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Great Hub of Activity: Social Network Analysis of Non-state Private Actors' Financing Networks in Girls' and Women's Education in East Asia and the Pacific and South Asia

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Abstract

Despite improved levels of gender parity globally, girls and women from lower socio-economic groups continue to face significant barriers in accessing and continuing education. Framed within the continuously evolving context of privatization, market-making, and network governance of education, this MA thesis considers the financing networks of non-state private (NSP) actors, such as private foundations and impact investors, and other funders active in financing girls' and women's education in East Asia and the Pacific and South Asia.

This study contributes a preliminary analysis on a sub-set of data (172 funders and 56 girls' and women's education initiatives) from Invest-ED, a larger regional database and research project on NSP actors funding education in Asia. Using basic descriptive statistics and social network analysis methods, the analysis focuses on the main research questions: 1) How is the financing landscape of girls' and women's education in East Asia and the Pacific and South Asia organized? 2) What are the key characteristics of the active financing networks in girls' and women's education in these regions? Findings indicate that despite being a stated priority area, only 9% of initiatives in the database specifically targeted girls' and women's education. Geographically, NSP actors and other funders showed meaningful concentration in South Asia and India where, access to education, advocacy and policy, and skill development emerged as the most preferred areas of programming. Whilst private foundations emerged as the most central NSP actors in this network, such global or regional comparisons may be deceptive due to the hybrid natures and inconsistent definitions of NSP actors, which change from country to country.

Keywords: Non-state private actors, private foundations, impact investing, education finance, privatization in education, education networks, girls' and women's education, East Asia and the Pacific, South Asia, India, Global South.

Summary for Lay Audience

This study analyzes the engagement of non-state private (NSP) actors such as private foundations and impact investing organizations, and other funders within the education sector in Asia. Outlined within the broader discourses of privatization, market-making, and network governance in globalization of education, my study analyzes the increased activity of NSP actors with a focus on girls' and women's education in East Asia and the Pacific and South Asia. Despite improvements in gender parity, girls and women from lower socio-economic groups continue to face social and systemic hurdles in accessing and completing their education.

Based on a preliminary analysis of a subset of data from the larger Invest-ED research project, my analysis shows that despite being an area stated as high priority, girls' and women's education suffers from low levels of engagement. With programmatic preference for access to education, advocacy and policy, and skill development areas, NSP actors' financing activity in girls' and women's education is largely concentrated in South Asia region and India. My analysis also shows that whilst private foundations play central and more influential roles in this network, such comparisons are complex due to the inherent hybridity in the NSP actors' legal and operational definitions, which change from country to country.

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Abbreviations and Acronyms

AWID	Association for Women's Rights in Development
BMGF	Bill and Melinda Gates Foundation
CSR	Corporate Social Responsibility
CSV	Comma-separated Values
DAC	Development Assistance Committee
DFID	Department for International Development (UK)
EFA	Education for All
FCRA	Foreign Contribution Regulation Act of 2010
FDI	Foreign Direct Investment
FIAP	Feminist International Assistance Policy
G7	Group of 7
GEM	Global Education Monitoring Report
GIIN	Global Impact Investing Network
GNI	Gross National Income
GPE	Global Partnership for Education
GPI	Gender Parity Index
NSP	Non-state Private
NSS	National Sample Survey
ODA	Official Development Assistance
PPP	Public-private Partnership
SDG	Sustainable Development Goals
STEM	Science, Technology, Engineering, and Mathematics
UCINET	UCINET 6 for Windows

Chapter 1: Introduction

The globalized education landscape is marked by new dynamics where non-state private (NSP) actors are leveraging unforeseen opportunities. The global "policy epidemic" of educational reform leading to rising levels of privatization of education has been described as an "unstable, uneven but apparently unstoppable flood of closely inter-related reform ideas… permeating and reorienting education systems in diverse social and political locations which have very different histories" (Ball, 2003, p. 215). Aspiring for increased global competitiveness, albeit with a motive to preserve national and local interests, state education policy agendas have become contradictory.

Some conflicting interests include preserving education as a national economic interest versus the devolution of state control; and considering education as a public good versus subjecting it to the vagaries of the market and business values, reformulating it as a "competitive private good" (Ball, 1998, p. 125). Balancing its act in the face of such multi-directional forces, the diminishing 'welfare state' reappears in a different form as a "competition state, which facilitates, contracts, sets targets, and monitors—that makes and regulates markets" (Ball, 2017, p. 38). Amidst these opposing forces, there are emerging perspectives that reaffirm education as a public societal endeavour and a 'common good' thus, framing the need for a new social contract for education firmly rooted in a broader commitment to human rights (UNESCO, 2021a; UNESCO, 2021b). Within this evolving context, NSP actors are creating new markets for education, which are "supported by a set of normative and regulatory processes and through collective agency, exerted in networks" (Srivastava & Read, 2020, p. 19). Against this backdrop

of privatization and market-making in education, the globalized education landscape is witnessing increased activity by NSP actors and the network governance of education.

There exists broader concurrence amongst scholars on rising levels of transnational engagement of NSP actors within the education sector (Ball, 2007; Ball & Junemann, 2011; Ball & Junemann, 2012; Jung & Harrow, 2015; Mundy & Manion, 2014; OECD netFWD, 2019; Srivastava, 2016; Srivastava & Baur, 2016; Srivastava & Read, 2019; UNESCO, 2021a). Whilst the growing influence of public-private collaborations and formal and informal network arrangements of NSP actors herald the emergence of new network-based governance systems in education (Ball, 2007; Ball, 2010; OECD netFWD, 2019; UNESCO, 2021a; Sondel, Kretchmar & Ferrare, 2015), a lack of shared vision of education, and persistent issues of power inequality and hegemony tend to affect the ability of NSP actors and their networks in influencing education policy (Menashy, 2016; Menashy & Shields, 2017; Shields & Menashy, 2019). This is all the more evident in the case of girls' and women's education where network configurations of NSP actors such as public-private partnerships (PPP) do not help in defining their work on gender equality in education (Unterhalter, 2017).

While there is a growing body of literature on engagement of NSP actors with the education sector, the impact of their increased activity and network relationships in high-priority thematic areas such as girls' and women's education, and the contribution of NSP actors in the Global South are not adequately explored (OECD netFWD, 2019; Shields & Menashy, 2019; Srivastava & Oh, 2010; Unterhalter, 2017). This is also complicated because the diversity of strategies or organizational forms used by NSP actors do not allow for broader typological agreements. Therefore, comparative analysis of NSP actor engagement with the education sector across geographies is fraught with complexities due to the inherent hybridity in their nature

(Srivastava & Read, 2019). Thus, outlined within the overarching discourses in globalization of education such as the increased and diversified engagement of NSP actors in the education sector, potentially rising levels of their investments, and their participation in network governance of education; the opportunity to study the contribution of NSP actors and their networks in the Global South with a focus on girls' and women's education, are some of the factors that motivate my study.

Firstly, as a complex network of local and transnational players, the USA-based 'top' private foundations, 'Western' philanthropy, and bilateral/multilateral donors tend to dominate the existing literature on NSP actor engagement in education. However, we do not know much about the participation of local NSP actors in the Global South and 'Southern' philanthropy (Shields & Menashy, 2019; Srivastava & Oh, 2010; OECD netFWD, 2019; Unterhalter, 2017). Secondly, whilst scholars concur on the connected forms of social inequities for girls and women to access, continue, and complete their education (Ackerman, 2015; Chuang et al., 2019; Porter, 2016; Sperling et al., 2016; UNESCO, 2019; Unterhalter, 2017), the commitment of NSP actors for improving outcomes in girls' and women's education is not well understood.

Despite steady progress in access to schooling and gender parity globally, girls, especially from lower socio-economic groups, continue to experience significant disparities in accessing and continuing education. Harmful social norms and cultural hurdles such as domestic burdens, fear of abuse, early pregnancy and marriage leading to discriminatory practices, and inequitable policies and laws continue to remain as major barriers. The 2019 UNESCO *Global Education Monitoring Report* (GEM) notes that while two in three countries achieved gender parity in primary education, education enrolments in lower secondary (one in two countries) and in upper secondary levels (one in four countries) lagged behind in 2019 (UNESCO, 2019).

Moreover, the report suggests that one in four countries had high or very high discrimination levels in 2019, i.e., girls were twice more likely to be burdened with domestic chores than boys; and in 2017, only 25% of students enrolled in engineering, manufacturing, construction, and ICT programs were women (UNESCO, 2019). With 63% of illiterate adults being women, gender disparity continues to disadvantage women in adult literacy as well (UNESCO, 2019).

In terms of financial flows to support girls' and women's education, just over half of the $8.4 billion total direct aid for education in 2017 by OECD Development Assistance Committee (DAC) member countries was gender targeted (UNESCO, 2019). In this scenario, NSP actors are seen to potentially play a larger role in girls' and women's education by increasing their investments. In addition, some scholars and women's rights organizations expect NSP actors to leverage implementation and their capacity to influence government policy in transnational advocacy networks in critical areas such as girls' and women's access to education, changing gender norms, and their equal participation in the mainstream economy through skill development (Ackerman, 2015; Miller, Arutyunova & Clark, 2013; OECD netFWD, 2019; UNESCO, 2019).

The existing literature on NSP actor engagement in girls' and women's education tends to be descriptive analyses (Ackerman, 2015; Miller et al., 2013; UNESCO, 2019). Social network analysis as a research method can enrich the existing body of research in this area by contributing a better understanding of the complexities associated with the relational processes, affiliations, flow of ideas, and social ties among various network participants (Borgatti & Halgin, 2011; Menashy & Verger, 2019), in particular, NSP actors, co-funders, and education initiatives themselves.

Thus, prompted by the aforementioned factors, my MA study presents findings from a preliminary descriptive and social network analysis of NSP actors engaged in financing of girls' and women's education initiatives, with a focus on two regions in Asia, specifically, East Asia and the Pacific and South Asia. This analysis further builds on and contributes to Invest-ED, an original regional database of NSP actors that were active in financing education initiatives in these regions between January 2015 to December 2017.[1] With aims to explore the relationships, regional patterns and variations, and network linkages of these actors with other NSP actors, state/public actors, and multilateral/international organizations, my study conducts a preliminary analysis on a sub-set of Invest-ED research project data. It uses basic descriptive statistics and social network analysis methods to study a subset of NSP actors, i.e., private foundations and impact investors among other organizational forms of NSP actors, co-funders, and their supported initiatives in girls' and women's education.

My study is focused on the central research questions:

1) How is the financing landscape of girls' and women's education in East Asia and the Pacific and South Asia organized?

2) What are the key characteristics of the active financing networks in girls' and women's education in these regions?

Global Financing Context for NSP Actors

With their capacity for "leveraging new technologies to weave together trans-border delivery of educational services" (Mundy & Manion, 2014, p. 13), the emergence of NSP actors

[1] This thesis uses Invest-ED Database (version March 2020) which was the most current version at the time of my MA analysis. Future contributions based on the ongoing work by the larger project team may differ from this exploratory analysis. The larger research project was funded by a grant from the Canadian Social Sciences and Humanities Research Council, and led by my supervisor (PI, Dr Prachi Srivastava).

and their networks represents a new driving force in the globalized education landscape. However, in contrast to narrow conceptions of NSP actors providing education or educational services, private sector participation in education is broader in nature. NSP actors may be seen to operate with three main investment objectives, i.e., profit-oriented, non-profit or hybrid (aiming for profit as well as social impact). Their engagement is apparent in the domains of education financing, provision, management, and regulation with differing levels of autonomy from public (government/state) or private (non-state) actors (Srivastava, 2020). This implies that beyond purely financing or providing education and educational services, the contribution of NSP actors in the areas of management and regulation also merit scholarly attention.

Further, the OECD policy note on education suggests that NSP actors broadly pursue four broad strategies in a concurrent manner to advance the agenda for quality education (OECD netFWD, 2019). Firstly, by investing in community schooling, accelerated learning opportunities for out-of-school children, the private sector aspires to help fill gaps in public provision and expand education delivery to deprived and vulnerable populations. Yet, its limitations on committing long-term funds have implications for the sustainability and scalability of these initiatives. Secondly, by financing innovations such as early learning delivery models, pedagogies for basic skills or teacher training methods with a vision to influence broader education reform, NSP actors aim for policy change, and have a data-driven agenda for scalable innovations. Thirdly, by collaborating and co-financing with bilateral donors as well as with other NSP actors, private philanthropy aspires for large-scale education initiatives. Finally, there is evidence that private foundations are strengthening government monitoring systems to help disseminate education outcomes into the public domains, and thereby increase awareness about low levels of learning (OECD netFWD, 2019).

However, NSP actors' strategies for meeting gaps in the public provision of education and financing innovations is largely aspirational, and not beyond problematization (Ball, 2007; Ball, 2010; Ball & Junemann, 2011; Jung & Harrow, 2015; Srivastava & Read, 2019). Addressing the root causes for low schooling and learning levels, testing alternative schooling and teacher professional development models that are sustainable and scalable, and improved collaboration across the sector are some areas where NSP actors could enhance their engagement with the education sector (OECD netFWD, 2019).

Magnitude of Financing Flows

In terms of the extent of their investments, the growing influence of NSP actors (particularly private foundations and impact investors) is becoming more noticeable. This is because the evolving globalized education landscape is creating new prospects for NSP actors and their networks to play a bigger role. With the emerging economies of Asia, Africa and the Middle East bringing the biggest chunk of education investment opportunities to the estimated $10 trillion global education market by 2030 (HolonIQ, 2020), NSP actors are increasingly claiming important stakes in global educational governance (Mundy & Manion, 2014). Another analysis by the investment bank, IBIS Capital, estimates the global education market to reach $6.3 trillion by 2017 (from $4.4 trillion in 2013), showing an increase of 30% (UNESCO, 2021a, p. 121). Thus, along with Africa, Asia is witnessing the deployment of ever more diversified investment strategies by NSP actors (HolonIQ, 2020; Srivastava & Read, 2020) for exploiting the growth prospects offered by a fast-expanding education market.

Figure 1 below compares the financing flows from major bilateral donors for education in developing countries during 2013-15, along with those from private philanthropic foundations.

Whilst the overall bilateral official development assistance (ODA) provided by OECD DAC countries exceeds the total private philanthropic giving (OECD netFWD, 2019, p. 10), the scale of private philanthropy flows to education were similar to that of the governments of UK and Japan between 2013 and 2015 (Figure 1). Further, education was the second largest sector supported by private foundations between 2013-15 (OECD netFWD, 2019). There was a sizeable gap as compared to the health and reproductive health sector which received $12.6 billion (53%), whereas the education sector received only $2.1 billon (9%) of total philanthropic giving during 2013-15. Out of this, Asia claimed $608 million (29%), and India received the lion's share with $290 million (14%) of the total worldwide philanthropic funding for education (OECD netFWD, 2019). The total philanthropic giving for education increased marginally to $2.3 billion during 2016-19 where the top 15 private foundations (by average endowments in USD millions per year) provided 70% of the total (OECD, 2021 as cited in UNESCO, 2021a).

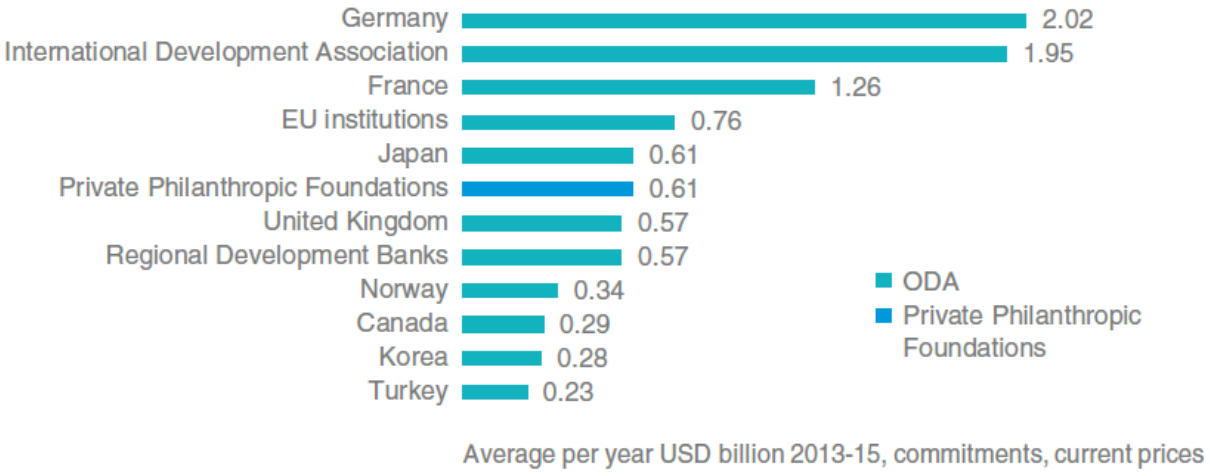

Figure 1: International Providers of Finance for Education in Developing Countries (2013-15)

Source: Reproduced from OECD netFWD, 2019, p.10

Thus, whilst the philanthropic giving for education is growing, it is still below the declining levels of aggregated bilateral aid to education (Srivastava & Read, 2020). Additionally,

according to UNESCO (2020), the annual financing gap in low- and lower-middle-income countries to achieve Sustainable Development Goal (SDG) 4, i.e., quality education for all by 2030, will grow to $148 billion. Incremental costs due to COVID-19 related school closures may increase this gap by an additional one-third, or by $30 to $45 billion (UNESCO, 2020). In this light, even if the philanthropic financing for education is increasing gradually, the development-oriented literature on NSP actor engagement alludes to the growing expectations from them to fill these gaps (OECD netFWD, 2019; UNESCO, 2019; UNESCO, 2021a). In the area of girls' and women's education, Ackerman (2015) argues that given the large funding gaps and barriers faced by girls and women, NSP actors are questioning the efficacy of their investments. The author states that they are increasingly inclined towards enhancing strategic focus on girls' and women's education and enlarging financial outlays. Miller, Arutyunova and Clark (2013) also agree that, as 'new partners', NSP actors are poised to play an increasingly vital role in the core area of girls' and women's education.

However, there is also a need to understand how NSP actors contest, supplement, or work together with governments and other donors (UNESCO, 2021a). My study of NSP actor engagement with the education sector in network configurations is essential because these networks enable "flows of ideas as well as flows of people, and ideas are carried back and forth across the boundaries between the public and private sectors" (Ball & Junemann, 2012, p. 11). With mounting expectations from NSP actors for matching the shortfalls in bilateral aid for education (OECD netFWD, 2019), or meeting glaring gaps in national education budgets and leveraging their networks for deploying education initiatives at scale (UNESCO, 2019; UNESCO, 2021a), it is crucial to explore and assess the potential commitment and capacity of

NSP actors and their networks in improving outcomes in the education sector, more so in the urgent area of girls' and women's education.

Structure of the Thesis

This thesis is organized in five chapters. Chapter 1 discussed the global financing context for NSP actors, the extent of philanthropic financing flows, and reviewed the prevalent expectations from NSP actors. Chapter 2 reviews the current literature on definitions of NSP actors, financing for girls' and women's education, the typological constraints inherent in NSP actors' engagement with the education sector, and contestations around the network governance of education. Along with an introduction to the Invest-ED regional database on NSP actors in education, Chapter 3 discusses methods and research design, aims and objectives of my thesis, the methodological paradigm and the analytical stages undertaken in my study. Chapter 4 presents the results of my descriptive and social network analysis. Finally, Chapter 5 reviews my findings in the context of the framing literature and includes discussion on limitations of my study and implications for future research.

Chapter 2: Literature Review

Studying the engagement of NSP actors and their networks in girls' and women's education in the Global South, specifically in East Asia and the Pacific and South Asia, is the central focus of my thesis. Whilst the region is witnessing an intensified presence of NSP actors, their engagement is defined within the larger discourses of privatization, market-making, and network governance of education (Ball, 2007; Jung & Harrow, 2015; Srivastava, 2016; Srivastava & Baur, 2016). As an area of activity or concentrated field, girls' and women's education is certainly subject to these multi-directional forces.

This literature review is divided into four sections. Firstly, it reviews the definitions for the most relevant organizational forms of NSP actors in view of my study, i.e., private foundations and impact investors, and the expectations associated with their work in the education sector. The evident diversity of financing strategies and organizational forms used by NSP actors complicates consistent analysis. Hence, a typological framework developed for the Invest-ED database is considered. The ensuing sections discuss girls' and women's education financing; inherent hybridity in the nature of NSP actors; and the implications of network governance with a focus on girls' and women's education. The growing body of literature on NSP actors' engagement with the education sector, especially that on the impact investors, points to the fact that their role is not well understood. Anheier and Leat (2013) contend that there is lack of clear public conceptualization about the contribution of NSP actors to the education sector.

Non-state Private Actors: Setting the Expectations

This section reviews the most common organizational forms used by NSP actors, and the respective expectations of scholars, observers, and other stakeholders about NSP actor engagement in education. Many studies note the increased and diversified participation of NSP actors in the education sector (Ball, 2007; Ball & Junemann, 2011; Ball & Junemann, 2012; Jung & Harrow, 2015; Mundy & Manion, 2014; OECD netFWD, 2019; Srivastava, 2016; Srivastava & Baur, 2016; Srivastava & Read, 2019; UNESCO, 2021a). In education and other sectors, "the delivery of state services by philanthropies, charities, faith groups, voluntary and community organizations, and parent groups is gradually expanding" (Ball & Junemann, 2011, p. 657). Srivastava and Baur (2016) propose several factors which have contributed to the increased global philanthropic engagement with the education sector in the Global South, which include:

> (a) macro-and domestic policy contexts characterized by the tail-end of EFA; (b) the post-2015 discourse; (c) the disenchantment with official development assistance (ODA), and (d) the growing presence of increasing arrays of international and Southern non-state private actors, including those with for-profit and commercial motives. (p. 434)

In this sense, if we understand privatization as the process of "transfer of activities, assets and responsibility from government, public institutions, and organizations to private individuals and agencies" (Abrol, 2016, p. 1), developing programmatic initiatives and providing services outside of government control can be the main areas for engagement of NSP actors in the education sector (Verger, 2012). Through their focus on expanding business, financing, and improving return on investments, private sector participation may be interpreted as bringing expertise, innovation, and management in the public spheres of governance such as education (Ball, 2007). However, some scholars, including Ball (2007) contest these perceived 'added' benefits of private sector engagement with the education as covert privatization of education

(Srivastava & Baur, 2016). In this sense, admitting gaps in skills and funds to realize their goals, "governments increasingly welcome and cultivate private contributions towards solving the demanding social problems facing societies" (Jung & Harrow, 2015, p. 47). Accordingly, Srivastava (2020) argues that NSP actor activity in education can be seen in four domains of operation: provision, financing, regulation, and management. She further contends:

> Non-state engagement within and across the four domains of operation may be structured through different formal and informal arrangements. These arrangements define the terms of reference (e.g., objectives, length, sharing of resources etc.) and responsibilities and roles of actors. Simply, arrangements are the formal and informal 'rules of the game' and their enforcement mechanisms that structure the interaction of non-state actors with other non-state, state, or international actors. (Srivastava, 2020, p. 10).

This ability to act outside the purview of public institutions yet connected to them along with other like-minded private players affords the advantage of a presumed 'independence' to NSP actors (OECD netFWD, 2019). Thus, depending on the financing context, NSP actors tend to use multiple financing strategies and organizational forms. This hybridity in their nature can lead to typological disagreements and conflicting findings (Srivastava & Read, 2019).

This analysis uses a sub-set of data from the Invest-ED database (version March 2020), which was constructed using publicly available data on a range of NSP actors involved in financing diverse education initiatives in East Asia and the Pacific and South Asia. This MA study conducts a preliminary analysis, extracting a sub-set of data on private foundations, impact investing organizations and other funders financing girls' and women's education. The most common organizational forms of NSP actors included in the typological framework (Srivastava & Read, 2019) developed for the Invest-ED database and elaborated in this analysis are discussed below.

Private Foundations. Whilst not adequately researched, private foundations are playing an increasingly vital role in the financing and delivery of education and educational services in the Global South (Srivastava & Oh, 2010). As a response to pressing social needs, private foundations "provide (actual and potential) philanthropists with a legal instrument for expressing and pursuing their philanthropic interests" (Anheier & Leat, 2013, p. 453). By making grants to other implementers, private foundations can purely finance initiatives or, they can play a hybrid role in both financing and implementation (Marten & Witte, 2008). This complex nature of private foundations as funders and/or implementers is increasingly leaning towards linking their financing with improving outcomes of education. As a more practical approach to their giving, private foundations as "new philanthropists" tend to actively participate in the implementation of financed education initiatives (Ball & Junemaan, 2011). In their study of Danish private foundations, Fejerskov and Rasmussen (2016) found that from 'reactive' or bottom-up methods, private foundations prefer 'proactive' or top-down approaches to their giving, where they play an active role in not only financing but also designing the social interventions with like-minded partners.

