## 論文

# Is this the road Japan is taking? A case study of childhood education in Mexico relating educational gap and household income

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#### I. Introduction

The standard of living rose and reduced inequality due to the steady economic growth that followed World War Two. The national census of 1970 (Cabinet Public Relations Office, 1970) indicates that 91% of Japanese considered themselves as belonging to the middle class. And "ichioku sou cyuryu (all middle-class society)," the Japanese buzzword starting at the late 1960s, symbolizes their cognition. Even approximately a decade later, after Japan's economic bubble burst, the national census of 2005 (Cabinet Public Relations Office, 2005) indicates that about 89% of Japanese still consider themselves in the middle class.

Education has long been considered the best opportunity for upward social mobility in Japan as well as many other countries. However, education no longer serves as the great equalizer for the low-income sector. A study which was organized by Hiroaki Mimizuka of Ochonomizu University as a part of Ministry of Education, Culture, Sports, Science and Technology (MEXT, 2008) in Japan shows that there is a gap in achievement according to family income. Students from affluent families perform higher in national standardized tests compared to students from lower-income families. A similar case was reported by Sean F. Reardon (2011) of Stanford University in the United States. Moreover, Reardon, Baker and Klasik (2012) detail that students from high-income sector compose an increasing number of the enrollment at highly selective colleges and universities.

As the result of Programme for International Student Assessment (PISA), Japan's low achievement on the PISA was considered problematic. What we called "yutori kyouiku" in Japanese, a Japanese government education policy which reduced

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the hours and the content of the curriculum in primary education since 2002, is seen as the major problem. But I questioned the opinion. I lived in Mexico for almost eleven years from 2001 to 2012. From my experience as a volunteer worker at a Mexican public elementary school and as a mother of children at the age of attending compulsory education, I learned that clear social stratification exists depending on one's family income in Mexico. Firstly, these socioeconomic differences cause differences in educational access. Secondly, gaps in student accomplishment. And then, consequently, effect their work opportunities as well as their income. The educational gap between the rich and the poor seems to be self-perpetuating in Mexico. The above-mentioned researches and my experiences in Mexico suggest that the income inequality may be at the root of the problem. Here, in this paper, the focus will be on connection between income inequality among parents and the social mobility of their children. I will introduce the differences between public and private schools in Mexico, and also the achievement gap between students in public and in private schools. Recent statistics show that income inequality exists in Japan. And Japan is no longer an "all middle-class society." I'm afraid Japan is walking in the same direction as Mexico. Education will no longer serve as an equalizer; but rather, will serve to increase inequality. The privileged families become more privileged, but unprivileged families will suffer in this socioeconomic system.

#### II. The Mexican educational system

In general, there are three educational stages in Mexico (Secretaría de Educación Pública, 2017): *Educación básica* (basic education), *educación* média superior (secondary education), and *educación superior* (higher education). Education at all stages is regulated by *Secretaría de Educación Pública* (Secretariat of Public Education) which was founded in 1921 and is known to be by its abbreviation as SEP.

Basic education is made up by four different levels: *Inicial* (Introductory), preescolar (preschool), educación primaria (primary school), and educación secundaria (junior high school). Introductory, ages range from 6 weeks to 5 years old, and serves children whose parents work. Preschool has three phases with ages ranging from 3 to 5 years. Primary school runs from grade one through grade six, ages range from 6 to 12 years. Junior high school is considered part of basic education in Mexico. It has three phases and it is for children from 13 to 15 years.

After completing basic education, students are required to continue their studies in secondary education which normally lasts for three years. There are two main tracks: *Bachillerato* and *Preparatoria/Preparatoria Profesional Técnico*. Students who enroll in the *bachillerato* are in the academic track, which is designed to further their higher education. The other track emphasizes technical and vocational training programs. Students in the latter track enter work after completing their studies.

Higher education offers different levels of diplomas: Licenciatura (Bachelor's

degrees), *Maestría* (Master's degrees), and *Doctorado* (Doctor's degree). A part from them, *Técnico Superior* (Technical institutes) train people to be technicians in specialized fields such as engineering.

