

The Use of Law to Encourage Smaller Families in Singapore

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At the end of the eighteenth century, Malthus sounded a warning to the world based on a theory of population growth. In the twentieth century, many developing countries have seen their aspirations frustrated, as unchecked population growth has all but negated their hard-earned economic gains. Thomas Walter Smith shows how Singapore has managed to cope with this problem, and explains which lessons might be applied successfully in other countries.

INTRODUCTION

Part of the development strategy of many countries is the implementation of a population policy aimed at reducing population growth by offering family planning services. It is commonly believed that slower population growth will facilitate economic development by diverting financial and labor resources from child care to productive investment.

Singapore is a prime example of a country that perceives rapid economic development as a national imperative. To pursue that goal, Singapore has not only provided family planning services, but has vigorously encouraged its citizens to limit the size of their families. To convey its message, the government has gone beyond media campaigns by legislating disincentives for families to have more than two children. The history of these legal measures and their usefulness as a tool to promote social change and development is the subject of this study.

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HISTORY

Strategically located at the tip of the Malay Peninsula, Singapore provides a good harbor to voyagers both on the South China Sea and on the Bay of Bengal. However, while Singapore's strategic importance has increased greatly in recent times, as late as 1819 the island was home only to a few fishermen.¹ Soon thereafter, the British established a free port there and the island began to flourish from the large volume of untaxed trade. By 1840 Singapore had a population of about 35,000.²

With the arrival of a large number of immigrants, mostly male, Singapore's population continued to grow rapidly. In fact, males were so predominant that there were only 6.5 births per thousand population in 1880, compared with 46 per thousand in 1940.³ Immigration became less important as a source of population growth with the onset of the depression in the 1930s and the accompanying introduction of restrictive regulations. Also, between 1920 and 1940 more females than males immigrated, bringing the sex ratio more into balance.⁴ Thereafter, natural increase became the primary source of population growth. Singapore's approximately 226 square miles were home to 938,000 people in 1947, 1,446,000 in 1957,⁵ and 2,308,000 in 1977.⁶

All but about 2 percent of the population are of Chinese, Malay or Indian descent. The Chinese constitute about 76 percent of the population and the Malays and Indians represent 14 percent and 8 percent respectively.⁷ Before the mid-1970s, the Malay population had a higher fertility rate than the Chinese or the Indians, although the Chinese figure clearly dominates the statistic for the total population.⁸

FAMILY PLANNING POLICY

The beginnings of the family planning movement in Singapore go back to the creation of the Singapore Family Planning Association in 1949. The objective of the Association was to offer services and information to couples interested in avoiding unwanted pregnancies. Initially financed through private

1. David Joel Steinberg, ed., *In Search of Southeast Asia* (New York: Praeger Publishers, 1971), p. 136.
2. *Ibid.*, p. 137.
3. John E. Anderson, Mark C. E. Cheng and Wan Fook-Kee, "A Component Analysis of Recent Fertility Decline in Singapore," *Studies in Family Planning*, November 1977, p. 282.
4. Peter Hall, *Law and Population in Singapore*, Law and Population Monograph Series, No. 9, (U.S.A.: The Fletcher School of Law and Diplomacy, 1973), p. 5.
5. Warwick Neville, "The Birth Rate in Singapore," *Population Studies*, March 1978, p. 114.
6. *Singapore: Facts and Pictures 1978* (Singapore: Publicity Division, Ministry of Culture, 1978), p. 15.
7. Neville, "Birth Rate," p. 114.
8. *Ibid.*, p. 115.

contributions, the Association began receiving increasingly large donations from the government in the 1950s.

In 1959, the same year that Lee Kuan Yew and the People's Action Party (PAP) came to power, family planning was officially recognized as an integral part of the national health program. Considerable gains were made in reducing fertility and growth rates in the early 1960s; the 1964 population growth rate was 2.5 percent, compared with an average annual figure of almost 4 percent between 1947 and 1957.⁹ But it was only after Singapore's departure from the Malaysian Federation in 1965 that the government became more assertive in sponsoring family planning. On 9 August 1965, Lee included the following statement in his National Day message:

We have to revise all our social values so that no one is required to have a large family in order to qualify for a Housing Board flat, for social relief and so on. Today, strange as it may seem, we are giving priority to people with large families, thereby encouraging people to have large families. This requires a revamping of all our social services, free primary schools, free hospitals and free maternity clinics regardless of how large the family is and [how large the] social allowance given to the bigger families.¹⁰

Lee Kuan Yew has been more successful than most Third World leaders in consolidating his power. His party, the PAP, controls the legislature. His political opponents have been muted. Lee therefore takes less of a political risk in supporting social reforms than do other leaders.

