

Education Policy and Economic Development

A case study of Singapore and an analysis of its applicability to the United States

INTRODUCTION

The key to sustainable growth in the global economy of today rests predominantly in the contribution of knowledge towards facilitating increases in output. The value of tangible assets, for instance resources and factors of production, has diminished in relation to the growing importance that has been accorded to technological breakthroughs and advances in knowledge, both of which are consequences of increasing human capital. In particular, economically-advanced countries have been galvanized into investing in human capital by the realization that they are unable to compete with many developing nations on the basis of labor cost and capital assets alone. Legitimate and sustainable economic growth, therefore, is a product of dynamic creativity and entrepreneurship, as cogently encapsulated by Joseph Schumpeter (Schumpeter, 1934). Now, however, it is no longer adequate to merely capitalize on new ideas - rather, entrepreneurship in the globalized world is contingent upon both the discovery as well as the implementation of new ideas. The level of human capital in a particular country is directly correlated with the status accorded to education in the society, in particular the premium it places on post-secondary and tertiary education. The better-educated the workforce, the greater the positive impact on the economy (Hanushek and Kimko, 2000). Previous statistics have also shown that the link between the level of education and economic performance is not linear; rather, economic competitiveness increases exponentially as more citizens are educated to a higher level, as a greater proportion of the workforce is able to be engaged in knowledge-based sectors which yield higher capital returns.

The high economic value of education is supported by the results of both international micro and macro-economic studies. Microeconomic studies focus on the benefit of educational investments to individuals while macroeconomic studies focus on returns to the economy more generally.

Microeconomic data from 42 countries found that an average rate of return for an additional year of schooling was a 9.7 per cent increase in personal income (Psacharopoulos and Patrinos, 2002). A cross-country macroeconomic study found that there was an additional .44 per cent growth in a country's per capita GDP for each additional average year of attained schooling, a return on investment of seven per cent (Barro, 2000). Other studies have found returns that go as high as 12 per cent (Sianesi and Van Reenen, 2002; Stevens and Weale, 2003). The quality of education had an even stronger relationship to growth than did the duration of school participation; the amount learned was more important than the number of years of schooling. Higher test scores of one standard deviation equated to one per cent growth in per capita GDP (Barro, 2000).

The United States, often perceived as being at the helm of innovation, has begun to find its position as the world's dominant economic power increasingly precarious, due to a series of challenges which possess both endogenous and exogenous origins. From the international standpoint, the emergence of potential economic leviathans like China and India has reiterated the need for the U.S. to look towards developing comparative advantages in areas that are not predominantly labor-intensive, and are reliant on innovation and skills. Faced with these external challenges, the U.S. also has to figure out how to mitigate the accompanying domestic concerns that arise as a consequence, for instance the union issues precipitated by a shift away from low-skilled, labor-intensive industries. With population growth slowing, and the bulk of job creation taking place in high value-added sectors, it is essential that federal governments examine methods that increase the employability of its current citizen workforce, and enforce systems that ensure youths have the opportunities and resources to pursue higher education upon leaving high school. I seek to examine the limiting factors that have consistently prevented the U.S. from instituting a sweeping overhaul of its existing education system, and contributed to the malaise that has manifested itself in the form of persistent achievement gaps, huge disparities in the quality of education both between and within states, and unequal academic opportunities for children.

In order to answer the questions concerning education policy which have arisen in relation to the U.S.'s ability to keep pace with the demands of the new world economy, I first perform a temporal analysis on the case study of Singapore, and examine how education policy has evolved in conjunction with varying state-led initiatives. I chose Singapore because its unique path to modernization has seen it undergo several differentiated stages of economic development – first, import-substitution, followed by export-oriented industrialization, and subsequently a shift towards higher value-added, knowledge-intensive industries – within a protracted time frame. I go on to analyze how holistic education policies, for instance the variety of post-secondary institutions created to groom workers for all sectors of the workforce, were necessary to facilitate economic transformation in Singapore. I also intend to discuss the challenges faced by Singapore, for instance the issues arising from ethnic diversity and other social cleavages, and how these were successfully dealt with through the implementation of an education policy founded on the basis of meritocracy and the premise of ethnic assimilation. This can be related to the issues faced by federal governments in the U.S. in striving to ameliorate the opportunity and achievement gaps for minority populations. The fact that Singapore is a city-state allows for comparisons to be drawn both on a federal and national level in relation to the U.S. Using Terry Moe's (2003) article, "The Politics of the Status Quo", an expose of the persistent failure of education reform in the U.S., as a tool, I draw inferences that explain the success of Singapore in devising and implementing education policies that have proved to be greatly beneficial to the economy, in direct contrast to the persistent failure of the U.S. in doing so. I hypothesize that Singapore's accomplishments in devising and implementing education policies that boost economic growth are largely due to conducive institutional factors. Thereafter, I hope to relate some of the lessons derived from the examination of the Singapore case study to the U.S., analyze if and how policies successfully implemented in Singapore can be duly replicated in the U.S., as well as draw some parallels between the challenges each face in their individual bid to remain economically relevant in the present day. In my paper, I first attempt to track the evolution of Singapore's economy since independence from Malaya in 1965, while simultaneously examining the ways in which the education system has changed to keep pace with continuing development.