Table-1: The Mexican educational system in 2015

Table 1. The Mexican educational system in 2019			
Educational Stages	Level	Student	
		Age Range	
	Inicial	45 days ~ 5 years	
	(Introductory)		
	Preescolar	0 -	
Educación Básica	(Preschool)	3 ~ 5 years	
(Basic Education)	Educación Primaria	$6 \sim 12 \text{ years}$	
	(Primary school)		
	Educación Secundaria	10 15	
	(Junior high school)	13 ~ 15 years	
	Bachillerato	16 ~ 18 years	
Educación	(Academic track)		
Média Superior	Preparatoria/	16 ~ 18 years	
(Secondary Education)	Profesional Técnico		
	(Technical/ Vocational track)		
Educación Superior (Higher Education)	Técnico Superior		
	(Technical)	19 years ~ (ages vary)	
	Normal/Licenciatura		
	(Undergraduate)		
	Posgrado: Maestría y Doctorado		
	(Graduate: Master's and		
	Doctor's degree)		

Compulsory Education

Note.

Data is adapted from Sistema Educativo de los Estados Unidos Mexicanos, Principales Cifras Ciclo Escolar 2015-2016 by Secretaría de Educación Pública, 2017, p. 11.

As you can see from the Table-1: The Mexican educational system in 2015, currently, education from preschool until high school (darkened) is compulsory by federal law. However, it became compulsory at a different time. Primary school is the first one to be mandatory since 1935. Secondly, junior high school became mandatory as well in 1992. Then, preschool became mandatory in 2002. And Finally, high school became mandatory in 2012 (Cámara de Diputados, 2017). The compulsory educational system, SEP standardizes curriculum content and gives free text books for students in both public and private schools. Education at state schools is free, but students may have to repeat grades if necessary. Social promotion by age or by seat time is not practiced in

Mexico. Therefore, the age as it appears in Table 1 is the general age at which students do not repeat grades at the beginning of their academic year.

#### III. Childhood education in Mexico relating educational gap and household income

Both Mexico and Japan are member countries of the Organisation for Economic Co-operation and Development (OECD). Japan joined the organization in 1964, and Mexico joined it in 1994. The OECD releases statistics, data, and publications such as income inequality and poverty among participant countries. According to its database, the OECD Income Distribution Database (2012), both Mexico and Japan are below average when they were measured by the Gini coefficient in 2012: Mexico occupied the worst place and Japan was tenth among member countries. If I just mentioned numbers as the mass media does; at a glance, both countries seem to have considerable unfair income distribution. In the case of Mexico, people may better understand if I mention that Mexico is classified as "upper-middle-income economies," and the majority member countries of the OECD are defined as "high-income economies" by the World Bank.<sup>2</sup> In addition, there were only 34 members countries in the OECD in the year 2012, and the Nordic countries which participated in the census are known to have low unemployment rates and the highest standard of living in the world. However, many countries were excluded that were not members of the OECD. Currently, there are 193 members in the United Nations. The order and average might be otherwise if more countries had been measured by the Gini coefficient.

The World Bank estimate involved more countries. The Mexican data is available since 1992. However, Japan's data is only available in the year 2008, not 2012 like Mexico. The comparison between OECD's data and that of the World Bank appears not to be the best. But the data from OECD suggest that Japan's Gini coefficient has not fluctuated much from 0.333 in 2009, which actually comes from the data based on 2008 Japanese income, to 0.330 in 2012. So, I believe this is a fair comparison. According to the World Bank, in the worst category, Mexico placed 23rd and Japan 120th of the 154 participant countries in 2008. In this case, Mexico is estimated below average, but Japan is no longer considered below average. The Gini coefficient is the most commonly used to measure income distribution, but we have to be careful how to interpret it. In Gini coefficient, zero (0) manifests perfect equality; on the other hand, 1 or 100% is maximum inequality. Mexico has not fluctuated much in its Gini coefficient since 2006 until today, and in both data from the World Bank and OECD, there is a big difference in Gini coefficient between Mexico and Japan. Mexico estimated to be 0.457 while Japan was estimated to be 0.330 in 2012 by the World Bank. Thus, it illustrates that Mexico's income inequality is more severe.

