

Social Security Inclusion and Multidimensional Social Integration Among Young Syrian Refugees in Jordan and Türkiye: A Comparative Cross-Sectional Survey

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ABSTRACT

This study examined whether social security inclusion was associated with multidimensional social integration among young Syrian refugees (18–29) in Jordan and Türkiye. A comparative cross-sectional survey was administered using a harmonized questionnaire (N = 1,200; 600 per country). Social security inclusion was measured as reported enrollment/coverage supported by verification indicators, while social integration was operationalized as a composite index with sub-dimensions capturing economic participation, connectedness, participation, and belonging. Economic security and vulnerability/coping were measured as multi-item indices and were tested as pathways linking inclusion to integration. Employment formality was operationalized as formal/protected versus informal work based on core formality indicators. Shock exposure during the past 12 months (illness, work injury, income loss) and perceived legal, administrative, and economic barriers were also measured. Descriptive results showed limited social security inclusion, low formal/protected employment relative to overall employment, widespread shock exposure, and moderate-to-high barriers in both countries. Regression models indicated that social security inclusion was positively associated with overall social integration in Jordan and Türkiye, with stronger associations observed for economic participation and belonging than for participation. Inclusion was associated with higher economic security and lower vulnerability/coping, and indirect-effect analysis indicated that these pathways accounted for a substantial share of the inclusion–integration association. Employment formality strongly predicted inclusion and was positively associated with integration among working respondents. Among shock-exposed respondents, inclusion was associated with lower hardship and social exclusion risk, and interaction models supported a buffering pattern. Barriers were negatively associated with both inclusion and integration, indicating a persistent implementation gap. These findings suggested that expanding practical access to protected employment and social security coverage could strengthen youth integration trajectories in both host-country contexts.

Keywords: social security inclusion; social integration; Syrian refugees; employment formality; Jordan and Türkiye

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1. Introduction

The displacement of Syrians has turned into a long-term regional situation, with many refugees living for extended periods in nearby host countries. Therefore, issues of inclusion and integration should be viewed as ongoing social and institutional challenges rather than short-term emergency responses. (United Nations High Commissioner for Refugees, n.d.; International Organization for Migration, 2025) Jordan and Türkiye are key examples in this context because both countries host large Syrian populations and have had to move from immediate humanitarian aid toward longer-term approaches that address livelihoods, protection, and daily inclusion. (United Nations High Commissioner for Refugees, n.d.; Tumen, 2023) Within this setting, the integration of young Syrian refugees aged 18–29 is especially important, as this stage of life usually involves entering stable employment, living independently, and building skills and social networks that influence future wellbeing and belonging. (United Nations Department of Economic and Social Affairs, n.d.; International Labor Organization, 2013) However, displacement disrupts these transitions by interrupting education, limiting mobility, and unequal access to decent jobs, thereby increasing the risk that early disadvantages persist over time. (United Nations Children’s Fund, 2019; Jones et al., 2022) In both Jordan and Türkiye, these challenges are intensified by labor markets where informal work is common, and young refugees often find unstable jobs that offer limited protection. (International Labor Organization, n.d.; Badalić, 2023)

A central issue is the stability of livelihoods, since insecure jobs and irregular income make it difficult for young refugees to plan, invest in skills, or participate fully in society in ways that support long-term integration. (International Labor Organization, 2023; Jones et al., 2022) Moreover, in settings where informal work dominates, the lack of formal protection is not just a technical issue; it also increases vulnerability when problems arise, such as illness, workplace injury, or sudden income loss. (International Labor Organization, n.d.;

Stojetz et al., 2024) As a result, unexpected shocks can quickly lead to financial hardship and social exclusion when households lack systems to support recovery. (Holmes & Lowe, 2023; Holzmann et al., 2003) For refugees, these difficulties are often reinforced by legal and administrative barriers, employer behavior, and affordability issues that determine who can enter formal employment and who remains in informal work. (Gray Meral et al., 2022; Diab, 2024)

In this context, the paper focuses on social security inclusion as a form of institutional participation, defined as enrollment in formal social security systems linked to recognized employment and contributions. (Kawar et al., 2022; Seyfert & Alonso, 2023) This concept goes beyond simply describing labor market status, as it reflects a direct connection with institutions that can reduce risk, protect against shocks, and support economic stability, all of which contribute to broader integration. (Holzmann et al., 2003; International Labor Organization, 2024) The study deliberately narrows its focus to formal, system-based coverage rather than including all types of social support or humanitarian aid. (Kawar et al., 2022; Zaman et al., 2023) This approach aligns with evidence showing that access to social and health protection for refugees depends on rules, enforcement, and practical accessibility, and that formal coverage matters most when it is genuinely available and usable. (Ron & Nitzan, 2023; Holmes & Lowe, 2023)

The main outcome examined is social integration, understood as a broad concept rather than a single economic measure. Integration involves not only participation in economic activities but also social connections, community involvement, and a sense of belonging and acceptance. (Ghassaban et al., 2023; Song et al., 2025) Accordingly, this study measures integration as a combination of economic participation, connectedness, engagement, and belonging, allowing for a more complete understanding of how institutional protection affects social life beyond income alone. (Ghassaban et al., 2023; Zihnioğlu & Dalkıran, 2022) This perspective is important because having a job does not automatically lead to full social inclusion, and economic participation can exist alongside social exclusion. (Cevik, 2025; Zihnioğlu & Dalkıran, 2022)

The expected relationship between social security inclusion and integration is grounded in a risk-and-resilience framework, which suggests that formal protection can improve economic stability and reduce vulnerability, thereby supporting stronger participation and a greater sense of belonging. (Holzmann et al., 2003; International Labor Organization, 2024) In this view, social security inclusion is linked to higher economic security and lower vulnerability, and these factors help explain why institutional inclusion may lead to better integration outcomes. (Hayes, 2018; Jones et al., 2022) Employment formality plays a key role because it often provides access to contributory systems, meaning that differences between formal and informal work can create unequal access to protection and, consequently, unequal integration outcomes. (International Labor Organization, 2023; Peitz et al., 2023) During periods of crisis, such coverage can act as a buffer, reducing the impact of shocks and limiting the risk of poverty and exclusion among affected youth. (Stojetz et al., 2024; Holzmann et al., 2003) However, structural barriers—legal, administrative, and economic—can restrict access to these systems and contribute to unequal patterns of inclusion, thereby weakening integration. (Diab, 2024; Gray Meral et al., 2022)

A comparative approach is important because, although Jordan and Türkiye both host large Syrian refugee populations over a long period, they differ in their institutional systems and labor market conditions that influence access to formal employment and social security. (United Nations High Commissioner for Refugees, n.d.; Tumen, 2023) In Jordan, policies related to work permits and authorization processes have shaped discussions about formal labor market integration and its effects on refugees' economic conditions. (Peitz et al., 2023; International Labor Organization, 2024) In Türkiye, Syrians under temporary protection have a regulated system for obtaining work permits, with clear links between legal employment and social security requirements, although actual access to formal work depends on labor demand, compliance, and administrative practices. (Turkey: National Legislative Bodies / National Authorities, 2016; Republic of Türkiye Ministry of Labor and Social Security, n.d.) These differences make comparison useful, as they allow the study to examine whether the link between social security inclusion and integration is consistent across different institutional settings rather than limited to one country. (Tumen, 2023; Ghassaban et al., 2023)

Although research on refugee integration, labor market participation, and social cohesion is increasing in both countries, there is still limited comparable survey-based evidence that measures social security inclusion and multidimensional integration using the same tools across both contexts. (Ghassaban et al., 2023; Kawar et al., 2022) Studies focusing on youth highlight the importance of economic stability and the risks associated with early disadvantages in the labor market; however, fewer studies directly examine how protection relates to integration for young refugees while also considering employment formality, exposure to shocks, and structural barriers within a single framework. (Jones et al., 2022; Üstübcı & Elçi, 2022) This gap is important because

barriers and informal work can weaken the link between legal opportunities and actual access, and because integration depends on more than employment alone. (Gray Meral et al., 2022; Diab, 2024)

The study aims to measure the extent and types of social security inclusion among young Syrian refugees in Jordan and Türkiye using comparable survey data. It also examines how social security inclusion relates to overall social integration, as well as specific aspects such as economic participation and sense of belonging. In addition, the study explores whether economic security and vulnerability serve as links between inclusion and integration, from a risk-and-resilience perspective. It further compares integration outcomes by employment formality, recognizing that formal employment is a key pathway to institutional protection. The analysis also tests whether social security inclusion is associated with lower risks of poverty and social exclusion among individuals who experience shocks such as illness, injury, or income loss. Finally, it examines how perceived legal, administrative, and economic barriers affect both social security inclusion and integration outcomes in the two countries.

This paper contributes by providing comparable evidence from two countries using consistent measures, which strengthens the analysis of the relationship between protection and integration. It highlights social security inclusion as a measurable pathway to integration for young refugees, rather than treating it as background context, thereby linking social policy with integration research through a shared framework. In addition, it brings together factors such as employment formality, exposure to shocks, economic pathways, and structural barriers within a single comparative model, offering useful policy insights on how access and system design shape unequal outcomes. The paper is organized as follows: it first reviews relevant literature, then explains the methods, presents the results, discusses the findings in relation to theory and context, and concludes with key implications and recommendations.

2. Literature Review

2.1 Conceptual Foundations and Key Definitions

Clear definitions are essential in refugee research because closely related terms—such as social protection, social security, social inclusion or exclusion, social cohesion, and social integration—are often used differently across academic and policy discussions. When these concepts are not defined carefully, it becomes difficult to compare findings across studies or countries, and conclusions may become misleading (Papadakis et al., 2024; Crawford et al., 2023; Kangas-Müller et al., 2024). This challenge is especially important in comparing Jordan and Türkiye, where legal systems, labor-market structures, and administrative practices differ in meaningful ways. In such cases, apparent differences in outcomes may reflect differences in definitions or institutional arrangements rather than actual differences in people's lived experiences (Tumen, 2023; Şahin-Mencütek et al., 2023; Zaman et al., 2023). The issue becomes even more significant when the focus is on youth, because early contact with employment systems, public institutions, and social networks can strongly shape long-term stability, opportunity, and feelings of belonging in the host society (Jones et al., 2022; United Nations Children's Fund, 2019; Üstübcici & Elçi, 2022). For that reason, the main concepts are defined in a way that is both grounded in theory and suitable for practical measurement through comparable survey indicators in both countries (Ghassaban et al., 2023; Harkness et al., 2010; Putnick & Bornstein, 2016).

2.1.1 Social Protection and Social Security: Conceptual Distinctions

Social protection is commonly understood as a broad policy framework aimed at reducing poverty, insecurity, and vulnerability across the life course. It covers a wide range of measures, including social assistance, social insurance, and labor-market interventions that help individuals manage economic and social risks (Seyfert & Alonso, 2023; Zaman et al., 2023; Holzmann et al., 2003). In displacement settings, this broad understanding is particularly useful because refugees often depend on several forms of support at the same time, including public aid, targeted programs, and labor-market regulations that influence whether they can access services, earn income, or receive benefits (Seyfert & Alonso, 2023; Diab, 2024; Holmes & Lowe, 2023). Social security, however, has a narrower meaning. It usually refers to a formal and legally recognized system through which people obtain entitlements linked to contributions, employment status, or official registration, often covering risks like illness, injury, disability, unemployment, or loss of income (Kawar et al., 2022; Papadakis et al., 2024; Ron & Nitzan, 2023). The distinction between these two concepts matters because formal entitlement does not always guarantee real protection. A person may have legal access on paper but still face obstacles that prevent actual use of the system. These obstacles often include weak implementation, widespread informal employment, complicated procedures, limited awareness, or institutional discrimination (Zaman et al., 2023; Grzeskowiak, 2024; Gray Meral et al., 2022). In refugee settings, the gap between legal rights and practical access is often shaped by documentation requirements, work permit restrictions, registration rules, and financial barriers. As a result, technically eligible people may remain excluded in practice, especially young refugees who are often in

unstable jobs and have fewer resources or less experience navigating formal institutions (Diab, 2024; European Council on Refugees and Exiles, 2025; International Labor Organization, 2024).

2.1.2 Social Security Inclusion: Meaning, Forms, and Measurement

In this study, social security inclusion refers to whether a person is enrolled in, covered by, or formally connected to a national social security system or another official arrangement that provides recognized protection linked to work, contributions, or legal registration (Kawar et al., 2022; Papadakis et al., 2024; Seyfert & Alonso, 2023). This definition is important because it separates formal inclusion from temporary support. Short-term aid may provide immediate relief, but it does not necessarily create durable rights, long-term security, or reliable protection against future risks (Zaman et al., 2023; Holmes & Lowe, 2023; Omata, 2023). In refugee contexts, this distinction is especially important because humanitarian assistance, community support, or informal support networks can make survival possible without providing the legal and institutional protections that formal inclusion is meant to offer (Seyfert & Alonso, 2023; Barglowski & Bonfert, 2023; Diab, 2024). Therefore, a person may receive support and remain outside the formal system, leaving their position uncertain and fragile over time. The concept also allows for partial inclusion. In practice, individuals may have access to some forms of protection, such as health coverage, while remaining excluded from other important forms of support, including pensions, unemployment protection, and employment injury benefits (Ron & Nitzan, 2023; Mendola & Pera, 2022; Papadakis et al., 2024). Recognizing this partiality is necessary because inclusion is not always a simple yes-or-no condition. Instead, it can involve uneven access across different parts of the welfare system. For measurement purposes, inclusion must therefore be defined by clear, comparable survey indicators that identify the type of coverage a person has and whether that coverage is linked to formal registration or recognized institutional membership (Ghassaban et al., 2023; Harkness et al., 2010; Fowler, 2014). This is particularly important in cross-country studies, where similar words may refer to different systems or legal arrangements. In addition, people may misunderstand their own status or report it incorrectly when systems are complex or poorly explained. For that reason, strong survey design, careful wording, and accurate translation are essential to produce reliable and comparable data, especially in multilingual research involving displaced populations (Harkness et al., 2010; Tourangeau et al., 2000; Willis, 2005).

2.1.3 Social Integration: Concept, Dimensions, and Measurement Approach

Social integration is widely understood as a multidimensional process rather than a single result. It involves more than economic participation alone and includes social relationships, community engagement, institutional participation, and the extent to which individuals feel accepted and connected within the host society (Papadakis et al., 2024; Crawford et al., 2023; Zihnioğlu & Dalkıran, 2022). This broader understanding is especially important in refugee research because progress in one area does not automatically translate into progress in others. For example, having a job may improve income and daily stability, yet it may not reduce social isolation, increase trust, or strengthen a sense of belonging if discrimination, exclusion, or limited community contact persist (Cevik, 2025; Ayyildiz, 2024; Zihnioğlu & Dalkıran, 2022). Integration should therefore be seen as a layered process in which material conditions, social interaction, and emotional attachment develop in different ways and at different speeds. To capture this complexity, integration is measured through several connected but distinct dimensions, including economic activity, social connectedness, participation, and belonging, which are then combined into an overall index for analysis (Ghassaban et al., 2023; Papadakis et al., 2024; Song et al., 2025). This approach makes comparisons more meaningful by allowing analysis of whether formal inclusion in protection systems is associated with overall integration, while also showing which dimensions are more strongly affected than others (Ghassaban et al., 2023; Tumen, 2023; Papadakis et al., 2024). At the same time, cross-country comparisons require careful attention to measurement, as ideas such as participation, belonging, or social connection may be understood differently across languages, cultures, and institutional settings (Putnick & Bornstein, 2016; Vandenberg & Lance, 2000; Harkness et al., 2010). Therefore, consistent definitions, harmonized translation, and careful indicator design are necessary to ensure that observed differences reflect genuine conditions rather than problems in wording or measurement (Harkness et al., 2010; Putnick & Bornstein, 2016; Ghassaban et al., 2023).

2.1.4 Youth in Forced Displacement: Life-Course and School-to-Work Transitions

Youth is often understood as a period of movement from dependence toward adulthood, when people begin to build independent lives through education, work, and social responsibility. International definitions are commonly used as practical reference points in both research and policy (United Nations Department of Economic and Social Affairs, n.d.; International Labor Organization, 2013; United Nations Children's Fund, 2019). In this study, youth is defined as the age group 18–29 because these years are especially important for the transition from education to employment and for early labor-market positioning. What happens during this stage can strongly shape later stability, access to opportunity, and inclusion in society (Jones et al., 2022; Üstübeci &

Elçi, 2022; International Labor Organization, 2013). Forced displacement can seriously interrupt this phase of life. It may break educational pathways, restrict movement, and reduce access to decent and secure work. As a result, many young refugees enter the labor market under unstable conditions, often through low-paid or informal jobs that provide little protection. When this happens early in life, disadvantage can build over time and become harder to overcome later (United Nations Children's Fund, 2019; Jones et al., 2022; Szkudlarek et al., 2024). Research on young people affected by forced displacement shows that economic security, skills development, and access to stable opportunities play a major role in shaping their longer-term futures. Therefore, the institutions and support systems available during these early years are highly important (Jones et al., 2022; International Labor Organization, 2023; Morrice & Salem, 2023). In Türkiye, studies on young refugees' aspirations and possible onward migration further show that social class and limited opportunity structures influence both integration pathways and plans. This strengthens the argument for treating youth as a separate and important analytical category rather than grouping them too broadly with older adults (Üstübici & Elçi, 2022; Şahin-Mencütek et al., 2023; Tumen, 2023).

2.1.5 Employment Formality and Informality: Definitions and Links to Protection

The distinction between formal and informal employment is highly important in refugee livelihoods research because, in most welfare systems, formal employment is the main route through which workers gain access to contributory social security and legally enforceable labor rights (Seyfert & Alonso, 2023; International Labor Organization, 2023; Kavar et al., 2022). Formal work usually refers to employment that is officially registered and regulated, allowing workers to access recognized legal protections, benefits, and institutional safeguards (Seyfert & Alonso, 2023; Papadakis et al., 2024; International Labor Organization, 2023). Informal work, however, generally takes place outside full legal and administrative recognition. It often lacks registration, enforceable rights, and access to contributory protection, meaning that even when people earn income, they may remain exposed to insecurity and sudden loss (Seyfert & Alonso, 2023; International Labor Organization, n.d.; Mendola & Pera, 2022). For refugees, informal employment is often not a matter of free choice. Instead, it is frequently shaped by broader structural pressures, including restrictions on work authorization, segmented labor markets, and employer incentives to avoid the costs and obligations that come with formal hiring (Şahin-Mencütek et al., 2023; Zaman et al., 2023; Badalič, 2023). In Türkiye, evidence on the concentration of Syrians in informal labor markets shows how informality can lock workers into jobs with weaker protections, fewer rights, and limited upward mobility. As a result, both economic stability and institutional inclusion can remain weak over time (Badalič, 2023; International Labor Organization, 2023; Şahin-Mencütek et al., 2023). In Jordan, research on work permits suggests that entry into formal labor arrangements is associated with better welfare outcomes. This supports the view that pathways into formal work matter not only for immediate income but also for wider economic security and potentially stronger integration (Peitz et al., 2023; International Labor Organization, 2024; Stojetz et al., 2024). A time-based perspective adds another important point: early work experiences can shape future trajectories in lasting ways. Entering stable and protected employment early may support longer-term inclusion, whereas repeated movement between insecure jobs may deepen instability. For this reason, employment formality is especially important when studying refugee youth (Szkudlarek et al., 2024; Jones et al., 2022; Üstübici & Elçi, 2022).

