The Role of Coercion in Population Planning: The Evidence from Four Asian States

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https://dx.doi.org/doi:10.21220/s2-vr3r-nr28

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THE ROLE OF COERCION IN POPULATION PLANNING:
THE EVIDENCE FROM FOUR ASIAN STATES

A Thesis
Presented to
The Faculty of the Department of Government
The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirement for the Degree of
Master of Arts

by
Clarke Martin Cagey
1994
APPROVAL SHEET

This thesis is submitted in partial fulfillment of the requirements for the degree of

Master of Arts

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Approved, December 1994

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ACKNOWLEDGEMENTS

I would like to express my appreciation to my parents, Lee and Donna Cagey, for their patience and encouragement throughout my nearly nineteen years of education. I am deeply indebted to Professor David Dessler for his valuable guidance, and to Professors Donald Baxter and Stephen Ndegwa for their interest and helpful comments. Finally, I am grateful to all of my professors in the Government Department for making my undergraduate and graduate studies at William and Mary both meaningful and enjoyable.
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ABSTRACT

The purpose of this study is to evaluate the feasibility of population control in a democratizing developing world. The extent to which past population control initiatives have relied upon coercive measures to achieve program targets is taken to have implications for the future of population planning in a democratizing developing world. The urgency of discerning the relationship between the independent variable of coercion and the dependent variable of population control is underscored by a discussion of the evidence for imminent population-driven political, economic, and ecological disruptions.

The three main theoretical frameworks of development studies, institutional, cultural, and dependency/Marxist, are examined for implications pertaining to the relationship between coercion and population control. These basic frameworks are found to explicitly expect or tacitly imply a role for political coercion in achieving population targets, suggesting difficulty for maximizing the goals of population control and democratization concurrently.

Analyses of population policy in India, China, Thailand, and Japan, however, demonstrate that population control may be achieved in an urbanizing and industrializing state through strictly voluntary means, given long-term and consistent governmental commitment to a comprehensive strategy for reducing births and improving the status of women. This finding, derived from time series data on population growth rates, fertility rates, urbanization rates, and female educational indicators, bodes well for the prospects of population control in a democratizing developing world. Further examination of the cases, though, illustrates that the independent variables of urbanization/industrialization and female empowerment influence population growth rates and fertility rates in the longer term, while coercive policy measures have utility for realizing rapid and notable reductions in these indicators. Nevertheless, the case data also suggest that in addition to the difficulties a coercive strategy will encounter in a democratizing environment, coercion may also be impracticable as a long-term or permanent strategy.
THE ROLE OF COERCION IN POPULATION PLANNING:
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Population issues have returned to prominence on the international agenda, as seen in Cairo last summer. Population planning has attained this newfound prominence, however, in an era of profound political transformations. The march of modern information technology and the seeming triumph of Western socio-political arrangements in the international system suggest that authoritarian political institutions and practices are increasingly untenable in the modern world. In this analysis, I address the question of whether the resolution of the global population problem will be hindered by the ascendancy of democratic values in the post-Cold War international system. Toward this end, I will be examining the extent to which successful population control initiatives in China, India, Thailand, and Japan have hinged upon using coercive tactics to achieve population targets. By using qualitative and quantitative data, I will ascertain the extent to which an independent variable, political coercion, determined population growth rates and fertility rates. Consideration will also be given to other independent

\[^{1}\text{Hereafter the independent variable "political coercion" (or more generally, "coercion") is taken to refer to such authoritarian tactics as involuntary sterilization, mandatory abortion, and "recruitment" of individuals for family planning measures through forcible roundups or raids. The presence of any one of these phenomena, or more, is taken to be "political coercion" for the purposes of this analysis.}\]
variables (such as urbanization, structural characteristics of the population programs, and empowerment of the female population) that could affect population indicators.

The forces of democratization, of course, make coercion a less viable strategy for controlling population numbers in any state. While the data indicate that coercion has been--at the least--a sufficient condition for dramatic short-term decreases in population growth rates, they also suggest that states can have both democratic institutions and reap the benefits of population planning, if several conditions hold. The case analyses which I examine suggest that the population bomb may be defused voluntarily in an urbanizing state, given a consistent and long-term governmental commitment to (1) population planning and (2) improving the status of women. Indeed, given population momentum and the apparent time requirements of success with voluntary measures, I venture to suggest that a cautionary note is in order for those who hold unrealistic expectations about voluntary measures as a "quick fix" for the population problem. Finally, although coercive measures are found to have practical effect in attaining rapid reductions in population growth rates and fertility rates, consideration will also be given to the possible limitations of using coercion to achieve program targets. Coercion, it is found, may be an unsustainable practice over the longer term, even if one sets aside the normative issues of democratization.
Malthus: Now more than Ever

Why population control become such a salient policy area? Alarm about population growth rates stems from evidence that the world has unwittingly stepped into a modern-day Malthusian Trap. Many of today's events appear to confirm a logic first put forward by the English economist Thomas Robert Malthus at the turn of the eighteenth and nineteenth centuries:

Assuming, then, my postulata granted, I say, that the power of population is indefinitely greater than the power in the earth to produce subsistence for man.

Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio. A slight acquaintance with the numbers will show the immensity of the first power over the second.

By the law of our nature which makes food necessary to the life of man, the effects of these two unequal powers must be kept equal.

This implies a strong and constantly operating check on population from the difficulty of subsistence. The difficulty must fall somewhere, and must necessarily be felt by a large portion of mankind. . . .

Should no preventive strategies be enacted to control population growth (namely, self-control and delayed marriage), Malthus argued that "positive checks" of warfare, famine, and disease would place limits on population numbers. Other social scientists and analysts of the population question have derided the mathematics that undergird this argument. Indeed, the history of his own era might suggest that Malthus was a crank: in the nineteenth century, improvements in

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transportation, agriculture, and the development of the New World yielded an increased food supply.\(^3\) No "positive checks" emerged to place limits on population numbers. Nor were any needed.

Yet it may be in our own era—at the cusp of the millennia and toward the middle of the next century—that we see the Malthusian logic, however unfortunately, validated. The independent variable behind many of our current ecological, political, and economic dilemmas seems to be population numbers, just as the Rev. Malthus would have maintained.

According to the intellectual heirs of Malthus, the problems that correlate with ever-increasing population go beyond warfare, famine, and disease. The neo-Malthusian argument now encompasses the additional issues of mineral resource scarcity, unprecedented environmental degradation, the sustainability of development in the Third World, and (possibly) the sustainability of industrial civilization on Earth. Some argue that the modern Malthusian arguments are no more tenable in our era than Malthus' were in his own time. In looking at the numbers, however, I doubt anyone—social scientist, politician, "man in the street"—can argue convincingly that the world's current population growth rate, if unchecked, will produce no noticeable effects on life on

Earth. Instead, I argue that while the scope of the effects of rapid population growth may be open to debate, even the possibility of major disruptions is enough to make one question whether ignoring population growth is an intelligent strategy.

The Population Bomb: Ticking Louder Still...

In 1800, world population had just surpassed one billion people. Between 1800 and the Great Depression (130 years), this figure doubled. By 1992 (a short sixty-three years later), there were 5.5 billion people on Earth. At the turn of the millennia the Earth will be supporting 6.4 billion human beings. Most demographic extrapolations predict a 2100 world population somewhere between 7.5 and 14.2 billion.

