

# Chapter 14

## Regional Educational Disparities in Thailand



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**Abstract** Multiple theoretical/conceptual frameworks guide the analyses of this chapter, namely, central place theory (Christaller), forms of capital (Bordieu), economies of scale (Simon), and fiscal neutrality (Glenn). The analyses of this chapter are based on an extensive disaggregated provincial level data set with over 50 empirical educational, social, and economic indicators for each province of Thailand. With these extensive data, it is possible to develop a psychometrically sound index of the quality of education for each of Thailand's 77 provinces. Then the correlates of educational quality are examined and ranked in order. Among factors having the most explanatory power are region of the province, number of universities in the province, percent of small schools (negative factor), and gross provincial per capita. Relatively high levels of economic and educational disparities are found. The ten provinces with the highest quality of education are identified as are the ten provinces with the lowest quality in rank order. Not surprisingly the provinces with the highest quality of education are in the Bangkok Metropolitan Area and Phuket. Those with the least quality were found in the remote North (Mae Hong Son), Northeast (Nong Bua Lam Phu), and South (Yala and Narathiwat). The research underlying this chapter was based on mixed methods. Qualitative field research was done in November 2015 in the most remote part of Isan (Bueng Kan) to hear local perspectives on regional disparities. One of us coauthors (Rosarin) is an educator

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from this remote area of Isan and shares valuable and diverse perspectives in helping to interpret our quantitative data and to develop alternative public policies for reducing regional disparities, which conclude the chapter.

## 14.1 Introduction

Growing inequality is a pervasive problem and burning issue across the globe (Chomsky 2017; Hickman 2016, p. 11; Smith 1982; Teo 2018). Angel Gurría, Secretary-General of the OECD, notes that inequality levels in OECD countries are at an all-time high (OECD 2015). There are many dimensions of inequality. Those of most concern relate to disparities in income, wealth, and education and lack of intergenerational social mobility and elite circulation (Clark 2015). There are also inequalities at the global, national, meso, and micro levels. With respect to disparities in wealth in Thailand, a 2012 NESDB study indicates that 0.1% own nearly 46.5% of the nation's assets (*The Nation* 2014; NESDB 2014; see also Pasuk and Baker 2015; Thailand Future Foundation 2014; Wittayakorn 2009).

In this chapter, the focus is on regional educational disparities. Unfortunately, there are limited studies in this area because of constraints related to finding appropriate disaggregated data. The Australian economist Peter Warr argues that we often neglect or ignore the important meso (regional level) (Mann 2011; Warr and Ng 1986). The United Nations actually established in 1971 a special center focusing on regional development to study these kinds of issues. It is the United Nations Centre for Regional Development (UNCRD) located in Nagoya, Japan. Donald Holsinger and his students have done some excellent work looking at regional and local educational disparities in Cambodia and Vietnam (Holsinger and Jacobs 2008; Rew 2008).

## 14.2 Thai Geographic Context

There are different ways of grouping Thailand's 77 provinces. The most common is what Donner (1978) in his extensive economic geography of Thailand calls the "five faces of Thailand," namely,

(1) the Bangkok region, (2) the Central region, (3) the Northern region, (4) the Northeastern region (Isan), and (5) the Southern region. He subdivides the Central region further into two additional subregions: (1) the Bangkok region (including Bangkok and two neighboring provinces) and (2) the Southeast region (seven provinces including areas such as Chanthaburi and Rayong). Interestingly he anticipated the importance of the Bangkok Metropolitan Region (BMR) concept and the emergence of the Eastern Seaboard Project. The focus of Donner's book of more than 900 pages is to show the important differences among these regions. Both the National Statistical Office (NSO) and Pramut Butra-pinyo (general manager of Alpha Research, active in collecting disaggregated provincial level economic and

demographic data) also further break down the Central region into Western, Central, and Eastern regions. Recognizing the importance of the BMR which includes Nonthaburi and Samut Prakan, for example, Pramut adds the category of vicinity of Bangkok for the five provinces surrounding Bangkok (Fry 2013a, b, pp. 51–53, 56).

