



**SKILL FORMATION, GOVERNANCE, AND DEMOCRACY IN BRAZIL:
THE STATE OF THE ART OF A PUBLIC POLICY**

Marta M. Assumpção-Rodrigues*

Working Paper #390 – February 2013

Marta M. Assumpção-Rodrigues is professor of public policy management at the University of São Paulo (Brazil). A guest scholar at the Kellogg Institute for International Studies in Fall 2011, she received her PhD from Notre Dame in 1998. She is the author of *Políticas Públicas* (Publifolha 2010) and “*Strong*” *Presidencies*, “*Weak*” *Congresses? A Study of the Executive-Legislative Relations in Brazil, 1985–1996* (VDM 2010) and the coeditor of *Corporate Social Responsibility–CSR in Two Countries: Brazil and Norway* (Faf0 2008).

*My appreciation to two anonymous reviewers for their helpful comments and suggestions. This paper is dedicated to the memory of Guillermo A. O’Donnell, my professor.

ABSTRACT

By focusing on the interface *governance–public policy–democracy* in Brazil, this piece seeks to further our understanding of how governance works in contexts where private sectors shape and dictate public policies in specific policy areas. It argues that governance with nondemocratic characteristics favors an environment in which, instead of executing “collective goals,” public policies are produced to respond to particular demands of dominant actors. This point is illustrated by an examination of the Vocational Education and Training (VET) policy in Brazil. The paper concludes that the Brazilian VET policy designed and adopted by Getúlio Vargas administration in the 1940s did indeed increase the capacity of the country to compete in a globalized world, but it did not contribute to improving political accountability or democratic governance.

RESUMO

Ao focalizar a interface *governança–políticas públicas–democracia* no Brasil, este texto busca aprofundar o conhecimento sobre o funcionamento da governança em contextos em que setores privados ditam políticas públicas em determinadas áreas. Quando a governança não é democrática, ela tende a não executar metas coletivas, favorecendo uma situação em que políticas são produzidas para responder demandas particulares de atores preponderantes no processo decisório. Este texto examina o nascimento e desenvolvimento da política de qualificação profissional do trabalhador no Brasil para ilustrar este ponto. Conclui-se que essa política, que foi formulada e implementada durante o governo de Getúlio Vargas nos anos 1940, incrementou a capacidade do país para competir no mundo globalizado, mas não contribuiu para o aprimoramento da responsabilização política (*accountability*) nem da governança democrática.

INTRODUCTION

How does governance work in contexts where democracy is not a tradition and accountability is only an ideal? How are public policies shaped in contexts where public decisions are taken in a nondemocratic fashion? The answer to these questions leads us to important aspects of the “governance equation,” which relates to the very nature of the networks that give political and economic support for governments to implement public policies.

In this sense, governance is not a purely descriptive conception of social processes; neither is it a concept that carries a political prescriptive tone imported from other experiences, which are detached from the social realm. The argument developed in this piece is that the concept of governance provides a useful tool to study both the effectiveness and democraticness of public policy-making.

The study of governance focuses on *relationships* at work in policy-making processes, as well as on the consequences that they hold for aggregate outcomes (McClurg and Young 2011). Moreover, it refers to *relationships* that governments establish by promoting interdependent coordination among diverse political actors and alliances to make policies effective. In fact, governance is a directive tool that modifies the role of governments: from the *center* towards a *system* of government; from the hierarchical mode to a more associative and coordinated mode (Aguillar Vilanueva 2009: 79).

“Democratic governance,” in turn, refers to “*shared actions*” that take place among several social, economic, and political actors. It relates, on the one hand, to the ability governments demonstrate to steer society in an accountable manner and, on the other, to the capacity societies have to influence policy-making processes. When government and society *share* responsibility for policies that aim at fighting poverty, socioeconomic inequalities, and poor quality of public services or at guaranteeing citizens’ rights, for instance, there is democratic governance.

Although I agree that democratic governance and accountability are two sides of the same coin, this paper argues that the qualification *democratic* for governance is not a

trivial detail. By making use of that adjective *democratic*, scholars clarify a definition of governance that every democratic regime should aim to achieve. Nevertheless, considering that most Latin American political regimes have no democratic tradition, this paper seeks to further our comprehension of how governance works in contexts where democratic practices are not traditionally valued and/or the democratic political regime is still to be consolidated.

The conception of governance adopted in this text relates to the public-private connections that governments nurture in order to produce policies. More specifically, it relates to *network governance*, understood as the way governments act to promote coordination of several (economic, political, and social) actors to implement a concrete policy—such as skill formation.

Since networks are not necessarily democratic (Aguillar Vilanueva 2009), in contexts in which political representation is precarious and the state lacks a democratic institutional framework, governments tend to make policies for those classes/economic sectors that are willing to lend either political support for or the adequate resources to finance policies that *they* want to see implemented. In this environment, the state/governments may even enjoy governability, i.e., the appropriate financial and administrative conditions to implement policies. But the policies they make enhance neither accountability nor the expansion of citizen rights. This panorama nurtures, instead, the insulation of policy-making (Nunes 1997), which, driven by “particularistic” practices (O’Donnell 2010), produces policies that respond, mostly, to the demands of those (few) actors who can afford to finance them and/or have the “voice” to shape the policy-making processes. In any case, such policies do not aim at executing collective goals (Diniz 1997).

In general, governance stems from coalitional alignments that are constructed over time by actors with self-interested political purposes in mind (Heaney 2011: 438); nondemocratic governance, in particular, stems from coalitional alignments in which specific actors tend to play a preponderant role in policy-making. In this case, decision-making is unlikely to be transparent, political accountability is neither pursued nor strengthened over a long period of time, and network governance constitutes a great challenge for the consolidation of democracy for citizens (O’Donnell 2002). In contrast,

“successful democratic governance,” as studied by Mainwaring and Scully (2010:1), emerges from and tends to reinforce a more accountable political order. In this case, the effectiveness of policy-making relates to the role that governments, coalitions, and democratic institutions exercise in decision-making processes. The more transparent the links between government and its networks, the more democratic governance is.

These are some of the themes discussed in this study, which is divided in two parts.

In order to assess to what extent a concrete policy reflects effective and/or democratic governance, this paper begins by identifying some concrete attributes of the concepts *governance–public policy–democracy* to emphasize specific historical aspects of the network governance that helped to design and implement the Vocational Education and Training (VET) policy in Brazil during the 1940s. It deals with the question of *where skill institutions come from*.

The second part provides historical evidence linking, on the one hand, the country’s socioeconomic inequalities to the poor performance of its educational system and, on the other hand, the competitive position of Brazilian industry in the international arena to the VET system. It also locates the nature of the Brazilian VET system vis-à-vis other systems of vocational training. Discussing the consequences of the VET foundational moment during the *Estado Novo* (1937–45) for the later development of the system during the democratic periods (1946–64 and 1985–) and the military dictatorship (1964–85), this part addresses the question of *how skill institutions have evolved* in Brazil.

The conclusion returns to the *governance–public policy–democracy* issue to clarify the reasons why the Brazilian VET system provides a good example of a successful public policy that has *not* reinforced democratic governance.

THE EMERGENCE OF SKILL INSTITUTIONS IN BRAZIL

The subject of skill formation is a crucial component in defining distinctive varieties of capitalism and contemporary political economic outcomes from a comparative perspective. A seminal work by Wolfgang Streeck (1992) was a pioneer in correlating Germany’s vocational training system with its successful manufacturing economy in the

1980s. More recently, a book by Kathleen Thelen (2007) on the political economy of skills in Germany, Britain, the United States, and Japan has discussed, from a comparative perspective, how vocational training institutions evolve. In Brazil, however, skill formation and the institutions that promote vocational education and training still require further academic study. The key for understanding these issues in relation to the Brazilian case is *System S*.

Created during the 1940s, System S consists today of a combination of organizations¹ that provide not only vocational education and training (VET) but also social and technical assistance, and sociocultural and leisure activities. For the last seventy years, System S has remained the largest, the most efficient, and the most robust VET complex in Latin America. It is estimated that, since 1942, 50 million Brazilians have been trained by the system in twenty-eight programs offered for the industrial sector.² According to Johanson (2009), the National Industrial Apprenticeship Service (Serviço Nacional de Aprendizagem Industrial, SENAI), for instance, receives 2.8 million trainees every year.

This paper argues that System S has also contributed to the improvement of Brazil's competitiveness in the globalized world. According to *The Global Competitiveness Report, 2011–2012*, out of 142 countries ranked in 2011, Brazil held the best position in “availability of training services” among the BRICs (the association of the emerging economies of Brazil, Russia, India, China, and South Africa) (36th); China

¹ “System S” refers to a set of non-state organizations: the National Industrial Apprenticeship Service (Serviço Nacional de Aprendizagem Industrial, SENAI), created in 1942; the Commerce Social Service (Serviço Social do Comércio, SESC), the National Commercial Apprenticeship Service (Serviço Nacional de Aprendizagem Comercial, SENAC), and the Industry Social Service (Serviço Social da Indústria, SESI), created in 1946; the Brazilian Small and Medium-Size Businesses Support Service (Serviço Brasileiro de Apoio às Micros e Pequenas Empresas, SEBRAE), created in 1972; the Rural Apprenticeship Service (Serviço de Aprendizagem Rural, SENAR), created in 1991; the Transport Social Service (Serviço Social do Transporte, SEST) and the National Transportation Apprenticeship Service (Serviço Nacional de Aprendizagem do Transporte, SENAT), created in 1993; and the National Cooperativism Apprenticeship Service (Serviço Nacional de Aprendizagem do Cooperativismo, SESCOOP), created in 1998. The following agencies also belong to System S: the Export Promotion Agency (Agência de Promoção de Exportações, APEX Brasil) and the Brazilian Agency for Industrial Development (Agência Brasileira de Desenvolvimento Industrial, ABDI) (CGU 2009). (Here and throughout, translations into English are the author's.)

