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Rekindling governments from within: Getting public sector elite officials to support government reform in Brazil

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Rekindling Governments from Within: Getting Public Sector Elite Officials to Support Government Reform in Brazil

Monica Pinhanez*

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Abstract

This paper shows how an elite cadre of public sector officials played a key role in the success of administrative reforms in Brazil's state tax administration bureaus in the 1990s. The success of the reforms strengthened public sector bureaucracies and institutions at all government levels, predominantly in the tax departments. At the state level, the tax administrative reforms comprised complex changes in organizational structure, technology, and institutional arrangements. These reforms resulted in increased tax revenues, tax compliance, and successful restructuring. For the public officials who took part in the process, the reforms meant finding a new identity, and a new mission. As such, this paper explores an alternative mode of getting public sectors officials to commit and own public sector changes.

Keywords: tax administrative reform, elites, public sector bureaucrats

JEL classification: H2, H11, H71, H83

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1 Introduction

Following the implementation of administrative tax reforms in 1997, some Brazilian states increased their tax receipts much more than others. This paper seeks to understand the role of tax officials, a public sector elite, in this outcome. Research suggests that a complex change took place, affecting employees' motivation and commitment to reform. This change stemmed from the rationalization of procedures and processes, including particularly: change from a 'territorial based approach' collection to a production chain approach; computerization; and the development of public-private sector relationships that improved tax collection and tax officer professionalization. Public sector elites enter the equation as a group of highly innovative, pragmatic, and devoted bureaucrats. In this case, tax officers (TOs) internalized the conceptual shift emerging from the technological, organizational, and cognitive changes in tax collection. As a result, they led institutional change and strengthened public sector bureaucracies.

Only an elite cadre of professional public officials could have been able to advance new ways of thinking and to achieve efficiency, accountability, and transparency, providing faster and more accurate information about taxpayers and tax returns. TOs are indeed among the most educated and talented professionals in the public sector in Brazil with salaries at the top of the civil service payscale and a very competitive entry examination. In this case, they perceived links among several processes, particularly the backward and forward linkages in each industry. The deep, hands-on understanding of these linkages advanced a conceptual shift in tax collection and the adoption of a new cognitive axis.

This stands in contrast to common beliefs about public sector employees, which are often less positive. Particularly, the literature on the Brazilian public sector bureaucracy points towards a bureaucratic structure and operation that 'prevents the government fulfilling minimal government functions' (Schneider 1987, 1991). When talking about bureaucrats in charge of industrial policy, Schneider refers to them as fragmented, personalized, and non-institutionalized. Although not particular to the Brazilian public sector bureaucracy, public employees are seen as lazy, self-serving, and misguided (Baldwin 1984; Newstrom et al. 1976; Wright 2001). These characteristics are related to a bureaucratic image that portrays the public sector as 'faceless, timid and obscure, at the same time that it is self-directing, and sinister, incompetent, bungling, stupid and diabolically clever self-seeking conspirators' (Kaufman 1981; Peters 1981).

A more optimistic perspective on public servants emerges from the literature on motivation in the public sector. Houston (2000) identifies public servants as moved by a sense of ethic to serve the public, a concern for the community, and a desire to serve the public interest. Perry (1996) describes public service motivation as a function of four components: 'attraction to policy making, commitment to the public interest, compassion, and self-sacrifice'.

Indeed, efforts to improve public sector performance hinge on motivating public officials and training them to have an ethical and committed attitude (Behn 1995; Boardman and Sundquist 2009; Houston 2000; Perry and Porter 1982; Perry and Wise

1990; Teske and Schneider 1994; Wise 2004; Wright 2001, 2007). OECD's study and guidebook training public personnel emphasizes that it is crucial to succeed in keeping political confidence and achieving efficiency, productivity and effectiveness (OECD 2008).

This paper argues that the new rationale that emerged from the organizational, technological, and new cognitive practices in tax administration were the key elements integrating the reform. The findings of six Brazilian sub-national states' case studies (i.e., the VAT administrative reforms carried at the state tax administrative bureaus (STABs) in São Paulo, Rio Grande do Norte, Pernambuco, Paraíba, Ceará, and Bahia) show how TOs endorsed the process and were key to guaranteeing reform success. For this research, the author interviewed approximately 140 public officials.

The next section presents the profile of Brazilian TOs and describes the job characteristics, as well as surrounding conditions, individuals profiles, and their career prospects. The following sections of this paper address the dilemmas faced by TOs when dealing with the everyday tasks of tax collection as well as enabling actions that transform the process of taxation at the state level. Sections 2, 3, and 4 describe the TOs' working conditions and career development, as well as their obligations, aspirations, and missions. The following sections (5, 6 and 7) present the latest change in the profession brought about by administrative reforms. Finally, the paper describes how professional sense-making and identity change are related to the new organizational structure, i.e., vertical industry segmentation, arguing that the TOs were responsible for the success of the technological shift and the change in the tax collection rationale. The emphasis is on the way individuals learned the new knowledge, i.e., the organizational rationale, and, in turn, how this new knowledge propagated among TOs, leading to individual empowerment and instilling a sense of professionalism and identity.

