Knowledge Banking in Global Education Policy:
A Bibliometric Analysis of World Bank Publications on
Public-Private Partnerships

Francine Menashy
University of Massachusetts Boston
United States

&

Robyn Read
Ontario Institute for Studies in Education, University of Toronto
Canada

Citation Menashy, F., & Read, R. (2016). Knowledge banking in global education policy: A
bibliometric analysis of World Bank publications on public-private partnerships. Education Policy
Analysis Archives, 24(95). http://dx.doi.org/10.14507/epaa.24.2523

Abstract: As a leading mobilizer of international development and educational knowledge, the
World Bank has been critiqued in two key areas: (1) the dominance of economic thinking in its
policies, and (2) its Northern-generated knowledge which informs its work in the Global South. In
this paper, we investigate the disciplinary foundation of Bank knowledge, as well as its geographic
representation. This study pays particular attention to knowledge mobilization relating to one of the
most contentious policy prescriptions worldwide, and one that the Bank has historically supported:
private sector engagement in education. By employing the concepts of economic imperialism and
policy networks to frame our study, and through the use of a bibliometric methodological approach,
we trace the authorship patterns of publications cited in a series of key World Bank documents on private sector engagement in education. Our findings show that the World Bank mobilizes research production from the Global North, which reflects a disproportionate economic disciplinary focus. Moreover, through a mapping of the cited authors, this network is shown to be highly narrow and privileges authors from a small subset of elite institutions.

**Keywords:** World Bank; global education policy; bibliometric analysis; policy network

---

**Bancos de conocimiento en la póliza de educación global: Un análisis bibliométrico de publicaciones de El Grupo del Banco Mundial sobre la colaboración entre el sector público y el privado**

Resumen: Como un líder en movilizar el desarrollo internacional del conocimiento educacional, el Grupo del Banco Mundial ha sido criticado en dos áreas: (1) la dominancia del pensamiento económico el sus pólíces, y (2) el conocimiento que generan es coleccionado en países norteños al cual informan el trabajo en el mundo global del sur. El este documento, investigamos las bases disciplinarias sobre bancos de conocimiento, tanto como su representación geográfica. En particular, este estudio se enfoca en la movilización del conocimiento relativa a uno de los pólíces más controversiales cual fue prescrito en todo el mundo, y uno al cual el Banco ha históricamente apoyado: la asociación entre el sector privado y la educación. Usando conceptos de la economía imperialista y redes de política para formular nuestro estudio, y con el uso de metodologías bibliométricas, localizamos la origen de las publicaciones que mencionaron una serie de documentos claves a la conexión entre el sector privado y si su relación con el enlace educativo. Nuestras conclusiones revelan que el Grupo del Banco Mundial moviliza estudios producidos por el mundo global norteño, cual refleja una economía disciplinaria con un enfoque desproporcionado. Además, con un método de esquematizar los autores mencionados, resulta que los autores son parte de un grupo pequeño y privilegiado, de instituciones exclusivas.

**Palabras-clave:** El Grupo del Banco Mundial; la póliza de educación mundial; análisis bibliométrico; redes de póliza

---

**Conhecimento bancário em política de educação global: Uma análise bibliométrica das publicações do Banco Mundial sobre parcerias público-privadas**

Resumo: Como líder mobilizador de desenvolvimento internacional e conhecimento educacional, o Banco Mundial foi criticado em duas áreas fundamentais: (1) o domínio do pensamento econômico em suas políticas, e (2) seu conhecimento “norte-gerado” que informa seu trabalho no sul Global. Neste trabalho, investigamos a base disciplinar de conhecimento do Banco, assim como a sua representação geográfica. Este estudo presta uma atenção especial à mobilização de conhecimentos relacionados a uma das prescrições políticas mais controversas do mundo, e uma em que o Banco tem apoiado historicamente: o engajamento do setor privado na educação. Ao empregar os conceitos de imperialismo econômico e redes de políticas para enquadrar nosso estudo, e através do uso de uma abordagem metodológica e bibliométrica, traçamos os padrões de autoria de publicações citadas em uma série de importantes documentos do Banco Mundial sobre o engajamento do setor privado na educação. Nossos resultados mostram que o Banco Mundial mobiliza a produção de pesquisa do hemisfério norte, o que reflete um enfoque disciplinar econômico desproporcionado. Além disso, através de um mapeamento dos autores citados, essa rede é mostrada para ser altamente estreitas e da privilégios a autores de um pequeno subconjunto de instituições de elite.
Introduction

In the current era of international development, knowledge is widely viewed as a key source of power and wealth. Scholars of development and education, seeking to understand who controls the construction and dissemination of such knowledge, have frequently targeted the World Bank (King & McGrath, 2004; Mundy & Menashy, 2014; OECD, 2015; Stone, 2013). As the largest and arguably most prominent international institution fiscally supporting education in the Global South, the World Bank delivers policy advice on a range of in-country educational issues. In this role, the Bank—coined by its past President Wolfensohn as the “Knowledge Bank”—readily self-identifies as the leading producer of international development knowledge (Stone, 2013; Wolfensohn, 1996).

As the Knowledge Bank, the World Bank has been critiqued in two key areas: (1) the dominance of economic thinking in its policies, and (2) its Northern-generated knowledge which informs its work in the Global South. We explore these critiques by empirically analyzing the disciplinary foundation of Bank knowledge, as well as its geographic representation. This study pays particular attention to knowledge mobilization relating to one of the most contentious policy prescriptions worldwide, and one that the Bank has historically supported: private sector engagement in education (Klees, 2008; 2012; Mundy & Menashy, 2014).

In this paper, we first provide a context for the study through an overview of knowledge mobilization and its historically significant relationship to the World Bank’s influence on education and development. In order to frame our study, we employ the concepts of economic imperialism, policy networks and policy diffusion. Through the use of a bibliometric methodological approach to collecting and analyzing our data, we trace the authorship patterns of publications cited in a series of key World Bank documents on private sector engagement in education.

Our findings show that the World Bank’s knowledge mobilization on this topic is highly narrow. It mobilizes research production from the Global North that reflects a disproportionate economic disciplinary focus. Moreover, through a network mapping of the cited authors, the Bank is shown to privilege authors from a small subset of elite institutions.