² <http://www.brasil.gov.br/sobre/educacao/ensino-tecnico/mercado-de-trabalho> (accessed September 30, 2012).

came in second place (42nd), South Africa in third (47th), India in fourth (58th), and Russia in the fifth place (77th) (WEF 2011).

The focus of this study is on the first organization to structure System S: SENAI. Created in 1942 to fit emerging industry's needs and interests, SENAI is operated by autonomous bodies of employer associations (the National Industry Confederation, Confederação Nacional da Indústria, CNI³) and the States Industries Federation (Federação das Indústrias dos Estados), in spite of being formally linked to the Ministry of Labor.

Many countries in Latin America have implemented training services inspired in the Brazilian vocational training format. The design of SENAI influenced the emergence of the Costa Rican National Apprenticeship Institute (Instituto Nacional de Aprendizaje, INA), the Colombian National Apprenticeship Service (Servicio Nacional de Aprendizaje, SENA), and the Venezuelan National Institute for Educational Cooperation (Instituto Nacional de Cooperación Educativa, INCE), among others.⁴ More recently, SENAI has helped to implement vocational training policies in African countries, such as Cabo Verde (Castro 2003), Angola and Guinea-Bissau (FIESP 2012). In 2012, SENAI's model (São Paulo) is being "exported" to Nigeria.⁵

³ Representing the twenty-seven industry federations in Brazil, CNI acts on behalf of the interests of productive industry and contributes to the formulation of public policies for this sector.

⁴ Other examples are the Ecuadorean Occupational Training Service (Servicio Ecuatoriano de Capacitación Profesional, SECAP), Peru's National Industrial Work Training Service (Servicio Nacional de Adiestramiento en Trabajo Industrial, SENATI), Honduras's National Institute for Vocational Training (Instituto Nacional de Formación Profesional, INFOP), Nicaragua's National Technological Institute (Instituto Nacional Tecnológico, INATEC), and Guatemala's Technical Institute for Training and Productivity (Instituto Técnico de Capacitación y Productividad, INTECAP).

⁵ <http://www.gvces.com.br/index.php?r=noticias/view&id=224162> (accessed January 28, 2013) According to FIESP (2012: 33), the primary role of SENAI in Africa is the "transfer of theoretical and technical knowledge in the field of vocational training. SENAI's main objective in Angola is to contribute to the social reintegration and reconstruction of the country through training, which began in 2000 with the construction of a training centre at a cost of six million dollars. The project was consolidated and transferred to the Angolan Government in July 2005. Courses offered at the centre include: (i) civil construction, (ii) building and industrial electricity, (iii) industrial sewing, (iv) computers, (v) diesel mechanics, (vi) craftwork, (vii) baking, (viii) refrigeration, and (ix) metalwork.

The main objective of the training center in Guinea-Bissau is to contribute to the overall economic recovery of the country, through the development of professional education. The project began in 2010 with the following courses: (i) construction, (ii) building electricity, (iii) nonindustrial sewing, (iv) repair of household appliances, (v) bakery and confectionery, (vi)

In contrast to the school-based systems adopted by France, Germany, Denmark, the United States, and in parts of the UK, these are enterprise-based training institutions, centrally designed, planned, and implemented with close ties to industry, offering vocational training outside the regular education system.⁶ They are funded from a levy on the payroll. The design of these levy schemes varies in coverage, collection method, and obligation to contribute,⁷ and their success depends on a sufficiently wide economic base in the formal sector, as well as on a reasonable administrative capacity (Johanson 2009).

In Brazil, there is a general levy of 2.5 percent of monthly payroll. Training organizations such as SENAI, the National Transportation Apprenticeship Service (Serviço Nacional de Aprendizagem do Transporte, SENAT), the National Commercial Apprenticeship Service (Serviço Nacional de Aprendizagem Comercial, SENAC), and the Rural Apprenticeship Service (Serviço de Aprendizagem Rural, SENAR) receive 1.5 percent of payroll, and social institutions of System S, such as the Commerce Social Service (Serviço Social do Comércio, SESC) and the Industry Social Service (Serviço Social da Indústria, SESI), receive 1 percent. Management boards control the finances of the system. The Office of the Comptroller General (Controladoria Geral da União, CGU) supervises the system.⁸ Although there is some indication that System S has made a contribution to the country's more stable position in the global competitiveness rating

maintenance of computers (vii) refrigeration, and (viii) metalwork.”

⁶ In Latin America, the exceptions are Argentina and Mexico, whose initial vocational training is not separated from general education. In the case of Argentina, the National Commission for Apprenticeship and Vocational Orientation (Comisión Nacional de Aprendizaje y Orientación Profesional, CNAOP), created by Perón under the Labor and Social Security Secretary, was abandoned in the 1950s in favor of a technical school model (Castro and Alfthan 1978). In Mexico, the 1978 federal labor law (LFT) established the National Employment and Training Service (SNECA), which is headed by the Secretary of Labor and Welfare (SRPS). According to Arteaga García, Sierra Romero, and Flores Lima (2010), Mexico is still reforming its national education and training processes.

⁷ France, the United States and Canada, and Korea have also adopted levy systems. In Canada (Quebec) and in the United States, levy systems were introduced in 1995. In France, since 1925, enterprises have had to pay an equivalent of 0.5 percent of wages and salaries as an apprenticeship tax. Quebec uses a “train-or-pay” system in which employers contribute with a certain amount to a training fund (OECD 2012). In the case of Korea there is a levy exemption system. Korean enterprises that train more than 6 percent of the workforce do not have to pay a levy; only firms that train less than 6 percent are compelled to pay a levy for further education (Bosch and Charest 2010a).

⁸ See 1988 Constitution, Art. 74, II, and CGU (2009). The Office of the Comptroller General (CGU) was created by Fernando Henrique Cardoso administration through Provisional Measure (n. 2.143/31 of April 2, 2001).

(WEF 2011), there is no empirical evidence that its relatively successful implementation in the 1940s has reinforced social equity or political accountability.

Network Governance and Skill Formation in Brazil: The *Estado Novo* Experience

Institutional arrangements governing skill formation are a key aspect to defining the character of the political settlement achieved among employers, workers and trade unions (Thelen 2007). A look at these arrangements throws some light on questions such as: How are skill institutions formed? Where do these institutions come from? What kind of coalitional alignments support these institutions?

Tracing cross-national differences in contemporary training systems, Kathleen Thelen's work (2007) shows some striking institutional differences in the evolution of vocational training in Germany, Britain, Japan, and the United States by looking at the coalitional alignments among three key groups—employers in skill-intensive industries, traditional artisans, and early trade unions—during the nineteenth century. Thelen's study demonstrates that, while in Germany and Japan state policy actively organized the artisanal sector, strengthening the role of unions in the organization of craft-control strategies, in the United States and Britain, by contrast, economic and political conditions destroyed traditional corporate artisanal associations (2007: 279).

In the US model, specifically, the goal was “to rationalize production and *reduce dependence on skilled labor altogether* through technological change, work reorganization, and product standardization” (Thelen 2007: 281). Academically oriented education opened more opportunities for advancement in the labor market, as managers were more likely to privilege college graduate, specifically for training supervisory staff (Thelen 2007: 284–85). In this context, American young workers were not inclined to go into vocational training of any kind, although firms continued to offer all kinds of company-based benefits to reduce turnover.

During the nineteenth century, the VET model adopted in the United States, community colleges, was rooted in the Morrill Act (1862), which is also known as the Land Grant Act. It helped to expand public higher education with emphasis on agriculture and mechanical arts. The Second Morrill Act (1890), in turn, extended higher

education to include black students who had not finished high school (Christy and Williamson 1992; Cross 1999). Today, this model provides occupational education leading to employment, adult education, literacy programs, business and industry training, and workforce development services.

The first community college in the United States was founded in 1901 (Joliet Junior College in Illinois⁹) under the influence of William Rainey Harper, president of the University of Chicago, and J. Stanley Brown, superintendent of Joliet Township High School. The innovative idea of Harper and Brown was to create a junior college to offer a *liberal arts education* that paralleled the first two years of a four-year college, or the possibility of a *university* degree for students who desired to remain within the community but still pursue higher education.

Thus, the US VET model emerged from the initiative of social actors who wanted to include, within an institution of higher education, those who could not afford to go to university or whose vocation was not geared to graduate studies. In this context, the concept of “community” grew rapidly to include students outside the existing high school district. During the Depression years, the mission of community colleges expanded to include job training as well (Bailey and Berg 2010).

In the case of Brazil, the answer to the question *where skill institutions come from* must start with the fact that Brazil was the last country in the world to abolish slavery (March 13, 1888). In that context, the coalitional alignments among the three key groups examined by Thelen (2007) (employers in skill-intensive industries, traditional artisans, and early trade unions) were absent in the design of the skill formation policy of the nineteenth century. Artisans (and emergent trade unions) were deliberately excluded from the skill formation decision-making process, especially during its formative years. Academically oriented education, in turn, was designed mostly “to fulfill the expectations of upper-class youth” (Teixeira 1968: 50), “to train personnel for the governmental bureaucracy” (Silva 1977: 3), or “to train doctors, engineers, and lawyers to serve the upper class” (Ribeiro 1962: 11).

⁹ Though the first public vocational high school with a comprehensive training program in agriculture was established at the University of Minnesota in 1888.