2 Precedents and assumptions

Who are the elite in the public sector in Brazil? They are those who define policies, organize programmes and define agendas. Besides judges, prosecutors, and policy makers, there is a highly paid group of public sector officials who are usually not included as key elements of the policy-making process; the TOs and auditors, i.e. the rank-and-file of the public financing system who are responsible for auditing firms, collecting revenues and, ultimately, drawing fiscal policy.

Who is a tax officer?¹ What motivates a person to become a TO? How does one get to be one in Brazil? How does society perceive them and how do they see themselves? These questions are important in defining who this elite group is, how it is formed and composed, and its motivation to endorse or reject public policy projects.

Several studies were very stern when they described how people, family, and friends perceived their profession. By and large, TOs are perceived as the evil hand of the state;

¹ In Brazil, TOs are usually called 'treasury agents' or 'fiscal auditors'. Although the STABs career structure is composed of several fiscal and administrative levels (e.g., Fiscal Agent I to VI in São Paulo), I focus on the generic VAT officers' occupation, which includes auditors.

the hand which enforces one of the most undesired functions of a state, that is more and more perceived as a coercive and abusive force which charges and punishes people without giving anything back. Yancey (2004) describes the perception and the mission of TOs when referring to the US Treasury officers.

I am a foot soldier in the most feared, hated, and maligned agency in the federal government. I work for the Treasury. (...) I collect taxes, but do not call me a TO. Call me what the Service calls me. Call me a revenue officer.

The [Revenue officers] four protocols:
Find where they are;
Track what they do;
Learn what they have;
Execute what they fear (Yancey 2004)

From the point of view of the citizens, TOs might be the least accepted of government functionaries. While their mission is to levy and collect taxes and to apply penalties, many people feel that they work for their own benefit and embezzle. As such, TOs may be seen as the street-level corrupt hand of state bureaucracy.

There are certainly monetary and social reasons for individuals to become TOs, such as good wages, job security, and full-salary pensions. Or hidden benefits, such as bribes, empowerment, economic prestige, and social status. In entering the fiscal career, they become part of the economic elite, as well becoming able to set rules for the economic elites.

But what other reasons move individuals to become a TO? Have they ever been imbued with a sense of public good in their mission?

3 The job description: benefits, responsibilities, and burdens

The TO's job in Brazil includes visiting, evaluating, and auditing firms; collecting due and delinquent taxes; internal and external general consultation regarding taxation; solving impasses in the administrative tax court; and systems and information managing. TOs can also be assigned cases of delinquent taxpayer accounts or investigations about firms' economic performance. The Brazilian national tax code and the state VAT regulation code describe the occupations and minutiae rules that TOs have to abide to, which are quite complex.

To enter the career, candidates must take an entrance examination comprised of several different subjects (quantitative logic, rational logic, maths, Portuguese, English, taxation, administrative and public law, and accountancy). Usually, competition for such positions is quite intense.²

² In the last entrance examination for the São Paulo STAB, 26,708 candidates tested for 350 entry-level positions.

<http://www.centraldeconcursos.com.br/docs/Diversos/ICMS-estatistica.pdf>

http://www.centraldeconcursos.com.br/docs/edital/Edital_de_Abertura_de_Inscricoes_FINAL__APR OVADO.pdf

Table 1: STAB tax officers' salaries in Brazil

States	Income per capita (a)	Annual tax officers' nominal wage (c)	Annual tax officer/ minimum wage (R\$1,560)	Tax officers' wage/IPC (b/a)
Acre	R\$2,826.57	(nd)	(nd)	(nd)
Alagoas	R\$2,283.01	R\$73,200.00	46.9	32.1
Amapá	R\$3,564.35	R\$30,600.00	19.6	8.6
Amazonas	R\$5,990.04	R\$78,000.00	50.0	13.0
Bahia	R\$3,014.41	R\$44,928.00	28.8	14.9
Ceará	R\$2,684.16	R\$14,750.40	9.5	5.5
Distrito Federal	R\$13,052.89	R\$65,400.00	41.9	5.0
Espírito Santo	R\$5,996.10	R\$40,476.00	25.9	6.8
Goiás	R\$3,671.66	R\$36,632.16	23.5	10.0
Maranhão	R\$1,347.81	R\$20,376.00	13.1	15.1
Mato Grosso	R\$4,958.46	R\$57,000.00	36.5	11.5
Mato Grosso do Sul	R\$4,307.66	R\$42,955.32	27.5	10.0
Minas Gerais	R\$5,230.31	R\$40,560.00	26.0	7.8
Pará	R\$2,697.94	R\$38,400.00	24.6	14.2
Paraíba	R\$2,163.93	R\$36,000.00	23.1	16.6
Paraná	R\$6,131.02	R\$42,360.00	27.2	6.9
Pernambuco	R\$3,295.83	R\$52,752.00	33.8	16.0
Piauí	R\$1,624.31	R\$60,063.84	38.5	37.0
Rio de Janeiro	R\$7,354.21	R\$69,030.00	44.3	9.4
Rio Grande do Norte	R\$2,606.69	R\$26,569.08	17.0	10.2
Rio Grande do Sul	R\$7,145.08	R\$51,720.00	33.2	7.2
Rondônia	R\$3,610.80	R\$48,000.00	30.8	13.3
Roraima	R\$2,861.47	(nd)	(nd)	(nd)
Santa Catarina	R\$6,446.26	R\$52,941.60	33.9	8.2
São Paulo	R\$9,182.95	R\$52,116.00	33.4	5.7
Sergipe	R\$2,984.06	R\$44,616.00	28.6	15.0
Tocantins	R\$1,751.21	R\$26,400.00	16.9	15.1
BRAZIL	R\$5,647.64			