## 14.3 Important Differences Among the Five Key Regions

### 14.3.1 *The Northeast (Isan)*

As Donner notes, there are important differences among the five basic regions. The largest region accounting for the greatest proportion of the population (around 33%) is the Northeast (Isan). Culturally and linguistically it shares many commonalities with Laos (Fry 2002). Centuries ago it used to be part of Lan Xang (“The Land of a Million Elephants”), a large Lao kingdom. As the result of French colonialism, the Lao people were split into two separate polities, Isan under Siam and the other became part of a French colony, Indo-China.

The Northeast has been seriously disadvantaged for decades as it is a relatively arid area with poor soil where normally only one crop of rice can be grown per year. There are numerous novels and books which provide rich descriptions of the difficult lives faced by many in this poorest region of Thailand (Dixon 1999). Among major novels are *Khru Bannok (Rural School Teacher)* (Chiwit 2016; Khamman and Wijeyewardene 1992) and other works (Khamman 1976, 1978, 1984, 1991; Kamphoon 1994; Lao 2001; Pira 1988, 1991, 1994). Martin Platt (2013) has provided a valuable and insightful review of indigenous Isan literature. Among nonfiction works prominent are Sanitsuda Ekachai’s *Voices from Isan* (1988) and Charles Keyes’ more recent, *Finding Their Voice* (2014). Also Fry and Kemper (1996) found remarkable similarities and striking parallels between the disadvantaged Northeast of Thailand and the Northeast of Brazil. Interestingly the Thai Commercial Bank produced valuable encyclopedias for each of the four regions outside Bangkok, including the Northeast (Prasert 1985).

### 14.3.2 *The North (Lanna Tai)*

As with the Northeast, the North shares commonalities with Lao culture and language. The northern language, *Kham Mueang*, is a Lao language. In the old days, Chiang Mai too was part of a Lao kingdom and was its own kingdom for centuries with many illustrious kings. Its old name was Lanna (meaning the land of a million rice fields). Unlike the northeast, the north has adequate rainfall, allowing multiple crops of rice. The north also has a minor primate city, Chiang Mai, with many fine universities and schools. Also unlike the Northeast, Chiang Mai and the north is a major tourist destination.

The north is also home to a large number of Burmese refugees and migrants. The region is one of Thailand’s most ethnically diverse with many diverse hill peoples

such as the Hmong, Yao, Akha, and Karen (Lewis and Lewis 1984; Marston 2014). Phetchabun, a bridge province between the North and Northeast, is home to Thailand's largest Hmong population (Supang and Tawin 2011).

The controversial populist politicians former prime ministers, Dr. Thaksin and Yingluck Shinawatra, are Sino-Thais from Chiang Mai in this region of Thailand, and generally people in the North and Northeast have been strong supporters of these politicians and their populist policies.

### ***14.3.3 The South***

The South has a much smaller population than either the North or Northeast. There are two distinct parts of the South. The four southernmost provinces are largely comprised of Muslims of Malay descent which presents special educational challenges (see Chap. 15).

While there are significant Muslim populations in other parts of the South such as Phangnga and Phuket, most of the central and upper south are inhabited by southern Thais who speak a southern Tai dialect. The south is generally blessed with much rainfall and has important natural resources such as rubber and tin. In general, those in the central and upper south are considered to be more individualistic and achievement oriented than those in other regions outside Bangkok.

The Phuket, Krabi, and Surat Thani areas are also home to a vibrant rapidly growing tourism industry. A number of well-known political leaders are from the South such as the late Damrong Lathapipat, Prem Tinsulanonda, Chuan Leekpai, and Suthep Thaugsuban, leader of the 2013–2014 political protests (Tekueng 2014). The Democrat Party is quite popular in this region.