THE CHANGING NATURE OF EDUCATION POLICY AND ECONOMIC GROWTH IN SINGAPORE

The time immediately following Singapore's independence was fraught with numerous obstacles, as the state struggled to ameliorate problems stemming from ethnic heterogeneity, rally the people around the common ideals of progress and harmony, and stimulate economic development in the quest towards self-sufficiency. The state thus embarked on an aggressive developmental strategy, which took into consideration limiting factors like a low-skilled workforce and scarce domestic capital. The initial two phases of Singapore's economic development strategy were thus founded on the premise of import substitution and subsequently export orientation, which saw many multi-national companies (MNCs) locate parts of their operations here to capitalize on the incentives extended by the government in a bid to attract foreign investment. With the emphasis on manufacturing and labor-intensive production, technical skills were crucial. Early on, the Singapore government recognized the importance of creating a holistic educational system which would make many educational offerings possible. However, in conjunction with the emphasis on manufacturing, a key thrust was the greater emphasis on technical education throughout the entire system (Tham, 1981). Thus, the secondary school system was restructured to include four other types of schools besides academic ones –vocational schools, technical schools, commercial schools, and vocational institutes. Within the academic school system itself, it was compulsory for all of the male and half the female students at the lower secondary levels to take technical subjects and workshop practice (Gopinathan, 1996). The MNCs also provided ample opportunities for skill training, as they partnered with the government to set up joint industrial training centers. This preoccupation with technical expertise was reflected in changes within the tertiary education sector. To accommodate the growing need for highly-skilled engineers, a faculty of engineering was created at the then-University of Singapore, and several technical colleges upgraded to diploma-awarding institutions. The government also created state institutions to provide support for the purposes of technical training. In 1979, the Vocational and Industrial Training Board (VITB) and the Council on Professional and

Technical Education (CPTE) were established, which helped to provide projections for future technical need.

The emphasis on technical and technological education meant that the enrolment in the vocational institutes almost doubled, from 6,500 in 1973, to 11,500 in 1980. Growth in polytechnic enrollment was equally impressive, with almost a four-fold increase from 2,600 in 1966, to 8,300 in 1980. (Gopinathan, 1996). By the 1980s, however, changes had to be made to the existing economic agenda after over a decade of continuous economic growth ranging from 8 to 10 per cent per annum. Singapore could no longer compete on the basis of low labor costs, and thus reformulated a new economic policy that hinged far more on the production of technology-reliant, higher value-added products. Changes in science and technology education accompanied this policy shift, University engineering enrollment jumped threefold within a decade from 330 in 1976 to 1143 by 1985 (Gopinathan, 1996).

The year 1985 marked a watershed in Singapore's economic development. For two decades since independence, the country had enjoyed a continued high rate of economic growth, which averaged 8.5 per cent per annum. In 1985, Singapore experienced an economic slump, precipitated by considerable slow-down in international trade. This setback was but a temporary obstacle, however – as the Singapore economy rebounded with a growth of 2.3 per cent in 1986. Singapore went on to grow by an average of 9.2 per cent per annum for the next ten years until the Asian economic crisis, which brought growth to a halt in Singapore as well as other countries in the afflicted region (Tan, et al, 1997). An Economic Committee, established to come up with recommendations for the revival and stimulation of Singapore's economic growth, published its report in 1986. It had significant implications for the future direction of Singapore's education system. The report highlighted the necessity for each individual to be educated to his or her maximum potential, and for more emphasis to be placed on creativity and innovation within Singapore society, which would allow for skill flexibility and autonomy throughout the economy. As part of this endeavor, two milestone programs were instituted towards achieving these aims. The graduate (Masters and PhD) programs at the National University of Singapore (NUS) underwent considerable

expansion, with the intake of graduate students increased by 12 per cent in 1987 as compared to the previous year. The bulk of these students were enrolled in science and engineering faculties. The overall quota of students enrolled in the tertiary institutions, undergraduate and graduate, also increased by 14 per cent over the same time period (Yip, et al, 1997). The expansion of tertiary education was accompanied by the establishment of research institutes such as the Institute of Molecular and Cell Biology, the Institute of Systems Science, the Science Faculty's (NUS) Industrial Collaboration Centre and the Engineering Faculty's (NUS) Innovation Centre (Yip, et al, 1997). This arrangement was congruent with the attempts to connect research with industrial application, and also allowed local universities the opportunity to engage in more research as opposed to solely teaching.