Impact Investors. According to the Global Impact Investing Network (GIIN), impact investments are financing mechanisms with the intent to produce positive and measurable social and environmental impact alongside financial return (GIIN, 2018). Clarkin and Cangioni (2016) concur with this definition of impact investors by contending that "impact investments… are primarily made to create tangible social impact, but also have the potential for financial return on the investment" (p. 138). In this sense, Jackson (2013) identifies three components to impact investing. Whilst the 'intent' and 'impact' components suggest impact investors' intention to create and evidence a certain social outcome, the 'theory of change' component indicates the

actual conceptualization of their return on investment. However, from purely financial aspirations, impact investors can also link a social outcome-based incentive to their financing.

In a survey of 229 impact investors by GIIN (2018), achieving social impact or their 'mission' was reported by 98% of the survey participants as their primary motivation for financing development programs as socially responsible investors. However, with the expectation of financial return on their investment, impact investors may be at odds with socially responsible investing which purely aims to improve worsening social or environmental outcomes (O'Donohoe et al., 2010). In any case, scholars agree that as banks, corporate institutions, private entities, high net-worth individuals, and even as private foundations, impact investors use a range of financing strategies and mechanisms such as asset-backed debt, shareholder equity, and venture capital in diverse geographies to achieve multiple social outcomes, including education, albeit with an expectation of a linked financial return (Jackson, 2013; O'Donohoe et al., 2010). This attention to "measuring and achieving social return on investment distinguishes impact investment from other commercial investment strategies" (Srivastava & Read, 2020, p. 2).

Typological Framework and Target Funders Studied in this Analysis. At the time of analysis, the Invest-ED database (version March 2020) included data on 665 NSP actors that engaged in the financing of initiatives in East Asia and the Pacific and South Asia in multiple education sectors. Table 1 below shows the typological framework that was constructed for the Invest-ED database to classify the NSP actors. Along with private foundations and impact investors, these included: "charity/NGO, corporate social responsibility (CSR) initiative/unit,[2] network service organisation or platform, social investment firm/fund manager/fund advisor or

[2] CSR initiatives are social benefit programs conducted by corporations through a dedicated sub-unit or by the organization itself. In some countries such as India, these initiatives are regulated. In India, the *Companies Act, 2013* mandates corporations to spend 2% of annual net profits towards CSR initiatives.

investment consultancy service, and other, incorporating a range of actors" (Srivastava & Read, 2019, p. 30). This typological framework was operationalized in my subsequent analysis.

Table 1: Typological Framework of NSP Actors

Organizational Type	Criteria for Classification and Inductive Descriptions	Invest-ED Database Examples
Charity/NGO	Not-for-profit; not part of the public sector but may receive public-sector funds; led by an independent board of trustees or CEO; rely primarily on external funding to operate.	Action Aid International, Education Girls, Fred Hallows Foundation, Little Heroes' Dreams, Pratham Foundation
CSR Initiative/Unit	Social responsibility programming/division or unit of a private corporation (not established as a corporate foundation). Uses own financial resources, contributions, own funds and/or employees as volunteer. May be legally mandated (e.g., India).	CSR Initiatives/Units of: Bharat Petroleum Corporation Ltd, Coca Cola, Credit Suisse, Mahindra Group, Singtel, UBS
Impact Investor	Ideal Type (GIIN, 2018) • Intentionality: Aim to Address issues of common good (social or environmental) • Expectation of return on investments with a range of returns (at minimum a return of capital) • Use a range of financial instruments (or made across 'asset classes') • Commitment to measure impact. Additional Criteria: Must be organizations, use own financial resources (not a broker); can be not-for-profit oriented; exit strategy (intentional or actual); public actors excluded	Accicon, Acumen, Gray Matters Capital, Omidyar Network Services
Network Service Organization or Platform	May be membership-based organizations, associations, fora; platforms or for connecting donors or investors to causes or potential investees (can include crowdfunding platforms); networking spaces (includes physical and/or online spaces). May be for-profit, hybrid, or non-profit.	GlobalGiving, Indian Angel Network, SharingValueAsia, Vibha Trust
Private Foundation	Ideal Type (Marten & Witte, 2008) • Not-for-profit oriented • Not part of the public sector • Uses own financial resources (unlike charities or NGOs) • Led by an independent board of trustees or CEO • Aim to face issues for common good • Can be grant-making or operational (implement own programs or in cooperation with others Includes: independent private foundations (family/individual), corporate foundations, and community foundations (not publicly supported)	Azim Premji Foundation, Bill and Melinda Gates Foundation, DBS Foundation, Dr. Reddy's Foundation, EdelGive Foundation, Michael and Susan Dell Foundation, Tech Mahindra Foundation, ZeShan Foundation Hybrid Foundation: Nippon Foundation

Organizational Type	Criteria for Classification and Inductive Descriptions	Invest-ED Database Examples
Social Investment Firm/Fund Manager/Fund Advisor or Investment Consultancy Service	May use own funds and make direct investments; manage investment funds for clients; serve as brokerage firms; provide investment advice or consultation. Include a range of expected rates of return on Investment and use a variety of financial instruments. Clients of social investment firms, managers, or advisors usually include philanthropic organizations, social entrepreneurs, or hybrid organizations with a social purpose. Can be for-profit, hybrid, or non-profit.	Asia Value Advisors, Calvert Impact Capital, WISE Philanthropic Advisors
Other	Includes a range of actors, such as: consultancy firms; multi-national corporations and local corporations and local corporate entities; think tanks, education-oriented institutes (e.g., research centers, post-secondary institutions, etc.,) incubators. May be for profit-hybrid, or non-profit.	Ayala, Boston Consulting Group, Chilasa, FHI 360, Indian School of Development Management

Source: Reproduced from Srivastava and Read, 2019, pp. 26-27

The next sections discuss the literature on financing for girls' and women's education, complexities associated with classification of NSP actors in a uniform typological framework, and the contestations around NSP actors' participation in network governance of education.

Girls' Education Challenge

The significance of girls' and women's education, especially in the context of low-income populations and crises is well-documented and shows the need to prioritize this area. The 2019 GEM Report, which tracks gender markers in international aid to education by DAC donors, suggests that 55% of the overall direct aid to education was principally or significantly gender targeted (UNESCO, 2019). For example, 92% of direct aid to education by Canada was gender targeted through its Feminist International Assistance Policy (FIAP). However, other major donors such as the USA and Japan tend to give less priority to girls' and women's education by gender marking approximately 40% and 6% of their direct aid to education respectively (UNESCO, 2019).

According to GEM Report 2019, bilateral aid can influence country policies that reproduce unequal norms and disparities in education attainment and achievement and create a shift towards building gender equality in education (UNESCO, 2019). DAC donors can use diverse strategies to address priorities for girls' education through funding initiatives that target unfair gender norms, improving access to education, upgrading teaching, and learning resources, and enriching the learning environment in schools (UNESCO, 2019). However, the report also cautions that "an emphasis on gender equality in aid programming is a good indicator of commitment, but it will not be sufficient to bring change" (UNESCO, 2019, p. 42), because the evidence on gender-marked aid interventions meeting the rigorous criteria of effectiveness, scalability, and participation remains limited.

Whilst a comprehensive review of the importance and challenges associated with girls' and women's education is beyond the scope of this analysis, a number of studies point to a dominant theme that the world has made decent progress on achieving gender parity in education, but girls and women still face substantial barriers in continuing and completing education (Ackerman, 2015; Chuang et al., 2019; Porter, 2016; Sperling et al., 2016; UNESCO, 2019; Unterhalter, 2017). Ackerman (2015), who conducted a survey of 91 multilateral/bilateral donors, NSP actors, and corporate donors, contends that girls' education functions as a "force multiplier in international development, yielding economic and social returns at the individual, family and societal levels" (p. 1). Thus, aiming to enhance effectiveness of their financing, majority of funders in the survey reported a specific strategic focus on girls' education, gender mainstreaming and, increasing investments for girls' education (Ackerman, 2015).

Sperling, Winthrop and Kwauk (2016) concur that the sheer magnitude of evidence that calls for a far greater global commitment to girls' education is undeniable. The overall returns

from girls' and women's education in richer countries as a contributor to higher wages, growth, and upward mobility are as strong in poorer nations. Better outcomes affect not only the traditional economic areas of growth and incomes, but also social aspects such as reducing infant mortality, maternal mortality, child marriage, and the incidence of HIV/AIDS and malaria, and increasing agricultural productivity, resilience to natural disasters, and women's empowerment (Sperling et al., 2016).

Yet, the 2019 GEM Report continues to argue that despite steady progress in some regions, i.e., Central and Southern Asia (due to India leading the change), only one in four countries achieved gender parity in secondary school enrolments (UNESCO, 2019). As a result, the relative disadvantage of girls due to poverty is evident in lower rates of primary and secondary school completion, and participation in technical and vocational programs, and STEM disciplines remains a "male bastion" (UNESCO, 2019, p. 3). Harmful social norms and widespread social discrimination restrict girls and women to being caregivers and wives. With at least 117 countries and territories still permitting children to marry (UNESCO, 2019, p. 3), lax political commitment to banning child/early marriages and enabling pregnant girls and women to continue their education remain major challenges.

Further, Chuang et al. (2019), who conducted a systematic review of the evidence pertaining to the contribution of policies and aid interventions in removing gender-related barriers, argue that "despite a considerable literature documenting gender-related barriers, gaps in knowledge exist regarding the degree to which interventions to reduce gender-related barriers to schooling in low- and middle-income countries are effective in improving education outcomes for girls" (p. 2). Even in areas where gender disparities in school enrolment and completion have been reduced, questions on longer term benefits such as labour market participation and

improved health outcomes for girls and women, remain unresolved (Chuang et al., 2019). Here, it is important to note that gender equality is entrenched within the cross-cutting discourses of poverty, education and labour force participation. There is a need to address "multiple barriers to women's employment and empowerment simultaneously to optimize outcomes" (Baruah, 2021, p. 174). This is because "providing skills and training—even in depth—is not sufficient when the barriers to women's employment go beyond knowledge and skills" (Baruah, 2021, p. 174).

Likewise, some scholars call for a more systemic and universal approach. Porter (2016) contends that the discourse on the benefits of educating girls "has been in the range of the hyperbole as educated girls are seen as the solution to all development problems. Once educated, girls and women will realise the global dream of freedom for all" (p. 517). According to the author, the importance of girls' and women's education as the panacea to development problems has been exaggerated. This is because an equivalent focus on boys and men also factors in creating a world free of poverty, healthy and harmonious societies with controlled family sizes, and equal gender representation in the workforce and social governance (Porter, 2016).

Similarly, Sperling et al. (2016) suggest that there is a "danger of giving the impression that the crisis in education in many poor nations is just a girls' issue. Nothing could be further from the truth" (p. 4). For instance, completion rates of boys in secondary schools in many poorer countries also remain abysmally low. According to UNESCO (2019), as shown in Figure 2 below, a large disparity to the disadvantage of boys (an adjusted gender parity index above 1.1) is less common in primary and lower secondary, but very common in upper secondary education (25%), where no change has been seen since 2000. In some countries, both in the Global North and South, "educating boys is becoming more challenging than educating girls" and, thus, there is an urgent need for an integrated approach or "high-quality, universal education - but especially

for girls" (Sperling et al., 2016, p. 5). The next section discusses the typological discord on NSP actors in the existing research.

Figure 2: Gender Parity in the Gross Enrolment Ratio by Education Levels (2000 and 2017)

Source: Reproduced from UNESCO, 2019, p.8

Typological Incongruence on NSP Actors

This section deliberates on contestations around NSP actors' engagement as a broader consequence of privatization of education, and the challenges associated with the typological incongruence on defining their work in the education sector. In addition, issues such as the need to pay attention to the contribution of NSP actors in the Global South, and the complexities with respect to explaining NSP actors' work, particularly in girls' and women's education are also discussed in this section.

As discussed in the above sections, whilst there exists a broader concurrence amongst scholars on intensification of transnational collaboration and increased levels of engagement of NSP actors in education, narrow conceptualizations of NSP actors do not consider "the multiplicity of strategies such actors use or the forms through which they organise their work—

in short, they do not account for the very nature of hybridity" (Srivastava & Read, 2019, p. 16). For example, viewing private foundations as 'pure type' philanthropic actors is not conducive to a study of their engagement with the education sector. This can result in a lack of consensus on terminology and definitions. Thus, the lack of a consistent typological framework can hinder research where conceptual gaps can lead to incoherent data and inaccurate evaluation of the impact of education financing by NSP actors, especially when these are increasingly oriented towards diversified or hybrid investment strategies that includes both profit and non-profit (social impact) motives. This lack of attention to "hybridity' leads to inconsistent typological agreements amongst scholars as well as "how terms are used and understood" by NSP actors themselves (Srivastava & Read, 2019, p. 16).

Further, in contrast to the generally held beliefs on ideological neutrality and procedural effectiveness and efficiency of NSP actors' partnerships for education financing and service delivery, in reality, such claims are unfounded because very little is known about the NSP actors as a complex matrix of local and international actors (Srivastava & Oh, 2010). In fact, USA-based top private foundations and 'Western' philanthropy are given primacy, whereas the contributions of local NSP actors and 'Southern' philanthropy remains largely unexplored (Srivastava & Oh, 2010). For instance, as shown in Figure 3 below, top USA-based private foundations with total philanthropic giving of $301 million over 2013-15 remained the largest providers of private education financing. However, Vehbi Koç Foundation (Turkey), Li Ka Shing Foundation (China), Tata Trusts (India) and Itaú Social Foundation (Brazil) were also amongst the top ten education funders during 2013-15.

As shown in Figure 3, these NSP actors, based in the Global South, committed larger investments compared to some 'Western' philanthropic private foundations such as Ford

Foundation, Open Society Foundations, Carnegie Corporation of New York, Comic Relief, and Wiliam and Flora Hewlett Foundation. In this sense, in addition to a scholarly preoccupation with bilateral or multilateral donors (Shields & Menashy, 2019; Unterhalter, 2017) or USA-based private foundations and impact investors, there is a need to consider the contribution of NSP actors based in the Global South.

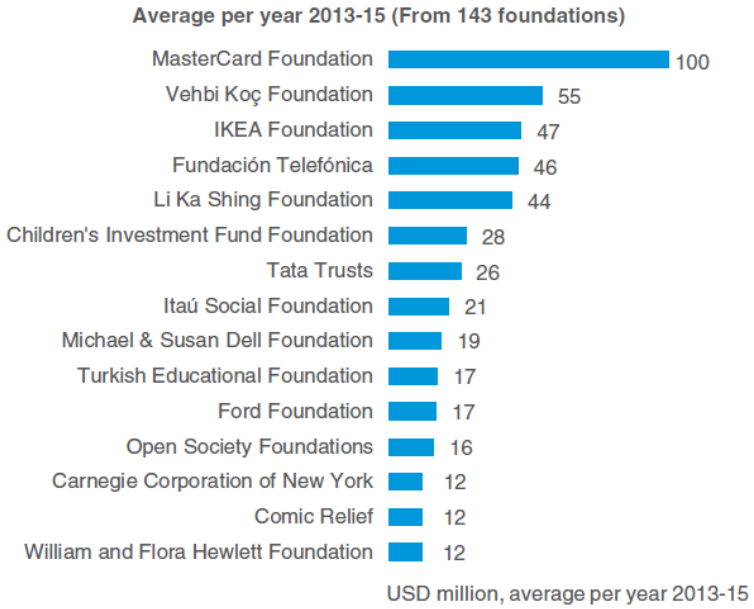

Figure 3: Top Private Foundations in the Education Sector by Contribution

Source: Reproduced from OECD netFWD, 2019, p. 16

Finally, while calling for more contextual investigation into the contribution of NSP actors' network configurations such as PPPs to girls' and women's education, Unterhalter (2017) contends that:

> Often the *substantive issues, that talk to concerns of women's rights and the realm of public social policy reform are overlooked for addressing an immediate need to get girls into school*. This resonates with approaches to addressing health needs or poverty that have gone for the most immediate intervention, for example the inoculation, the malaria net, or the cash transfer, *rather*

> *than the detailed understanding of connected forms of inequalities and dispossession and developing integrated programmes to address these* (p. 195, emphasis added).

Thus, analysing just the organizational forms of funders, whether bilateral/multilateral donors, NSP actors or network formations such as PPPs may not be conducive to reach the conclusion that they are good or bad for gender equality, girls' education or advancing a women's rights agenda because these considerations require "a plurality of ideological, organisational and material engagements with addressing marginalisation" (Unterhalter, 2017, p. 21). This brings us to consider the broader contestations around network governance of education.

Network Governance of Education

As 'new philanthropists', NSP actors are capitalizing on new opportunities available in the globalized education landscape and operationalizing the 'new governance' systems through partnerships and social networks (Ball, 2007). The 2021/22 GEM Report, *Non-state Actors in Education*, notes that with the central debate around claims of efficiency, innovation, and equity, NSP actors and their networks use a combination of approaches such as advocacy and lobbying groups, research, and funding to "exercise influence, sway views and mobilize support behind competing aspirations and interests" (UNESCO, 2021a, p. 118). Thus, from conventionally hierarchical systems and processes, the global education sector is witnessing a fundamental shift in governance towards "networks of resources, expertise and reputation" (Sondel, Kretchmar & Ferrare, 2015, p. 70). Ball (2010) notes this as a shift from "government to governance" and the "growth of policy heterarchies" (p. 14). This transition heralds the onset of education governance in a new appearance based on network relationships within and across policy fields which are

"designed to generate new governing capacity and enhance political legitimacy and increase flexibility and adaptability" (Ball, 2010, p.14).

However, the scholarly debate is also marked with varying degrees of concurrence and disagreement about efficacy of network dynamics of NSP actors in the education sector. There are views that as a part of the emergent transnational advocacy network comprising of civil society and private sector, NSP actors are "new economic powers" with a novel conceptualization of international relations in global governance of education (Mundy & Manion, 2014, p.13). Further, there are views that whilst bilateral grants are larger than individual giving by NSP actors, by co-financing with bilateral donors and other NSP actors, private philanthropy may be able to augment public provision by pooling not only financial resources but also their knowledge, expertise, and networks, and use these means to advocate for systemic change because they are able to effectively leverage their relative independence and comparative advantage (OECD netFWD, 2019).

In contrast, whilst inter-network activities between NSP actors may provide them with a comparative advantage, their influence is not as effective when networking with other partners such international organizations and civil society. Menashy (2016) contends that through the evolution of the Global Partnership for Education (GPE), civil society actors have become more influential, whereas NSP actors, such as private foundations have been largely disengaged. Alliances within the global education policy arena and network relationships between actors can inform governance models operating within global public–private arrangements. However, as noted earlier, organizational characteristics or common ideological ground on policy issues and solutions is not helpful in explicating or creating such collaborative networks. Rather, as in the case of GPE as a global network, "interconnection and functionality of groups of actors are

strengthened by shared normative beliefs, and not by structural features" (Menashy, 2016, p. 115). Though the NSP actors can create and are seen together in formal networks, their 'cohesive identity' which is entirely different concept from a legal or tax status, is vulnerable to lack of shared visions and expectations about outcomes of education. This can affect their ability to influence direction of education policy (Menashy, 2016), a benefit perceived by some analyses (OECD netFWD, 2019, UNESCO, 2021a).

Further, increased levels of NSP actor engagement in a globalized education policy field and their network governance is driven by two distinct discourses. One results from macro-policy backdrop for education finance (or on the hopes of NSP actors meeting shortfalls in bilateral aid); the other is "entrenched in an uncritical ideological acceptance of a logic of neutrality, and the *efficiency and effectiveness of partnerships and philanthropy*" (Srivastava & Oh, 2010, p. 460, emphasis added). This is because, even if based on a discourse that emphasizes participation and non-hierarchical relationships, partnerships between international organizations, local governments, civil society, and NSP actors can still suffer persistent issues of power inequality and hegemony (Menashy & Shields, 2017). For instance, social network analysis of organizations linked in eminent partnerships for education development showed that highly networked bilateral donors, civil society organizations, and international organizations tend to dominate such partnerships whereas "recipient governments, private businesses, and universities occupy peripheral positions" (Menashy & Shields, 2017, p. 496). This implies that despite the emphasis on unbiased partnerships as an overarching principle of the global policy declarations on international development and aid effectiveness, unequal power relations continue to plague network activity and partnerships of NSP actors. This imbalanced power dynamic is also apparent in bilateral aid. Even with the recipient countries having more funding

options, donors' interests such as former colonial relationships and the development of export markets dictate the strength of aid relationships (Shields & Menashy, 2019).

Finally, as a priority area for investment, girls' and women's education is certainly affected by the forces of privatization, network governance of education and increased activity of NSP actors. With the example of PPPs as a network arrangement of NSP actors with other partners such as bilateral donors, Unterhalter (2017) illustrates the role of the former UK Department for International Development (DFID) in management, delivery, and evaluation of the Girls' Education Challenge PPP (2011).[3] Her analysis shows that:

> A range of different kinds of partnership are entailed, including public sector contracts with the private sector to deliver core components of the education system or support services, publicly subsidised education in private schools through vouchers or other financial arrangements, philanthropy in a range of guises spanning policy advocacy and building of public schools, and governance mechanisms which include collaborations between government, profit and non-profit third sector organisations (Unterhalter, 2017, p. 2).

Thus, PPPs in girls' and women's education being a fluid concept in themselves, there is no definitive approach to defining and associating NSP actors' work on gender equality in education in network settings such as a PPP. If we understand these networks as multi-stakeholder financing partnerships, NSP actors may mobilise network participants from diverse sectors, but "different actor categories are included and engaged differently" (Faul & Tchilingirian, 2021, p. 881). Moreover, scarce literature on NSP actors' intentions and motivations (Srivastava & Oh, 2010), and on the implications of their network dynamics in girls' and women's education, make social network analysis of NSP actors not an undemanding task.

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[3] DFID and the Foreign and Commonwealth Office were merged to become the Foreign, Commonwealth and Development Office (FCDO) in September 2020. (Source : https://publications.parliament.uk/pa/cm5801/cmselect/cmfaff/809/80902.htm)

In summary, this literature review discussed descriptions of NSP actors and the prospects they seek for a linked social and/or financial incentive. Given the constraints posed by the lack of consistent classification standards for NSP actors, the typological framework designed for the Invest-ED database and operationalized in my study was also outlined in this section. This review also examined the systemic barriers in girls' and women's education, the nature of hybridity intrinsic to NSP actors' work, the apparent scholarly focus on 'Western' philanthropy, and the contestations around the presumed efficacy of NSP actors in network settings.

My study fills some of the gaps associated with research on NSP actors' engagement with education sector. In addition to a comparative mapping of the largely overlooked regions of the Global South, my analysis operationalizes a typological framework of NSP actors, and adds social network analysis as a research method to the expanding literature on their engagement. Thus, using descriptive and social network analysis methods, my study seeks to discover patterns in financing of girls' and women's education in East Asia and the Pacific and South Asia and identify central and isolated actors in the active financing networks in these regions. Chapter 3 discusses the methodological paradigm, methods and the research design used in my study.

Chapter 3: Methods and Research Design

Aims and Objectives

Using basic descriptive statistics and social network analysis methods, my MA thesis examines the financing landscape of girls' and women's education initiatives in East Asia and the Pacific and South Asia. Based on the data from the larger Invest-ED regional database of NSP actors (version March 2020), the central aims of my study are to conduct a preliminary mapping of girls' and women's education initiatives that were financed by NSP actors and their co-financing partners. My analysis also aims to create a broader understanding of regional variations and similarities and differences. In addition, my analysis attempts to locate central and isolated NSP actors, co-funders and education initiatives, and trace network relationships between them in the active financing networks in the regions. The following are my central research questions:

1). How is the financing landscape of girls' and women's education in East Asia and the Pacific and South Asia organized?

2). What are the key characteristics of the active financing networks in girls' and women's education in these regions?

2a). Who are the central actors in the network(s)?

2b). Which actors are isolated?

Social network analysis is increasingly recognised as a useful research method for illustrating the subtleties of network linkages between international policy actors and helps to reveal a "complex global system in which an organization or actor's position and capacity are constructed through relational processes (Menashy & Verger, 2019). Further, network relationships of NSP actors can be seen as affiliation to (or detachment from) dominant groups

formed on the basis of factors such as preferred location, thematic area, or the common investment ideologies. Borgatti and Halgin (2011) suggest that the concept of 'affiliations' in social network analysis refers to membership or participation data, such as which actors are members of which group or which actors have participated in which event. In this sense, co-membership in groups or events is considered an indicator of social linkage. Alternatively, co-participation can also be used as a marker of social linkage by "providing opportunities for social ties to develop, which in turn provide opportunities for things like ideas to flow between actors" (Borgatti & Halgin, 2011, p. 417). Thus, my analysis considers the NSP actors (target funders), co-funders, and girls' and women's education initiatives as the network actors or nodes which are linked together in funding relationships. Such affiliations would be key to understanding the flow of ideas and social ties among these network participants.