As an attempt to address the problem of skill formation under those circumstances, José Bonifácio de Andrada e Silva (1763–1838) and Joaquim Nabuco (1849–1910), two of the most important Brazilian statesmen of the nineteenth century, called their parliamentary fellows' attention to the fact that heavy investments should be directed to implement labor, educational, and training policies, in order to include those who were to leave the condition of mandatory work for the emerging free labor market. However, their claim found no echo within the Brazilian parliament (Nabuco 2000; Dolhnikoff 2012), since there was little governmental interest, social pressure, or institutional initiative for change (Chagas 1967: 50). Also, the numerical demand for admission to higher education was limited, partly because access to secondary education was limited. In fact, the number of students who passed through the system did not justify a more ambitious educational policy.

The first training policy in Brazil was restricted to workers of the Rio de Janeiro railroad system, the Central Railroad of Brazil (*Estrada de Ferro Central do Brasil*)—an important sector of demand for skilled labor (Castro and Alftan 1978)—with the creation, in 1906, of the Practical Craft Level School (*Escola Prática de Aprendizizes de Oficinas*) (Cunha 2000: 96). Only in 1919, did the training of teachers of vocational education begin, with the creation of the Wenceslau Braz School of Education, Arts and Crafts (*Escola Normal de Artes e Ofícios Wenceslau Braz*) (Tavares 2000).

At the federal level, vocational training policy was first launched by a presidential decree (n. 7.566) issued by Nilo Peçanha (1909–10) to create, on September 23, 1909, nineteen vocational schools—one in each state of the Brazilian federation (Cunha 2000: 94). These vocational schools served as a powerful political currency for federal government to distribute positions and/or school vacancies to those who were indicated by local politicians, gaining support from regional oligarchies (Leal 1949). From such extensive distribution stemmed the centralization of clientelism and patrimonialism, which became an important characteristic of the Getúlio Vargas administration (1930–45) (Nunes 1997). In 1931, when Gustavo Capanema, the minister of Education and Health, created a bureaucratic organism to open nineteen more vocational schools (one in each state)—the Technical-Vocational Education Department (*Inspetoria do Ensino Profissional Técnico*)—this process was reinforced (Cunha 2005).

Thus, the centralization of clientelism and patrimonialism contributed not only to facilitating the Brazilian state-building process—and, with it, the bureaucratic insulation of the decision-making process within the realm of the Executive (Nunes 1997)—but also to dismantling any possibility of policy effectiveness to produce the intermediary skills needed by the emerging industry. In fact, reinforcing important obstacles to the emergence of a more accountable political order in the country, the dictatorship of the *Estado Novo* implemented public policies that, driven by particularistic practices, could not reinforce democratic governance.

The situation of policy-making insulation was aggravated on November 10, 1937, when Getúlio Vargas suspended democratic elections and imposed a new constitution on the country. Industrial training policy began to gain momentum. But it did so in a contradictory fashion.

The Constitution stated that industries and unions should take over the apprenticeship schools for employees' sons and associates, while basic education (“pre-professional education”) for the poor was “essentially the state’s duty” (Art. 129, 1937 Constitution).

In order to make this article effective, Capanema developed a project that outlined the Brazilian VET policy, bringing vocational education into regular public schools with industrialists' economic support. A draft of this project was presented to the National Industry Confederation (CNI), and to the State of São Paulo Industries Federation (Federação das Indústrias do Estado de São Paulo, FIESP) in 1938. Unable to perceive that Capanema's project was designed to identify the industrialists' interests as a “social collective goal,” however, the CNI and the FIESP decided to withdraw support from this proposal, declaring that the *paulistas* industrialists would not finance a public policy to be implemented by the state at the national level (Cunha 2000: 99).

Based on a report entitled “The Problems with Brazilian Professional [Vocational] Education” (“Os Defeitos do Ensino Profissional Brasileiro”) of 1938, Rodolpho Fuchs, a close advisor to Vargas on issues related to vocational education and training, recommended, in turn, that Brazil should follow the example of Germany and make professional training compulsory for young industry workers, with the enterprises financing the system (Schwartzman, Bomeny, and Costa 1984). Following that

recommendation, on May 2, 1939, technicians of the Ministry of Education issued the decree-law n.1.238, compelling enterprises with 500 or more employees to fund vocational training within their firms (Weinstein 2000).

When the CNI and the FIESP responded that they would simply bypass that decree-law, the federal government designated an inter-ministerial commission to create regional councils to supervise work placements and vocational programs in partnership with industry and unions (Cunha 2000). The commission was also tasked with addressing four major issues related to vocational education and training in Brazil: Who should manage the VET policy? Should vocational programs be restricted to enterprises with 500 or more employees? Which industry sectors would demand more extensive and more formal training? Who should fund these programs? (Weinstein 2000: 115).

From the perspective of the Ministry of Education, Capanema recommended that the federal government should design, implement, and fund the new vocational training policy in Brazil (Schwartzman, Bomeny, and Costa 1984: 238). From the FIESP perspective, Roberto Simonsen—who, by 1937, had already emerged as a heavyweight participant in the formulation of Vargas's economic policies—expressed the industrialists' strong opposition to the participation of trade unions in the VET policy-making process. Simonsen also stated that the Brazilian vocational education policy should be implemented in an incremental way, with schools concentrating on teachers' training and on the development of skills of more experienced workers (Carone 1978: 273–84). In reference to supervision, management, and especially funding, Simonsen suggested that enterprises, workers, and the state should *jointly* pay for the costs of the VET policy in Brazil (Cunha 2000).

In July 1940, Capanema wrote a letter to Vargas in which he complained about the design of the vocational training policy that was emerging from the inter-ministerial commission. He exposed the difficulty in accepting a vocational education and training program in which the Ministry of Education had only a marginal role. According to his view, the Ministry of Education should be *the* most important actor in designing the Brazilian VET policy in response to the industrial demand.

In reply to Capanema's request for direct federal control over the new training system, Vargas stated that he was not convinced that government should play such an

important role in making the Brazilian VET policy effective (Cunha 2005). In fact, the president seemed to be receptive to the argument presented by the minister of Labor, Waldemar Falcão, that the federal government could not afford to implement such policy without the industrialists' economic support (Schwartzman, Bomeny, and Costa 1984).

In this context, Vargas decided to designate a second commission, in July 1940, to seal a political coalition with the São Paulo industrialists. The president intended the commission to say that either the industrialists should accept the responsibility of financing the Brazilian VET policy, as mandated by the 1937 Constitution, or else the government would inspect individual firms with the participation of union representatives to make the decree 1.238/1939 effective (Cunha 2000: 100).

Advocating the accelerated industrial development of Brazil within the context of the *Estado Novo*, the president of the FIESP released a report, in September 1941, in which he stated, in somewhat of a turnaround, that not only did the industrialization process require a well-prepared workforce with trained technicians and skilled professionals but also that the CNI and its regional federations (including the FIESP) were the ideal organizations to provide the funding, supervision, and management of the new training programs for industry professionals.

Nearly all conclusions of Simonsen's report were incorporated into a proposal of a decree-law presented to the inter-ministerial commission in December 1941, which included the creation of an organization to implement the new vocational training policy in the country and of a levy scheme to fund it. This time, Capanema's objections served only to change the organization's name—from the National Industry Workers Training Service (*Serviço Nacional de Formação de Industriários*) to the National Industrial Apprenticeship Service (*Serviço Nacional de Aprendizagem Industrial*, SENAI).

On January 22, 1942, the Executive issued decree-law n. 4048 to create SENAI. It also established a sectorial levy scheme according to which all industrial companies should pay a monthly compulsory contribution of “2,000 *reis* per employee per month” (2.000 réis por empregado por mês).

The reason why the industry leaders decided to accept and support the Brazilian VET policy may be related to the argument that levy schemes tend to be more easily accepted by employers if they are targeted (sectorial or regional, rather than universal)

and if the levy is managed either locally or by corporatist corporations (Smith and Billet 2005). This argument fits in with the VET funding and financing implemented in Brazil: it is sectorial and regionally targeted and managed by employers' corporations. In fact, such scheme has worked, for the last seventy years, as an alternative to a national (centralized) funding model, ensuring a reliable budget that is independent of public resources and guaranteeing to the most industrialized areas of the country (especially the Southeast region) that they were the greatest beneficiaries of the new program.

Thus, System S was launched and, with it, the CNI and the FIESP ended up assuming the paternity of a VET policy that was perfectly adjusted to their needs and interests with no interference from workers, trade unions, or the state. From a political perspective, by embracing the responsibility of financing and implementing the Brazilian VET policy, the industry leaders made clear that they would rather increase their control over funding than leave decision-making up to government employees or trade unions (Weinstein 2000).

Moreover, by creating the Brazilian VET system by decree, the Executive made clear that this policy design implied an important concession from Vargas's dictatorship to the industrialists: the emergence of a decentralized structure, in opposition to the *Estado Novo* centralism. This concession was reinforced on January 30, 1942, when Vargas signed the Industrial Training Law (Lei Orgânica do Ensino Industrial), which established by decree-law (n.4.073) the rules of the emerging VET system. With it the Executive also made clear that the private sector was responsible for providing vocational education and training for the Brazilian workforce *outside* the regular (public) education system.

In this sense, the answer to the question "Where do Brazilian skill institutions come from?" relies precisely on a combination of Vargas's ability to coerce with the capacity of employers to implement, fund, and supervise a concrete policy. The examination of the impact of this combination on democratic governance, political accountability, and on the later development of the Brazilian VET system is presented next.