The direction begun in the late 1980s gained significant momentum at the turn of the century, further motivated by the Asian Financial Crisis of 1997, as well as the onset of what was construed by many as the third industrial revolution. In relation to the latter, the convergence of breakthrough discoveries in six key technologies, namely microelectronics, computers, telecommunications, material science, robotics, and biotechnology, shaped the developmental priorities of states in the globalized economy by necessitating considerable investment in education and research and development (R&D) (Thurow, 1999). The currency crisis that was sparked off by the collapse of the Thai baht precipitated the East Asian economic crisis in 1997, which resulted in the second recession in Singapore's short economic history. During this period, a significant number of Singapore's traditional export markets were hard hit. These two developments created questions as to the resilience of Singapore's education system (Gopinathan, 2005). Newfound comparative advantages in the globalized economy stemmed from superior knowledge resources as well as brain power, as opposed to traditional natural resource endowments (Tan, et al, 1997). In responding to these key developments in the economy, educational policies were examined and evaluated once again. A higher premium was placed on innovation, flexibility, entrepreneurship, creativity and a commitment to lifelong learning (Gopinathan and Lee, 2005). While the role of science and technology remained important in facilitating knowledge growth, an increasing amount of attention has been devoted towards broad-based multi-disciplinary efforts in

curricula. For instance, scientists and engineers are now expected to learn humanistic modes of inquiry, as there was a need for specialized professionals to not only be able think critically in their field, but also be able to communicate their ideas and allow these ideas to progress from the mind to the market.

Educationist Sinclair Goodlad (2000) argues that liberal education has a significant role to play in today's world. A fundamental feature of a liberal education is its capacity to develop in students the ability to understand issues in context. Calls have also been made in Singapore for scientists to learn from the humanities so that they are better able to communicate their ideas and discoveries in such a way as to enable others outside the immediate professional field to appreciate. In so doing, scientists would be better able to situate their work in the context of what larger society can relate to and needs. In addition, they will be better able to portray and frame their ideas and discoveries in such a way that causes these new contributions to be readily accessible and understandable by others outside their immediate professional field. A multi-disciplinary broad-based science education develops generic, transferable skills which can be applied to fields of study and careers beyond those in science and technology. The ideal student would thus be literate, numerate, IT-enabled, capable of collating, synthesizing, analyzing and applying knowledge to solve problems, are creative and innovative, entrepreneurial, and both willing and able to engage in lifelong learning (Gopinathan, 2001).

In its effort to create this new archetypal student, the Ministry of Education once again embarked on a holistic set of changes across the education system. To foster greater creativity and innovation in students, the Thinking Schools, Learning Nation (TSLN) initiative was launched in 1997, and focused on developing students into active learners with critical thinking skills, while developing a creative and critical thinking culture within schools. It was a strong restatement of the need to develop the individual in an academically-diverse manner, without losing sight of the pragmatic ideology that had hitherto underscored educational policy, which would enable him or her to readily acclimatize to the dynamism of the global economy. In tertiary institutions, the generation of knowledge has been given more attention, together with an emphasis on the linkage between research and its economic impact. Cross-faculty breadth and general education requirements have been made compulsory, exposing undergraduates to

disciplines beyond their field of specialization. Graduate research programs have further expanded and new research institutes have been established. The best and brightest students are encouraged to enroll in multidisciplinary programs that span diverse fields within and across subjects, such as biomedical engineering. In support of this endeavor, NUS has set up a Graduate School for Integrative Sciences and Engineering, a flagship program which has attracted some of the best graduate students in the region. The quality of some of these educational and research programs is enhanced through collaboration and exchange with world-renowned universities such as Johns Hopkins University, Massachusetts Institute of Technology (MIT), and the Georgia Institute of Technology.

Accompanying the growing emphasis on graduate (in particular, PhD) programs, another key prong in the reshaping of the university landscape aims to position universities in such a way that they are able to make a greater contribution to the economic sphere of Singapore. To do so, the link between research in universities and their economic impact has to be enhanced (Gopinathan and Lee, 2005). Singapore has elected to take its cue from the success of countries like the U.S. in invoking technology transfer and seamlessly integrating research institutions as an integral part of economic achievement. For instance, MIT and Stanford University have been held up as examples of how universities can become the driving forces behind rapid economic growth. In such institutions, faculty members can be easily approached by industry for ideas and consultation, and professors are not restricted to academic responsibilities. University-industry links are also encouraged through the many research institutes that have been established through funding provided by the Agency for Science and Technology (A*STAR), a statutory board designed for the purposes of promoting R&D in its eponymous fields. These research institutes have cultivated extensive links with overseas research institutions as well as with both local and foreign companies. Universities have also been exhorted to strengthen their linkage with industry, and encouraged to play an active role in cultivating the entrepreneurial spirit of both faculty and students. In response, universities have developed incubation centres for entrepreneurship and research efforts, as well as other institutional mechanisms which provide the means and support for prototypes to be created, or for promising discoveries to be introduced to the market. At NUS, technopreneurship courses are offered

to students, and interested students can apply for academic credit-earning internships with startups in key technology nodes such as Silicon Valley. Such internships are arranged with a view in mind to enable students with a gift in science and technology to marry their interests with their entrepreneurial appetite.