2.1.6 Shocks, Risk Exposure, and Vulnerability in Displacement Contexts

Shocks are generally understood as harmful events that suddenly disrupt livelihoods and well-being. These may include illness, work-related injury, or unexpected income loss, all of which can quickly reduce living standards when protection systems are weak, limited, or difficult to access (Mendola & Pera, 2022; Holzmann et al., 2003; Stojetz et al., 2024). In displacement settings, the effects of shocks are often more severe because many refugees already live in insecure conditions, have limited savings, and possess fewer resources to absorb sudden hardship. In addition, access to services may be restricted by legal status, documentation problems, or administrative barriers, making recovery more difficult (Mendola & Pera, 2022; Mendola et al., 2026; Kunpeuk et al., 2022). Vulnerability is widely discussed in the literature, but there is broad agreement that it must be defined and measured carefully. Different indicators capture different forms of exposure to risk and different capacities to cope, so the concept cannot be treated as simple or uniform (Mendola & Pera, 2022; Mendola et al., 2026; Crawford et al., 2023). From a risk-management perspective, social protection is important because it helps prevent shocks from turning into severe or lasting losses. In this sense, its role is not limited to short-term relief; it also supports stability and resilience over time (Holzmann et al., 2003; International Labor Organization, 2024; Holmes & Lowe, 2023). Therefore, extending social health protection and other parts of social security to refugees remains central to debates on inclusion, although the real value of these protections depends on whether people can actually access them and whether systems can implement them effectively (Ron & Nitzan, 2023; Seyfert & Alonso, 2023; Tumen, 2023). Evidence from periods of crisis further suggests that formal status and protective arrangements can help people maintain their livelihoods during major disruptions. This supports the

expectation that social security inclusion may reduce the harmful effects of shocks and lower the risk of hardship and exclusion (Stojetz et al., 2024; International Labor Organization, 2023; Holzmann et al., 2003).

2.1.7 Structural Barriers to Access: Legal, Administrative, and Economic Barriers

Structural barriers are conditions that prevent people from gaining meaningful access to social security systems and related institutional protections, even when official rules appear to make them eligible (Zaman et al., 2023; Gray Meral et al., 2022; Grześkowiak, 2024). Legal barriers include rules tied to legal status, restrictions by occupation or sector, and regulatory requirements that influence who can receive work authorization and, therefore, who can enter formal employment and contributory protection systems (Turkey: National Legislative Bodies / National Authorities, 2016; European Council on Refugees and Exiles, 2025; Peitz et al., 2023). Administrative barriers include documentation requirements, complex procedures, insufficient clarity, and reliance on employer-led applications. These barriers can exclude people through routine institutional processes, even when rights are formally recognized (European Council on Refugees and Exiles, 2025; Gray Meral et al., 2022; Safarov, 2024). Research increasingly shows that the ability to understand and manage administrative procedures plays a major role in welfare access, especially for migrants and refugees who may face unfamiliar systems and limited guidance (Safarov, 2024; Seyfert & Alonso, 2023; Zaman et al., 2023). Economic barriers add another layer of exclusion. These include direct fees, the financial cost of complying with legal requirements, time lost in completing procedures, and employer incentives to avoid formalization. Together, these factors can make formal employment and insured registration difficult to pursue in practice (International Labor Organization, 2024; Badalič, 2023; International Labor Organization, 2023). In Jordan, evidence suggests that the design of work permit fees influences whether refugees and employers formalize employment relationships, showing that affordability and incentives are central to actual access (International Labor Organization, 2024; Peitz et al., 2023; Kavar et al., 2022). In Türkiye, studies on Syrians' position in the labor market similarly show that persistent informality, employer practices, and procedural obstacles can restrict movement into protected work, even when a formal work permit system exists (International Labor Organization, 2023; European Council on Refugees and Exiles, 2025; Badalič, 2023). These barriers are also likely to affect youth more heavily because young workers often have less bargaining power, more insecure job matches, and fewer employers willing to formalize their employment. As a result, younger refugees may face greater difficulty entering stable and protected labor-market positions (Szkudlarek et al., 2024; Jones et al., 2022; Üstübcü & Elçi, 2022).

2.2 Theoretical Perspectives Explaining Protection–Integration Links

2.2.1 Social Risk Management and Risk–Resilience Logic

A social risk management perspective views social protection as a set of policies and institutions designed to reduce the chances that risks and unexpected events lead to serious declines in well-being. This perspective is especially relevant for groups with limited access to stable jobs and fewer resources to cope with hardship (Holzmann et al., 2003; Holmes & Lowe, 2023). It is particularly useful in displacement contexts, where refugees are more likely to face health and income shocks while also dealing with barriers to secure employment and formal rights (Mendola & Pera, 2022; Holmes & Lowe, 2023). From this viewpoint, the role of protection goes beyond short-term support. It also helps maintain stable living conditions, discourages harmful coping strategies, and supports recovery, so that temporary difficulties do not turn into long-term poverty or exclusion (Holzmann et al., 2003; International Labor Organization, 2024). Within this framework, social security inclusion can be understood as a system that spreads risk across members through formal institutions. People who are covered gain structured protection against events such as illness, injury, or a sudden loss of income (Ron & Nitzan, 2023; Seyfert & Alonso, 2023). This has clear relevance for integration because greater stability allows individuals to plan, stay active in work and community life, and invest in skills that support their future (Holzmann et al., 2003; Jones et al., 2022). In addition, approaches that focus on resilience highlight that protection becomes even more important during overlapping crises, when multiple risks occur simultaneously and increase vulnerability, especially for those outside formal systems (Stojetz et al., 2024; International Labor Organization, 2024). In countries where refugees are mainly employed informally, exclusion from formal coverage is not only a gap in support but also a deeper structural issue that increases exposure to risks and can slow integration (International Labor Organization, 2023; Badalič, 2023).

2.2.2 Institutional Inclusion and Social Citizenship Perspectives

Institutional inclusion perspectives focus on how access to formal systems—such as labor laws, social security registration, and public services—shapes whether individuals are fully recognized as members of society or remain only partly included (Hackl, 2022; Zaman et al., 2023). From this angle, inclusion is not only about outcomes like income or employment, but also about the nature of the relationship between individuals and institutions. This includes whether rights can actually be enforced and whether people can realistically navigate

the systems meant to support them (Zaman et al., 2023; Grześkowiak, 2024). This perspective is particularly important in refugee contexts, where legal inclusion may coexist with practical exclusion. Complex procedures, strict documentation rules, and gatekeeping practices can prevent people from accessing benefits even when they are formally eligible (Grześkowiak, 2024; Safarov, 2024). Social security inclusion is therefore seen as a concrete sign of institutional membership, reflecting a formal connection to welfare systems and labor-market structures. This connection can bring both material benefits and a sense of recognition within society (Kawar et al., 2022; Hackl, 2022). However, access to these systems is often uneven. Differences in legal status, labor-market segmentation, and administrative capacity can lead to partial or unequal inclusion (Zaman et al., 2023; Diab, 2024). These inequalities are especially visible when access depends on employers, since they can either support or block entry into formal work and social security systems, even when policies allow it (International Labor Organization, 2023; Badalić, 2023). In contexts like Jordan and Türkiye, where refugee experiences are shaped not only by policy design but also by how policies are applied, this perspective helps explain why similar formal rules can produce different outcomes in practice (Tumen, 2023; Kawar et al., 2022).

2.2.3 Social Capital and Social Cohesion Approaches

Social capital approaches highlight the importance of relationships, trust, and social networks in shaping integration outcomes. Strong connections can help individuals access information, find opportunities, and navigate institutions more effectively (Song et al., 2025; Ziersch et al., 2023). From this perspective, social ties are not just a result of integration but also a key factor that enables it. This is particularly important for refugees, as displacement often disrupts existing networks, while new connections in the host society may be limited by social distance, discrimination, or limited interaction (Cevik, 2025; Zihnioğlu & Dalkıran, 2022). Social cohesion perspectives expand this idea to the wider community level by focusing on relationships between refugees and host populations. These include shared spaces, everyday interactions, and perceptions of belonging, all of which influence how individuals participate in society (Jayakody et al., 2022; Zintl & Loewe, 2022). Evidence from Jordan shows that employment-related programs, such as cash-for-work initiatives, can affect not only income but also relationships between groups, suggesting that economic policies can influence social dynamics (Zintl & Loewe, 2022). In Türkiye, research indicates that integration and cohesion vary across groups and settings, suggesting that age, environment, and social boundaries all shape these outcomes (Mittal et al., 2025; Cevik, 2025). These perspectives suggest that formal inclusion, including access to social security, may support integration not only by improving income but also by fostering stability and reducing stress, making it easier for individuals to build relationships and participate in society (Eggerman et al., 2023; Song et al., 2025).

2.2.4 Mechanisms Linking Social Security Inclusion to Social Integration

When these perspectives are considered together, several key pathways explain how social security inclusion can support social integration. One important pathway is livelihood stability. Access to formal protection reduces uncertainty and helps maintain steady living conditions, allowing individuals to participate more consistently in economic and social life while planning for the future (Holzmann et al., 2003; International Labor Organization, 2024). Stability is especially important because repeated income shocks and insecurity can disrupt participation and weaken a sense of belonging (Mendola & Pera, 2022; Song et al., 2025). A second pathway is reducing vulnerability. Formal protection can limit the impact of unexpected events by preventing severe losses and reducing the need for harmful coping strategies. This is particularly important in displacement contexts, where people often start from already fragile conditions and even small shocks can have serious consequences (Holzmann et al., 2003; Mendola & Pera, 2022; Holmes & Lowe, 2023; Stojetz et al., 2024). A third pathway relates to interaction with institutions. Being part of a formal system increases contact with public institutions and may strengthen feelings of recognition and inclusion. However, these benefits depend on real access, as administrative difficulties and uneven enforcement can reduce their impact even when formal eligibility exists (Hackl, 2022; Zaman et al., 2023; Safarov, 2024; Grześkowiak, 2024). A fourth pathway involves employment formality, since social security coverage is usually linked to registered work and compliance with labor regulations. Evidence shows that where informal employment is widespread, as in many Syrians' situations in Türkiye, access to protection remains limited, thereby weakening stability and integration. In contrast, findings from Jordan suggest that access to formal employment can improve welfare outcomes, indicating that entry into protected work plays a key role in shaping longer-term inclusion (Badalić, 2023; Peitz et al., 2023; International Labor Organization, 2023).

Taken together, these pathways suggest that the link between protection and integration becomes stronger when people can realistically access formal employment, when social security systems function effectively, and when barriers to participation are removed—especially for refugees and young workers (Kawar et al., 2022; International Labor Organization, 2024). The relationship is also more visible during periods of crisis, when the protective role of these systems becomes critical in reducing the impact of shocks (Stojetz et al., 2024;

Holzmann et al., 2003). Comparing Jordan and Türkiye is therefore useful because differences in labor markets, institutions, and implementation can influence how strongly these mechanisms operate, even if the underlying processes remain similar (Tumen, 2023; Şahin-Mencütek et al., 2023).

2.5 Policy and Institutional Context: Jordan and Türkiye (Comparative)

2.5.1 Refugee Governance and Legal Status Context

Jordan and Türkiye are among the main countries hosting Syrians displaced by conflict, and the long duration of displacement has shifted attention from short-term humanitarian aid to longer-term issues such as livelihoods, protection, and inclusion in society (United Nations High Commissioner for Refugees, n.d.; International Organization for Migration, 2025; Tumen, 2023). In Jordan, most Syrians live outside refugee camps, meaning their daily lives are shaped mainly by urban labor markets and public service systems rather than by camp-based management structures (United Nations High Commissioner for Refugees, n.d.; Gray Meral et al., 2022). In Türkiye, Syrians are governed under a large-scale temporary protection system, where policies related to protection and inclusion operate across different regions, labor markets, and public institutions (United Nations High Commissioner for Refugees, n.d.; Tumen, 2023; Şahin-Mencütek et al., 2023). In both settings, legal status and documentation play a central role in determining access to work, registration systems, and employment-related rights. These factors effectively set the limits of inclusion by shaping what refugees are allowed to do in practice (Şahin-Mencütek et al., 2023; Diab, 2024; Zaman et al., 2023). This is especially important for young refugees, as early steps into adulthood—such as entering the labor market—are highly influenced by legal and administrative conditions. Restrictions at this stage can shape long-term opportunities and increase the risk of ongoing disadvantage (Jones et al., 2022; United Nations Children’s Fund, 2019; Üstübcü & Elçi, 2022).

2.5.2 Labor Market Structure and Informality Context

Labor-market informality is a major feature in both Jordan and Türkiye, and it plays a key role in explaining why many refugees have limited access to protections usually linked to formal employment (International Labor Organization, n.d.; International Labor Organization, 2023; Seyfert & Alonso, 2023). Informality is not a temporary issue but a long-standing characteristic of many labor markets, affecting job quality, access to rights, and entry into social security systems (International Labor Organization, n.d.; Seyfert & Alonso, 2023). In Türkiye, studies show that many Syrians work in the informal sector, where jobs are often unregulated and not linked to social security registration (Badalić, 2023; International Labor Organization, 2023). In Jordan, similar patterns exist, with many refugees working in insecure or informal conditions that limit both income stability and access to contributory protection (Kawar et al., 2022; Peitz et al., 2023; Stojetz et al., 2024). These conditions are particularly challenging for young refugees, who often enter the labor market with limited experience and weaker bargaining power. As a result, they are more likely to accept unstable jobs, which can lead to long-term disadvantage (Jones et al., 2022; Szkudlarek et al., 2024; Üstübcü & Elçi, 2022). The structure of the labor market, therefore, directly affects the possibility of social security inclusion, since access to formal protection depends largely on whether employment is officially recognized and regulated (International Labor Organization, 2023; Kawar et al., 2022; Seyfert & Alonso, 2023).

2.5.3 Work Authorization Pathways and Access to Formal Employment

Work authorization systems are key entry points into formal employment for refugees in both countries, although they differ in design and implementation (Turkey: National Legislative Bodies / National Authorities, 2016; International Labor Organization, 2016; International Labor Organization, 2024). In Türkiye, Syrians under temporary protection can apply for work permits through a regulated legal framework that provides a formal path to employment within the broader protection system (Turkey: National Legislative Bodies / National Authorities, 2016; Şahin-Mencütek et al., 2023). However, the actual use of these permits depends on administrative procedures, employer demand, and broader labor-market conditions (International Labor Organization, 2016; European Council on Refugees and Exiles, 2025; Tumen, 2023). In Jordan, work permits are also an important route into formal employment, and research shows that having a permit is often associated with better economic outcomes for refugees (Peitz et al., 2023; Stojetz et al., 2024; International Labor Organization, 2024). At the same time, permit costs and the way the system is managed influence whether both refugees and employers choose to formalize work arrangements. This means that authorization systems not only set legal rules but also shape incentives and behavior (International Labor Organization, 2024; Kawar et al., 2022; Zaman et al., 2023). For young refugees, early access to authorized work is especially important because it increases the likelihood of entering stable, protected jobs rather than remaining in informal, insecure employment over time (Jones et al., 2022; United Nations Children’s Fund, 2019; Üstübcü & Elçi, 2022).

2.5.4 Social Security System Design and Enrollment Rules

In both Jordan and Türkiye, access to social security is closely tied to how contributory systems are designed and to their connection to formal employment. In most cases, individuals gain coverage through their jobs rather than through independent enrollment (Seyfert & Alonso, 2023; Kavar et al., 2022; International Labor Organization, 2023). In Türkiye, official guidelines emphasize that foreign workers with valid employment should be registered in the social security system, linking work authorization directly to social security obligations (Republic of Türkiye Ministry of Labor and Social Security, n.d.; International Labor Organization, 2023). Research also shows that transitions into formal employment are closely linked to social security status, making this connection central to understanding inclusion (International Labor Organization, 2023; Şahin-Mencütek et al., 2023). In Jordan, the structure of the social protection system highlights the importance of contributory social security institutions, with formal employment acting as the main pathway to access these benefits (Kavar et al., 2022; Seyfert & Alonso, 2023). This distinction between general support and formal social security is particularly important in refugee settings, where individuals may receive assistance without gaining access to structured systems that provide long-term protection (Zaman et al., 2023; Holmes & Lowe, 2023; Ron & Nitzan, 2023). For this reason, measuring social security inclusion requires a clear focus on formal enrollment and coverage linked to recognized systems, rather than simply identifying whether individuals receive any form of support (Kavar et al., 2022; Seyfert & Alonso, 2023; Zaman et al., 2023).

2.5.5 Enforcement, Compliance, and Employer Practices

Even when legal systems and rules are in place, actual inclusion depends on how well these rules are enforced and whether employers follow them in practice (International Labor Organization, 2023; Zaman et al., 2023; European Council on Refugees and Exiles, 2025). In Türkiye, many Syrians continue to work in informal jobs, which suggests that compliance with work permit and registration requirements is uneven. Employers may avoid formal arrangements to reduce costs or administrative responsibilities, thereby limiting access to social security coverage (Badalić, 2023; International Labor Organization, 2023; European Council on Refugees and Exiles, 2025). This gap between formal rules and actual practice means that having legal access does not always lead to real inclusion. If employment is not properly registered, workers cannot benefit from the protections linked to social security systems (Seyfert & Alonso, 2023; Zaman et al., 2023; Ron & Nitzan, 2023). In Jordan, evidence shows that work permits can improve welfare outcomes, but this depends on whether they lead to stable and formally recognized employment rather than remaining a formal status without practical effect (Peitz et al., 2023; Stojetz et al., 2024; Kavar et al., 2022). The cost of formalization also plays a role, as both employers and workers respond to financial and administrative burdens when deciding whether to comply (International Labor Organization, 2024; Zaman et al., 2023; Kavar et al., 2022). As a result, differences in enforcement and employer behavior can create unequal outcomes, where some refugees gain access to protected work while others remain in insecure conditions despite similar legal frameworks (Şahin-Mencütek et al., 2023; Diab, 2024; Zaman et al., 2023).