Understanding Knowledge Mobilization and Economic Dominance in the Context of the World Bank

The World Bank as Knowledge Mobilizer

For decades, the Bank has accompanied its lending in education with extensive empirical research in order to develop a strong evidence base about what works in the education sector (Mundy, 2002; Woodhall, 2003; World Bank, 2009b). In this way, the Bank wields influence not only through the direct provision of financing, but also by acting as a broker of knowledge. However, critics from a range of disciplines have questioned the reliability, quality, and ideological foundations of the knowledge produced by the Bank (Banerjee, Deaton, Lustig, Rogoff, & Hsu, 2006; Broad, 2006; Klees, 2008; Torres, 2001; Wilks, 2004). In order to better understand the World Bank’s role in the generation and diffusion of knowledge, we adopt the concept of knowledge mobilization, defined as the movement of research from production to dissemination to its ultimate impact on policy and practice (Cooper, 2014).
The recent history of the World Bank is inextricably tied to knowledge mobilization. By the 1990s it had become increasingly clear that the World Bank’s policies, including its structural adjustment programs (SAPs), were causing more harm than good. The SAPs generated scathing critiques related to the exacerbation of inequities resulting from the imposition of market-oriented policies, which led to a questioning of the Bank’s credibility as a development agency (Chan, 2007; UNICEF, 1989). It was under these conditions that James Wolfensohn began his tenure as the new president of the World Bank in 1995. Wolfensohn understood that the Bank was in need of drastic reform, and in 1996 at the Bank’s Annual Meeting, he announced his vision of a new development paradigm to put the Bank back on track with its central mission of poverty reduction. During this address, Wolfensohn announced his plan to utilize the Bank’s unique pool of development knowledge across sectors and countries, stating:

We have been in the business of researching and disseminating the lessons of development for a long time. But the revolution in information technology increases the potential value of their efforts by vastly extending their reach. To capture this potential we need to invest in the necessary systems, in Washington and across the world, that will enhance our ability to gather development information and experience, and share it with our clients. We need to become, in effect, the Knowledge Bank. (Wolfensohn, 1996)

Wolfensohn’s ideals were circulated in the 1998/1999 Bank-produced World Development Report, *Knowledge for Development* (World Bank, 1999). The report highlighted the increasingly important role of knowledge by arguing that developing countries must find ways to participate effectively in the new global economy where knowledge drives financial markets. Immediately after the report was released, the Bank’s new emphasis on the role of knowledge in development spread to other international agencies (King & McGrath, 2004).

Demand for empirically-based evidence and specialized technical advice in the development field remains prevalent today. As fiscal aid plays a decreasingly important role in many developing nations’ budgets, development agencies are turning away from project funding, and instead towards the support of knowledge building (Piotrowski, 2014). As Ruth Levine, director of the Hewlett Foundation’s Global Development and Population Program explains: “Aid agencies are continually on a search to find ways to have leverage over public policy in developing countries. Orientating towards being a funder of knowledge generation rather than an implementer is a really effective way to make a contribution” (Piotrowski, 2014).

International organizations regularly mobilize knowledge through publishing, and the World Bank produces far more publications than any other development agency (Cooper & Levin, 2010; Kramarz & Momani, 2013; Spaulding & Chaudhruri, 1999). For example, between 1998 and 2005 the Bank published more than 4000 papers, books, and reports (Banerjee, Deaton, Lustig, Rogoff & Hsu, 2006). Scholars have argued that these publications—commonly called “knowledge products”—have had a considerable influence on the internal policies of developing country governments. Through local-level analyses, researchers have shown “how such knowledge gets produced and becomes authoritative, locally and transnationally” (Goldman, 2001, p.208). For instance, the Bank’s knowledge products have been argued to guide health policy in China, environmental standards in Laos, and educational privatization efforts in South Asia (Goldman, 2005; Menashy, Mundy & Afridi, 2014; Ravillion & Wagstaff, 2010). As Marshall (2008) notes: “While many view the World Bank primarily through a financing lens, its intellectual work is arguably at least as important” (p. 164).
The “Banking Model” of Development

Although the World Bank touts its knowledge-based development work, its knowledge mobilization efforts have been critiqued as Northern-produced, and simply transferred to contexts in the Global South. In this way, the Bank has been characterized by Torres’s (2001) “Banking Model” of development, where the Global North is the knowledge provider and the Global South is the knowledge consumer, constructing a hierarchical knowledge gap that legitimizes and replicates policy ideas and prescriptions that those in the Global North deem valuable. The Bank has been critiqued as enabling a one dimensional transfer from the North to the South (Evers, Kaiser, & Muller, 2009).

Such criticisms center on conceptualizations of what counts as legitimate knowledge in international development. In contrast to an inclusive conception of development, where multiple perspectives could inform policy, the evidence-based development agenda is founded upon the belief that scientifically-based and highly technical knowledge is the basis of change and progress necessary to reduce poverty and improve quality of life (Court & Young, 2003; Jones, Datta, & Jones, 2009; Samoff & Stromquist, 2001). As a result, while scholars acknowledge that the “...attaching of labels such as evidence or research to particular types of knowledge are political acts” (Davies & Nutley, 2008, p. 3), the term “knowledge” is often limited to that which is empirically-based, more precisely understood as evidence gained through “...any systematic process of critical investigation and evaluation, theory building, data collection, analysis and codification” (Nutley & Davies, 2010, p. 4).

As Weiler (2009) argues, research and knowledge production in our current international system legitimates existing power structures between North and South, “and thus the transnational system itself… is inextricably linked to a transnational system of power in which publishing interests, research funding, consulting firms, testing services, professional associations, and development agencies all form part of a powerful…source of domination” (p. 35). As Peters (2006) explains, the “geography of scientific knowledge and collaboration reflects a strong Western control and bias” (p. 226).