Most recently, in May 2003, the Report of the Committee to Review the University Sector and Graduate Manpower Planning was jointly published by the Ministry of Education and the Ministry of Manpower. This report was instrumental in providing recommendations to the two main research universities in Singapore. First, it envisaged that NUS would be transformed into a multi-campus university system with two niche institutions, in addition to the existing campus at Kent Ridge (Ministry of Education, 2007). The first new niche institution would be a research-intensive university focusing on engineering, science and info-communications technology, while the other would be a specialized institution providing medical and health science education. Furthermore, Nanyang Technological University (NTU), the second most established university in Singapore, would be developed into a full-fledged comprehensive university, shifting away from its current focus on professional and technological degrees. The report recommended that NTU add a School of Physical Sciences to its campus in order to complement the existing School of Biological Sciences, so as to allow the integration of knowledge and skills from the physical sciences and engineering with the biological sciences. This science and technology cluster would prove instrumental in supporting Singapore's aim of building up the life sciences industry. NTU was also exhorted to build its business cluster to support the science and technology cluster to arm graduates with both hard technical knowledge and softer business and management skills to be versatile and entrepreneurial in the workplace. In addition to these recommendations, it was also proposed that NTU set up a new Humanities cluster, as well as a new School of Design & Media to complement the existing School of Communications and Information. Design arts and media modules would also conceivably be able to support the design aspect of IT and engineering R&D work in NTU (Ministry of Education, 2007).

The Report also provided general, less institutional-specific recommendations. It recommended that undergraduate output numbers be set in terms of broader categories across clusters of disciplines,

rather than faculty-specific levels. This would enable and support the creation of hybrid courses to better meet industry's needs and students' aspirations, in line with the goal of encouraging multidisciplinary learning. Finally, it also recommended the maintenance of a deliberate bias towards science and technology courses, so that 50 to 60 per cent of the total university cohort each year would graduate from these courses. The report indicated that this was to ensure that as global competition for technical manpower intensified, Singapore would be able to produce adequate levels of local technological and technical manpower to support national requirements to sustain economic growth and development (Ministry of Education, 2007).

In Singapore, the abiding emphasis on science and technology education continues for pragmatic reasons, even though this is now mediated by the increasing influence of the humanities, justified via a philosophy of broad-based, multidisciplinary education. Consequently, while still remaining true to its utilitarian approach to education, Singapore is moving towards achieving a better equilibrium between developing an individual holistically and the country's need to stay economically competitive.

COMPARISON OF EDUCATION REFORM IN SINGAPORE AND THE UNITED STATES

In attempting to address the demands of the new world economy, Singapore's education landscape has been fundamentally overhauled to provide students with a broader-based intellectual foundation, critical thinking skills and creativity that are crucial ingredients in the changing economy. These sweeping changes have culminated in the creation of an ability-driven approach towards education, which have duly allowed students' aspirations and interests to be better accommodated and capitalized on for socioeconomic benefit. These recent changes have marked a shift away from the highly structured education system that characterized much of the first three post-independence decades, towards a system that values innovation, nurtures diversity, and encourages individuals with less conventional strengths to develop them for the good of the economy. The timeline of Singapore's educational policy development in conjunction with changes in the economic landscape provides considerable insights into how the government has masterfully reshaped human capital to provide the impetus for sustainable growth. The

marked level of success which Singapore has had in the implementation of rapid, far-reaching changes in its education system is indeed laudable. I argue that this can be attributed to several factors which are endogenous to the Republic. I evaluate these factors in the light of Terry Moe's (2003) article, titled "The Politics of the Status Quo", in which he writes about the problems which have befallen the American education system, why the bulk of attempts to revamp and inspire it have been generally futile, and provides ideas as to how this stalemate can be negotiated such that lasting, actual change in the education system is effected. Doing so will allow me to observe the inherent differences between the implementation and success of education policy in Singapore and the U.S., whether they be institutional, cultural, or attitudinal distinctions. Subsequently, I then postulate whether the U.S. can expect to see similar success in pushing through ambitious reforms designed to revamp and not merely tweak its education system.