The lower-bound projection may not be alarming to the unconvinced, as it anticipates only an additional 2.0 billion people between now and 2100. The upper-bound projection, however, might disturb many of those skeptics unfazed by the lower-bound figures. Even they might have to admit that the effects of an additional 7.8 billion people placing demands upon the Earth's resource base by 2100 is cause for concern, as 7.8 billion is more people than currently inhabit the Earth.

This more than doubling of the Earth's population could have catastrophic effects. Particularly disturbing is the possibility that these effects might mutually reinforce each other, creating a doomsday spiral of neo-Malthusian horrors: it is entirely possible that we may live to see an increasingly hungry, diseased, and volatile (both ecologically and politically) world. The developed world might be able to ignore the early symptoms of the population crisis, which may appear first in the developing world. Early symptoms of what is to come conceivably include a massive expansion of atmospheric pollution from the burning of fossil fuels, skyrocketing reports of AIDS (accompanied by other, "older" plagues), and a prevalence of famine from the farming of unsustainable land. Yet, in an interdependent world, few or none of these problems will be contained by traditional state borders. To bank on fertilizers (with their own negative side effects), miracle vaccines, and alternative energy sources (plausible in the developed world, less so for the developing world), and other technological quick-fixes of "progress" (i.e., space colonization) to solve population-driven crises seems innocent, given the magnitude of the population growth discussed above. Costs to political systems could be huge, and we might expect to see more unprecedented political problems arise. For instance, what happens in a world of 15 billion when a state devastated by population-related ills (shortages, famine, disease, little sustainable land) holds in its hands
a nuclear card? A world of 15 billion would probably have a much more tumultuous political environment—even if it never comes to nuclear blackmail.

**Democracy's Ascendancy**

If these phenomena are population-driven, then the obvious solution is to control population numbers. At the macro level, the international system has a stake in warding off global crisis. On the other hand, the constituent states of the international system—particularly those of the developing world—have other motivations to contain population growth. Third World states often find that population-driven ills (resource shortages, famine, disease) undercut gains that would otherwise be realized in economic and social development. Indeed, the goals of economic and social development have been the primary motivations to enact population planning policies in the four states considered here.

While population momentum presses the developing world, so too does the ideological force of democratization. Since the fall of the Berlin Wall, the collapse of Communist regimes in Eastern Europe and the eventual disintegration of the Soviet Union into a "Commonwealth of Independent States," democracy (with its ubiquitous companion, the free market) has emerged as the predominant political paradigm. Of course, the discrediting of centrally-planned and authoritarian models of
governance has not meant an easy and immediate worldwide transition to democracy and open markets. Nevertheless, an increasing number of actors now evaluate the worth of political systems—and political leaderships—using democracy and open markets as the basic standards of judgement.

Thus the looming population question discussed above has been inherited by Third World governments that are increasingly pressured—by their own citizens, by other states, by interdependence itself—to adopt the liberal norms of Western political arrangements. If the success of these population programs in the past has hinged upon the use of coercive tactics to meet program targets, then the Third World states of today, influenced by a democratizing environment, may have difficulty in controlling their population growth. Furthermore, if coercion has been a critical ingredient of the population policies of these states, then defusing the global population bomb in a democratizing environment will be difficult.

Coercion, Population Planning, and the Development Literature

Population control is essentially a development issue, and development, of course, has been a major preoccupation of policy-makers and the discipline of comparative politics since the end of World War II. Indeed, the emergence of Third World and the Warsaw Pact states rattled some of the latent assumptions of the comparative discipline. Prior to the post-
War era, comparative politics had remained largely a descriptive, normative, and legalistic endeavor.\(^5\) As such, many of the tools comparativists had used (e.g., studying constitutions, legislatures) to analyze political systems were not helpful in assessing the question of development.

Three main arguments, or groups of arguments, may be discerned in the post-War literature on Third World development. Instead of examining the merits of the three as theory, I am content to discern what the arguments imply about the role of political coercion in population control: inasmuch as they speak to the issue of population planning, do they suggest that political coercion will be a necessary or sufficient precondition for controlling population growth in the developing world? If the main frameworks of development studies persuade one to expect that population control will be accompanied by coercion, then one has more reason to expect difficulties in controlling population growth in today's democratizing world. The three approaches to the development questions considered here are the institutional, cultural, and dependency/Marxist arguments.

Institutions

As advanced by Samuel P. Huntington, the institutional argument speaks mainly to political development, which is not to be confused (in this case) with democratization. For him, the key concept is mobilization, in which the politically relevant strata of a state's population expands greatly. Increased mobilization walks hand-in-hand with modernization, which brings a developing state higher literacy rates, increased exposure to mass media, and increased urbanization. A modernizing society thus produces a mobilized populace; the number and sophistication of those who make demands upon political institutions multiplies. The danger to a modernizing society is that this increasingly-mobilized populace will overwhelm fragile political institutions with demands for scarce resources and services. This, in turn, produces a situation of political decay rather than political development. Political development is the converse, equated, of course, with strong, adaptable institutions.6

Taking steps to decrease mobilization while building strong institutions is one way out of this dilemma. Such steps could include limiting mass communication or discouraging competition among groups, as was done in developing states such as Singapore and South Korea. However, this itself suggests that Huntington's fundamental concern is to maximize

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order. Order, from the perspective of this argument is the main precondition to any kind of development, whether political or economic.

Thus the institutional argument about Third World development does not speak directly to the issue of controlling population numbers, nor to the necessity of coercion. When considered, though, the Huntingtonian logic would allow that population control is, in fact, a most extreme measure for dealing with the modernization-mobilization crisis. If modernization brings mobilization, which left unchecked strains the capacities of weak political institutions, then a restrictive population policy is the most comprehensive means to limit the number of potential demand-makers in a state. If the economy may be grown and institutions strengthened over time, both would be less likely overtaken by a mobilized citizenry: there would be fewer people, and thus fewer mobilized people.

Thus one sees that the institutional logic allows a role for population planning, even though Huntington does not address the issue directly. It is also silent on the issue of coercion, but given the institutional logic's fundamental concern with order over "justice," it cannot be said to disallow coercive measures if population control would assist in slowing mobilization. On the other hand, if coercive

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7 Huntington readily admits his partiality for "political stability," or order, in his Preface. Please see Huntington, vii.
measures would increase discontent, demand-making, and disorder, then this logic would suggest that they are counterproductive.

Culture

Like the institutional approach, a cultural approach to the development question suggests that Third World states have challenges along the path to development. In this view, however, the determinative factor is the shared cultural traits, norms, and values found among the people who reside in a state or a region.