In September 1965, a White Paper on Family Planning was approved by the Assembly. The chief purpose of the Plan was "to liberate our women from the burden of bearing and raising an unnecessarily large number of children, and as a consequence to *increase human happiness for all.*"¹¹ Approval of the White Paper led to the creation of the Family Planning and Population Board (SFPPB) to assume responsibility for all family planning measures.¹² Thus, as Lee initiated a more comprehensive development scheme for Singapore, the government took firm control of the means of implementing its population policy. As one of its wide-ranging powers, the SFPPB could regulate the activities of any groups involved in family planning in Singapore.¹³

9. Hall, *Law and Population*, p. 8, from *Monthly Digest of Statistics*, Vol. XI, no. 2, p. 2.

10. Aline K. Wong and Janet W. Salaaf, *An Exploratory Study on the Effectiveness of Population Disincentives in Preventing Higher-order Births in Singapore*, a report submitted to the International Development Research Centre, Ottawa, Canada, August, 1977, p. 18.

11. Willard A. Hanna, *Singapore: The Case for Efficiency* (Hanover, N.H.: American Field Staff Services, 1971), pp. 11-12.

12. Hall, *Law and Population*, p. 9.

13. *Ibid.*, p. 10.

Although substantial strides were being made, population continued to grow at rates which were unacceptable to the government. Two additional factors made the realization of the government's policy goals even more difficult. First, as the post-World War II "baby boom" generation entered its early twenties, the number of new families rose steeply.¹⁴ Second, the government had been unsuccessful in motivating some among the population to accept any birth control method. Accordingly, the government now stressed the advantages of smaller families in an intensified advertising campaign. Excellent communication facilities, an educated audience, and loose control of the media put the Singaporean government in an unusually good position to communicate with its public.

The first SFPPB 5-year plan (1966-1970) was designed to provide family planning services to 60 percent of women of childbearing age. A concomitant goal was to reduce the birth rate from 30 to 20 per thousand. The second 5-year plan (1971-1975) furthered earlier gains by reducing the birth rate to 17.8 per thousand by 1975.

In broader terms, the second plan had shifted the emphasis from the provision of clinical contraceptive services and motivation towards acceptance of family planning, to encouragement of the ideal of the two-child family regardless of sex.¹⁵

Singapore therefore employed law as a means of encouraging family planning in order to supplement the overall thrust for economic development in the late 1960s. Freed from obligations to the Malaysian Federation and lacking the support of the British military as of 1969, Lee Kuan Yew firmly led his people's economic development along a Western model. Reduction of population growth is an essential part of that model, particularly for countries with constraints on land, housing and employment as severe as those in Singapore in 1965. Lee stressed family planning by providing clinics, by advertising, by promoting housing and lifestyles conducive to nuclear families, and by gradually adopting a set of laws favoring small families.

These laws were introduced in different sectors of the economy at different times and were revised as social conditions changed. They typically set a minor monetary or priority penalty for parents of three or more children. Thus they discourage additional births rather than prohibit them; they guide decisions in family planning rather than force them. To what extent the laws were the cause of decreasing family size in Singapore is uncertain. However, by coherently expressing the government's population policy, they surely contributed in some measure to the nation's phenomenal progress in income and lifestyle.

14. Wong and Salaaf, *Exploratory Study*, p. 16.

15. Neville, "Birth Rate," p. 114.

ABORTION

When the Singapore government presented new abortion legislation to bring the law into line with the new population policy, it emphasized that the main goal of the liberalization was to provide better health services to women. The Abortion Act of 1969 legalized abortion on non-medical grounds with SFPPB approval. While the new law augmented the government's attempts to curb births, it was enacted primarily as a response to a specific social need: illegal abortions had become a serious issue in Singapore. Before the Abortion Act, almost 5,000 illegal abortions per year were being reported to the hospitals, a number equal to about 8 percent of the total number of births per year.¹⁶ Legalization also put an end to unreported, hazardous backstreet abortions by untrained midwives.

The Minister of Health emphasized that the new law was not a population control measure, but rather "social" legislation which established "the right of an individual to have a choice to abort an unwanted pregnancy under specified conditions."¹⁷ With the elimination of the anti-abortion law, the government satisfied a social need while gaining a new means of achieving its demographic goals. The Abortion Act was amended twice in 1974 to make abortions available "on demand."¹⁸

DELIVERY FEES

The charging of progressive delivery (accouchement) fees in government hospitals for mothers with two or more children might be considered the focal point of the entire system of disincentives. The fees placed financial pressure directly on those who violated the government's stated small-family norm. This scheme has proven especially effective, since 80 percent of all births in Singapore take place in government hospitals, where the rule may be consistently enforced.¹⁹

The program was first instituted in 1969. The fees increased with the number of children borne by the mother, from S\$10²⁰ for the first child to S\$100 for the fourth child and any subsequent offspring. Eventually, higher fee scales were introduced for wealthier patients who chose the more expensive medical serv-

16. Hall, *Law and Population*, p. 19.

17. *Ibid.*, p. 23.