### ***14.3.4 The Central Region***

This is Thailand's major rice growing area and where Thailand's capital has been located for centuries. The National Statistical Office (NSO) and Alpha Research disaggregate this area further into three regions: Western, Central, and Eastern. The Eastern area includes Rayong, the center of the Eastern Seaboard Development Project related to the discovery of abundant supplies of natural gas in the Gulf of Thailand. The Rayong area has also been called "The Detroit of the East" because it is home to many major car manufacturers. Thailand aspires to be a new hub for electric car production. This area is also home to Pattaya, Thailand's most famous beach resort. The major Education for All conference in 1990 was held in Jomtien in this area.

The central part of the region includes the ancient capital of Ayutthaya and the Chao Phraya River (River of Kings). It also includes the provinces surrounding Bangkok, parts of which are included in the Greater Bangkok Metropolitan Region (BMR). Many factories and industrial estates are located in Pathum Thani and

Samut Prakan provinces to the north and southeast of Bangkok, respectively. Nonthaburi, northwest of Bangkok, is home to one of the world's largest exhibition centers, Impact, and the largest private city in the world, Muang Thong Thani. The language of this region, Central Thai, is the basis for standard Thai used in official and academic circles.

### 14.3.5 *Bangkok*

Bangkok is one of the world's classic *primate cities* and is home to about 10% of Thailand's population (Fry 1983a, b, 2013a, b). Many leading universities and schools are located in the Bangkok area. It is the government, financial, and industrial capital of Thailand. It is also one of the world's leading tourist destinations. Many from the countryside have migrated to Bangkok to take jobs in the modern industrial and service sectors. About half of the population are Sino-Thais, and individuals of this background have played a major role in the development of prominent corporate conglomerates such as the Bangkok Bank and Charoen Pokphand (CP). Prominent examples of such entrepreneurs are Dhanin Chearavanont, head of CP; Ms. Supaluck Umpujh, the dynamic head of the Mall Group; and Paron Israsena, active in the development of the Siam Cement conglomerate. Anderson (2016) also describes the evolution of the political roles of Sino-Thais and their increasing influence.

## 14.4 Theoretical and Conceptual Frameworks

In trying to understand regional disparities and their correlates, one key framework is central place theory developed by the German geographer, Walter Christaller (Beavon 1977; Christaller and Baskin 1966; Johnson 1970; King 1984). There are many important advantages accruing to those living in central places like Bangkok, a classic primate city (Fry 1983a, b, 2013a, b). Many of Thailand's leading universities and best P-12 schools are located in the Bangkok area. Because of its access to tax revenues, the public schools of the Bangkok Metropolitan Administration (BMA), for example, have far better facilities than many public schools up-country. Those living in remote areas far from central places are likely to be disadvantaged both economically and educationally.

Another important concept from the field of the economics of education is fiscal neutrality. While this term has different meanings in various contexts, here it is adapted to analyze explicitly the relationship between the economic wealth of an area and the quality of education in the same area (CPRE 2015). The ideal criterion is that the quality of education should not be related to the wealth of the community. In the United States, there have many court cases around this issue, in which plaintiffs have argued that their constitutional right to equal educational opportunity has

been violated by interdistrict funding disparities related to reliance on local property taxes to fund public education (see Kozol 2012). The Supreme Court of Kentucky in a highly visible case related to school finance reform to improve fiscal neutrality found the whole educational system of Kentucky out of compliance.

A final concept relates to scale and size of schools, a complex issue indeed. E.F. Schumacher (1999), influenced by Burmese Buddhism, argued that “small is beautiful.” The Korean scholar, Ŏ-ryōng Yi (1984), introduced a similar concept, “small is better.” In the United States context, in cases of excessively large schools, schools within schools have been created to avoid negative aspects of excessive size (Raywid 1995; Devees 2007). Stanford biologist Paul Ehrlich (1975) and the Princeton demographer Anslie Coale (Coale and Hoover 1958) similarly pushed for smaller families and lower fertility, reflected in China’s one child policy and Mechai’s remarkable success in helping Thailand reduce its high fertility rate.