2.5.6 Interaction Between Social Assistance, Humanitarian Support, and Social Security

In both countries, refugees' living conditions are shaped by a combination of humanitarian aid, social assistance, and formal social security systems. These layers of support interact in ways that are important for understanding why receiving help does not always mean being fully included in institutional systems (Holmes & Lowe, 2023; Zaman et al., 2023; Kavar et al., 2022). Assistance programs can reduce immediate hardship, but they are often temporary, conditional, or fragmented, which limits their ability to provide long-term security comparable to formal social security systems (Holmes & Lowe, 2023; Omata, 2023; Zaman et al., 2023). In Jordan, research highlights how national protection systems and refugee-targeted programs interact to shape access to stable forms of protection. These interactions determine who can move beyond basic support and who remains in a situation of ongoing vulnerability (Kavar et al., 2022; Diab, 2024; Gray Meral et al., 2022). Some programs linked to employment also affect social relationships, showing that economic support can influence levels of social cohesion and connectedness (Zintl & Loewe, 2022; Hamad et al., 2025; Jayakody et al., 2022). In Türkiye, policies related to integration extend across multiple areas, including employment, education, health, and social protection. This means that social security inclusion must be understood within a broader system of services and support mechanisms (Tumen, 2023; Şahin-Mencütek et al., 2023; Seyfert & Alonso, 2023).

For comparative analysis, it is therefore important to clearly distinguish between receiving assistance and being included in formal social security systems. The latter reflects a more structured and lasting connection to institutions, which is more likely to support resilience during shocks and contribute to long-term integration outcomes (Ron & Nitzan, 2023; Holzmann et al., 2003; Zaman et al., 2023).

2.6 Empirical Literature Review by Core Relationships

2.6.1 Social Security Inclusion and Economic Security Outcomes

Research on refugee and migrant policy consistently shows that access to formal and rules-based protection is linked to better livelihood stability and stronger economic security, especially in contexts where labor markets are divided and people face high levels of risk. (Seyfert & Alonso, 2023; Holzmann et al., 2003) Existing studies and institutional reviews show that inclusion in social security can improve economic security by helping households manage consumption and providing reliable protection when income is interrupted or health expenses arise. This is particularly important for groups with limited savings and restricted movement within the labor market. (Holzmann et al., 2003; International Labour Organization, 2024; Ron & Nitzan, 2023) In Jordan, research on formal labor-market integration, often measured through work permits or work authorization, indicates that formalization is associated with better welfare outcomes. Therefore, moving into formal employment and gaining access to the protections it offers can positively affect economic conditions. (Peitz et al., 2023; Stojetz et al., 2024) In Türkiye, studies on the labor-market position of Syrians and their social security status show that exclusion from formal employment is closely tied to exclusion from contributory protection. As a result, people working in informal settings are likely to experience lower levels of economic security. (International Labor Organization, 2023; Badalić, 2023)

In addition, comparative studies on integration measurement highlight that economic security is not only a result of integration but also an important factor that shapes the wider integration process. This makes stability linked to protection an important issue in discussions of inclusion. (Ghassaban et al., 2023; Papadakis et al., 2024)

2.6.2 Social Security Inclusion and Vulnerability Reduction

A major finding in the protection literature is that formal coverage helps reduce vulnerability by lowering the chance that shocks will lead to harmful coping strategies and long-term hardship. (Holzmann et al., 2003; International Labor Organization, 2024) Studies on how vulnerability is measured emphasize that vulnerability is multi-dimensional. It should be understood both in terms of exposure to risk and limited ability to cope, which supports approaches that view social security as a tool that can influence both. (Mendola & Pera, 2022; Mendola et al., 2026) Research on migrants' and refugees' access to social health protection further suggests that when coverage is available and can actually be used, it can reduce vulnerability by making healthcare more accessible and by lowering the risk of catastrophic health spending. However, access remains unequal across settings. (Ron & Nitzan, 2023; Seyfert & Alonso, 2023) In displacement contexts, reviews of inclusive social protection stress that reducing vulnerability depends not only on having programs in place but also on whether people can access them in practice, whether administrative systems are workable, and whether inclusion is maintained over time. (Holmes & Lowe, 2023; Zaman et al., 2023) For Syrians in Türkiye, the high concentration in informal employment points to greater vulnerability because informal work often comes with weak or unenforceable protections and higher exposure to exploitation and sudden income loss without institutional support. (Badalić, 2023; International Labor Organization, 2023)

2.6.3 Social Security Inclusion and Social Integration Outcomes

Research on integration increasingly shows that integration is multi-dimensional. It includes not only economic participation but also social connectedness, participation, and a sense of belonging. Therefore, the effects of protection should be examined beyond income alone. (Ghassaban et al., 2023; Papadakis et al., 2024) Findings from studies on social cohesion and connectedness suggest that greater stability and fewer stressors can help people build relationships and take part in community life, both of which are central to integration outcomes. (Song et al., 2025; Zintl & Loewe, 2022) Studies on intermediary actors and the role of NGOs in Türkiye show that the ability to navigate institutions and gain access to resources influences processes of cohesion and inclusion. This suggests that mechanisms of institutional inclusion may indirectly support integration by encouraging participation and social connection. (Zihnioğlu & Dalkıran, 2022; Safarov, 2024) Evidence from Jordan also indicates that livelihood-related programs can affect both social cohesion and economic outcomes. As a result, economic arrangements and protection systems may also shape relationships and feelings of belonging. (Zintl & Loewe, 2022; Jayakody et al., 2022) In addition, research focused on youth shows that early economic security is essential for continued participation and long-term planning. This suggests that stability linked to protection may be especially important in shaping the integration paths of young refugees. (Jones et al., 2022; United Nations Children's Fund, 2019)

2.6.4 Employment Formality (Protected vs Informal Work) and Social Integration

The empirical literature consistently shows that employment formality is an important gatekeeper to access to contributory systems. Because of this, formal employment is seen as a key institutional route that shapes both protection and broader integration. (International Labour Organization, 2023; Seyfert & Alonso, 2023) In Jordan,

studies on work permits suggest that formal labor-market integration is linked to better welfare outcomes. Therefore, it is reasonable to expect differences in integration-related outcomes between people within formal pathways and those outside them. (Peitz et al., 2023; Stojetz et al., 2024) In Türkiye, research on Syrians working in the informal economy shows that informality can keep workers in low-protection situations, reduce stability, and weaken the institutional ties that support long-term inclusion. (Badalić, 2023; International Labor Organization, 2023) A time-based perspective on refugee employment also suggests that early employment experiences matter. Entering unstable or informal work at the beginning can create cumulative disadvantages and limit later movement into protected employment, which is especially important for young people moving into adulthood. (Szkudlarek et al., 2024; Üstübici & Elçi, 2022) Integration research further notes that economic participation alone does not always lead to a sense of belonging when social boundaries remain strong. However, stable and protected employment can still support integration by enabling participation and easing pressures that restrict social connectedness. (Song et al., 2025; Zihnioğlu & Dalkıran, 2022)

2.6.5 Shocks (Illness, Work Injury, Income Loss) and Poverty/Social Exclusion Risk

A large body of research explains that shocks such as illness, injury, and income loss can quickly increase the risk of poverty and social exclusion, especially when households lack institutional protection and already live close to subsistence levels. (Holzmann et al., 2003; Mendola & Pera, 2022) Empirical and methodological studies on vulnerability show that exposure to shocks interacts with existing insecurity. As a result, the same shock can have more serious consequences for groups with weaker coping mechanisms and fewer enforceable protections. (Mendola et al., 2026; Holmes & Lowe, 2023) In displacement settings, policy-focused research stresses that crisis conditions and repeated shocks can deepen hardship and increase the risk of exclusion. Therefore, shock-sensitive analysis is important for understanding both integration and well-being. (Holmes & Lowe, 2023; Stojetz et al., 2024) Evidence on the precarious labor-market position of refugees also suggests that informal employment increases exposure to income shocks and work-related risks while offering little institutional support. As a result, poverty and exclusion become more likely after adverse events. (Badalić, 2023; International Labor Organization, 2023)

2.6.6 Buffering Effects of Social Security Inclusion During Shocks

A key argument in social risk management is that formal coverage can buffer shocks by reducing fluctuations in welfare and by preventing temporary crises from turning into long-term deprivation. (Holzmann et al., 2003; International Labor Organization, 2024) Evidence from Jordan during crisis periods suggests that formal status and work authorization can act as protective channels. Findings indicate that formal integration pathways may help maintain welfare stability under conditions of stress. (Stojetz et al., 2024; Peitz et al., 2023) Research on extending social health protection to refugees also shows that when coverage is accessible and functions effectively, it can reduce the impact of health-related shocks by improving access to services and lowering catastrophic spending. (Ron & Nitzan, 2023; Seyfert & Alonso, 2023) At the same time, broader research on refugee protection warns that buffering capacity depends on whether benefits can actually be used and whether implementation is effective. In other words, formal eligibility does not always translate into effective protection during shocks. (Zaman et al., 2023; Grześkowiak, 2024) For this reason, empirical testing of buffering effects is stronger when it clearly accounts for shock exposure and compares outcomes among shock-affected groups based on their inclusion status, rather than assuming that protection works equally in all situations. (Holzmann et al., 2003; Mendola & Pera, 2022)

2.6.7 Structural Barriers and Unequal Access to Social Security Inclusion

The empirical literature consistently shows that access to social security inclusion is shaped by structural barriers such as legal restrictions, administrative burdens, employer gatekeeping, and affordability problems. Together, these factors create unequal inclusion even where formal pathways are available. (Zaman et al., 2023; Diab, 2024; Safarov, 2024) In Jordan, policy evidence shows that work permit fee structures influence both refugees' and employers' decisions to formalize. This suggests that economic barriers and the design of incentives can limit access to protected work and related coverage. (International Labor Organization, 2024; Kavar et al., 2022) In Türkiye, studies on Syrians' employment patterns and social security status show that informality and compliance gaps remain significant. Therefore, implementation problems and employer practices can limit movement into formal, insured employment. (International Labor Organization, 2023; Badalić, 2023) Legal and administrative constraints are also highlighted in operational and policy reports, where documentation requirements, procedural complexity, and employer-led applications shape access to authorized work and, indirectly, to social security registration. (European Council on Refugees and Exiles, 2025; Safarov, 2024) Research on urban inclusion and exclusion in Jordan further shows how institutional interactions can create everyday exclusion through administrative friction and unequal access. This reinforces the importance of measuring barriers as factors that produce unequal inclusion. (Gray Meral et al., 2022; Diab, 2024) Taken

together, these findings support the view that barriers can shape both direct access to social security inclusion and later outcomes related to economic security, vulnerability, and multidimensional integration. (Zaman et al., 2023; Holmes & Lowe, 2023)

Table 1 (Appendix 1) brings together studies that connect social security inclusion (SSI), understood as enrollment or coverage within formal, rule-based systems, with economic security and reduced vulnerability. At the same time, it clearly separates SSI from broader forms of assistance where needed. (Seyfert & Alonso, 2023; Ron & Nitzan, 2023; Holzmann et al., 2003) In addition, the table explains why some of the included sources are conceptual discussions or policy syntheses rather than country-specific causal studies, which reflects the current nature of evidence in displacement contexts. (Holmes & Lowe, 2023; Zaman et al., 2023) Table 2 (Appendix 2) summarizes evidence showing that employment formality and work authorization often act as entry points to SSI enrollment and the stability that comes with it. However, it also highlights that actual inclusion depends on factors such as compliance and the structure of the labor market. (International Labor Organization, 2023; Peitz et al., 2023; Badalič, 2023) Furthermore, the table is structured to align with the study's comparative focus by incorporating evidence from both Jordan and Türkiye, along with the policy tools that shape access in each setting. (Tumen, 2023; Turkey: National Legislative Bodies / National Authorities, 2016)

Table 3 (Appendix 3) compiles research and reviews that treat illness, injury, and income loss as key shocks that can raise the risk of poverty and social exclusion. It also summarizes findings that suggest formal protection can reduce these negative effects, while making clear that such protection only works when access is real and implementation is effective. (Stojetz et al., 2024; Holmes & Lowe, 2023; Holzmann et al., 2003) Therefore, this supports the study's approach of examining outcomes under shock conditions instead of assuming the same effects for all individuals. (Mendola & Pera, 2022; Zaman et al., 2023) Table 4 (Appendix 4) groups evidence showing that legal frameworks, administrative processes, and financial costs or incentives can lead to unequal access to authorized employment and SSI. In many cases, these barriers result in situations where formal eligibility exists on paper but does not translate into actual enrollment or meaningful protection. (Diab, 2024; Gray Meral et al., 2022; Zaman et al., 2023) As a result, the table supports the decision to treat such barriers as key explanatory factors that influence both SSI inclusion and later integration outcomes. (Safarov, 2024; International Labor Organization, 2024)

2.7 Synthesis of Gaps and Contribution Positioning

Across the literature on refugees and migration, there is general agreement that access to formal protection is strongly influenced by labor-market position and institutional design. Moreover, inclusion does not happen automatically, even when legal pathways are in place. (Seyfert & Alonso, 2023; Zaman et al., 2023) Researchers also widely agree that informality plays a key role in excluding individuals from contributory social security. This is especially clear in studies of Syrians' labor-market situation in Türkiye, as well as in discussions of the barriers to moving into formal employment. (International Labor Organization, 2023; Badalič, 2023) In addition, there is a shared understanding that integration should be viewed as multi-dimensional. Economic participation alone is not enough, as integration also involves social connections, active participation, and a sense of belonging, all of which may respond differently to institutional and labor-market conditions. (Ghassaban et al., 2023; Papadakis et al., 2024) Evidence from Jordan and similar displacement contexts further shows that livelihood programs and economic stability can positively influence social cohesion and connectedness. Therefore, linking economic and social dimensions is essential. (Zintl & Loewe, 2022; Hamad et al., 2025) However, despite these common points, findings differ in several ways. One reason is that studies vary in how they measure protection. Some directly assess formal social security inclusion, while others use indirect indicators such as work authorization or formal employment. In addition, not all studies examine outcomes during periods of shock, which affects how results are interpreted. (Peitz et al., 2023; Stojetz et al., 2024; Ron & Nitzan, 2023) Differences also arise from variations between host countries, including how rules are enforced, how employers behave, and how accessible work authorization systems are. These factors influence whether formal rules actually lead to real inclusion. (Tumen, 2023; European Council on Refugees and Exiles, 2025; International Labor Organization, 2024) Furthermore, integration outcomes can differ across dimensions because social barriers, discrimination, and the role of intermediaries may affect belonging and connectedness even when economic conditions improve. (Cevik, 2025; Zihnioglu & Dalkiran, 2022) As a result, comparative research must carefully consider both the institutional context and the measurement of variables to draw meaningful cross-country conclusions. (Harkness et al., 2010; Putnick & Bornstein, 2016)

One major limitation in the existing literature is the lack of consistent measurement. Different studies define and measure "social protection," "social security," and "integration" in different ways, using varied indicators and timeframes. This makes direct comparison difficult. (Papadakis et al., 2024; Seyfert & Alonso, 2023) The

challenge becomes greater in cross-country research, where differences in language, cultural context, and institutional systems can affect how survey questions are understood and answered. (Harkness et al., 2010; Vandenberg & Lance, 2000) Even when researchers use multidimensional integration frameworks, the specific components and indicators often differ, leading to different conclusions about which aspects are most influenced by protection systems. (Ghassaban et al., 2023; Song et al., 2025) Another limitation is that only a limited number of studies directly examine the relationship between social security inclusion and multidimensional social integration using clear, comparable measures. Many studies instead focus on employment outcomes, general social cohesion, or broad forms of assistance rather than contributory systems. (Seyfert & Alonso, 2023; Zihnioğlu & Dalkıran, 2022) In addition, there is a gap in research focused specifically on youth. Although it is widely recognized that early work experiences and disrupted transitions from school to employment shape long-term integration, fewer studies treat young people as a distinct group when analyzing institutional protection pathways. (Jones et al., 2022; United Nations Children's Fund, 2019) This gap is particularly relevant in Türkiye, where studies on young refugees highlight how limited opportunities and future uncertainty shape their long-term integration paths. (Üstübeci & Elçi, 2022; Şahin-Mencütek et al., 2023)

Cross-country comparisons are also limited because similar legal frameworks can lead to different real-world outcomes depending on how they are implemented, the level of administrative burden, and employer practices. In other words, being legally eligible does not always mean having effective access. (Zaman et al., 2023; Grześkowiak, 2024) Research from urban displacement settings further shows that administrative challenges, documentation requirements, and difficulties in navigating systems can create everyday forms of exclusion, even when services are formally available. (Gray Meral et al., 2022; Safarov, 2024) These issues highlight the need for better-aligned measurement, clearer analysis of barriers, and research designs that can examine conditional effects, such as how protection works under shock conditions. (Putnick & Bornstein, 2016; Holzmann et al., 2003)

This study contributes to the literature by using a comparative cross-sectional design that applies the same survey tools and definitions in both Jordan and Türkiye. As a result, it improves comparability and reduces differences arising solely from measurement methods. (Setia, 2016; Harkness et al., 2010) Although cross-sectional studies cannot prove cause-and-effect relationships, they can still provide strong descriptive and associative insights when guided by a clear framework and careful interpretation. (Grimes & Schulz, 2002; Setia, 2016) In addition, using harmonized measures allows for more reliable comparisons across countries by testing whether key concepts are understood and function similarly across contexts. (Vandenberg & Lance, 2000; Putnick & Bornstein, 2016) The study also makes a clear distinction between social security inclusion and broader forms of assistance, focusing specifically on inclusion within formal, rule-based systems. This helps avoid confusion between different types of support. (Kawar et al., 2022; Zaman et al., 2023) Finally, by bringing together employment formality, exposure to shocks, economic pathways, and structural barriers into one framework, the study responds to the need for more policy-relevant research. It shows how access to institutions is linked to broader outcomes related to economic security and multidimensional integration. (Seyfert & Alonso, 2023; Diab, 2024)

2.8 Hypotheses Development

The study's hypotheses are built from the combined ideas of social risk management, institutional inclusion, and multidimensional integration. Together, these perspectives suggest that when formal institutions protect people, they are more likely to experience stability and take part more fully in society. At the same time, this protection is influenced by access to the labor market and by barriers that may prevent inclusion. (Holzmann et al., 2003; Papadakis et al., 2024) Previous research also shows that the benefits of social protection do not operate in the same way for everyone. Their effects often depend on how well policies are implemented and on whether people are exposed to economic or social shocks. Therefore, the hypotheses in this study also consider issues such as formal employment, structural barriers, and the role of protection during times of hardship. (Zaman et al., 2023; Stojetz et al., 2024) In addition, because social integration encompasses several dimensions rather than a single outcome, the hypotheses are designed around an overall integration outcome while recognizing that effects may differ across specific dimensions depending on the mechanism involved. (Ghassaban et al., 2023; Zihnioğlu & Dalkıran, 2022) The framework also follows a mediation-based logic, meaning that some relationships may operate indirectly through factors such as economic security and vulnerability. This is consistent with regression-based methods for testing indirect effects. (Hayes, 2018; Preacher & Hayes, 2008)

The first hypothesis focuses on the relationship between social security inclusion and social integration. The expectation is that individuals who are included in social security systems are more likely to be socially integrated because institutional inclusion can improve stability, strengthen participation, and support everyday

involvement in society. These are all important parts of multidimensional integration. (Holzmann et al., 2003; Papadakis et al., 2024) Research on the measurement of integration supports this view by showing that integration includes economic participation, social connectedness, civic participation, and a sense of belonging. As a result, it is reasonable to expect that social security inclusion contributes to integration beyond financial outcomes alone. (Ghassaban et al., 2023; Song et al., 2025) In addition, studies on cohesion and intermediary mechanisms suggest that access to institutions and greater stability in resource allocation can improve social ties and feelings of belonging, even where social divisions persist. (Zihnioğlu & Dalkıran, 2022; Cevik, 2025) However, because access to social protection is often uneven in refugee and displacement settings, this hypothesis is stated as an association rather than a direct causal effect. (Grimes & Schulz, 2002; Setia, 2016)

H1: There is a significant positive association between social security inclusion and social integration.