THE EVOLUTION OF SKILL INSTITUTIONS IN BRAZIL

Today's globalizing economy requires countries to nurture pools of well-educated workers who are able to adapt rapidly to their changing environment and the evolving needs of production system. In this context, education, in general, and vocational education and training, in particular, constitute not only key policy areas for countries facing the challenges imposed by global competitiveness but also important tools for state intervention in processes of social inequalities.

In order to address the question "How skill and education institutions have evolved in Brazil?" and whether they have increased competitiveness and citizen rights, this section of the paper seeks to ascertain the degree of institutional continuity and/or change of System S over the last seventy years.

Vocational Education and Training in Comparative Perspective

The creation of SENAI in 1942 took place in a historical context (the Second World War and its aftermath) in which the US and UK apprenticeship systems were already highly developed (Marsden 1995). But, while the Brazilian vocational training system gained more strength during the military dictatorship (1964–1985) and with the new democratic regime (1985–), the US and the UK apprenticeship systems registered a decline.

In 1972, System S created the Brazilian Small and Medium-Size Businesses Support Service (Serviço Brasileiro de Apoio às Micros e Pequenas Empresas, SEBRAE). The democratic Constitution (1988) allowed System S to increase the number of organizations by creating the Rural Apprenticeship Service, SENAR, in 1991; the Transport Social Service (Serviço Social do Transporte, SEST) and the National Transportation Apprenticeship Service, SENAT, in 1993; and the National Cooperativism Apprenticeship (Serviço Nacional de Aprendizagem do Cooperativismo, SESCOOP), in 1998.

In the United States, the decline of the apprenticeship system in the 1980s and 1990s led reformers and policymakers to believe that the US system was failing to produce an internationally competitive workforce in terms of training the middle level of the skills distribution (technical-level and skilled workers of advanced manufacturing

sectors), as had already happened in Germany and Japan (Bosch and Charest 2010a). Then, the lower secondary level of education in the United States (as well as in the UK) was gradually phased out, while training moved upwards to the level of associate (two-year) and bachelor (four-year) degrees. This “academic drift” in the United States ended up eroding the vocational content at high school level. In fact, the “solution” of “bachelor for all” in the United States did not solve the problem of shortages of skills for intermediate and craft levels or that of the overall quality of education offered by the public system and by community colleges.

In relation to the former problem, shortages of skills for intermediate and craft levels, data from 2004 show that only 9 percent of workers in the United States had skills at the intermediary level, compared to 13 percent of workers in Germany and 39 percent in the UK (HM Treasury et al. 2004: 7, cited in Rainbird 2010: 244). In relation to the latter problem, quality of higher education in community colleges, a study of data from the US National Adult Literacy Survey concluded that “many students who do earn degrees have not actually mastered the reading, writing, and thinking skills we expect of college graduates. Over the past decade [1990s], literacy among college graduates has actually declined” (US Department of Education 2006, cited in Bailey and Berg 2010: 291). These findings demonstrate that, despite the American “solution,” problems at craft and college levels still persisted, as well as those at the base of the US educational system. Nonetheless, the US tendency to focus on higher education at the upper secondary and the tertiary levels has spread to the UK and Korea.

In the Republic of Korea, the capacity of the VET state institutions not only to respond to opportunities connecting the rapidly changing challenges of the global market but also to generate an environment conducive to the development of human resources has increased over the years, as vocational training has not completely declined in significance. In this case, though recruitment is based mostly on the tertiary level, upper secondary certificates have become the minimum entry qualification for higher-level programs (Bosch and Charest 2010a). Thus, Korea’s model of VET state institutions increased the country’s ability to compete in the globalized world, in which technological innovation has generated a greater demand for numerical, linguistic, and “soft” skills (Castells 1996: 238).

Table 1 presents the upper secondary enrollment patterns in public and private institutions, by program orientation (general, vocational, combined), in selected countries in 2009. Enrollment patterns are an important indicator of the stock of human capital and the country's ongoing capacity to provide investments in skills formation. As the OECD data (presented in Table 1) do not take into account "entirely work-based education and training that is not overseen by a formal education authority" (as is the case of most programs of System S), Brazil might be a case where there may be many more students enrolled in vocational programs than is shown in the table. That may also be the case of Mexico, a country that is still in a catch-up process in the VET policy area (Arteaga García, Sierra Romero, and Flores Lima 2010).

TABLE 1

**UPPER SECONDARY ENROLLMENT RATES
BY PROGRAM ORIENTATION (2009)**

	From PISA 2009: 1 st age of differentiation in the education system	General	Vocational	Vocational combined school- and work-based
OEDC average	14	54.1	42.7	12.1
EU average	14	47.6	48	13.9
Brazil	17	88.4	11.6	-
Chile	16	66.1	33.9	-
Denmark	16	52.7	47.3	46.5
Germany	10	46.8	53.2	45.3
Korea	14	75.6	24.4	-
Mexico	15	90.6	9.4	-
Norway	16	45.9	54.1	16.6
Switzerland	12	34.5	65.5	60.1
UK	16	69.5	30.5	-
USA	16	100.0	-	-

Source: OECD 2011, Indicator C1; Bosch and Charest 2010a. (PISA is the OECD's Programme for International Student Assessment.)

Technical Note: Vocational programs include both school-based programs and combined school- and work-based programs that are recognized as part of the education system.

Table 1 shows that Chile and the UK follow almost the same pattern: two-thirds of the upper secondary enrollment rates are in general programs. In the US and the

Korean cases, upper secondary enrollment rates are preponderant in programs of general orientation, rather than vocational training. Additionally, in countries with strong trade unions and traditional apprenticeship systems, such as Germany, Denmark, and Switzerland, most upper secondary enrollments are focused on VET programs.

A look at which actors participate in decision-making brings to light some important differences among VET systems, especially in terms of power relations. In the case of Denmark, representatives of federations are responsible for VET policies, whereas in the UK framework (composed of three cycles: bachelor's, master's, and PhDs), the state has little scope for influencing employer practices in the VET arena, which is also the case in the United States. In the UK, the state still exercises some influence through its control over resources and in specific areas where publicly funded training is involved (Rainbird 2010).

In Germany, the federal government holds the power to govern the dual system of vocational training *with* unions—which, in fact, play the most important role in decision-making—while secondary and tertiary education is coordinated by the states of the German federation (Bosh and Charest, 2010a). All vocational qualifications can be supplemented after some years of work experience by promotional training that equips participants for advancement to the grades of master craftsman, technician, or business administrator (Geissler 2002, cited in Bosch and Charest 2010). Since in Germany the ranks of unions are filled with skilled workers who receive their credentials under the system of firm-based training that they represent, unions have developed a strong interest in co-managing the system by pursuing strategies that invest in a system of plant-based training (Thelen 2007: 289). The intermediary skills that have thus been continuously produced by the German VET system over the last several decades may be a possible explanation for the reasonably good economic performance of the country in the current European economic crisis.¹⁰

In Brazil, in turn, the local Executive (municipality) is in charge of public basic education, while the states of the federation are responsible for secondary education (high-school) and tertiary education (state universities). The federal government funds

¹⁰ A US-German comparative study by Freeman and Schettkat (2000) showed, for instance, that “the German work force is more skilled than the US work force, with the least skilled workers much closer to the national average than the least skilled US workers.”

and supervises some tertiary education (federal universities), whereas employer corporations, alone, have the decision-making power on VET programs (System S). This concentration of power within the realm of employer associations makes it difficult to reach a more democratic consensus about vocational education and training for all, and the situation is aggravated when the issue of *retraining* is taken into account.

In contrast to the Mexican and Korean cases, in which the federal government is responsible not only for implementing VET programs but also for retraining, in Brazil, “individual educational gaps have to be fulfilled throughout adult life, when people are already integrated to the labor markets” (Comin and Barbosa 2011). In this case, the path *from school to market* is inverted (*from labor to school*) and, with it, informal workers end up being excluded from retraining—since it requires self-financing.

The Impact of the Critical Juncture of the *Estado Novo* on the Evolution of System S

Although the Brazilian VET system was inspired by the German dual model of vocational training, important distinctions between these systems must be emphasized. One relates to the fact that they emerged and have been managed in quite different ways and supported by distinct coalition alignments.

In Germany, during the post–Second World War period, unions played a fundamental role in reforming an institutional VET framework (the in-firm training system) that was emphasized during the Nazi period. Unions also helped to promote comprehensive legislation (the Vocational Training Act of 1969) that has guaranteed them an equal role with employers in administering and overseeing the in-plant training system (Thelen 2007: 91).

In Brazil, in contrast, since unions were not considered a key pillar of social partnership when System S emerged, skill formation has not been shaped by the way *workers* define their interests. That is to say, the coalitional alignment that has supported the System S over the years has not promoted a significant institutional change in terms of the functions of the Brazilian VET system. For the last seventy years, the industrialists’ corporations (FIESP and CNI) have played the preponderant role in decision-making, in designing the institutional framework of the system, and in implementing VET programs.

In fact, with the 1930 military coup, unions were submitted to rigorous state control. On February 4, 1931, Getúlio Vargas created the Ministry of Labor, Industry, and Commerce (Decree n. 19.667), which established a hierarchical union system guaranteeing the dominance of employers' interests over those of trade unions' (Decree n. 19.770, issued on March 19, 1931). In May 1931, the Ministry of Labor instituted the most important employer corporation of the country by transforming the State of São Paulo Industries Center (Centro das Indústrias do Estado de São Paulo, CIESP) into the State of São Paulo Industries Federation (Federação das Indústrias do Estado de São Paulo, FIESP).