Scholars have long maintained that research production has been dominated by Eurocentric forms of knowledge as perpetuated by the university system (Selvaratnam, 1988). Today, all but a handful of the top ranked universities in the world are located in the Global North (Times Higher Education, 2016), and 90% of the journals indexed by Thompson Reuters Web of Science are published in English (Bégin-Caouette, 2015). Additionally, the large knowledge producing multilaterals such as the World Bank, the OECD and the various branches of the United Nations all have head offices located in the Global North. Given the direction in which knowledge arguably flows, evidence-based international development can be conceptualized as a system in which

The North thinks, knows, disseminates, diagnoses, plans, strategizes, does and validates research (including that done in, or referred to, the South), provides advice, models, lessons learned, and even lists of desired profiles (i.e. effective schools, effective teachers); the South does not know, learns, receives, applies, implements. The North produces, synthesizes and disseminates knowledge; the South produces data and information. The North produces global policy recommendations to be translated, by the South, into National Plans of Action. (Torres, 2001, p. 4)
Although widely viewed as a new development paradigm, knowledge-based development is frequently critiqued as a rebranding of dependency practices, where knowledge is generated and produced in the Global North, and disseminated and imposed upon the Global South. Our study aims to empirically assess the degree to which the Banking Model of development is reflected in the production of World Bank publications.

“Economic Imperialism” at the World Bank

The World Bank has become known for its promotion of highly technical knowledge as a key element in policy-making both globally and within the countries to which it lends. But more specifically, the foundation of such knowledge is argued to be disproportionately derived from the disciplinary field of economics (Broad, 2006; Ellerman, 2005; Goldman, 2005; Rao & Woolcock, 2007).

While economics is a wide field that encompasses a range of perspectives, as argued by Marglin, there is a single, “well-established church of economics” characterized as “mainstream” or “standard,” rooted in the neoclassical tradition (2008, p. 5-6). Wade terms this particular conception of economics as a “monoculture” when describing its pervasiveness throughout academia, and in particular its inroads into the fields of political science, political economy, and international relations (2009). He argues that this dominance comprises “part of one of the mega-trends in American academia – the application of economic analysis (especially neoclassical analysis) to traditionally noneconomic areas such as political science, international relations, law and sociology; a trend which some critics have called, unkindly, ‘economic imperialism’” (2009, p.106).

Economic imperialism is defined broadly as “the extension of economic analysis to subject matter beyond its traditional borders” (Fine & Milonakis, 2009, p.7), including education policy (Allais, 2012; Ball, 1998). Its expansion into and dominance over other disciplines has been grounded in the claimed applicability of economic principles to understand and solve problems in other social science areas. For instance, underpinning social policies worldwide have been such ideals as the value of market competition, reducing the role of the state in providing services, promotion of human capital development, emphasis on supply and demand principles, and the overarching goal of efficiency. Moreover, economics is presented as a positive science free from normative implications (Allais, 2012; Fine, 2002b; Fine & Milonakis, 2009).

Whilst some have argued that economic imperialism presents a positive shift in the social sciences (see Lazear, 2000), the dominance of the discipline has been widely critiqued. Scholars have questioned the logic of the principles on which economics is based, its claimed non-normative status, and its neglect of the non-economic goals of policies, such as those relating to social justice and equity (Allais, 2012; Ball, 2007; Fine & Milonakis, 2009; Marglin, 2008; Wade, 2009). As Fine argues, economic imperialism subjugates alternative ways of envisaging social policy that would be emphasized by other disciplines or interdisciplinary fields “where the social and systemic are taken as starting points” (2002b, p. 198)—for instance, sociology, anthropology, or education.

The dominance of economics over wide swaths of academia began in the 1960s, coinciding with an equally powerful authority over development policy, including at the World Bank. At this time, the discipline of economics’ claim to being apolitical, rational and objective, as well as scientific in its empirical approach to analyses, appealed to Bank President McNamara’s focus on quantifiability. This thinking arguably led to the expansion of the Bank’s lending operations, and as a result, has fed into decades of economic imperialism and a culture at the World Bank where economic thinking is said to trump other perspectives (Ellerman, 2005; Marshall, 2008; Rao & Woolcock, 2007b; Weaver, 2008; Woolcock et al., 2011). Economics remains dominant and holds “a
near-monopoly on determining the content and validity of development research” (Rao & Woolcock, 2007a, p. 1). Within international organizations, and in particular the World Bank, economics is characterized as the most rigorous, scientific, and objective discipline from which to ground development policies (Marglin, 2008; Woolcock et al., 2011).

Staffing at the Bank is reflective of this economic dominance, where economists are disproportionately represented. As Weaver finds: “An overwhelming majority of researchers in DEC [Development Economics Department - the department responsible for the writing of the annual World Development Report] are economics PhDs, despite a general interdisciplinary trend in global development theory and practice over the past several decades. This strongly shapes how the Bank as a whole ‘thinks’ about its mission of development and how – or whether – new ideas get into the mix” (Weaver, 2007, p. 505). According to Rao and Woolcock, in 2006, of the DEC’s 83 full-time research staff, only four were not economists (2007a; 2007b). Bank staff members with backgrounds in other social science fields have claimed that the only way they are able to include their ideas in finalized Bank policies is through employing economic terminology (Vetterlein, 2007; Weaver, 2007). Vetterlein’s research on the Bank has found particular challenges for the “noneconomist” staff, or “staff willing to break with the entrenched technocratic and econocentric culture in the Bank” (2007, p. 526).

Wade echoes the belief that staffing plays a central role in how the Bank and its policies are dominated by economic thinking: “...all but a few share the preconceptions of mainstream Anglo-American economics. If they were to show sympathy for other ideas... they would be unlikely to be selected for the Bank, on grounds of incompetence. The organization’s few non-economist social scientists are employed on marginal issues like resettlement and participation, like anthropologists by colonial administrations before them...” (1996, p. 31). While the balance between non-economic and economic staff is closer today than at the time of Wade’s study, economic work is still given primacy. Economic research is more likely to be incentivized, and economists tend to hold the highest positions in the Bank’s hierarchy (Goldman, 2005; Marshall, 2008; Weaver & Leitritz, 2005; Woolcock et al., 2011). As a result, “This creates a kind of disciplinary monopoly; as such development policy at the Bank tends to reflect the fads, fashions, controversies and debates of one discipline” (Rao & Woolcock, 2007a, p. 2).