From my experience and what I have seen both in Mexico and in Japan, it is appropriate to say that Mexico is much greater in income inequality than Japan as indicated by the Gini coefficient. Most Mexican privileged families in the large cities in gated communities with maids, gardeners and security guards in contrast to the lower classes. Some complexes even have common areas such as a park, a swimming pool, and a guest house or an event house for parties. In their houses, there is a tiny room (it is actually smaller than owner's kitchen) for a maid with a toilet and a shower. During weekdays, the maid does all the housework such as cleaning and cooking in place of the housewife while the owner leaves for breakfast with her friends or to attend Yoga class, for example. The maid might able to go home during weekends. The living conditions for low-income families like the maid are harsh to say the least. They live in a small house made out of blocks which sometime have only one room to be shared with a family of eight, for example. The number of persons living in a house is normally greater than the affluent family; yet, the size of their house is so much smaller, not adequate for the number of people. They construct their houses in stages. Their walls are unpainted and one can see the exposed building materials. Generally, an elegantly tiled floor is something to admire. I have seen homes without gas and with earthen floor. These people who can't afford blocks use wood scraps and whatever material they can get their hands on, which offer little protection from the elements.

Affluent families send their young to private schools from early childhood education. They reason that public school education is inadequate, which is understandable. I worked in a public primary school in the state of Mexico for two years. There, I saw teachers working without having finished their credentials. In some cases, I even saw teachers abandon their responsibilities to their students. And the students were playing in the playground all day long while the school principal could have taken the place of the absent teacher. I was astonished to see secured teaching positions ("plaza" in Spanish) advertised for sale. These secured positions can be purchased or inherited without academic preparation.

On the other hand, private school teachers are well prepared. I know of a private school chairman who dispatched teachers as observers to Finland that has a model educational system when the country received several highest positions in the first PISA tests. Although curriculums vary and the pedagogy that they apply is also different, it is common in private schools to provide English classes throughout the early educational years and beyond while public schools offer them only through junior high school. English is the major communication skill that promises a high income. This is especially true in the case of Mexico for geological reasons. The above-mentioned private schools implement bilingual education. It means in bilingual education, half of the curriculum is offered in each language, Spanish or English. Students are already able to make simple sentences like, "He is my father." at the kindergarten. The private schools also offer advanced math classes. Japanese students learn multiplication in the second year of primary school. This is possible because two well-prepared instructors assist a maximum of 25 students per class.

I traced some significant characteristics of both public and private school in

early childhood education at below.

Table-2: The comparison between "general" public and private school in early childhood education in a case of the state of Mexico

	PUBLIC	PRIVATE
Entrance Exams	Not required	Required
Uniform	Additional	Required
Tuition	Not required	Required
Textbook Fee	Not required	Required
Number of Students/ class	~403	~30
Number of Teachers/ class	1	2
English classes	Not applied	Applied

The different quality in education transmits to the cost of education. While attending public school in a compulsory education system, parents do not pay for books or any tuition. The SEP provides free textbooks for both public and private schools. In contrast, a private school requires costly tuition, extra textbooks and uniforms in addition to inscription fee. The monthly tuition varies depending on private schools. However, it was about 2,150 Mexican pesos (about 170 dollars or 13,800 yen) and the annual inscription fee was about 1,500 pesos (about 119 dollars or 9,650 yen) for a private kindergarten while the monthly starting salary of the public primary teacher in the state of Mexico was about 7,000 Mexican pesos (about 553 dollars or 44,850 yen). The public schools have adopted uniforms before; but, since 2009, the powers that be moved the uniform requirements in effort to lessen the economic burden. The higher the educational level, the higher the fee due to the increase of subjects and educational hours. One of the most prestigious and expensive institutions of Mexican Higher Education requires a tuition of 164,000 Mexican pesos per year. That amounts to about 13,670 monthly Mexican pesos (about 1,080 dollars or 87,600 yen). It is almost double the starting salary of the public primary teacher. Therefore, children from low-income families cannot possibly be inscribed into private schools. The percentage of enrollment number in private schools at the basic education level is 9.9% (Secretaría de Educación Pública, 2017).

