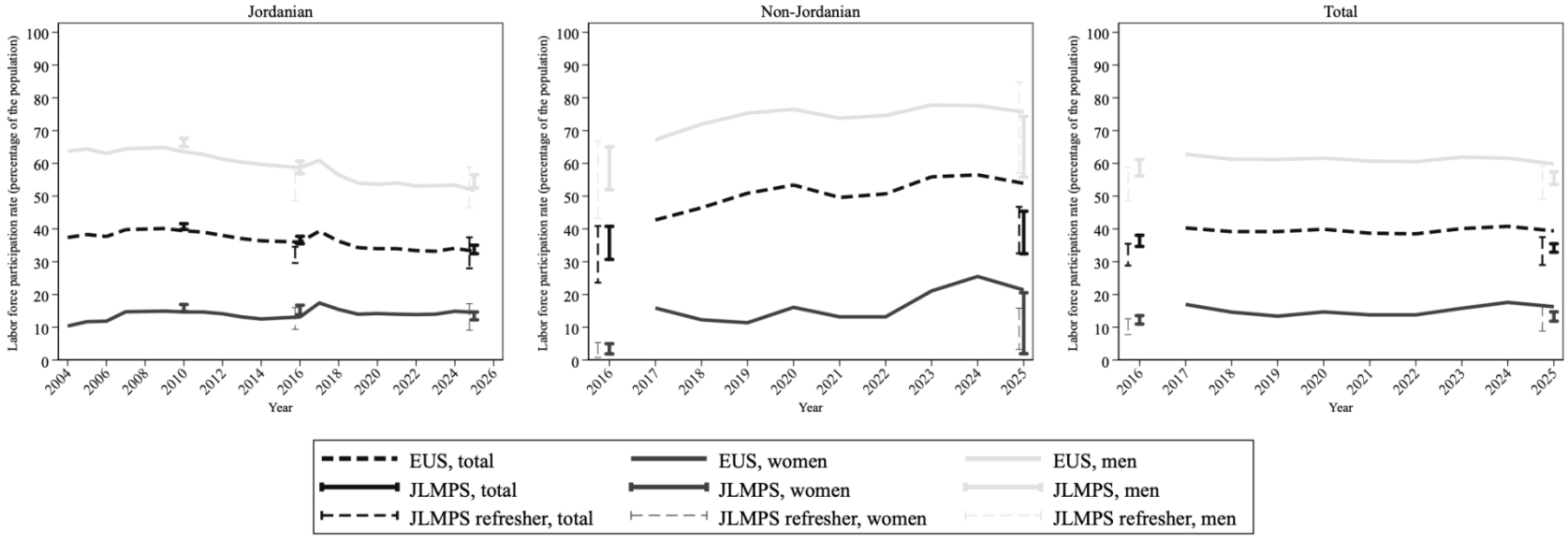
[12] The JPFHS lacks household member labor market characteristics.

[13] The confidence intervals are constructed based on the stratum and PSU under which the household was first observed, accounting for the stratified and clustered nature of the sample.

[14] In previous comparisons of EUS with JLMPS 2010 and JLMPS 2016 (Krafft and Assaad 2021) we had used ages 15-64, using the microdata, and results were more comparable.

generally lower than those of the EUS for non-Jordanians in 2025. As a result, in the total estimates in 2025, the JLMPS estimates and confidence intervals are lower than those of the EUS. Thus, there is overall consistency for the Jordanians' labor force participation estimates, and for the trend but not the level for non-Jordanians.