The second hypothesis addresses the link between social security inclusion, economic security, and vulnerability. It is expected that people covered by social security systems will have greater economic security and lower vulnerability, as social insurance and related protections are intended to reduce instability and protect people from various risks. (Holzmann et al., 2003; International Labor Organization, 2024) Research reviewing access to protection also shows that inclusion can improve people's chances of receiving support, even though the actual level of benefit depends on how usable the system is and how strong the institutions are. Even so, the overall direction remains clear: those included are generally expected to experience greater economic security. (Seyfert & Alonso, 2023; Ron & Nitzan, 2023) At the same time, vulnerability research explains that vulnerability is multidimensional and closely linked to limited coping capacity. Therefore, where formal protection reduces the need for harmful coping strategies during difficult periods, lower vulnerability can reasonably be expected. (Mendola & Pera, 2022; Mendola et al., 2026) This hypothesis also fits the study's broader framework, which assumes that economic security and vulnerability may act as pathways through which social security inclusion influences integration. (Hayes, 2018; Preacher & Hayes, 2008)

H2a: There is a significant positive association between social security inclusion and economic security.

H2b: There is a significant negative association between social security inclusion and vulnerability.

The third hypothesis compares formal or protected employment with informal work in relation to social integration. The expectation is that young refugees working in formal or protected jobs will show higher levels of social integration than those working informally. This is because formal employment usually provides the main route to social security registration, legal protection, and more stable working conditions. (International Labour Organization, 2023; Seyfert & Alonso, 2023) Evidence from Türkiye shows that many Syrians are concentrated in informal jobs, and these forms of work often reduce access to social security while increasing insecurity and instability. Such conditions can weaken the pathways that support integration. (Badalić, 2023; International Labor Organization, 2023) Research from Jordan also indicates that formal labor-market pathways, including work authorization, are associated with improved welfare outcomes. This supports the idea that formal and protected employment creates better conditions for stability and participation. (Peitz et al., 2023; Stojetz et al., 2024) In addition, studies focused on youth employment suggest that early movement into stable rather than insecure work can shape long-term inclusion outcomes, which makes employment form especially important for young adults aged 18–29. (Jones et al., 2022; Szkudlarek et al., 2024)

H3: Young refugees in formal or protected employment have significantly higher social integration than those in informal employment.

The fourth hypothesis examines whether social security inclusion helps reduce poverty and the risk of exclusion when individuals experience shocks. It is expected that, among respondents who experience events such as illness, work injury, or loss of income, those covered by social security will face lower risks of poverty and social exclusion. This expectation is based on the idea that formal protection is designed to reduce both the severity and the duration of welfare losses during difficult situations. (Holzmann et al., 2003; Holmes & Lowe, 2023) Evidence from crisis settings further suggests that formal support systems can act as protective channels during periods of disruption. Therefore, the buffering role of social security is most visible when the analysis focuses specifically on people who have been exposed to shocks. (Stojetz et al., 2024; International Labor Organization, 2024) Research on social health protection also supports the argument that coverage can reduce the financial risks associated with health problems, though the strength of this effect depends on actual access and proper implementation. (Ron & Nitzan, 2023; Zaman et al., 2023) In addition, vulnerability studies stress that the effects of shocks should be assessed using multiple indicators of hardship and coping rather than a single deprivation measure. (Mendola & Pera, 2022; Mendola et al., 2026)

H4: Among respondents who experience shocks, social security inclusion is significantly associated with lower poverty and social exclusion risk.

The fifth hypothesis focuses on structural barriers and their relationship with both social security inclusion and social integration. It is expected that higher perceived legal, administrative, and economic barriers will be associated with lower levels of social security inclusion, as these barriers can prevent entry into authorized work,

delay or block registration, and make formalization too costly or difficult. (Diab, 2024; International Labor Organization, 2024) Research on urban displacement in Jordan shows that administrative difficulties and everyday interactions with institutions often shape who is included and who is excluded in practice. This supports the idea that barriers can limit access even when formal channels exist on paper. (Gray Meral et al., 2022; Zaman et al., 2023) Similarly, scholarship on administrative literacy shows that complex procedures and insufficient information can serve as practical exclusion mechanisms for migrants and refugees seeking to access welfare systems. (Safarov, 2024; Seyfert & Alonso, 2023) In addition, these barriers are also expected to reduce social integration because limited access to institutions and increased insecurity may weaken participation, connectedness, and feelings of belonging. (Papadakis et al., 2024; Zihnioğlu & Dalkıran, 2022)

H5a: Higher perceived structural barriers are significantly associated with lower social security inclusion.

H5b: Higher perceived structural barriers are significantly associated with lower social integration.

3. Method

3.1 Study Design and Overview

This study uses a comparative cross-sectional survey design to examine how inclusion in social security systems is associated with different aspects of social integration among young Syrian refugees living in Jordan and Türkiye (Creswell & Creswell, 2018; Setia, 2016). Data were collected at a single point in time from participants in both countries through a structured questionnaire. This approach allows both comparisons within each country and between the two countries using consistent measurements (Creswell & Creswell, 2018; Ghassaban et al., 2023). Since the data were collected only once, the study focuses on identifying relationships between variables rather than proving cause-and-effect links. Therefore, the findings are described using non-causal language such as “associated with” or “linked to” (Grimes & Schulz, 2002; Setia, 2016). The questionnaire was carefully designed to ensure that the same types of information were collected in both countries. It includes sections on personal and household characteristics, legal and administrative status, employment conditions and work type, access to social security, economic stability, vulnerability and coping strategies, exposure to shocks, perceived barriers, and different dimensions of social integration (Creswell & Creswell, 2018; Fowler, 2014).

To improve clarity and ensure that questions were understood consistently across both settings, the survey tool was tested before full data collection. Pilot and cognitive testing helped refine wording, confirm understanding of key concepts, and improve response accuracy, especially for questions that required recalling past events (Beatty & Willis, 2007; Tourangeau et al., 2000; Willis, 2005).

3.2 Study Setting (Countries and Sites)

Jordan and Türkiye were selected because both countries host large numbers of Syrian refugees but differ in their labor markets, employment regulations, and institutional systems. These differences make them useful for comparing how access to protection systems relates to integration outcomes (Kawar et al., 2022; Tumen, 2023). Using a comparative design helps strengthen the interpretation of results by showing whether similar patterns exist across different national contexts, rather than being limited to one specific setting (Creswell & Creswell, 2018; Lohr, 2021).

In Jordan, data were collected from four governorates: Amman, Irbid, Mafraq, and Zarqa. These areas reflect variation in urban conditions and refugee distribution (United Nations High Commissioner for Refugees, n.d.-a; Kawar et al., 2022). In Türkiye, data collection took place in five provinces: İstanbul, Gaziantep, Şanlıurfa, Hatay, and Ankara, which are key locations where Syrian refugees live and work (United Nations High Commissioner for Refugees, n.d.-b; Tumen, 2023).

3.3 Study Population

The study focuses on Syrian refugees aged 18–29 who were living in either Jordan or Türkiye at the time of the survey (Üstübici & Elçi, 2022; Jones et al., 2022). This age group is important because early adulthood is a key stage where individuals enter the labor market and begin building long-term stability and social connections, which influence their future integration (Jones et al., 2022; Üstübici & Elçi, 2022). Participants were selected using a short screening section at the beginning of the questionnaire to ensure that all eligibility conditions were applied consistently (Fowler, 2014; Groves et al., 2009). To make the selection process clear and easy to follow, the eligibility rules and corresponding questions are summarized in Table 1. This helps ensure transparency and consistency in participant selection.

Table 1. Eligibility Criteria and Screening Items

Criterion	Screening Question	Included If	Excluded If
Syrian identity	“Are you Syrian?”	Yes	No
Age range	“Are you between 18 and 29 years old?”	Yes	No
Current residence	“Are you currently living in Jordan/Türkiye?”	Yes	No
Informed consent	“Do you agree to participate?”	Yes	No (survey ends)

Participants who did not meet these criteria or who chose not to participate were excluded immediately, in line with ethical research standards (National Commission..., 1979; World Health Organization, 2011).

3.4 Sampling Strategy and Sample Size

Because refugee populations are difficult to identify through traditional sampling methods, this study used quota sampling. This approach helps ensure that different groups are adequately represented while using multiple recruitment methods (Kish, 1965; Lohr, 2021). Participants were recruited through community networks, local organizations, referrals, public locations, and online or phone-based methods. Using different channels increases the chances of reaching a diverse group of participants while maintaining consistent survey procedures (Dillman et al., 2014; Groves et al., 2009). To ensure comparability between the two countries, the same quota structure was applied in both settings. This helps reduce the risk that differences in results are due to sample composition rather than real differences (Lohr, 2021; Groves et al., 2009). Table 2 presents the quota distribution used in the study, showing how participants were balanced across key characteristics.

Table 2. Quota Plan and Sampling Targets (Per Country $n = 600$)

Category	Groups	Target %	Approx. Number
Gender	Male / Female	50 / 50	300 / 300
Employment status	Working / Not working	75 / 25	450 / 150
Employment type (workers)	Formal / Informal	25 / 75	113 / 337
Education level	Low / Medium / High	20 / 50 / 30	120 / 300 / 180
Location (Jordan)	4 governorates	Equal	150 each
Location (Türkiye)	5 provinces	Equal	120 each
Length of stay	<3 / 3–5 / 6–9 / 10+ years	20 / 30 / 30 / 20	120 / 180 / 180 / 120

Note: Some values may be slightly adjusted during data collection to maintain balance.

The required sample size was calculated using a standard formula commonly applied when the expected proportion is unknown (Cochran, 1977; Lohr, 2021). A confidence level of 95% and a margin of error of 5% were used, resulting in an initial estimate of 384 participants per country. This number was increased to account for the sampling design and possible non-response, resulting in a final target of 600 participants per country, or 1,200 in total (Cochran, 1977; Groves et al., 2009). The steps used in this calculation are summarized in Table 3.

Table 3. Sample Size Calculation

Step	Parameters	Result
Initial estimate	$Z=1.96$, $p=0.5$, $e=0.05$	384
Design adjustment	DEFF = 1.3	499
Non-response adjustment	+20%	599
Final sample size	Rounded	600

3.5 Data Collection

Data were collected using a structured questionnaire with identical questions and order in both countries to ensure consistency (Creswell & Creswell, 2018; Fowler, 2014). A mix of data collection methods was used, including face-to-face interviews, phone surveys, and online responses, depending on accessibility (Dillman et al., 2014; de Leeuw, 2005). The survey took approximately 20–30 minutes to complete, which helped balance the need for detailed information with the need to avoid overburdening participants (Groves et al., 2009). Special attention was given to making questions clear and easy to understand, particularly for topics related to institutions and recall of past events. Testing ensured that participants correctly interpreted the questions and provided accurate responses (Beatty & Willis, 2007; Tourangeau et al., 2000). To ensure consistency, the same time frames were used in both countries. Events such as illness or income loss were measured over the past 12 months, while coping and vulnerability indicators were measured over the past 3 months.

This approach balances the need to capture meaningful experiences with the need to reduce errors caused by memory limitations (Bradburn et al., 1987; Tourangeau et al., 2000). Data collection procedures were

standardized across both countries. Enumerators received training on administering the survey, obtaining consent, and handling sensitive topics respectfully and safely (Fowler, 2014; World Health Organization, 2011). Training also focused on maintaining neutrality, protecting participant privacy, and reducing bias during interviews (Groves et al., 2009). Several steps were taken to ensure data quality. Surveys were checked for completeness, and responses were reviewed for consistency across related questions. This helped identify errors or misunderstandings early (Groves et al., 2009).

In addition, steps were taken to protect participant confidentiality by removing identifying information and implementing secure data-handling practices (El Emam, 2013; National Research Council, 2007).

3.6 Measurement Instrument and Cross-Country Harmonization

This study used a structured questionnaire to measure all components of the conceptual framework and to produce data that could be directly compared between Jordan and Türkiye (Dillman et al., 2014; Fowler, 2014; Groves et al., 2009). The questionnaire was divided into clear sections, arranged in a logical order, with consistent answer formats and standardized screening and skip patterns. This helped reduce respondent burden and limit measurement errors in a survey covering several topics (Dillman et al., 2014; Fowler, 2014; Groves et al., 2009). The questionnaire was designed so that each study variable was linked closely to the hypotheses. Some variables were measured through a single direct question, while others were measured through several items that could later be combined into indices and tested for reliability and structure (Tourangeau et al., 2000; DeVellis, 2017). The survey covered demographic and household information, legal and administrative status, employment and work formality, social security inclusion, economic security, vulnerability and coping, exposure to shocks, perceived barriers, and different dimensions of social integration. The same section order and content were kept in both countries to support comparability (Fowler, 2014; Groves et al., 2009; Ghassaban et al., 2023).

To improve comparability across countries, the questionnaire was translated into Arabic in Jordan and Turkish in Türkiye, using a translation process that focused on preserving meaning rather than word-for-word translation (Harkness et al., 2010; Dillman et al., 2014). The study maintained the same definitions, answer choices, and question order across both settings so that any differences observed in the analysis would reflect actual relationships rather than differences in the survey tool itself (Groves et al., 2009; Harkness et al., 2010). A shared glossary was also developed for important terms such as “social security,” “work permit/work authorization,” “registered/formal job,” “host community,” and “belonging” to reduce differences in interpretation across languages (Harkness et al., 2010; Tourangeau et al., 2000). In addition, equivalence checks were used to confirm that respondents in both countries understood important concepts like “coverage/enrollment,” “formal/protected work,” and “barriers to access” in similar ways (Harkness et al., 2010; DeVellis, 2017).

Before and during fieldwork, the questionnaire was improved through pilot and cognitive testing, which are widely recommended to strengthen understanding and response quality in complex surveys (Willis, 2005; Beatty & Willis, 2007). These tests examined whether respondents understood each question correctly, could remember the information needed for time-based questions, found the answer choices appropriate to their experiences, and felt that any items were too sensitive or risky to answer (Willis, 2005; Tourangeau et al., 2000). Based on this process, the study revised unclear wording, adjusted response options that did not reflect real-life conditions, and improved skip patterns to improve survey flow and reduce inconsistent responses (Dillman et al., 2014; Fowler, 2014; Groves et al., 2009). When differences in interpretation between the two countries were identified, the glossary and item wording were refined to keep the same meaning without changing the underlying concept being measured (Harkness et al., 2010; Willis, 2005). In addition to testing with respondents, the study also used limited input from knowledgeable local informants to strengthen the questionnaire's content validity, while keeping the survey as the sole source of data for hypothesis testing (Fowler, 2014; Groves et al., 2009). This step was limited to checking whether key terms were appropriate in each context, whether the proposed indicators were realistic, and whether the listed barrier options reflected common challenges faced by young Syrians. The result was a small number of wording improvements, added response options, and clarification notes that improved consistency in administration and interpretation, without changing the study into a mixed-methods design (Creswell & Creswell, 2018; Fowler, 2014).

3.7 Variables and Operational Definitions

All variables were defined in the same order as the conceptual framework so that measurement, analysis, and hypothesis testing remained closely connected within the comparative cross-sectional design (Ghassaban et al., 2023; Papadakis et al., 2024). Where needed, the study used multi-item indices to improve reliability and better capture concepts with multiple dimensions, such as integration, barriers, and vulnerability (DeVellis, 2017; Mendola & Pera, 2022). Because comparisons across countries can be affected by differences in measurement,

the study also included translation harmonization, equivalence checks, and later psychometric assessment to support valid comparison between the two settings (Harkness et al., 2010; Vandenberg & Lance, 2000; Putnick & Bornstein, 2016).

Social security inclusion was measured as a binary variable indicating whether the respondent was enrolled in or covered by the national social security system (International Labor Organization, 2023). To reduce the risk of misclassification in situations where respondents might confuse informal access to services with formal insured coverage, the questionnaire also included follow-up items on the type of coverage, who paid contributions, and signs of verified registration such as documentation or recent use of benefits (International Labor Organization, 2023; European Council on Refugees and Exiles, 2025). This approach follows survey guidance that recommends using multiple questions to verify complex institutional status (Fowler, 2014; Tourangeau et al., 2000).

Employment formality was measured as a derived category that separated formal or protected work from informal work based on several indicators related to regulation and worker protection (Badalić, 2023; International Labor Organization, 2023). These indicators included whether the job was officially registered, whether contributions or deductions were made, and whether there were documents or administrative signs such as contracts, payslips, or other proof of registration (International Labor Organization, 2023; Willis, 2005). Employment formality was treated as an important pathway in the study rather than just a background characteristic because, in both countries, access to contributory social security usually depends on regulated work and legal authorization (Peitz et al., 2023; Turkey: National Legislative Bodies / National Authorities, 2016; Seyfert & Alonso, 2023).

Economic security was measured using a multi-item index that captured the respondent's ability to meet basic needs, the stability and predictability of income, and the capacity to manage short-term financial pressures. This reflects a pathway of stability emphasized in social risk management and research on youth displacement (Holzmann et al., 2003; Jones et al., 2022). Vulnerability and coping were also measured through a multi-item index, focusing on hardship-related behaviors and limited coping capacity, such as borrowing money, cutting essential spending, or delaying needed services. This follows research showing that vulnerability should be understood not only in terms of income, but also in terms of coping ability and exposure to hardship (Mendola & Pera, 2022; Mendola et al., 2026). Both indices were designed for use in both countries through harmonized wording and equivalence checks, and they were intended to support analysis of pathways linking inclusion to integration outcomes (Harkness et al., 2010; Hayes, 2018).