Invest-ED Regional Database on NSP Actors in Education

This study conducts a preliminary analysis using data from the original Invest-ED database (version March 2020), developed as part of a larger research project (see Chapter 1).[4] The Invest-ED database was constructed using publicly available data on selected NSP actors and education initiatives financed by them in East Asia and the Pacific and South Asia regions. At the time of this MA study, the database included a total of 665 NSP actors and 1200 education initiatives active in a range of education sub-sectors between January 2015 and December 2017. The NSP actors, referred to as 'target funders', were identified from a number

[4] This was the latest version available at the time of my MA study. Based on the ongoing work in the larger project, future contributions may differ.

of global and regional sources.[5] As shown in Table 1 (Chapter 2), these target funders were then classified according to the typological framework developed for the research project (Srivastava & Read, 2019). My study operationalizes this framework to answer the research questions. After classification by organizational forms, detailed data for the NSP actors, identified as 'target funders', were collected by the larger project team. This included data on a number of fields including, i.e., international and regional base, organizational form, profit motive, impact investing status, and education sub-sector etc. Data were checked and cleaned by at least two members of the larger project team.

Additionally, at the time of this analysis, the Invest-ED database included 1200 education initiatives active in multiple sub-sectors. Of relevance, education initiatives were traced and included if they were operational during any one of three calendar years (2015, 2016, and 2017). In other words, the database includes only those education initiatives that were operational between January 2015 and December 2017, although an initiative could have started before and ended after these dates. Co-funders and implementers for each education initiative were also traced. These data were verified by two additional publicly available sources. Any omissions are due to lack of public data.

Finally, with respect to operationalization of the Invest-ED database, a range of resources including the World Bank country and regional classifications, and education sector and theme taxonomy (World Bank, 2016; World Bank, 2017a; World Bank, 2017b) were considered for developing a codebook for the larger research project relating to 11 main programming areas.[6]

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[5] Asian Venture Philanthropy Network membership database, Center for Education Innovations programs database (tracing initiatives to funders), Forbes Asia's 2017 Heroes of Philanthropy List (tracing individuals to philanthropic organisations), GIIN membership list, and The Asia Foundation donor list.

[6] The codes were based on current sources such as Center for Education Initiatives (CEI) programs database coding framework and the World Bank (2016; World Bank 2017a; 2017b) sectoral and thematic taxonomies. The coding scheme was finalised through an inductive approach.

For instance, codes were developed for countries and regions, organizational forms, education sub-sector, and programmatic areas and activities. Descriptive tags were used for broadly describing initiative activities within each programming area. Table 2 below shows the different countries aggregated under the regions according to the World Bank classification of regions. The Invest-ED database was developed in Airtable,[7] an online cloud-based database creation tool that allows for simultaneous data entry and sharing of the database without the requirement of large computer storage.

Table 2: World Bank Classification of Countries by Region(s)

Region(s)	Names of Countries (in alphabetical order)
East Asia & the Pacific	American Samoa, Australia, Brunei Darussalam, Cambodia, China, Fiji, French Polynesia, Guam, Hong Kong, Japan, Kiribati, Laos, Macau (China), Malaysia, Marshal Islands, Micronesia, Mongolia, Myanmar, Nauru, New Caledonia, New Zealand, North Korea, Palau, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, South Korea, Taiwan, Thailand, East Timor, Tonga, Tuvalu, Vanuatu, Vietnam
South Asia	Afghanistan, Bangladesh, Bhutan, India, Indonesia, Maldives, Nepal, Pakistan, Sri Lanka

Source: Reproduced from World Bank, 2016; World Bank, 2017a; World Bank, 2017b

As a summary of this section, my analysis includes a sub-set of data from the Invest-ED database i.e., target funders (n=64) and co-funders (n=108), that were financing girls' and women's education initiatives (n=113) in East Asia and the Pacific and South Asia. This sampling process is explained in detail in the Analytical Stages section below.

Methodological Paradigm

This analysis utilizes basic descriptive statistics and social network analysis methods to study the active financing networks in girls' and women's education in East Asia and the Pacific and South Asia. For conducting the social network analysis, I apply the affiliation analysis

[7] https://www.airtable.com/

framework suggested by Borgatti and Halgin (2011) and Borgatti, Everett and Johnson (2013). From the human brain to organisms, organizations, economies, ecologies, and for that matter, much of society and nature is systematized as networks. Thus, the network theory suggests that "an actor's position in a network determines in part the constraints and opportunities that he or she will encounter, and therefore identifying that position is important for predicting actor outcomes such as performance, behavior or beliefs" (Borgatti et al., 2013, p. 10). It then follows naturally that the outcomes for a group of actors are "in part a function of the structure of connections among them" (Borgatti et al., 2013, p. 10). These network actors are interconnected through 'common nodes' (centering points of component parts) which form the chains or paths of connections and links to create the overall network and enable its visualization.

The notion of visualizing relationships between certain actors as a network derives its strengths partly from the fact that "it provides a mechanism – indirect connection – by which disparate parts of a system may affect each other" (Borgatti et al., 2013, p. 11). Whilst network research in the social sciences has been primarily focused on the consequences of networks, the authors argue that:

> This is the network thinking behind the popular concept of social capital, which in one formulation posits that the rate of return on an actor's investment in their human capital (e.g., their knowledge, skills, and abilities) is determined by their social capital (e.g., their network location). (Borgatti et al., 2009, p. 894)

Similarly, in addition to the obvious control over financial capital, the NSP actors can also be said to enjoy social and cultural capital such as prestige (Bourdieu, 1986). For example, due to their origins linked to renowned business magnates and entrepreneurs, access to like-minded partners, and proximity to governments, NSP actors enjoy relative autonomy and have the choice of linking purely financial, social or a hybrid return on their investment. The OECD defines this

as ‘comparative advantage’ of NSP actors and explores the question with respect to private foundations: “how can foundations…best play to their comparative advantage and contribute to improving education systems?” (OECD netFWD, 2019, p. 18). In this sense, my study attempts to locate the ‘central’ and ‘isolated’ actors in the active financing networks in girls’ and women’s education in East Asia and the Pacific and South Asia and explore implications of their network relationships. The affiliation analysis framework (Borgatti & Halgin, 2011; Borgatti et al., 2013) applied in my study is widely used for social network analysis and global education policy research (Menashy & Shields, 2017; Menashy & Verger, 2019).

Analytical Stages

An outline of research steps undertaken in my study is discussed in this section.

Selection of Education Initiatives and Target Funders

My analysis uses the ‘whole network’ research design which is also known as ‘socio-centric’, ‘complete’ or ‘full’ social network analysis where network relationships among all pair of nodes in a ‘given set’ are studied with each network tie being measured as a “dyadic variable that has a value for every pair of nodes” (Borgatti et al., 2013, p. 37). As mentioned in above section, at the time of this analysis, the Invest-ED database included a total of 665 NSP actors as target funders and 1200 education initiatives in 11 education programmatic areas. Firstly, all education initiatives specifically targeting girls and women were selected as the education initiatives sub-sample (n=113) for this analysis. The selected dataset of 113 girls’ and women’s education initiatives was then validated for any gaps and errors.

While discussing issues pertaining to the data used in full network research designs, Borgatti et al. (2013) argue that “it is always best to use triangulation of multiple independent

sources so that the data can be verified and validated" (p. 68). Based on explanatory notes that were compiled during the original data collection phase, all the data fields pertaining to the sub-sample were checked and reconfirmed through publicly available sources such as websites, annual reports, financial statements, blogs, and activity reports. Queries were reconfirmed with the team prior to analysis or via organizational data as reported above. Additional data were collected in cases where data were missing or had errors.

For instance, if a particular education initiative's financial statements gave details of additional target funders and co-funders, these were updated into the database. At the end of this process, it was established that of the education initiative sub-sample (n=113), only about half (n=56) were suitable for the conducting the subsequent analyses due to completeness of data upon validation. For instance, an initiative was excluded if it had incomplete or missing data which could not be obtained due to lack of sources or unavailability of information in English. Similarly, an initiative was excluded if the collected data could not be verified and validated through available public sources. Thus, the subsequent analysis was conducted using the final sample of 56 girls' and women's education initiatives.

The process of selection of education initiatives allowed me to identify their funders. As a result, a sub-set of NSP actors (n=64), tracked in the Invest-Ed database as 'target funders', was identified. As the next step, all other funders of the selected education initiatives, including NSP actors on which data were not collected in the Invest-ED database, state/public actors, and bilateral/multilateral/international organizations were also included in my analysis as 'co-funders'. Thus, a subset of 'target funders' (all of which are NSP actors) included in the Invest-Ed database and 'co-funders' (including NSP actors on which data were not collected and other

funders) that were financing girls' and women's education initiatives were used as the relevant sub-sample of funders for my analysis (i.e., 64 target funders and 108 co-funders, n=172).

Descriptive Analysis

This final sub-sample of funders and education initiatives was then exported to Microsoft Excel spreadsheets from Airtable in comma-separated values (CSV) format and separated using the 'text to columns' algorithm. Following this, descriptive charts based on the aggregated data were prepared using Microsoft Excel 'count if' algorithm. My descriptive analysis of selected NSP actors (target funders) and education initiatives provides an outline of the financing landscape of girls' and women's education in East Asia and the Pacific and South Asia. In this sense, my descriptive analysis represents and compares the raw data from the Invest-ED database so that broad inferences such as the most preferred programmatic areas and region/countries can be drawn to explore the NSP actors' engagement with girls' and women's education in East Asia and the Pacific and South Asia.

Social Network Analysis

I used UCINET 6 for Windows (version 6.759), a software package for conducting my social network analysis (Borgatti, Everett & Freeman, 2002). Firstly, a coding scheme (see Appendix A, B and C) was developed to abbreviate the names of target funders (TF), co-funders (CF), and education initiatives (ED), and sequential numbering as assigned to each actor i.e., TF1, CF1, ED1. Based on this coding scheme, the sample dataset of 64 target funders and 108 co-funders was plotted against 56 girls' and women's education initiatives in a Microsoft Excel spreadsheet i.e., value of '1' was assigned if a target funder or co-funder provided funding to particular education initiative, and '0' if not. Thus, providing or receiving funding constitutes a network relationship between a target funder or co-funder and an education initiative.

2-Mode Bipartite Network. This spreadsheet was then formatted and imported into UCINET, which stores this network data into ##D and ##H files in the default directory which then can be used for social network analysis using various UCINET algorithms. In other words, the imported network data in UCINET was now transformed into a 2-mode bipartite network (or a rectangular adjacency matrix with 172 columns x 56 rows) showing a total of 228 network nodes and 250 network ties. Hanneman and Riddle (2005) explain that:

> The data used for social network analysis, most commonly, measure relations at the micro level, and use analysis techniques to infer the presence of social structure at the macro level. For example, we examine the ties of individuals (micro) for patterns that allow us to infer macro structure (i.e., cliques) … Data like these involve two levels of analysis (or two "modes"). Often, such data are termed "affiliation" data because they describe which actors are affiliated with (present, or members of) which macro structures. (p. 230)

Thus, in contrast to 1-mode network (or ties between the same set of actors i.e., friends' network), the 2-mode bipartite network for my analysis represents ties between two different sets of actors, i.e., a funding relationship between a target funder and/or co-funder and education initiative. In this sense, the resultant matrix is also a 'binary' network because it captures only one attribute, i.e., the instance of a funder financing a particular initiative or an education initiative receiving funding from a particular funder (counted as 1) or not (counted as 0). See Table 3 below for the technical terms used in this section.

It follows then that this 2-mode binary network between NSP actors (target funders), co-funders and education initiatives is also a 'symmetric' or undirected and non-valued network (see Table 3) since it can be safely assumed for this network that funders 'only' give and education initiatives 'only' receive funding. In this sense, no other attribute except the instance

of funding has been taken into consideration, and giving or receiving funding is considered as a non-directional tie between the actors in this analysis.

Table 3: Table of Definitions

Term	Definition
1-Mode Network	This network data describes network relationships between the one and same set of actors. For example, data for a friends' network would show network relationships (friendship ties) between same set of actors.
2-Mode Bipartite Network	This network data outlines network relationships between two separate sets of actors. For instance, if faculty members in a university are asked to nominate graduate students as research assistants, and at the same time, students are asked to name faculty members with whom they would like to work with, the resultant data would represent a 2-Mode bipartite network. However, if both faculty members and students are treated as 'persons', then the network data will be for a single set of actors or 1-Mode network data. In social network analysis, 2-Mode network data can be converted into 1-Mode data and vice versa, depending on the researcher's need.
Binary Network	Binary network data uses only one characteristic (attribute) of the relationship between actors and records its existence or not. In the current network, for example, only attribute captured is the instance of funding. If a funder provided funding to particular education initiative, it is counted as '1' and '0' if not.
Centrality and its Different Measures	As a group of various measures based on different conceptions, centrality is a characteristic of an actor's position in the network. In terns of the relative contribution an actor makes to the structure of the network, centrality can be viewed as the structural prominence of a network actor or lack thereof, which allows the actor to enjoy or lack an advantageous position compared to other actors. Different measures of centrality are described below: **Degree Centrality:** As a primary measure, the degree centrality of a network node (actor) is the number of ties or network relationships it has with other actors. In the current network, the number of education initiatives funded by a funder would be the raw degree centrality of this particular funder. **Freeman Degree Centrality:** Freeman (1979) recommended normalization of raw degree centrality or adapting centrality scores measured on different scales to a common scale. If d is raw degree of a node and n is the total number of nodes in a network, Freeman degree centrality of this particular node would be d/(n-1). However, according to Borgatti and Everett (1997), this approach is only suitable for 1-Mode network data. **2-Mode Degree Centrality:** Borgatti and Everett (1997) suggest that 2-Mode degree is more suitable centrality measure for 2-Mode networks. The 2-Mode degree of an actor would be its raw degree divided by total number of actors in the opposite set. In this network, 2-mode degree of a funder would be its raw degree divided by total number of education initiatives in the set. **Closeness Centrality:** Freeman (1979) defined closeness centrality of a network actor as the inversely proportional sum of geodesic distances from an actor to all other actors in the network. In other words, by measuring the shortness of paths linking network actors, closeness centrality indicates how close a particular actor is to other actors.

Term	Definition
	Betweenness Centrality: Betweenness centrality describes a network actor being in a favored position if it falls on the shortest paths between other pairs of actors in the network. In other words, it is a measure of how often a given actor falls in-between the other actors in a network.
Geodesic Distance	Geodesic distance is the length of the shortest path between a pair of network actors.
Network Density	For a 2-mode network, network density is defined as the total number of network ties divided by n*m, where n is number of rows (number of actors in one set) and m is number of columns (number of actors in the opposite set) in a 2-mode bipartite matrix.
Symmetric Network	A symmetric network is a non-valued network where, for example, direction of the network relationship is not an attribute of the relationship between network actors. In this network giving or receiving funding is non-directional network relationship between a funder and an education initiative.

Source: Adapted from Borgatti and Everett, 1997; Borgatti et al., 2013; Hanneman and Riddle, 2005

Visualization and Interpretation of the 2-Mode Bipartite Network. After the data transformation process, UCINET algorithms were utilized iteratively for network data visualization and interpretation (Borgatti et al., 2013). Visual representation of the network data is conducive to the subsequent interpretation because "seeing the network can provide a qualitative understanding that is hard to obtain quantitatively" (Borgatti et al., 2013, p. 110). Thus, using the 'Netdraw' algorithm in UCINET, my social network analysis resulted in a network graph, showing a set of points and linked lines (indicative of network nodes and ties) organized in 11 components. This graph was verified manually with the original Microsoft Excel spreadsheet i.e., number of nodes (172 funders and 56 education initiatives, n=228) and correctness of ties between nodes were re-confirmed to establish the trustworthiness of the network visualization. The conceptual elements which supported subsequent interpretation are discussed in the sections below (see also Table 3 above for more information).

Network Component. According to Borgatti et al. (2013), a network component is defined as "a maximal set of nodes in which every node can reach every other by some path" (p. 26). The authors further suggest that "various characteristics of the points and lines, such as color, size, and shape, can be used to communicate information about the nodes and the

relationships among them" (Borgatti et al., 2013, p. 110). Thus, in addition to 11 network components, my analysis resulted in network density and centrality measures which were used for identification of central and isolated NSP actors and answering my research questions.

Network Density. Computation of network density (see Table 3 above) is one of the most fundamental characteristics of any social network analysis which is indicated by a sum of network ties present. Generally, for the sake of interpretation, the raw number of ties is divided by maximum possible number of ties present in a network of same dimension. However, this measure is not suitable for analysis of 2-mode bipartite networks because, according to Borgatti and Everett (1997), "the standard denominators are clearly not appropriate for our 2-mode data, since no ties are possible within vertex sets" (p. 253). For example, no network relationships are possible between funders themselves or between the education initiatives because only the instance of funding (or not) is captured in this analysis. For a 2-mode network, network density is defined as the total number of network ties divided by n*m, where n is number of rows and m is number of columns in a 2-mode bipartite matrix (Borgatti & Everett, 1997, p. 253). The network density in this analysis was calculated using existing UCINET algorithms.

Centrality Measures. My analysis aims to locate central and isolated NSP actors in active financing networks in girls' and women's education in East Asia and the Pacific and South Asia. Firstly, it will be important to define the concept of centrality in social network analysis (see Table 3 above for definitions). Despite the concurrence on 'power' as one of the fundamental attributes of social structures, the description of the very nature of power is much debated by scholars. Network theory provides a description of social power in the sense that it is "inherently relational" (Hanneman & Riddle, 2005, p. 138). The authors describe 'power' and 'influence' of a particular network actor through centrality in the following sense:

> Network analysts often describe the way that an actor is embedded in a relational network as imposing constraints on the actor and offering the actor opportunities. Actors that face fewer constraints, and have more opportunities than others are in favorable structural positions. Having a favored position means that an actor may extract better bargains in exchanges, have greater influence, and that the actor will be a focus for deference and attention from those in less favored positions. (Hanneman and Riddle, 2005, p. 230)

Thus, in order to answer the research questions, my analysis compares degree, closeness, and betweenness scores of NSP actors and the education initiatives as core centrality measures which are used in most social network analyses. In terms of definitions as shown in Table 3, degree centrality is described as the total number of ties a given actor has with other actors in the network. In this analysis, degree centrality of a NSP actor would be the number of funding relationships it has with different education initiatives, and vice versa. Closeness centrality of a node, according to Freeman (1979), is inverse ratio of the total geodesic distances from a node to all other nodes in the network where geodesic distance is the shortest path connecting two nodes. In other words, closeness centrality measures how close an actor is to other nodes than any other actor. In the same sense, betweenness centrality explains which actor lies between the other actors, thus allowing the actor to act as an agent or a gatekeeper to control the exchange of ideas in the network (Hanneman & Riddle, 2005).

However, in considering centrality of actors in a 2-mode network, Borgatti and Everett (1997) argue that “the main question is whether any shifts in interpretation are necessitated by the unusual nature of the data” (p. 253). For instance, Freeman (1979) recommends normalization of degree centrality of a node (or the process of adapting centrality scores measured on different scales to a common scale) through dividing the raw degree by total numbers of nodes in a network minus one or the theoretical maximum number of nodes in a 1-

mode network. However, according to Borgatti and Everett (1997), “in the case of a bipartite graph… the maximum degree of a node is given by the number of nodes in the opposing set” (p. 254). Thus, in this analysis, the maximum degree for an NSP actor would be the total number of funded education initiatives and vice versa for an education initiative. This is because “the only way that a node in a bipartite graph can achieve maximum degree in Freeman’s terms is the case where one vertex set contains just one node and the other set contains all other nodes” (Borgatti & Everett, 1997, p. 254). In other words, using Freeman (1979) normalization of degree is more suitable to measure centrality in 1-mode networks. For a 2-mode bipartite network such as the current network of NSP actors and education initiatives, this would assume only one node in the opposite set. Whilst the raw degree and Freeman centrality (referred to as Freeman degree) measures are provided for the sake of reference and comparison, my analysis applies 2-mode degree, closeness and betweenness centrality measures (Appendix A, B and C).

Use of Betweenness as the Most Suitable Centrality Measure. My analysis prioritizes betweenness centrality to identify central and isolated actors. Whilst degree and closeness measures could also be used to ascertain centrality in a given network however, the nature of the network itself influences the choice of the appropriate centrality measure (Borgatti & Everett, 1997). For example, in a dense, closely-knit 1-mode network of a small number of actors such as friends’ network, degree centrality, which indicates number of ties each actor has with other actors, can be used to determine centrality because a large number of ties indicate greater influence and the ‘power’ of a particular actor. However, this does not take into consideration how ‘valuable’ these ties are. Similarly, closeness which indicates how close a particular actor is to other actors (through measuring shortness of paths linking network actors) can also point to

high centrality of this actor. However, according to Hanneman and Riddle (2005) degree-based centrality measures, i.e., closeness can be deceptive in the following sense:

> Degree centrality measures might be criticized because they only take into account the immediate ties that an actor has, or the ties of the actor's neighbors, rather than indirect ties to all others. One actor might be tied to a large number of others, but those others might be rather disconnected from the network as a whole. In a case like this, the actor could be quite central, but only in a local neighborhood (Hanneman & Riddle, 2005, p. 146).

On the other hand, Borgatti and Everett (1997) suggest that "unlike closeness, betweenness can be said to have a built-in sense of exclusivity or competitiveness, such that a node is only central to the extent that it is the only node in its vertex set" (p. 256). In other words, by adding other actors in a set of actors, the centrality and thus 'power' of the supposedly central actor is reduced. Thus, betweenness was deemed to be the most suitable measure to determine centrality of NSP actors and education initiatives implicated in financing networks active in girls' and women's education in East Asia and the Pacific and South Asia. The results of my descriptive and social network analysis are presented in the next chapter.

Chapter 4: Results

The analytical processes undertaken for the basic descriptive and social network analysis in my study has been discussed in detail in Chapter 3. This chapter describes the result of my analysis, organized in the order of my research questions which are restated below.

The Financing Landscape of Girls' and Women's Education in East Asia and the Pacific and South Asia

1). How is the financing landscape of girls' and women's education in East Asia and the Pacific and South Asia organized?

Descriptive Data on the Education Initiatives

This section presents the descriptive data on the sub-set of education initiatives active in girls' and women's education in East Asia and the Pacific and South Asia (n=56) selected from the Invest-ED database (version March 2020) for my analysis (see my sampling process in Chapter 3, Section 'Selection of Education Initiatives and Target Funders').

Proportion of Girls' and Women's Education Initiatives. Figure 4 below shows that of the total 1200 initiatives tracked in the Invest-Ed database at the time of this analysis, overall, only 113 or ~9% specifically targeted girls' and women's education. Of these, a reduced sample (n=56), due to completeness of data upon verification and validation, was used in my study for conducting the remainder of the descriptive and social network analysis.

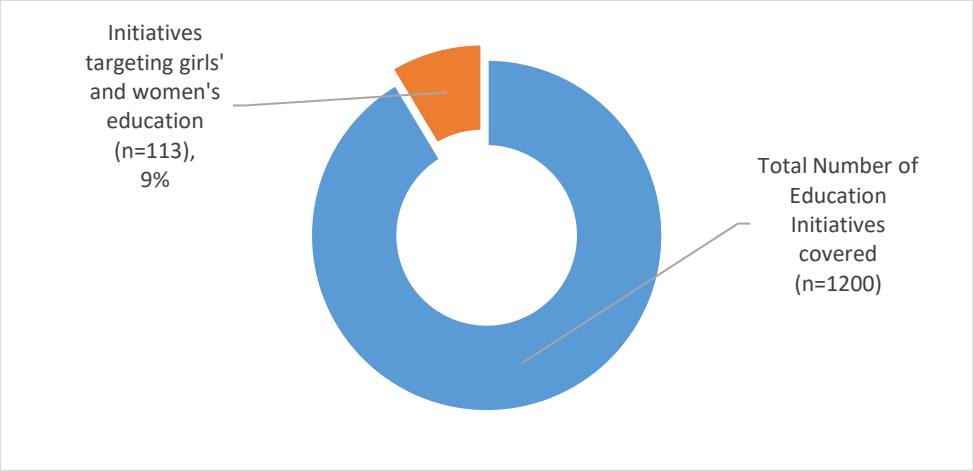

Figure 4: Overall Proportion of Girls' and Women's Education Initiatives (n=113)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

Proportion of Girls' and Women's Education Initiatives by Region: As shown in Figure 5 below, of the final sample (n=56) of education initiatives specifically targeting girls and women in East Asia and the Pacific and South Asia, 44 (79%) were operational in South Asia, whereas 7 (12%) were functioning in East Asia and the Pacific, and 5 (9%) were active in multiple geographies i.e., South Asia and East Asia and the Pacific and in other regions.