18. Anderson, Cheng, and Fook-Kee, "Component Analysis," p. 284.

19. *Singapore, Population Profiles*, No. 1 (New York: United Nations Fund for Population Activities, 1976), p. 24.

20. Two Singapore dollars are approximately equal to one American dollar.

ices of Class A and B wards.²¹ All fees were increased several times, and by 1975 the fee structure appeared as follows:

TABLE I

Accouchement fees in government hospitals increase with each additional child in the following order:

	<i>Class A</i>	<i>Class B</i>	<i>Class C</i>
1st child	S\$300	S\$120	S\$ 60
2nd child	S\$360	S\$180	S\$ 90
3rd child	S\$420	S\$240	S\$120
4th child	S\$480	S\$300	S\$240
Subsequent children	S\$480	S\$360	S\$300

Source: Aline K. Wong and Janet W. Salaaf, *An Exploratory Study on the Effectiveness of Population Disincentives in Preventing Higher-order Births in Singapore*, a report submitted to the International Development Research Centre, Ottawa, Canada, August, 1977, p. 161, from SFPPB TENTH ANNUAL REPORT, 1975.

In addition to accouchement fees, government clinics began to charge S\$10 for prenatal visits, which had previously been free.²² The combined charges absorbed a large proportion of poor families' incomes, an effect which was not felt by higher-income families. The government subsequently provided a means of avoiding the fees by waiving the charges for Class B and Class C patients if they agreed to sterilization within six months after the delivery.²³ The system of delivery fees might therefore be considered inequitable, as it imposed greater economic hardship — and hence a stronger incentive to comply — on the lower classes.

One alternative to facing the fee system at the government hospitals was to pay more and go to a private hospital. This route sometimes appealed to middle-class women who wished to avoid lines and regulations. Another alternative, primarily for working-class women, was to utilize maternity clinics that charged only S\$50-80 with no escalation for second-borns or children of higher birth-order. However, the clinics were not modern facilities, and in any case were being phased out by the government. In spite of the government's fee schedule, this money-saving alternative did not gain widespread popularity.²⁴ Women also avoided the fee by refusing to pay or by understating the birth-order of their newborn children. But in practice, the vast majority in Singapore

21. The Singapore government hospitals offer three classes of services. Class C provides adequate services for a basic fee. Class B provides more amenities for a slightly higher fee. Class A services are the best and the most expensive.

22. Wong and Salaaf, *Exploratory Study*, p. 42.

23. *Ibid.*

24. *Ibid.*, p. 43.

did not frequently resort to such alternatives, legal or illegal, and the delivery fee regulations provoked little or no resistance.

MATERNITY LEAVE

The 1968 Employment Act entitled female workers to four weeks maternity leave with minimum pay per worker of S\$4 per day or her regular pay, whichever is less. However, women with three or more children were ineligible.²⁵ In August 1973, women with two or more children were made ineligible for maternity benefits. However, female government employees could receive paid medical leave if they were sterilized after delivery.²⁶

While the effect of the loss of maternity benefits for high-order births may be mild, depending upon one's level of income, the legislation clearly expresses the government's position on the number of children it believes is appropriate. The 1972-1973 limitation of benefits to the first two births coincided with the implementation of other measures that underscored a shift in governmental attitude from "small families are better" to "two is enough." The Health Minister succinctly stated the government's position for the mid-1970s on 24 October 1972: "The third child is a luxury for all those who can afford to lavish the same care on three as they can on two."²⁷

INCOME TAX

In August 1973, income tax relief was limited to the first three children. Previously, deductions had been available for up to five children. A descending scale had allowed deductions of S\$750 for the first child and S\$300 for the fifth. The amendment changed the Income Tax Act to allow deductions of S\$750 for the first two children and S\$500 for the third.²⁸

CHILD EMPLOYMENT

In January of 1976, the Employment of Children and Young Persons Regulations came into effect. The regulations forbade children under twelve years of age to be employed in any occupation and they set down a number of safety requirements and rules concerning working conditions.²⁹ The regulations are a

25. Hall, *Law and Population*, p. 34.

26. Wong and Salaaf, *Exploratory Study*, p. 162.

27. Peter Hall, "Legal Initiatives in Fertility Control: The Singapore Experience," *Lawasia*, August-December 1972, Faculty of Law, University of New South Wales, Sydney. Note 130 cites *The Straits Times*, Singapore, 25 October 1972.

28. *Singapore*, UNFPA Population Profiles, p. 25.

29. International Advisory Committee on Population and Law, *Annual Review of Population Law, 1976*, Law and Population Books Series, No. 20 (U.S.A.: The Fletcher School of Law and Diplomacy, 1977), pp. 101-103.

disincentive because they increase the financial burden of raising children by all but eliminating the opportunities for children to contribute income to their households.