The authority of economists at the Bank throughout its history has elicited criticisms of the organization (Barnett & Finnemore, 1999; Broad, 2006; Vetterlein, 2007; Wade, 1996, 2009; Weaver, 2007). Economic dominance at the World Bank can be interpreted as ideologically-based, reinforcing scrutiny—or as some argue, censorship—of major Bank publications, termed by Wade as “the art of paradigm maintenance” (Wade, 1996). In reference to the Bank’s development policies, Tomasevski argues: “Economists tend to have in-built blinkers that steer them from people to figures” (Tomasevski, 2003, p. 70), and more simply put by Rao and Woolcock: “development is about a lot more than just economics” (2007a, p. 1).

Our study further presumes the existence of economic imperialism in educational development research, and aims to expose this phenomenon empirically. We pay particular attention to the promotion of private sector engagement in education, given that widespread critiques of privatization, both in general and at the World Bank, center on economically-driven assumptions. Several scholars have pointed to the ways in which policy proposals from the Bank that support private participation in education plainly reflect economic rationales, such as the value of reducing the role of the state in education, spurring competition within an educational market in order to increase efficiency and quality, and the value of increasing the choices afforded to individual parents (Klees, 2012; Mundy & Menashy, 2014; Robertson et al., 2012; Verger, 2012).
According to several studies, economists within the Bank’s education sector have historically spearheaded proposals to more strongly integrate private sector engagement into policies on education, such as public-private partnerships. Arguments made by Bank staff to support policies involving privately-provided education are argued to employ economist language and mental models that assume the value of markets (Klees et al., 2012; Mundy & Menashy, 2014; Verger, 2012). In fact, it is the “Economics of Education Group” within the Bank’s education sector that has been the main producer of knowledge products on private education from within the organization (Mundy & Menashy, 2014). The World Bank—and more specifically the economists within it—have been characterized as a central driver behind knowledge mobilization on the issue of private participation in education.

In this paper, we consider the increasing significance of knowledge mobilization and the dominance of economics as interrelated forces within the World Bank, one of the largest and most influential knowledge brokers globally. Given the above-described critiques of the development industry in general, and the World Bank more specifically, we explore the extent to which the Bank disseminates its research via knowledge mobilization processes from the Global North to the Global South, and to what degree this knowledge is indicative of economic imperialism. In light of the widespread critique that advocacy of privatization is underpinned by economic rationales, we choose to specifically target World Bank publications on the topic of private sector engagement in education. We conduct a bibliometric analysis to shed light on both the disciplinary grounding and the geographic location from which the research is produced. Our study proposes that the World Bank’s knowledge mobilization activities on the issue of private engagement in education are reinforced through a policy network.

Policy Networks and Policy Diffusion in Education and Development

A policy network is commonly characterized as “a set of relatively stable relationships which are of non-hierarchical and interdependent nature linking a variety of actors, who share common interests with regard to a policy and who exchange resources to pursue these shared interests acknowledging that co-operation is the best way to achieve common goals” (Borzel, 2007, p. 1). Actors within policy networks share a common policy-related interest and ideas around solutions to policy problems, and are linked with one another either directly or indirectly (Mintrom & Vergari, 1998). As described by Ball, such networks involve “particular kinds of social relationships, flows and movements. They constitute policy communities, usually based upon shared conceptions of social problems and their solutions” (2012, p. 5).

Building off the concept of policy networks, Stone employs the associated term “knowledge networks” to target the intellectual underpinnings of the World Bank’s development policies (Stone, 2013). She notes that while individual members of a global knowledge network operate within a shared global system to create and transfer policy relevant knowledge, individual knowledge actors are also influenced by dominant ideas and values, and institutional structures in their local context (Stone, 2013, p. 244).

While the concept of policy networks helps to identify the structure, characteristics and connections amongst these communities of actors, the associated literature on policy diffusion sheds light on the spread of policy ideas and the mechanisms by which these ideas are diffused throughout networks. For example, policy ideas can be spread through policy entrepreneurs, which are individual actors “who seek to initiate dynamic policy change… through identifying problems, networking in policy circles, shaping the terms of policy debates, and building coalitions” (Mintrom & Vergari, 1998, p.739). Diffusion can also occur through learning from others’ experiences,
Knowledge Banking in Global Education Policy

cocroation, interdependence between actors, and common norms (Braun & Gilardi, 2006; Meseguer, 2005; True & Mintrom, 2001). Policy diffusion is argued to take place within networks, and so a network analysis can help in understanding the source of this diffusion. For example, given that diffusion “connotes spreading, dispersion and dissemination of ideas or practices from a common source or point of origin” those nodes identified as central in a network are often examined as the potential source of the spread of policy ideas (Stone, 2001, p. 6). Although our study does not directly target the discrete mechanisms of policy diffusion throughout a network, we present the characteristics of the network, the network ties through which policies might be diffused, and identify the institutional sources of this policy diffusion.

Our examination of citation patterns within World Bank documents uses the concepts of policy networks and policy diffusion as tools to understand relationships between authors, the institutions to which they are affiliated, and the research they produce. We conceptualize knowledge mobilization on private sector engagement in education, as expressed in World Bank documents, as occurring within a policy network as seen through ties to particular institutions, which due to their centrality are the possible sources of policy diffusion. As previously identified by Verger, policies on public-private partnerships in education have been “formulated and disseminated by a transnational policy network of education experts, which is not especially wide, but is strategically placed in influential international organizations” (2012, p. 2). In his analysis of this network, Verger moreover argues that the program on public-private partnerships is underpinned by economic theory.

Our study is therefore contextualized both historically and conceptually in light of pervasive critiques of the World Bank’s work in education, which we intend to ground empirically. First, the Bank is widely viewed as a knowledge mobilizer, and this knowledge is critiqued as generated by those in the Global North and placed onto governments and peoples in the Global South: the “Banking Model” of development. Moreover, the World Bank’s knowledge mobilization practices have been criticized as dominated by the discipline of economics, which we describe as “economic imperialism.” As we offer a bibliometric analysis of selected World Bank-produced documents, we empirically trace these criticisms and show that the Bank’s citation patterns favor knowledge generated in the Global North, dominated by economists, and are reflective of a selective policy network inclusive of actors educated in and employed by a small number of elite institutions.