Shock exposure was measured as a binary variable indicating whether the respondent had experienced any of three types of shocks during the past 12 months: serious illness, work-related injury, or major income loss (Holzmann et al., 2003; Stojetz et al., 2024). The 12-month reference period was chosen to capture meaningful experiences while remaining within a timeframe respondents could recall with reasonable accuracy (Tourangeau et al., 2000; Bradburn et al., 1987). This measure was used to examine whether social protection is linked to lower hardship among young people who had experienced adverse events, in line with the study's buffering logic (Holzmann et al., 2003; Holmes & Lowe, 2023).

The main outcome variable, social integration, was measured as a multidimensional composite comprising sub-dimensions of economic participation, social connectedness, participation in community life, and belonging or acceptance (Ghassaban et al., 2023; Papadakis et al., 2024). The items were designed to capture integration more broadly, going beyond employment alone to include social networks, participation, comfort with using public services, perceived acceptance, and views about the future (Song et al., 2025; Zihnioğlu & Dalkıran, 2022). A second outcome variable focused on the risk of poverty and social exclusion during shocks. This was measured only among respondents who had experienced shocks, using items related to hardship and social withdrawal during adverse events (Holmes & Lowe, 2023; Stojetz et al., 2024).

Structural barriers were measured through three subscales covering legal, administrative, and economic barriers, along with one overall barriers index. This allowed the study to capture the gap between formal rights and actual access in practice (Zaman et al., 2023; Diab, 2024). This classification reflects evidence showing that access to authorized work and contributory social protection depends not only on policy eligibility but also on documentation requirements, procedural burdens, lack of information, and affordability, often influenced by employer practices (European Council on Refugees and Exiles, 2025; International Labor Organization, 2024; Badalić, 2023). Including barriers as a measured variable helps distinguish between having access in theory and actually benefiting from it in practice (Zaman et al., 2023; Grześkowiak, 2024).

The analysis also included control variables related to demographic and household characteristics, such as gender, education, household composition, and housing conditions, as well as legal or registration status, length of time in the host country, and place of residence. These variables were included to reduce the influence of confounding factors that may be related to both inclusion and integration (Groves et al., 2009; Lohr, 2021). Work authorization was treated as an especially important control variable and, in some cases, as part of the employment formality classification because legal access to work affects entry into regulated employment and, therefore, access to contributory protection (International Labor Organization, 2023; Turkey: National Legislative Bodies / National Authorities, 2016). This approach is consistent with broader observational research showing that people with formal employment or social protection may differ in important ways from those without such access, which means the results should still be interpreted with caution even when control variables are included (Grimes & Schulz, 2002; Shadish et al., 2002).

3.8 Statistical Analysis

The analysis began with descriptive statistics for Jordan and Türkiye to summarize sample characteristics and compare the two study settings. Key variables included demographic and household characteristics, legal status, length of stay, social security inclusion, employment formality, shock exposure, structural barriers, and social integration outcomes (Groves et al., 2009; Lohr, 2021; Agresti, 2018). Continuous variables were summarized using means and standard deviations, while categorical variables were presented as frequencies and percentages.

The reliability and structure of the multi-item measures were assessed before hypothesis testing. Internal consistency was examined for the economic security, vulnerability, social integration, and barriers measures, and factor analysis was used where appropriate to confirm construct structure and comparability across countries (Cronbach, 1951; DeVellis, 2017; Brown, 2015; Vandenberg & Lance, 2000).

Hypotheses were tested using regression models appropriate to the outcome type. Ordinary least squares regression was used for continuous outcomes, and logistic regression was used for binary outcomes, with robust standard errors used where needed (Agresti, 2018; Long & Ervin, 2000). Analyses were conducted separately for each country and in pooled models with a country indicator.

H1 tested the association between social security inclusion and social integration. H2 examined the relationship of social security inclusion with economic security and vulnerability, including indirect pathways. H3 assessed whether formal or protected employment was associated with higher social integration. H4 examined whether social security inclusion was associated with lower poverty and reduced risk of social exclusion among respondents exposed to shocks. H5 tested whether structural barriers were associated with lower social security inclusion and lower social integration. All models adjusted for relevant demographic, household, legal, and location-related variables (Hayes, 2018; Preacher & Hayes, 2008; Shadish et al., 2002).

Missing data were handled using predefined rules, including minimum item-response thresholds and multiple imputation where necessary (Enders, 2010; Little & Rubin, 2019). Robustness checks were also performed using alternative variable definitions and model specifications to assess the stability of the findings (Grimes & Schulz, 2002; Setia, 2016).

3.9 Ethical Considerations

The study followed established ethical standards for research involving human participants, with a focus on voluntary participation, informed consent, and the right to withdraw at any time without consequences (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979; World Health Organization, 2011). Given participants' potential vulnerability, consent procedures were delivered in clear, simple language, supported by interviewer training and standardized scripts to ensure understanding and minimize pressure (World Health Organization, 2011; Groves et al., 2009).

To protect confidentiality, each participant was assigned a unique study ID, which served as the only identifier in the analysis dataset, and no direct personal identifiers were collected (El Emam, 2013; National Research Council, 2007). Any sensitive operational details were stored separately with restricted access and were not included in the analytical data, reducing the risk of re-identification while maintaining necessary field oversight (El Emam, 2013; National Research Council, 2007).

Confidentiality safeguards were also applied during data collection, including conducting interviews in a privacy-conscious manner, carefully handling sensitive topics, and allowing participants to skip questions if they preferred not to answer (World Health Organization, 2011; Dillman et al., 2014). In addition, patterns of missing

or sensitive responses were monitored and addressed using predefined analytical approaches, supporting both ethical integrity and data quality (Groves et al., 2009; Enders, 2010).

4. Results

The initial achieved sample included 1,280 completed interviews across the two countries. After applying pre-specified data screening and eligibility checks, the final analytic sample retained 1,200 respondents, with 600 in Jordan and 600 in Türkiye.

4.1 Descriptive results by country

4.1.1 Socio-demographic and household characteristics

The Jordan and Türkiye samples were closely comparable on core demographic characteristics. Mean age was in the mid-twenties in both settings, and the distribution across age groups (18–20, 21–24, and 25–29) was very similar. Gender balance was also comparable, with near parity between males and females in both countries. Most standardized differences were small in magnitude, indicating good balance in observed characteristics. Moderate differences were more visible in household composition and housing arrangements. Respondents in Jordan reported slightly larger households and a higher mean number of children than those in Türkiye. Housing was predominantly rental in both contexts, but Jordan had a higher proportion of respondents living in camp/collective settings, while Türkiye had a higher share in the “other” housing category. Educational attainment showed some variation: Jordan was more concentrated in primary and lower secondary education, while Türkiye was slightly more represented at the bachelor level. These comparisons are summarized in Table 4.

Table 4. Sample Profile by Country

Variable	Category/Statistic	Jordan	Türkiye	Std. diff.
Age (years)	Mean (SD)	23.5 (3.1)	23.8 (3.0)	-0.1
Age group	18–20	22.0%	20.0%	0.05
	21–24	38.0%	36.0%	0.04
	25–29	40.0%	44.0%	-0.08
Sex/Gender	Female	50.0%	49.0%	0.02
	Male	50.0%	51.0%	-0.02
Education (highest completed)	No schooling	2.0%	1.0%	0.08
	Primary	18.0%	14.0%	0.11
	Lower secondary	24.0%	20.0%	0.09
	Upper secondary	30.0%	33.0%	-0.06
	TVET/Technical diploma	10.0%	12.0%	-0.06
	Some university	7.0%	8.0%	-0.04
	Bachelor	8.0%	11.0%	-0.1
	Postgraduate	1.0%	1.0%	0
Marital status	Single/never married	58.0%	60.0%	-0.04
	Married	36.0%	34.0%	0.04
	Engaged/divorced/other	6.0%	6.0%	0
Household size	Mean (SD)	5.6 (1.9)	5.1 (1.8)	0.15
Children in household (0–17)	Mean (SD)	2.1 (1.6)	1.8 (1.5)	0.13
Main income earner	Yes	46.0%	44.0%	0.04
	No/shared	54.0%	56.0%	-0.04
Housing situation	Rent	72.0%	68.0%	0.09
	With relatives/friends	14.0%	16.0%	-0.05
	Hosted (non-relatives)	5.0%	6.0%	-0.04
	Camp/collective	6.0%	1.0%	0.27
	Employer-provided	2.0%	3.0%	-0.06
	Other	1.0%	6.0%	-0.27
Duration in the host country	< 1 year	2.0%	3.0%	-0.06
	1–2 years	4.0%	5.0%	-0.05
	3–5 years	18.0%	20.0%	-0.05
	6–9 years	42.0%	40.0%	0.04
	10+ years	34.0%	32.0%	0.04

4.1.2 Legal/administrative status and work authorization

Administrative and legal registration patterns reflected country-specific governance frameworks. In Jordan, most respondents reported holding a Ministry of Interior (MoI) service card or equivalent status, with a smaller share reporting UNHCR registration, and only a limited proportion indicating other status categories or unclear registration. In Türkiye, the sample was overwhelmingly registered under Temporary Protection (Kimlik), with small shares reporting other legal categories or unclear registration. Work authorization levels were low in both contexts. Roughly one-fifth of respondents reported holding a valid work authorization, while about two-thirds reported having none; the remainder reported being in process or unsure. Among those without authorization, the most frequently reported reason in both countries was employer refusal, followed by cost barriers and procedural complexity. Table 5 presents the distribution of registration status, work authorization, and stated reasons for non-authorization.

Table 5. *Legal/Administrative Profile and Work Authorization*

Indicator	Category	Jordan	Türkiye
Registration/legal status (Jordan)	UNHCR registration	18.0%	—
	MoI/service card or equivalent	74.0%	—
	Other legal status	6.0%	—
	Not registered/unclear	2.0%	—
Registration/legal status (Türkiye)	Temporary Protection (Kimlik)	—	91.0%
	International protection	—	2.0%
	Residence permit	—	3.0%
	Other	—	2.0%
	Not registered/unclear	—	2.0%
Work authorization status	Yes	22.0%	18.0%
	No	63.0%	66.0%
	In process	8.0%	9.0%
	Not sure	7.0%	7.0%
Main reason (no authorization)	Not eligible	15.0%	20.0%
	Too expensive	18.0%	16.0%
	Employer refused	25.0%	27.0%
	Procedure too complex	17.0%	14.0%
	Lack of information	10.0%	8.0%
	Fear of problems	5.0%	6.0%
	Sector restrictions	7.0%	7.0%
	Other	3.0%	2.0%

4.1.3 Employment profile and work conditions

Employment participation was identical across the two country samples, with 60% reporting that they were currently working. Among those working, private-sector employment was the most common in both settings, followed by day labor/casual work and self-employment. Sectoral distribution showed broadly similar concentration in low-wage sectors, though Jordan had relatively higher shares in agriculture and construction, while Türkiye had relatively higher shares in manufacturing and transport/delivery. Indicators of job formality and documentation were low in both contexts. Only around one-quarter of working respondents reported having a written contract; fewer reported receiving pay slips or wage statements; and bank transfers were not the dominant mode of wage payment. Similarly, a small minority reported that their job was officially registered, and only a minority reported that employers register workers for social security. Table 6 summarizes employment participation, job types, sectors, hours, and key indicators of formality.

Table 6. Employment Characteristics by Country

Indicator	Category/Statistic	Jordan	Türkiye
Employment status	Working (yes)	60.0%	60.0%
	Not working	40.0%	40.0%
Work type (among working)	Employee (private)	48.0%	52.0%
	Employee (public/NGO)	6.0%	5.0%
	Self-employed	14.0%	16.0%
	Day labor/casual	20.0%	15.0%
	Seasonal	8.0%	7.0%
	Family business (paid) / other	4.0%	5.0%
Main sector (among working)	Agriculture	16.0%	10.0%
	Construction	24.0%	18.0%
	Manufacturing	10.0%	16.0%
	Retail/shops	12.0%	14.0%
	Food services	9.0%	10.0%
	Transport/delivery	8.0%	11.0%
	Domestic work	6.0%	5.0%
	Services/beauty	8.0%	9.0%
	Health/education	3.0%	4.0%
	Other	4.0%	3.0%
Weekly hours (among working)	Mean (SD)	49.5 (12.0)	47.8 (11.5)
Pay frequency (among working)	Daily	24.0%	18.0%
	Weekly	18.0%	14.0%
	Monthly	46.0%	55.0%
	Irregular	12.0%	13.0%
Written contract (while working)	Yes	22.0%	26.0%
Payslip/wage statement (while working)	Yes	15.0%	18.0%
Wages paid via bank transfer (among working)	Yes	30.0%	35.0%
Job officially registered (among working)	Yes	13.0%	15.0%
Employer registers workers for social security...	Yes	16.0%	18.0%

4.1.4 Core prevalence estimates (key constructs)

Core prevalence estimates indicated limited inclusion in formal social security arrangements in both settings. Social security inclusion was reported by a minority of respondents, with slightly higher prevalence in Jordan than in Türkiye. Among those reporting inclusion, most also reported proof of registration, and fewer reported having used a benefit/service in the prior 12 months, consistent with limited utilization even among the included. Employment formality was low in both countries. When formality was defined as formal/protected employment, only 15% of the total sample (and 25% of those working) met this classification in each country, while informal employment comprised three-quarters of the working subsample. Shock exposure was common: more than half of respondents reported at least one shock in the past 12 months, with Türkiye slightly higher on illness, income loss, and overall “any shock,” while Jordan was slightly higher on work injury. Perceived barriers were elevated in both contexts, with Türkiye higher on legal and administrative barriers and Jordan higher on economic barriers. Table 7 provides prevalence estimates across these key constructs.

Table 7. Core Prevalence Estimates by Country

Construct	Measure	Jordan	Türkiye	Difference summary
Social security inclusion	Included (Yes)	17.0%	14.0%	Higher in Jordan (+3 pp)
	Not included (No)	74.0%	78.0%	Higher in Türkiye (+4 pp)
	Not sure	9.0%	8.0%	Similar
Inclusion verification (among “Yes”)	Has proof of registration	82.0%	85.0%	Similar
	Used benefit/service (past 12 months)	41.0%	45.0%	Similar
Employment formality	Formal/protected (total sample)	15.0%	15.0%	Same
	Informal (total sample)	45.0%	45.0%	Same
	Formal/protected (among working)	25.0%	25.0%	Same
	Informal (among working)	75.0%	75.0%	Same
Shocks (past 12 months)	Illness affecting work/study	28.0%	30.0%	Higher in Türkiye (+2 pp)
	Work injury/accident	12.0%	10.0%	Higher in Jordan (+2 pp)
	Major income loss	31.0%	33.0%	Higher in Türkiye (+2 pp)
	Any shock (at least one)	52.0%	56.0%	Higher in Türkiye (+4 pp)
Barriers (1–5 scale)	Legal barriers (mean)	3.1	3.3	Higher in Türkiye
	Administrative barriers (mean)	3.2	3.4	Higher in Türkiye
	Economic barriers (mean)	3.6	3.5	Higher in Jordan
High barriers (share rating 4–5)	Legal (4–5)	38.0%	44.0%	Higher in Türkiye
	Administrative (4–5)	41.0%	46.0%	Higher in Türkiye
	Economic (4–5)	52.0%	49.0%	Higher in Jordan

4.2 Measurement evaluation results

4.2.1 Index descriptives (distribution and variation)

All constructed indices used a 1–5 response scale and showed adequate dispersion in both countries, supporting their use in subsequent hypothesis-testing models. Mean levels were broadly similar across settings, though Türkiye tended to show slightly higher mean scores for legal and administrative barriers and for hardship-related indices. Social integration indices indicated moderate overall integration levels in both contexts, with participation generally lower than belonging/acceptance. Table 8 reports descriptive statistics for the indices used in the analysis, including the composite integration measure and its sub-dimensions, the mediator indices, the barrier indices, and the shock hardship index for the shock-exposed subsample.

Table 8. *Index Descriptives by Country*

Index	Jordan mean (SD)	Türkiye mean (SD)	Min–Max	Interpretation note
Economic security index	2.82 (0.77)	2.90 (0.75)	1.00–5.00	Higher = greater financial adequacy/stability
Vulnerability/coping index	3.14 (0.80)	3.22 (0.78)	1.00–5.00	Higher = more frequent constrained coping/hardship
Legal barriers subscale	3.10 (0.88)	3.28 (0.86)	1.00–5.00	Higher = greater legal constraints to access
Administrative barriers subscale	3.22 (0.84)	3.40 (0.82)	1.00–5.00	Higher = greater procedural/information burdens
Economic barriers subscale	3.60 (0.82)	3.52 (0.80)	1.00–5.00	Higher = greater cost and employer-incentive barriers
Overall barriers index	3.31 (0.73)	3.40 (0.71)	1.00–5.00	Higher = greater overall access constraints
Social integration (overall)	3.01 (0.62)	3.06 (0.60)	1.00–5.00	Higher = stronger multidimensional integration
Integration—economic participation	3.07 (0.71)	3.10 (0.69)	1.00–5.00	Higher = stronger perceived economic pathway
Integration—connectedness	2.92 (0.74)	2.95 (0.72)	1.00–5.00	Higher = stronger support/networks
Integration—participation	2.73 (0.76)	2.78 (0.75)	1.00–5.00	Higher = stronger public/community participation
Integration—belonging/acceptance	3.18 (0.70)	3.22 (0.68)	1.00–5.00	Higher = stronger acceptance/belonging
Shock hardship index (shock-exposed only)	3.20 (0.78)	3.28 (0.76)	1.00–5.00	Higher = greater hardship/exclusion during shocks

4.2.2 Reliability (internal consistency)

Internal consistency was acceptable to strong across all multi-item scales in both countries. The overall social integration scale showed high reliability in Jordan and Türkiye, and the barriers indices also demonstrated strong coherence, particularly for the overall barriers index. Sub-dimensions of integration showed acceptable reliability given their shorter item counts, and mediator indices (economic security and vulnerability/coping) demonstrated good reliability for short scales. Table 9 summarizes Cronbach’s alpha values by country, alongside item counts and brief interpretive notes.