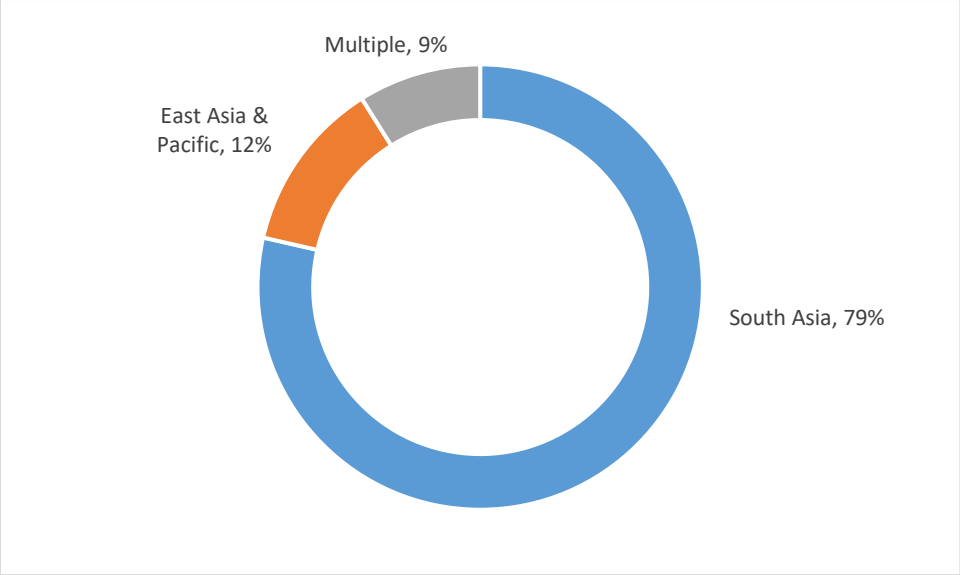

Figure 5: Girls' and Women's Education Initiatives by Region (n=56)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

For instance, Anudip Foundation was operational in South Asia and North America, Partnership to Strengthen Innovation and Practice in Secondary Education (PSIPSE) was operating in Sub-Saharan Africa and South Asia, and Technovation Challenge was functional in multiple regions including East Asia and the Pacific and South Asia. The current analysis is focused only on the education initiatives operational in East Asia and the Pacific and South Asia. If an initiative was functional in any of these regions, it was included in the analysis (see Chapter 3, Table 2 for classification of countries by region).

Girls' and Women's Education Initiatives by Country of Operations. Figure 6 below shows that of the sample, 37 (66%) education initiatives were operational in India. Whereas 3 (5%) initiatives each were functioning in China, Bangladesh, and Indonesia, respectively. Australia had 2 (4%) initiatives, whereas Afghanistan, Cambodia, and Hong Kong each had 1 (2%), and 5 (9%) education initiatives were operational in multiple countries. For example, Technovation Challenge was active in close to 50 countries in multiple regions whereas, Landwise was operational in India and China.

Figure 6: Girls' and Women's Education Initiatives by Country (n=56)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

Main Education Sub-sector. Figure 7 below shows the proportion of girls' and women's education initiatives by main education sub-sector.[8] Of the 56 initiatives selected for analysis, 13 (23%) were active in multiple sub-sectors; 11 (20%) education initiatives had workforce development/skills as their main education sub-sector; 7 (12%) initiatives each were active in secondary education and other education, respectively; 5 (9%) initiatives were active in primary education sub-sector; and 4 (7%) initiatives each were active in the adult basic and continuing education and public administration – education' sub-sectors, respectively. Finally, 3 (5%) initiatives were in tertiary education and 2 (4%) had early childhood education as their main education sub-sector. Details of the initiatives active in multiple education sub-sectors are provided in Table 4 below.

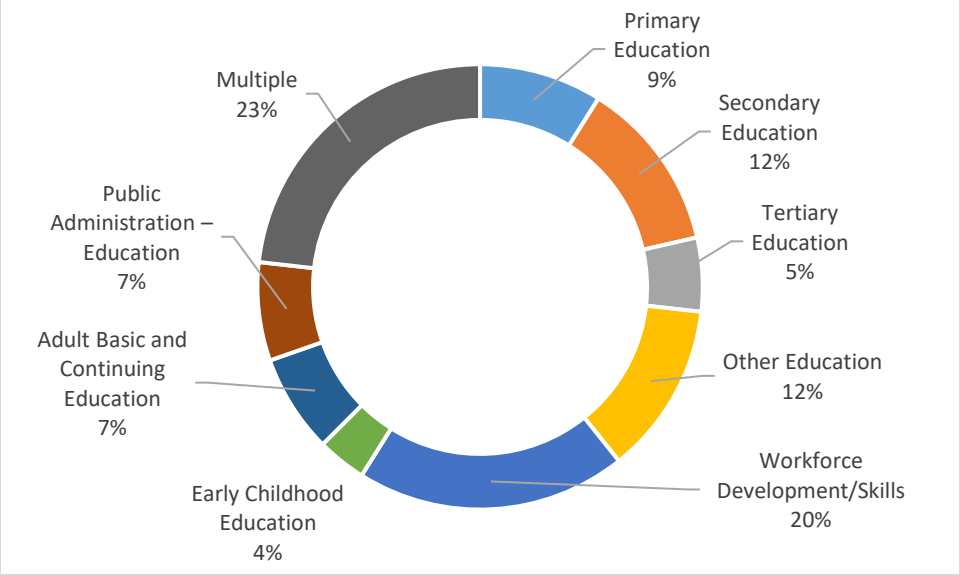

Figure 7: Girls' and Women's Education Initiatives by Main Education Sub-sector (n=56)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

[8] The education sub-sector classification is based on the World Bank sector taxonomy and definitions (World Bank, 2016; World Bank, 2017b)

Table 4: Girls' and Women's Initiatives active in Multiple Education Sub-sectors (n=13)

#	Education Initiative(s)	Region and Country of Operation	Education Sub-Sectors
1	Girls' Education in Secondary Schools--Learning and Migration Program (LAMP)	South Asia, India	Primary Education, Secondary Education
2	Doosra Dashak	South Asia, India	Secondary Education, Workforce Development / Skills
3	Pardada Pardadi Girls School (PPGS)	South Asia, India	Early Childhood Education, Primary Education, Secondary Education
4	Parvarish The Museum School	South Asia, India	Primary Education, Secondary Education
5	Project PREMA	South Asia, India	Workforce Development / Skills, Adult Basic and Continuing Education
6	Rainbow Homes--Kolkata	South Asia, India	Primary Education, Secondary Education
7	Seng Girls Vocational Training School	East Asia and the Pacific, China	Primary Education, Secondary Education
8	Hans Dormitory for Boys & Rajeswari Dormitory for Girls--HEAL Paradise School	South Asia, India	Primary Education, Secondary Education
9	Satya Bharti School Program	South Asia, India	Primary Education, Secondary Education
10	Happy Chandara	East Asia and the Pacific, Cambodia	Primary Education, Secondary Education
11	Project Mera Sahara	South Asia, India	Primary Education, Adult Basic and Continuing Education
12	Bodh Shiksha Samiti	South Asia, India	Early Childhood Education, Primary Education, Secondary Education
13	Asha India	South Asia, India	Adult Basic and Continuing Education, Public Administration – Education

Main Programming Area. As shown in Figure 8 below, the selected girls' and women's education initiatives covered a diversity of programming areas. Most prominently, 15 (27%) initiative were active in skills, workplace transition, and continuing education', 14 (25%) initiatives in advocacy & policy', and 11 (20%) initiatives were engaged in access to education area. Notably, 5 (9%) initiatives had private sector delivery of education as their main

programming area (see Table 5). Information and communications technology (5%), education financing (2%), curriculum and extra-curricular support (2%), student support (2%), education facilities (1%), and research (1%) were other areas of programming by girls' and women's education initiatives.

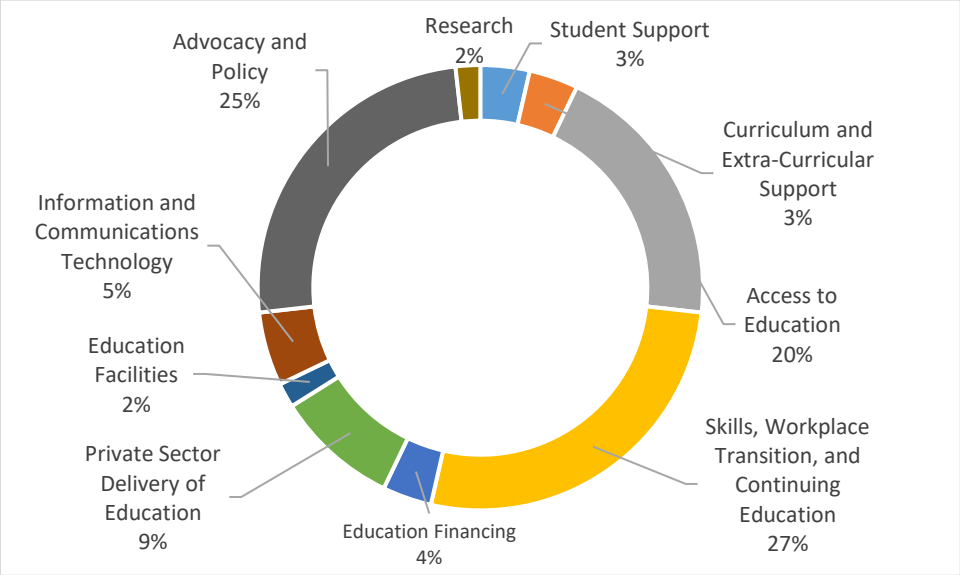

Figure 8: Girls' and Women's Education Initiatives by Main Programming Area (n=56)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

Table 5: Girls' and Women's Education Initiatives active in the Private Sector Delivery of Education (n=5)

#	Education Initiative	Region	Country
1	Pardada Pardadi Girls School (PPGS)	South Asia	India
2	Sudiksha	South Asia	India
3	Satya Bharti School Program	South Asia	India
4	Happy Chandara	East Asia and Pacific	Cambodia
5	Project Mera Sahara	South Asia	India

Number of Implementers. Figure 9 below shows the number of implementers per initiative. Whilst most, i.e., 53 (95%) were carried out by 1-4 implementers, 2 (3%) initiatives had 9 or more implementers. Whereas only 1 (2%) initiative was executed by 5-8 implementers. For example, Rainbow Homes - Kolkata initiative (South Asia, India) was implemented by 6

implementers, whereas Education for All initiative (South Asia, India) had 14 implementers, and Parvarish - The Museum School initiative (South Asia, India) listed 17 implementers in total. As an example of the hybrid strategies used by NSP actors, Reliance Foundation, a target funder, was also listed as an implementer for Education for All (South Asia, India) initiative.

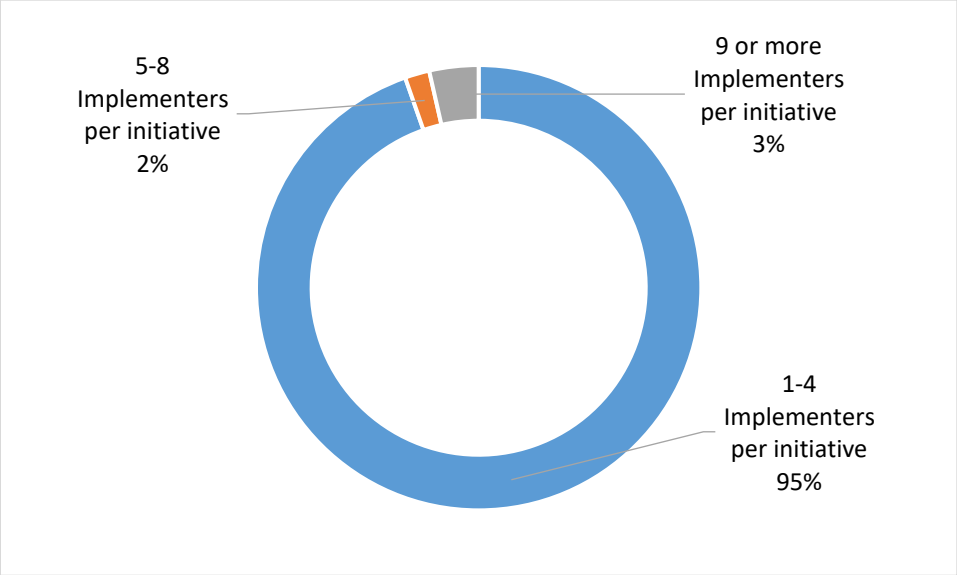

Figure 9: Number of Implementers per Girls' and Women's Education Initiative (n=56)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

Number of NSP Actors Financing the Initiatives. A core group of 64 target funders (NSP actors) and co-funders (n=172) were included in this analysis. Figure 10 below shows the number of total funders for each initiative in the analysis. Notably, Educate Girls (South Asia, India) was found to have a total of 26 funders (8 target funders and 18 co-funders) and Institute of Social Studies Trust initiative (South Asia, India) was found to have 20 funders (2 target funders and 18 co-funders). Whilst Anudip Foundation (South Asia, India) was funded by 18 funders (6 target funders and 12 co-funders), Pratham Second Chance Program (South Asia, India) listed 17 funders (9 target funders and 8 co-funders). A total of 11 funders (1 target funder and 10 co-funders) financed the Happy Chandara initiative (East Asia and the Pacific,

Cambodia). My social network analysis section discussed further below, will show that education initiatives with multiple funders had many NSP actors (target funders and some co-funders) in common.

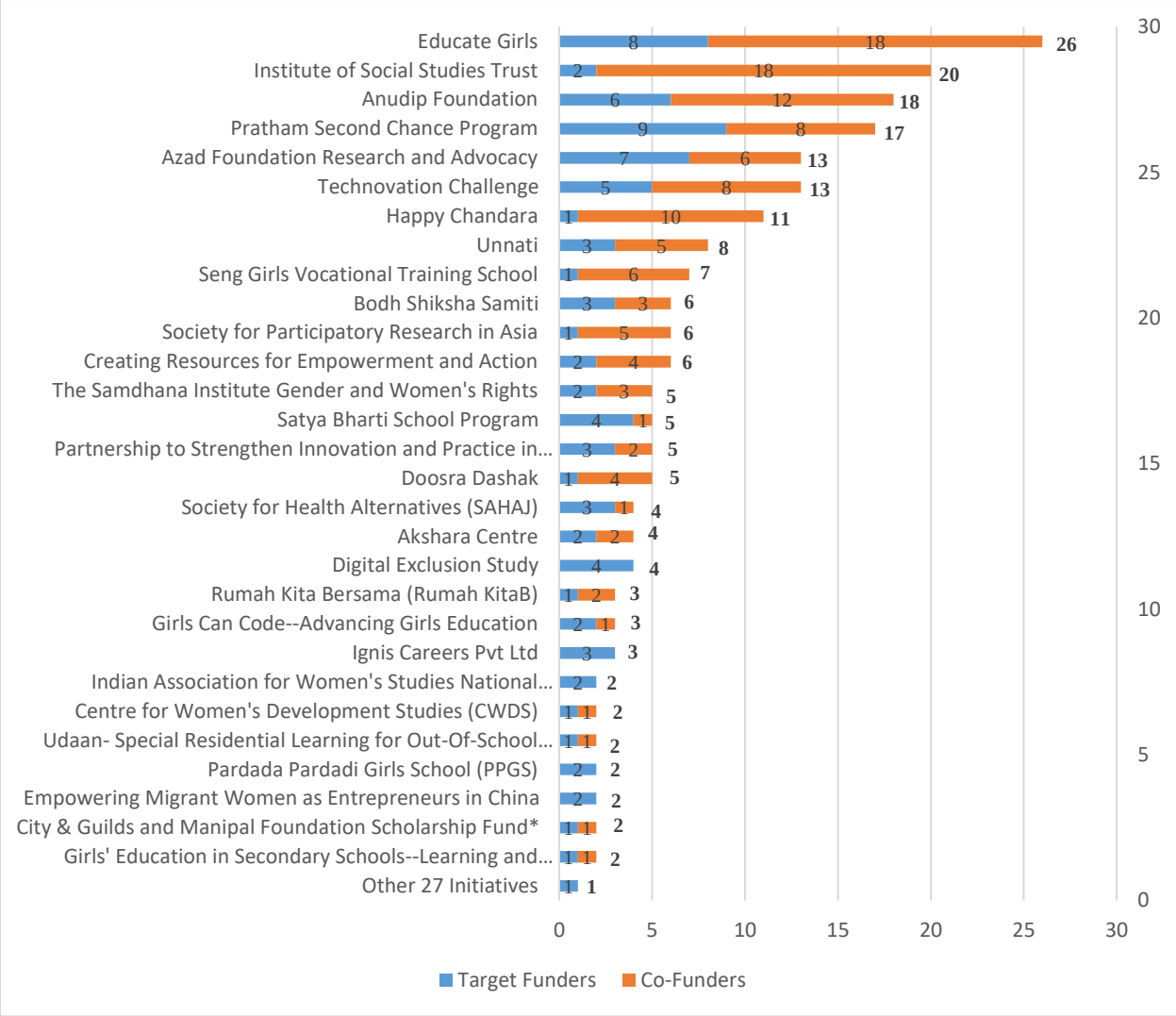

Figure 10: Number of Target Funders and Co-funders Financing the Girls' and Women's Education Initiatives (n=56)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

The next section will discuss the descriptive data on target funders (n=64) that financed the selected girls' and women's education initiatives.

Descriptive Data on the Selected Target Funders

As discussed in Chapter 3, the Invest-ED regional database (version March 2020) included a total of 665 NSP actors as 'target funders' that were identified from a number of global and regional sources for a detailed analysis. In addition, through the process of tracing and collecting data on education initiatives, the database also identified other funders, referred to as 'co-funders' financing these initiatives. These included NSP actors, state/public actors, and bilateral/ multilateral/ international organizations, and other funders. As shown in Figure 11 below, a total of 172 funders financed the selected girls' and women's education initiatives in this analysis, which includes 108 (63%) co-funders.

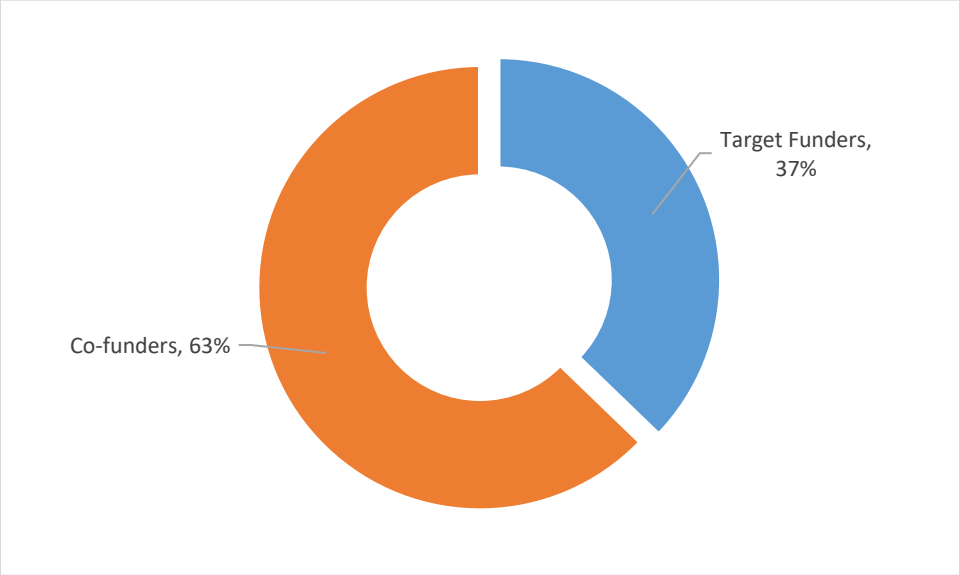

Figure 11: Proportion of Target Funders and Co-funders of Selected Girls and Women's Education Initiatives (n=172)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

Organizational Form of Target Funders. Figure 12 below shows the proportion of target funders by organizational form. As discussed in the introduction to the Invest-ED regional database (Chapter 3), the target funders included in my analysis were identified from multiple

sources and detailed data was collected for these actors. Target funders were classified according to the typological framework presented in Chapter 2 (Table 1). Of the 64 target funders sampled in this study, most prominently, 37 (58%) were private foundations, whereas 7 (11%) were identified as charity/NGO. In addition, 6 (9%) were a network or platform, and 5 (8%) were CSR initiatives/units. Other actors were identified as investment firm/fund manager/fund advisor or consultant (5%), other (5%), and as impact investor (4%).

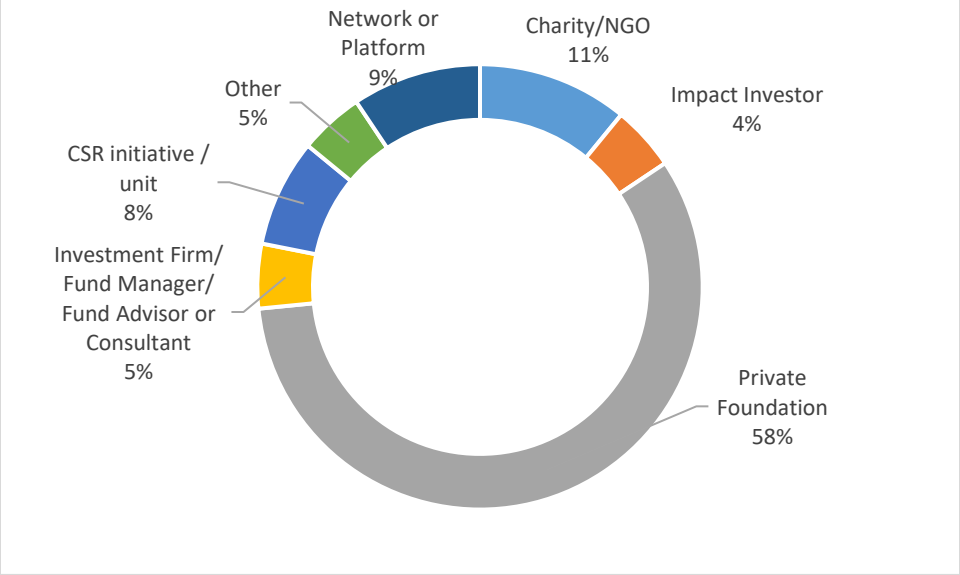

Figure 12: Organizational Type of Target Funders (n=64)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

Profit Status of Target Funders. As mentioned in Chapter 2, NSP actors operate with profit-oriented, not-for-profit (social impact) or hybrid (including both profit and not-for-profit) motives for financing. Figure 13 below shows that of the target funder sample (n=64) used in my analysis, 56 (87%) were operating under ‘not-for-profit’ status, whereas 8 (13%) indicated a ‘for-profit’ motive to their financing of girls’ and women’s education initiatives. No target funders operated with a ‘hybrid’ i.e., both profit and non-profit (social impact) motive in the sample.

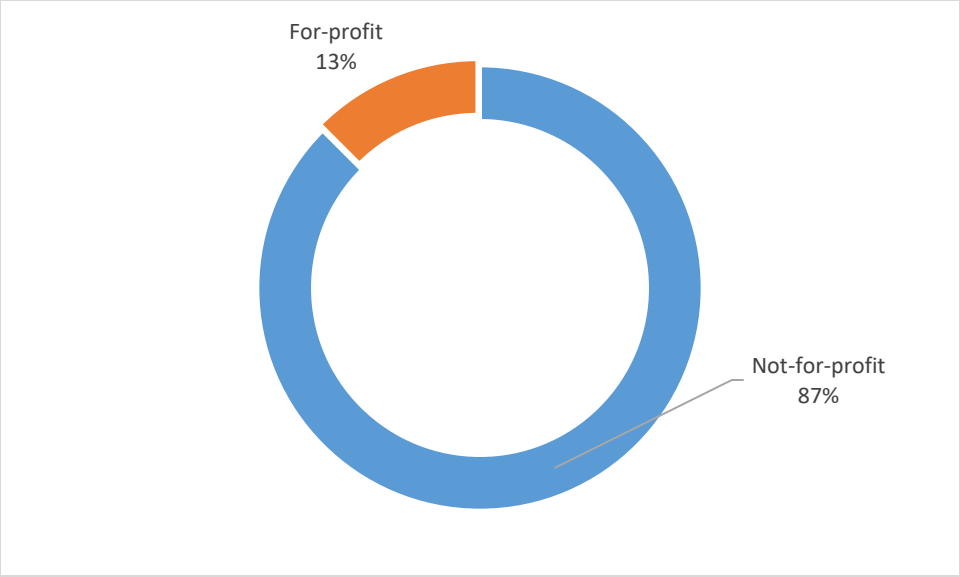

Figure 13: Profit Status of Target Funders (n=64)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

Use of Impact Investing by Target Funders as one of the Financing Strategy. As discussed in Chapter 2, impact investing is a strategy for financing social initiatives where financial return on investment is also linked to the social impact. As shown in Figure 14 below, the majority of target funders included in my study (45, 70%) did not use impact investment strategies, whereas only 7 (11%) indicated use of impact investing as a financing strategy. Details of the funders that engaged in impact investing are provided in Table 6 below. It is worth highlighting that of these funders, 4 were private foundations. For the remaining 12 (19%) NSP actors, it could not be established through public data whether they employed impact investing as one of their financing strategies.