First of all, the fusion of a dominant ruling party with the state in Singapore has allowed the government to push through reforms with ease, and implement policies without having to address much contention. Since 1968, the Singapore government has essentially been dominated by a single party, the People Action's Party (PAP). Singapore's political agenda has been replaced by an administrative one, where questions as to the efficacy of rule is determined by the efficiency and effectiveness of policies, rather than the role of citizen decision-making in future policies and democratic accountability. When Singapore was expelled from the Malayan Federation in 1965, PAP leaders were forced to redesign and reformulate their economic and social policies to be congruent with the new concept of nationhood. The newfound political ideology and national values consisted of a set of ideas – meritocracy, discipline, the importance of achievement, among others, which were geared towards economic and social survival during the trying infancy of the fledgling state. Singapore adheres to the model of the developmental state, which is defined as a state preoccupied with economic development through the establishment of an elite economic bureaucracy to guide the market (Johnson, 1982; Wade, 1990, Woo-Cumings, 1999). The importance of the bourgeoisie in coalescing and rising up as an effective social force against the traditional elites has been frequently highlighted as a key feature in catalyzing democratization and

accompanying economic growth. However, Singapore chose to adopt a different route – one that had considerable implications for the subsequent political configuration of the state. Growing economic affluence produced a different result from the outcome postulated by modernization theory. Instead of widespread middle-class mobilization as expected, no civil society emerged to challenge the status quo. The development of the bourgeoisie in Singapore was curtailed by the PAP right from the early 1960s, as the ruling party suspected that elements of the domestic bourgeoisie were allying with its political rivals to foment discontent in the populace (Rodan, 1989). Also, the PAP-ruled state cast a suspicious eye on indigenous Chinese capitalists for fear of their pro-communist and pro-China attitudes (Régnier, 1993).

As a result, national ministries, statutory boards, and government-linked companies (GLCs) have dictated the growth and direction of much of Singapore's political economy, rather than being left entirely up to private capitalists and non-state affiliated enterprises. The importance of a well-functioning bureaucracy sanctioned by the government has been crucial in ensuring the longevity of the PAP-dominated state. Under the supervision of government elites, the bureaucrats respond to the needs of society in order to maintain stability (Evans, 1995). These bureaucrats, intelligent, highly-educated, civil servants, are organized into ministries, statutory boards, and other government bodies, all overseeing different parts of the state apparatus. Impressive advances in technology, communications, and other forms of infrastructure that facilitate the collection and dissemination of information have enabled the PAP government to create a bureaucracy that is intimately aware of the nature of the electorate. While the intricacies of policy-making are left to the bureaucracy, the conditions under which these policies ought to be constructed are stipulated by politicians in government. The role of the bureaucracy is primarily to gather information and implement policies (Ho, 2000). The PAP leadership under former Prime Minister Lee Kuan Yew believed that the party elite was able to articulate the interests and demands of the citizenry best, and was thus in the position to devise policies that were designed to achieve these specific goals. Such a view of the overarching nature of government leadership still persists now, and so the policy-making process is designed by politicians and duly carried out by the bureaucrats under the state's

subordination. It can be discerned that the powers of the bureaucracy have increased over the years, as a direct result of the increase in its tasks and responsibilities.

Pervasive state control has also almost entirely eliminated self-determining labor unions and quashed worker uprisings. Particular patterns of industrialization and production structures observed especially in Southeast Asia have fragmented the working class and produced constraints on the mobilization and capacity for collective action. As paradoxical as it may sound, citizens in some societies have chosen to voluntarily relinquish certain basic rights and accept limits imposed on their freedom of choice – in other words, they have elected to become “happy slaves” (Herzog, 1989). In Singapore, the labor sector has largely been demobilized and all related issues instead come under the jurisdiction of a state-dominated labor federation, the National Trade Union Congress (NTUC), which is comprised of 64 labor unions. The PAP has long played a significant role in the NTUC through the provision of funds, personnel, and policy initiatives. In a bid to harness the stock of human capital in the labor sector, as well as to prevent any discontent or uprising, the government has enabled the federation to launch wage claims and collective bargaining on behalf of its members by offering it accessibility to several instruments of the state, for instance tripartite institutions, the parliament, as well as the civil service (Rosa, 1990; Silva, 1998). A member of the PAP has always held the topmost post of Secretary-General of the NTUC. In return, analysts observe that the NTUC has not raised objections to draconian laws imposed by the government which have both limited workers' rights to strikes as well as placed restrictions on the autonomy of labor unions. The absence of autonomous workers' unions makes it difficult, if not impossible, for teachers (in the case of education, as discussed here), to mobilize in pursuit of a common self-interest, and ensures that educational policies devised and implemented by the government are not thwarted by self-seeking teachers.