Research Methods and Design

Our findings in this study are derived from a bibliometric analysis of six World Bank publications that address the theme of private sector engagement in education. Bibliometric analysis is defined by the OECD as the generic term for data about publications (OECD, 2002). This research methodology uses quantitative analysis to examine data from citations in order to track published literature and identify patterns (Estabrooks et al., 2008; Rhen, Gornitzki, Larsson, & Wadskog, 2014). In other words, bibliometrics allow us to examine the movement of knowledge through the study of publications. All bibliometric methods are based on the assumption that “...any publication that has influenced... thinking will get referred to in other publications” (Ravillion & Wagstaff, 2010). Based on this assumption, bibliometrics use data from publications, and the references cited within, in order to measure the output or influence of individuals, research teams, institutions, and countries in order to identify national and international networks, and to map the development of academic fields of study (OECD, 2002).

2 Here citations refer to bibliographic references and not in-text citations.
As mentioned, we narrowed our study to examine World Bank publications on the theme of private sector engagement in education, given that this topic area has been widely criticized as indicative of both the Banking Model of development and economic imperialism, but without substantial empirical grounding. Our criteria for publications selected was based on particular characteristics, specifically: 1) only publications in their final version (no drafts), 2) published by the World Bank, 3) which cite empirical evidence, and 4) include a bibliography which covers the entirety of each document. All publications were publicly available on the World Bank website and fall under the search criteria of public private partnerships in education or private sector engagement in education. We sought to select publications that cover a range that ends with current research production and begins in the early 2000s—the period during which the World Bank’s recent policy prescriptions on public-private partnerships arguably began to gain prominence (Mundy & Menashy, 2014). Our sample publications along with key characteristics are detailed in Table 1.

Data collection occurred in two phases. In the first phase we cleaned and disaggregated each reference included in each bibliography in order to separate out key pieces of data, and specifically for the purposes of this paper, the first author listed in each reference. These authors were checked and re-cleaned in order to address any inconsistencies in how each name was listed. Our total dataset included 336 distinct first authors, with 301 individual first authors, and 35 organizational authors. Organizational authors were removed for the second phase of data collection.

Table 1

<table>
<thead>
<tr>
<th>Title</th>
<th>Year</th>
<th>Authors/Editors</th>
<th># Pages</th>
<th># Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>What Matters Most for Engaging the Private Sector in Education: A</td>
<td>2014</td>
<td>Baum, Lewis, Lusk-Stover &amp; Patrinos</td>
<td>73</td>
<td>148</td>
</tr>
<tr>
<td>Framework Paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emerging Evidence on Vouchers and Faith-Based Providers in Education:</td>
<td>2009</td>
<td>Barrera-Osorio, Patrinos, &amp; Wodon</td>
<td>212</td>
<td>191</td>
</tr>
<tr>
<td>Case Studies from Africa, Latin America, and Asia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Role and Impact of Public-Private Partnerships in Education</td>
<td>2009</td>
<td>Patrinos, Barrera-Osorio, &amp; Guáqueta</td>
<td>116</td>
<td>158</td>
</tr>
<tr>
<td>Enhancing Accountability in Schools: What Can Choice and Contracting</td>
<td>2007</td>
<td>Patrinos &amp; LaRocque</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Contribute</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private sector involvement in education: a review of World Bank</td>
<td>2004</td>
<td>World Bank</td>
<td>55</td>
<td>74</td>
</tr>
<tr>
<td>activities in East Asia and Pacific, 1996-2002</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Authorship characteristics for the remaining 301 unique individual first authors were determined through a systematic internet search. We categorized and coded the characteristics of each cited author including: discipline in which each cited author received highest degree; name and
location of university from which each cited author graduated with highest degree; and name and location of current workplace of each cited author. In order to make visible the ways in which the cited authors, their educational backgrounds, and workplaces are interconnected in a policy network, and to understand which institutions are central within this network, we display our data using network diagrams, produced through the use of UCINET 6.594 (Borgatti, Everett, Freeman, 2002) and NetDraw 2.155 (Borgatti, 2002) software.

**Findings: The Northern, Economic Policy Networks of the World Bank**

Our study aims to understand the characteristics of the World Bank’s knowledge network in the area of private sector engagement in education. And more specifically, we seek to expose the degree to which, and in what ways, the Bank’s knowledge network reflects Northern-produced knowledge and the dominance of economics as a discipline. Our findings point to answers through the lens of cited authorship characteristics. From our mapping of networks drawn from the bibliometric data, we moreover find the privileging of particular institutions.

**Geographic Affiliation**

We find that, overwhelmingly, the authors cited in the six publications are strongly affiliated with the Global North, in terms of both employment and education. We coded all authors’ current employment affiliations, and determined from which universities they received their highest degrees (most commonly PhDs).

In terms of work affiliation, as shown in Figure 1, of the 301 total unique individual authors cited, 61.79% are affiliated with a university or research focused institution. The next largest group of cited authors includes employees of non-governmental organizations (NGOs) (11.63%), followed by employees of the World Bank (10.3%). The remaining cited authors are affiliated with other development banks (1.33%), the OECD (0.33%), the UN (0.33%), other organizations (7.64%) or had an undetermined organization affiliation (6.64%).

Based on these organizational affiliations, we determine that a large majority of authors cited in the sample are geographically affiliated with the Global North in terms of workplace employment, as shown in Figure 2. More specifically, a majority of authors work in either the United States (61.46%) or Europe (18.6%). Other geographic areas represented include Canada (2.33%) and Australia (1.66%). Only 9.3% of cited authors are currently employed at institutions in the Global South.
Figure 1. Current work affiliation of authors by organizational type

We determined the academic institution from which the 301 individual authors received their highest degrees. Authors received highest degrees predominantly from institutions located in the Global North (see Figure 3), with over 63% of degrees received in the United States, and 20.6% from European universities. Eleven authors studied in Canada and two in Australia. Only four
authors received their highest degrees from institutions in the Global South (Pakistan, India, Hong Kong, Venezuela). Overall the findings of the authors’ work and educational affiliations support the claim that the World Bank cites researchers from universities and organizations mainly situated in the USA and Europe, and thereby provide some evidence that knowledge production on the issue of private sector engagement in education is centralized in the Global North.