Christopher Clapham argues that what links the states of the Third World is their neopatrimonial culture, in which rational-legal structures inherited from a colonial power overlay a grid of lord-vassal relationships from a traditional patrimonial system. The result is a patron-client state where corruption and patronage are endemic, making allocations of resources inefficient (e.g., the road goes to the wrong place). This behavior is accepted by the neopatrimonial culture and "condemned only so far in as it benefits someone else rather than oneself." Culture is also advanced by Lawrence E. Harrison as the main explanation for underdevelopment. Though he concentrates on Latin America, he

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8 Christopher Clapham, Third World Politics: An Introduction (Madison, Wisconsin: University of Wisconsin Press, 1985), 49.
notes how the cultural argument may be applied to other regions as well.\(^9\) The traditional Latin American culture, Harrison wants to prove, creates an inertia that makes development difficult. He argues that the states in Latin America that escaped mainstream Latin American culture through historical and cultural circumstance are also the most "developed" according to important economic and social indicators. The states that did not escape that culture have a laundry-list of traits (he's careful not to say deficiencies) that retard development, including several that resemble conceptually Clapham's understanding of neopatrimonialism.\(^10\)

As argued by these comparative scholars, the cultural logic (as with the institutional one above) does not speak directly to the issue of population planning. Both analysts emphasize particular cultural traits that must be overcome in order to achieve "development." Yet by locating the explicans in culture, the cultural logic touches upon a critical issue in population planning. Population control policies in China and India, for instance, have been paired with extensive socialization efforts designed to inculcate a new set of values. In doing so, the Indian and Chinese governments are

\(^9\)Please see Lawrence E. Harrison, Underdevelopment is a State of Mind (Lanham, Maryland: The Harvard University Center for International Affairs and the University Press of America, 1985).

\(^{10}\)Ibid, 146.
attempting to overcome the cultural inertia that permits or often values large families.

Thus, on the subject of population planning, a cultural logic does not exclude the possibility that the value placed upon large families is another development-hindering cultural trait. Furthermore, by positing causality in culture, which should normally be resistant to easy manipulation, the cultural argument anticipates a role for political coercion in achieving targets set by a population plan.

Dependency and Marxist Arguments

The dependency argument has a lineage that extends back to the Marxist-Leninist critique of international politics. Furthermore, the forefathers of this approach, Marx and Engels had some very choice criticisms reserved for Malthus, whom they regarded as a bourgeois sycophant.11

The dependency logic suggests (true to its heritage) that development in the Third World is made impossible given that states there are systematically impoverished by the international capitalist economic system. The main players in the international capitalist system are the developed core (the West and other industrialized states) and the underdeveloped periphery (the Third World). The systematic

impoverishment of the Third World is portrayed as the inevitable result of the international capitalist system: the core imports raw materials bought at low prices from the periphery, and the periphery buys the finished products (made from the raw materials) back at a higher price. This uneven transfer is accomplished by the multinational corporations of the capitalist economies with the collaboration of the dominant elite class in a Third World country. The "comprador" elite has economic interests in common with the elite of the core states and their colleagues in the multinational corporations (MNCs).¹²

As the problems of underdevelopment and impoverishment in the developing world are wholly results of an international economic system, so too is the "population problem" created that system. The population problem (which the political and economic institutions of the developed world—or core—now need to "control") is twofold: The nascent core states exported "death control" technologies (modern medicine) to their overseas territories and colonies (which later became "the developing world"), but refused to invest in industrial job-creation technology in those same territories, preferring instead to keep these areas as captive providers of raw materials. When international capitalism did finally invest in these territories, it brought in "overdeveloped" technology

"perhaps a bit too backward for serious competition with [the capitalist states'] production but always too advanced and capital-intensive to give much work to idle hands." Thus, between "death control" and "disemployment," the developed world has created the so-called population problem, and needs to eliminate the resultant people, who are a waste (economically) and a potential threat (politically).

Implications of the Development Literature

Clearly, of the three main approaches to studying development in the Third World, the Marxist/dependency conceptual framework is the one that most directly addresses population control as a development issue, but it does so by dismissing the need for such policies as chimerical. It also readily suggests that coercion will be used to achieve decreased population growth rates, with the core states acting through their comprador agents to eliminate the "excess" people. However, as we shall see, Maoist China's leadership (hardly "comprador" agents) has generally seen population control—far from being a plot of the developed West—as necessary to attaining its own development goals. An analyst (and, presumably, the Chinese leadership) would be hard-pressed to understand the role of coercion in Chinese population policies as driven by international capitalism: thus one should question the Marxist/dependency assertion that

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13 Steve Weissman, forward in Meek, xvii.
the need for population control is essentially chimerical.¹⁴

This brief survey has indicated that the cultural and institutional conceptual frameworks do not address the population issue directly. On the other hand, by applying their respective logics to the issue of population control, one sees that either argument may lead an observer to expect instances of coercive policy. By placing causality in culture, the former immediately raises the specter of cultural resistance to population planning. Faced with cultural inertia, a regime bent upon achieving development goals may have to resort to coercive tactics to effect dramatic change in population growth rates. The institutional logic, on the other hand, underscores why a regime may feel that its development goals hinge upon solving the population problem: fewer people mean mobilized demand-makers are less likely to overwhelm the regime's capacity to deliver the benefits of "development."

Four Population Planning Initiatives Assessed

We have seen above that the issue of coercion and population control is worth examination in political science, given the ascendancy of democratization and market

¹⁴A more detailed discussion of the Chinese leadership's attitude toward population planning is forthcoming below. Population planning has indeed been a hotly-debated ideological issue among the PRC's elite, but for most of the last twenty-odd years debate has centered upon how rigorous population policy should be, instead of whether to have a policy.
liberalization over authoritarian and central planning models of governance. Moreover, I have surveyed the population issue from the perspective of the three predominant approaches to development, each of which suggested—or allowed—that coercive tactics would be employed in meeting population targets. The development literature, then, implies difficulties for regimes attempting to maximize the goals of population planning and democratization concurrently.

Now I turn my discussion toward the assessment of several case studies: the population policies of the governments of China, India, Thailand, and Japan. Since World War II, each of these governments has embraced population planning, generally undeterred by anti-Malthusian arguments. Perhaps more persuasive than the anti-Malthusian arguments has been the evidence that population growth rates in the developing world outpace what the rates of today’s developed states were at comparable income levels. Fearful of population growth rates undercutting what otherwise would have been economic and social development—and perhaps political development, if existing governing institutions were to be overwhelmed by demands by an ever-growing populace—the governments of India, China, Thailand, and Japan have responded with policies of population planning.

I will first present brief histories of population

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policy in China, a modernizing authoritarian regime; in India, one of the few developing states that has maintained democratic government since independence (save for the 1975-1977 Emergency period); in Japan, whose nascent democratic state needed much "re-development," in the political and economic upheavals engendered by World War II's aftermath; and in Thailand, which, like many developing states, has had trouble sustaining democratic institutions in the post-war period. My intention in these sections is to document the evolution of these policies, with particular reference to coercive interludes: such documentation will provide a context to the quantitative analysis. There, I will correlate reports of coercive tactics with annual data from the four states, assessing the role coercion played in controlling population momentum, and the how other variables may have contributed to braking this momentum.