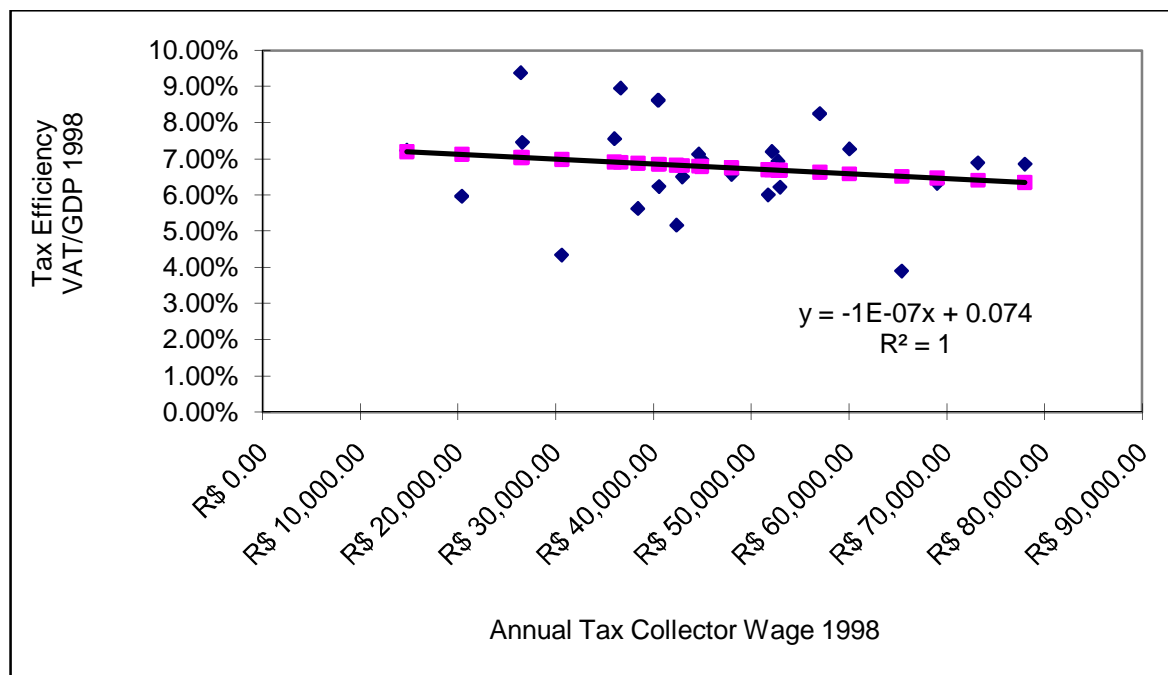
Source: FENAFISCO 1998.

Besides the promise of a stable job for life and a good pension, the high salary offered is an equally, if not more, compelling attraction to become a TO in Brazil. Given that the pay is quite rewarding, TOs are quite well-off as compared to the rest of the society (Table 1). As shown in Table 1, fiscal auditors have one of the highest paid jobs in the public sector in Brazil, equivalent only to careers in the judicial system, such as judges and prosecutors. In the same table, one can observe that the STABs' wages for TOs sits way above the national minimum wage.³ Where typically a household must earn the equivalent of three times the minimum wage to enter the middle income, a TO makes the equivalent of nine times the minimum wage in Ceará, 15 times in Rio Grande do Norte, 21 times in Paraíba, and 30 times in Pernambuco and São Paulo. Higher wages,

³ In 1998 the exchange rate for one R\$1.00 fluctuated between US\$1.12 and US\$1.2. The annual minimum wage in Brazil was R\$1,560.00 (R\$130.00 per month as of May 1998).³ Therefore, the high salary and generous fringe benefits explains the 80 candidates per opening.

however, do not correlate with better economic performance as reflected in the VAT. States with the highest wages are not necessarily best performers. In addition, a regression of 1998 VAT on wages, the results were completely unrelated (Figure 1). The low r-square shows no correlation between the salaries received by the TOs and VAT collection efficiency.⁴

Figure 1: VAT/GDP ratio predict by TOs' wage



Source: Author's elaboration of FENAFISCO and IBGE data.

Such a coveted job comes with many duties. The initial working conditions are not always as pleasant as an airy office in developed urban areas. Only the top ranking candidates are eligible for a position in city offices. Most incoming officers are sent to work far from home in the countryside, in a face-to-face job that is mostly despised and feared. Ultimately, they are street-level bureaucrats who literally work the streets to collect the state's cut of businesses revenues.