The economist, Julian Simon (1981), however, is a contrarian seeing many positives associated with large size and economies of scale. Thus, key explanatory variables in our analysis of this chapter are school size, percentage of small schools in a province, and size of population to see how these size factors may influence school quality.

## 14.5 Historical Context: Expansion of Formal Schooling into the Provinces

As noted in Chap. 1, King Chulalongkorn the Great, carried out Thailand’s first major education reform to create a modern educational system in Siam (as known at that time and until 1939 and from 1945–1949) (Prachoom 1965; Watson 1980; Wyatt 1969). Though the initial schools were in Bangkok, the King desired to extend education to all his people. In 1886, 35 schools were established including 14 in the provinces (Manich Chumsai 1951, p. 22). Most of these latter schools were in the Central provinces such as Ayutthaya, Sara Buri, and Phetchaburi. Later in 1898, there was a major conference with the officials of the Ministry of Interior with regard to the provision of education in the provinces. Real implementation steps were not taken until further conferences in 1908 and 1909 when the Lord-Lieutenants and Viceroys of the 17 circles were present. At that time Siam was organized into 17 circles such as Phuket, Udon, Ubol, and Roi Et. As a result of these two conferences, it was decided that the Ministry of Interior would organize education in all provinces. Eventually on September 1, 1921, the King signed the declaration, the Law on Compulsory Education (known as the Primary Education Act), and it went into effect 1 month later. It required that every child throughout the Kingdom, aged 7 to 14, attend school (Manich 1951).

## 14.6 The Next Round of Reforms After the Student Revolution of 1973

A major theme of the reforms introduced during the period 1973–1976 was the need to address issues of educational equality and equity. Numerous empirical studies were carried out by the government with funding from organizations such as the Ford Foundation to provide more systematic and rigorous data to inform policy decisions about equity and equality (Amrung et al. 1990; Fry 1981, 1983a, b; ONEC 1974). The Ministry of Interior, responsible for rural primary education at that time, introduced innovative budgeting approaches to try to reduce regional disparities (Rung et al. 1980; Rung and Fry 1982).

At that time officials of ONEC proposed school clusters, alternate intake, and bicycling as a solution to the “small school” problem. Though experimentation along these lines was carried out, these innovations were neither sustainable nor replicable on a broader level, and the small school problem persists today even more seriously (see Chap. 13). Reflective of this problem is a recent Thai film, titled *Teacher’s Diary* (Choeman et al. 2014), based on a real school in Lamphun Province in the North. The school has one teacher and four students. It is not uncommon in the Northeast, for example, to find classes with less than 10 students or even less than five. This problem stems directly from Thailand’s “demographic dividend” resulting from Mechai’s dynamic family planning program (D’Agnes 2001).

## 14.7 Objective, Methods, and Data for the Analysis of This Chapter

The major objective of this chapter is to assess the current state of regional educational disparities and to identify key variables possibly explaining these differences in educational quality among the provinces of Thailand. To do this, it is important to develop a sound and rigorous measure of educational quality for each province. To carry out this analysis, an extensive and comprehensive provincial data set was assembled drawing on diverse sources. Particularly valuable was a recent study of the OEC (2014) carried out by Pattama Kampasri providing extensive educational data disaggregated by province. Also valuable data have been obtained from the World Bank office in Thailand, the National Institute of Educational Testing Services (NIETS 2015), Alpha Research (primarily economic and demographic data), and admissions data for several elite universities (Chulalongkorn and Mahidol). NIETS provided current (2015) O-NET test scores for each province for grades 6, 9, and 12, in eight subject areas.

Employing mixed research methods (Creswell 2017; Levin et al. 2017), qualitative research is done to complement the quantitative analyses. In November of 2015, field work was conducted in the Seka district of remote Bueng Kan province in the Northeast to hear the voices of educators in this region about educational disparities and the factors contributing to them.