As a matter of course, the difference in educational cost and in educational quality between public schools and private schools affect the educational achievement. Mexico implements a national standardized academic test in order to measure quality of national education each year. The exam is called "Evaluación Nacional de Logro Académico en Centros Escolares" in Spanish, and it is commonly abbreviated as

ENLACE. Assessments are given most frequently in mathematics and Spanish, from third grade students to six grade students of primary and all grades of junior high school for both public and private schools. The test is also given to the senior year students at the secondary educational level. SEP reports test results by different demographic groups: states, grades, school classifications (public vs private). We can use these test results to compare the achievement gaps.

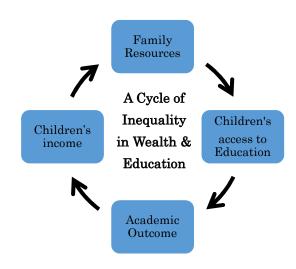
The public schools are further subdivided into three categories for the ENLACE results: General (general), CONAFE, and indígena (indigenous). General is the most numerous and the most common public schools where ordinary student attend. On the other hand, CONAFE, an abbreviation of Consejo Nacional de Fomento Educativo (National Council for Educational Development) is an organization under the Mexican federal government with the World Bank-supported compensatory education projects designed to expand the educational services in rural and marginalized areas that regular schools traditionally lack. Also, many indigenous people live in rural areas, but the areas where there are large concentrations of indigenous people have schools for educating (to be able to speak and understand Spanish) indigenous people. The official number of indigenous people varies from one source to another (Delgado Santoveña, 2017). The Instituto Nacional de Estadística y Geografía (INEGI; National Institute for Statistics and Geography) is responsible for compiling the population census. In 2015, INEGI noted a national average of 21.5% is indigenous whereas the Comisión Nacional para el Desarrollo de los Pueblos Indígenas (CDI; National Commission for the Development of Indigenous Peoples) stated 10.1% in the same year based on self-identification. The percentages vary because each census defines "indigenous" differently. The CDI defines "indigenous" people as persons who self-identified as indigenous, and or persons who live in a household where an indigenous language is spoken by one of the family members including spouse and parents-in-law. That means if one does not speak an indigenous language, but if one lives with someone who speaks the language they are considered "indigenous." The percentage drops to 6.5% when the INEGI asks if they speak indigenous languages<sup>5</sup> (INEGI, 2015). Traditionally, since the children in rural areas were considered an important source of labor for the family, children stayed home helping their parents instead of attending school. However, the recent government enforcement of the aim to "improve" national average score, they are supposed to attend school. As a result, the number of indigenous people who are able to speak their native languages is getting smaller each year.

In order to have a better comparison between public and private schools, I will only use the data from "general" public schools to compare with private schools. According to the ENLACE results that SEP made public from 2006 to 2013 (SEP, 2014), the difference between the "general" public schools and private schools is quite notable although the gap between them is getting narrow since 2013, especially in mathematics. On the national level in mathematics in 2006, the difference is 74.3 points at grade three: the public students scored a national average of 497.7 points while the private students scored a national average of 572.0 points; 69.5 points in difference at grade four: the public students scored a national average of 497.8 points while the private students scored a national average of 567.3 points; 72.5 point difference at grade five: the public students scored a national average of 497.5 points while the private students scored a national average of 570.0 points; 66.8 point difference at grade six: the public students scored a national average of 497.2 points while the private students scored a national average of 564.0 points. The year 2008 seems to have the most difference in gaps. Each grade has approximately 78 point difference on average from 2006. However, the gaps between public and private schools got narrower in 2013 by an average of 95 points in each grade in mathematics. It is probably because the federal education law of 2013 mandates that people cannot have the teaching positions without their having to pass the federal professional qualifying exam. The same tendency toward academic improvement can be noted in the Spanish assessments from 2006 to 2013, but the gaps between them didn't improve nearly as much as mathematics in 2013. In addition, the state of Oaxaca which has one of the lowest levels of student achievement and the highest dropout rates in Mexico, and has not participated in ENLACE since 2010. The teacher's union in Oaxaca had rejected the 2013 education law and has failed to conduct the federal exam for teachers. Overall, attending private schools will definitely guarantee a better education and of course better socioeconomic status in a later life.