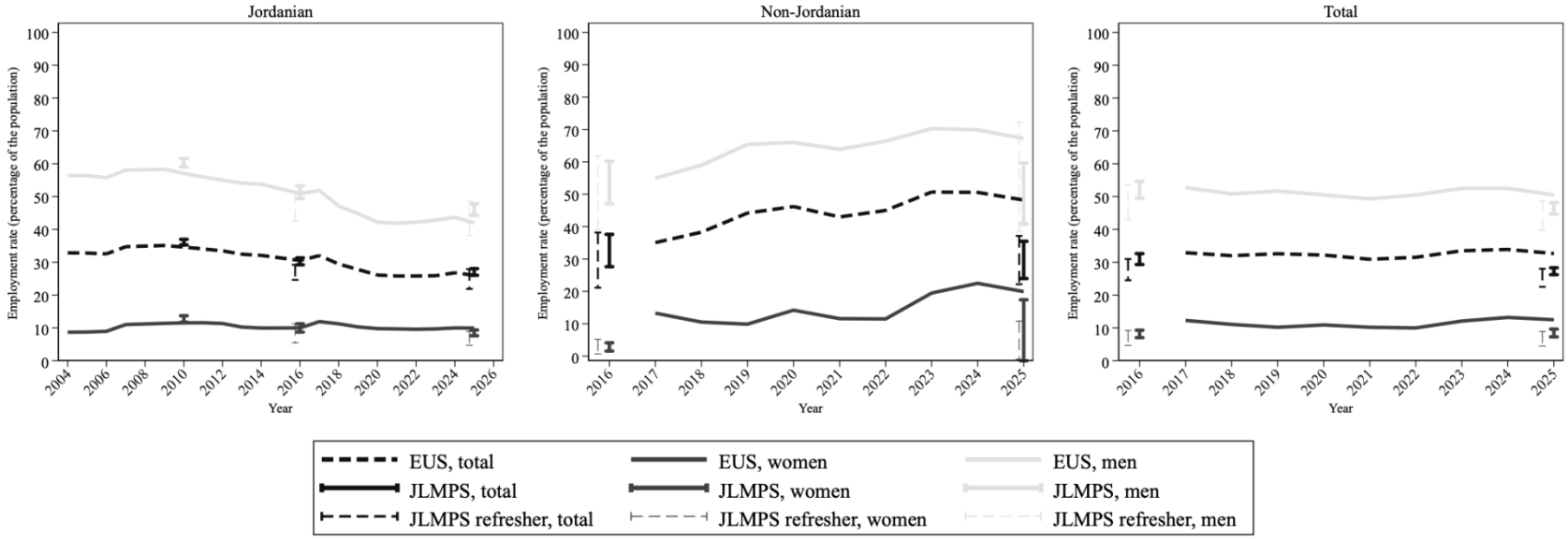
Figure 5. Labor force participation rate (percentage of the population), individuals aged 15 years or older, by nationality, sex, and data source



Source: Authors' construction based on calculations from 2025 JLMPS and EUS 2004-2018, EUS tables for 2019-2025 (Department of Statistics (Jordan) 2019, 2020, 2021, 2022, 2023, 2024, 2025c, 2025a).

Figure 6 explores employment rates by sex and nationality for ages 15+, and while, given high unemployment rates, as shown below, the levels are different than for labor force participation, the pattern in comparing the EUS and JLMPS is the same. Jordanians have experienced declining employment rates, with a particularly troubling trend of declining employment for men, on top of women's already low employment rates. In the JLMPS, overall Jordanian employment rates fell from 36.1% to 30.3% and then 27.0% over 2010-2016-2025. In the EUS, overall Jordanian employment rates fell from 34.6% to 30.5% and 26.0%. The 2025 estimates are thus one percentage point apart, and the 2025 JLMPS confidence interval includes the EUS estimate overall.

Figure 6. Employment rates (percentage of population), individuals aged 15+, by nationality, sex, and data source



Source: Authors' construction based on calculations from 2025 JLMPS and EUS 2004-2018, EUS tables for 2019-2025 (Department of Statistics (Jordan) 2019, 2020, 2021, 2022, 2023, 2024, 2025c, 2025a).