![Geographical location of institution from which authors received highest degree](image)

**Figure 3.** Geographical location of institution from which authors received highest degree

**Author Discipline**

We moreover coded each cited author's disciplinary focus by determining the subject in which each author received her or his highest degree, most commonly PhD. In a majority of cases, as shown in Figure 4, authors studied economics, with 50.83% obtaining their highest degrees in economics departments. Less prominent but notable disciplines represented in our sample include education (16.94%) and political science/public policy (13.62%). This overwhelming number of economics graduates is likely reflective of the fact that the cited research is dominated by economistic thinking.
Understanding the Citation Policy Network

In order to better understand the underlying patterns of the relationships between authors and their organizational affiliations we have employed a network analysis. The analysis aims to show the institutions to which the authors are most strongly tied through both education and employment, and to identify which institutions are central in this network and therefore potentially dominant contributors to the construction and dissemination of development knowledge as presented through the World Bank publications.

Figure 5 maps the main component (or the largest group of interconnecting authors and organizations in the data set) of the network produced using NetDraw (Borgatti, 2002). The network is represented in an undirected graph—meaning that we are not aiming to identify influence of one node on another or reciprocal influence, but instead to identify a commonality between nodes based on their ties to particular institutions. The map displays a two mode network, and identifies two types of nodes, individual authors shown as circles, and their organizational affiliations shown as squares. For the sake of clarity, all missing data and pendants (or authors connected to the main component of the network through only one tie) have been deleted; meaning all authors included in this network graph are connected to at least two organizations (the institution where they received their highest degree and current work affiliation). In this figure author nodes (circles) have been color-coded based on the discipline in which the author received their PhD or highest degree. In this case yellow nodes represent economics, blue represents education, green represents political science/public administration, red represents other disciplines, and black represents those authors for whom we were unable to determine educational background.

The nodes have been sized based on their measure of degree centrality, or the number of connections they have with others. As Figure 5 makes clear, the key authors cited in the sample publications come from a small range of disciplines, with the dominant being economics (yellow nodes).
By mapping the data derived from our bibliometric analysis, we find that a network emerges which shows that the World Bank’s publications included in this data set rely heavily on authors connected to the World Bank itself, as well as key high-tier, predominantly Ivy League institutions; specifically, Harvard University, Stanford University, University of Chicago, Massachusetts Institute of Technology (MIT), and Princeton University. Figure 6 provides a closer look into the network of these six key institutions. The nodes connected to these networks include all authors directly tied to one of these institutions, including both current organizational affiliation, as well as those who received their highest degree from one of these institutions.
Two institutions are clearly central: the World Bank and Harvard University, with the highest degree centrality measures of 0.103 and 0.124 respectively. The centrality of US-based institutions further supports our claim of Northern-produced knowledge. The density of the citation network moreover indicates that the knowledge taken up by the World Bank is generated in a relatively small policy-making environment that privileges particular institutional affiliations which are potentially the sources of policy diffusion on the theme of public-private partnerships in education. The authors cited predominantly graduated from Ivy League, private institutions in the USA and UK. Of the cited authors, 42.5% attended one of only ten universities (see Table 2). Of these ten universities, nine have been ranked in the top 20 of the Times Higher Education 2016 World University Rankings. Knowledge in the sampled World Bank publications is therefore drawn from a network limited to those educated in mainly elite institutions.

Figure 6. Key institutions in the World Bank Policy Network
Table 2

<table>
<thead>
<tr>
<th>University Attended</th>
<th>Number of Cited Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvard University</td>
<td>33</td>
</tr>
<tr>
<td>Stanford University</td>
<td>18</td>
</tr>
<tr>
<td>University of Chicago</td>
<td>14</td>
</tr>
<tr>
<td>Massachusetts Institute of Technology</td>
<td>14</td>
</tr>
<tr>
<td>Princeton University</td>
<td>12</td>
</tr>
<tr>
<td>University of Oxford</td>
<td>10</td>
</tr>
<tr>
<td>Columbia University</td>
<td>8</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>7</td>
</tr>
<tr>
<td>University of Minnesota</td>
<td>7</td>
</tr>
<tr>
<td>University of London</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>140</td>
</tr>
<tr>
<td>Missing</td>
<td>34</td>
</tr>
</tbody>
</table>

Our findings derived from the bibliometric analysis determine that those sources cited within the World Bank publications were mainly produced by authors from the Global North, who were educated in high-income countries, and are largely economists. These findings reflect the Banking Model of development—knowledge on private sector engagement in education is something that is being mobilized, disseminated and reinforced within the Global North, as opposed engendered by a reciprocal relationship with the Global South. Our findings are also indicative of economic imperialism, where economists are privileged producers of knowledge. The density of the citation network moreover indicates that the knowledge is produced in a narrow policy-making environment that privileges particular institutional affiliations.

Discussion and Conclusions

As shown by our analysis of cited author educational background and disciplinary focus, over 50% graduated in the field of economics. As previous research suggests, the World Bank has disproportionately favored the employment of economists. Resting on the superiority of quantitative data, and assumptions of objectivity and replicability, the Knowledge Bank has been arguably populated with economically-driven research (Broad, 2006; Rao & Woolcock, 2007a). That the majority of authors cited are trained economists suggests that the research supporting Bank publications on private education is disciplinarily skewed towards a single field of study, one which has been widely critiqued as having an outsize influence on both international development and educational policy (Klees, 2012; Menashy, 2013; Verger, 2012). We argue that from our bibliometric analysis, a policy network can be identified that is reflective of economic imperialism.