The conditions affecting a TO include:

- Dealing with fearful, hostile, and defensive individuals and organizations;
- Working in difficult environments such as high-crime areas or distant fiscal stations;
- Dealing with prominent and powerful taxpayers who could employ intimidating measures or subject the TO's actions to news media coverage;
- Working long nights shifts, often without proper facilities;

⁴ An analysis of other regression models (carried out elsewhere) actually shows that VAT increase would be responsive to training. Although the two datasets are different and the dependent and independent variables here are different (tax ratio and tax officer's wage, respectively),

- Applying complex statutes, regulations, and judicial decisions to complicated situations; and,
- Working under intense pressure to resolve delinquent cases within deadlines and to meet regional collection quotas.

The remote locations and poor quality of the facilities also affect a TO's overall working conditions. For instance, since most TOs work with collection of state VAT, there are state border VAT patrol stations where trucks and vehicles carrying commercial goods are supposed to stop for control. Many of these stations are in the corners of the states, in the frontier zones, close to desert areas, or in forested regions. Such areas are poor and isolated and the physical conditions of the facilities are meagre. Some of the larger STABs, such as the ones in the southern parts of Brazil, have closed their border VAT patrol stations and rely exclusively on mobile stations (i.e., cars or vans that follow trucks) and firm inspections. However, the poorer states still depend on border stations, and many STABs still depend on the TOs going after trucks and vans which use secondary roads and trails so that their load will not be taxed.

Sometimes we have to follow a truck as if we were police and bandit. And they know the region so much better than we do that it is quite hard to get them.

Not only is the fiscal station isolated, but most truck drivers are quite intimidating. They either try to bribe you or to intimidate you. I used to carry a gun to work everyday (Maura, TO, STAB/RN, 2001).

A woman told me:

In the beginning, we would travel 2 or 3 hours to get here (to the border fiscal station), and then we had to work 7-hour shifts. We are supposed to stay in the station. But there was only one bathroom for both male and female TOs and truck drivers alike and only one bedroom at the back of the station that we had to share with everybody (interview with TO, Rio Grande do Norte and Paraíba border fiscal stations, 2001).

The administrative reform carried out in the STABs during the 1990s effectively addressed the physical conditions and capabilities. Computers and digital networks were put in place, weaving information across different governmental agencies, and the physical infrastructure was widely renovated, mainly in the poorer states, such as Rio Grande do Norte and Paraíba. In these states, the headquarters of the STABs were entirely revamped and refurbished, the fiscal stations were rebuilt, and mobile stations were created.

Now we have a decent place to stay overnight. Two years ago, we worked in that cabin across the road. No light, no AC, no privacy any time during the day. To get here, we had to hitchhike with a police patrol. Now we have a nice building, electricity, and AC. There are two bedrooms with bathrooms, one for women and one for men. We have computers, so that we can access the data about the load that is being transported (TOs at the RN and PB border fiscal stations).

4 The career prospect and drives

The career is predominantly composed of male officers, although there seems to be no discrimination against women in the STABs' rank-and-file. Given the precarious conditions of the stations, the danger of street-level work, and the requirements to work away from the hometown, fewer women than men apply for the positions. This trend has declined rapidly over the last decade, as more women have joined the rank-and-file of the STABs and their contingent in the workforce has grown significantly.⁵ Yet, several female interviewees revealed some reluctance to work the streets and expressed a preference for working at desk jobs, such as data analysis, assessment, and consulting. After the first year in the frontline, many women migrate to city or regional offices.

There are several reasons that public employment is seen as attractive in Brazil, the high pay and the benefits attract the most well-educated and well-trained professionals in society. Economic ups and downs also contribute, especially considering that unemployment rates range between 15 per cent and 35 per cent across some Brazilian states.

In the last entrance examination for TOs in São Paulo, most of the applicants were between 30 and 50 years old, had several years of professional experience in very diverse fields, held degrees ranging from mathematics and engineering, and were dentists, physicians, historians, accountants, and economists.⁶ Although the above observation suggests an aging cadre of professionals, it is somewhat illusory; most TOs enter the profession in their mid thirties. Most of the interviewees had two college degrees and some also held a graduate degree and specialization courses.

The career must have a strong drive and ambition. Once inside, they have to deal not only with the public criticism and lack of sympathy but also with the challenge of the job. Training is also intense and demanding. Considering the nature of the job, ethics must have a central role in the profession. However, high pay, education, training, and insulation within the STAB do not guarantee a well-rounded ethical professional.

A major problem when dealing with taxation is corruption. The World Bank, recommends that governments and organizations seek 'to counter this bias (corruption) with a strong focus on economic rationality. The emphasis on technical and economic training within the World Bank's professional staff is the organizational response to these pressures' (Rose-Ackerman 1997). As noted by Rose-Ackerman and Aidt (2003) and Rose-Ackerman (1997), corruption is a political and economic issue and usually flags a poorly functioning state. Ineffective states can retard and misdirect economic growth, and international organizations have emphasized the need to control corruption. However, in the STAB several aspects of the working conditions presented a specific hindrance to change before the tax reforms of the 1990s.