EDUCATION

Another measure, implemented in 1973, was an education disincentive which served to place fourth and subsequent children at a disadvantage in admission to primary schools.³⁰ While this measure could pose hardship for the child, in fact only a very small number of children have actually been affected by the law. Singapore does have a standardized educational system and enough space for all students, but entry to some schools is competitive. For upper-class parents who seek an elite school, or for working mothers who would find it difficult to arrange transportation to schools outside their neighborhoods, the competitive factor assumes greater significance.

Registration for Primary One (first grade) places is divided into three phases. First, children are admitted if they already have siblings enrolled. After that, children of alumni or children with no siblings are admitted. Then any remaining places are allotted by ballot.³¹

Children of fourth or higher parity are not to be considered for admission until the third phase. Yet there are several exceptions. If either parent has been sterilized, the child will be considered in phase two. An amendment in 1976 allowed the first choice of schools within phase two to parents who had been sterilized after the birth of a second child and before the age of forty.³² Also, a fourth child would have the same priority as his siblings if he were the last child in the family.³³

After the education disincentives encountered public opposition when first announced, the Minister of Education stated that all Primary One registrants would eventually find places.³⁴ In practice, it seems that the neighborhood schools have enough space. Also, school principals are given considerable leeway with their admissions policies. A child's declared parity is not usually verified, nor would sanctions be likely if his parity were discovered to have been misstated.³⁵ Thus, only a few families are affected by the rule; compliance is essentially voluntary; and, as with most of the disincentives, the main effect of the rule is psychological reinforcement of the small-family norm.

30. Wong and Salaaf, *Exploratory Study*, p. 161.

31. *Ibid.*, p. 49.

32. *Ibid.*

33. *Ibid.*, p. 161.

34. *Ibid.*, p. 50, cites Parliamentary Debates, Vol. 33:894.

35. *Ibid.*, p. 52.

HOUSING

In 1962, the government's Housing and Development Board (HDB) changed its allocation policy for public housing by discontinuing the use of a point system which had given preference to large families. While apartments had previously been allocated only to families with five or more members, the new policy reduced the minimum household size to three. In 1967, the minimum was again reduced to permit households of two (childless couples) to be eligible.

While the policy change of 1962 preceded the government's decision to introduce economic sanctions, the 1967 change was a component of the early network of disincentives. Because the government was by that time rapidly expanding its role in the housing sector, it was increasingly able to augment overall family planning efforts through public housing policy. By 1975, half of the population lived in HDB housing, and that proportion was expected to rise to at least 75 percent by 1980.³⁶ Urban renewal replaced the traditional dwellings of the extended Chinese family with modern sector housing more conducive to the nuclear family arrangement. As housing in Singapore was scarce, and the HDB was exerting more control over the entire sector, the government had a potentially powerful means of influencing the populace to accept the new small-family norm.

STERILIZATION

Between 1965 and 1974, the government's stance on sterilization passed from prohibition to encouragement, and the annual number of sterilizations increased dramatically, from 2,321 in 1970 to 8,964 in 1973. The number rose to 10,310 in 1976, falling slightly to 8,236 in 1977.³⁷ The 1969 Voluntary Sterilization Act represented a significant liberalization of existing sterilization laws. Before 1967, the White Paper had allowed tubal ligations only for women with six or more children. In succeeding years the minimum number was gradually reduced until, by 1974, sterilization was available virtually "on demand."³⁸

In 1972, the government began to use sterilization to offset the disincentive effect of delivery fees for third-, fourth- or higher-parity births. The delivery fee was waived for some classes of patients in government hospitals if one of the

36. Vreeland, Nena, et al., *Area Handbook of Singapore* (Washington: U.S. Government Printing Office, 1977), p. 111.

37. *Twelfth Annual Report: 1977* (Singapore: Singapore Family Planning and Population Board, 1978), p. 43.

38. Anderson, Cheng, and Fook-Kee, "Component Analysis," p. 284.

parents was sterilized after the birth.³⁹ The use of sterilization as a direct incentive was introduced in 1973, when higher priority for primary school admission was given if one of the child's parents had undergone the operation.⁴⁰ Later, government employees were offered seven days' leave at full pay as a sterilization incentive.⁴¹ A more recent measure allows non-Singaporean residents to obtain a marriage license only upon formally agreeing to undergo sterilization after the birth of the second child.⁴² It was announced in January 1976 that foreign workers married to Singaporeans "must be sterilized after two children or face suspension of permission to work in the country."⁴³ Thus, in a short time, sterilization laws underwent substantial revision, with dramatic results.

The response of the public to new sterilization opportunities implies that the government's liberalization met a pent-up demand for sterilization as a family planning method. Through legislation, the government offered the people a new freedom while at the same time strengthening population policy — law was shaped to benefit both the public and the government.