Generally User-Friendly: India's Policy

Shortly after Independence, a centralized Planning Commission was appointed in India to develop a plan for balanced and effective use of natural resources to speed economic development. The Commission's First Five Year Plan (1951-56) recognized that reasonable family planning measures would be an important determinant in speeding economic
development.\textsuperscript{16} However, in this early phase the government moved cautiously: the exercise remained largely an academic and experimental one.\textsuperscript{17} Even so, 21 rural and 126 urban family planning clinics were opened during this period.\textsuperscript{18}

The Second Five-Year Plan (1956-1961) continued and expanded the "clinical" approach to family planning; authorities expected that people would avail themselves of clinic services. Not as successful as expected, this approach gave way to a "community extension" strategy in 1963, midway through the Third Five Year Plan. The idea was to provide family planning services close to people's homes through an enlarged network of primary health centers while conducting an intense educational campaign to lift taboos on open discussion of family planning.\textsuperscript{19}

The next several years brought great changes to population control measures in India. In 1965, the IUD gained prominence, hailed as the "one cure" to family planning.\textsuperscript{20} Shortly thereafter, in 1966, the government established a full-fledged Department of Health and Family Planning to

\textsuperscript{16}Mahendra K. Premi, The Demographic Situation in India, No. 80, Papers of the East-West Population Institute Series (Honolulu, Hawaii: East-West Population Institute Press, 1982), 54.

\textsuperscript{17}Georgia Lee Kangas, Population Dilemma: India's Struggle for Survival (New Delhi, India: Mayfair Press, 1985), 98.

\textsuperscript{18}Premi, 54.

\textsuperscript{19}Ibid.

\textsuperscript{20}Kangas, 105.
administer the population control program, under both time-bound and target-oriented goals.\textsuperscript{21} This specificity of targets and time-frame, combined with the "one-cure" approach, seems to have set the stage for the excesses of the Emergency period.

In the years immediately prior to Indira Ghandi's 1975 Emergency proclamation, sterilization (tubectomy and especially vasectomy) had become the "one-cure" approach to population control in India. Modeled on a successful program in Kerala State, sterilization centers and mobile units became common across India.\textsuperscript{22} The Center built cash incentives into the program, and many states added negative incentives such as preventing families with more than three children from receiving educational or food benefits.\textsuperscript{23} In the atmosphere of the Emergency, obsessiveness about meeting the centrally-set targets filtered down from the Center to the state and local authorities. Rumors recounted raids on villages by local officials and compulsory roundups of the poor, the untouchables, the uneducated, and Muslims.\textsuperscript{24} Furthermore, in the Emergency period, much of the government's own civil

\footnotesize{\begin{itemize}
\item \textsuperscript{21}Premi, 55.
\item \textsuperscript{22}Ibid., 56.
\item \textsuperscript{23}Kangas, 115, 120.
\end{itemize}}
service was alienated when promotions were made contingent upon proof of sterilization. When Indira Ghandi called elections in 1977, the damage had been done to both the population control program and the Congress Party. The Janata Party and its allies exploited the issue—as well as other arbitrary abuses of power during the Emergency—and took 330 of 542 Parliamentary seats, promising to downsize and reorient the population program around strictly voluntary measures.

Indira Ghandi, upon her return to government in 1980, raised the family planning budget in the Sixth Five Year Plan (1980-1985) over its Janata levels—but it still remained a smaller percentage of the total development budget than it had been from 1969 to 1977. Indian population policy has since emphasized voluntary family planning. The current state and prospects of the population control program is captured in the words of one recent commentator:

"If we really succeed in [population control], India will... do so by adopting [a] voluntary family planning programme."
Slave to (Ideological) Fashion: China's Policy

In the early years after the Revolution, the Chinese Communist Party was most interested in rehabilitating a war-damaged economy and had a tendency to believe, "the more Chinese, the better." Thus no population control policy was promulgated in the early days of the PRC, despite China's high birth rate and now lower-than-ever death rates. Policies and propaganda indicated that the building of socialism in China would both require and provide for as many Chinese as possible.

By 1953, the new regime had second thoughts—it found that population pressure had undercut improvements in living standards, education, housing, and medical care. That year, the Government Administrative Council, predecessor to the State Council, instructed local health authorities to help the public with contraceptive measures, and it simultaneously eased restrictions on abortion. In 1957, Mao Zedong himself issued a statement supportive of population control. Shortly thereafter, in the disruptions engendered by the Great Leap Forward, a reaction to the population program began. In this new ascendancy of "leftist" population theory, the message "the more, the better" was again emphasized to the


30 Ibid., 58.

31 Ibid., 60.
Chinese, and anyone advocating population control measures was derisively labeled "bourgeois Malthusian." After the 1958 Great Leap Forward commenced, peasants were busy producing poor-quality backyard steel. They had little time to harvest their crops; in the ensuing "Great Leap Famine," fertility dropped dramatically. Thus the government's renewed emphasis on "the more, the better," from the late 1950s to the early 1960s becomes a bit more comprehensible.

In 1962, there was another population policy reversal. The State Committee again called on localities to provide education about family planning and, for the first time, to produce and supply adequate amounts of free contraceptive devices. Abortion and sterilization were also made still easier to obtain. Propaganda complemented this renewed interest in population control, and the government warned young people of the consequences of early marriage: men would dissipate their bodily fluids and women would endanger their own health as well as the health of their child. The press promoted the two-child family ideal, and tried to popularize

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32 Ibid., 62.


34 Hou Wenruo, 63.
a variety of contraceptive alternatives.\textsuperscript{35}

Yet this interest in population control was also short-lived. During the Cultural Revolution (1966-1969), population control efforts ceased.\textsuperscript{36} Unbridled population growth, though, soon undercut improvements in urban housing and education. Population policy commanded more attention after 1970. By 1974, Mao had re-emphasized that population numbers must be controlled, and the regime made family planning a citizen duty in the Fifth National Peoples' Congress.\textsuperscript{37} Throughout the mid- and late 1970s, the Chinese government began to offer numerous incentives for family planning, such as resuming to supply free contraception and offering "sick leave" for abortions or sterilizations.\textsuperscript{38} However, this renewed interest in population control throughout the 1970s had a darker side as well: As in India, local authorities became trapped between targets mandated by the center (to reduce China's population growth rate to 1 per 100 by 1980) and the impossibility of achieving this target by voluntary measures alone. Thus there is much doubt about how "voluntary" the steep rise in IUD insertions (1971--6 million, 1973--14

\textsuperscript{35}Bannister, 150.

\textsuperscript{36}Hou Wenruo, 64.

\textsuperscript{37}Ibid., 66.

million, 1975--17 million) really was throughout the 1970s. 

In 1979 the government initiated its call for the single-child family. Despite early mixed signals from government and Party about the seriousness of this policy, the significance of a particularly strong statement in June 1982 by Premier Zhao Ziyang (re-emphasizing strict controls on second births, and the prevention of third births "by all effective means") was not lost upon provincial and local authorities. The Center effectively placed these authorities in an even tighter bind than they had faced in the 1970s. In this political atmosphere, authorities no longer had to monitor unauthorized pregnancies or waste time "counseling" women to have abortions; instead, they increasingly opted for the permanent birth control that India had promoted in the 1970s. Sterilization increased sharply in 1983 (80% of those sterilized were female), much of which was reportedly coercive.

A more moderate approach to population policy began in 1984. The regime allowed more "exceptions" to the one-child rule, publicly disavowed coercive tactics, and decided to base family planning work on "local conditions." Aside from

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40 Kane, 186.

41 Ibid., 93; also, Aird, 33.

42 Ibid.
upsetting the masses, coercive tactics were rather incompatible with the rural "responsibility policy," which dismantled collectivized agriculture and gave incentives to peasants to produce more (children are thus seen as hands, not mouths). Many authorities took this "relaxation" as effectively abolishing the one-child rule; this impression was further underscored by a 1988 decision to let some rural couples have a second child if the first was a girl.