During the populist democracy (1945–64), confronted with the extraordinary challenges of the post–Second World War period, industrial leaders considered the re-emergence of working-class militancy and the revitalization of the Brazilian Communist Party (PCB)—whose candidate, Yedo Fiúza, received 10 percent of the votes in the presidential elections—a threat. In order to face the new era of union mobilization that the populist democracy brought about, leaders of the industry decided to invest considerable financial resources in System S. From 1942 to 1966, these resources were administered and distributed among the system's various organizations without any sort of oversight.

Thus, the most important consequence of the critical juncture of the Vargas dictatorship for the VET's later development during the populist democracy was the institutional reproduction of System S, which was built on foundations of the *Estado Novo* years. With it, the original coalitional alignment of the *getulista* years remained intact. As a result of this situation, the VET policy promoted by the Brazilian industrial leaders during the democratic period (1945–64) became an important ideological tool to restrict labor participation in decision-making, and in the oversight of training (Weinstein 2000).

With the military dictatorship (1964–85), the political economy of skills promoted both institutional continuity *and* change. The 1966 public administration reforms, for instance, drove changes in the way the levy scheme was being managed by System S. On November 21, 1966, the military created the National Institute for Social Security (Instituto Nacional de Previdência Social, INPS) (Decree n. 72/1966), which, among

other functions, aimed at controlling, managing, and allocating the funds that were collected by the payroll levy. The creation of the INPS represented an important adaptation to changes in the political and economic environment in which the military government was embedded: with it, the military could control and oversee the financial resources of System S and how they were distributed and spent. The INPS managed these resources from 1966 to 1990.

From another perspective, the idea of transforming Brazil into an industrial power led the military government to regard education and vocational training as indispensable aspects for promoting technological innovation. In 1971, as an attempt to reinforce the VET policy, the federal government decided to implement a new strategy of making professional training a compulsory part of secondary education (Lei de Diretrizes e Bases da Educação Nacional, Law n. 5.692, August 11, 1971, art. 5/6). However, pressures for a more wide-ranging education focused on the university entrance examinations (*vestibular*) led federal government to issue a decree law (n. 7.004) in 1982, which represented a backward motion in the attempt to integrate vocational training within the Brazilian educational system. Thus, the institutional arrangement of System S turned out to be incredibly resilient in face of the changes that the military aimed to introduce in the Brazilian VET policy.

However, by helping the states of the Brazilian federation to develop a technical school apparatus, the military also brought about a significant change, as technical secondary schools (Escolas Técnicas, Etecs) and technical colleges (Faculdades de Tecnologia, Fatecs) increased in number—even after the military left power. In the state of São Paulo, for instance, the Paula Souza Center (Centro Paula Souza), created in 1969 by decree (Abreu Sodré state administration), became one of the most important technical centers of the country. In 2012, it manages 207 technical secondary schools (Etecs) and 55 technical colleges (Fatecs). All these facts demonstrate that both institutional reproduction *and* change were quite closely linked during the military dictatorship.¹¹

¹¹ More recently, the intersections of FIESP with the military government have been brought about by the National Truth Commission (Comissão Nacional da Verdade), created by the Law n. 12.528, in November 28, 2011. Disclosing secret documents produced by the National Information Service (Serviço Nacional de Informações, SNI) that have been found in the National Archive (Arquivo Nacional), the Commission has demonstrated the collaboration between the

The democratization of the political regime, in turn, brought about important changes in the design of federal technical schools, though the framework of System S remained the same.

In 1998, Fernando Henrique Cardoso decided to restrict the role of the federal government in the creation of new public technical schools, making the expansion of new units contingent on partnerships with municipalities and/or the private sector (Law n. 9.629 of May 27, 1998, art. 4). In November 2006, Luis Inácio Lula da Silva revoked Law n. 9.629, allowing the federal government to increase the number of federal technical schools and the private sector to increase the number of decentralized technical units.

Although the number of new technical schools (at the federal and state levels) has increased in Brazil during the recent democratic period due to the closer partnership between the public and private sectors, the functions of System S in providing vocational education training has remained intact, despite the fact that debate over the financial and institutional structure of System S has had several opportunities to come to the floor of the Brazilian Congress since the transition to democracy.

On the first occasion, deputies of the Constituent National Assembly (1987–88), while discussing what became to be art. 149 of the new Constitution,¹² attempted to transform in 1987 the scheme of levy on payroll into a levy on firms' invoicing. Industry leaders and their corporations, facing the threat of losing a reliable budget independent of public resources (levy on payroll), reacted almost immediately, collecting 1.6 million signatures among supporters of System S to reverse the content of the piece of legislation that proposed a new collection method.

FIESP's Permanent Group of Industrial Mobilization (Grupo Permanente de Mobilização Industrial, GPMI) with the repressive military apparatus, especially in "providing the necessary material to military operations." Among these operations is the Banderantes Operation (Operação Bandeirantes, OBAN) – a police station that was transformed in 1969 into a place where opponents of the military regime were tortured in São Paulo. For further information on this matter, see www.cnv.gov.br.

¹² The 1988 Constitution (Art.149) establishes three types of contributions to be collected by the state: (i) social contributions, (ii) contributions for intervention within specific economic fields, and (iii) contributions in the interest of professional sectors. The paragraph related to social contributions provides the legal basis for the existence of eleven contributions that range between 1 percent and 2.5 percent on payroll. Contributions collected by the state and passed on to private organizations may be used, according to specific legislation, in professional training, social assistance, and sociocultural activities (CGU 2009).

As a result of the Constituent Assembly, the institutional reproduction of System S was, again, preserved, as it continued to be considered (and managed) as a private organization. Only this time, the bureaucratic commitment of the system's original founders gave way to more intense political disputes over the financial resources of System S that came from the levy scheme (Cunha 2000).

Just after the promulgation of the 1988 Constitution, the Central Workers Union Confederation (Central Única dos Trabalhadores, CUT), the most important Brazilian group of trade unions, engaged in the congressional debate over the design of a new education law (Lei de Diretrizes e Bases, LDB) introduced by Darcy Ribeiro (RJ). In relation to System S, CUT claimed, in 1989, that all levy funds for vocational training (including SENAI's) should be treated as public money and, as such, should be managed with full participation of workers. "Today," CUT's document stated, "we have a unsustainable situation in which the 1 percent payroll levy imposed on all industrial enterprises is administered by [private] organizations, such as SENAI. These resources are public and should be managed as such" (1st ABC Metalworkers Congress, 1^o Congresso dos Metalúrgicos do ABC, 1989, cited in Cunha 2000). This same proposal was presented again in 1992 on the lower Chamber's floor by Jorge Hage Sobrinho¹³ as an attempt to include it in the text of the new education law (LDB). Nonetheless, the LDB was approved, in 1996, without mentioning the vocational education and training services provided by System S. Thus, System S's functions remained untouched.

However, the 1990 administrative reform of Fernando Collor's government brought with it a significant change in the way the system's levy scheme was managed. On July 27, 1990, merging the National Institute for Social Welfare (INPS) with the Financial Administration of Welfare and Social Assistance Institute (Instituto de Administração Financeira da Previdência e Assistência Social, IAPAS), the federal government created by decree (n. 99.350), the National Institute for Social Security (Instituto Nacional de Seguridade Social, INSS), which administered the system's payroll levy from 1990 to 2007.

¹³ Since 2006, Jorge Hage Sobrinho, minister of state, has been the head of the Office of the Comptroller General of Brazil (Controladoria Geral da União, CGU).

On May 2, 2007, during Lula's administration, when the Secretariat of the Federal Revenue of Brazil (Receita Federal do Brasil) took over the attributions of the INSS to control and allocate the levy funds of System S, the Office of the Comptroller General (CGU) was already in charge of inspecting and auditing the System S funds (Decree n. 5.683, January 24, 2006).

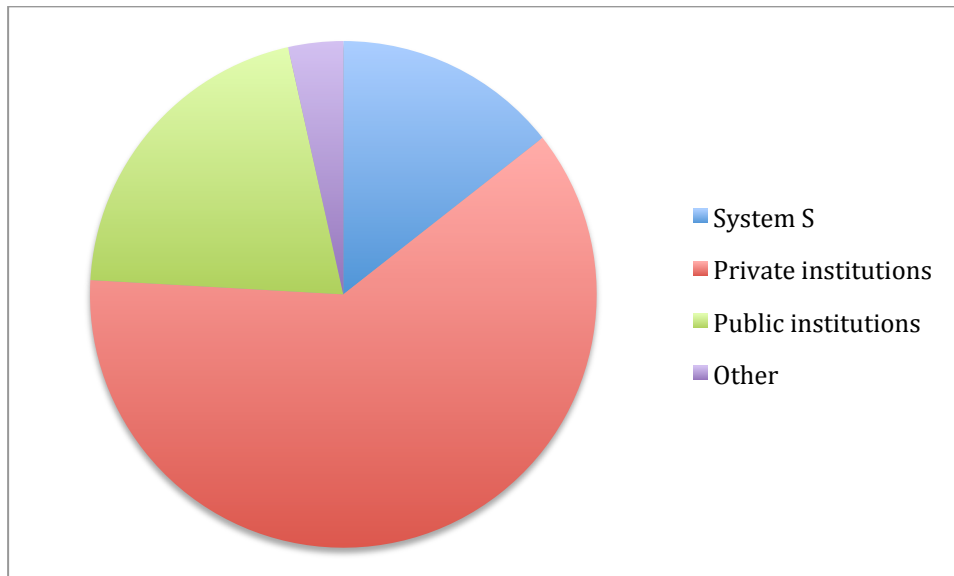
Thus, the argument that funds collected by the System S levy scheme are *public* (and should be managed as such) is based on the fact that they have been administered, distributed, and inspected by public institutions (INPS, INSS, Receita Federal, CGU).