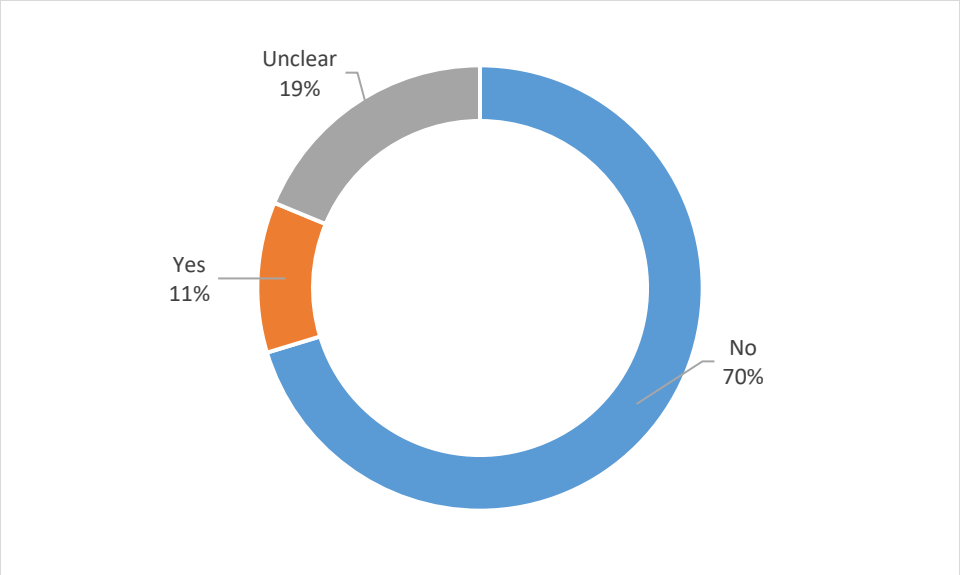

Figure 14: Use of Impact Investing as a Financing Strategy by Target Funders (n=64)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

Table 6: Target Funders using Impact Investing as a Financing Strategy (n=7)

#	Target Funders	Organizational Type
1	Acumen	Impact Investor
2	John D. and Catherine T. MacArthur Foundation (MacArthur Foundation)	Private Foundation
3	Michael and Susan Dell Foundation (MSDF)	Private Foundation
4	Mphasis F1 Foundation	Private Foundation
5	Omidyar Network Services	Impact Investor
6	Pearson Affordable Learning Fund (PALF)	Impact Investor
7	UBS Optimus Foundation	Private Foundation

Target Funders' Co-financing Partnerships with Bilateral and Multilateral Donors.

Of the 56 selected initiatives targeting girls' and women's education, 13 had bilateral and multilateral donors as co-funders. Whilst the overall opacity in the sector does not allow for establishing whether NSP actors (target funders and some co-funders) or bilateral/multilateral donors were the lead financers, nevertheless, these NSP actors were seen in co-financing partnerships with bilateral and multilateral donors in my analysis. This demonstrates the potential influence of NSP actors in education financing. As shown in Figure 15 below, of the 13 girls' and women's education initiatives, NSP actors funded 6 (46%) in partnership with bilateral donors, 3 (23%) with multilateral organizations, and 4 (31%) initiatives were co-financed by

NSP actors, bilateral, and multilateral donors. Details for these initiatives are provided in Table 7 below.

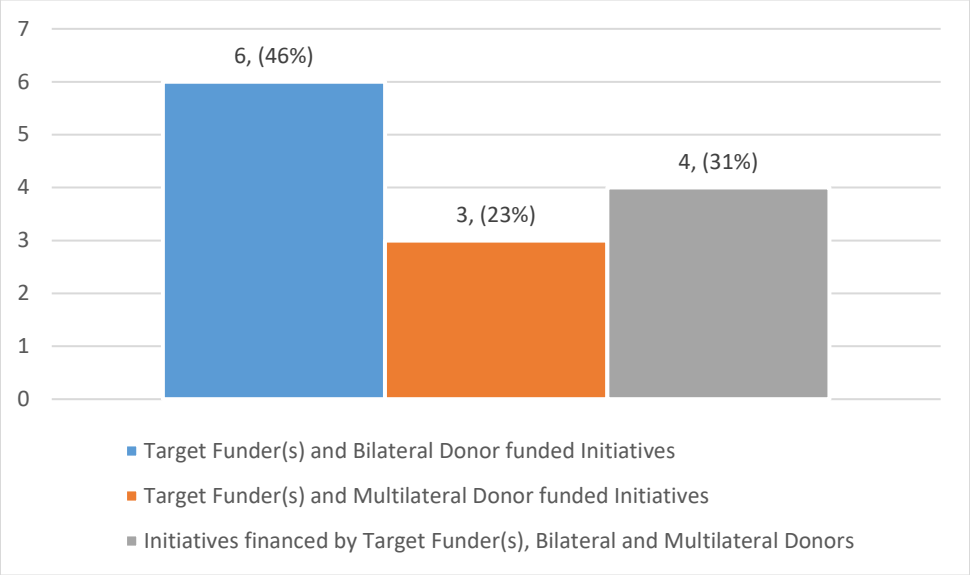

Figure 15: Target Funders' Co-financing partnerships of with Bilateral and Multilateral Donors (n=13)

Source: Invest-ED Database, version: March 2020 (accessed December 26, 2022)

Table 7: Co-financing partnerships of NSP Actors with Bilateral and Multilateral Donors

Bilateral/Multilateral Donor	Education Initiative	Region	Country	Bilateral/Multilateral Donor Partner(s)	Target funders (in bold) and co-funders Partner(s)
Swedish International Development Cooperation Agency (SIDA)	Expanding Economic Opportunities for Women Entrepreneurs	South Asia	Bangladesh	None	**GSRD Foundation**
	Creating Resources for Empowerment and Action	South Asia	India	None	**Ford Foundation**, American Jewish World Service, **Azim Premji Foundation**, EMpower USA, Global Fund for Women
United Kingdom Department for International Development (DFID)	Pratham Second Chance Program	South Asia	India	United Nations International Children's Emergency Fund (UNICEF)	**John D and Catherine T MacArthur Foundation (MacArthur Foundation), HDFC,** Accenture, **Citi Foundation,** ITC**, UBS Optimus Foundation, Dubai Cares,** Douglas B. Marshall Jr. Family Foundation, Deloitte, Wrigley Company Foundation, **Skoll Foundation,** Hewlett Foundation, **Google.org, Bill and Melinda Gates Foundation (Gates Foundation)**, VSO International
	Marie Stopes China	East Asia & Pacific	China	Netherlands Ministry of Foreign Affairs (Kingdom of the Netherlands), Norwegian Ministry of Foreign Affairs, Ministry for Foreign Affairs of Finland	**Ford Foundation, Bill and Melinda Gates Foundation (Gates Foundation), Children's Investment Fund Foundation (CIFF)**
Netherlands Ministry of Foreign Affairs (or Kingdom of the Netherlands)	Access Academy Program	South Asia	Bangladesh	United States Agency for International Development (USAID, U.S. Department of State)	**John D and Catherine T MacArthur Foundation (MacArthur Foundation), MetLife Foundation, Ford Foundation, Bill and Melinda Gates Foundation (Gates Foundation)**, **David & Lucile Packard Foundation (Packard Foundation)**
	Azad Foundation for Research and Advocacy	South Asia	India	None	**Human Dignity Foundation, Global Giving,** Cartier Philanthropy, iPartner India, COMO Foundation, **Ford Foundation, Oak Foundation**, American Jewish World Service, **C&A Foundation, Trafigura Foundation, Dalyan Foundation**, EMpower USA

Bilateral/Multilateral Donor	Education Initiative	Region	Country	Bilateral/Multilateral Donor Partner(s)	Target funders (in bold) and co-funders Partner(s)
	Society for Participatory Research in Asia	South Asia	India	European Union (EU)	iPartner India**, Ford Foundation**, University of Glasgow, Martha Farrell Foundation
Norwegian Ministry of Foreign Affairs	The Samdhana Institute Gender and Women's Rights	East Asia & Pacific	Indonesia	United Nations Development Programme (UNDP), The World Bank	**Ford Foundation,** American Jewish World Service, **David & Lucile Packard Foundation (Packard Foundation)**
Australian Agency for International Development (AusAID)	Rumah Kita Bersama (Rumah KitaB)	East Asia & Pacific	Indonesia	United Nations International Children's Emergency Fund (UNICEF)	**Ford Foundation**
United States Agency for International Development (USAID)	Education For All	South Asia	India	None	**Tata Trusts, Reliance Foundation, Bill and Melinda Gates Foundation (Gates Foundation)**
United Nations High Commissioner for Refugees (UNHCR)	Anudip Foundation	South Asia	India	None	**Omidyar Network Services**, American India Fund, Accenture, **Microsoft, Michael, and Susan Dell Foundation, Global Giving**, Bank of America, Cisco Systems Inc., Wadhwani Foundation, **Citi Foundation**, ICRA, ITC, **Mphasis**, NetHope Foundation, Cognizant Foundation, Nvidia, eBay Foundation
United Nations Educational, Scientific and Cultural Organization (UNESCO)	Technovation Challenge	Multiple	Multiple	UN Women	**Oracle, Google.org, Salesforce Foundation, Adobe Foundation**, Uber, Samsung, **BNY Mellon**, Peace Corps, Walmart Foundation, 3M, MIT Media Lab
UN Women	Institute of Social Studies Trust	South Asia	India	International Labour Organisation (ILO), United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), United Nations Research Institute for Social Development (UNRISD)	**Ford Foundation**, American Jewish World Service**, Bill and Melinda Gates Foundation (Gates Foundation)**, Friedrich-Ebert-Stiftung, Heinrich Boll Foundation, HomeNet South Asia, International Development Research Centre (IDRC) Canada, Institute of Development Studies (IDS) Sussex, International Organisation for Cooperation in Evaluation, International Society for Better Tomorrow, Johns Hopkins University, SEWA Bharat, Swiss Network of International Studies, Wipro Cares,

Social Network Analysis of NSP Actors

This section presents the results of a basic social network analysis conducted to study the financing networks of the 64 target funders (NSP actors) and the co-funders (n=108) of the selected girls' and women's education initiatives (n=56) active in East Asia and the Pacific and South Asia. These findings pertain to my second research question which is restated below.

2). What are the key characteristics of the active financing networks in girls' and women's education in these regions?

Key Characteristics of the Financing Networks

Figure 16 below shows a network graph or visualization of the active financing networks in girls' and women's education in East Asia and the Pacific and South Asia. In particular, Figure 16 shows a total of 228 network nodes or actors i.e., 172 funders (blue squares) and 56 education initiatives (red squares) linked together in funding relationships in a 2-mode bipartite network. Following a simple coding scheme (see Appendix A, B, and C), target funders (TF), and co-funders (CF), and education initiatives (ED) can be seen connected in funding relationships in a total of 250 network ties. Considering that provision of funding by a funder to an education initiative or an education initiative receiving financing from funder is essentially the same attribute, arrows indicating direction of ties have been removed for increasing visibility of this binary and symmetric network (see Table 3 for definitions).

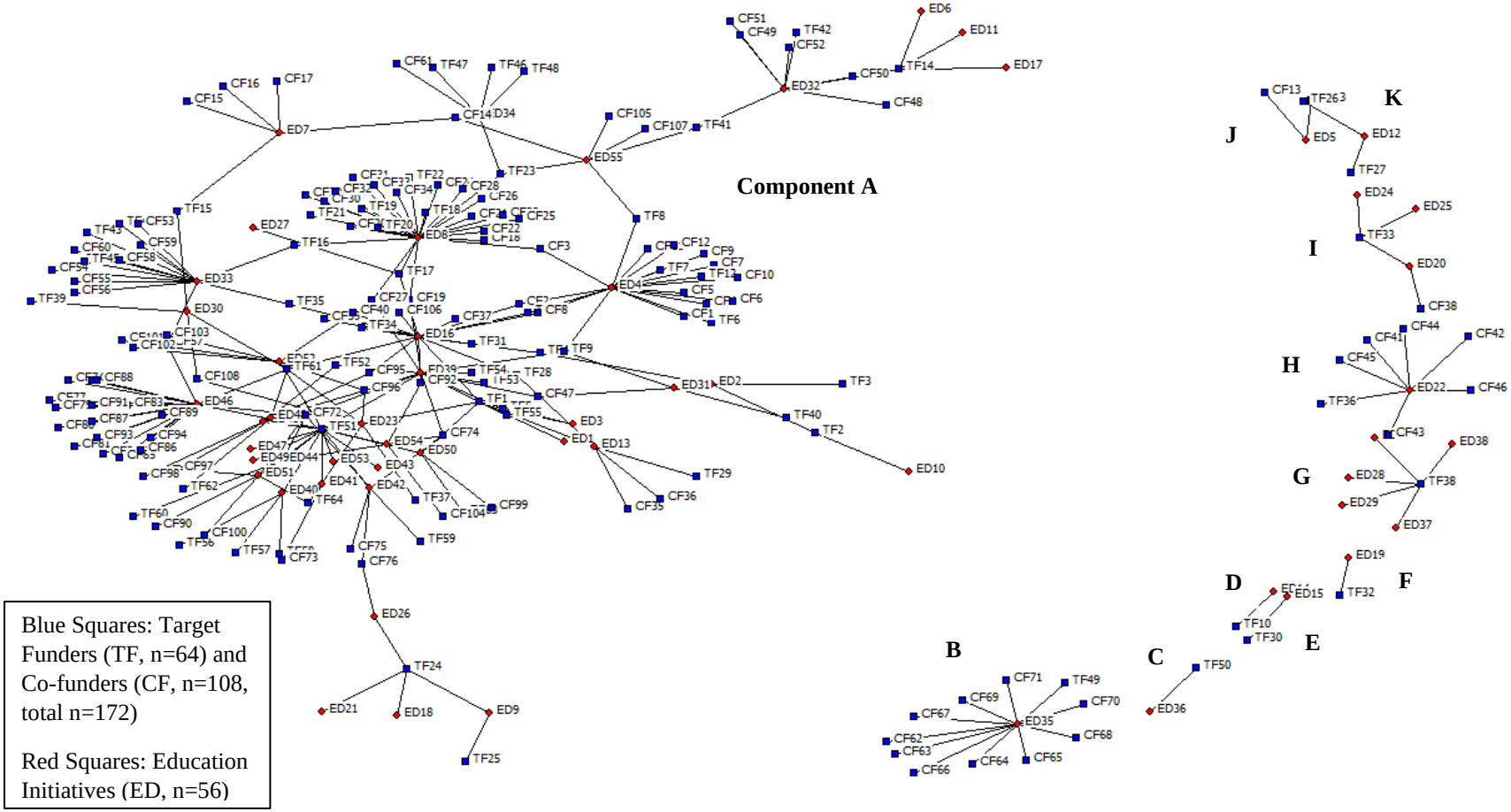

Figure 16: Financing Networks in Girls' and Women's Education in East Asia and the Pacific and South Asia (n=228)

(Some labels are partially visible or hidden due to large number of nodes)

Source: Invest-ED Database (version March 2020). Accessed December 26, 2022.

Network Components. Figure 16 above, shows a total of 11 network components labeled accordingly. As discussed in Chapter 3 (Analytical Stages section), a network component is a group of nodes where each node can reach other nodes by following a certain path. In this sense, components are key elements of a network which are 'disconnected' from each other. Table 8 below shows the number of funders and education initiatives present in each component.

Table 8: Description of Network Components (n=228)

#	Component	Number of Funders and Education Initiatives present in the Network Component	Description and % of Actors Present
1	A	183	Major component (~80%)
2	B	12	Isolated components (~20%)
3	C	2	
4	D	2	
5	E	2	
6	F	2	
7	G	6	
8	H	8	
9	I	5	
10	J	3	
11	K	3	

As shown in Figure 16 and Table 8 above, with a total of 183 nodes or approximately 80% of network actors present (n=228), Component A depicts the largest concentration of financing activity in girls' and women's education in East Asia and the Pacific and South Asia. In this sense, other components in this network are isolated because these are formed by isolated actors. Component B, with a total of 12 nodes, is centered around ED35 (Happy Chandara), showing funding ties with 11 funders. Components C, D, E, and F have 2 nodes each, and hence, these are the smallest components in the entire network (Figure 16 and Table 8) showing one funder financing only one education initiative. Component G with 6 nodes shows NSP actor TF38 (Macquarie Group Foundation) linked with 5 initiatives in total, whereas in Component H with 8 nodes, 7 funders are nested around ED22 (Seng Girls Vocational Training School).

Component I with 5 nodes is centered around NSP actor TF33 (Hans Foundation). Finally, Components J and K have 3 nodes each.

Notably, of all the 11 components present is this network graph (see Figure 16 and Table 8), Component A represents the largest concentration (~80%) of funders i.e., target funders and co-funders, and education initiatives active in girls' and women's education in East Asia and the Pacific and South Asia. This component will be rigorously analysed in a later section of this analysis. Thus, Components B to K are disconnected groups of actors which are isolated in this network. Isolated components and actors present within them, are also discussed in more detail in the later sections.

Network Density. The calculation of network density through UCINET algorithms is explained in Chapter 3 (Analytical Stages section). Accordingly, as shown in Figure 16, the density of the entire financing network of girls' and women's education initiatives in East Asia and the Pacific and South Asia is 0.026 (2.6%). This is achieved by dividing total number of network ties i.e., 250, by the product of numbers of actors is each set i.e., 172 funders and 56 initiatives or 250/ (172*56). This suggests that it is a fairly sparse network mainly due to 228 network actors spread out in a large geographical area i.e., multiple countries in East Asia and the Pacific and South Asia regions.

Star Networks. One of the other key characteristics of the financing network, as shown in Figure 16, is that it contains many smaller star-shaped networks, centered around either funders (target funders and co-funders) or around the education initiatives themselves. Star networks are formed when certain actors are connected to only 'one' other actor. This implies that some network actors are essentially central in this network. Whilst some star networks are present in the isolated Components B to K, the largest component (Component A) also includes

star-shaped networks nested around funders or education initiatives. For example, NSP actors TF51 (Ford Foundation) and TF61 (Bill and Melinda Gates Foundation) show substantial grouping of education initiatives around them. Similarly, education initiatives such as ED4 (Anudip Foundation), ED8 (Educate Girls), ED16 (Pratham Second Chance Program), ED33 (Technovation Challenge), and ED46 (Institute of Social Studies Trust) show substantial gathering of funders around them.

As discussed in Chapter 3, an actor's position in an affiliation-based network can enable opportunities or enforce restrictions. It follows that network actors which encounter comparatively fewer constraints and increased opportunities have structurally advantageous positions. In general, social development initiatives such as those active in the education sector, are dependent on funding from existing funders, and they are constantly on the lookout for new funding sources so that they can address local development issues and sustain their activity.

In Figure 16, education initiatives ED6, ED11, and ED17 in Component A (top-middle of the network graph) seem to be dependent on NSP actor TF14 (Axis Bank Foundation). In this sub-network, TF14 occupies a relatively central position and forms a star network. In this sense, TF14 enjoys a comparatively advantageous position. This may be not only due to the initiatives' dependence for funding on it, but also because TF14 may enable or restrict new funding opportunities for the initiatives by acting as an agent or a gatekeeper to enable or restrict access into Component A through its funding relationship with the education initiative ED32. This is crucial because NSP actor TF14 and its dependent education initiatives lie on the periphery of this largest component of the financing network active in girls' and women's education, and TF14 may allow or limit deeper access into the component for its funded education initiatives. Essentially, without ties to NSP actor TF14, education initiatives ED6, ED11, and ED17 will not

be able to remain in Component A. A similar case can be observed with NSP actor TF24 (GSRD Foundation) at the bottom-left of the network graph (Figure 16). Likewise, even if an NSP actor such as TF38 (Macquarie Group Foundation) in Component G enjoys a central position, its advantage is relatively less valuable compared to NSP actors TF14 or TF24 as discussed above. This is because as an isolated actor, TF38 cannot act as an agent for enabling access to the main Component A for its dependent education initiatives.

Finally, it is noteworthy that not only the NSP actors such as TF51 (Ford Foundation) and TF61 (Bill and Melinda Gates Foundation), but also education initiatives such as ED4 (Anudip Foundation), ED8 (Educate Girls), ED16 (Pratham Second Chance Program), ED33 (Technovation Challenge), and ED46 (Institute of Social Studies Trust), form these star networks. This is indicative of the centrality of these actors. Thus, many star networks formed by both funders and education initiatives come together to create this largest Component (A) within the financing networks in girls' and women's education in East Asia and the Pacific and South Asia. The next section now provides a detailed analysis of the largest Component (A).

Substantial Concentration of Financing and Implementation Activity

As shown in Table 8 above, the Component A with 183 actors (~80% of the total 228 actors i.e., 172 funders and 56 education initiatives) represents a major concentration of activity with respect to financing and implementation of girls' and women's education in East Asia and the Pacific and South Asia. This section will discuss some of the major characteristics of Component A that enable insight into the causes behind this concentration. It is worth noting that the below analysis presents summary data on target funders (n=53) and education initiative (n=40) present in Component A. Detailed data on the remaining actors, i.e., co-funders (n=90) in this component or elsewhere were not available in the Invest-ED database.

Table 9 below shows the organizational attributes of the target funders (n=53) present in Component A. Firstly, private foundation was the most predominant NSP actor organizational form with 29 (55%) target funders. Secondly, 47 (89%) target funders were operating under not-for-profit status, whereas only 6 (11%) linked a for-profit motive to their financing. Finally, only 6 (11%) target funders used impact investing as a financing strategy, whereas large majority (36, 68%) did not engage in impact investing. For the remaining 11 (21%) target funders, it could not be established through public data if they used impact investing as a financing strategy.

Table 9: Organizational Attributes of Target Funders in Component A (n=53)

Organizational Attribute	**Number of Target Funders in Component A**	**% (totals may not add due to rounding)**
Organizational Type		
Charity/NGO	7	13%
Impact Investor	2	4%
Private Foundation	29	55%
Investment Firm/ Fund Manager/ Fund Advisor or Consultant	2	4%
CSR initiative / unit	5	9%
Other	2	4%
Network or Platform	6	11%
Total	**53**	**100%**
Profit Status		
Not-for-profit	47	89%
For-profit	6	11%
Total	**53**	**100%**
Impact Investing as a Financing Strategy		
No	36	68%
Yes	6	11%
Unclear	11	21%
Total	**53**	**100%**

As the next step in this analysis, Table 10 below shows the organizational attributes of the education initiatives present in Component A (n=40). Firstly, in terms of the region of their operations, 34 (85%) initiatives were based in South Asia. Only 2 (5%) were found to be operational in East Asia and the Pacific, whereas 4 (10%) initiative were active in multiple regions. Secondly, 27 (68%) education initiatives reported India as their main country of

operations, whereas Bangladesh and Indonesia each had 3 (8%) initiatives, followed by China (2, 5%) and Afghanistan (1, 3%), and 4 (10%) initiatives were operating in multiple countries. In terms of the main education sub-sector, 10 (25%) initiatives reported workforce development/skills as main area of activity, whereas other education and multiple each were listed as the core area of operations by 7 (18%) initiatives, respectively. Finally, advocacy and policy (33%), skills, workplace transition, and continuing education (30%), and access to education (18%) were the most predominant programming areas.

Table 10: Organizational Attributes of Education Initiatives in Component A (n=40)

Organizational Attribute	**Number of Education Initiatives in Component A**	**% (Totals may not add due to rounding)**
Region of Operations		
South Asia	34	85%
East Asia & the Pacific	2	5%
Multiple	4	10%
Total	**40**	**100%**
Main Country of Operations		
India	27	68%
China	2	5%
Multiple	4	10%
Bangladesh	3	8%
Afghanistan	1	3%
Indonesia	3	8%
Total	**40**	**100%**
Main Education Sub-Sector		
Primary Education	3	8%
Secondary Education	4	10%
Tertiary Education	1	3%
Other Education	7	18%
Workforce Development/Skills	10	25%
Early Childhood Education	1	3%
Adult Basic and Continuing Education	3	8%
Public Administration – Education	4	10%
Multiple	7	18%
Total	**40**	**100%**
Main Programming Area		
Student Support	2	5%
Curricular and Extra-Curricular Support	1	3%
Access to Education	7	18%
Skills, Workplace Transition, and Continuing Education	12	30%

Organizational Attribute	Number of Education Initiatives in Component A	% (Totals may not add due to rounding)
Private Sector Delivery of Education	2	5%
Information and Communications Technology	2	5%
Advocacy & Policy	13	33%
Research	1	3%
Total	**40**	**100%**

In summary, it is evident that with over 80% (183) of all the network actors present, the Component A represents the most substantial concentration of financing and implementation activity in girls' and women's education in East Asia and the Pacific and South Asia. A large majority of target funders in Component A were private foundations that operated under not-for-profit status. In addition, a large majority of target funders did not use impact investing as a financing strategy. Further, it is notable that education initiatives present the Component A were predominantly operational in the South Asia region, and in India at the country level. Whilst workforce development/skills emerged as most prominent education sub-sector, advocacy and policy; skills, workplace transition, and continuing education; and access to education emerged as the most prominent areas of programming. Thus, social network analysis as a research method not only supplements the macro-level findings of my descriptive analysis, but also enables insight into the micro-level relational processes in this network. The next sections will discuss the results pertaining to my sub-research questions which are re-stated below.

2a). Who are the central actors in the network(s)?

Central Actors in the Network

Advantageous structural position enjoyed by central actors in a network has been discussed in Chapter 3 and in the sections above. It has been also discussed in Chapter 3 that degree-based centrality measures such as raw degree, Freeman degree, 2-mode degree and

closeness (see Table 3 for definitions) are not useful in locating central actors. Whilst these measures have been provided for the purpose of reference and comparison, this section provides the evidence that betweenness i.e., the measure of how often a given actor comes in-between the other actors in a network, is the most suitable centrality measure to identify central, and thus the most influential funders and education initiatives in the financing networks active in girls' and women's education in East Asia and the Pacific and South Asia.