Very few people sought to enter the profession 'in order to have a vocation consistent with ideals of service and sacrifice' (Lipsky 1980). In fact, to maintain a sense of

⁵ I do not have an accurate number for female TOs.

⁶ Interviews with VAT TO's applicants *in locus* at the examination site. São Paulo, 17-18 April 2006. Also: <http://www.cursoaprovacao.com.br/cms/entrevista.php?cod=1819>
<http://www.editoraferreira.com.br/publicue/cgi/cgilua.exe/sys/start.htm?infoid=2819&sid=7>
<http://clipping.planejamento.gov.br/Noticias.asp?NOTOod=235374>

relative altruistic behaviour, high standards, and self-monitoring, as proposed by Lipsky (1980), is almost impossible. Power and status are a hidden aspect of the profession that is mostly perceived from inside given the prejudice that surrounds the profession. Few TOs specifically talked about the social function of taxation. Only TOs in Rio Grande do Norte (interview with N.A., RN/STAB) mentioned the connection between taxation and social welfare. It is worth noting that the RN/STAB stood out as one of the best performing in terms of tax revenue, professional satisfaction, and good connections with the TOs' association and the business sector.⁷

Lack of professionalism may result from the lack of rewards for productivity and good work, excessive bureaucracy, and political influence. Among the STABs, there is no common system to reward tax officials, except for good salaries.⁸ Recognition, however, does not necessarily come with better salaries. Professionalization and accountability might be achieved in another venue as suggested in the next sections.

5 Professional knowledge and training

Although professionalization and training are included in the reform guidelines, these parameters are not always equally developed in the government restructuring processes. Relevant training and better career opportunities are often important factors in making public officials feel committed to the new system and in obtaining better results in terms of tax collection and compliance. This in turn seems to increase the agency's credibility.

Except for passing the entrance examination and holding a college degree, the professional requirements for being a TO are not specified. The preparations for the exams are quite challenging. Typically, not only do the candidates carry two or more degrees from the top schools in Brazil but many also carry a Master's Degree and/or a PhD. This is a point of enormous pride among TOs. Consequently, they think of themselves as belonging to a privileged category and claim to have exclusive ownership of specialized taxation and fiscal knowledge.

There is no professional education prior to becoming a TO or fiscal auditor. The professionalization of TOs is provided on the job, both as a necessity to train the new recruits to deal with the specificities of the new profession and as a response to the demands of administrative reforms. STABs created their own training programmes and schools, the '*Escolas Fazendárias*' (tax administration schools – TAS). STABs also sends TOs to train in other states or in the federal tax school run by the ministry of finance. The more developed states, such as São Paulo, Bahia, and Rio Grande do Sul, have their own TASs. Frequently, they are also responsible for training TOs from other states.⁹

⁷ The RN/STAB is the only one with an organizational structure solely specialized in tax administration.

⁸ São Paulo STAB used to pay TOs by quotas of work, measured by number of audits carried out in a month.

⁹ The sending STABs cover the cost of training TOs in other states.

The first months of on-the-job training attempts to imbue TOs with a professional ideal and a consciousness of their public service mission. Under the IDB (Interamerican Development Bank) orientation, STABs increased both the number of courses and the number of TOs being retrained and requalified (Table 2). Also, under the modernization push, some STAs reviewed the recruiting process, established stricter public entrance examinations,¹⁰ and enforced the rule that only college-graduated candidates qualified for the positions. Once the candidates were selected, the TAS trained the TOs both according to their previous education system and to the demands of the new system.

Training indeed pays off, at least with respect to greater revenue collection for the states. A regression model shows that for each one per cent increase in training, there is a corresponding increase of 0.2 per cent of state GDP value in the VAT (Pinhanez 2008). Therefore, states such as São Paulo, whose VAT revenues were approximately R\$50 billion in 2005, could have achieved an optimal revenue increase of R\$85 million (i.e. approximately US\$43 million).¹¹ This is the equivalent to 330,000 times the national minimum wage or one per cent the budget for education in São Paulo. This increase could represent roughly 150,000 primary school places.¹² At optimal levels, the gain for the Brazilian public economy could generate approximately US\$2.5 billion just by improving the training of TOs.

What the statistical analysis does not show is the type of training provided at most of the STABs. Analyzing the questionnaires answered by the 27 states between 1997 and 1998, most of the courses offered by the STABs referred to learning technical issues such as tax code norms, tax administration regulations and procedures, use of computers and software programmes, and management skills. A summary of all the courses offered by the STABs is shown in Table 2; notice that this represents an average of 3.2 courses/year/TO.

Table 2: Courses offered at the STABs (between 1997 and 1998)

Type of course	Number of staff members
Technical: tax and financial administration	40,000
Human resources	10,894
Management	8,136
Computer training	29,582

Source: Questionnaire provided by Ministry of Finance and PNAFE (2004). Author's compilation of the data.

¹⁰ Not all STABs had public recruiting examinations before the 1990s. However, all the states studied recruited through public examination.