DEMOGRAPHIC EFFECTS

Were the legal disincentives successful in reducing the average family size in Singapore? Table 2 illustrates a substantial reduction in high-order births between 1967 and 1977. It is clear that during this period high-parity births decreased considerably as a percentage of all births. The average annual percentage of births of third or higher order fell from 53.2 percent in 1967-1970 to only 26.3 percent in 1977, indicating a significant trend toward a small-family norm. The reduction of the median birth order from 2.70 in 1967-1970 to 1.75 in 1977 also marks the trend. While the legal changes were not the only factor discouraging large families, the decade during which the disincentives were introduced did clearly exhibit a dramatic, consistent decline in high-parity births.

John E. Anderson, Mark C. E. Cheng and Wan Fook-Kee examined demographic data in 1977 to see how the disincentives had affected fertility trends. They tested a set of hypotheses that, if supported by empirical evidence, would suggest that the disincentives did have a demographic effect. While the data examined supported the hypotheses, the analysis could not distinguish be-

39. *Ibid.*

40. *Ibid.*

41. International Advisory Committee on Population and Law, *Annual Review of Population Law, 1975*, Law and Population Monograph Series, No. 39 (U.S.A.: The Fletcher School of Law and Diplomacy, 1976), p. 134.

42. International Advisory Committee on Population and Law, *Annual Review, 1976*, p. 175.

43. "Chronology of Major Population-Related Events in 1976," *PRB Report*, the Population Reference Bureau, February 1977, p. 1.

tween the effects of the disincentives and the effects of increased availability of services. They concluded:⁴⁴

- Rapid decline in fertility was resumed after 1972 and was not due to a decline in lower order births or proportion married.
- Decline in births of order three and above was the most important factor in fertility decline after 1972.
- The number of abortions and sterilizations increased rapidly between 1970 and 1975; the number of new acceptors of family planning [methods] declined after 1969 as the eligible population neared saturation.
- The number of abortions for women of parity three and higher increased more than threefold between 1970 and 1975; higher parity women remained the large majority of those receiving sterilization.
- It is difficult to tell from the time series data reviewed whether availability of services was more important than the disincentives; use of abortion by higher parity women increased rapidly between 1970 and 1973, a period when availability was increased at the same time as policies were instituted to encourage sterilization, resulting in a large increase in the number of procedures. Probably both availability and fertility disincentives affected the increase in the use of these two methods.

RESPONSE OF SINGAPOREANS

It is difficult to determine the overall popular response to the disincentives for two reasons. First, the net effect of the disincentives on an individual varies considerably with the person's station in life: high-income earners may be more affected by the income tax disincentive than the poor; place of residence or social class may make the educational disincentive seem like a financial or social burden or it may be irrelevant; maternity leave disincentives vary with non-government employers; and so forth. Second, the psychological effects of the disincentives are apt to be felt throughout the population, whereas the monetary effects may be different for each person. Thus, given the broad spectrum of individual circumstances, it is difficult to develop a specific figure for the additional cost of third, fourth and subsequent children under the system of disincentives.

In light of these difficulties, the equation below outlines a method of adding

44. Anderson, Cheng, and Fook-Kee, "Component Analysis," pp. 286-287.

up the potential effects of the disincentives. The equation is merely intended as a model to aid in visualizing the continuum of effects.

Nonmonetary (Psychological) Factors	+	Potential Monetary Factors	+	Monetary Factors	=	Total Effect of Disincentives
1. Government encouragement and advertising		1. Educational priority		1. Delivery fees		
2. Sense of civic duty		2. Housing priority		2. Income tax		
3. Example of peers		3. Child Labor Law		3. Sterilization fees		
				4. Abortion fees		
				5. Prenatal care fees		

TABLE 2
LIVE BIRTHS BY BIRTH ORDER 1967 - 1977

Birth Order	Average							
	1967-1970	1971	1972	1973	1974	1975	1976	1977
Number								
1st	12,132	14,066	15,421	16,449	16,946	14,674	17,200	16,138
2nd	9,903	11,438	12,261	12,431	11,628	12,631	13,585	12,101
3rd	6,955	7,784	8,318	7,855	6,624	6,596	7,083	6,221
4th	4,773	4,660	4,821	4,508	3,497	2,854	2,648	2,231
5th & over	13,110	8,911	8,580	6,786	4,445	3,109	2,163	1,624
Not stated	202	229	277	240	128	84	104	49
Total	47,075	47,088	49,678	48,269	43,268	39,948	42,783	38,364
Percent								
1st	25.8	29.9	31.0	34.1	39.1	36.7	40.2	42.1
2nd	21.0	24.3	24.7	25.7	26.9	31.6	31.7	31.6
3rd	14.8	16.5	16.7	16.3	15.3	16.5	16.6	16.2
4th	10.1	9.9	9.7	9.3	8.1	7.2	6.2	5.8
5th & over	27.9	18.9	17.3	14.1	10.3	7.8	5.1	4.2
Not stated	0.4	0.5	0.6	0.5	0.3	0.2	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median Birth Order	2.70	2.32	2.26	2.11	1.90	1.92	1.80	1.75

Source: *Twelfth Annual Report: 1977* (Singapore: Singapore Family Planning and Population Board, 1978), p. 9.