A New but Reliable Contender: Thailand's Policy

Unlike China or India, Thailand did not implement any kind of official population control policy until 1970. Indeed, by the 1950s, Thailand's government had held a pronatalist population policy for half of a century. Even while China and India lurched toward population planning in hesitant steps, Thailand continued as recently as 1956 to offer bonuses for large families. The government reconsidered its position after a 1959 World Bank mission issued a report on the demographic situation in Thailand. The report suggested that a pronatalist policy could seriously hinder economic

43Ibid., 18, 33.
44Ibid., 18.
development plans.\textsuperscript{46}

Shortly thereafter, the government appointed study committees and then sponsored several national population seminars after 1963. These early investigative efforts into the population issue culminated in a 1964 pilot project in a rural district some fifty miles from the capital of Bangkok.\textsuperscript{47} Throughout the rest of the 1960s, the Thai government took steps to make birth control information more accessible to women who wanted it, even though it did not officially endorse population planning and birth control until 1970. Furthermore, it allowed missionary hospitals in the rural north to use injectable contraceptives after 1966.\textsuperscript{48}

The government focused much of its initial activity, however, in the hospitals and clinics of Greater Bangkok.\textsuperscript{49} There, the government instituted postpartum programs for permanent or semi-permanent contraception (IUDs, female sterilization) immediately after giving birth.\textsuperscript{50}

In 1968 the government created a population taskforce within the National Economic and Social Development Board, and


\textsuperscript{47}Ibid., 174.

\textsuperscript{48}Ibid., 175.

\textsuperscript{49}Goldstein, 99.

\textsuperscript{50}Knodel, 175.
delegated to it the task of issuing a final recommendation on the population question. The taskforce's research, combined with the efforts of the Ministry of Public Health and the National Research Council, resulted in the 1970 declaration by the Thai cabinet that the new, formal population policy would be to slow population growth.\(^{51}\)

In accordance with the new policy, the government established the official National Family Planning Program to coordinate voluntary family planning efforts in Thailand. Throughout the next several years, the antinatalist population policy remained in place despite changes of government; a clause in the new 1974 constitution enshrined the importance of population matters to the welfare of the Thai people.\(^{52}\)

Because of the preliminary moves toward dissemination of information about birth control in the late 1960s, public health personnel in most provinces already had some familiarity or training in family planning. Furthermore, many family planning services were placed directly under the Ministry of Public Health after 1970. Thereafter, the Ministry integrated its existing extensive infrastructure of child and

\(^{51}\)Ibid., 174.

\(^{52}\)Mya Saw Shin discusses the 1974 constitution at length in The Constitutions of Thailand (Washington, D.C.: Law Library of the Library of Congress, 1981), 52-55, microfiche. Articles 27-53 describe the rights of the Thai people; Articles 54-61, the Thai people's duties; and Articles 62-94, a list of "directive principles" for the regime, which includes an assurance that a population policy "consistent with Thailand's level of economic and social development" will be implemented.
maternal health centers with the family planning services.\textsuperscript{53}

After the promulgation of the 1970 policy, the Ministry of Public Health expanded the postpartum program of IUD insertion and sterilization beyond Bangkok to its regional hospitals and clinics. Injectable contraceptives gained widespread use in government hospitals and clinics after 1975. Also increasingly prevalent in the 1970s was a Thai-pioneered female sterilization procedure that required little in the way of elaborate equipment or technical training. After 1976, the government eliminated the nominal charges associated with this procedure as well as with IUD insertion and oral contraceptive prescriptions. In the 1980s, a long-acting subdermal contraceptive has been piloted within the National Family Planning Program, although sterilization has become the most emphasized procedure in the program's educational campaign.\textsuperscript{54}

Since 1971, the government has supplemented this hospital- and clinic-approach to family planning with a community extension strategy that allows trained nurses and midwives to distribute oral contraceptives through 3,500 health stations, which are more accessible to the rural population than the 350 government-sponsored health clinics. Village health volunteers are now permitted the pill-distribution function as well. By


\textsuperscript{54}Knodel, 175, 177.
1983, the Ministry of Public Health instituted a program to train the nurses and midwives in administering injectable contraceptives, further augmenting the role of the village-level health-care providers.  

Reading Between the Lines: Japan's "Policy"

On the crowded islands of Japan, the population question emerged as a policy issue rather earlier than in the other Asian case studies under consideration. The Tanaka Cabinet appointed a Commission on Population and Food as early as 1927. Among its recommendations was a "reasonable" diffusion of information and contraceptives. However, the Commission's other recommendations reflected the tenor of the times in Japan. Aside from population control through voluntary family planning, the Commission also urged external colonization.

Throughout the 1930s, Japan's government remained lax in its enforcement of anti-abortion laws. Concurrently, though, the Japanese leadership fretted about the downward drift in fertility from industrialization and urbanization, both of which stemmed in large part from militarization. If the downward drift continued, the leadership feared, Japan might lose the abundance of manpower that enabled and excused

55 Ibid., 176.
military expansion. Japan's leadership linked population growth to a "grand project," just as post-Revolutionary China later would: it was argued that building the Greater East Asian Co-Prosperity Sphere would both require and provide for as many Japanese as possible.

The Allied victory in the Pacific War crushed immediate hopes for establishing a Japanese-lead economic order in East Asia, for Japan's own economy and politics were in disarray. The islands were occupied by a foreign power, and Japan could not secure markets for manufactured goods or find sources of raw materials. Despite the loss of a significant portion of the marriageable male cohort, by 1947 fertility remained quite high, a result of years of pre-War and wartime socialization efforts. Given the impossibility of territorial expansion, the density of population, and the need for capital accumulation to rebuild the economic base of the islands, the Japanese leadership, with the tacit approval of the occupation authorities, moved toward an unofficial antinatalist population policy in the late 1940s.

The solution emerged in the form of a modification of the 1940 National Eugenic Law. As revised in 1948, it effectively

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57 Ibid., 266.


59 Taeuber, 369.

60 Taeuber, 369; also Hodge and Ogawa, 2.
legalized abortion, contraception, and sterilization in Japan, although the 1948 law and the revisions to it were advanced primarily as measures to eliminate inferior descendants and protect some women from the health hazards of pregnancy. The first provision of the 1948 legislation regulated voluntary—and in some cases compulsory—sterilization if particular hereditary or infectious diseases were present in the parents. Later revisions to this section allowed sterilization for maternal health reasons. The second provision of the 1948 law permitted abortions subject to the discretion of the physician, the wishes of the woman and her spouse, and, in some cases, the approval of the local Eugenic Protection Committee. This second provision required nominal justification under broadly-defined maternal health or economic criteria. The Eugenic Protection Committees were eliminated after a 1952 revision to this section of the legislation.  

Finally, the third provision of the 1948 Eugenics Law effectively legalized contraception, which had been illegal to discuss before and during World War II.  