¹¹ The descriptive statistics show that the range of variation for training goes from 0 to 5.9, i.e., the maximum to be achieved by an optimal utilization of training is 5.9. In the states where there is less training the increment in VAT revenue is consequently smaller than that in the states that offer several courses.

¹² According to UNESCO the cost for one pupil in primary school in 1997 was US\$331 (Wolff and Schiefelbein 2002).

Training and professionalization, however, are not only about the technical tools of the profession, i.e., how to fill in tax forms, to check taxpayers' information, and to learn tax code regulations. Contrary to the idea of 'professional fix' which argues that the problem is narrowing the gap between the professional's service orientation theory and practice, the true solution is creating a sense of vocational ideal (Lipsky 1980). However, intensive on-the-job training, good credentials, and good compensation have not necessarily given TOs a sense of public duty, nor have they prevented them from taking an extra cut from the lucrative state activities for themselves.

Change came when a new rationale for the VAT collection process came about which is described in the next section. It was this new rationale that committed the TOs to the reform process.

6 New processes and new professionals

In the STABs, emphasis on technical and training capabilities dominates. However, a few STABs have taken advantage of the diversity, background, and specialization among the TOs.

São Paulo, Pernambuco, and Bahia are a few of the bureaus that were able to take advantage of the TOs' previous professional background. By introducing the industry segmentation collection system, a domino effect took place. First, STABs taught their TOs general economic processes and instructed them in the procedures of revenue collection. Then once technical skills were acquired, emphasis was placed on understanding the production chain processes in a few specific economic industry segments. Next, they identified individuals' knowledge of specific sectors or industries and put it to use. For example, a chemist who became a TO was put to evaluate the pharmaceutical segment in São Paulo. In Bahia, an agricultural engineer was placed in the wholesale food segments. In Pernambuco, production engineers were visiting factories. Specialized skills and a practical knowledge of industry operations were fundamental to setting up teams that could co-operate to identify under-performing tax collection in some industries.

Once we were auditing a pharmaceutical company and the manager turned to us and said that the supplies that he was using were not taxable, therefore he should be exempt from paying tax and had not included his manufacturing yields in the tax return. We called our auditor who had a degree in chemical engineering and asked him to have a look at the projects. Once he checked the firms' documents and receipts, he confirmed that a few ingredients of the product were exempt, but the combined substance resulting from the formula was not and that the taxpayer was supposed to collect taxes. He also mentioned that it was clear in the regulation and that the taxpayer did not want to pay for parts of the value-added in this manufacture. However, if that TO had not been there, we would not have argued with the owner for lack of knowledge of the exact process and products derived. When the second TO, the specialized one, audited the firm, the owner had to admit that we were right (Pernambuco, Glauco).

The knowledge generated in such practices led the TOs to feel recognized and valued as distinctive professionals, equivalent to consultants in private sector firms, such as McKinsey or Andersen Consulting [now called Accenture] (interview). The final domino was that the industry specialization led to teamwork and organized the 'smarts' as Cohen and Zysman suggest (Cohen and Zysman 1988; Zysman 1994). For that and for problem solving, the dependence on employees' previous skills was critical. However, further change would not have been possible without the specialized training of those professionals in each industry segment. Concurrently, computerization served as the enabling and enacting tool, it added the needed element of skill and cooperation (Figure 2).

Vertical segmentation translated into specialization (i.e., industry segmentation), which in turn demanded better professionals. The TASs increased the number of courses and the number of TOs being trained and requalified. As Zuboff (1988) has shown, the impact of technology on skill demand is more productive if employees are given responsibility for using the technology intelligently. Vertical segmentation, combined with computerization, allowed TOs to use technology in a smart way and make an impact on success reform.

How did it work? Specialization and technological innovation demanded training and efforts to increase capacity. The more professionalized, valued, and better skilled the tax official, the stronger the commitment to the reforms and the more efficient the tax collection. However, as mentioned before, commitment to public values of taxation did not come about through the type of training provided by the STABs.

The change in the STABs suggests a knowledge transformation that goes beyond the technical training provided by the courses at the TASs. The functional specialization brought about by the vertical industry assessment changes led to a different understanding of the tax collection process. It changed the way TOs processed information and delivered services; it also altered the cognitive process behind the tax collection and administration. In turn, it motivated TOs to commit to the new arrangements implemented during the reform. The way this happened is explained in the following section.