Not surprisingly, the Wong and Salaaf study found that, "in general, the effectiveness of the disincentives depends on whether the ministries concerned hold a monopoly over the services, whether the services are demanded by multi-parous [with more than one child] women in child-bearing ages, and whether the ministries themselves are particularly committed to fertility control."⁴⁵ The graduated delivery fee scale was found to be the most effective of the disincentives because of government domination of the medical services, "stringent" enforcement, and the large numbers of women affected. The educational measure was considered the second most effective, but the number of families affected was much smaller than that affected by the accouchement fees.

The remaining measures either directly affect only a relatively small proportion of the population, or are not particularly stringent: public housing is not denied to large families; paid maternity leave is available to many working women except the few mothers with high parity who are still employed; and the income tax measure affects only the middle and upper income groups.⁴⁶

How did people react to the disincentives? Wong and Salaaf's 1977 study concurred with a 1973 SFPPB survey in which a surprisingly low proportion of the population indicated that it had been personally affected by the disincentives, but people also tended to assume that others had been more directly affected.⁴⁷ The costs of the disincentives were rarely strong enough to deter a family from attaining its fully desired size. Only three out of ninety-nine survey subjects stated that they had actually been compelled to limit family size. At the other extreme, some families' fertility decisions were not at all influenced by the laws.

For most Singaporeans, the strength of the disincentive system is that it adds to the general psychological attitude that a smaller family size is preferable; it reinforces the government's pervasive family planning advertising campaign. Measuring the psychological impact of the disincentives and the publicity campaign is difficult, if not impossible, but the steady decrease in average family size implies that either the disincentives or socio-economic factors are creating the effect desired by the government.

Wong and Salaaf found that disincentives encouraged adaptive measures. Some families, especially the poor, were pressed into devising unusual steps to avoid the intent of the law. They might borrow money for the delivery charges from their extended family or plan on avoiding the fee by being sterilized after

45. Wong and Salaaf, *Exploratory Study*, p. 140.

46. *Ibid.*, p. 141.

47. *Ibid.*, p. 86.

completing the family with a fourth child. Some of the subjects spoke of circumventing the educational priorities system.⁴⁸ The study found that people without a tendency to plan their lives were more interested than the planners in evading the law. The nonplanners tended to be from poorer socio-economic backgrounds, suggesting that the economic struggles of day-to-day life may have inhibited the desire or ability to plan ahead. Wong and Salaaf conclude that while the planners have already received and acted on the "small families are better" message, the message is far less influential with low-income nonplanners. Further penalties would thus do little to make planning more feasible and attractive to the poor; suggested policy alternatives have included measures to redistribute income.⁴⁹

Another significant finding of the report was that 81 out of 99 couples studied agreed that Singapore was overpopulated and that it was appropriate for the government to act to alleviate the problem.⁵⁰ This remarkable consensus is surely a critical factor in the success of the government's family planning campaign. While regional Catholic leaders did protest against the Abortion Act, there generally exists widespread approval of the government's population policies.

ECONOMICS

The economic system and the level and pace of development in Singapore had by the mid-1960s already created an environment which was conducive to the successful implementation of the disincentives. The government program worked because it was, in some sense, already economically attractive to have smaller families. Already-falling fertility rates, a cash economy, and government control of many economic sectors all contributed to the public's propensity to have smaller families.

The Singaporean disincentives were thus intended to accelerate, not initiate, a transition to low, stable birth and death rates, a transition that was already well underway. This raises the question whether fertility rates must already be falling before disincentives may be expected to succeed as well as they have in Singapore. There are many hypotheses which attempt to explain why fertility rates decline in a demographic transition. Some theories posit that a fundamental economic shift occurs in which the costs and benefits of having children change. John C. Caldwell recently explained the phenomenon by stating that

48. *Ibid.*, p. 135.

49. *Ibid.*, p. 138.

50. *Ibid.*, p. 141.

economic incentives switch from encouraging unlimited childbearing to encouraging limitations on fertility.⁵¹

The mechanism by which the disincentives work combines the addition of a minor cost to childbearing with the subtraction of a minor cost from limiting fertility, thereby encouraging people to see sooner and more clearly the new economic benefits of bearing fewer children. A disincentive policy that added a major cost to childbearing would fail; it would be prohibitively expensive, repressive and difficult to engineer. Fundamental alteration of society through coercive means is not the objective of Singapore's disincentives. Rather, the program of legal measures only furthers pre-existing trends — Singaporean fertility had been declining for a decade before the disincentive program began.