## 14.8 Operationalizing and Measuring Educational Quality

Operationalizing and measuring educational quality presents many complexities and challenges (see Chap. 19). Controversy surrounding this concept is emphasized in a valuable and provocative book by Mounier and Phasina (2010). There are diverse views on what quality of education means (see Spaul and Taylor 2015). The most common approach is to use academic achievement as the key measure (Kiatanantha 2013), though many critics consider this an overly narrow approach to looking at educational quality (Abeles and Rubinstein 2015; Andrews et al. 2014; Gould 1996; Hoffmann 1962). Common academic achievement measures cannot capture important elements of educational quality such as creativity, morality, motivation to learn, commitment to lifelong learning, emotional intelligence (EQ) (Goleman and Senge 2014), and what in Latin America is termed *una buena educación* (Lagarda 2006; Villenas 1996, 2002). The latter Spanish term refers not to years of formal schooling, but instead to whether an individual behaves well and properly, is polite, and has integrity. For example, Gardner (2006) at Harvard delineates nine important dimensions of intelligence, many of which we fail to assess explicitly. The King of Bhutan has emphasized Gross National Happiness (GNH) instead of narrowly economic GDP or GNP (see also Dalai Lama and Tutu 2016). Emma Seppälä (2016) at Stanford is doing important work related to the science of happiness. How important is student happiness? Actually in terms of student happiness, Thai students generally “score” at or near the top in world rankings (Nyamkuu 2014).

It is impossible to measure educational quality directly. For purposes of this chapter, we draw on multidimensional empirical indicators, constrained by available data and cognizant of the serious limitations noted above. For example, at the provincial level, data are not available on moral education or student happiness in Thailand. Also we did not try to obtain district level data, since there are nearly 900 districts in Thailand. Table 14.1 indicates some of the key empirical indicators for which we could obtain disaggregated provincial level data. This represents a huge data set of 32 variables. This was far too large to be manageable.



**Table 14.1** Key multidimensional statistical indicators of educational quality

Statistical indicator	Year
O-NET test scores Grade 6 in eight subject areas such as mathematics, science, Thai, and English	2015
O-NET test scores Grade 9 in eight subject areas such as mathematics, science, Thai, and English	2015
O-NET test scores Grade 12 in eight subject areas such as mathematics, science, Thai, and English	2015
Percent of the labor force with college degrees	2013
Percent of the adult population in the province with college degrees	2013
Average educational level in the province	2013
Percent of students dropping out of primary education before completion	2011
Percent of schools scoring over 50% on the O-Net exams, Grade 6	2013
Percent of schools scoring over 50% on the O-Net exams, Grade 9	2013
Percent of schools scoring over 50% on the O-Net exams, Grade 12	2013
Success of students in gaining admission to Mahidol University	2012
Success of students in gaining admission to Chulalongkorn University	2010

Note: Unfortunately data are not always available for the same year. However, on these kinds of indicators there are strong correlations between years

## 14.9 Data Reduction

To reduce this huge data set to a manageable number of variables, numerous techniques were used including correlational analysis, exploratory factor analysis, and reliability analysis (Cronbach 1951). First, we decided to average the eight O-NET test scores, even though clearly not all eight subjects are of equal importance. Trying to weight subjectively the different test domains was not considered feasible. After coming up with three average O-NET test scores for grades 6, 9, and 12, we then correlated those three variables and found a very high correlation, as expected, among the three indicators. Thus, we took an average of those three scores to represent the relative success of the province's students in the annual O-NET examinations. Thus a data set of 24 test score variables per province was reduced to one single variable. After using these various data reduction tools, we ended up with seven empirical measures of provincial educational quality. The scale, Educational Quality Index (EQI), is found to have sound psychometric properties with a coefficient alpha of 0.78. The seven indicators are indicated in Table 14.2. For each indicator, the item-index correlation is shown. Also as a further test of reliability, a Spearman Rho rank order correlation was calculated for each indicator. The results are generally consistent and the scale crystalizes well.