The centrality measures i.e., a family of various measures indicative of an actor's structural importance and advantage in the network (see Table 3 for more information), for the most central funders and co-funders are shown in Table 11 below. NSP actors such as TF51 (Ford Foundation), TF23 (CAF India) and TF61 (Bill and Melinda Gates Foundation) amongst others seem to have overall high scores across the centrality measures plotted.

Table 11: Centrality Measures for the most Central Actors (sorted by Betweenness Score)

			Degree Centrality				
#	**Code**	**Name**	**Degree**	**Freeman Degree**	**2-Mode Degree**	**Closeness**	**Betweenness**
			(Raw)	**(%)**	**(%)**	**(%)**	**(%)**
1	TF51	Ford Foundation	17	7.49	30.40	29.20	19.60
2	TF23	CAF India	3	1.32	5.40	26.50	9.70
3	TF61	Bill and Melinda Gates Foundation (Gates Foundation)	5	2.20	8.90	28.30	8.40
4	TF41	Asha For Education USA	2	0.88	3.60	22.70	7.40
5	CF27	iPartner India	3	1.32	5.40	28.30	6.80
6	TF9	Global Giving	3	1.32	5.40	27.30	5.10
7	TF1	John D and Catherine T MacArthur Foundation (MacArthur Foundation)	6	2.64	10.70	27.50	4.90
8	TF17	UBS Optimus Foundation	3	1.32	5.40	27.80	4.90
9	CF72	American Jewish World Service	5	2.20	8.90	27.80	4.40
10	TF8	Michael and Susan Dell Foundation (MSDF)	2	0.88	3.60	25.50	4.20
11	CF76	Swedish International Development Cooperation Agency (SIDA)	2	0.88	3.60	23.60	4.20
12	CF19	Cartier Philanthropy	2	0.88	3.60	28.10	3.90
13	TF16	Oracle	2	0.88	3.60	26.60	3.20
14	CF57	UN Women	2	0.88	3.60	26.60	3.20

However, Table 12 below establishes that betweenness is a more robust and reliable centrality measure for identifying the most central target funders and co-funders. For example, Table 12 below shows that if degree centrality measures are used, the NSP actor TF38 (Macquarie Group Foundation) appears as a central actor. However, it has been established in Figure 16 and Table 8 that TF38 is embedded in an isolated component (Component G) of this network. This is evident through its very low betweenness score. This case can also be made for NSP actor TF33 (Hans Foundation) and several other actors which have high degree centrality scores but occupy isolated or peripheral positions in this network. In contrast, the counter argument can be made for NSP actor TF41 (Asha for Education USA) which, despite having a low degree centrality score, has a high betweenness score, and is embedded in the largest component (Component A) of this network (see Figure 16). Similarly, co-funders such as CF27 (iPartner India) and CF72 (American Jewish World Service) also occupy central positions in this network due to their high betweenness scores.

Table 12 establishes that whilst some target funders or co-funders appear as central actors due to their high degree centrality scores, i.e., number of funding ties with education initiatives however, degree centrality-based measures (i.e., raw degree, Freeman degree, 2-mode degree, and closeness) do not help in assessing the relative importance of these ties. In other words, degree centrality measures do not indicate the structural importance and advantage of a presumed central actor. Thus, degree centrality measures are not appropriate for determining centrality in this network because these can lead to inaccurate findings. In contrast, betweenness centrality measure helps in locating central actors that may have few, but relatively important ties with other actors. Centrality measures for all 172 funders (target funders and co-funders) are provided in the Appendix A and B.

Table 12: Examples of Betweenness as the most Suitable Centrality Measure for Funders

			Degree Centrality				
#	**Code**	**Name**	**Degree**	**Freeman Degree**	**2-Mode Degree**	**Closeness**	**Betweenness**
			(Raw)	**(%)**	**(%)**	**(%)**	**(%)**
Isolated Actors							
1	TF38	Macquarie Group Foundation	5	2.20	8.90	11.20	0.00
2	TF33	Hans Foundation	3	1.32	5.40	11.10	0.00
Central Actors							
3	TF41	Asha For Education USA	2	0.88	3.60	22.70	7.40
4	CF27	iPartner India	3	1.32	5.40	28.30	6.80
5	CF72	American Jewish World Service	5	2.20	8.90	27.80	4.40

If a similar analytical process is applied to the selected girls' and women's education initiatives, we see that the betweenness centrality measure provides a fitting estimate of an education initiative's centrality in the network. Education initiatives which are most central, and therefore, enjoying advantageous positions in this network are shown in Table 13 below. It shows that education initiatives such as ED8 (Educate Girls), ED16 (Pratham Second Chance Program) and ED39 (Azad Foundation for Research and Advocacy) amongst others, occupy structurally important positions in this network. This implies that if these education initiatives (and for that reason the most central target funders and co-funders shown in Table 11) are removed, this will result in the disintegration of the structurally prominent Component A (Figure 16) and thus, will result in extreme fragmentation of this network.

Table 13: Centrality Measures for the most Central Education Initiatives (Sorted by Betweenness Score)

			Degree Centrality				
#	**Code**	**Name**	**Degree**	**Freeman Degree**	**2-Mode Degree**	**Closeness**	**Betweenness**
			(Raw)	**(%)**	**(%)**	**(%)**	**(%)**
1	ED8	Educate Girls	26	11.45	15.10	20.50	22.40
2	ED16	Pratham Second Chance Program	17	7.49	9.90	20.60	17.30
3	ED39	Azad Foundation for Research and Advocacy	13	5.73	7.60	20.40	15.30
4	ED46	Institute of Social Studies Trust	20	8.81	11.60	19.80	14.20
5	ED4	Anudip Foundation	18	7.93	10.50	19.70	12.70

			Degree Centrality				
#	Code	Name	Degree	Freeman Degree	2-Mode Degree	Closeness	Betweenness
			(Raw)	(%)	(%)	(%)	(%)
6	ED55	Bodh Shiksha Samiti	6	2.64	3.50	17.70	11.00
7	ED33	Technovation Challenge	13	5.73	7.60	19.10	7.80
8	ED32	Unnati	8	3.52	4.70	14.70	6.90
9	ED42	Creating Resources for Empowerment and Action	6	2.64	3.50	18.50	6.30
10	ED23	Access Academy Program	7	3.08	4.10	19.20	4.10
11	ED52	Society for Participatory Research in Asia	6	2.64	3.50	19.60	4.10
12	ED26	Expanding Economic Opportunities for Women Entrepreneurs	2	0.88	1.20	15.20	3.50
13	ED30	Education For All	4	1.76	2.30	18.30	3.30
14	ED48	Marie Stopes China	7	3.08	4.10	19.10	3.20

Next, as discussed in the section above on most central funders, Table 14 below shows that betweenness is the most suitable measure for ascertaining centrality of education initiatives. For instance, ED35 (Happy Chandara) appears to be a central player with high degree centrality scores; however, it is embedded in an isolated component (Component B) of the network (see Figure 16 and Table 8). This is evident in its very low betweenness score. As shown in Table 14, a similar case can be made for ED22 (Seng Girls Vocational Training School), which has a high degree centrality score; however, it is also part of an isolated component (Component H) of the network, indicated by its very low betweenness score.

In contrast, despite having low degree centrality scores, education initiatives ED32 (Unnati) and ED42 (Creating Resources for Empowerment and Action) are more central actors because, being embedded in the largest and most active Component A of this network, these initiatives are more structurally important for the network. In this sense, due to their high betweenness scores, ED4 (Anudip Foundation), ED8 (Educate Girls), ED16 (Pratham Second Chance Program), ED23 (Access Academy Program), ED33 (Technovation Challenge), ED39 (Azad Foundation for Research and Advocacy), ED46 (Institute of Social Studies Trust), and

ED55 (Bodh Shiksha Samiti) are the most central education initiatives in this network (see Table 13). Centrality measures for all 56 selected education initiatives are provided in Appendix C.

Table 14: Examples of Betweenness as the most Suitable Centrality Measure for Education Initiatives

			Degree Centrality				
#	**Code**	**Name**	**Degree**	**Freeman Degree**	**2-Mode Degree**	**Closeness**	**Betweenness**
			(Raw)	**(%)**	**(%)**	**(%)**	**(%)**
Isolated Education Initiatives							
1	ED35	Happy Chandara	11.00	4.85	6.40	8.10	0.20
2	ED22	Seng Girls Vocational Training School	7.00	3.08	4.10	8.00	0.10
Central Education Initiatives							
8	ED32	Unnati	8	3.52	4.70	14.70	6.90
9	ED42	Creating Resources for Empowerment and Action	6	2.64	3.50	18.50	6.30

As a final consideration, if the most central target funders and co-funders (Table 11) and most central education initiatives (Table 13) are considered further, it becomes clear that most central actors in this network tend to 'act together'. Table 15 below shows this 'acting together' network relationship between target funders, co-funders and education initiatives. It becomes evident that the most central target funders, co-funders, and education initiatives occupy the structurally important and advantageous positions in this network because they seem to be exercising their influence together in this network.

Table 15: 'Acting Together' Relationships between the most Central Target Funders, Co-funders, and Education Initiatives

#	Code	Central Target Funders and Co-funders	Funded Central Education Initiatives
1	TF51	Ford Foundation	Access Academy Program (ED23), Azad Foundation for Research and Advocacy (ED39), Creating Resources for Empowerment and Action (ED42), Institute of Social Studies Trust (ED46), Marie Stopes China (ED48), Society for Participatory Research in Asia (ED52)
2	TF23	CAF India	Educate Girls (ED8), Bodh Shiksha Samiti (ED55)
3	TF61	Bill and Melinda Gates Foundation (Gates Foundation)	Pratham Second Chance Program (ED16), Access Academy Program (ED23), Education for All (ED30), Institute of Social Studies Trust (ED46), Marie Stopes China (ED48)
4	TF41	Asha For Education USA	Unnati (ED32), Bodh Shiksha Samiti (ED55)

#	Code	Central Target Funders and Co-funders	Funded Central Education Initiatives
5	CF27	iPartner India	Educate Girls (ED8), Azad Foundation for Research and Advocacy (ED39), Society for Participatory Research in Asia (ED52)
6	TF9	Global Giving	Anudip Foundation (ED4), Azad Foundation for Research and Advocacy (ED39)
7	TF1	John D and Catherine T MacArthur Foundation (MacArthur Foundation)	Pratham Second Chance Program (ED16), Access Academy Program (ED23),
8	TF17	UBS Optimus Foundation	Educate Girls (ED8), Pratham Second Chance Program (ED16)
9	CF72	American Jewish World Service	Azad Foundation for Research and Advocacy (ED39), Creating Resources for Empowerment and Action (ED42), Institute of Social Studies Trust (ED46),
10	TF8	Michael and Susan Dell Foundation (MSDF)	Anudip Foundation (ED4), Bodh Shiksha Samiti (ED55)
11	CF76	Swedish International Development Cooperation Agency (SIDA)	Expanding Economic Opportunities for Women Entrepreneurs (ED26), Creating Resources for Empowerment and Action (ED42)
12	CF19	Cartier Philanthropy	Educate Girls (ED8), Azad Foundation for Research and Advocacy (ED39)
13	TF16	Oracle	Educate Girls (ED8), Technovation Challenge (ED33)
14	CF57	UN Women	Institute of Social Studies Trust (ED46), Technovation Challenge (ED33)

The next section reviews the isolated actors. My findings pertain to the sub-research question which is restated below.

2b). Which actors are isolated?

Isolated Actors

The isolated target funders, co-funders and education initiatives embedded in the detached components of the active financing networks in girls' and women's education in in East Asia and the Pacific and South Asia have been discussed at some length in the above sections (see also Figure 16 and Table 8). In order to supplement my findings, Table 16 below shows that despite having high degree centrality measures, isolated actors (nodes with raw degree >1) have very low betweenness scores. In other words, isolated actors do not fall 'in between' the other actors in this network, and they do not share ties with more central actors. As shown in Figure 16 and Table 8, entrenched in isolated components, these isolated actors are cut off from the largest

component (Component A) of this network which is the most substantial concentration of financing and implementation activity in girls' and women's education in East Asia and the Pacific and South Asia. The centrality measures for all other isolated actors (including those nodes with raw degree = 1) have been provided in Appendix A and C.

Table 16: Centrality Measures for the Most Isolated Funders and Education Initiatives (raw degree>1)

			Degree Centrality				
#	**Code**	**Name**	**Degree**	**Freeman Degree**	**2-Mode Degree**	**Closeness**	**Betweenness**
			(Raw)	**(%)**	**(%)**	**(%)**	**(%)**
Funders							
1	TF38	Macquarie Group Foundation	5	2.20	8.90	11.20	0.00
2	TF33	Hans Foundation	3	1.32	5.40	11.10	0.00
Education Initiatives							
1	ED35	Happy Chandara	11	4.85	6.40	8.10	0.20
2	ED22	Seng Girls Vocational Training School	7	3.08	4.10	8.00	0.10
3	ED5	City & Guilds and Manipal Foundation Scholarship Fund	2	0.88	1.20	7.80	0.00
4	ED12	Pardada Pardadi Girls School (PPGS)	2	0.88	1.20	7.80	0.00

In summary, findings from my descriptive and social network analysis presented in this chapter are aligned and supplement each other. My analysis of the largest component (Component A) of the financing networks further enriches and strengthens the macro-level findings of the descriptive analysis with micro-level network relationships between funders and education initiatives. This chapter also identifies the most central and isolated actors in this network and establishes that the South Asia region and India are the hubs that attracted the most activity with respect to the financing and implementation of girls' and women's education initiatives in East Asia and the Pacific and South Asia. Next, Chapter 5 will discuss the significance of these findings in light of existing literature on NSP actor engagement with girls' and women's education.

Chapter 5: Discussion

This chapter discusses the findings of my descriptive and social network analysis presented in the previous chapter and places their significance in the context of the framing literature. Organized by overarching themes identified, this chapter also includes a discussion on the limitations of my study and implications for future research. For ready reference, my research questions are restated below:

1). How is the financing landscape of girls' and women's education in East Asia and the Pacific and South Asia organized?

2). What are the key characteristics of the active financing in girls' and women's education in these regions?

2a). Who are the central actors in the network(s)?

2b). Which actors are isolated?

Interpretation and Significance of the Findings

The main findings from my analysis are discussed in this section. These are ordered by prominent themes which also lend discussion space to other substantive issues.

Low Levels of Activity in Girls' and Women's Education

One of the key findings as discussed in Chapter 4 is that of the 1200 education initiatives tracked in the Invest-ED database (version March 2020), only 113 (~9%) were found to be specifically targeting girls' and women's education. This section presents findings from few other studies encountered on financing of initiatives for girls and women by NSP actors. Whilst my analysis includes education initiatives active only in East Asia and the Pacific and South Asia, Miller et al. (2013) study, which covered a total of 170 worldwide initiatives focused on

women and girls across multiple sectors, shows that 21% targeted education (p. 18). In another study of 91 multilateral, bilateral, and NSP actors, 75% of survey respondents reported a specific strategic focus on girls' education in 2015, however, "education made up a small fraction of their aid portfolio in 2013" (Ackerman, 2015, p. 9). In this sense, while the diverse scopes and methodologies of these studies influence the proportion of initiatives targeting girls' and women's education, these smaller proportions suggest low levels of NSP actors' activity in girls' and women's education.

Additionally, in terms of the increased engagement of NSP actors, the findings of my analysis are aligned with these studies which also acknowledge the growing interest and contribution of NSP actors in supporting girls' and women' education. Whilst total philanthropic giving for education saw marginal increase of ~10% from $2.1 billon between 2013-15 to $2.3 billion between 2016-19 (OECD netFWD, 2019, p.10), Miller et al. (2013) estimate $14.6 billion commitment by NSP actors to support girls and women between 2005-2020 (p. 9). This estimate includes sectors other than education. Noting the growing role played by NSP actors in shaping the larger discourse on financing and diversity of their financing strategies, the authors contend:

> Investing in women and girls as 'smart economics,' as a way to end poverty and drive long-term growth and prosperity, has become a favoured strategy in development and philanthropy over the past several years on an unprecedented scale. Today, a host of campaigns and initiatives – including from corporate sector actors that had not previously been seen as "development" players – are dedicated to supporting women and girls. (Miller et al., 2013, p. 8)

Ackerman (2015) concurs with her findings that "girls are a major focus for institutions funding or investing in education in the context of development" (p. 7). Of the 91 multilateral

and bilateral donors, and NSP actors covered in her study, 87% of multilateral and bilateral donors, and over 50% of private foundations and corporate donors reported gender mainstreaming in their programs and projects (Ackerman, 2015, p. 8). In addition, over 66% of NSP actors reported increased budgets for girls' education within their own institution over the past 10 years (Ackerman, 2015, p. 9). Thus, rather than being a short-term fascination, the growing engagement of NSP actors with girls' and women's education may well be a long-term trend. Further, United Nations Girls' Education Initiative (UNGEI) notes that "girls' education is a development priority that commands near-universal approval… Ensuring that all girls can go to school and learn will naturally require additional financial resources" (UNGEI, 2021, p. 8). Thus, the contribution of NSP actors is also key for the sustainability of girls' and women's education initiatives. According to Girls' Education Challenge (GEC), "replication and scaling involve a wide range of stakeholders and is only feasible with certain political, social, and economic factors on the ground" such as sectoral coordination (GEC, 2023, p. 4).

However, some girls' and women's rights organization such as the Toronto-based Association for Women's Rights in Development (AWID) are equally skeptical about the increased participation of NSP actors in development finance and their growing influence in setting funding agendas and priorities. With the emergence of NSP actors as their potential allies for leveraging new resources and approaches, organizations such as AWID dismiss these efforts as "simplistic charity (at best) or attempts to 'pink-wash' negative corporate practices (at worst)" and regard the emergent financing landscape as "philanthropic colonialism" (Miller et al., 2013, p. 41). Similarly, some scholars are wary of making the education crisis in many countries with low socio-economic indicators purely a girls' problem (Porter, 2016; Sperling et al., 2016) that can only be solved by women. Including girls and boys from rich, middle and poor classes, and

urban and rural settings; and all children with disabilities and those without, in their concept of 'universal education', Sperling et al. (2016) argue that:

> No one with whom we have ever worked would be satisfied with achieving "gender equity" if it simply meant that both boys and girls were stuck at an equal level of low and inferior educational completion and learning. It is just as heartbreaking and tragic to witness boys seeing their spirits and often future prospects crushed by being denied the chance for an education or being forced into unacceptable child labor. (p. 5)

As a summary of this section, the existing literature notes the increasing contribution, and therefore, the engagement of NSP actors with the girls' and women's education. However, supporting more initiatives in girls' and women's education is not the only aspect of this multi-faceted issue. For instance, the COVID-19 pandemic aggravated the existing social inequalities and created new ones (i.e., the digital divide). Before the onset of COVID-19, "129 million girls were out of school — and 20 million more secondary school-aged girls could be out of school when the pandemic ends" (UNGEI, 2021, p. 6). Addressing this worsening crisis, therefore, will not only require wide-ranging cooperation and pooling of economic resources, but also an equal focus on boys through intersectional and universal approaches to education (Porter, 2016; Sperling et al., 2016). Thus, rather than the immediate concerns for getting girls and boys into schools and keeping them there, "we need insight into how these connect with local, national and transnational struggles, critical epistemologies, and ways to understand the connections of inequalities and strategies to realise equalities in and through schooling" (Unterhalter, 2017, pp. 194-195). As a priority area, new allies and increased resources are needed in girls' and women's education, yet "an economic justice lens must go hand in hand with any financing strategy for women and girls" (Miller et al., 2013, p. 41). Clearly, more fundamental trepidations are about

the deep-rooted and linked forms of social disparities that need to be addressed through integrated programming in the education sector (Sperling et al., 2016; Unterhalter, 2017).

Made in South Asia and Linked in India

Next, my descriptive analysis showed that of the selected 56 girls' and women's education initiatives financed by NSP actors and co-funders, 44 (79%) were active in South Asia, and India was the main country of operations for 37 (66%) initiatives. Further, the description of the largest component (Component A, see Chapter 4; Table 10), also showed that South Asia and India were the hubs attracting the most financing and implementation activity in girls' and women's education in East Asia and the Pacific and South Asia regions.

According to the World Bank (2022), South Asia was home to 1.92 billion people or close to 25% of world population in 2022. Matthews and Srivastava (2019) contend that "South Asia has one of the highest proportions of girls out of school. It also has the greatest discrepancies in youth and adult gender parities, and it had the second-lowest youth and adult literacy rates after Sub-Saharan Africa in 2016" (pp. 12-13). According to the authors, South Asia is also facing falling levels of bilateral and multilateral aid to basic education, and the impact of conflict-led crises on girls, women, and refugee children. In 2017, "South Asia hosted the largest number of refugees globally in view of resurgences in Afghanistan and displacement from Myanmar, 50% of whom were under the age of 18, a large number, girls and women" (Matthews & Srivastava, 2019, p. 13).

However, the region also affords some bright prospects. The GEM Report 2019 notes that while gender parity is being achieved globally, "the situation varies by region. The gender parity index (GPI) for Central and Southern Asia, dominated by progress in India, had improved rapidly at all three levels. By contrast, sub-Saharan Africa is far from parity at all levels"

(UNESCO, 2019, p. 7). Figure 17 below shows that while central and southern Asia have led the progress towards gender parity in primary and lower secondary levels across all world regions, noteworthy gains are still to be made in upper secondary levels.

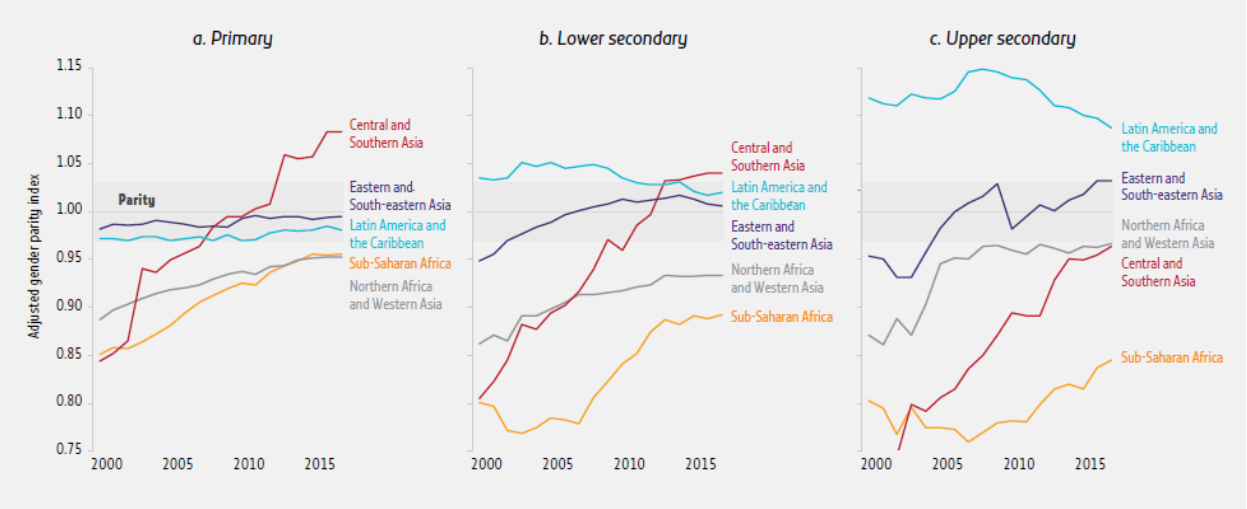

Figure 17: Adjusted GPI for Selected Gross Enrolment Ratios and Regions (2000–2017)

Source: Reproduced from UNESCO, 2019, p. 8

In addition to the demographic factors where "Asia and Africa are likely to drive the biggest changes in the education attainment over the next decade" (HolonIQ, 2020, p. 34), the philanthropic financing flows for education in South Asia are also on the rise. For example, Asia claimed $608 million (29%) of the total $2.1 billion worldwide philanthropic funding for education during 2013-15 (OECD netFWD, 2019). This trend is noted by Miller et al. (2013) who found that 42 (64%) women and girls initiatives covered in their study were operational in South Asia (p. 17). Similarly, Ackerman (2005) contends that "multilateral and bilateral organizations and corporations… invest or fund fairly evenly across each region, while foundation survey respondents are concentrated in sub-Saharan Africa and South Asia" (p. 17).

This increased activity of NSP actors and higher financing flows are indicative of macro-level developments. Driven by fast-growing economies of Asia, Africa and Middle East, the global education market is expected to grow by 30% to $6.3 trillion by 2017 from $4.4 trillion in 2013 (UNESCO, 2021a). The longer-term forecasts estimate the education market to reach $10 trillion by 2030 (HolonIQ, 2020). Thus, South Asia offers a prime location for NSP actors to leverage diversified investment strategies (HolonIQ, 2020; Srivastava & Read, 2020).