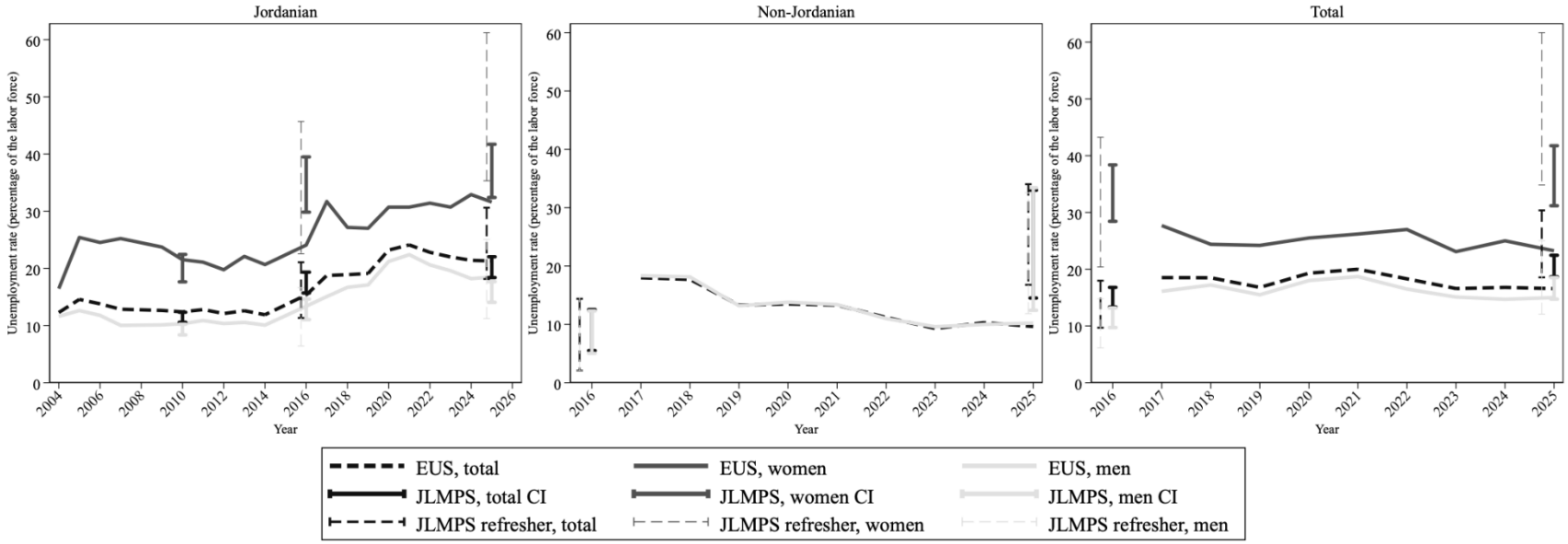
Figure 7 examines unemployment rates as a percentage of the labor force[15] by nationality and sex across the EUS and the JLMPS. The data sources agree on a concerning trend of rising unemployment for Jordanians, although with varying levels and timing. For non-Jordanians, we suppress female unemployment estimates due to a relatively small sample of non-Jordanian women in the labor force. In 2010, for Jordanians, JLMPS estimated unemployment overall was very slightly lower (11.4%, confidence interval of 10.6%-12.3%) compared to the EUS overall estimate (12.4%). The male estimate followed the overall pattern for Jordanians, while in 2010 the JLMPS estimate for female unemployment, although slightly lower (20.0% for JLMPS, 21.5% for the EUS), had a confidence interval including the EUS.

In 2016, JLMPS estimates for Jordanians are slightly higher than EUS estimates overall (17.5% JLMPS, 15.3% EUS) and appreciably higher for women (34.7% JLMPS versus 24.1% EUS). However, the estimate for men is very similar (12.8% JLMPS versus 13.4% EUS). In 2025, the total estimates are very similar (20.2% JLMPS, 21.3% EUS, within the JLMPS confidence interval) but estimates for JLMPS are higher for female unemployment and lower for male unemployment than the EUS. Differences are, however, unlikely to be driven by attrition, since the refresher sample estimates track and overlap the point estimates from the overall sample. Instead, differences due to having the respondent him or herself answer questions, fielding timing within the year, or other aspects of the survey may drive differences.