The Wong and Salaaf subjects generally agreed that the disincentives were in their own best interest as well as in the state's interest.⁵² The disincentives promoted a condition — a small-family norm — that Singaporeans already favored for themselves and for their nation. Popular support for similar disincentives in other less developed countries cannot come about unless economic realities allow people to view smaller families as advantageous. The refusal of the Indian public to adopt widespread limitation of fertility in spite of a wide variety of incentives and disincentives suggests that strong economic motivation to have large families still remains, if one accepts Caldwell's assumption that economic structure is key to the decision to limit fertility. It is uncertain that had the economic value of the Indian incentives outweighed the benefits of large family size, the government measures would have met with any greater success.

From what is postulated above, it follows that the legal disincentives are likely to be effective only when fertility levels are already falling as a result of a relatively advanced economy. In such a system, health and nutrition conditions will very likely have risen to the point at which parents may not feel obliged to have more children than their preferred family size simply to insure that the desired number live to maturity. Additionally, an advanced economy is likely to include a greater participation of women in the workforce; in 1977, 41.6 percent of Singaporean women between the ages of 15 and 44 were working.⁵³ Improved health and nutrition, and increased labor force participation by women will, over time, add to the momentum of the declining fertility rates.

In terms of easing the implementation of disincentives, an advanced economy will exhibit a greater proportion of cash (as opposed to barter) transactions, thereby facilitating taxation and collection of financial penalties. This

51. John C. Caldwell, "Toward a Restatement of Demographic Transition Theory," *Population and Development Review*, Fall 1976.

52. Wong and Salaaf, *Exploratory Study*, p. 159.

53. *Twelfth Annual Report: 1978*, SFPPB, p. 13.

kind of disincentive system can exist only in a society whose government is capable of overseeing the social programs in the first place. With a good public school system, 80 percent of the people living in public housing, large medical subsidies, control of wage and labor guidelines, etc., Singapore administers many services and benefits that it can withhold at will; few developing countries are in as strong a position. State control of so many sectors of the economy permits considerable coherence and coordination of disincentives. Singaporeans now receive clear, uniform signals from the government as to its stand on preferred family size whenever they seek a service or product in most sectors of the economy.

REACHING THE POPULATION

The Singapore experience implies that a developing country must have achieved a relatively sophisticated ability to transmit information in order to succeed with a development accelerator like the disincentive system. First, in terms of administrative ability, the implementation of disincentives requires a bureaucracy that can assess the population situation. There must be an ability to gather and interpret statistics. Second, the administration must be capable of exchanging information from ministry to ministry. In many developing countries, this is not done because of political rivalries. Third, government officials must be efficient and capable; common problems include the lack of training facilities and the loss of competent people to the private sector for financial or political reasons. The creation and implementation of a sophisticated, coordinated system of disincentives requires a sophisticated administration. While Singapore has an efficient administration — based on the British model — most other developing countries do not.

The better a country's communications infrastructure, the easier it will be to implement laws to promote social change. The geography and topography of a country are crucial factors affecting communications capability. Mountains, seas, and size of territory all may hinder effective dissemination of information. Singapore is most fortunate in that no one lives farther than fourteen miles from the seat of government and the public is easily reached with any of the modern media. The lack of a hinterland, and the availability of television, radio and newspapers — government-monitored — gives the Singapore leadership an enviable ability to reach its citizens.

The educational system is important in facilitating a country's information flow not only because it offers an excellent means for the government to reinforce its message, but also because it can improve the people's ability to receive the message. Printed messages are of little use to the illiterate, and many people have not been trained to interpret pictures as meaningful symbols; in many countries, low educational levels impede governmental dissemination of infor-

mation. While education in Singapore is not compulsory, primary schooling is "free and universal."⁵⁴ Excellent facilities for education exist all the way through the university level. Singapore has actively promoted population education and family planning instruction in the public school system and through adult education.

The presence of religious beliefs that run contrary to government policy can make the public unreceptive to government messages. Overall, the international family planning movement has found religion to be a substantial barrier. But in Singapore, the religious obstacle has been all but eliminated. *Fortune* magazine recently reported that a minister quipped that the new national creed is "moneytheism."⁵⁵ In contrast to the situation in neighboring Malaysia and Indonesia, Islam and folk traditions that discourage family planning never set deep roots in Singapore. The Malays in Singapore tend to exhibit higher fertility than the Indians or the Chinese, but Malays form only a small minority of the population. The only religious opposition to the disincentives has come from regional Catholic leaders over the abortion issue.