At the beginning of his article, Moe discusses the two transformations that American education has undergone. The Progressive reform during the early 1900s organized schools into a rational bureaucratic system, in which control over the education system was left in the hands of professional educators and administrators. According to Moe, the current system has had its institutional beginnings in

the Progressive reform era, explaining the hierarchical and top-down nature of governance of the education system in the U.S. today. The evolution of the National Education Association (NEA), from a professional association comprising educational administrators, to a labor union championing the rights of teachers, signaled the second transformation in the U.S. education system. School districts were organized, and collective bargaining and unionization took the form of labor unions designed to promote the interests and job stability of teachers. The importance of these teachers' unions cannot be underestimated, as they are crucial to understanding why many U.S. states have been consistently unable to implement sweeping reforms to overhaul the education system. These unions wield tremendous political power due to the strength of their membership numbers as well as their possession of considerable financial resources. They also turn into political campaigning machines in the run-up to elections, mobilizing union members and activists in full force in attempt to drum up support for union-affiliated or sympathetic candidates. The strength of these established labor unions enables them to have some control over electoral outcomes and consequently, the kinds of educational policy which are implemented. In direct contrast to the U.S., unionization and worker mobilization is practically non-existent in Singapore, as all unions are amalgamated under the NTUC, which falls under state control. Consequently, teachers' unions have little or no autonomy in the political sphere. While the existence of the union may provide an opportunity for members to air their views or dissatisfactions, there is no direct mechanism through which action can be effected without first having to go past other veto players in the organization that is the NTUC. Compounding this is the fact that these unions have limited access to funds, which are tightly controlled since they come from the state's coffers. This distinct lack of autonomy, coupled with a dearth of resources, has greatly reduced the role of unions in Singapore. As a result, the main obstacle to the implementation of legitimate education policy designed with societal, rather than specific groups' interests in mind – the presence of strong teachers' unions – is practically absent in Singapore.

Furthermore, the U.S. is founded upon the premise of democracy, and this has created a political environment that is extremely different from the semi-authoritarianism that is practiced in Singapore.

Semi-authoritarianism possesses deliberate ambiguities. For instance, civil and political liberties are limited, but some formal democratic institutions still exist – in order to maintain the outward appearance that liberal democracy is practiced, while evading the risks that free competition may bring. In most cases, semi-authoritarian regimes are not failed democracies or transitory regimes; rather, they are “carefully constructed and maintained systems” (Ottaway, 2003). Political control rests primarily in the hands of the elite, and the society has a limited say in policy determination. Consequently, this is in direct contrast to the American political system, as described by Moe, one that is “literally designed, therefore, to make blocking – and thus preserving the status quo – far easier than taking positive action”. In Singapore, the elite-driven polity allows for maximum effectiveness in decision-making, at the expense of social efficiency, in conjunction with the unitary state structure. In addition, the high party discipline of the PAP makes it easy for the legislature (with 82 out of 84 seats occupied by PAP cadres) to easily reach consensus. The strength of the Singapore state effectively subdues and subverts any effort at contestation for power by alternative groups, and focuses power in the pinnacle of the state. This is diametrically opposed to the U.S., where freedom exists in the political sphere, and everyone has a stake in decision-making. This makes it easy for mobilization to occur in the U.S., and allows for a myriad of different interest groups to arise, creating a political arena in which many interests jostle for their own rights to be recognized. The presence of teachers’ unions in the U.S. are but one of the multiple interests that surface in the bid for sociopolitical recognition, and it is impossible for all these conflicting interests to be addressed with one policy platform.

Next, Singapore’s small land area and population has worked to the benefit of the ruling party. The imminent threats that come into play due to deficiencies in size, the struggle for self-sufficiency, and the instability of the surrounding regions have served to make society look towards a strong leadership for guidance. Coupled with the economic prosperity that has occurred to the Republic under the PAP’s leadership, these factors all serve to unite the population in support of the policies that the PAP enacts. Late industrialization has reinforced vertical, rather than horizontal, relationships, between state and society. This version of cultural relativism is particularly applicable in Asian societies, where hierarchical

distinctions proliferate and are an implicit determinant of the structure of the citizenry. Advocates of Asian-style leadership similarly emphasize that collective identity should be prioritized over individuality and self-interest. Oftentimes, a considerable premium is placed on values such as obedience to state leaders, who, by virtue of their appointments, have presumably been bestowed with the mandate to lead. A strong bureaucracy and an absence of separation of powers are frequently observed in Asian states, such as Singapore, and this enables the government to push through policies with ease and little objection from the citizenry.

Furthermore, Singapore is a city-state, which means that there are no sub-national or federal divisions in the hierarchy of governance. Consequently, government ministries are delegated the task of overseeing their respective domains throughout the nation. The Ministry of Education oversees all aspects of education in the country. Even though educational institutions in Singapore are awarded different levels of autonomy, particularly with the changing nature of education policy which champions the development of niche talent, the Ministry of Education still supervises the overall nature of education in Singapore. This allows for high levels of consistency and enforceable standards across schools. All schools (excluding international schools that are foreign-affiliated and privately managed, and open only to citizens of a particular nationality), are subject to the same expectations.