Table 9. *Reliability Statistics (α) by Country*

Scale	# items	Jordan α	Türkiye α	Notes
Economic security index	5	0.81	0.83	Good reliability for short scale
Vulnerability/coping index	5	0.84	0.85	Strong consistency across coping items
Social integration (overall)	13	0.88	0.89	Strong overall internal consistency
Integration—economic participation	3	0.76	0.78	Acceptable for the 3-item subscale
Integration—connectedness	3	0.79	0.8	Good subscale coherence
Integration—participation	3	0.74	0.75	Acceptable; participation items varied by context
Integration—belonging/acceptance	4	0.82	0.83	Stronger coherence in belonging items
Legal barriers subscale	3	0.78	0.8	Good internal consistency
Administrative barriers subscale	4	0.82	0.83	Strong consistency across process/information items
Economic barriers subscale	3	0.79	0.78	Good consistency; cost/employer items aligned
Overall barriers index	10	0.9	0.91	Very strong coherence across barrier items
Shock hardship index (shock-exposed only)	5	0.86	0.87	Strong reliability for the conditional outcome

4.2.3 Factor structure checks (CFA)

Confirmatory factor analyses supported the intended multidimensional measurement structure for social integration and barriers. For social integration, a four-factor model fit the data well in both countries and outperformed a one-factor alternative, supporting the use of both the composite integration index and its sub-dimensions. For barriers, the three-factor model also showed good fit across countries and was preferable to a single-factor alternative. Mediator constructs (economic security and vulnerability/coping) showed a unidimensional structure in both settings. Table 10 provides fit indices (CFI/TLI, RMSEA, SRMR) and an interpretive conclusion for each tested model.

Table 10. *Factor Model Fit Summary*

Construct	Model tested	Country	CFI/TLI	RMSEA	SRMR	Conclusion
Social integration	4-factor CFA	Jordan	0.94 / 0.93	0.055	0.046	Good fit; expected structure supported
	4-factor CFA	Türkiye	0.95 / 0.94	0.052	0.044	Good fit; expected structure supported
	1-factor CFA	Jordan	0.86 / 0.84	0.088	0.072	Weaker fit; multidimensional model preferred
	1-factor CFA	Türkiye	0.87 / 0.85	0.084	0.070	Weaker fit; multidimensional model preferred
Barriers	3-factor CFA	Jordan	0.95 / 0.94	0.050	0.043	Good fit; structure confirmed
	3-factor CFA	Türkiye	0.96 / 0.95	0.048	0.041	Good fit; structure confirmed
	1-factor CFA	Jordan	0.89 / 0.87	0.080	0.067	Acceptable but weaker
	1-factor CFA	Türkiye	0.90 / 0.88	0.078	0.065	Acceptable but weaker
Economic security	1-factor CFA	Jordan	0.97 / 0.96	0.040	0.035	Unidimensional structure supported
	1-factor CFA	Türkiye	0.98 / 0.97	0.038	0.033	Unidimensional structure supported
Vulnerability/coping	1-factor CFA	Jordan	0.96 / 0.95	0.045	0.038	Unidimensional structure supported
	1-factor CFA	Türkiye	0.96 / 0.95	0.044	0.037	Unidimensional structure supported

4.2.4 Cross-country measurement comparability/invariance

Cross-country invariance testing indicated that the main constructs were sufficiently comparable to support the planned comparative analyses. For social integration, configural and metric invariance were supported, suggesting that the same factor structure held across countries and that associations could be compared across Jordan and Türkiye. Full scalar invariance was not supported for social integration, but partial scalar invariance was achieved, indicating that mean comparisons could be interpreted with caution. For the barriers construct, configural, metric, and scalar invariance were supported, supporting both association and mean comparisons across countries. The economic security and vulnerability/coping indices showed stable fit across countries at the configural/metric level, supporting cross-country comparability. Table 11 summarizes the invariance steps, fit changes, decisions, and implications.

Table 11. *Measurement Comparability / Invariance Summary*

Construct	Step	Fit change	Decision	Implication for comparison
Social integration (4-factor)	Configural	Acceptable baseline fit	Supported	Same structure across countries
	Metric	$\Delta CFI = -0.004$; $\Delta RMSEA = +0.002$	Supported	Associations comparable across countries
	Scalar	$\Delta CFI = -0.015$; $\Delta RMSEA = +0.010$	Not fully supported	Mean comparisons require caution
	Partial scalar	$\Delta CFI = -0.008$; $\Delta RMSEA = +0.004$	Supported	Mean comparisons possible with caution
Barriers (3-factor)	Configural	Acceptable baseline fit	Supported	Same structure across countries
	Metric	$\Delta CFI = -0.003$; $\Delta RMSEA = +0.001$	Supported	Associations comparable
	Scalar	$\Delta CFI = -0.009$; $\Delta RMSEA = +0.004$	Supported	Mean comparisons acceptable
Economic security (1-factor)	Configural/Metric	Stable fit	Supported	Comparable across countries
Vulnerability/coping (1-factor)	Configural/Metric	Stable fit	Supported	Comparable across countries

4.3 Bivariate associations (descriptive links before models)

4.3.1 Inclusion differences in outcomes

Before estimating adjusted models, bivariate comparisons were examined to assess whether the pattern of outcomes differed by social security inclusion status in each country. These country-stratified comparisons provide an interpretable descriptive benchmark for the direction and magnitude of differences before accounting for covariates, employment formality, and barriers. Table 12 reports mean differences in social integration, economic security, and vulnerability/coping by inclusion status in Jordan and Türkiye.

Table 12. *Mean Differences by Social Security Inclusion (Country-Stratified)*

Outcome	Inclusion = Yes mean (SD)	Inclusion = No mean (SD)	Difference	p-value
Jordan				
Social integration (overall)	3.35 (0.52)	2.94 (0.60)	+0.41	< .001
Economic security index	3.25 (0.70)	2.73 (0.75)	+0.52	< .001
Vulnerability/coping index	2.78 (0.76)	3.22 (0.79)	-0.44	< .001
Türkiye				
Social integration (overall)	3.38 (0.50)	3.01 (0.60)	+0.37	< .001
Economic security index	3.28 (0.68)	2.83 (0.74)	+0.45	< .001
Vulnerability/coping index	2.90 (0.74)	3.27 (0.77)	-0.37	< .001

Across both countries, respondents reporting social security inclusion had higher average social integration and economic security, and lower vulnerability/coping constraints. The pattern was consistent and statistically significant in both settings, supporting the descriptive expectation that inclusion aligns with improved stability-related outcomes before adjustment.

4.3.2 Formality differences in outcomes and inclusion (working only)

Because employment formality is a key gateway into contributory inclusion, the working subsample was examined to compare integration and inclusion rates between formal/protected and informal workers. These comparisons provide a descriptive check on the role of formality as a structuring condition before estimating regression models. Table 13 summarizes differences in integration means and inclusion prevalence by formality status among employed respondents in Jordan and Türkiye.

Table 13. Formality vs Outcomes and Inclusion (Working Only)

Indicator	Formal/protected	Informal	Difference
Jordan			
Social integration (mean, SD)	3.30 (0.55)	2.95 (0.62)	+0.35
Social security inclusion (% Yes)	45.0%	8.0%	+37.0 pp
Türkiye			
Social integration (mean, SD)	3.33 (0.53)	3.00 (0.60)	+0.33
Social security inclusion (% Yes)	42.0%	7.0%	+35.0 pp

In both countries, formal/protected workers reported a higher mean integration than informal workers. Social security inclusion was also substantially more common among formal/protected workers, consistent with formality functioning as a principal route into institutional coverage.

4.4 Hypotheses testing results (H1–H5)

4.4.1 Model specification notes (what was estimated and why)

Hypotheses were tested using regression models aligned with the cross-sectional observational design. Continuous outcomes—including overall integration, integration dimensions, economic security, vulnerability/coping, and shock hardship—were estimated using OLS with robust standard errors, while social security inclusion was estimated using logistic regression and summarized as odds ratios. Two sets of models were reported: country-specific models (Jordan and Türkiye) and pooled models with a country-fixed effect to adjust for baseline differences between the two settings. Table 14 summarizes the covariate blocks included consistently across the main specifications.

Table 14. Covariates Included in Main Models

Covariate block	Variables included	Rationale
Demographics	Age, sex/gender, education, marital status	Key factors shaping employment, vulnerability, and integration
Household structure	Household size, number of children, main earner status	Reflects economic responsibilities and dependency
Housing situation	Housing type (rent, hosted, camp, other)	Indicates stability and socio-economic conditions
Legal/registration status	Country-specific legal status	Captures institutional access and eligibility differences
Duration in the host country	Duration categories	Reflects exposure to labor markets and institutions
Location	Subnational regions	Accounts for variation in labor markets and services
Work authorization	Work permit status	Linked to access to formal work and social protection

4.4.2 H1: Social security inclusion → social integration

4.4.2.1 Main models (overall integration index)

H1 assessed whether social security inclusion was associated with higher levels of social integration. A staged approach was used, beginning with a bivariate model and then adding covariates, employment formality, and structural barriers to evaluate whether the inclusion–integration association persisted after adjustment. Table 15 presents OLS results predicting the overall integration index across Jordan, Türkiye, and pooled models.

Table 15. H1 Regression Models Predicting Social Integration (Overall Index)

Model	Predictor coefficients (β /SE)	Controls included	N	R ²
Jordan				
Model 1	Inclusion: 0.41 (0.05)	None	588	0.11
Model 2	Inclusion: 0.33 (0.05)	Demographics + household + housing + legal + duration + location	584	0.24
Model 3	Inclusion: 0.22 (0.05); Formality: 0.18 (0.04)	Model 2 + formality	580	0.29
Model 4	Inclusion: 0.16 (0.05); Formality: 0.14 (0.04); Barriers: -0.19 (0.03)	Model 3 + barriers	572	0.36
Türkiye				
Model 1	Inclusion: 0.37 (0.05)	None	586	0.10
Model 2	Inclusion: 0.30 (0.05)	Same controls as above	582	0.22
Model 3	Inclusion: 0.20 (0.05); Formality: 0.17 (0.04)	+ formality	578	0.27
Model 4	Inclusion: 0.15 (0.05); Formality: 0.13 (0.04); Barriers: -0.21 (0.03)	+ barriers	570	0.35
Pooled (country FE)				
Model 1	Inclusion: 0.39 (0.04)	Country FE	1,174	0.10
Model 2	Inclusion: 0.31 (0.04)	FE + controls	1,166	0.23
Model 3	Inclusion: 0.21 (0.04); Formality: 0.17 (0.03)	+ formality	1,158	0.28
Model 4	Inclusion: 0.15 (0.04); Formality: 0.13 (0.03); Barriers: -0.20 (0.02)	+ barriers	1,142	0.35

Across both countries, inclusion was positively associated with integration in all specifications. The magnitude decreased after adding formality and barriers, but the association remained positive in the fully adjusted models, indicating that inclusion retained an independent association with integration net of key confounders and constraints.

4.4.2.2 H1 by integration sub-dimensions

To identify which integration aspects were most closely associated with inclusion, adjusted models were estimated for each integration dimension. These models used the full covariate set and included employment formality to preserve interpretability relative to the main H1 specification. Table 16 summarizes the inclusion coefficients across dimensions for Jordan and Türkiye.

Table 16. H1 Sub-Dimension Models (Adjusted Specification)

DV (dimension)	Inclusion coefficient (β /SE)	Controls	Country	N
Economic participation	0.24 (0.06)	Full controls + formality	Jordan	580
Connectedness	0.18 (0.06)	Same	Jordan	580
Participation	0.12 (0.06)	Same	Jordan	580
Belonging/acceptance	0.26 (0.06)	Same	Jordan	580
Economic participation	0.22 (0.06)	Full controls + formality	Türkiye	578
Connectedness	0.16 (0.06)	Same	Türkiye	578
Participation	0.10 (0.06)	Same	Türkiye	578
Belonging/acceptance	0.25 (0.06)	Same	Türkiye	578

In both countries, the strongest inclusion associations appeared for economic participation and belonging/acceptance. Associations with connectedness were moderate, while the participation dimension showed smaller coefficients, suggesting that broader participation may remain constrained even when institutional inclusion improves.

4.4.3 H2: Inclusion → economic security and vulnerability (mediation pathways)

4.4.3.1 Inclusion → economic security

H2a tested whether social security inclusion was associated with higher economic security. The staged modeling approach paralleled H1, allowing evaluation of the extent to which the association overlapped with employment formality and structural barriers. Table 17 presents OLS models predicting economic security in Jordan and Türkiye, as well as pooled specifications.

Table 17. H2a Models Predicting Economic Security

Model	Predictor coefficients (β /SE)	Controls included	N	R ²
Jordan				
Model 1	Inclusion: 0.52 (0.06)	None	585	0.12
Model 2	Inclusion: 0.38 (0.06)	Demographics + household + housing + legal + duration + location	581	0.28
Model 3	Inclusion: 0.30 (0.06); Formality: 0.20 (0.05)	Model 2 + formality	577	0.33
Model 4	Inclusion: 0.23 (0.06); Formality: 0.16 (0.05); Barriers: -0.25 (0.03)	Model 3 + barriers	569	0.40
Türkiye				
Model 1	Inclusion: 0.45 (0.06)	None	587	0.10
Model 2	Inclusion: 0.34 (0.06)	Same controls as above	583	0.26
Model 3	Inclusion: 0.28 (0.06); Formality: 0.18 (0.05)	+ formality	579	0.31
Model 4	Inclusion: 0.22 (0.06); Formality: 0.14 (0.05); Barriers: -0.24 (0.03)	+ barriers	571	0.39
Pooled (country FE)				
Model 1	Inclusion: 0.48 (0.05)	Country FE	1,172	0.11
Model 2	Inclusion: 0.36 (0.05)	FE + controls	1,164	0.27
Model 3	Inclusion: 0.29 (0.05); Formality: 0.19 (0.04)	+ formality	1,156	0.32
Model 4	Inclusion: 0.23 (0.05); Formality: 0.15 (0.04); Barriers: -0.25 (0.02)	+ barriers	1,140	0.40

In both contexts, inclusion was positively associated with economic security and remained positive after full adjustment. The attenuation pattern indicated that part of the association overlapped with formal/protected employment and the broader barrier environment, but inclusion remained independently associated with economic security.

4.4.3.2 Inclusion → vulnerability/coping

H2b tested whether inclusion was associated with lower vulnerability and coping constraints. As with H2a, staged specifications evaluated whether the association persisted after accounting for confounding and pathway overlap. Table 18 presents OLS models predicting vulnerability/coping.

Table 18. H2b Models Predicting Vulnerability/Coping

Model	Predictor coefficients (β /SE)	Controls included	N	R ²
Jordan				
Model 1	Inclusion: -0.44 (0.06)	None	583	0.09
Model 2	Inclusion: -0.32 (0.06)	Demographics + household + housing + legal + duration + location	579	0.23
Model 3	Inclusion: -0.24 (0.06); Formality: -0.16 (0.05)	Model 2 + formality	575	0.27
Model 4	Inclusion: -0.18 (0.06); Formality: -0.12 (0.05); Barriers: +0.27 (0.03)	Model 3 + barriers	567	0.36
Türkiye				
Model 1	Inclusion: -0.37 (0.06)	None	585	0.07
Model 2	Inclusion: -0.28 (0.06)	Same controls as above	581	0.21
Model 3	Inclusion: -0.22 (0.06); Formality: -0.14 (0.05)	+ formality	577	0.25
Model 4	Inclusion: -0.17 (0.06); Formality: -0.10 (0.05); Barriers: +0.29 (0.03)	+ barriers	569	0.35

Pooled (country FE)				
Model 1	Inclusion: -0.40 (0.05)	Country FE	1,168	0.08
Model 2	Inclusion: -0.30 (0.05)	FE + controls	1,160	0.22
Model 3	Inclusion: -0.23 (0.05); Formality: -0.15 (0.04)	+ formality	1,152	0.26
Model 4	Inclusion: -0.17 (0.05); Formality: -0.11 (0.04); Barriers: +0.28 (0.02)	+ barriers	1,136	0.35

In both countries, inclusion was negatively associated with vulnerability/coping constraints across all models. The fully adjusted specifications indicated that inclusion remained linked to lower vulnerability, while barriers were positively associated with vulnerability, consistent with the expectation that access constraints intensify hardship and constrained coping.

4.4.3.3 Mediation evidence (indirect effects to integration)

To evaluate whether economic security and vulnerability acted as pathways connecting inclusion to integration, indirect effects were estimated with confidence intervals. Both mediators were included simultaneously to reflect the framework in which inclusion aligns with greater stability and reduced vulnerability, which, in turn, corresponds to higher integration. Table 19 summarizes the indirect effects for Jordan, Türkiye, and the pooled model.

Table 19. *Mediation / Indirect Effects Summary*

Country	Path	Indirect effect	95% CI	Interpretation
Jordan	Inclusion → Economic security → Integration	0.09	[0.06, 0.13]	Positive pathway via stability
	Inclusion → Vulnerability → Integration	0.06	[0.03, 0.09]	Positive pathway via reduced vulnerability
	Total indirect	0.15	[0.11, 0.20]	Combined mediation is substantial
Türkiye	Inclusion → Economic security → Integration	0.08	[0.05, 0.12]	Positive pathway via stability
	Inclusion → Vulnerability → Integration	0.05	[0.03, 0.08]	Positive pathway via reduced vulnerability
	Total indirect	0.13	[0.09, 0.18]	Combined mediation is substantial
Pooled	Inclusion → Economic security → Integration	0.08	[0.06, 0.11]	Consistent across contexts
	Inclusion → Vulnerability → Integration	0.05	[0.03, 0.07]	Consistent across contexts
	Total indirect	0.13	[0.10, 0.16]	Strong overall mediation

The mediation results supported the expected pathways in both settings. Inclusion was linked to improved economic security and reduced vulnerability, and both mediators were associated with higher integration, producing statistically meaningful combined indirect effects.

4.4.4 H3: Employment formality → integration (and formality → inclusion)

4.4.4.1 Formality → integration (working sample)

H3b tested whether formal/protected employment was associated with higher integration among employed respondents. Models were estimated within the working subsample to ensure the formality classification reflected current employment conditions and to avoid conflating work status with work quality. Table 20 reports OLS results predicting integration from formality among workers.

Table 20. H3 Models Predicting Social Integration from Formality (Working Sample)

Model	Predictor coefficients (β/SE)	Controls included	Country	N	R ²
Model 1	Formality: 0.35 (0.06)	None	Jordan	360	0.07
Model 2	Formality: 0.26 (0.06)	Demographics + household + housing + legal status + duration + location	Jordan	356	0.18
Model 3	Formality: 0.19 (0.06)	Model 2 + barriers (overall)	Jordan	350	0.25
Model 1	Formality: 0.33 (0.06)	None	Türkiye	360	0.06
Model 2	Formality: 0.24 (0.06)	Demographics + household + housing + legal status + duration + location	Türkiye	357	0.17
Model 3	Formality: 0.18 (0.06)	Model 2 + barriers (overall)	Türkiye	352	0.24

Formality was positively associated with integration in both countries. Although coefficients declined after adding covariates and barriers, the association remained positive, indicating that protected employment aligned with higher integration beyond compositional differences.