#### IV. Conclusion

In Mexico, a clear stratification exists based on family income, a cycle of inequality in wealth and education appears to be self-perpetuating. As the figures on the

right show; firstly, these socioeconomic (family resources) differences cause a difference in educational access. Secondly, it translates into gap in student academic outcome. And then. consequently, it affects their work opportunities as well as their income. And when they become parents, the cycle continues. It reproduces inequality.



As the Japanese buzzword, "all middle-class society," symbolizes income inequality does not exist in Japanese society, as in Mexico. But the Gini coefficient shows that the standard of living in Japan is not as good as we believe. Since the condition of public education in Japan is not as problematic as Mexico, the majority of Japanese parents sent their children to public primary schools and junior high schools while they are compulsory and free. However, education plays such an important role in determining one's income and one's standard of living later in their life, the most Japanese parents sent their children into private after-school institutions that help prepare them for high school and university entrance exams. The cram schools in Japan involve cost, and depending on the quality of education that is given, the tuition varies as in Mexican private schools. Affluent families are able to afford to send their children to costly yet high-quality cram schools. They have better access to prestigious institutions and more opportunity for economic success. Thus, the socioeconomic inequalities at large are imposed and sustained by the educational system.

Although I see Japan taking the same direction as Mexico, I believe we still may be able to improve our educational system. I was astonished by the difference in educational conditions between Mexican public and private schools as well as their educational outcomes. Parenthetically, I have some ideas that may serve to improve our educational system. If we can apply the methodology of Mexican private schools; well prepared teachers with maximum of 25 students per class into Japanese public schools, the educational outcome will be improved. To make it happen requires governmental financial support. The Japanese government's expenditure on education as a percentage of Gross Domestic Product (GDP) was approximately 3.6% in 2014. The percentage was actually much lower than the average of 5.2% among "high-income economy" countries, and even below Mexico (World Bank, 2014). In addition, Japan's expenditure movement on education stays almost flat although the tendency of sub-replacement fertility is common among the majority of high-income economy countries, and their governmental educational expenditure is growing.

The ancient Chinese chancellor of the state of Qi during the early Spring and Autumn Period once said, "If you are planning for a year, sow rice; if you are planning for a decade, plant trees; if you are planning for a lifetime, educate people (Endo, 1989, pp.49-50)." Children are potential social resources. We need to ensure that all students have equal access to well-prepared teachers as well as stimulating curriculum and instruction.

#### Notes

- 1. ichioku sou cyuryu/ 一億総中流: "一億/ ichioku" literally means "100 million" in English and it symbolizes the Japanese population. "総/ Sou" means "all" and "中流/ cyuryu" means the "middle class" in English.
- 2. The World Bank (2018) classifies countries and territories by region, by income, and by lending. There are four income levels: "Low-income economies," "Lower-middle-income economies," "Upper-middle-income economies," and "High-income economies." Thirty-one countries and territories are classified as low-income economies which defined as those with a Gross National Income (GNI) per capita of \$1,005 or less in 2016. Fifty-three countries and territories classified as lower middle-income economies which defined as those with a GNI per capita between \$1,006 and \$3,955. Fifty-six countries and territories classified as upper middle-income economies which defined as those with a GNI per capita between \$3,956 and \$12,235. Seventy-eight countries and territories are classified as high-income economies which defined as those with a GNI per capita of \$12,236 or more.
- 3. The Mexican general ley for teachers (Cámara de Diputados, 2013) indicates that the number of students have to be defined by the size of a classroom. Therefore, the number of students vary depend on classroom size and its location. According to "Indicator D2 What is the student-teacher ratio and how big are classes?" in Education at a Glance 2012: OECD Indicators (2012), there is the national average of twenty students in each classroom in Mexico. Commonly, I have seen approximately forty students in "general" public schools whereas "CONAFE" and "indigene" public schools have a tendency toward fewer students because they are located in rural areas.
- 4. Beside the report, an individual test score and or an average school score is also available to trace by rosters on the sight of the SEP home page. And the average school score influences the cost of its tuition. There is a tendency to be expensive if the school has a better average school score in ENLACE.
- 5. According to INEGI (2015), indigenous people in Mexico represent approximately 70 linguistic groups. But the languages that are spoken by a small number of indigenous people like "Tlahuicas" in the state of Mexico, are placed in the category of "other."