For non-Jordanians, the JLMPS and EUS show opposite trends. While the EUS shows declining unemployment, the JLMPS shows rising unemployment. These differences may be driven by differences in the composition of non-Jordanians in each sample and are also subject to substantial uncertainty (wide confidence intervals) given the finite number of non-Jordanians in the labor force.

[15] For the JLMPS and EUS based on microdata (2004-2018), estimates of unemployment rates are for ages 15-64; for EUS thereafter estimates are ages 15+. Since relatively few individuals aged 65+ are in the labor force, differences due to this age discontinuity are likely to be small.

Figure 7. Unemployment rates (percentage of the labor force), individuals aged 15-64 or 15+ (EUS after 2019) by nationality, sex, and data source

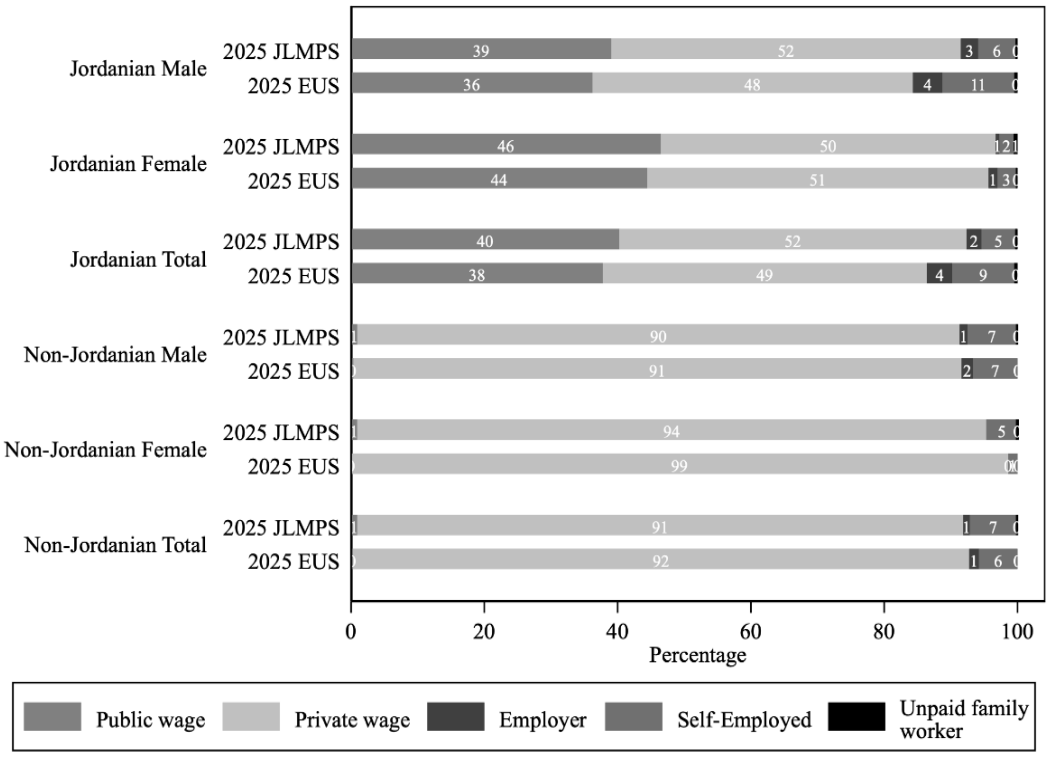


Source: Authors' construction based on calculations from 2025 JLMPS and EUS 2004-2018, EUS tables for 2019-2025 (Department of Statistics (Jordan) 2019, 2020, 2021, 2022, 2023, 2024, 2025c, 2025a).