Somewhat surprisingly the indicator, percent dropping out of primary school, did not crystalize with other indicators and had to be dropped from the scale. Perhaps when there are higher dropout rates, those remaining to take the O-NET tests are the better scoring students. We saw this phenomenon in the United States with No Child

**Table 14.2** Key components of the Educational Quality Index (EQI)

Statistical indicator	Item correlation with the index of educational quality	Spearman rank order correlation between the indicator and the index of educational quality
% of adults with a college degree	.83	.69
% of labor force with a college degree	.82	.76
Success in gaining admission to Chulalongkorn University	.80	.70
Average years of schooling	.77	.71
Success in gaining admission to Mahidol University	.75	.70
Average scores on the O-NET examinations across 8 subjects and 3 grade levels, 2015	.60	.80
% of schools (Grade 9 O-NET exam scoring >50%)	.37	.52

Left Behind, where at times poor performing students conveniently did not participate in the testing. A similar situation exists in Iowa where students generally score high on the SAT tests, because the state's participation rate in taking the SAT is rather low.

## 14.10 Descriptive Results

Tables 14.3 and 14.4 show the respective rankings of various provinces with respect to educational quality. Table 14.3 lists the top ranked provinces in order, while Table 14.4 lists the lowest scoring provinces. These data have strong face validity that will make sense to those familiar with the various regions of Thailand.

Nearly all the top-ranking provinces are important central places. Four (Bangkok, Chiang Mai, Phuket, and Chonburi, including Pattaya) are major tourist centers. None are in the disadvantaged Northeast. Exactly 50% are in the Bangkok Metropolitan Region.

For the lowest scoring provinces, exactly 50% are in the disadvantaged Northeast and two are in the Malay-speaking deep Muslim South. The two Northern provinces are home to large numbers of indigenous hill peoples. The only central province appearing on the list is Sa Kaeo which borders Cambodia and has ethnic Khmer communities. In all ten of these provinces, the mother tongue of most children is not Central standard Thai. Thus, language policy and issues is a crucial issue (see Chap. 15).

The lowest scoring province is also Thailand's poorest province economically. Three of the lowest scoring provinces are among the eight provinces with the highest level of chronic poverty (*The Nation* 2014; NESDB 2012).

**Table 14.3** Provinces with the highest education quality index in rank order

Name of province	Region	Education quality index
1. Bangkok	Bangkok	29.4
2. Nonthaburi	Bangkok Metropolitan Region (BMR) (vicinity of Bangkok)	23.3
3. Nakhon Pathom	BMR	10.5
4. Phuket	South	9.1
5. Samut Prakan	BMR	7.1
6. Chonburi	Central (Eastern)	5.5
7. Pathum Thani	BMR	5.2
8. Songkhla	South	4.6
9. Chiang Mai	North	2.9
10. Trang	South	2.9

**Table 14.4** Provinces with the lowest education quality index in rank order

Name of province	Region	Education quality index
1. Mae Hong Son	North	-7.4
2. Nong Bua Lam Phu	Northeast	-7.0
3. Yala	South	-5.6
4. Narathiwat	South	-5.4
5. Tak	North	-5.4
6. Chaiyaphum	Northeast	-5.2
7. Sa Kaeo	Central (Eastern)	-4.9
8. Nong Khai	Northeast	-4.8
9. Kalasin	Northeast	-4.8
10. Amnat Charoen	Northeast	-4.7

## 14.11 Analytical Results

The coefficient of variation is considered an excellent measure of inequality (Fry and Martin 1991). Table 14.5 presents the coefficient of variation for our key outcome variables. Table 14.6 presents the coefficient of variation of our key explanatory variables.