The government gave physicians (and later, licensed nurses and midwives) in Public Health Centers responsibility for contraceptive assistance and the dissemination of

61 Ibid., 269.
Throughout the period of the late 1940s, various commissions and committees made inquiries and recommendations on the population problem in Japan, while the government still eschewed official population control policy. One such committee, the Population Planning Committee, favored strengthening the compulsory sections of the 1948 National Eugenics Law in order to improve "quality," but the government ignored its recommendations. Although the government's official measures continued to be linked medical and eugenic reasons, it increasingly made its position clear on the need to limit the growth rate. From 1947 to 1950 the Prime Minister's Statistics Bureau reminded the Japanese public of the islands' high number of births, their low number of deaths, and the size of their population versus the size of the labor force.  

By the mid-1950s, most ordinary Japanese had knowledge of the new, unrestricted abortion laws and the clinics in which one could secure abortion or contraceptive services. People had availed themselves of the services to such degree that the government began to worry about halting the decline in fertility. In the decade after 1947 the government

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63 Taeuber, 270.
64 Ibid., 372-373.
65 Mosk, 201.
66 Taeuber, 375.
witnessed the dramatic 50% decrease in the crude birthrate, and by 1957 a replacement level of fertility was achieved. Ever since the late 1950s, fertility has fluctuated over a very narrow range; the annual rate of population growth has remained just above or below 1.0 per 100 people, and since 1975-1976, has tended toward below 1.0 per 100 people.\textsuperscript{67} Thus the Japanese government has not needed elaborate strategies for population control as have the governments of China, India, and Thailand.

\textbf{Lower Population Growth Rates: Is Coercion the Key?}

Here I will attempt to assess the performance of these four population control efforts. Aside from the independent variable of political coercion in these policies, I will consider the role that several other variables might play in decreasing rates of population growth. For India, China, and Thailand, I have gathered population data from 1963 to 1991, a period of twenty-eight years. For Japan, the relevant data are from an earlier period, pre-World War II up until 1960, a period of forty years. From the data sets of each state, I have also calculated an annual growth rate of the population. I will now consider whether political coercion or some other variable best explains the results within and across cases. If

reported political coercion correlates with lower rates of population increase, then we must consider the consequences for keeping population numbers in check in a democratizing world.
Table I
Annual Rate of Population Growth in China, India, and Thailand

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
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<th>India</th>
<th></th>
<th>Thailand</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pop. in Mill.</td>
<td>Annual Growth Rate per 100 people</td>
<td>Pop. in Mill.</td>
<td>Annual Growth Rate per 100 people</td>
<td>Pop. in Mill.</td>
<td>Annual Growth Rate per 100 people</td>
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<tr>
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<td>482.7</td>
<td>2.240</td>
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<tr>
<td>1966</td>
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<td>493.4</td>
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### Table II
Annual Rate of Population Growth in Japan

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</thead>
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<tr>
<td>1960</td>
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</table>

Coercion correlates well with the population growth rates observed for China and India in Table One. Specifically, China's rate of population growth decreased dramatically during the first interval of coercive tactics (approximately 1971-1979), and the second interval (approximately 1981-1984). India's growth rate also noticeably dropped during the Emergency period (1975-1977), when Indira Ghandi's regime resorted to coercive tactics. On the other hand, it is also obvious that other independent variables are operating as well; they will be considered in turn.

The Coercion Connection

More generally, both China and India have generally experienced decreasing rates of population growth during the periods in which they have had population control policies. Furthermore, when analyzed in light of the role of coercion in the programs' respective histories, the rates generally rose fell when one would expect, relative to the degree of coercion.

In China, for example, after the beginning of the Cultural Revolution, there was a rise in population growth rates until 1970, reflecting the abandonment of family planning efforts. Then, throughout the 1970s, one witnesses the steady drop from the increase of 2.69 per 100 people per year (1970-71) to 1.33 per 100 people per year (1978-79) as local authorities relentlessly and coercively pursued a 1980
target growth rate of 1.0 per 100 people per year. After the one-child policy began to be pursued in earnest in the early 1980s, growth rates continued this steep decline, dipping to around 1.20 and 1.22 per 100 people per year in the years of highest coercion, in the early- to mid-1980s. Interestingly, the exceptional interval in the history of China's policy falls in 1980, after the announcement of the one-child policy. Nevertheless, in the first few years of the new decade, the political elite remained indecisive and divided about the future of the one-child policy in particular and about family planning in general. Nevertheless, a hardline position soon prevailed after 1981-1982, and growth rates continued their steep decline. Predictably, the growth rates have risen somewhat with the relaxations of the one-child policies in 1984 and in 1988.

In India, one sees that the strictly voluntary programs pursued throughout the 1960s had seemingly little effect, with the rate of growth remaining around 2.2 per 100 people per year. As sterilization centers and mobile units became more common in the early 1970s, the rates dipped; then they reached a new low (expectedly) during the excesses of the 1975-77 Emergency period.

After the Emergency, 1978 brought a notable increase in the Indian growth rate, probably a reaction to the coercive policies of the Emergency period. Despite a lack of coercive tactics, growth rates began a new slide almost immediately.
This suggests other independent variables are at work in the Indian case.

The data for Thailand do not suggest a correlation between levels of political coercion and the population growth rates, as no coercive measures have been reported. Indeed, the data suggest that Thailand is a case where strictly voluntary measures have had remarkable effect in moderating population growth rate over a twenty-year interval. Japan also succeeded in achieving a decreased population growth rate without any reports of widespread government-sponsored coercive tactics, but the uniqueness of Japan's historical circumstances must be taken into account: it only had to reverse a growth rate that had been manipulated upward by pre-War socialization. Thus, both the Thai and Japanese cases also suggest that one should consider several other independent variables, in addition to political coercion. Some suggested variables are considered in turn below.

**Structural Characteristics of the Programs**

Another possible explanation for variation in data across cases is how the programs were structured and managed, setting aside the variable of coercive tactics. In all of the cases, governments implemented the population policy by devolving much authority to local authorities: none of these programs were micro-managed from the Center. In China and India, the Center only set the targets, and granted great
leeway to local authorities. On the other hand, in Thailand and Japan, little or no emphasis was placed upon setting and meeting specific regional and local targets. Yet the Thai and Japanese programs also placed great authority in the hands of local actors (individual physicians in Japan, most local health personnel in Thailand). Thus, all governments in this survey structured their population initiatives in a decentralized fashion over the periods in the data sets; it seems unlikely that structural characteristics of the program (extent of centralization versus decentralization, for example) provide one with additional explanatory variables.

Urbanization/Industrialization

The inseparable phenomena of urbanization and industrialization provide another intuitively satisfying explanation for the data. Indeed, available statistics on urbanization and industrialization in these four states suggest that these variables have contributed to the observed population growth rates.

Traditional agricultural families have always tended to want more children than urban families, to assure enough hands to work the land and provide a measure of "social security" to parents in old age.68 Three of the states in this study had

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relatively low levels of urbanization in 1970, but have seen significant urbanization since then. In 1970, 13% of the Thai people lived in cities, as did 20% and 17% of the Indian and Chinese populations, respectively. By 1990, an additional 10% of Thais dwelt in cities, making the total portion of urban inhabitants 23%. By 1990, China had swept past India in urban population: 56% of its inhabitants were urban, as compared to only 27% of India's.