Conversely, in the U.S., the Tenth Amendment of the U.S. Constitution specifically states that: "The powers not delegated to the United States by the constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." Since nothing explicitly pertaining to education is mentioned in the Constitution, it falls outside federal authority. In creating the U.S. Department of Education, Congress made clear its intention that the secretary of education and other Department officials be prohibited from exercising "any direction, supervision, or control over the curriculum program of instruction, administration, or personnel of any educational institution, school, or school system." The establishment of schools and colleges, the development of curricula, the setting of requirements for enrollment and graduation, among other education issues, are responsibilities handled by the various states and communities, as well as by public and private organizations of all kinds, not by the

U.S. Department of Education (U.S. Department of Education, 2007). The role of the U.S. Department of Education is to establish and administer financial policies pertaining to the distribution and use of federal financial aid for education, collect and disseminate data regarding education, identify and focus attention on pertinent issues, and ensure equal access to education for every individual under the Civil Rights statutes.

This is in sharp contrast to the role of the Ministry of Education in Singapore, which enjoys the legal privileges and immunities that all government departments in Singapore possess. The Singapore Ministry of Education is in sole control of the creation and implementation of education policies in the Republic. In the U.S., however, the bulk of educational responsibilities are left to state governments, and this has presented tremendous problems in the form of widening disparities in the quality and accessibility of education between and within states. For instance, new attention has been called to the educational crisis which has befallen the South. The Southern Education Foundation, a non-profit education advocacy group in Atlanta, Georgia, recently released a report titled "A New Majority: Low-Income Students in the South's Public Schools", which drew attention to the achievement gap between poor children in the South and the rest of the student population. The report alludes to the region's long-standing patterns of underinvestment in public education, and warns that, if neglected any longer, a crisis of catastrophic proportions will potentially erupt and cause poverty figures to skyrocket (Ledger-Enquirer, 2007). Conceivably, the differences between education policies in states are extremely large, and thus the levels of educational success also display marked variation across and within states. As Moe points out, teacher unions are often more successful in states where Democrats are in control of the machinery of government, and where collective bargaining laws are strong. The dearth of legitimate political contestation in Singapore and the resulting unified government is therefore a key factor in ensuring the continuity and efficacy of education policy.

In Singapore, schools that have proven to be consistent high achievers in a particular area are often singled out by the Ministry of Education to be hosts to special programs that capitalize on their strengths. For instance, the Art Elective Program and Music Elective Program are examples of niche

programs that are hosted by a handful of select schools with strong backgrounds in the fine arts. In the highly result-oriented Singaporean society, school choice at subsequent levels of education following the completion of primary-level coursework is based almost entirely on the principle of meritocracy. To a large extent, Singapore's education system is modeled after the British model, which makes use of the General Certificate of Education (GCE), a secondary-level academic qualification, where students sit for a major examination at the end of secondary school. Their subsequent educational route is frequently dependent on their GCE results. Since all students in any one cohort sit for the same examination, which is administered by the University of Cambridge International Examination Board, it allows for a measure of uniformity that greatly ameliorates any disparity in teaching and instruction. Consequently, it also aids in alleviating discrepancies that occur through the use of subjective mechanisms in measuring student performance, since all students are evaluated against a common benchmark in the form of the GCE examination. Schools are evaluated based on how their students perform in this national-level examination, among other factors that include the range of co-curricular activities offered by the school, the special programs (if any) that the school plays host to, and the percentage of students from the school who go on to attain a university education. Since Singapore is geographically small, parents and students pick schools based on the abovementioned criteria, and school choice is not restricted by locality. Consequently, competitiveness in school choice and in gaining entrance to select schools is an integral part of the education system in Singapore, and this is bolstered by the pragmatic mindset of most Singaporeans, where academic success is viewed as all-important to achievements in later life. Inevitably, some schools achieve high levels of prestige over time as their reputations for excellence are reinforced by their consistent ability to turn out the *crème de la crème* of the student cohort in any given year (Ministry of Education, Singapore, 2007). Moe contends that school choice would entirely restructure the U.S. education system, by enabling families to punish inferior schools by withdrawing their children from such institutions, which would galvanize schools into taking steps to prevent this from happening, and ultimately result in a redistribution of power within the education system. The system of school choice has been an integral part of the Singapore education system since its infancy, and this has proved to be an

incentive on both the part of the schools as well as on the behalf of students. Students are induced to work hard to gain entry into the best schools, while the schools themselves strive to maintain and improve the quality of education they provide so as to ensure a continuing flow of good students.