In any case, hybridism seems to be the main characteristic of the system: with an annual budget from contributions collected by the state of around R\$ 15 billion¹⁴ (US\$ 7.5 billion), which often surpasses public funds available to other policy areas, System S remains in the hands of the private sector.

In contrast to the German dual model of vocational training that inspired the VET model adopted in Brazil—in which apprentices receive training both within the companies to which they are apprenticed and within *publically* run vocational schools—most Brazilian apprentices receive training from *private* vocational schools. In 2007, for instance, 75.9 percent of Brazilian VET students were enrolled in private educational institutions, including System S's (IBGE/PNAD 2009). According to data from the Ministry of Labor and Employment produced by the Inter-Union Department for Statistics and Socioeconomic Studies (Departamento Intersindical de Estatística e Estudos Socioeconômicos, DIEESE 2011), in previous years the percentage of students enrolled in VET programs in public institutions was only 17.4 percent.

Figure 1 presents the percentile distribution of ten-year-olds (or over) enrolled in vocational training programs in Brazil in 2007: 14.4 percent were enrolled in System S; 20.6 percent in public educational institutions; 61.5 percent in private institutions; and 3.5 percent in “other” institutions.

¹⁴ For the 2011 System S budget, see the following Ministry of Labor administrative rules: n. 2.214, n. 2.215, n. 2.215, n. 2.217 (October 31, 2011), and the Ministry of Social Development: n. 289, n. 290, n. 291 (October 28, 2011).

FIGURE 1**PERCENTAGE OF CHILDREN 10 YEARS OLD (OR OLDER) ENROLLED IN VET PROGRAMS BY TYPE OF INSTITUTION, BRAZIL (2007)**

Source: IBGE/PNAD 2009.

As Figure 1 demonstrates, in spite of the fact that System S has been able to rely on an independent financial source (the payroll levy scheme), its contribution to providing vocational and training programs in all regions of the country is indeed very poor.¹⁵ The fact that the majority of Brazilian apprentices have received training mostly from *private* vocational schools is an important indicator that the German VET model, with the publicly run vocational schools of the *getulista* years, is losing ground in Brazil in the twenty-first century.

The impossibility of providing incentives for public training/retraining constitutes a major deficiency of Brazil's levy scheme (Johanson 2009), which ends up undermining the main objective of VET policies in a democracy: equal opportunities for all.

¹⁵ Data collected by FUNDAP/CEBRAP (2008) illustrate this point showing that only 16.8 percent of all students enrolled in free VET programs in São Paulo in 2006 studied in one of System S's organizations (such as SENAI, SENAC, SESI, SESC, or SEBRAE). They also show that 30.9 percent had in-firm training; 26.4 percent took courses provided by "other" institutions; 13.9 percent studied in a technical public school; 9.1 percent studied in a NGO or church; and 3 percent were enrolled in programs provided by unions.

Brazil's Education System Compared to Other Education Systems

Few education systems in Latin America have been praised for their excellence, and schools have not been considered important institutional knots (*loci*) for promoting citizenship. In Brazil, in particular, the weakness of the state in providing decent public education reflects its failure not only in implementing citizens' rights but also in fostering coalitional alignments capable of redirecting educational policies and institutions toward more collective goals and functions. As a result of this situation, the lack of a highly skilled workforce in a country where the informal insertion in the labor market prevails remains a concern.

Almost 130 years after the publication of Nabuco's *O Abolicionismo* (1883), the National Functional Literacy Index (Instituto Paulo Montenegro 2005) revealed that only 26 percent of the Brazilian population between fifteen and sixty-four years of age have a full grasp of reading and writing a short statement or a simple note with understanding. In 2006, a publication of the Institute of Applied Economic Research (Instituto de Pesquisas Econômicas Aplicadas, IPEA), a public institution linked to the Presidency's Secretary of Strategic Affairs (Secretaria de Assuntos Estratégicos), stated that two-thirds of the Brazilian population—around 120 million people—were functional illiterate (Tafner 2006: 131). For years, Brazil's education system has been far behind those of many of its Latin American neighbors such as Argentina, Chile, Mexico, and Uruguay.¹⁶ It is no easy task to break through complacency about this situation in a country of such huge inequalities as Brazil.

In 2000, when the Organisation for Economic Co-operation and Development (OECD) decided to implement the Programme for International Student Assessment (PISA) to find out how much children were learning at school, Fernando Henrique Cardoso's administration decided to participate. The results showed that Brazil came just

¹⁶ In Chile, for example, the first four years of school attendance became obligatory in 1920 (basic education). In Brazil, the first four years of school became mandatory with the 1946 Constitution and the first eight years in 1971. In Chile during the 1920s and 1930s, public spending on education represented about 16 percent of total public expenditures (Valenzuela 2011: 26). In Brazil, by contrast, only in 1983 were funds tied to educational expenditures by law, and the Basic Education Management and Development Fund law (Fundo de Manutenção e Desenvolvimento do Ensino Fundamental, Fundef) did not come into effect until 1996, under the Fernando Henrique Cardoso administration.

after Peru, Albania, and Indonesia. Data collected by the PISA/OECD have also unveiled a worrisome picture showing that if the “quality of reading” and “science education” of Brazilian students are poor, the “quality of math” is even more precarious (see Figure 2).

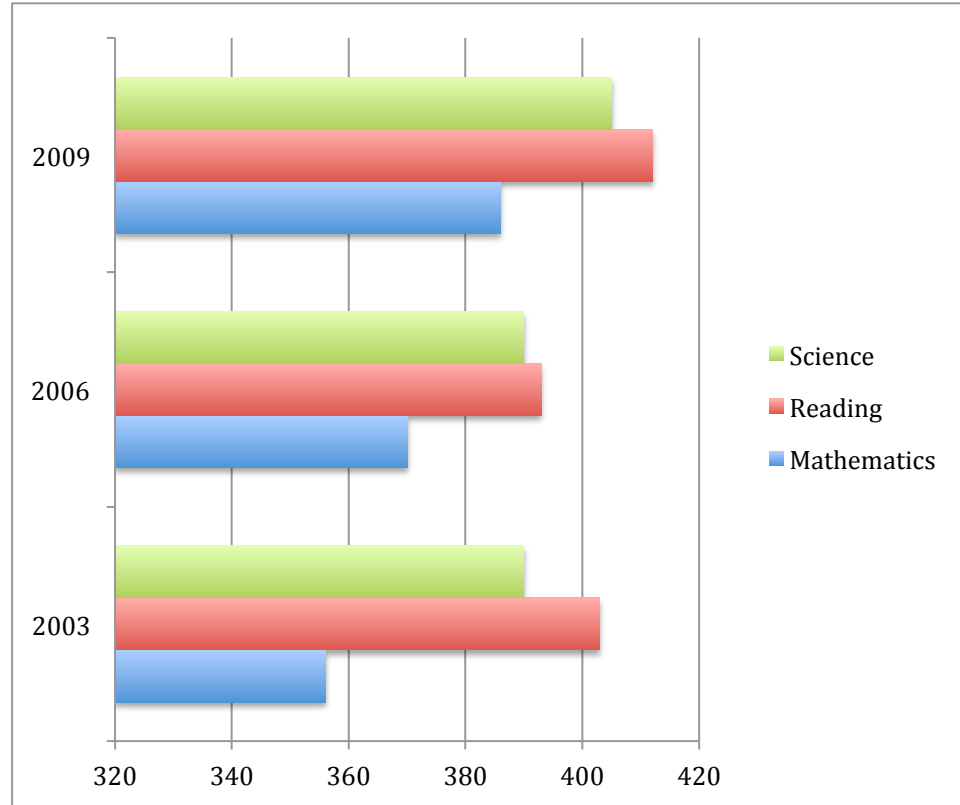
In 2000 and in 2003, only half of Brazilian children had finished primary education; in 2009, two-thirds of Brazilian fifteen-year-olds were unable to understand more than basic arithmetic, and only about one child in a hundred was ranked as a high-performer in reading, mathematics, and science—in contrast to an average 9 percent of students of the OECD countries.¹⁷

In 2006, among fifty-six countries accessed by the OECD, Brazil came in the 49th position in reading, 52nd in science, and 54th in math. Among sixty-five countries ranked by the OECD in 2009, Brazil came in the 53rd position in reading and science and in the 57th place in math. Although the OECD data have registered some progress along the years, Figure 2 shows that Brazilian schools have merely upgrades from disastrous to very bad.

The poor quality of Brazilian education is shared by both rich and poor. According to the PISA data for 2009 (OECD 2010), fifteen-year-old pupils from the best-off homes who go to fee-paying schools do no better than the average child across the OECD. Brazilian poor parents, for their part, know too little to understand how badly their children are being taught at public schools.

The number of years a worker spends in school determines his or her ability not only to increase his/her income but also to search for information, to receive more complex instructions, and to produce written communications with higher precision. A worker with few years in school often faces greater difficulties in taking decisions that require a higher level of abstraction. From a broader perspective, in order to develop a strong capacity for innovation a country needs healthy, well-educated and trained workforce that is open to absorbing new technologies.

¹⁷ *The Economist*, December 9, 2010. <http://www.economist.com/node/17679798> (accessed December 31, 2012).

FIGURE 2**PROGRAMME FOR INTERNATIONAL STUDENT ASSESSMENT (PISA)
MEAN PERFORMANCE (AVERAGE SCORE OF 15-YEAR-OLD STUDENTS) ON
MATH, READING, AND SCIENCE—SCALES FOR 2003, 2006, AND 2009**

Source: OECD 2010.
Mean performance for the OECD countries = 500.