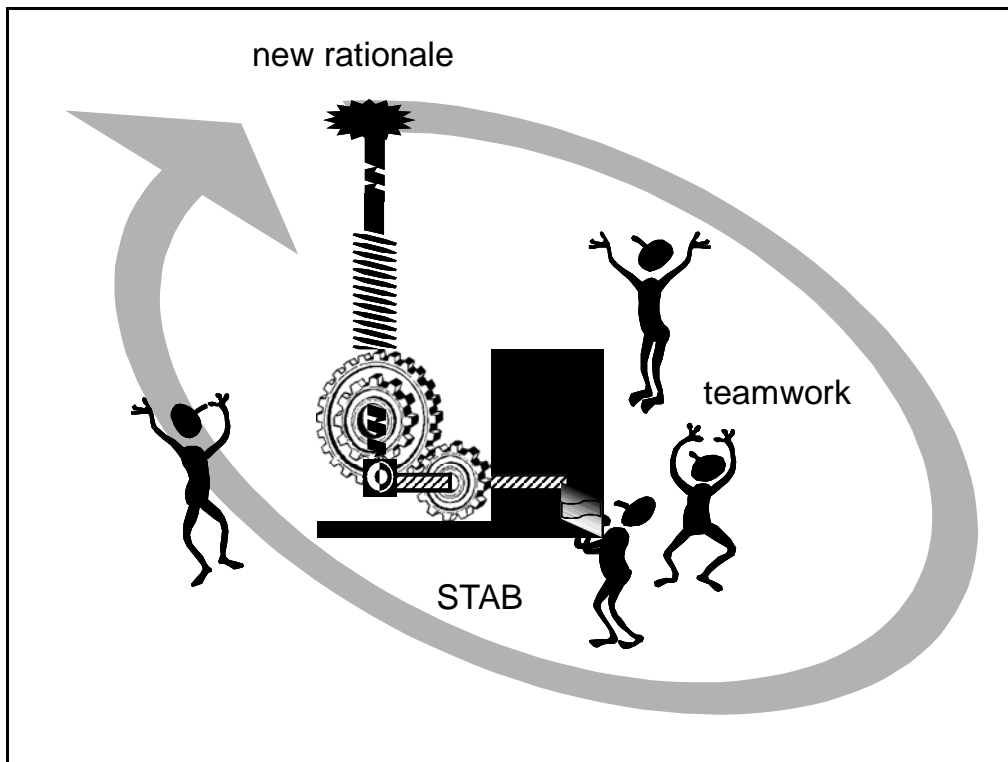
7 The rationale for a rational change

Clearly, economic progress is linked to knowledge and specialization. Adam Smith, in his work about the wealth of nations discusses the division of labour among workers:

The greatest improvements in the productive powers of labour, and the greater part of the skill, dexterity, and judgment with which it is anywhere directed or applied, seem to have been the effects of the division of labour (Smith 1776)

A classic definition for functional specialization, is that it is a key strategy which emerged in the second industrial divide, where industries became more dependent on multi-skilled workers as a precondition for more agile production and greater effectiveness from Piore and Sabel (1984). Central to the idea of specialized productive clusters is the understanding that collaborative relations between workers and owners

Figure 2: Integrated diagram



Source: Author's depiction.

emerge in networks of small and medium-sized firms, that cooperation rather than competition between firms is based upon flexible, computerized machinery, and that this adds up to skill-intensive work (Stern 1992). The dependence on specialization of knowledge ties the division of labour to economic progress, since progress depends on growth in human capital and technologies. Becker (1976, 1964) notes that the productivity of specialists on particular tasks depend on how much knowledge they have.

Given these assumptions, we draw on another set of discussions to illuminate the understanding of the ways TOs learned and absorbed their role in the context of revenue collection. The literature on cognitive sense-making and adult education helps shed light on the segmentation rationale of some of the STABs visited. This section tries to explain how specialization (industry segmentation) led to knowledge formation and transformation. Additionally, it explores how this specialization has implications for workers' learning, identity formation, and team organization in public sector bureaucracies.

In cognitive analysis, scientists such as Lave (1988) and Wenger (1998) explore how learning depends on the 'situated learning' condition and suggest that learning through the work process itself may, in general, be the best way to acquire work-related knowledge and skill. In support of this position, Piore argues that it is the institutional arrangement within which each agent operates that imposes the behavioural pattern (Piore 1995). He also points out that although technology is useful, it is the causal understanding which enables us to convert resources into goods and services. Similarly,

we could say that although the technological advances in the STABs were necessary and enabling, it is the new rationale in the environment and reality surrounding the realm of tax collection that determines the way TOs perform and perceive their work and themselves. As Piore says, it (the technological advance) ‘does not for that matter, explain how we identify the resources that serve as a means, or the goods and services that are the ends, or how to distinguish means and ends’ (Piore 1995). But it does explain how they implemented the change from territorial to economic segmentation.

Thus, how can we promote knowledge transformation and consolidation? The TOs in the Rio Grande do Norte, Bahia, Pernambuco, and São Paulo STABs involved in the new tax collection process seemed to have gone through a learning process, that recalls what Freire argued was a way to teach illiterate adults (Freire and Donaldo 1998; Freire 1993, 1997, 2007). Freire constructed a methodology ‘to acquire literacy’. He explained that the learning process:

... is more than to psychologically and mechanically dominate by reading and writing techniques. It is to dominate these techniques in terms of consciousness; to understand what one reads and to write what one understands; it is to communicate graphically. [It is] rather an attitude of creation and re-creation, a self-transformation producing a stance of intervention in one’s context.

There has been some criticism that the Freirean method should not be separated from its ideology of empowerment of oppressed classes. To apply Freire’s method to the empowerment of TOs, an already powerful public sector category, would thus seem a violation. However, the application of the Freirean method allows the recognition of a learning process that works across class divisions and intellectual dominions. Also, its use here remains applied in adult education.¹³ Notice the similar features of TO education reform to the manner in which Freire worked with illiterate adults in Brazil:

- (1) research of elements with which the group is working;
- (2) selection of the processes in which these elements are immersed;
- (3) codification or pattern establishment; and,
- (4) recognition of the processes’ rationale.