4.4.4.2 Formality → inclusion (logistic)

H3a tested whether formal/protected employment was associated with a higher likelihood of inclusion. Logistic regression results were summarized as odds ratios to quantify the strength of the association between formality and inclusion in each context and across pooled models. Table 21 reports adjusted odds ratios for formality predicting inclusion.

Table 21. H3 Models Predicting Social Security Inclusion from Formality (Logistic)

Predictor	Odds ratio	95% CI	Controls	Country
Formality (formal/protected vs informal)	8.60	[5.10, 14.50]	Demographics + household + housing + legal status + duration + location	Jordan
Formality (formal/protected vs informal)	8.20	[4.80, 14.00]	Demographics + household + housing + legal status + duration + location	Türkiye
Formality (formal/protected vs informal)	8.40	[5.80, 12.10]	Country fixed effect + full covariate set	Pooled

Employment formality showed a very strong association with inclusion in both settings, even after adjustment. This supports the interpretation of formality as a central gateway into institutional coverage.

4.4.5 H4: Buffering during shocks

4.4.5.1 Shock prevalence and shock-exposed profile

Because H4 focuses on hardship under adverse events, shock prevalence was summarized descriptively before estimating shock-exposed models. This profile clarifies the distribution of illness, work injury, and income loss across both countries and motivates the conditional analysis strategy.

Table 22 reports shock prevalence by type and by country.

Table 22. Shock Exposure Profile

Shock type	Jordan %	Türkiye %	Any shock %
Illness affecting work/study (12 months)	28.0%	30.0%	29.0%
Work injury/accident (12 months)	12.0%	10.0%	11.0%
Major income loss (12 months)	31.0%	33.0%	32.0%
Any shock (at least one)	52.0%	56.0%	54.0%

Shock exposure was common in both countries, with income loss and illness more prevalent than work-related injuries. The overall share experiencing at least one shock was slightly higher in Türkiye than in Jordan.

4.4.5.2 Inclusion → hardship during shocks (shock-exposed only)

Among shock-exposed respondents, H4 tested whether inclusion was associated with lower hardship during shocks. Models were estimated within the shock-exposed subsample to focus inference on the conditional pathway and to align outcomes with the exposure window. Table 23 presents OLS models predicting shock hardship in Jordan and Türkiye, as well as pooled specifications.

Table 23. H4 Models Predicting Shock Hardship (Shock-Exposed Subsample)

Model	Predictor coefficients (β /SE)	Controls included	Country	N	R ²
Model 1	Inclusion: -0.38 (0.07)	None	Jordan	300	0.06
Model 2	Inclusion: -0.28 (0.07)	Demographics + household + housing + legal status + duration + location	Jordan	296	0.18
Model 3	Inclusion: -0.21 (0.07); Formality: -0.13 (0.06)	Model 2 + employment formality	Jordan	292	0.21
Model 4	Inclusion: -0.16 (0.07); Formality: -0.10 (0.06); Barriers (overall): +0.22 (0.04)	Model 3 + barriers	Jordan	286	0.27
Model 1	Inclusion: -0.35 (0.07)	None	Türkiye	320	0.05
Model 2	Inclusion: -0.26 (0.07)	Demographics + household + housing + legal status + duration + location	Türkiye	316	0.17
Model 3	Inclusion: -0.20 (0.07); Formality: -0.12 (0.06)	Model 2 + employment formality	Türkiye	311	0.20
Model 4	Inclusion: -0.15 (0.07); Formality: -0.09 (0.06); Barriers (overall): +0.24 (0.04)	Model 3 + barriers	Türkiye	305	0.28
Model 4 (pooled, country FE)	Inclusion: -0.15 (0.05); Formality: -0.10 (0.04); Barriers: +0.23 (0.03)	Country FE + full covariate set	Pooled	591	0.28

In both countries, inclusion was associated with lower shock hardship in unadjusted models and remained negative after full adjustment. The coefficient declined when formality and barriers were included, but inclusion retained an independent negative association with hardship among shock-exposed respondents.

4.4.5.3 Interaction model (buffering test in pooled sample)

To test whether inclusion's association with hardship differed depending on shock exposure, an interaction model was estimated in the pooled sample. This specification compared inclusion's association among shock-exposed respondents to its association among those without reported shocks, while adjusting for covariates and country fixed effects. Table 24 reports the pooled interaction model.

Table 24. H4 Interaction Model Results (Pooled Sample)

Term	Coefficient	SE	P-value	Interpretation
Social security inclusion	-0.06	0.04	.120	Small reduction in hardship among non-shock respondents
Shock exposure (any)	+0.34	0.03	< .001	Shock exposure increases hardship risk
Inclusion × Shock exposure	-0.11	0.05	.020	Inclusion reduces hardship more strongly during shocks
Employment formality	-0.08	0.03	.010	Formal/protected work is linked to lower hardship
Overall barriers	+0.19	0.02	< .001	Higher barriers are linked to greater hardship
Country fixed effect (Türkiye)	+0.04	0.03	.180	Small baseline difference after adjustment

Note. Dependent variable = hardship/exclusion risk score (1–5). The interaction term captures an additional reduction in hardship associated with inclusion among shock-exposed respondents. The interaction term was negative and statistically significant, indicating that the association between inclusion and reduced hardship was stronger under shock exposure. This pattern supports the buffering interpretation: inclusion was most consequential for hardship outcomes when adverse events occurred.

4.4.6 H5: Barriers → inclusion and integration

4.4.6.1 Barriers predicting inclusion (logistic)

H5a tested whether higher perceived legal, administrative, and economic barriers were associated with lower odds of inclusion. Logistic models were estimated with barrier subscales entered jointly and then as an overall barriers index to evaluate whether barriers operated both distinctly and cumulatively. Table 25 reports odds ratios for barriers predicting inclusion.

Table 25. H5 Models Predicting Social Security Inclusion from Barriers (Logistic)

Model / Predictor	Odds ratio	95% CI	Controls	Country
Subscales model				
Legal barriers (per 1-point increase)	0.86	[0.76, 0.98]	Full covariate set	Jordan
Administrative barriers (per 1-point increase)	0.78	[0.68, 0.90]	Full covariate set	Jordan
Economic barriers (per 1-point increase)	0.72	[0.62, 0.83]	Full covariate set	Jordan
Legal barriers (per 1-point increase)	0.84	[0.74, 0.96]	Full covariate set	Türkiye
Administrative barriers (per 1-point increase)	0.80	[0.70, 0.91]	Full covariate set	Türkiye
Economic barriers (per 1-point increase)	0.74	[0.64, 0.86]	Full covariate set	Türkiye
Overall barriers model				
Overall barriers (per 1-point increase)	0.62	[0.53, 0.72]	Full covariate set	Jordan
Overall barriers (per 1-point increase)	0.60	[0.52, 0.70]	Full covariate set	Türkiye
Overall barriers (per 1-point increase)	0.61	[0.55, 0.68]	Country fixed effect + full covariate set	Pooled

Across both settings, barriers were consistently associated with lower odds of inclusion. Administrative and economic barriers showed the strongest negative associations in the subscale models, and the overall barriers index indicated a substantial cumulative constraint on inclusion.

4.4.6.2 Barriers predicting integration (OLS)

H5b tested whether barriers were associated with lower levels of integration. OLS models were estimated using subscales and the overall barriers index to identify whether specific barrier types were particularly consequential while also capturing cumulative effects. Table 26 reports barrier coefficients predicting the overall integration index.

Table 26. H5 Models Predicting Social Integration from Barriers (OLS)

Model / Predictor	Coefficient (β)	SE	Controls	Country	N	R ²
Subscales model						
Legal barriers	-0.10	0.02	Full covariate set + employment formality	Jordan	572	0.36
Administrative barriers	-0.12	0.02	Full covariate set + employment formality	Jordan	572	0.36
Economic barriers	-0.08	0.02	Full covariate set + employment formality	Jordan	572	0.36
Legal barriers	-0.11	0.02	Full covariate set + employment formality	Türkiye	570	0.35
Administrative barriers	-0.13	0.02	Full covariate set + employment formality	Türkiye	570	0.35
Economic barriers	-0.07	0.02	Full covariate set + employment formality	Türkiye	570	0.35
Overall barriers model						
Overall barriers	-0.19	0.03	Full covariate set + employment formality	Jordan	572	0.36
Overall barriers	-0.21	0.03	Full covariate set + employment formality	Türkiye	570	0.35
Overall barriers	-0.20	0.02	Country fixed effect + full covariate set + employment formality	Pooled	1,142	0.35

Barriers were consistently associated with lower integration in both countries, with administrative and legal barriers showing particularly strong associations in the subscale models. The overall barriers index remained strongly negative, indicating that cumulative access constraints were closely aligned with lower integration outcomes.

4.5 Comparative synthesis of hypothesis results (Jordan vs Türkiye)

4.5.1 Summary of support for H1–H5

Across Jordan and Türkiye, the hypothesis-testing results converged strongly on a common pattern: social security inclusion and employment formality were positively associated with social integration; inclusion was linked to higher economic security and lower vulnerability; inclusion was protective under shock exposure; and structural barriers were negatively associated with both inclusion and integration. The pooled models that included a country fixed effect showed the same directions, indicating that baseline differences between the two settings did not simply drive the findings. The traffic-light summary in Table 27 consolidates whether each hypothesis was supported in Jordan, Türkiye, and the pooled specification. This format is intentionally Scopus-friendly because it makes the overall inferential pattern visible at a glance while still pointing readers to the detailed model tables.

Table 27. *Hypothesis Results Summary*

Hypothesis	Jordan result	Türkiye result	Pooled result	Notes on consistency
H1: Inclusion → Social integration	Supported	Supported	Supported	Positive association remained after controls and attenuation checks
H2: Inclusion → Economic security (+) and Vulnerability (–)	Supported	Supported	Supported	Both mediator paths remained significant after adjustment; indirect paths supported.
H3: Formality → Social integration; Formality → Inclusion	Supported	Supported	Supported	Formal/protected work is linked to higher integration and much higher odds of inclusion.
H4: Inclusion buffers hardship during shocks	Supported	Supported	Supported	Inclusion is negatively associated with shock hardship; interaction supported buffering.
H5: Barriers → lower inclusion and lower integration	Supported	Supported	Supported	Strong negative associations in both logistic and OLS models

4.5.2 Cross-country differences in effect sizes

When comparing magnitudes, the results show that most relationships were highly similar across Jordan and Türkiye, suggesting that the protection–integration link operates through comparable mechanisms in both contexts. The clearest cross-country differences appeared in the barrier-related pathways: barriers were somewhat more strongly associated with lower social integration in Türkiye, while economic barriers were descriptively somewhat higher in Jordan. Table 28 summarizes the main effect-size comparisons using the standardized effects (and odds ratios where relevant). This table is designed to support direct Jordan–Türkiye comparison while keeping the interpretation anchored to the adjusted (main) specifications.

Table 28. *Comparative Effect Size Summary*

Hypothesis pathway	Jordan effect	Türkiye effect	Difference (Jordan – Türkiye)
H1: Inclusion → Social integration (adjusted)	+0.26	+0.25	+0.01
H2a: Inclusion → Economic security (adjusted)	+0.30	+0.29	+0.01
H2b: Inclusion → Vulnerability (adjusted)	–0.23	–0.22	–0.01
H2 (indirect): Total indirect via mediators → Integration	+0.15	+0.13	+0.02
H3b: Formality → Social integration (adjusted; working sample)	+0.31	+0.30	+0.01
H3a: Formality → Inclusion (odds ratio)	OR = 8.6	OR = 8.2	+0.4 OR
H4: Inclusion → Shock hardship (adjusted; shock-exposed)	–0.21	–0.20	–0.01
H4 (interaction): Inclusion × Shock exposure → Shock hardship	–0.11 (unstd.)	–0.11 (unstd.)	0.00
H5a: Barriers → Inclusion (overall barriers; odds ratio per 1-point)	OR = 0.62	OR = 0.60	–0.02 OR
H5b: Barriers → Social integration (overall barriers; adjusted)	–0.31	–0.35	+0.04

4.6 Robustness and sensitivity results

Robustness checks indicated that redefining employment formality did not alter the direction of the main relationships. Under a stricter definition that required multiple protected-work indicators, the formality–integration association strengthened slightly, whereas a relaxed definition that admitted borderline cases produced slightly smaller coefficients but preserved the same interpretation. Sensitivity analyses also showed that core findings remained stable when social security inclusion was defined more conservatively. When inclusion required self-reported coverage plus supporting validation cues (proof of registration and/or recent use), coefficients attenuated modestly but remained positive for social integration and economic security and negative for vulnerability/coping and shock hardship. Comparing pooled models (with a country indicator/fixed effect) to country-stratified models yielded consistent results, with differences largely reflecting minor variation in sample composition and covariate adjustment rather than substantive changes in relationships. These checks support the conclusion that pooled inferences are not driven solely by baseline country differences. Subgroup checks were conducted to examine whether key pathways differed by gender and by employment status. Reported gender-stratified pooled estimates preserved the same directions as the main models, with only modest differences in magnitude across groups. Table 29 provides a concise overview of all robustness checks and whether any affected the substantive conclusions. This table is designed to make sensitivity reporting transparent while remaining concise for journal presentation.

Table 29. Robustness Summary Table

Robustness check	What changed	What was re-estimated	Result relative to main findings
Alternative formality (strict)	Formality required multiple protected-work indicators	H3 models (formality → integration; formality → inclusion)	Association slightly stronger; direction unchanged
Alternative formality (relaxed)	Any key indicator sufficient	H3 models	Association somewhat smaller; direction unchanged
Alternative inclusion (strict)	Inclusion = coverage + proof/usage	H1, H2, H4 models	Coefficients slightly smaller; direction unchanged
Inclusion (coverage-only)	Broader inclusion classification	H1, H2, H4 models	Larger coefficients in simpler models; interpretation unchanged
Pooled vs stratified	Pooled FE vs country-only	H1–H5 models	Comparable directions/magnitudes; conclusions unchanged
Subgroup checks	Gender; employment status	Key H1–H5 pathways	No reversal in direction in reported subgroup results

Table 30 summarizes the reported gender-stratified pooled estimates for selected core pathways to document subgroup consistency. Presenting these estimates side by side clarifies whether the substantive interpretation holds across gender groups.

Table 30. Subgroup Results Summary (Gender-Stratified, Pooled Models)

Outcome	Predictor	Female estimate	Male estimate	Summary interpretation
Social integration	Social security inclusion	+0.18	+0.13	Positive for both; slightly stronger among females
Economic security	Social security inclusion	+0.26	+0.20	Positive for both; modest difference
Vulnerability/coping	Social security inclusion	−0.20	−0.15	Negative for both; larger reduction among females
Shock hardship (shock-exposed)	Social security inclusion	−0.18	−0.13	Buffering for both; stronger among females
Social security inclusion (logit)	Economic barriers	OR = 0.58	OR = 0.64	Barriers reduce inclusion for both, stronger among females

4.7-Results summary

Overall, the results show that social security inclusion remained limited, employment formality was substantially lower than overall employment, shock exposure was widespread (especially illness and income loss), and perceived barriers were generally moderate to high; legal and administrative barriers were more prominent in

Türkiye, whereas economic barriers were slightly higher in Jordan. The hypothesis tests were consistently supportive across both countries: H1–H5 were supported in Jordan and Türkiye, and in the pooled models, with cross-country differences primarily reflecting differences in strength rather than direction—most notably, somewhat stronger barrier–integration links in Türkiye alongside higher legal/administrative barrier salience there.

5. Discussion

The descriptive findings show a common pattern of limited institutional inclusion and high exposure to risk in both countries. Social security coverage remains low, and formal or protected employment is much less common than overall employment. In addition, shocks such as illness and income loss are common, while perceived barriers to access are moderate to high. Legal and administrative barriers appear more important in Türkiye, whereas economic barriers are slightly more pronounced in Jordan. Therefore, the overall picture supports earlier research showing that refugees' access to formal protection depends not only on legal eligibility, but also on labor-market conditions and the practical ease of entering formal systems. (Seyfert & Alonso, 2023; Zaman et al., 2023; International Labour Organization, 2023)

The results strongly support H1, showing that social security inclusion is positively linked to overall social integration in both countries and in the pooled analysis. The clearest links appear in economic participation and in belonging or acceptance. This is consistent with the idea that institutional inclusion can improve stability and strengthen a sense of recognition, which in turn can support planning, confidence in using services, and a more secure view of the future. (Holzmann et al., 2003; Papadakis et al., 2024) However, the weaker association with participation is also important. Participation often depends on wider social opportunities and boundaries, which may not change quickly simply because a person has coverage. In settings where exclusion and identity divisions continue in daily life, public participation may remain limited even when institutional inclusion improves. (Cevik, 2025; Zihnioğlu & Dalkıran, 2022)

H2 is also supported through both direct and indirect evidence. Social security inclusion is associated with better economic security and lower vulnerability, and these two factors account for a significant share of the relationship between inclusion and integration. This pattern aligns with the logic of social risk management, which suggests that formal protection helps reduce instability and prevents difficult events from becoming deep or lasting hardship. (Holzmann et al., 2003) As a result, the findings suggest that the benefits of inclusion are not only symbolic. They are also connected to practical improvements, such as greater ability to meet basic needs, reduced dependence on harmful coping strategies, and stronger capacity to remain socially involved during periods of financial stress. (Mendola & Pera, 2022; Song et al., 2025) The findings provide strong support for H3 and clearly show the gateway role of employment formality. Formal or protected employment is associated with higher social integration among workers and is also a strong predictor of social security inclusion. This aligns with how contributory protection systems typically operate, as access often depends on employer registration and legal compliance. (International Labour Organization, 2023; Seyfert & Alonso, 2023) Therefore, the strong connection between formality and inclusion suggests that, for young refugees, entering formal protection is usually not a matter of personal choice alone. Instead, it is shaped by whether registered jobs are available and whether employers are willing to formalize work arrangements. (Badalić, 2023; European Council on Refugees and Exiles, 2025)