Focusing on the employed, Figure 8 shows that the two data sources exhibit very similar patterns across sex and type of employment for both Jordanians and non-Jordanians. Among Jordanian men, both surveys indicate that wage work in the private sector accounts for roughly half of total labor market participation, with the JLMPS reporting a slightly higher share (52%) than the EUS (48%). The public sector represents the second largest category, comprising approximately 39% of Jordanian men's employment in the JLMPS and 36% in the EUS. Some differences emerge in self-employment, where the EUS reports a somewhat higher share (11%) than the JLMPS (6%) for Jordanian men.

For Jordanian women, the two surveys also align closely in indicating a focus on wage work and disproportionately public sector wage work. Differences between the JLMPS and the EUS are small; at most a difference of 2 percentage points in the share in public sector wage work. Similar to Jordanian men, private sector wage work accounts for around half of female employment. Among non-Jordanians, the vast majority of both male and female non-Jordanians who are employed are in private sector wage work, 90-91% of men across sources, along with 94% of non-Jordanian women in the JLMPS and 99% of non-Jordanian women in the EUS.

Figure 8. Type of employment (percentage), employed individuals aged 15 years or older, by nationality, sex, and data source



Source: Authors' construction based on calculations from 2025 JLMPS, 2023 JPFHS, and published tables for 2025 EUS (Department of Statistics (Jordan) 2025e, 2025d).

6. Conclusions

Jordan is facing increasingly difficult labor market conditions, with declining labor force participation and employment paired with rising unemployment for Jordanians. Jordan is also host to a sizeable population of non-Jordanians, including Syrian refugees, although this population is in flux following the December 2024 ousting of President Bashar Al-Assad and the installation of a new government in Syria. Jordan has long been a host to refugee populations and an island of relative political stability in the Middle East. The country is, however, struggling in terms of the macroeconomy (Assaad and Khraise 2026) and labor market (Krafft, Assaad, and Abushehab 2026). Addressing economic and labor market challenges is grounded in high-quality labor market data. The new JLMPS 2025 wave offers an important opportunity to understand and address Jordan's labor market challenges.

The 2025 wave of the JLMPS builds on the 2010 and 2016 waves. As with the 2016 wave, areas with a high share of non-Jordanians have been oversampled to ensure a sufficient sample of these groups to analyze their wellbeing, as well as facilitate analyses of the impact of Syrian refugees on Jordanians. The JLMPS 2016 facilitated substantial research on both these topics (Fallah et al. 2019; Elmallakh and Wahba 2022; Assaad et al. 2023; Al-Hawarin et al. 2021; Krafft et al. 2022; Sieverding et al. 2020; Krafft et al. 2024), as well as on other essential issues such as education and school-to-work transitions (Hailat 2019; Amer 2019).

The 2025 wave of the JLMPS is well positioned to provide nationally representative data on a host of topics, including areas such as skills and training and time use that were not covered in previous waves. As this paper demonstrated, key labor force statistics, including the 2025 overall labor force participation, employment, and unemployment rates are comparable to the EUS for Jordanians. There are some differences for subgroups, especially non-Jordanians. Demographic characteristics are also fairly similar across surveys, validating the representativeness of the JLMPS.

The data are now publicly available and research underway on topics such as trends in labor supply and job quality (Krafft, Assaad, and Abushehab 2026; Assaad and Khraise 2026). The data will also support research on pressing policy issues in Jordan, such as whether early childhood care and education can help increase female labor force participation. Rigorous causal evidence suggests that, contrary to much of the global literature (Halim et al. 2023), it does not (Krafft, Assaad, Paloma, et al. 2026), results which are, however, consistent with other studies in MENA (Krafft and Li 2024; Caria et al. 2025; Krafft and Lassassi 2024). These are just a few illustrations of the potential uses of this rich, publicly available data and their potential to inform policy.

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