Table III
Urban Population of China, India, and Thailand

<table>
<thead>
<tr>
<th>Year</th>
<th>China % urban</th>
<th>India % urban</th>
<th>Thailand % urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>17</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>1990</td>
<td>56</td>
<td>27</td>
<td>23</td>
</tr>
</tbody>
</table>


Given the natural tendency of urban populations to have smaller families, and that state propaganda possibly reaches an urban population more effectively than a rural one, the variable of urbanization might help explain the data observed for India, China, and Thailand: as urbanization increased, rates of population growth rates tended to decrease. It seems plausible that a process of urbanization and industrialization over the last two decades provided an independent brake on

population growth, concurrent to the waxing and waning of coercive tactics in China and India. It also helps explain the continued decreases in growth rates observed in (post-Emergency) India and Thailand, where there have been no reports of coercive tactics.

Indeed, this additional variable is also most helpful in explaining the earlier data from Japan. Increased urbanization and industrialization, themselves a result of increased militarization in the decades before World War II, prompted the Japanese leadership's call for increased procreation among Japanese in the 1930s. Indeed, by the mid-1930s Japan's population was already 33% urban, and approached 40% immediately after Japan's defeat and occupation.

<table>
<thead>
<tr>
<th>Year</th>
<th>% Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1935</td>
<td>32.9</td>
</tr>
<tr>
<td>1945</td>
<td>41.1</td>
</tr>
<tr>
<td>1955</td>
<td>56.3</td>
</tr>
<tr>
<td>1965</td>
<td>68.0</td>
</tr>
<tr>
<td>1975</td>
<td>75.7</td>
</tr>
<tr>
<td>1985</td>
<td>76.7</td>
</tr>
</tbody>
</table>

Table IV
Urban Population of Japan

That the population was already so urban in comparison to the other cases suggests why the Japanese government could drastically reduce growth rates in such a short period without resorting to coercive tactics: a population so urban would need less convincing, particularly in the face of economic disruptions, that smaller families were again a better idea. Moreover, this conclusion is supported by Japan's success at keeping annual population growth rates around 1.0 per 100 people since the 1950s: by 1965, the population of the Japanese islands was 68% urban, and the figure has stabilized around roughly 75% since the 1970s.

Across the four cases, the process of urbanization (and related industrialization) seems to be a variable with good explanatory power when considered in light of these data. One final note to those who might suggest that urbanization is the only variable one needs to explain these data: most of China's significant increases in urbanization took place in the 1980-1990 interval of the 1970-1990 period, well after the first reports—and effects—of coercive population control tactics. It seems, then, that rate of urbanization alone could not fully explain the observed data.69

69Please see World Bank Staff, World Tables 1993 (Baltimore, Maryland: Johns Hopkins University Press, 1992), 186-187.
Methods of Family Planning Promoted

Did the program of one country promote particular measures of birth control whose success could effectively explain the data? As indicated in the brief outline I gave of the histories of population control in these Asian states, all countries generally have encouraged permanent—or at least long-acting—contraception of minimal complexity. Such methods have included IUDs (India, late 1960s; China, 1970s; Thailand 1970s–present), sterilization (India, 1970s; China, early 1980s; Thailand, 1970s–present), and injectable, subdermal, and oral contraception (Thailand, mid-1970s–present). Moreover, abortion, a particularly effective (if to some, including many of the Japanese population commissions, morally unsettling) form of birth control has been central to at least two of the programs (Japan, 1950s; China, early 1980s). Of these long-acting or permanent methods, only oral contraception requires more than a periodic procedure, but Thailand has clearly supplemented the role of oral contraception with other methods. Thus it seems unlikely that the effectiveness of particular contraceptive devices or procedures could explain the data observed in this four-state assessment.

70 The Japanese population scholars' distaste for abortion is well documented in Taeuber, 375.
Empowerment of Female Population

Another potential explanatory variable is the social, political, and economic status of women in these four Asian states. Studies often suggest a connection between a cluster of interrelated empowerment issues (education, literacy, and status) and better use of family planning facilities and practices.\footnote{Marcela Ballara, \textit{Women and Literacy}, Women and World Development Series (New Jersey: Zed Books Limited, 1992), 13.} As basic indicators of the relative status of women in these societies, I will use the percentage of female population enrolled in secondary school and rates of female illiteracy.

From 1970 to 1990, female enrollment in secondary school grew in Thailand, India, and China. In India, enrollment in secondary education of the relevant age group increased from 15\% to 33\%. An almost identical upswing is evident in Thailand, which in the same period increased enrollment from 15\% to 32\%. Data on China is not available for 1970, but by 1990, 41\% of females in the relevant age group were enrolled in secondary education.\footnote{The World Bank Staff, \textit{The World Development Report 1993} (Baltimore, Maryland: Johns Hopkins University Press, 1993), 294-295.} Despite the lack of earlier data on China, it seems that there is an inverse relationship between secondary schooling and the rate of population growth over the 1970-1990 period.
To assess the status of women across the four cases, the most recent estimates of female illiteracy are helpful additional indicators. Female illiteracy above age 15 were 66% in India, 38% in China, and a surprisingly low 10% in Thailand.\textsuperscript{73} Given the similar increase of Thailand and India in secondary enrollment, the difference in the female illiteracy rates is somewhat surprising, yet the remarkable Thai illiteracy rate might be attributable to an unusually successful system of primary education.\textsuperscript{74}

Taken together, these educational indicators suggest that women are relatively more empowered in Thailand (increased enrollment, very low illiteracy) and China (higher enrollment than the other states, literacy in between the other states) than in India (increased enrollment, but very high illiteracy). By the logic of the empowerment variable, population growth rate should be more resistant to reduction in India than in China and Thailand. Indeed, this has been the case.

This variable also holds explanatory power for the earlier data on Japan as well. In the aftermath of World War II, American educational advisors recommended a radical

\textsuperscript{73}The World Bank Staff, \textit{Social Indicators of Development} (Baltimore, Maryland: The Johns Hopkins University Press), 71, 153, 227.

\textsuperscript{74}On the subject of the state of Thai primary education, please see "Who's Nicst?" \textit{The Economist}, 13 August 1994, 31.
restructuring of traditional Japanese education.\textsuperscript{75} One component of this reform was a conscious decision to reduce gender inequities in schools; this policy decision held even after the departure of the Occupation forces. As such, the percentage of girls entering upper secondary levels has risen from 37\% in 1950 to 56\% in 1960 and to 83\% in 1970, correlating with a decrease in population growth rates. This enrollment rate has remained around 95\% since 1979, and by 1984, Japan achieved a female literacy rate of 97\%.\textsuperscript{76} If the logic of the empowerment argument is correct, the remarkable strides in female enrollment in the 1950s and 1960s should correlate with decreases in the rate of population growth, which they do. Additionally, these enrollment figures, in conjunction with the high rate of female literacy attained by the 1980s, would suggest that Japan should have a noticeably lower rate of population increase than any of the other cases; indeed, this proves true. The case of Japan, then, supports the possibility that female empowerment is an additional explanatory variable in controlling population growth.


Another Test of the Variables: Fertility Rates

I have used population growth rates in my analysis of the population policies to this point, for population statistics are probably the most readily accessible and understandable figures. On the other hand, total fertility rates in some ways are a better measure by which to judge the success of these four programs, or ascertain the role coercion has played in achieving program targets. Here I will consider this other measure: does it bring one to the same conclusions about the role of coercion and the other four independent variables considered above? If it does, then my conclusions about the roles and relationships of these independent variables will be supported by two different statistical measures.