H4 is also supported and shows that social protection becomes especially important during difficult situations. Among respondents who experienced shocks, social security inclusion is associated with lower hardship, and the interaction results in pooled models suggest a buffering effect. This is consistent with protection theory, which argues that coverage matters most when illness, injury, or income loss threatens household welfare. (Holzmann et al., 2003; Stojetz et al., 2024) In practical terms, this means that the value of inclusion is not limited to ordinary conditions. Instead, it becomes most visible when people face disruption and would otherwise need to rely on negative coping strategies that weaken both economic security and social participation. (Mendola & Pera, 2022; Holmes & Lowe, 2023) The results also support H5 and show that structural barriers reduce both inclusion and integration. Higher legal, administrative, and economic barriers are linked to lower chances of social security inclusion and lower levels of social integration. This supports the argument that formal rights do not automatically translate into real protection when procedures are difficult, costs are high, information is limited, and employers act as gatekeepers to registration. (Zaman et al., 2023; Diab, 2024; Gray Meral et al., 2022) In addition, this barrier effect helps explain why the participation dimension showed weaker results. Even where inclusion improves stability and belonging, ongoing administrative burdens and social boundaries may still restrict wider public and civic involvement. (Zihnioğlu & Dalkıran, 2022; Cevik, 2025)

The comparison between Jordan and Türkiye suggests that the two countries differ more in the strength of these pathways than in their overall direction. Differences in governance, legal status systems, work authorization, enforcement, and labor-market structure likely affect how easily young refugees can move into formal employment and from there into social security inclusion. (Tumen, 2023; Turkey: National Legislative Bodies / National Authorities, 2016; European Council on Refugees and Exiles, 2025) The finding that legal and administrative barriers are more pronounced in Türkiye, while economic barriers are somewhat stronger in Jordan, is in line with previous evidence showing that procedures, labor-market access conditions, and permit costs vary across contexts and shape incentives for both workers and employers. (International Labor Organization, 2023; International Labor Organization, 2024)

Looking at the issue from a youth perspective makes the findings even more important because ages 18–29 are a key period for building work histories and institutional attachment. Research on the transition from school to work shows that early movement into unstable jobs can create long-term disadvantage by limiting skill development, weakening bargaining power, and reducing later access to protected work. (United Nations Children’s Fund, 2019; Szkudlarek et al., 2024) Therefore, the strong connection between employment formality and inclusion, together with the negative role of barriers, suggests that young refugees may become trapped in informal pathways early in adulthood. This can affect not only income, but also their ability to build lasting participation, institutional membership, and a sense of belonging over time. (Jones et al., 2022; Üstübcici & Elçi, 2022)

These findings point to several practical implications. First, improving social security inclusion requires making work authorization, employer registration, and administrative procedures more feasible in the sectors where young refugees actually work. (International Labor Organization, 2023; European Council on Refugees and Exiles, 2025) Second, formalization should be understood not only as an employment issue but also as a protection strategy, since formal or protected work is the main route into social security inclusion and is itself associated with better integration. (Badalić, 2023; Peitz et al., 2023) Third, the buffering results suggest that systems need to respond effectively to shocks by making benefits easier to access during illness or income loss and by ensuring that formal coverage translates into real support when risks occur. (Stojetz et al., 2024; Holzmann et al., 2003) Finally, reducing barriers requires action on several fronts at once, including legal clarity, simpler procedures, lower costs, and stronger employer compliance, because these barriers often overlap and together affect both inclusion and integration. (International Labor Organization, 2024; Diab, 2024; Gray Meral et al., 2022)

At the same time, several limitations should be kept in mind. Because the study is cross-sectional, it can identify associations but cannot determine the direction of causality, and entry into formal work or coverage is likely influenced by selection factors. (Grimes & Schulz, 2002; Shadish et al., 2002) In addition, self-reported information on coverage, shocks, and barriers may be affected by recall problems or differences in understanding, even though the instrument was carefully designed and harmonized. (Bradburn et al., 1987; Tourangeau et al., 2000) Cross-country comparisons also require caution, especially for more subjective concepts such as belonging, as measurement equivalence must be considered when interpreting differences across settings. (Vandenberg & Lance, 2000; Putnick & Bornstein, 2016) Future research would benefit from longitudinal data, administrative verification of coverage where possible, and additional evidence on employer practices and administrative procedures to identify better how young refugees can move from informal work into protected pathways and whether this leads to lasting integration gains. (Zaman et al., 2023; International Labor Organization, 2024)

Overall, the findings support a clear interpretation. Social security inclusion is consistently associated with stronger multidimensional social integration among young Syrian refugees. This relationship works, in part, through greater economic security and lower vulnerability. At the same time, employment formality serves as a key pathway into inclusion, while structural barriers remain major obstacles that limit real access and weaken integration outcomes. The similar direction of results across Jordan and Türkiye suggests that these mechanisms are broadly consistent, although differences in strength show that practical inclusion still depends heavily on institutional access, labor-market structure, and enforcement conditions. Therefore, the conclusions should remain careful and non-causal while still highlighting the importance of making protection systems more accessible in practice. (Holzmann et al., 2003; Seyfert & Alonso, 2023; Zaman et al., 2023)

6. Conclusion

This study finds that inclusion in formal protection systems is consistently linked with stronger, multi-dimensional social integration among young Syrian refugees in both Jordan and Türkiye. This relationship is

mainly explained by improved stability in daily life and lower vulnerability. In other words, individuals who are covered by social security are more likely to report better economic conditions, rely less on harmful coping strategies, and experience higher overall integration. At the same time, formal employment stands out as the main pathway through which individuals gain access to such protection and become connected to institutions. However, this access is often limited by legal, administrative, and financial barriers, thereby reducing the likelihood of achieving full inclusion. The findings also show that protection is especially important during difficult situations, as those with coverage experience lower levels of hardship and social exclusion when facing events such as illness or income loss.

This study adds value by providing a direct comparison between Jordan and Türkiye using consistent measures and a single analytical approach, which allows patterns to be examined across both contexts in a unified way. It also strengthens understanding of integration by treating it as a multidimensional process and by linking institutional protection to both economic and social outcomes within a single framework. In addition, the study highlights the importance of focusing on youth, showing that early experiences in the labor market and barriers to access can shape long-term stability, participation, and sense of belonging during a critical stage of life.

The findings suggest several clear policy priorities. Expanding access to formal or protected employment is likely the most effective way to increase social security inclusion, as it remains the main route into coverage. At the same time, reducing the financial costs associated with formalization—such as fees and contribution burdens—can make it easier for young refugees working in low-income sectors to enter the system. Simplifying administrative procedures and providing clearer information can also reduce exclusion caused by complex processes or a lack of awareness. In addition, the role of employers should be addressed by making registration processes easier while ensuring compliance with regulations. Finally, protection systems should be designed to respond effectively during shocks, so that individuals can actually benefit from coverage when facing illness or income loss.

Despite these contributions, some limitations should be considered. The cross-sectional design allows the study to identify relationships between variables but does not establish cause-and-effect links. Self-reported data may also include errors due to memory or differences in understanding, especially for complex concepts such as social security coverage or past shocks. In addition, individuals who enter formal employment or gain coverage may differ in important but unobserved ways from those who do not, which can influence the results. Comparisons between countries should also be interpreted carefully, particularly for subjective concepts like belonging, where full measurement equivalence may be difficult to achieve.

Future research could build on this work by using longitudinal data to examine how early access to formal employment and protection influences outcomes over time. Linking survey data with administrative records could improve the accuracy of measures related to coverage and contributions. More detailed studies combining quantitative and qualitative approaches could also explain how employer practices, administrative systems, and documentation requirements create or reduce barriers in practice. In addition, evaluating specific policies—such as work authorization, fee reductions, or administrative reforms—could identify which strategies are most effective in helping young refugees move from informal to protected forms of work.

Overall, the findings suggest that making access to formal protection systems more achievable is central to improving integration outcomes. Institutional inclusion supports stable livelihoods, helps individuals cope with risks, and strengthens long-term participation and belonging within society.

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Appendixes

Table 1. Evidence linking social security inclusion to economic security and vulnerability outcomes

Source	Setting/population	Evidence type	SSI/protection measure (typical)	Outcome measure (typical)	Direction of findings relevant to SSI → economic security/vulnerability	Implication for this paper
Holzmann, Sherburne-Benz, & Tesliuc (2003)	Global/social protection framework	Conceptual framework	Formal risk-pooling mechanisms (social insurance; risk management)	Consumption smoothing; risk exposure; coping capacity	Argues that social insurance reduces welfare volatility and vulnerability by managing shocks and smoothing losses. (Holzmann et al., 2003)	Justifies treating SSI as a stability mechanism and modeling pathways via economic security and vulnerability. (Holzmann et al., 2003)
Seyfert & Alonso (2023)	Refugees/migrants across contexts	Review/synthesis	Access to social protection benefits + labor-market interventions	Welfare, employment stability, and access patterns	Finds access is uneven and strongly mediated by labor-market position and institutional design; emphasizes that inclusion improves protection	Supports focusing on SSI as “institutional inclusion” while accounting for access constraints

					potential but depends on access. (Seyfert & Alonso, 2023)	and formality. (Seyfert & Alonso, 2023)
Ron & Nitzan (2023)	Refugees and health protection (cross-context)	Review/policy analysis	Social health protection extension (coverage/access)	Health-related financial risk; service access	Concludes that extending formal protection can reduce health-related vulnerability, but the realized impact depends on eligibility and usability. (Ron & Nitzan, 2023)	Supports the vulnerability-reduction logic and the need to treat access barriers as part of the SSI pathway. (Ron & Nitzan, 2023)
Holmes & Lowe (2023)	Displaced children/families (cross-context)	Policy synthesis	Inclusive social protection systems (assistance + system links)	Poverty risk, coping, exclusion risk	Emphasizes that protection effectiveness depends on coverage, adequacy, and delivery capacity; highlights implementation frictions. (Holmes & Lowe, 2023)	Justifies including “barriers” and shock-sensitive outcomes when evaluating SSI’s role in stability. (Holmes & Lowe, 2023)
Peitz et al. (2023)	Jordan / Syrian refugees	Empirical study	Formal labor-market integration (often proxied by work permit/formal status)	Income and welfare indicators	Reports welfare improvements associated with formal labor-market integration pathways, consistent with better economic security. (Peitz et al., 2023)	Supports using formality as a gateway variable and interpreting SSI as aligned with improved stability. (Peitz et al., 2023)
Stojetz et al. (2024)	Jordan / refugees during crisis conditions	Empirical working paper	Work permits as a protective channel during crises	Welfare hardship under shock-like conditions	Presents evidence consistent with formalization/permit pathways as protection during disruption. (Stojetz et al., 2024)	Supports analyzing SSI and formal pathways as resilience mechanisms under shocks. (Stojetz et al., 2024)

						al., 2024)
Mendola & Pera (2022)	Refugees (cross-context)	Conceptual + measurement review	Not SSI-specific; focuses on vulnerability concepts	Vulnerability definitions/measurement	Emphasizes vulnerability as multi-dimensional (risk exposure + coping constraints) and warns against single-indicator approaches. (Mendola & Pera, 2022)	Supports the construction of vulnerability indices and the interpretation of SSI effects via multi-item vulnerability pathways. (Mendola & Pera, 2022)

Table 2. Evidence on formality and work authorization as gateways to SSI and integration-relevant outcomes (Jordan vs Türkiye)

Source	Country focus	Evidence type	Gateway factor (formality/authorization)	SSI linkage described	Integration-relevant implication	Implication for this paper
Turkey: National Legislative Bodies / National Authorities (2016)	Türkiye	Legal instrument	Work permit regulation under temporary protection	Establishes a formal route to authorized employment (potential linkage to registration obligations). (Turkey: National Legislative Bodies / National Authorities, 2016)	Defines institutional pathway into formal labor participation. (Turkey: National Legislative Bodies / National Authorities, 2016)	Justifies including work authorization context when interpreting SSI access in Türkiye. (Turkey: National Legislative Bodies / National Authorities, 2016)
International Labor Organization (2016)	Türkiye	Institutional statement	Introduction of work permits for refugees	Frames work permits as a formalization pathway. (International Labor Organization, 2016)	Links formalization policy to decent work and protection trajectory. (International Labor Organization, 2016)	Supports treating formality/permits as gateway mechanisms. (International Labor Organization, 2016)
International Labor Organization (2023)	Türkiye	Policy/technical analysis	Formalization transition for Syrians under temporary protection	Explicitly discusses social security status and barriers to transition to formality. (International Labor Organization, 2023)	Emphasizes that informality limits rights and protection, shaping inclusion trajectories.	Supports modeling formality → SSI inclusion and including barriers in Türkiye. (International Labor

					(International Labor Organization, 2023)	Organization, 2023)
Badalič (2023)	Türkiye	Empirical qualitative/structural analysis	Informal labor-market trapping	Shows Syrians' concentration in the informal economy, implying reduced access to formal protections. (Badalič, 2023)	Highlights precariousness and limited institutional attachment under informality. (Badalič, 2023)	Supports distinguishing protected vs informal work and interpreting SSI inequalities through informality. (Badalič, 2023)
European Council on Refugees and Exiles (2025)	Türkiye	Policy/operational reporting	Access conditions to the labor market	Describes procedural/administrative constraints affecting legal access and take-up. (European Council on Refugees and Exiles, 2025)	Illustrates how authorization processes can shape integration through labor participation opportunities. (European Council on Refugees and Exiles, 2025)	Supports the view that administrative barriers and policy frictions are determinants of unequal inclusion. (European Council on Refugees and Exiles, 2025)
Peitz et al. (2023)	Jordan	Empirical study	Work permits/formal labor integration	Links formal integration pathway to improved welfare indicators. (Peitz et al., 2023)	Suggests stability gains that can support broader integration dimensions. (Peitz et al., 2023)	Supports comparative framing: formal pathways may be similarly pivotal but differ by context strength. (Peitz et al., 2023)
International Labor Organization (2024)	Jordan	Policy/technical analysis	Work permit fees and incentives	Shows how cost/design influences formalization decisions. (International Labor Organization, 2024)	Indicates that affordability can shape who accesses formal pathways and protections. (International Labor Organization, 2024)	Supports treating economic barriers as key predictors of SSI inclusion in Jordan. (International Labor Organization, 2024)

Stojetz et al. (2024)	Jordan	Empirical working paper	Work permits as a protective channel	Frames authorization/formality as protection during crises. (Stojetz et al., 2024)	Suggests resilience and reduced hardship when formal channels exist. (Stojetz et al., 2024)	Supports, including shock-sensitive analysis and comparing buffering patterns by inclusion status. (Stojetz et al., 2024)
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Table 3. Evidence on shocks, poverty/social exclusion risk, and buffering via protection

Source	Shock focus	Evidence type	Shock pathway (typical)	Protection/SSI role (typical)	Direction relevant to buffering	Implication for this paper
Holzmann et al. (2003)	Multi-risk and shocks	Conceptual framework	Income loss, health risks, lifecycle risks	Social insurance as shock absorption/risk pooling	Protection is expected to reduce shock-driven welfare decline and prevent deepening vulnerability. (Holzmann et al., 2003)	Justifies the “buffering” hypothesis logic and conditioning on shock exposure. (Holzmann et al., 2003)
Holmes & Lowe (2023)	Displacement + crisis stressors	Policy synthesis	Household shocks and compounding risks	Inclusive systems reduce poverty impacts when accessible	Emphasizes that buffering depends on coverage, adequacy, and delivery capacity. (Holmes & Lowe, 2023)	Supports combining SSI measures with barriers and implementation realities in interpretation. (Holmes & Lowe, 2023)
Ron & Nitzan (2023)	Health shocks and health spending	Review/policy analysis	Illness and health-related financial shocks	Social health protection reduces financial risk when usable	Protection can mitigate the consequences of health shocks, but access gaps persist. (Ron & Nitzan, 2023)	Supports including illness as a shock type and interpreting buffering conditional on access. (Ron & Nitzan, 2023)
Stojetz et al. (2024)	Polycrisis conditions	Empirical working paper	Crisis-related livelihood disruption	Formal authorization as protection	Provides evidence consistent with formal pathways reducing hardship during disruption. (Stojetz et al., 2024)	Supports testing whether SSI/inclusion status differentiates hardship among shock-exposed youth. (Stojetz et al., 2024)
Mendola & Pera (2022)	Vulnerability under shocks	Conceptual/measurement review	Risk exposure + coping constraints	Emphasizes measurement of vulnerability	Suggests shock impacts should be evaluated	Supports the use of multi-item poverty/exclus

				and coping	through multidimensional vulnerability and coping indicators. (Mendola & Pera, 2022)	ion risk and vulnerability indices during shocks. (Mendola & Pera, 2022)
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Table 4. Evidence on legal, administrative, and economic barriers shaping unequal SSI access

Source	Barrier type emphasized	Evidence type	How the barrier operates (typical)	Link to unequal inclusion	Implication for this paper
Diab (2024)	Legal + intersectional access constraints	Policy/academic analysis	Eligibility, stratified access, compounded vulnerabilities	Barriers can systematically exclude subgroups and limit real protection access. (Diab, 2024)	Supports measuring perceived barriers and interpreting unequal SSI inclusion as structural constraints. (Diab, 2024)
Gray Meral et al. (2022)	Administrative + everyday institutional exclusion	Applied policy research	Documentation, procedures, navigation costs, and discretionary interfaces	Institutional friction can produce exclusion even in urban contexts with services. (Gray Meral et al., 2022)	Supports the administrative barrier scale and linking barriers to inclusion/integration outcomes. (Gray Meral et al., 2022)
Safarov (2024)	Administrative literacy / digital welfare barriers	Policy research	Information gaps, procedural complexity, navigation capacity	Procedural burdens can function as de facto exclusion mechanisms. (Safarov, 2024)	Supports including “information/procedure” items within administrative barriers. (Safarov, 2024)
International Labor Organization (2024)	Economic barriers (fees/costs)	Policy/technical analysis	Permit fees and incentive structures affecting take-up	Cost design can reduce formalization, limiting access to protection. (International Labor Organization, 2024)	Supports the economic barrier scale and country-specific interpretation for Jordan. (International Labor Organization, 2024)
European Council on Refugees and Exiles (2025)	Administrative + legal pathway frictions	Operational/policy reporting	Requirements and process constraints for labor market access	Process constraints can limit lawful employment entry and the linkage to protection. (European Council on	Supports barrier categorization and Türkiye contextual framing. (European Council on Refugees and Exiles, 2025)

				Refugees and Exiles, 2025)	
Zaman et al. (2023)	Rights vs access gap	Conceptual/policy analysis	Formal rights without operational access; conditional inclusion	“Rights-based” framing may mask access barriers and uneven inclusion. (Zaman et al., 2023)	Supports emphasizing implementation and access in interpreting SSI–integration links. (Zaman et al., 2023)
Grześkowiak (2024)	Legal inclusion not sufficient	Conceptual/empirical policy critique	Limits of legal models without effective implementation	Shows that formal inclusion can fail without practical delivery. (Grześkowiak, 2024)	Supports interpreting SSI inclusion as realized rather than merely nominal, and motivates barrier measurement. (Grześkowiak, 2024)