For most variables included in our study, there is a high level of inequality. The variables with the most inequality are three educational ones, namely, chances of entering one of Thailand's top universities and percent of schools with students "excelling" on the O-NET examinations. The two variables with the least inequality are two educational ones, namely, student-teacher ratio and average score on the O-NET exams. The latter equality in this particular case is actually not positive and relates to the theme of Chap. 19, the overall poor quality of Thai education across many provinces. Students are uniformly doing poorly on the O-NET examinations. The key economic variable, gross provincial product per capita, shows considerable inequality, almost identical to that associated with gaining entrance to Mahidol

**Table 14.5** Coefficients of variation for key outcome variables

Indicators of educational quality	Coefficient of variation
Ratio of advantage, entrance to Chulalongkorn University (2010)	1.41
Percent of schools, Grade 9, scoring over 50% on the O-Net exam	1.39
Ratio of advantage, entrance to Mahidol University (2011)	0.97
Percent in province going on to university (2011)	0.44
Percent of labor force with college degree (2013)	0.40
Average years of schooling (2011)	0.09
Average student performance (2015)	0.06

**Table 14.6** Coefficients of variation for possible explanatory variables

Possible explanatory variables	Coefficient of variation
Gross provincial product per capita	0.97
Average size of schools (2010)	0.80
Number of small schools (OBEC) (2010)	0.72
Number of small schools (WB) (2010)	0.71
Total number of schools (2010)	0.65
Budget (2015)	0.52
Expenditures per capita (2009)	0.24
Student teacher ratio, basic education (2012)	0.11

University. The important small school variable shows considerable variation across provinces, as expected. The educational budget variables show moderate levels of inequality.

Our next level of analytical analysis involves examining the bivariate correlation between possible explanatory variables and our educational quality index (see Table 14.7). This analysis is guided by the Pareto Principle based on the thinking of the influential Italian political economist of wealth and income distribution, Vilfredo Pareto, and adapted by Joseph Juran (Reh 2016). The goal is to isolate the key factors related to regional disparities and identify those variables which show a strong statistical association with our index of educational quality. Since these are true population values, there is no issue of statistical inference, and, thus, there is no need to report level of statistical significance (Hirschi and Selvin 1973).

Regional variables (Bangkok and vicinity of Bangkok) have the highest explanatory power, and the Northeast region is the most disadvantaged (as expected) supporting Warr's emphasis on the need for meso-analysis. With population showing a positive relationship with educational quality, there is some support for Simon's economies of scale argument. As expected the extent to which a province has universities also is a strong explanatory variable. Two other key variables are percent of small schools (highly negative) and number of coaching schools, adjusted for population (highly positive). The latter is consistent with the extensive research of Mark Bray (2017), Bray and Lykins (2012) on the influence of shadow education

**Table 14.7** The correlates of educational quality

Correlates of education quality	<i>r</i> value	<i>r</i> <sup>2</sup> value
Bangkok and vicinity (dummy)	.68	.47
Number of universities	.67	.45
Bangkok (dummy)	.61	.38
Percent of small schools (WB definition)	−.55	.31
Population 2013	.53	.29
Number of coaching schools/per capita	.50	.25
GPPPC 2012	.41	.17
Distance	−.34	.12
Northeastern (dummy)	−.27	.07
Budget PC 2015	−.23	.05
Northern (dummy)	−.17	.03
Expenditure PC 2009	.12	.01
Student-teacher ratio	.09	.01
Southern (dummy)	.00	0

and how it contributes to inequality (see Chap. 25). The *r* squared for gross provincial product per capita, while having considerable explanatory power, was smaller than expected, indicating some degree of fiscal neutrality. The distance from Bangkok has a moderate statistical association with educational quality, indicating some support for central place theory. That there was no relationship between the Southern region and educational quality makes perfect sense, since in general the central and upper South does well, but the four southernmost Muslim provinces fare poorly, so the effect for that region is negligible.