Table 2 presents the average number of years in school in Brazil by age for the years 2001, 2004, and 2009.

Years of study	2001	2004	2009
Mean	6.1	6.6	7.2
10–14 years old	3.9	4.1	4.1
15–17	6.6	7.1	7.4
18–19	7.9	8.4	9.0
20–24	8.0	8.7	9.6
25–29	7.5	8.2	9.5
30–39	7.1	7.5	8.3
40–49	6.4	6.8	7.7
50–59	5.0	5.6	6.5
60 and more	3.3	3.5	4.2

Source: IBGE/PNAD 2004, 2009.

In 2006, 11 years of schooling became mandatory in Brazil, but not all students complete mandatory education. According to OECD, the reason why students drop out is not the lure of jobs, but rather the poor quality of teaching and the irrelevant curriculum (OECD, 2012a). In 2009, for instance, most Brazilians studied, on average, for 7.2 years (IBGE/PNAD 2009), and in 2011 for 7.3 (IBGE/PNAD 2011), which is not very long compared to people in Sweden (16), Norway (15), France Germany and Japan (14), Denmark and the United Kingdom (13), Korea (12), and the United States, and Mexico (11), in 2010 (OECD, 2012b).¹⁸

Many of these countries have registered a relatively successful performance in education for decades, as they have implemented continuous, realistic, and lasting educational policies since the Second Industrial Revolution (1850–1915). This systematic approach has helped them not only to increase the level of education of their workforces but also to promote competitiveness. From these cases we learn that economic growth and an increase in competitiveness can only result from coalitional alignments that are

¹⁸ The average for the OECD countries, in 2010, was 13 years of schooling (OECD 2012b).

committed to stronger and systematic investments in education to implement disciplined educational policies focused, especially, on teachers' qualifications (Yoon and Lee 2010).

In the Brazilian case we see that students have been taught in public schools that do not teach, policy-makers seem incapable of mobilizing effectively to implement systematic and disciplined educational policies, and workers, who have been trained in vocational schools that are mostly private, experience tremendous difficulties in negotiating the VET system. These factors represent some of the obstacles that Brazil has to face not only to improving its competitiveness in a globalized world and increasing citizens' rights but also to facilitating the emergence of democratic governance.

FINAL CONSIDERATIONS

This paper has correlated governance with policy-making. It began with the proposition that public policy-making and decision-making processes reveal the extent to which democratic (or nondemocratic) practices shape the way governance functions. The conception of governance adopted in this text relates to the public-private connections that governments nurture to produce public policies. In this sense, the way public policies are decided explain to what extent governance is democratic/nondemocratic.

Public policies may be conditioned by "particularistic" (O'Donnell 2010) or "more collective" (Diniz 1997) goals, which stem from the institutional network or the coalitional alignments that lend support for governments to implement public policies. When policies that governments implement embrace more particularistic goals to attend to specific demands, governance tends to be nondemocratic; when diverse actors participate in decision-making, the policies governments implement embrace more collective goals, and governance tends to be more democratic.

This paper has also argued that coalition alignments determine not only the degree of "democraticness" of policy-making processes but also the way in which institutions that implement these policies evolve. When these alignments remain the same over a long period of time, institutional reproduction, as originally constituted, tends to prevail; when coalition alignments change, institutions tend to be transformed. On these matters, Kathleen Thelen has stated that "shifts in the coalitions on which institutions rest are

what drive changes in the *form* they take and the *functions* they serve in politics and society” (2007: 294).

However, this study has also emphasized that a new coalition alignment may promote change in terms of the *functions* institutions serve, but not in their *form*. This was the case of German vocational education and training institution after the Second World War, studied by Thelen (2007). Whereas the same coalition alignment over time may promote continuities in the institutional *form*, but not in their *functions*, as this study of System S has attempted to demonstrate.

In Brazil, organized labor was not part of the original coalition behind the crucial legislation of 1942 that created SENAI and never did become a significant actor in shaping the system that evolved subsequently. The systematic exclusion of workers from the VET decision-making process has deepened a dichotomy, beginning with the industrialization process of the 1930s, between “education for the elite” and “the vocational education and training of the workforce.”¹⁹

Institutional arrangements such as System S, have shown themselves to be remarkably resilient—although some changes and innovations have taken place, in an incremental way. These reproductions reinforce previous patterns of exclusion, which—supported by coalitional alignments that have remained almost the same since the *getulista* era—have prevented the incorporation of new groups and elements that might have redirected vocational training and education toward more collective goals.

The argument developed in this paper was that processes of institutional reproduction/change are closely linked and complementary. For that reason, they have to be studied together. The key to understanding these linkages is to think in terms of institutional co-evolution as processes through which coherence does not emerge so

¹⁹ The very design of the National Education Laws—Secondary Education (1942), Commercial Education (1943), and Basic, Secondary, and Agricultural Education (1946)—illustrates this point by stating that secondary education is aimed at “educating the guiding elites of the country,” (“formar as elites condutoras do país”), whereas professional education and training is aimed at “providing adequate training to the sons of factory workers and those who are bereft of luck and less fortunate and need to join the workforce earlier than normal (“propiciar a formação adequada aos filhos dos operários, aos desvalidos da sorte e aos menos afortunados, que necessitam integrar precocemente a força de trabalho”) (Conselho Nacional da Educação, National Education Council, cited in Gonçalves and Botini 2002).

much as it is constructed, as institutions inherited from the past are adapted to changes in the political market and the social context (Thelen 2007: 291).

Taking this theoretical panorama into account, the first part of this paper focused on the historical critical juncture during the *Estado Novo* (1937–45) that led to the creation of the VET policy in Brazil during the 1940s. The second part discussed the consequences of this foundational moment for the later institutional development of System S (a pool of private organizations that have helped the Brazilian state to implement such policies) during the democratic periods (1945–64; 1985–), as well as in the military dictatorship (1964–85).

The analysis of the nature of System S in comparison to other systems of vocational education and training focused on other Latin American VET systems that were inspired by the Brazilian vocational training format. The first part of the paper also discussed how VET institutions were formed and on the basis of what coalitional alignments in some European cases (Germany and the UK, for example) and in the United States. In the case of Brazil, it discussed how the VET institutions were designed by the *paulistas* industrialists to prevent organized labor from becoming a key pillar of social partnership.

In order to illustrate the intersections between nondemocratic governance and policy-making in Brazil the paper looked from a historical perspective at institutional change/reproduction over time. It demonstrated that the lack of transparency and accountability in managing System S was inherited from the authoritarian regime (*Estado Novo*), in which private sectors designed public policies with public resources. The reproduction/continuity of such procedures over time, in a policy area that has traditionally favored the industry corporations, illustrates how nondemocratic governance has been replicated in Brazil.

After all, in order to offer effective democratic resolutions to collective problems, rulers must be committed to enhancing accountability, transparency, and democratic values. *Public* policies must respond to the interests of several distinct social, economic, and political actors; their implementation processes must be transparent, and their results must guarantee and/or extent citizen rights; while rulers must be held accountable.

While in Germany, the process of dismantling the Nazi regime implied the *reinvention* of a system that paid attention to the demands of German unions of the post–Second World War period—such as the maintenance of “in-firm training *with* an equal role with employers in administering and overseeing” (Thelen 2007: 90–91)—in Brazil, the democratization of the political regime has been unable to *invent* more efficient mechanisms to amplify the voices of workers and trade unions which, for the last seventy years, have been excluded from the VET decision-making process. Although the two waves of democratization (1945 and 1985) loosened the corporatist links in Brazil, System S has reproduced its format over time, as it became one of the most important instruments in overcoming the enormous deficiencies of the Brazilian state in fulfilling its social role.

In spite of the fact that some transformations have taken place in the institutional design of System S, the political and social functions that it serves have been characterized by significant continuities: its decision-making process remains insulated, workers and unions still do not play a role in administering and overseeing the system, and its management methods are not well known to the public. For these reasons, this paper concludes that, although System S has played a role in strengthening the competitive position of Brazilian industry in the international arena by providing efficient non-state training services, in its evolution over time not only has it lost ground to private VET schools, but it has also constituted an important obstacle to democratic governance and political accountability.

BIBLIOGRAPHY

- AGUILAR VILLANUEVA, L. F. 2009. *Gobernanza y Gestión Pública*. Mexico, DF: Fondo de Cultura Econômica.
- ALSTON, L. J., M. A. MELLO, B. MILLER, and C. PEREIRA. 2006. "Political Institutions, Policymaking Processes and Policy Outcomes in Brazil." Research Network Working Paper #R-509, Inter-American Development Bank, Washington DC.
- ARTEAGA GARCÍA, A., S. SIERRA ROMERO, and R. FLORES LIMA. 2010. "The Vocational Training System in Mexico: Characteristics and Actors, Strengths and Weaknesses." In BOSCH and CHAREST, *Vocational Trainin*, pp. 187–213.
- BAILEY, T., and P. BERG. 2010. "The Vocational Education and Training System in the United States." In BOSCH and CHAREST, *Vocational Training*, pp. 171–294.
- BAIME, D. 2011. "Community Colleges and Congress: Ten Issues for 2011." *American Association of Community Colleges*, January 5, 12p. http://www.cccvision2020.org/Portals/0/Documents/cclc_leg_conf_2011/FedUp_Hnd2.pdf.
- BALL, K., ed. 2005. *Funding and Financing of Vocational Education and Training: Research Readings*. Adelaide, Australia: National Centre for Vocational Education Research.
- BOSCH, G., and J. CHAREST. 2010a. "Introduction." In BOSCH and CHAREST, *Vocational Training*, pp. 1–26.
- BOSCH, G., and J. CHAREST, eds. 2010b. *Vocational Training: International Perspectives*. New York: Routledge.
- CARONE, E. 1978. *O Centro Industrial do Rio de Janeiro*. Rio de Janeiro: Difel.
- CASTELLS, M. 1996. *The Rise of the Network Society*. Oxford-Malden, UK: Blackwell.
- CASTRO, C. de M. 2003. *Formação Profissional na Virada do Século*. Belo Horizonte: FIEMG.
- CASTRO, C. de M., and T. ALFTHAN. 1978. "The Cost of Equity and the Cost of Efficiency." *Cadernos de Pesquisa*. São Paulo: Fundação Carlos Chagas. <http://www.claudiomouracastro.com.br/upload/The%20cost%20of%20equity%20and%20the%20cost%20of%20efficiency.pdf>
- CGU (CONTROLADORIA-GERAL DA UNIÃO). 2009. *Entendimentos do Controle Interno Federal sobre a Gestão dos Recursos das Entidades do Sistema "S."* Brasília DF: Presidência da República/CGU.