#### References

Cabinet Public Relations Office [内閣総理大臣官房広報室]. (2005) (1970). *国民生活に関する世論調査* 日本:内閣総理大臣官房広報室

Cámara de Diputados [Chamber of Deputies]. (2017). Reformas Constitucionales por Artículo, ARTÍCULO 3º, de 1ª Reforma DOF 13-12-1934 al 10ª Reforma DOF 29-01-2016 en *Leyes Federales de Mexico*. México. Retrieved from http://www.diputados.gob.mx/LeyesBiblio/ref/cpeum\_art.htm

- Cámara de Diputados [Chamber of Deputies]. (2013). Artículo 64, Capítulo II, Título Cuarto: De las Condiciones Institucionales en *Leyes Federales del Servicio Profesional Docente*. México. Retrieved from http://www.diputados.gob.mx/LeyesBiblio/pdf/LGSPD.pdf
- Comisión Nacional para el Desarrollo de los Pueblos Indígenas(CDI). (2015). Niñas, niños y adolescentes indígenas. México. Retrieved from https://www.gob.mx/cms/uploads/attachment/file/217532/cdi-ninias-ninios-adolescentes-indigenas-encuesta-intercensal-2015.pdf
- Delgado Santoveña, Alejandra (Ed.). (2017). Directrices para mejorar: la atención educativa de niñas,niños y adolescentes indígenas. México: Instituto Nacional para la Evaluación de la Educación (INEE).
- Endo, Tetsuo [遠藤 哲夫]. (1989). 新釈漢文大系 42 官子 上 明治書院
- Instituto Nacional de Estadística y Geografía (INEGI). (2015). Encuesta Intercensal 2015. México. Retrieved from http://www.beta.inegi.org.mx/proyectos/enchogares/especiales/intercensal/
- Ministry of Education, Culture, Sports, Science and Technology (MEXT) [文部科学省]. (2008). 全国学力・学習状況調査の追加調査結果、国立大学法人お茶の水女子大学 Retrieved from http://www.mext.go.jp/a\_menu/shotou/gakuryoku-chousa/1365028.htm
- Organisation for Economic Co-operation and Development (OECD). (2012). "Indicator D2 What is the student-teacher ratio and how big are classes?" in *Education at a Glance 2012: OECD Indicators*. Paris: OECD Publishing. DOI: http://dx.doi.org/10.1787/eag-2012-30-en
- OECD Income Distribution Database. (2012). *Income Inequality (Gini coefficient)*. Retrieved from https://data.oecd.org/inequality/income-inequality.htm
- Reardon, Sean F. (2011). The widening academic achievement gap between the rich and the poor: New evidence and possible explanations. In R. Murnane & G. Duncan (Eds.), Whither Opportunity? Rising Inequality and the Uncertain Life Chances of Low-Income Children. New York: Russell Sage Foundation Press.
- Reardon, S. F., Baker, R., & Klasik, D. (2012). *Race, income, and enrollment patterns in highly selective colleges, 1982–2004.* Stanford, CA: Center for Education Policy Analysis, Stanford University.
- Secretaría de Educación Pública (SEP). (2017) Sistema Educativo de los Estados Unidos Mexicanos, Principales Cifras 2015-2016. Mexico City, Mexico: Secretaría de Educación Pública. Retrieved from

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