## 14.12 Qualitative Results: Voices from a Remote Area of Isan (Northeast)

In November 2015, field research was conducted in the Seka district of remote Bueng Kan province (Thailand's 77th and newest province) to hear the voices of educators in this remote area about regional disparities and factors contributing to them. This is a summary of their voices:

### 14.12.1 Factors Contributing to Disparities

Five key factors were identified:

1. The relative poverty of the Northeast with its arid conditions. This view is consistent with the high coefficient of variation found for economic inequality among Thai provinces (see Fry and Kempner 1996).

2. Lack of adequate educational learning materials and inadequate funding to secure the best learning materials and technology needed to have quality education.
3. Because of their remoteness, teachers in the schools do not receive adequate mentoring or coaching. Also their real needs and concerns are not known by “far away” administrators who rarely if ever visit their schools.
4. Teachers in these remote schools lack awareness of modern teaching techniques essential in a rapidly changing global knowledge economy and lack adequate and relevant in-service training.
5. In such remote areas as this, there are no educational resource and learning centers as in central places and larger urban areas.

### ***14.12.2 Suggestions for Reducing Disparities***

Five suggestions were identified for reducing such educational disparities:

1. The government must find ways to reduce the *economic* disparities among provinces and regions (Pasuk 2012; Suphannada 2012).
2. There must be more targeting of funds to assist schools in remote disadvantaged areas to obtain learning materials and technologies to improve quality.
3. There need to be more scholarships and fellowships for bright students in remote areas to enable them to realize their full potential.
4. There needs to be more effective in-service training, coaching, and mentoring, to enable teachers to achieve excellence in teaching and to improve quality. Teachers are at the heart of the learning process.
5. Those policy-makers and administrators responsible for improving educational quality must be sincere and transparent. Their decisions must be driven by reliable empirical evidence from genuine assessments of conditions in remote areas and listening sincerely to the voices of these in these locations.

## **14.13 Conclusion and Policy Alternatives to Consider**

Based on extensive disaggregated provincial level educational data, a measure of the quality of education in each of Thailand’s provinces was calculated. As expected there are great disparities across regions. The most disadvantaged provinces are located in the remote border areas of the Northeast, North, and the deep South.

Key factors contributing to lower quality were location (remote rural), less access to higher education, higher percent of small schools, much less access to coaching schools, and low income of a province. Clearly there is a lack of fiscal neutrality with wealthy Bangkok and neighboring provinces having the highest quality of education. Interestingly Ulrich Zachau, the World Bank’s Southeast Asia director,

recently stated that “the single most important thing for Thailand is to improve its and education and skills outside Bangkok” (*The Nation* 2015) (see also Ammar et al. 2012; Somkiat and Supanutt 2012). Thus, it is imperative for Thailand to find ways to reduce these regional disparities. Given the evidence presented in this chapter, the following policy options, in addition to those just mentioned above, should be carefully considered:

- Solve the small school problem which is contributing to low quality and inefficiency in the use of educational resources (see Chap. 13) (Fernquist 2010; Khajornsak 2013; Nithiwat 2014). School consolidation appears to be the appropriate solution and is now being pursued.
- Increase incentives for quality teachers to teach in remote rural areas.
- Target more funds to schools in disadvantaged remote areas.
- Promote greater use of mother tongue language in the early years in remote areas with ethnic and linguistic diversity (see Chap. 15).
- Use funds from a tax on the shadow education industry to provide greater educational opportunities and scholarships for the most talented in remote rural areas and to identify talent in these areas.
- Provide greater access to quality education by rapidly growing migrant labor groups from neighboring countries, particularly in the North (Burmese migrants) and the lower Northeast and East (Cambodian migrants).

Zachau notes that Thailand’s economic performance has been adversely affected by the inadequate skills and productivity of the country’s labor force. Key to addressing this huge challenge is reducing regional disparities in educational quality so that students throughout the Kingdom have the opportunity to realize their full potential and talent.

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