Economic dominance is argued to reflect a belief that neoclassical economics is the “only truly scientific and rigorous social science… by virtue of its intellectual superiority” (Fine, 2002, p. 189). But as several scholars have argued, economics is not by its nature superior to other social science fields. As Fine explains: “Economics as a discipline is dominated by an increasingly esoteric and intellectually bankrupt technicism that is absolutely intolerant of alternatives” (Fine, 2002, p. 198). The discipline offers a limited lens through which to understand education, and in particular, its provision, which is conceptualized primarily as a competitive market. Such an understanding has
obvious implications for engagement of the private sector, which can enable such a market to exist. Principles relating to supply and demand, choice, and market competition naturally support the introduction of the private sector. This perspective has come under much criticism, however, where private sector engagement in education is argued to reproduce inequities and marginalize poor families, and does not necessarily increase quality (Rose, 2009; Srivastava, 2013). Moreover, in a system that engages the private sector, the role of the government is argued to shift from “actually building and developing education institutions” to instead simply regulating private providers (Allais, 2012, p. 263). Moreover, an emphasis on efficiency via competition ignores other critical issues in education, including equity, social cohesion, and the support of participatory democratic institutions (Allais, 2012; Fine, 2002b; Fine & Milonakis, 2009). Our description of the citation patterns as reflective of economic dominance is therefore deeply critical of the World Bank—an enormously influential knowledge broker, mobilizing and disseminating economically-grounded policy advice that could produce problematic outcomes.

We moreover find that the geographic orientation of the policy network and the knowledge it mobilizes to be heavily weighted to the Global North. The cited authors are disproportionately educated in Northern universities and work in Northern institutions. The knowledge produced and disseminated therefore reinforces North-South knowledge transfer. The Banking Model of development is clear, and we argue that the citation patterns indicate that the World Bank considers knowledge produced in the North as reflective of expertise, and can therefore be offered as policy advice to those in the Global South. The favoring of Northern-generated research arguably discounts knowledge produced and possibly preferred elsewhere. Policy diffusion mechanisms with their sources in the Global North enable the North-South transfer of knowledge mobilized by the Bank. Our findings here support criticisms of the Bank as a hegemonic power, circulating knowledge that reinforces its favoring of development strategies generated in the Global North, and done to the Global South.

The World Bank’s knowledge mobilization on the topic of private sector engagement in education reflects a policy network that is clearly narrow, and shows that not only are Northern-based academics most preferred, but those from a small subset of universities. That 42.5% of cited authors graduated from only 10 universities indicates the limited nature of this network. What is moreover notable is that these higher education institutions are widely considered elite, most classified as Ivy League and are predominantly private (Times Higher Education, 2016). The knowledge mobilized to inform the Bank’s work is reflective of a narrowness in not only geography and discipline, but also institutionally. Only particular institutions, which can also be characterized as exclusive, are the sources of policy diffusion and favored as generators of knowledge. As Marginson describes, the global university system is reflective of “asymmetrical resources and one-way global flows” (2006, p. 1), and the citation patterns identified expose the ways in which those educated within elite institutions perpetuate these flows as policy diffusion in the form of development knowledge.

This study targets a relatively small subset of publications and on a very specific theme. Our findings are moreover limited to the publishing activities of a single organization. Therefore we do not wish to oversell the conclusions proclaimed in this study. However, we maintain the relevance of our findings in a few key areas. First, the World Bank as an objective knowledge broker, and therefore, policy advisor, is called into question by our study. Its reliance on research produced in the Global North demonstrates a limited foundation to its knowledge production and mobilization. As well, our findings point to an economic disciplinary dominance at the World Bank in the area of education, much as previous studies have claimed in other fields. A degree of myopia can be clearly
observed at the Bank, which calls into question its propensity for bias and thereby suitability as one of the world's largest knowledge disseminators.

Second, this research might inform additional studies on the concept of “economic imperialism” beyond the Bank, and we hope can spur questions concerning the authority and power of this discipline to drive education policy beyond this single agency. For instance, does the field of economics hold as much dominance in education knowledge production within countries, both in the Global North and South? And is this dominance present on topics beyond private engagement in education, such as advocacy of testing, accountability measures, or standards?

Finally, we posit that this study demonstrates the need for further research into knowledge mobilization in the areas of international development and education, and more specifically shows the value of bibliometric analyses in helping to understand what, and who, drives the generation of knowledge.

Acknowledgements

We are grateful to Robin Shields for his comments on an earlier draft of this paper, and to Sheetal Gowda for her research assistance. All errors are our own.

References


http://dx.doi.org/10.1080/03050060701556307

http://dx.doi.org/10.1332/174426413X662806

http://dx.doi.org/10.1332/174426410X524839

Court, J., & Young, J. (2003, August). Bridging research and policy: Insights from 50 case studies. Retrieved October 2009, from Overseas Development Institute:  


http://dx.doi.org/10.1186/1748-5908-3-49

http://dx.doi.org/10.1177/1468149109332454


http://dx.doi.org/10.1086/447660

http://dx.doi.org/10.1177/14661380122230894


Times Higher Education. (2016). World University Rankings

http://dx.doi.org/10.1057/9781137022912


[http://dx.doi.org/10.1080/00220388.2010.506913](http://dx.doi.org/10.1080/00220388.2010.506913)


About the Authors

Francine Menashy
University of Massachusetts Boston
francine.menashy@umb.edu
Francine Menashy is an Assistant Professor in the Department of Leadership in Education at the University of Massachusetts Boston. Her research focuses on aid to education, private sector engagement, and the educational policies of international organizations.