Within these rising levels of education opportunities in South Asia, India is claiming a dominant share of philanthropic financing flows. Of the total $2.1 billion worldwide philanthropic giving for education during 2013-15, India alone received $290 million or 14% (OECD netFWD, 2019). Other estimates show that when other sectors such health and reproductive health are included, India was recipient of $1.2 billion of philanthropic giving between 2013 and 2015 (OECD, 2019). Looking into the factors behind such rising levels of investment in India by NSP actors, the study notes that:

> Other previous estimates from foundations based in the United States also place India as the principal recipient of philanthropic funding, providing funding for approximately USD 1.4 billion between 2011 and 2015…The high level of international philanthropic funding for India can mostly be explained by donations made by the Bill and Melinda Gates Foundation (BMGF), which has increased its funding commitments in India steadily from USD 169 million in 2009 to USD 335 million in 2017 (OECD, 2019, p. 15).

Further, as shown in Figure 18 below, other studies (Ackerman, 2015) also report that India remained the top destination for girls' education funding. Figure 18 also shows that countries in the third column (marked by asterisks) had the lowest GPI (or fewest number of girls enrolled in secondary schools compared to boys). However, these countries were not prioritized

by multilateral and NSP actors and these were also not the top recipients of bilateral ODA grants (Ackerman, 2015, p. 19).

Top Countries for Investment in Education (number of institutions funding education projects)		Top Recipients of Official Development Assistance to Education (2011, millions)		Lowest GPI in Secondary School Enrollment (2006 or later)	
India	15	India	792	Chad*	0.46
Kenya	14	China	766	Somalia*	0.46
Pakistan	13	Pakistan	554	Central African Republic*	0.51
Tanzania	13	Palestine	409	Togo*	0.53
Indonesia	10	Afghanistan	381	Afghanistan	0.55
Vietnam	10	Bangladesh	365	Democratic Republic of Congo*	0.59
Afghanistan	10	Indonesia	364	Benin*	0.61
Bangladesh	10	Ethiopia	315	Guinea*	0.63
Nigeria	10	Morocco	312	Ethiopia	0.63
China	9	Vietnam	296	Yemen*	0.65
Ghana	9	Mozambique	254	Angola*	0.65
Rwanda	9	Jordan	236	Niger*	0.67
Uganda	9	Ghana	193	Mali*	0.72

Figure 18: Country-vise Prioritization of Funding in Girls' Education

Source: Reproduced from Ackerman, 2015, p. 19

Many factors contribute to India's rise as the top destination for philanthropic giving. OECD contends that "international philanthropic funding in India has also gained in importance due to greater global interest in supporting the country's development… from the resources allocated to specific countries, India received the largest flows" (OECD, 2019, p. 15). According to the OECD study, rapid expansion and strong economic growth over the last few decades, and domestic regulatory framework including the *Companies Act, 2013* and the *Foreign Contribution (Regulation) Act, 2010* are changing the role of domestic philanthropic giving in India itself, which "at least matched international philanthropic funding in recent years, with close to USD 1.8 billion in domestic spending between 2013 and 2017. Education, health and rural

development attracted the largest funding" (OECD, 2019, p. 7). In highlighting NSP actors' growing attention to India, the report argues that:

> Global interest in India's social and economic development is high – reflected in important levels of external funding – and it has become the largest recipient of international philanthropic flows, while external financing from foreign direct investment (FDI) and personal remittances have increased as a percentage of GDP. Meanwhile, official development assistance (ODA) as a percentage of Gross National Income (GNI), has decreased. (OECD, 2019, p. 7)

However, India's rise as the leading area for investment by NSP actors is marked with contrasting images. Whilst demographic factors such as large population, rural-urban divide, large number of youth and first-generation learners, and low education attainment have been much documented, some studies evidence the extreme educational inequalities in India. For instance, Katiyar (2016) argues that "India has the dubious distinction of having one of the world's highest rates of adult illiteracy" (p. 46). Some successful examples of more equitable girls' and women's education certainly exist i.e., "gender disparity in literacy is lowest in Meghalaya (3.1 per cent) followed by Mizoram and Kerala (4 per cent) and Nagaland (6.4 per cent)" however, states and territories such as Rajasthan (27.1%), Jharkhand (21.4%) and Dadra and Nagar Haveli (20.9%) show the greatest gender disparities in adult literacy existing parallelly in India (Katiyar, 2016, p. 52). Similarly, using the latest National Sample Survey (NSS) data from 2017-18, Mitra, Mishra, and Abhay (2022) show that:

> The likelihood of out-of-school (OOS) girls is at least 16% higher than that of boys. The probability declines at every stage of income quintile from 'poorest' to the 'richest'. The likelihood in urban areas is almost 35% lower than the rural areas. Compared to the upper castes the probability is higher for the backward castes. Compared to Hindus, the likelihood is higher

> among Muslims but lower among Christian and Sikh children… poor Scheduled-Tribes girls are the most vulnerable…. the majority of the vulnerable regions belong to a few states viz. Rajasthan, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, and Gujarat. (pp. 13-15).

In summary, this section discussed my findings on South Asia region and India at the country level, witnessing the most substantial activity with respect to financing and implementation of girls' and women's education within the context of existing literature. Home to ~25% of world population (World Bank, 2022), South Asia and India present the prospects of a fast-growing education market for NSP actors along with potential gains in academic attainment (HolonIQ, 2020). However, challenges remain. For example, gender parity is improving in South Asia as a whole yet, trends are not encouraging in Afghanistan, Bangladesh, and Pakistan, and whilst ahead of Sub-Sharan Africa, South Asia lags behind most other regions in the world in achieving gender parity in upper secondary levels (UNESCO, 2019). Whereas, poised on a scale of extremes, one of widespread inequalities and the other of a fast-expanding economy, India presents the image of an enigmatic balance which probably will tip in favour of rapid economic expansion. However, some observers are concerned that "what is particularly worrying in India's case is that economic inequality is being added to a society that is already fractured along the lines of caste, religion, region and gender" (Oxfam International, n.d.).

Priority for Access to Education, Advocacy and Skills

Next, my descriptive data showed that whilst 'Workforce Development/Skills' was the leading education sub-sector, 'Skills, Workplace Transition, and Continuing Education', 'Advocacy & Policy', and 'Access to Education' were the most prominent programming areas of the education initiatives financed by NSP actors. These findings were confirmed by my social network analysis and the micro-level examination of the largest component (Component A, see

Chapter 4; Table 10) in the financing networks active in the girls' and women's education in East Asia and the Pacific and South Asia.

This section reviews three other studies on NSP actor engagement with girls' and women's education to situate the findings from my analysis. First, in their study of 170 global initiatives for women and girls, Miller et al. (2013) found that with 21% of the initiatives, education for women and girls was the "third most commonly supported theme", supporting NSP actors' collective acknowledgement that "education is a powerful equalizer and central to development" (p. 21). Citing examples of initiatives that were focused on "business skills training", offering "access to financial services and connections with peers or mentors", entrepreneurship opportunities for women, "raising the awareness… around issues like education for girls", and a holistic approach to education "to ensure that access to high quality education becomes a right and not a privilege", the study emphasizes the priority for access to education, advocacy and workplace skill development by NSP actors (Miller et al., 2013, pp. 21-22).

Next, in her study of 91 bilateral, multilateral and NSP actors funding girls' education initiatives globally, Ackerman (2015) found that there was 'strong' evidence or impact of activities funded by NSP actors such as provision of school supplies and financial support along with those on "raising awareness about education and life trajectories", "challenging social norms that deter education" and academic support (pp. 27-28). The author links education with empowerment of girls for equal economic participation since "evidence shows that raising awareness about the economic returns to schooling is important for girls' participation, and this message may support campaigns that aim for enrollment" (Ackerman, 2015, p. 29).

Finally, the 2019 GEM Report which includes a survey of G7 bilateral aid agencies, multilateral organizations and NSP actors for identifying priorities in girls' education,[9] contends that "donors tackle priorities on girls' education in various ways" (UNESCO, 2019, p. 36). According to the GEM Report, the first three priority areas in the survey were related to gender norms, i.e., empowerment of girls and boys to fight gender stereotypes, engagement of local actors, and female participation in STEM disciplines. Policies to improve access to education included the next three priorities: cash and in-kind transfer programmes for girls (in particular, from disadvantaged groups); second-chance programmes for girls who have left school or are at risk of leaving; and technical and vocational education. Other six priorities were related to policies for improving teaching and learning resources and the learning environment (UNESCO, 2019, pp. 36-42).

Yet, the report also cautions that a focus on gender equality in aid programming may not be adequate in itself (UNESCO, 2019). This is because "the broad selection of donor approaches to tackling challenges in girls' education… is not intended to be representative of all interventions in the priority areas, nor is it necessarily indicative or suggestive of good practice in conception and/or implementation" (UNESCO, 2019, p. 42). Thus, instead of a macro-level focus, application of a meticulous criterion for assessing aid interventions in girls' education is required which includes indicators such as "whether they were effective in tackling one or more priorities with a proven positive impact on gender equality", "whether they were scalable and replicable" and 'whether they were participatory in development or implementation" (pp. 42-43). In reality, the evidence on girls' education initiatives achieving these benchmarks of

[9] The Group of Seven (G7) is an intergovernmental forum including Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. The European Union (EU) is a non-enumerated member. Source: https://www.g7hiroshima.go.jp/en/summit/about/

effectiveness, scalability and participation remains rather inadequate (UNESCO, 2019, p. 43). The report notes these as the outstanding areas where NSP actors can demonstrate their commitment to improving outcomes for girls and women, and in the broader education sector.

However, some scholars suggest that "it is important to unpack the two terms—'replicability' and 'scalability'—instead of invoking them together unthinkingly" (Baruah, 2021, p. 190). This is because "by considering only numbers and not depth of impact in its conceptualization of 'scale'" (Baruah, 2021, p. 190), an NSP actor may actually preclude education initiatives from becoming scalable and replicable. In this is sense, in order to achieve a longer-term impact, there is also a need for NSP actors to "move beyond "scaling up" to thinking about "scaling deep" (Baruah, 2021, p. 190).

In summary, whilst the findings of my analysis and other studies are aligned on the priority programming areas for girls' and women's education, the discourse has shifted from just the prioritization of areas and activities to evidence generation. According to Unterhalter et al. (2014) who conducted a rigorous literature review of the studies on interventions in girls' education and gender equality, this result-oriented focus on resource distribution, expansion and improvement is rather well documented. However, the authors encountered fewer studies on interventions focused on changing gender norms, and participation of the most marginalised girls in decision-making and reflection (p. 28). Thus, the authors further explain:

> It appears from this review that we know in greater depth about resource inputs, attending to aspects of supply, and certain features of institutional change, than we know about relationships to shift norms and address processes of inclusion in relation to deliberation and decision making. The greater preponderance of quantitative rather than qualitative studies…leads to more knowledge about causal relations, generally associated with access and participation. The more

> complex interactions associated with quality, gender equality and eliminating social divisions are much less well investigated and causal explanations… are much less well established. (Unterhalter et al., 2014, p. 28)

In this sense, by targeting access to education, advocacy, and skills development for girls' and women, NSP actors and their financed education initiatives may be moving in the right direction. However, in addition to demonstrating efficiency, scale, and participation (UNESCO, 2019, Unterhalter et al., 2014), generating evidence on quality of the interventions to eradicate systemic inequalities through holistic programming (Unterhalter, 2017), and paying equal attention to smaller scale but deep-rooted interventions in girls' and women's education are also part of their remit (Baruah, 2021).

Importance of Context, Data and Hybrid Nature of NSP Actors

Finally, the descriptive data on the target funders (all of which were NSP actors) in this analysis showed that, in terms of organizational attributes, close to 60% were private foundations, followed by charity/NGO at 11%. In contrast, only 4% were impact investors by organizational type. A majority (87%) were operating under not-for-profit status and 70% did not use impact investing as a financing strategy. Whilst these findings are aligned with my analysis of the target funders present in the largest Component A (Table 9), and the most central target funders (Table 11), this section raises more substantive issues.

First is the question of context, or, in other words, would other areas or education sub-sectors such as early childhood education how similar patterns? whilst my descriptive and social network analysis established the predominance of private foundations, organizational forms may not be the contributing factors towards activity concentrations in financing networks in girls' and women's education or for that matter, in the broader education sector. This primarily because comparative studies on NSP actors' engagement across various education sub-sectors are scant,

and the hybridity intrinsic to their work is not accounted for in the existing literature (Srivastava & Read, 2019). In her study of GPE as a global network of diverse funders including NSP actors, Menashy (2016) argues that "collaborative educational relationships likely cannot be defined and formed based solely on organizational characteristics or even common opinions around policy problems and solutions" (p. 115). Further, in her investigation of efficacy of PPPs in girls' education, Unterhalter (2017) contends that "we cannot read off from the organisational form of PPPs whether they are in themselves good or bad for gender equality, girls' schooling or advancing a women's rights agenda" (p. 195). NSP actors link a profit-oriented, not-for-profit (social impact) or hybrid (including both profit and not-for-profit) motive to their work and use a diversity of financing strategies and organizational forms depending on the legal or operational contexts. This is why it is important to pose the question whether girls' and women's education area is funded differently from other areas?

Secondly, whilst my study analyses data from a relatively larger number of funders active in financing girls' and women's education however, in reality, collecting data on NSP actors is a complex undertaking because consistent public data, especially on the magnitude and duration of funding, is not always available. Central actors, their partnerships, and the concentration of their activity (as identified in Chapter 4) are not necessarily indicative of the actual magnitude of funds spent. This type of granular public data on funding by initiative are rarely available. In this sense, whilst Ford Foundation, Bill and Melinda Gates Foundation, and MacArthur Foundation emerged as the most central NSP actors in this network however, this does not necessarily indicate the magnitude of funds spent for girls' and women's education in the region because the "overall opacity of the sector" (Matthews & Srivastava, 2019, p. 21) restricts availability of this type of data. The OECD survey on domestic philanthropy in India also raises this key question:

> The quantification of domestic philanthropy has remained challenging. Data disclosure is for the most part voluntary: apart from CSR… private philanthropic funding is not regularly identified, and no data is being collected by States or the federal government. Some organisations – such as the Tata Trusts –voluntarily publish yearly reports with the allocation of their grants, but this practice is not followed by the majority of grant-making organisations. (OECD, 2019, p. 8)

Finally, the organizational form of NSP actors is not necessarily indicative of their financing strategies. Some private foundations identified by this study as central actors i.e., MacArthur Foundation and Michael and Susan Dell Foundation, use impact investing as one of their financing strategies whereas, other central private foundations such as Bill and Melinda Gates Foundation and David and Lucile Packard Foundation do not. Thus, blurring definitions and overlapping classifications complicate global or regional analyses. This complexity is explained by Srivastava and Read (2019) in the following sense:

> First, there are multiple organisational forms and multiple sources and definitions, sometimes for the same form. Some variations in definition are slight, but others are quite significant. Some may even have legal distinctions in a specific context. These variations may make it impossible to decipher the most appropriate 'standard' definition for an organisational form in the absence of specific regulatory or procedural contexts. Such issues are starkly apparent in the case of 'philanthropic foundations'. Second, some terms may be commonly referred to or understood as strategies and organisational forms, e.g., strategic or venture philanthropy. This blurs the organisational identities, organisational forms and institutional logics of hybrid organising. Third, certain characteristics suggested by a definition may not correspond to all organisations that operate as such… Fourth, some may be thought of more commonly as individuals (e.g., angel investors) or may operate informally or as groups through other organising bodies (e.g., network service organisations). (p. 28)

This challenge of hybridity in the nature of NSP actors (Srivastava & Read, 2019) is also noted by other studies. The OECD study on India's private giving (OECD, 2019) notes: "some organisations are exclusively funders, others focus on implementing programmes and some perform a *hybrid role* providing funding to other organisations while carrying out programmes themselves" (p. 12, emphasis added). This complexity is aggravated by legal definitions. For example, "any non-profit legal entity involved in education, health care, religion or community development can be referred to as a 'foundation' and can be legally registered under the same legal structures that regulate charitable institutions" in India (OECD, 2019, p. 13).

As a summary of this section, each sector can be contextually different in terms of NSP actor engagement. What works in other sectors may or may not work for girls' and women's education because NSP actors can use a multiplicity of organization forms and strategies to finance contextually different activity areas. In this sense, organization forms or the use of certain financing strategies do not help in evidencing geographical concentrations of activity, or for that matter, to explain collaboration within the globalized education policy field or structurally central positions in education governance or transnational public–private arrangements (Menashy, 2016; OECD, 2019; Srivastava & Read, 2019; Unterhalter, 2017). Thus, a global or regional comparison of NSP actors is a complex undertaking because what counts as an NSP actor can vary from one sector to another, differ region to region, and depends on their legal and operational contexts. The next section discusses the research limitations associated with this study and its contribution to the literature on NSP engagement in education.

Limitations and Implications for Future Research

The Invest-ED database provides valuable data on girls' and women's education financing by NSP actors. My study was conducted a mapping and social network analysis of a subset of actors included in the regional database i.e., 172 funders (64 target funders and 108 co-funders) and 56 education initiatives active in girls' and women's education in East Asia and the Pacific and South Asia, so that broad inferences about implications of their network relationships can be drawn.

Even so, any database however comprehensive, cannot be exhaustive. My study which shares the findings of a descriptive and social network analysis of a sub-sample of the NSP actors included in the Invest-ED database, i.e., those who invest in girls' and women's education, does not claim to be exhaustive. It is, however, as complete as it is possible given data that could be publicly obtained. Detailed protocols were developed at the time of research project inception phase to compile data on a diversity of funders identified through existing publicly available sources in two specific geographical regions, East Asia and the Pacific and South Asia. This surpasses the limitation of most existing research which focuses primarily on the top 100 USA-based private foundations (Correa-Cabrera, Núñez & Ludwig, 2021; Drummer & Marshburn, 2014; Eckl, 2014; Moran, 2014).

Yet, lack of transparency, i.e., delays in publicly available data and inconsistent reporting by NSP actors, was a known challenge. Furthermore, opaque and aggregated reporting by NSP actors on their investment outlays, funding durations, preferred geographies, programmatic areas, and grantees, posed a major challenge to data collection. Data on financial outlays (exact monetary value of grants/investments), coverage periods, grant utilization, and rates of return on investment were not consistently available, and thus, could not be included in the analysis.

The engagement of NSP actors with the education sector can be studied through advanced technical analyses, and social network analysis as a research method offers the scope and full spectrum of such analytical techniques. However, lack of consistently available public data, varying operational and legal definitions, and the apparent primacy accorded to USA-based NSP actors and western philanthropy in the existing literature are significant obstacles for the conduct of research on NSP actor engagement (Srivastava & Oh 2010). These systematic disparities and methodological weaknesses due to lack of a consistent typology framework on NSP actors, are also evident in the priority area of girls' and women's education where the policy influence of NSP actors through their financing, is increasingly becoming significant (OECD netFWD, 2019). Thus, future research on NSP actor networks can benefit from addressing data gaps, agreeing on a consistent framework for defining NSP actors' work in the education sector, and paying equal attention to the contribution of NSP actors in the Global South. By focusing only on girls' and women's education, a proportionately smaller yet highly urgent area in education, my study attempts to overcome some of these methodological gaps in the existing research on NSP actors.

My study is valuable in several ways. Firstly, private sector financing for education in the Global South is potentially an important source of funding. In terms of aggregate financial flows during 2013-15, "philanthropic giving represented the sixth largest source of funding for education towards developing countries" (OECD netFWD, 2019, p. 7). The top 15 private foundations (by average endowments in USD millions per year) provided 70% of the total $2.3 billion philanthropic giving for education during 2016-19 (OECD, 2021 as cited in UNESCO, 2021a). Secondly, in the presumed form of participatory and non-hierarchical relationships, new partnerships in international aid involving NSP actors, aim to "reconstitute the aid relationship in

a way that obviates power inequality and hegemony" (Menashy & Shields, 2017, p. 495). However, a hands-on and "win-win approach" espousing market-based solutions and PPPs in the Global South also creates and opens-up state-backed or autonomous spaces for contestation. These can profoundly change "education governance structures by surreptitiously embedding forms of privatization in education systems, though this may not be the intention of all actors involved" (Srivastava & Baur, 2016, p. 434). Thus, the influence of NSP actors through their activity, financial flows and network governance in the education sector is worth studying.

Ball (2016) contends that as social and human creations, global policy networks are "complex, enduring, and evolving connections between people, objects, and technologies across multiple and distant spaces and times… they are always under construction; 'always in the process of being made … never finished; never closed'" (p. 562). In this sense, my descriptive and social network analysis of NSP actors financing girls' and women's education initiatives is a complex yet meaningful undertaking. Research on global policy networks in education is nascent, and social network analysis is increasingly recognized by international relations scholars, political scientists, and education policy scholars as a suitable research method (Menashy & Verger 2019).

In addition, my study adds social network analysis as a research method and enriches the existing literature on NSP actors' financing of girls' and women's education which mainly use descriptive data (Miller et. al., 2013; Ackerman, 2015, UNESCO, 2019). In this sense, this study supplements these analyses and shows that social network analysis can be a valuable research method to visualize and interpret financing networks of NSP actors referred to in existing literature. This study can be further enhanced through analysis of multiple other attributes defining the network relationships between NSP actors and education initiatives. Advanced

technical approaches in social network analysis such as analysis of cliques, sub-groups, and fragmentation can be used to draw even deeper insights. Further, similar approaches can be used to study NSP actors' engagement with other sub-sectors such as pre-primary or early childhood education or areas such as education in emergencies. It is hoped that this study will add to the growing body of research by examining unexplored areas of global policy networks in education including their inherent relational and policy processes.

Summary and Conclusions

Framed within the larger discourses of privatization, market-making and network governance in education (Ball, 1998; Ball, 2003; Ball, 2017; Srivastava & Read, 2020) versus emerging perspectives on education as a common good, enshrined in a wider commitment to human rights (UNESCO, 2021a; UNESCO, 2021b), this study analyses the engagement of NSP actors in the area of girls' and women's education. Despite decent progress on achieving gender parity, girls and women continue to face substantial barriers in accessing, continuing, and completing their education (Ackerman, 2015; Chuang et al., 2019; Porter, 2016; Sperling et al., 2016; UNESCO, 2019; Unterhalter, 2017). My study uses descriptive statistics and social network analysis as research methods to conduct a mapping of the landscape of NSP actor financing for girls' and women's education initiatives in East Asia and the Pacific and South Asia. As a preliminary analysis, my study contributes to Invest-ED , an original regional-level database of NSP actors that were active in broader education financing in the regions between 2015 and 2017.

Within the emergent conceptualizations of NSP actors as a new and disruptive force in international education relations (Mundy & Manion, 2014), this study examines broader engagement of NSP actors with the education sector (OECD netFWD, 2019; Srivastava, 2020).

Driven by the emerging economies of Asia, Africa and the Middle East, the global education market is expected to show significant growth into 2030 and creates a new opportunity for NSP actors to leverage diversified investment strategies (Holon IQ, 2020). NSP actors are expected, by some scholars, to play a vital role in education finance amidst close to $200 billion annual financing gap (including $30 to $45 billion incremental costs due to COVID-19 related school closures) to achieve SDG 4 on quality education (Ackerman, 2015; Miller et al., 2013; UNESCO, 2020). Thus, in essence, my study problematizes NSP actor engagement and the network governance of education (Ball, 2007; Ball & Junemann, 2011; Ball & Junemann, 2012; Jung & Harrow, 2015; Menashy, 2016; Menashy & Shields, 2017; Mundy & Manion, 2014; OECD netFWD, 2019), and deliberates on challenges linked to inconsistent typological frameworks to define NSP actor engagement (Srivastava, 2016; Srivastava & Baur, 2016; Srivastava & Read, 2019; UNESCO, 2021a; Unterhalter, 2017).

My study includes the education initiatives which specifically targeted girls' and women's education from the Invest-ED database (version March 2020). In terms of findings, a majority of the initiatives operated in the South Asia region (73%), and in particular in India at the country level (70%). Home to second most populated region in the world (World Bank, 2022), South Asia has highest proportions of girls out of school, where wide discrepancies in gender parity, and conflict-led crises are putting all children at a disadvantage and increasing the vulnerability of displaced girls and women (Matthews & Srivastava, 2019). However, led by the progress in gender parity in India (UNESCO, 2019), South Asia and India offer significant growth prospects for NSP actors in terms of a thriving education market and improvements in educational attainment (Ackerman, 2015; HolonIQ, 2020; Miller et al., 2013; Srivastava & Read, 2020). Rapid economic expansion and existence of regulatory framework are some of the factors

which are enabling India to attract the largest flows of bilateral, multilateral, and philanthropic finance for education (Ackerman, 2015; OECD, 2019; OECD netFWD, 2019).

With respect to programmatic priorities, the descriptive data and social network analysis showed that 'Workforce Development/Skills', 'Advocacy and Policy', and 'Access to Education' were the most commonly funded programming areas of girls' and women's education initiatives. Whilst other studies show close alignment with these findings (Ackerman, 2015; Miller et al., 2013; UNESCO, 2019), general focus on gender sensitive programming in itself will not be adequate because the evidence of impact in terms of effectiveness, scalability, and participatory responses to eliminating systemic disparities in girls' and women's education remains inadequate (UNESCO, 2019; Unterhalter, 2017).