The new paradigm for the tax collection process observed at the STABs was indeed a process of self-creation. The industry vertical segmentation led to TOs’ empowerment; once TOs visualized the input-output pattern, they understood the new process rationale and changed their posture within the bureaucracy.

How did it work? Starting from the basic rationale designed by Hirschman (1958), the economic structures of backward and forward linkages pinned down the reality of industry segmentation in the STABs. They allowed for a schematic and structural representation of the world surrounding the TO. The TOs’ perception of their roles changed and, subsequently, so did their reality. Workers came to understand their job

¹³ Adult learning theory is usually studied as a continuing professional development. To understand adult education theory, one should go back to John Dewey (1933, 1963), who put into context the relationship among experience, interaction, and reflection, as elements of learning. Later on, Houles (1980) defines education as a direct participation in the events of life.

and their connection with the national economy. In this sense, the TOs learned their specialized roles and that these new roles could be changed as the external circumstances required. Hirschman's backward and forward linkages as well as the production chain rationale provided the fundamental epistemological connection for the TOs.

Learning involves developing new ways of understanding. It involves the acquisition and interpretation of knowledge (Lindsay and Norman 1977). Even if the rationale for the tax collection process was not predictable, once the TOs visualized it with the IT tools now available, they learned and understood the process. This changed the TOs' behaviour. Assuming that learning is the process of modifying one's 'cognitive maps or understanding' (Friedlander 1983: 194) and patterns of individual and organizational learning, thereby changing the range of one's potential behaviours, the vertical industry assessment paved the way for modifying TOs' cognitive maps and understanding of their work (Huber 1991; Huber and Glick 1993).

Finally, a new self-awareness appeared, discovered and acted upon increased, individual self-esteem. As Argyris explains:

Manifestations of self-esteem are the predispositions to enlarge the awareness of one's self and others and to enlarge the acceptance of self and others (Argyris).

This new understanding and increased self-esteem led to a change in identity, to one shaped by the social interplay of individuals and their realities, as proposed by Berger and Luckmann (1966) who note that, 'theories of identity are always embedded in a more general interpretation of reality'. This reality-oriented identity reinterpretation can be recognized in the case of the TOs in Brazil. The reality of the new tax collection method allowed them to be compared to private sector consultants. The well-structured nature of the new vertical tax collection process, contributing to the change in understanding and knowledge of TOs, is predicted by Giddens, in his work about structuration. According to Giddens (1984), 'structure is not "external" to individuals', rather, it is embedded in the recursive practices and routines of human action. The rationalization or intentionality of these practices involves a constant and reflexive monitoring, which later is reciprocated by other actors and systems, in this case, the Brazilian taxpayers, through social and systemic interaction. Reciprocation, through systemic interaction, entails the construction and solidification of the new identity.

8 Conclusions: new professionals, new identities, renewed elites

Public sector workers often perform better if they understand why things happen. Horizontal ties develop teamwork, co-operation, and improve identities, and connections among the workers form when they see the logical vertical linkages of their work.

There are three main conclusions to be drawn from this work. First, using a method similar to that proposed by Freire, a public servant can be trained to understand his mission and value public service. Second, the kind of knowledge specific to public sector workers can be exploited through backward and forward linkages, with beginnings and ends, with structure and causations. Third, it shows how an elite group

ingrained the logic of the programme in the process and led the way for change in the public sector.

The turning point seems to be the way in which public sector employees learn technical capabilities that allow them to manoeuvre their knowledge into effective action and to meet the challenge of the modernization. Thus, specialization of TO activities, enabled by computerization, led to industry segmentation and a better understanding of the economy and the TO role in society. Rethinking their internal organization and specialization allowed them the awareness of the entire process. The initial conditions of their position were not enough to change their attitude. What seems to be more effective was a broader understanding of their function as viewed through an economic rationale.

Summing up, high pay, better working conditions, recognition, and training, play an enormously significant role in motivating TOs to commit to public service. Also, the circumstances that each STAB faces, such as local resistance and low performance on the one hand, as well as pressures for lower taxes from business associations on the other hand, may have hindered or reinforced the STABs' management of reform procedures. However, according to these studies, without the change in the sector rationale the dissemination of such knowledge and the commitment, STABs would not have been able to establish the necessary context to convince TOs and taxpayers alike of the new image and identity for the TO, and consequently for the STAB.

Reforms aim to create credibility for the government. This was true in a few STABs where fiscal education included a new way of thinking tax collection. But even if reform could deliver well-oiled, functioning state apparatuses by empowering TOs and developing technicalities and capabilities, an education process was crucial to gain the taxpayers' commitment. Furthermore, a highly educated group of individuals was pivotal in grasping the conceptual shift that emerged from the technological, organizational and cognitive changes in tax collection, enabling industry vertical assessment and specialization in the tax sector.

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