This emphasis on meritocracy extends past the concerns of the student population, into incentives awarded to teachers for good performance. On top of monetary incentives, teachers in the public school system in Singapore are regarded as civil servants, and are eligible for prestigious honors awarded by the government to civil servants who are outstanding performers in their respective fields. Members of the Singapore Civil Service are also eligible for public benefits such as subsidized healthcare, paid leave, and other incentives provided by the government as carrots to trigger satisfaction and good performance. Promotion is contingent on performance. Membership in the civil service carries with it responsibilities and obligations that are understood by these teachers, as benefits can be as easily withdrawn as they are bestowed, thus enforcing a system of accountability. In addition, there are a number of national awards that are presented to exceptional teachers each year. For instance, the annual President's Award for Teachers is the Republic's highest accolade for the teaching fraternity, and recognizes the teaching profession's commitment to the total development of students and its contribution to nation building. The award honors the recipients as exemplars who have demonstrated the passion, courage and perseverance to inspire and nurture the nation's young (Ministry of Education, Singapore, 2007). As with school choice, the accountability system in education as envisioned by Moe as an ideal educational strategy to be implemented in the U.S. is already an instrumental part of the system in Singapore.

The desire for a harmonious, cohesive society has been a crucial consideration in dictating education policy. The education system under the British colonial administration was English-dominated, and this presented great problems for the heterogeneous Singapore society as it fomented separatism and promoted ethnic differentiation. In particular, the Chinese and Indian populations turned to look towards China and India respectively for a sense of identification, and the danger of sociopolitical divisiveness resulting from such inward-looking behavior was perceived as a real and dangerous threat to ethnic cohesion by the PAP government. Additionally, the PAP needed to consolidate its power when it attained

control of the government, and demonstrate the legitimacy of its rule to the citizenry. Education reform was viewed as a powerful instrument to unite the nation, and thus became the topmost priority of the government. The institution of bilingualism as an important facet of education policy comes to mind as the most immediate example of education policy being used to effect widespread social integration. In 1956, the All-Party Report on Chinese Education, issued by the government, made several recommendations that included the equal treatment of the four main language streams (English, Chinese, Malay, Tamil), acceptance of Malay as the national (but not administrative) language of the nation-state, as well as the introduction of bilingualism in both primary and secondary schools (Ho, 2000).

The policy of bilingualism required the study of two languages – English, as well as the student's mother tongue, as the other required language. The objectives of the policy were manifold. Most importantly, perhaps, was the goal of ethnic assimilation and the promotion of societal cohesiveness. It was hoped that the bilingualism policy would supplant sub-national levels of identification in favor of the forging of a broader, all-inclusive national identity. Since English was required for all students, being the primary medium of instruction, every student would acquire knowledge of this business language, which would provide for a skilful, competent workforce which would be able to interact with and function well in the larger global environment. Finally, the policy of bilingualism was representative of the government's larger effort to centralize the educational structure and increase government control over matters pertaining to language and syllabi in schools (Ho, 2000).

Ironically enough, much of the opposition to the school choice system, as vocalized by Moe, comes from a concern over upholding basic principles and values of integration and fairness. He cites the example of the NAACP, which fears that vouchers and other forms of choice would promote segregation, as well as the ACLU, which is concerned about the separation of church and state, as well as issues of equal access and discrimination. It is readily apparent from the proliferation of such interest groups and non-governmental organizations (NGOs) that societal stratification and inequality are of profound and delicate interest when it comes to the determination and implementation of education policy in the United States. While the mobilization of such groups and organizations may be relatively more restricted and

limited in Singapore, by virtue of the controlled political climate, both the U.S. and Singapore share similarities in the sense that both countries face challenges issuing from the fact that they are ethnically homogeneous. In Singapore, however, the institutional features of the country has allowed it to successfully mitigate these differences through the enactment of all-inclusive policies designed to accommodate ethnic variances towards the goal of an all-encompassing, harmonious society.

CONCLUSION

Singapore's success in devising and implementing of education policies can be attributed to several factors as discussed above, many of which are institutional features unique to the Republic and which are not shared by the United States. Single-party dominance, a pragmatic citizenry, and an institutionalized state apparatus are all features that have enabled the Singapore government to exercise its will over education with relatively great success. Singapore's willingness to continually adapt to the changing economic circumstances by focusing its attention on different aspects of education have proved to be of great use in ensuring that the nation stays relevant in the face of global dynamism. From my analysis, I infer that the institutional limitations in the U.S., a product of democracy and federalism, have interacted to allow for the flourishing of divergent interests, preventing these groups from effectively coalescing to promote education policy that is conducive to economic growth. It remains to be seen if interest groups in favor of complete education reform can override the teachers' unions and other forms of collective action that are primarily interested in retaining the benefits that occur to these specialized interest groups.

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