Finally, private foundations were the most central organizational forms in this analysis. However, these findings may be different for other sectors. High levels of opacity in the education sector, inherent hybridity in the nature of NSP actors, and inconsistent definitions do not allow for a global comparison of NSP actors on an equal basis (OECD, 2019; Srivastava & Read, 2019). Thus, concentrations of NSP actors due to geography, activity, organizational forms, or investment ideologies do not contribute to a better understanding of the increased levels of trans-national collaboration and network governance of education (Menashy, 2016; OECD, 2019; Srivastava & Read, 2019; Unterhalter, 2017).

This study presents the findings of an initial analysis of a sub-sample of the NSP actors included in the Invest-ED database (Version March 2020), and does not claim to be exhaustive however, it is as complete as possible. Whilst delays in publicly available data, opaque and inconsistent reporting, and aggregation of data by NSP actors were encountered as main challenges, my study overcomes challenges associated with typological incongruence on NSP

actors and enriches the literature on the influence of NSP actors, and philanthropic financial flows and network governance in the education sector (Ball, 2016; Menashy & Shields, 2017; OECD netFWD, 2019; Srivastava & Baur, 2016). Adding to the expanding literature on NSP actor engagement and influence in global policy networks (Menashy & Verger 2019), my social network analysis applies a new approach and research method to the existing descriptive literature on NSP actors' financing of girls' and women's education (Miller et. al., 2013; Ackerman, 2015; UNESCO, 2019). This study can be further enhanced by advanced social network analyses. However, it will be important to address the "systematic gaps" in publicly available sources and data, such as "lack of systematic comparative data, varying legal status, definitions, and modes of operation …and knowledge gaps" (Srivastava & Oh 2010, p. 470) on 'Southern' funders and NSPs actors to prioritize future research on global financing networks in the education sector.

In conclusion, future research on NSP actor engagement with girl's and women's education can benefit from an early recognition that gender equality is equally embroiled within the intersectional implications of poverty, and barriers to literacy and employment. Only by addressing the diversity of these challenges, can impact in terms of effectiveness, scalability i.e., both breadth and depth, and participation be achieved (Baruah, 2021; UNESCO, 2019). Further, as 'new partners' to reaffirming girls' and women's rights (Miller et al., 2013), apart from financing, NSP actors may contribute additional benefits of expertise, innovation, and management. However, as a policy recommendation, "efficiency and innovation, rather than being commercial secrets, should be diffused and practised by all. To that end, transparency and integrity in the public education policy process need to be maintained to block vested interests" (UNESCO, 2021a, p.4), and to protect education as common good.

In other words, defining a keener focus on NSP actors only will not be adequate. The voices of girls and women, the very protagonists and beneficiaries of education interventions funded by NSP actors, also continue to remain silent in the extant literature. Unterhalter (2017) offers the following advice for future research on NSP actor engagement with girls' and women's education:

> These assessments have to be made in context, taking adequate account of the views of those affected by the interventions… policy advocacy tends to float away from the detail of what is actually happening to whom, where, and for what reasons. Understanding how to work better for gender equality in education always needs to be connected to the detail of context, and the complexities of building solidarities across differences (p. 195).

In sum, whilst focused on proportionately smaller yet high priority area of girls' and women's education, my study attempted to surmount some of the methodological issues and gaps in existing research such as the primacy accorded to 'Western' philanthropy and lack of attention to hybridity, intrinsic to NSP actors' nature. However, global or regional comparisons of NSP actors are complex because "embracing hybridity presents challenges. These are aggravated when organisational data are either inconsistent or not fully transparent, and further, when researching comparatively across very different regulatory contexts" (Srivastava & Read, 2019, p. 31). Global education policy networks are enduring and constantly evolving (Ball, 2016). Clearly, more cross-sectoral research and comparative analyses based on consistent data and NSP actor definitions are required to untangle these webs of hybridity.

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Appendix A: Coding Scheme and Centrality Measures for the Target Funders

			Degree Centrality				
#	Code	Name	Degree	Freeman Degree	2-Mode Degree	Closeness	Betweenness
			(Raw)	(%)	(%)	(%)	(%)
1	TF1	John D and Catherine T MacArthur Foundation (MacArthur Foundation)	6	2.64	10.70	27.50	4.90
2	TF2	Acumen	2	0.88	3.60	21.00	0.70
3	TF3	Naandi Foundation	1	0.44	1.80	20.90	0.00
4	TF4	HDFC	2	0.88	3.60	25.80	2.80
5	TF5	Human Dignity Foundation	2	0.88	3.60	26.10	0.30
6	TF6	Omidyar Network Services	1	0.44	1.80	24.70	0.00
7	TF7	Microsoft	1	0.44	1.80	24.70	0.00
8	TF8	Michael and Susan Dell Foundation (MSDF)	2	0.88	3.60	25.50	4.20
9	TF9	Global Giving	3	1.32	5.40	27.30	5.10
10	TF10	Sir Dorabji Tata Trust	1	0.44	1.80	11.00	0.00
11	TF11	Citi Foundation	2	0.88	3.60	27.10	1.70
12	TF12	Mphasis	1	0.44	1.80	24.70	0.00
13	TF13	Manipal Foundation	1	0.44	1.80	11.00	0.00
14	TF14	Axis Bank Foundation	4	1.76	7.10	19.00	2.10
15	TF15	Tata Trusts	2	0.88	3.60	23.90	2.20
16	TF16	Oracle	2	0.88	3.60	26.60	3.20
17	TF17	UBS Optimus Foundation	3	1.32	5.40	27.80	4.90
18	TF18	Fossil Foundation	1	0.44	1.80	25.60	0.00
19	TF19	NASSCOM Foundation	1	0.44	1.80	25.60	0.00
20	TF20	LGT Venture Philanthropy	1	0.44	1.80	25.60	0.00
21	TF21	Dasra	1	0.44	1.80	25.60	0.00
22	TF22	British Asian Trust	1	0.44	1.80	25.60	0.00
23	TF23	CAF India	3	1.32	5.40	26.50	9.70
24	TF24	GSRD Foundation	4	1.76	7.10	19.60	2.80
25	TF25	GE Foundation	1	0.44	1.80	16.60	0.00
26	TF26	CAF America	1	0.44	1.80	11.00	0.00
27	TF27	Boston Consulting Group	1	0.44	1.80	11.00	0.00
28	TF28	Dubai Cares	2	0.88	3.60	25.80	0.80
29	TF29	Intel Foundation	1	0.44	1.80	22.10	0.00
30	TF30	EdelGive Foundation	1	0.44	1.80	11.00	0.00
31	TF31	Deloitte	1	0.44	1.80	25.60	0.00
32	TF32	Pearson Affordable Learning Fund (PALF)	1	0.44	1.80	11.00	0.00
33	TF33	Hans Foundation	3	1.32	5.40	11.10	0.00
34	TF34	Skoll Foundation	1	0.44	1.80	25.60	0.00
35	TF35	Google.org	2	0.88	3.60	26.10	2.20
36	TF36	Li and Fung Foundation	1	0.44	1.80	11.30	0.00
37	TF37	MetLife Foundation	1	0.44	1.80	24.20	0.00
38	TF38	Macquarie Group Foundation	5	2.20	8.90	11.20	0.00
39	TF39	Reliance Foundation	1	0.44	1.80	23.10	0.00
40	TF40	King Baudouin Foundation	1	0.44	1.80	21.90	0.00
41	TF41	Asha For Education USA	2	0.88	3.60	22.70	7.40
42	TF42	Boeing Company	1	0.44	1.80	19.00	0.00

			Degree Centrality				
#	Code	Name	Degree	Freeman Degree	2-Mode Degree	Closeness	Betweenness
			(Raw)	(%)	(%)	(%)	(%)
43	TF43	Salesforce Foundation	1	0.44	1.80	24.00	0.00
44	TF44	Adobe Foundation	1	0.44	1.80	24.00	0.00
45	TF45	BNY Mellon	1	0.44	1.80	24.00	0.00
46	TF46	Deutsche Bank Asia Foundation	1	0.44	1.80	21.40	0.00
47	TF47	Educate A Child	1	0.44	1.80	21.40	0.00
48	TF48	Give2Asia	1	0.44	1.80	21.40	0.00
49	TF49	Fondation Albatros	1	0.44	1.80	11.40	0.00
50	TF50	Central Square Foundation	1	0.44	1.80	11.00	0.00
51	TF51	Ford Foundation	17	7.49	30.40	29.20	19.60
52	TF52	Oak Foundation	2	0.88	3.60	25.40	0.10
53	TF53	C&A Foundation	1	0.44	1.80	25.40	0.00
54	TF54	Trafigura Foundation	1	0.44	1.80	25.40	0.00
55	TF55	Dalyan Foundation	1	0.44	1.80	25.40	0.00
56	TF56	Plan International	1	0.44	1.80	23.20	0.00
57	TF57	Oxfam India	1	0.44	1.80	23.20	0.00
58	TF58	Action Aid	1	0.44	1.80	23.20	0.00
59	TF59	Azim Premji Foundation	1	0.44	1.80	23.40	0.00
60	TF60	Give India Foundation	1	0.44	1.80	23.20	0.00
61	TF61	Bill and Melinda Gates Foundation (Gates Foundation)	5	2.20	8.90	28.30	8.40
62	TF62	Children’s Investment Fund Foundation (CIFF)	1	0.44	1.80	24.00	0.00
63	TF63	CRY (Child Rights & You)	1	0.44	1.80	23.90	0.00
64	TF64	David & Lucile Packard Foundation (Packard Foundation)	2	0.88	3.60	24.30	0.10

Appendix B: Coding Scheme and Centrality Measures for the Co-funders

			Degree Centrality				
#	Code	Name	Degree	Freeman Degree	2-Mode Degree	Closeness	Betweenness
			(Raw)	(%)	(%)	(%)	(%)
1	CF1	American India Fund	1	0.44	1.80	24.70	0.00
2	CF2	Accenture	2	0.88	3.60	27.10	1.70
3	CF3	Bank of America	2	0.88	3.60	26.30	1.90
4	CF4	Cisco Systems Inc.	1	0.44	1.80	24.70	0.00
5	CF5	UNHCR	1	0.44	1.80	24.70	0.00
6	CF6	Wadhwani Foundation	1	0.44	1.80	24.70	0.00
7	CF7	ICRA	1	0.44	1.80	24.70	0.00
8	CF8	ITC	2	0.88	3.60	27.10	1.70
9	CF9	NetHope Inc	1	0.44	1.80	24.70	0.00
10	CF10	Cognizant Foundation	1	0.44	1.80	24.70	0.00
11	CF11	Nvidia	1	0.44	1.80	24.70	0.00
12	CF12	eBay Foundation	1	0.44	1.80	24.70	0.00
13	CF13	City & Guilds Group	1	0.44	1.80	11.00	0.00
14	CF14	Centre for Micro Finance Jaipur	2	0.88	3.60	23.20	1.60
15	CF15	HT Parekh Foundation	1	0.44	1.80	21.00	0.00
16	CF16	YP Foundation	1	0.44	1.80	21.00	0.00
17	CF17	Bloom&Give	1	0.44	1.80	21.00	0.00
18	CF18	Milaap Social Ventures USA	1	0.44	1.80	25.60	0.00
19	CF19	Cartier Philanthropy	2	0.88	3.60	28.10	3.90
20	CF20	Bohemian Foundation	1	0.44	1.80	25.60	0.00
21	CF21	Sundance Institute	1	0.44	1.80	25.60	0.00
22	CF22	The Harpur Trust	1	0.44	1.80	25.60	0.00
23	CF23	Picsart Inc.	1	0.44	1.80	25.60	0.00
24	CF24	Womanity Foundation	1	0.44	1.80	25.60	0.00
25	CF25	Montpelier Foundation	1	0.44	1.80	25.60	0.00
26	CF26	Piaget Richemont International	1	0.44	1.80	25.60	0.00
27	CF27	iPartner India	3	1.32	5.40	28.30	6.80
28	CF28	Fidelity International Foundation	1	0.44	1.80	25.60	0.00
29	CF29	Bedford Girls School	1	0.44	1.80	25.60	0.00
30	CF30	UK Online Giving Foundation	1	0.44	1.80	25.60	0.00
31	CF31	Adobe Systems India	1	0.44	1.80	25.60	0.00
32	CF32	Udemy Inc.	1	0.44	1.80	25.60	0.00
33	CF33	The Lucille Foundation	1	0.44	1.80	25.60	0.00

			Degree Centrality				
#	Code	Name	Degree	Freeman Degree	2-Mode Degree	Closeness	Betweenness
			(Raw)	(%)	(%)	(%)	(%)
34	CF34	Jasmine Social Investments	1	0.44	1.80	25.60	0.00
35	CF35	Echidna Giving	1	0.44	1.80	22.10	0.00
36	CF36	MasterCard Foundation	1	0.44	1.80	22.10	0.00
37	CF37	Douglas B. Marshall Jr. Family Foundation	1	0.44	1.80	25.60	0.00
38	CF38	Team4Tech	1	0.44	1.80	11.10	0.00
39	CF39	Wrigley Company Foundation	1	0.44	1.80	25.60	0.00
40	CF40	Hewlett Foundation	1	0.44	1.80	25.60	0.00
41	CF41	Ken Whalen Foundation	1	0.44	1.80	11.30	0.00
42	CF42	Friends of Hong Kong Charities	1	0.44	1.80	11.30	0.00
43	CF43	Worldwide Child Sponsorship Family	1	0.44	1.80	11.30	0.00
44	CF44	Shen Wai International School (SWIS)	1	0.44	1.80	11.30	0.00
45	CF45	ICC Australia	1	0.44	1.80	11.30	0.00
46	CF46	Love Qinghai Tibet Rescue & Aid	1	0.44	1.80	11.30	0.00
47	CF47	COMO Foundation	2	0.88	3.60	25.50	0.40
48	CF48	HDB Financial Services	1	0.44	1.80	19.00	0.00
49	CF49	GE BE Pvt Ltd	1	0.44	1.80	19.00	0.00
50	CF50	Airbus Group India Pvt Ltd	1	0.44	1.80	19.00	0.00
51	CF51	GE India Technology Centre Pvt Ltd	1	0.44	1.80	19.00	0.00
52	CF52	Westbridge Capital India Advisors Pvt Ltd	1	0.44	1.80	19.00	0.00
53	CF53	Uber	1	0.44	1.80	24.00	0.00
54	CF54	Samsung	1	0.44	1.80	24.00	0.00
55	CF55	UNESCO	1	0.44	1.80	24.00	0.00
56	CF56	Peace Corps	1	0.44	1.80	24.00	0.00
57	CF57	UN Women	2	0.88	3.60	26.60	3.20
58	CF58	Walmart Foundation	1	0.44	1.80	24.00	0.00
59	CF59	3M	1	0.44	1.80	24.00	0.00
60	CF60	MIT Media Lab	1	0.44	1.80	24.00	0.00
61	CF61	Google	1	0.44	1.80	21.40	0.00
62	CF62	Foundation Cuomo	1	0.44	1.80	11.40	0.00
63	CF63	Foundation Macif	1	0.44	1.80	11.40	0.00
64	CF64	TFWA Care	1	0.44	1.80	11.40	0.00
65	CF65	Wellbox	1	0.44	1.80	11.40	0.00
66	CF66	Logo Delacre	1	0.44	1.80	11.40	0.00

			Degree Centrality				
#	Code	Name	Degree	Freeman Degree	2-Mode Degree	Closeness	Betweenness
			(Raw)	(%)	(%)	(%)	(%)
67	CF67	Zadig & Voltaire	1	0.44	1.80	11.40	0.00
68	CF68	La Flamme Marie Claire	1	0.44	1.80	11.40	0.00
69	CF69	Sephora	1	0.44	1.80	11.40	0.00
70	CF70	L'Oreal	1	0.44	1.80	11.40	0.00
71	CF71	Motul Corazon	1	0.44	1.80	11.40	0.00
72	CF72	American Jewish World Service	5	2.20	8.90	27.80	4.40
73	CF73	Indian Council of Social Science Research	1	0.44	1.80	23.10	0.00
74	CF74	EMpower USA	3	1.32	5.40	25.80	1.10
75	CF75	Global Fund for Women	1	0.44	1.80	23.40	0.00
76	CF76	Swedish International Development Cooperation Agency (SIDA)	2	0.88	3.60	23.60	4.20
77	CF77	External Affairs Spouses Association Charitable Trust	1	0.44	1.80	24.80	0.00
78	CF78	Friedrich-Ebert-Stiftung	1	0.44	1.80	24.80	0.00
79	CF79	Heinrich Boll Foundation	1	0.44	1.80	24.80	0.00
80	CF80	HomeNet South Asia	1	0.44	1.80	24.80	0.00
81	CF81	International Development Research Centre (IDRC) Canada	1	0.44	1.80	24.80	0.00
82	CF82	International Labour Organisation	1	0.44	1.80	24.80	0.00
83	CF83	Institute of Development Studies (IDS) Sussex	1	0.44	1.80	24.80	0.00
84	CF84	International Organisation for Cooperation in Evaluation	1	0.44	1.80	24.80	0.00
85	CF85	International Society for Better Tomorrow	1	0.44	1.80	24.80	0.00
86	CF86	Johns Hopkins University	1	0.44	1.80	24.80	0.00
87	CF87	Ministry of Human Resource Development Government of India (MHRD)	1	0.44	1.80	24.80	0.00
88	CF88	SEWA Bharat	1	0.44	1.80	24.80	0.00
89	CF89	Swiss Network of International Studies	1	0.44	1.80	24.80	0.00
90	CF90	United Nations Development Programme (UNDP)	1	0.44	1.80	23.20	0.00

			Degree Centrality				
#	Code	Name	Degree	Freeman Degree	2-Mode Degree	Closeness	Betweenness
			(Raw)	(%)	(%)	(%)	(%)
91	CF91	United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)	1	0.44	1.80	24.80	0.00
92	CF92	UNICEF	2	0.88	3.60	27.00	0.70
93	CF93	Wipro Cares	1	0.44	1.80	24.80	0.00
94	CF94	United Nations Research Institute for Social Development (UNRISD)	1	0.44	1.80	24.80	0.00
95	CF95	UK Department for International Development (DFID)	2	0.88	3.60	27.10	0.80
96	CF96	Netherlands Ministry of Foreign Affairs	4	1.76	7.10	26.80	1.20
97	CF97	Norwegian Ministry of Foreign Affairs	2	0.88	3.60	24.20	0.10
98	CF98	Ministry for Foreign Affairs of Finland	1	0.44	1.80	24.00	0.00
99	CF99	International Women's Health Coalition	1	0.44	1.80	23.90	0.00
100	CF100	World Bank	1	0.44	1.80	23.20	0.00
101	CF101	University of Glasgow	1	0.44	1.80	24.60	0.00
102	CF102	Martha Farrell Foundation	1	0.44	1.80	24.60	0.00
103	CF103	European Union (EU)	1	0.44	1.80	24.60	0.00
104	CF104	Australian Agency for International Development (AusAID)	1	0.44	1.80	23.70	0.00
105	CF105	India Development and Relief Fund	1	0.44	1.80	22.40	0.00
106	CF106	VSO International	1	0.44	1.80	25.60	0.00
107	CF107	Judith Und Horst Rauck Stiftung	1	0.44	1.80	22.40	0.00
108	CF108	United States Agency for International Development (USAID)	2	0.88	3.60	24.90	0.40

Appendix C: Coding Scheme and Centrality Measures for the Education Initiatives

			Degree Centrality				
#	Code	Name	Degree	Freeman Degree	2-Mode Degree	Closeness	Betweenness
			(Raw)	(%)	(%)	(%)	(%)
1	ED1	After School Program Chennai Municipal Schools	1.00	0.44	0.60	17.30	0.00
2	ED2	Ignis Careers Pvt Ltd	3.00	1.32	1.70	16.40	2.10
3	ED3	Girls' Education in Secondary Schools--Learning and Migration Program (LAMP)	2.00	0.88	1.20	17.60	0.20
4	ED4	Anudip Foundation	18.00	7.93	10.50	19.70	12.70
5	ED5	City & Guilds and Manipal Foundation Scholarship Fund	2.00	0.88	1.20	7.80	0.00
6	ED6	Bosco Academy for Skills and Employment (BASE) - Phase I	1.00	0.44	0.60	12.40	0.00
7	ED7	Doosra Dashak	5.00	2.20	2.90	16.50	2.80
8	ED8	Educate Girls	26.00	11.45	15.10	20.50	22.40
9	ED9	Empowering Migrant Women as Entrepreneurs in China	2.00	0.88	1.20	12.70	0.70
10	ED10	LabourNet	1.00	0.44	0.60	13.60	0.00
11	ED11	Nav Bharat Jagriti Kendra (NBJK) - Vocational Education	1.00	0.44	0.60	12.40	0.00
12	ED12	Pardada Pardadi Girls School (PPGS)	2.00	0.88	1.20	7.80	0.00
13	ED13	Partnership to Strengthen Innovation and Practice in Secondary Education (PSIPSE)	5.00	2.20	2.90	17.40	2.20
14	ED14	Parvarish The Museum School	1.00	0.44	0.60	7.80	0.00
15	ED15	Pehchan Project	1.00	0.44	0.60	7.80	0.00
16	ED16	Pratham Second Chance Program	17.00	7.49	9.90	20.60	17.30
17	ED17	Project PREMA	1.00	0.44	0.60	12.40	0.00
18	ED18	Rainbow Homes—Kolkata	1.00	0.44	0.60	12.70	0.00
19	ED19	Sudiksha	1.00	0.44	0.60	7.80	0.00
20	ED20	Udaan- Special Residential Learning for Out-Of-School Girls	2.00	0.88	1.20	7.90	0.00
21	ED21	More Work for Women and Young People in Bangladesh	1.00	0.44	0.60	12.70	0.00
22	ED22	Seng Girls Vocational Training School	7.00	3.08	4.10	8.00	0.10
23	ED23	Access Academy Program	7.00	3.08	4.10	19.20	4.10
24	ED24	Hans Dormitory for Boys & Rajeswari Dormitory for Girls--HEAL Paradise School	1.00	0.44	0.60	7.90	0.00
25	ED25	Women's Empowerment: Jama Masjid	1.00	0.44	0.60	7.90	0.00
26	ED26	Expanding Economic Opportunities for Women Entrepreneurs	2.00	0.88	1.20	15.20	3.50
27	ED27	Mothers' Collective for Early Childhood Development	1.00	0.44	0.60	17.50	0.00

			Degree Centrality				
#	Code	Name	Degree	Freeman Degree	2-Mode Degree	Closeness	Betweenness
			(Raw)	(%)	(%)	(%)	(%)
28	ED28	Katrina Dawson Foundation Macquarie Group Scholarship	1.00	0.44	0.60	7.90	0.00
29	ED29	The Aspiration Initiative	1.00	0.44	0.60	7.90	0.00
30	ED30	Education For All	4.00	1.76	2.30	18.30	3.30
31	ED31	Girls Can Code--Advancing Girls Education	3.00	1.32	1.70	17.20	0.80
32	ED32	Unnati	8.00	3.52	4.70	14.70	6.90
33	ED33	Technovation Challenge	13.00	5.73	7.60	19.10	7.80
34	ED34	Satya Bharti School Program	5.00	2.20	2.90	16.80	2.80
35	ED35	Happy Chandara	11.00	4.85	6.40	8.10	0.20
36	ED36	Chimple	1.00	0.44	0.60	7.80	0.00
37	ED37	Hagar International	1.00	0.44	0.60	7.90	0.00
38	ED38	Mother's Choice	1.00	0.44	0.60	7.90	0.00
39	ED39	Azad Foundation for Research and Advocacy	13.00	5.73	7.60	20.40	15.30
40	ED40	Digital Exclusion Study	4.00	1.76	2.30	18.30	2.10
41	ED41	Centre for Women's Development Studies (CWDS)	2.00	0.88	1.20	18.30	0.70
42	ED42	Creating Resources for Empowerment and Action	6.00	2.64	3.50	18.50	6.30
43	ED43	Kongres Ulama Perempuan Indonesia (Indonesian Women’s Ulama Congress)	1.00	0.44	0.60	18.30	0.00
44	ED44	Akshara Centre	4.00	1.76	2.30	18.30	0.80
45	ED45	Indian Association for Women's Studies National Conference	2.00	0.88	1.20	18.30	0.10
46	ED46	Institute of Social Studies Trust	20.00	8.81	11.60	19.80	14.20
47	ED47	Project Mera Sahara	1.00	0.44	0.60	18.30	0.00
48	ED48	Marie Stopes China	7.00	3.08	4.10	19.10	3.20
49	ED49	STOP India Prevention Programmes	1.00	0.44	0.60	18.30	0.00
50	ED50	Society for Health Alternatives (SAHAJ)	4.00	1.76	2.30	19.00	2.30
51	ED51	The Samdhana Institute of Gender and Women's Rights	6.00	2.64	3.50	18.40	1.90
52	ED52	Society for Participatory Research in Asia	6.00	2.64	3.50	19.60	4.10
53	ED53	LandWise	1.00	0.44	0.60	18.30	0.00
54	ED54	Rumah Kita Bersama (Rumah KitaB)	3.00	1.32	1.70	18.80	1.20
55	ED55	Bodh Shiksha Samiti	6.00	2.64	3.50	17.70	11.00
56	ED56	Asha India	1.00	0.44	0.60	7.90	0.00