Cosmopolitan Singaporeans do not associate themselves with a pro-nationalist religion, but with the government-fashioned "Singaporean identity," which includes conscientious practice of family planning. As a UN description noted:

This fact appears to be the keystone of success in Singapore: *that there is no opposition to family planning*. No religious leader, whatever his personal views may be, has made any pronouncement opposed to family planning. This is in part obviously due to the strong stance of the government. . . . Opposition from family elders, common in most Third World countries, only exists in a frail and minimal way. The extended family system has been greatly eroded, and this erosion is partly owing to the fact that the subsidized HDB units so much desired by the local population are essentially designed for a nuclear family. However, the SFPPB has not relaxed its publicity campaign, and is indeed stepping it up. Particular attention is directed towards the 40 percent of the population still under 15.⁵⁶

Thus has state ideology been substituted for traditional religions.

Only in Singapore do all the preconditions exist for the successful implementation of legal disincentives to discourage high-order births. Other developing countries suffer from a lack of ability or political will, an economic

54. *Singapore: Facts and Pictures* 1977, Ministry of Culture, p. 125.

55. Louis Kraar, "Singapore, the Country Run Like a Corporation," *Fortune*, July 1974, p. 154.

56. *Singapore*, UNFPA Population Profiles, p. 15.

system that discourages fertility limitation, an inability of the government to communicate, or religious opposition. Countries imitating Singapore's disincentives will have to pass higher development thresholds in many sectors before they may anticipate more than modest success.

IMPLICATIONS FOR LAW AND DEVELOPMENT

The main implication of the Singaporean example is that legal initiatives to promote development can work, but only in exceptional circumstances. The lesson to be learned from the Singaporean experience is that law as a tool to accelerate development is basically ineffective, at least in promoting fertility reduction. Indeed, the disincentives might be considered no more than a fine tuning device even in Singapore, the country where they have been most methodically and effectively applied.

A host of unusual social, economic and political circumstances combined in Singapore to create a situation wherein a complete disincentive program could be implemented and be successful. The factors that made the program viable in Singapore are lacking in most other countries, precluding the successful adoption of a similar web of laws to accelerate a fertility decline and consequently speed development.

CONCLUSION

A tension between the individual and the state developed in Singapore in the early 1960s, as the government increasingly came to view the traditional large family norm as an impediment to national economic development. Starting in the mid-1960s and continuing today, the government implemented laws to deter high-order births. The system of disincentives created financial penalties or inconveniences for certain categories of people through changes in: government hospital delivery fees; the income tax scale; maternity leave benefits; priorities for primary school registration; and child labor laws. Legal changes also made abortion and sterilization more accessible, and revised the public housing system so that it would no longer favor large families. The network of disincentives reflected the state's policy of guiding individual choice regarding family size toward a small-family norm without absolutely denying the right to have a large family.

The delivery fees and the revised income tax structure had the greatest relative impact because they were stringently enforced and affected the largest number of people. The educational disincentives were very important to upper-class parents seeking their children's entry into elite schools, and to people too poor to arrange transportation to schools outside their neighborhoods.

The psychological impact of the disincentives may be their greatest effect, although it is difficult to measure. It is also difficult to determine the net effect

of the disincentives on individuals because the system's impact varies widely from person to person according to one's tastes, wealth, and social position. However, indications are that the disincentives prohibited parents from attaining their desired family size in a very small number of cases. More frequently, parents viewed the disincentives as only one of the many factors influencing their childbearing decisions; in some cases, the measures had no impact at all.

Over the decade in which the disincentives were implemented, births of third and higher orders declined by over half, in terms of absolute numbers. While this implies that the state is achieving its demographic aims, it cannot be said with certainty that the disincentives were the main factor causing the reduction.

Singapore is uniquely endowed with a setting conducive to the evolution of a coordinated set of disincentives. The political leadership is steadfast in its commitment to economic development and the use of legal changes as a means to that end. The economic system imposes costs on large families and permits easy governmental structuring of prices, taxes and business rules in many sectors. The government has no trouble reaching the public with its message, thanks to a good administrative bureaucracy, good communications services, universal education, and lack of religious obstacles. Few, if any, other developing countries enjoy conditions so amenable to the creation and successful implementation of a coordinated, sophisticated set of legal disincentives to discourage high-order births.

Although some Singaporeans believe the disincentives to be an infringement of their rights, the majority perceive smaller families to be in both their private and civic interests, and believe disincentives to be a legitimate program for the state to undertake. Whether this is a considered opinion or one programmed by government advertising we cannot know. With respect to abortion and sterilization, individuals gained new rights as part of the incentive side of the disincentive system. It is debatable whether the measures constitute a violation of human rights.⁵⁷ In any case, the tension between the individual and the state over the disincentive system is low in Singapore. The legal disincentives to discourage high-parity births have furthered progress towards the state's goals and improved the situation of most citizens.

57. While the Singapore government may be financially forcing a small percentage of its people to have fewer children than they would like, it should be noted that unlimited births are permitted, provision of family planning services furthers human rights, and the legal disincentives typically withhold subsidies rather than impose penalties.