CHAGAS, V. 1967. “A Luta pela Universidade no Brasil.” *Revista Brasileira de Estudos Pedagógicos*, 48, n.107 (Rio de Janeiro: MEC/Inep).

CHRISTY, R., and L. WILLIAMSON. 1992. *A Century of Service: Land Grant Colleges and Universities*. Piscataway, NJ: Transaction Publishers.

COMIN, A., and R. BARBOSA. 2011. “From Work to School: Higher Education Expansion and Occupational Change in Brazil.” Paper presented at the Western Economic Association International 9th Biennial Pacific Rim Conference, Queensland University of Technology, April 26–29.

CROSS, C. F. II. 1999. *Justin Smith Morrill: Father of the Land-Grant Colleges*. Michigan: Michigan State University Press.

CUNHA, L. A. 2000. “O Ensino Industrial-Manufatureiro no Brasil.” *Revista Brasileira de Educação* 14, pp. 89–107.

———. 2005. *O Ensino Profissional na Irradiação do Industrialismo*. São Paulo: UNESP-FLACSO.

DIEESE (DEPARTAMENTO INTERSINDICAL DE ESTATÍSTICA E ESTUDOS SOCIOECONÔMICOS). 2011. *Anuário do Sistema Público de Emprego, Trabalho e Renda 2010/2011: qualificação social e profissional*. São Paulo: DIEESE.

DINIZ, E. 1997. “Governabilidade, democracia e reforma do Estado. Os desafios da construção de uma Nova Ordem no Brasil dos Anos 90”. In E. DINIZ and S. AZEVEDO, *Reforma do Estado e Democracia no Brasil*. Brasília: UnB/ENAP, pp. 19–53.

DOLHNIKOFF, M. 2012. *José Bonifácio*. São Paulo: Companhia das Letras.

FIESP (FEDERAÇÃO DAS INDÚSTRIAS DO ESTADO DE SÃO PAULO). 2012. *Energy Markets in Africa*. São Paulo: FIESP. http://www.fiesp.com.br/wp-content/uploads/2012/05/mercados_energia_africa_en.pdf

FUNDAP/CEBRAP (FUNDAÇÃO DO DESENVOLVIMENTO ADMINISTRATIVO e CENTRO BRASILEIRO DE ANÁLISE E PLANEJAMENTO). 2008. “Ensino Profissionalizante e Qualificação Profissional” *Políticas Públicas em Foco. Boletim Fundap-Cebrap*, n.1. São Paulo: FUNDAP/CEBRAP. <http://www.boletim-fundap.cebrap.org.br/n1/?subject=pesquisa>

FREEMAN, R. B., and R. SCHETTKAT. 2000. “The Role of Wage and Skill Differences in US-German Employment Differences.” NBER Working Paper Series 7474, National Bureau of Economic Research, Cambridge, MA, January.

- GEISSLER, R. 2002. *Die Sozialstruktur Deutschlands*. Wiesbaden: Westdeutscher Verlag.
- GONÇALVES, M. H. B., and J. BOTINI. 2002. *Referenciais para a Educação Profissional do SENAC*. Rio de Janeiro: SENAC.
- HEANEY, M. T. 2011. “Causality in Political Networks: Introduction.” *American Politics Research* 39 (2), pp. 437–480.
- HM TREASURY et alli. 2004. *Supporting Young People to Achieve: Towards a New Deal for Skills*. London: HM Treasury, Department of Work and Pensions, Department for Education and Skills.
- IBGE/PNAD (INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA /PESQUISA NACIONAL POR AMOSTRA DE DOMICÍLIOS). 2004, 2009, 2011.
- . 2009. *Aspectos Complementares da Educação de Jovens e Adultos e Educação Profissional 2007*. Rio de Janeiro: Ministério do Planejamento, Orçamento e Gestão. http://www.ibge.gov.br/home/estatistica/populacao/trabalhoerendimento/pnad2007/suplementos/jovens/publicacao_completa.pdf
- INSTITUTO PAULO MONTENEGRO. 2005. *Indicador de Analfabetismo Funcional (National Functional Literacy Index, INAF)*. http://www.ipm.org.br/ipmb_pagina.php?mpg=4.02.00.00.00&ver=por
- JOHANSON, R. 2009. “A Review of National Training Funds.” SP Discussion Paper 0922, The World Bank, Social Protection and Labor, November.
- LEAL, V. N. 1949. *Coronelismo, Enxada e Voto*. Rio de Janeiro: Forense.
- MAINWARING, S., and T. SCULLY, eds. 2010. *Democratic Governance in Latin America*. Stanford, CA: Stanford University Press.
- MARSDEN, D. 1995. “A Phoenix from the Ashes of Apprenticeship? Vocational Training in Britain.” *International Contributions to Labour Studies* 5. London, New York: Academic Press, pp. 96–114.
- McCLURG, S. D., and J. K. YOUNG. 2011. “Political Networks: A Relational Political Science.” *Political Science and Politics—PS* 44, n.11 (January), pp. 39–43.
- NABUCO, J. 2000 [1883]. *O Abolicionismo*. São Paulo: Publifolha.
- NUNES, E. 1997. *A Gramática Política do Brasil: Clientelismo e Insulamento Burocrático*. Rio de Janeiro: Zahar.

- O'DONNELL, G. 2002. "Notes on the State of Democracy in Latin America." Documento preparado para o projeto "El estado de la democracia en América Latina," patrocinado pela Divisão Regional para a América Latina e o Caribe do Programa das Nações Unidas para o Desenvolvimento.
- . 2010. *Democracy, Agency, and the State: Theory with Comparative Intent*. Oxford, UK: Oxford University Press.
- OECD (ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT). 2010. *PISA 2009 at a Glance*. OECD Publishing.
- . 2011. *Education at a Glance 2011: OECD Indicators*. OECD Publishing.
- . 2012a. *Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies*. OECD Publishing.
- . 2012b. *Education at a Glance 2012: OECD Indicators*. OECD Publishing.
- RAINBIRD, H. 2010. "Vocational Education and Training in the United Kingdom." In BOSCH and CHAREST, *Vocational Training*. pp.-242-270.
- RIBEIRO, D. 1962. *A Universidade e a Nação*. Fortaleza, CE: Imprensa Universitária do Ceará.
- SATSZ, C., and S. WRIGHT. 2004. *Emerging Policy for Vocational Learning in England: Will It Lead to a Better System?* London: Learning and Skills Research Centre.
- SCHWARTZMAN, S., H. BOMENY, and V. COSTA. 1984. *Tempos de Capanema*. São Paulo: Editora Paz e Terra and Editora da Universidade de São Paulo.
- SILVA, J. V. 1977. "Higher Education and University Reform in Brazil." Monograph Series 15, The Latin American Studies Center, Michigan State University, East Lansing, April. 65 p.
- STREECK, W. 1992. *Social Institutions and Economic Performance: Studies of Industrial Relations in Advanced Capitalist Economies*. London: Sage.
- TAFNER, P. 2006. "Educação no Brasil: Atrasos, conquistas e desafios." In P. TAFNER, ed., *Brasil: O Estado de Uma Nação*. Brasília: IPEA. pp. 121–228.
- TAVARES, E. 2000. "A Escola Normal de Artes e Ofícios Wenceslau Braz: Trajetória institucional." *Tecnologia & Cultura* 3 n.3, (Janeiro–Julho).
- TEIXEIRA, A. 1968. "Uma Perspectiva da Educação Superior no Brasil." *Revista Brasileira de Estudos Pedagógicos* 50, n. 111 (Outubro–Dezembro), pp. 21–82.

- THELEN, K. 2007. *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan*. Cambridge: Cambridge University Press.
- US DEPARTMENT OF EDUCATION. 2006. *A Test of Leadership: Charting the Future of the U.S. Higher Education*. Washington, DC: U.S. Government Printing Office.
- VALENZUELA, J. S. 2011. "Families, Welfare Institutions and Economic Development: Chile and Sweden in Comparative Perspective." Working Paper 374, Kellogg Institute for International Studies, University of Notre Dame, January.
- WEINSTEIN, B. 2000. *(Re)formação da classe trabalhadora no Brasil*. São Paulo: Cortez.
- WEF (WORLD ECONOMIC FORUM). 2011. *The Global Competitiveness Report 2011–2012*. Geneva, Switzerland.
- YOON, J. H., and B.-H. LEE. 2010. "The Transformation of the Government-Led Vocational Training System in Korea." In BOSCH and CHAREST, *Vocational Training*, pp. 162–186.