Robyn Read
Ontario Institute for Studies in Education, University of Toronto
robyn.read@utoronto.ca
Robyn Read is a PhD candidate and Canada Graduate Scholar studying comparative, international development education at the Ontario Institute for Studies in Education, University of Toronto. Her research focuses on knowledge mobilization and education policy in the developing world, with a specific interest in how research influences policy in educational development.
archivos analíticos de políticas educativas
consejo editorial

Editor Consultor: **Gustavo E. Fischman** (Arizona State University)
Editores Asociados: **Armando Alcántara Santuario** (Universidad Nacional Autónoma de México), **Jason Beech**, (Universidad de San Andrés), **Ezequiel Gomez Caride**, (Pontificia Universidad Católica Argentina), **Antonio Luzon**, (Universidad de Granada)

Claudio Almonacid
Universidad Metropolitana de Ciencias de la Educación, Chile

Juan Carlos González Faraco
Universidad de Huelva, España

Miriam Rodríguez Vargas
Universidad Autónoma de Tamaulipas, México

Miguel Ángel Arias Ortega
Universidad Autónoma de la Ciudad de México

María Clemente Linuesa
Universidad de Salamanca, España

José Gregorio Rodríguez
Universidad Nacional de Colombia, Colombia

Xavier Besalú Costa
Universitat de Girona, España

Jaume Martínez Bonafé
Universitat de València, España

Mario Rueda Beltrán Instituto de Investigaciones sobre la Universidad y la Educación, UNAM, México

Xavier Bonal Sarro Universidad Autónoma de Barcelona, España

Alejandro Márquez Jiménez
Instituto de Investigaciones sobre la Universidad y la Educación, UNAM, México

José Luis San Fabián Maroto
Universidad de Oviedo, España

Antonio Bolivar Boitia
Universidad de Granada, España

María Guadalupe Olivier Tellez,
Universidad Pedagógica Nacional, México

Jurjo Torres Santomé, Universidad de la Coruña, España

José Joaquín Brunner Universidad Diego Portales, Chile

Miguel Pereyra Universidad de Granada, España

Yengny Marisol Silva Laya
Universidad Iberoamericana, México

Damian Canales Sánchez
Instituto Nacional para la Evaluación de la Educación, México

Mónica Pini Universidad Nacional de San Martín, Argentina

Juan Carlos Tedesco Universidad Nacional de San Martín, Argentina

Gabriela de la Cruz Flores Universidad Nacional Autónoma de México

Omar Orlando Pulido Chaves
Instituto para la Investigación Educativa y el Desarrollo Pedagógico (IDEP)

Ernesto Treviño Ronzón
Universidad Veracruzana, México

Marco Antonio Delgado Fuentes Universidad Iberoamericana, México

José Luis Ramírez Romero
Universidad Autónoma de Sonora, México

Ernesto Treviño Villarreal
Universidad Diego Portales Santiago, Chile

Inés Dussel, DIE-CINVESTAV, México

Paula Razquin Universidad de San Andrés, Argentina

Antoni Verger Planells Universidad Autónoma de Barcelona, España

Pedro Flores Crespo Universidad Iberoamericana, México

José Ignacio Rivas Flores
Universidad de Málaga, España

Catalina Wainerman
Universidad de San Andrés, Argentina

Ana María García de Fanelli Centro de Estudios de Estado y Sociedad (CEDES) CONICET, Argentina

Juan Carlos Yáñez Velazco
Universidad de Colima, México
arquivos analíticos de políticas educativas
conselho editorial

Editor Consultor: **Gustavo E. Fischman** (Arizona State University)
Editoras Associadas: **Geovana Mendonça Lunardi Mendes** (Universidade do Estado de Santa Catarina), **Marcia Pletsch, Sandra Regina Sales** (Universidade Federal Rural do Rio de Janeiro)

<table>
<thead>
<tr>
<th>Nome</th>
<th>Universidade/Município</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almerindo Afonso</td>
<td>Universidade do Minho, Portugal</td>
</tr>
<tr>
<td>Alex Fernandez Vaz</td>
<td>Universidade Federal da Santa Catarina, Brasil</td>
</tr>
<tr>
<td>José Augusto Pacheco</td>
<td>Universidade do Minho, Portugal</td>
</tr>
<tr>
<td>Rosanna Maria Barros Sá</td>
<td>Universidade do Algarve, Portugal</td>
</tr>
<tr>
<td>Regina Célia Linhaes Hostins</td>
<td>Universidade do Vale do Itajaí, Brasil</td>
</tr>
<tr>
<td>Jane Paiva</td>
<td>Universidade do Estado do Rio de Janeiro, Brasil</td>
</tr>
<tr>
<td>Maria Helena Bonilla</td>
<td>Universidade Federal da Bahia, Brasil</td>
</tr>
<tr>
<td>Alfredo Macedo Gomes</td>
<td>Universidade Federal de Pernambuco, Brasil</td>
</tr>
<tr>
<td>Paulo Alberto Santos Vieira</td>
<td>Universidade do Estado de Mato Grosso, Brasil</td>
</tr>
<tr>
<td>Rosa Maria Bueno Fischer</td>
<td>Universidade Federal do Rio Grande do Sul, Brasil</td>
</tr>
<tr>
<td>Jefferson Mainardes</td>
<td>Universidade Estadual de Ponta Grossa, Brasil</td>
</tr>
<tr>
<td>Fabiany de Cássia Tavares Silva</td>
<td>Universidade Federal do Mato Grosso, Brasil</td>
</tr>
<tr>
<td>Alice Casimiro Lopes</td>
<td>Universidade do Estado do Rio de Janeiro, Brasil</td>
</tr>
<tr>
<td>Jader Janer Moreira Lopes</td>
<td>Universidade Federal Fluminense e Universidade Federal de Juiz de Fora, Brasil</td>
</tr>
<tr>
<td>António Teodoro</td>
<td>Universidade Lusófona, Portugal</td>
</tr>
<tr>
<td>Suzana Feldens Schwertner</td>
<td>Centro Universitário Univates, Brasil</td>
</tr>
<tr>
<td>Debora Nunes</td>
<td>Universidade Federal do Rio Grande do Norte, Brasil</td>
</tr>
<tr>
<td>Lilian do Valle</td>
<td>Universidade do Estado do Rio de Janeiro, Brasil</td>
</tr>
<tr>
<td>Flávia Miller Naethe Motta</td>
<td>Universidade Federal Rural do Rio de Janeiro, Brasil</td>
</tr>
<tr>
<td>Alda Junqueira Marin</td>
<td>Pontifícia Universidade Católica de São Paulo, Brasil</td>
</tr>
<tr>
<td>Alfredo Veiga-Neto</td>
<td>Universidade Federal do Rio Grande do Sul, Brasil</td>
</tr>
<tr>
<td>Dalila Andrade Oliveira</td>
<td>Universidade Federal de Minas Gerais, Brasil</td>
</tr>
</tbody>
</table>