The utility of using total fertility rates as a measure stems from their specificity: they measure the average number of children born alive to a woman during her lifetime if she were to bear children in accordance with prevailing age-specific birth rates. Thus, the total fertility rate factors out emigration and changing death rates, two obvious phenomena that could skew the accuracy of using population growth rates to measure population policy's effectiveness. Using this more sophisticated indicator, can one arrive at the same conclusions about the independent variables discussed above?
### Table V
Total Fertility Rates in China, India, and Thailand

<table>
<thead>
<tr>
<th>Year</th>
<th>China's Fertil. Rate</th>
<th>India's Fertil. Rate</th>
<th>Thailand's Fertil. Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>5.1</td>
<td>5.7</td>
<td>5.2</td>
</tr>
<tr>
<td>1972</td>
<td>4.9</td>
<td>5.6</td>
<td>5.0</td>
</tr>
<tr>
<td>1973</td>
<td>4.4</td>
<td>5.5</td>
<td>4.9</td>
</tr>
<tr>
<td>1974</td>
<td>3.8</td>
<td>5.4</td>
<td>4.7</td>
</tr>
<tr>
<td>1975</td>
<td>3.4</td>
<td>5.0</td>
<td>4.6</td>
</tr>
<tr>
<td>1976</td>
<td>2.9</td>
<td>5.3</td>
<td>4.4</td>
</tr>
<tr>
<td>1977</td>
<td>2.7</td>
<td>5.2</td>
<td>4.3</td>
</tr>
<tr>
<td>1978</td>
<td>2.6</td>
<td>5.4</td>
<td>4.1</td>
</tr>
<tr>
<td>1979</td>
<td>2.3</td>
<td>5.0</td>
<td>4.0</td>
</tr>
<tr>
<td>1980</td>
<td>2.5</td>
<td>5.0</td>
<td>3.8</td>
</tr>
<tr>
<td>1981</td>
<td>2.3</td>
<td>4.9</td>
<td>3.7</td>
</tr>
<tr>
<td>1982</td>
<td>2.2</td>
<td>4.8</td>
<td>3.5</td>
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<tr>
<td>1983</td>
<td>2.3</td>
<td>4.7</td>
<td>3.3</td>
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<tr>
<td>1984</td>
<td>2.2</td>
<td>4.6</td>
<td>3.1</td>
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<tr>
<td>1985</td>
<td>2.4</td>
<td>4.4</td>
<td>2.9</td>
</tr>
<tr>
<td>1986</td>
<td>2.5</td>
<td>4.3</td>
<td>2.8</td>
</tr>
<tr>
<td>1987</td>
<td>2.6</td>
<td>4.2</td>
<td>2.6</td>
</tr>
<tr>
<td>1988</td>
<td>2.5</td>
<td>4.1</td>
<td>2.5</td>
</tr>
<tr>
<td>1989</td>
<td>2.5</td>
<td>4.1</td>
<td>2.4</td>
</tr>
<tr>
<td>1990</td>
<td>2.5</td>
<td>4.0</td>
<td>2.4</td>
</tr>
<tr>
<td>1991</td>
<td>2.4</td>
<td>3.9</td>
<td>2.3</td>
</tr>
</tbody>
</table>


In light of this demographic indicator, the effects of the three variables cited above still appear to hold. In China and India, reports of coercive policy correlate with decreased fertility rates in the same periods that decreases were evident in the population growth rates. In China's case, the
dramatic and coercive increase of IUD insertions in the 1970s succeeded in quickly lowering the total fertility rate from 5.1 to 2.3—a steeper decline than India or Thailand experienced in that era. India's fertility rates, however, do appear to have dropped during its program's brief coercive interlude (1975-1977). That interval is sandwiched by higher Indian fertility rates in 1974 and 1978. After a brief respite in the early 1980s when the Chinese government and Party articulated a less consistent message on population control, China's fertility rates continued to decline as local authorities clamped down on second births. Then, with the relaxation of the one-child policy after the mid-1980s, fertility rates have crept back upward, seeming to level out around 2.4 or 2.5. All of these correlations were also suggested by the population growth rate analysis performed above.

The forces of urbanization and industrialization seem to be confirmed by these data as well. For instance, while India's fertility rates seem to correspond reports of coercive tactics (1975-1977), they also continued to drop during the 1980s, suggesting the presence of other forces such as urbanization/industrialization. Furthermore, the relatively more dramatic decreases in Chinese total fertility rates could be the result of a more rapid urbanization, as discussed above. Finally, as Thailand's urbanization has increased, its total fertility rate has fallen; this also seems to confirm
the inverse relationship between the two variables that I posited above.

From comparative data on the socioeconomic status of women--a third plausible independent variable--I suggested that women would be relatively more empowered in Thailand (increased enrollment, very low illiteracy) and China (higher enrollment than the other states, literacy in between the other states) than in India (increased enrollment, but very high illiteracy). Thus, the effects observed with the other measure (population growth rates) do seem to be validated by this measure as well, at least in the Chinese, Indian, and Thai cases.

Japanese fertility rates appear to confirm the centrality of two of these variables--urbanization/industrialization and female empowerment. At the same time, the regime's pre-War pronatalism explains the lack of coercive tactics, for fertility rates--just as the population growth rates discussed above--were artificially inflated by regime propaganda before and during the War. As Taeuber has noted, Japan reaped the most dramatic results of pronatalist socialization after World War II, with the demobilization of young men who had been bombarded with pronatalist messages for most of their lives.77

77Taeuber, 369.
Table VI
Total Fertility Rate in Japan

<table>
<thead>
<tr>
<th>Years</th>
<th>Japan's Fertility Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945-50</td>
<td>2.13</td>
</tr>
<tr>
<td>1950-55</td>
<td>2.70</td>
</tr>
<tr>
<td>1955-60</td>
<td>2.07</td>
</tr>
<tr>
<td>1960-65</td>
<td>2.02</td>
</tr>
<tr>
<td>1965-70</td>
<td>2.00</td>
</tr>
<tr>
<td>1970-75</td>
<td>2.06</td>
</tr>
<tr>
<td>1975-80</td>
<td>1.81</td>
</tr>
<tr>
<td>1980-85</td>
<td>1.76</td>
</tr>
<tr>
<td>1985-90</td>
<td>1.70</td>
</tr>
</tbody>
</table>


A pattern emerges here that is similar to the one observed in the data on Japanese population growth rates. The highest recorded total fertility in Japan occurred shortly after World War II, in 1950-55. As the post-War regime moved toward an antinatalist policy with the National Eugenics Law and its revisions, Japan was able to realize very quick decreases in its fertility rates over the next several decades, without ever implementing a truly coercive population policy. Total fertility rates seem to confirm the role of urbanization/industrialization and female empowerment in curtailing population momentum. Japanese women, for example, have made greater strides than have those in China, Thailand, and (most certainly) India in the post-War era. The empowerment variable, in conjunction with the existing high levels of pre-War urbanization in Japan, no doubt meant that
dramatic reductions in fertility could be realized with non-coercive population policy.

Thus, a more sophisticated indicator of population policy, total fertility rate, effectiveness supports the conclusions drawn above from using a less elaborate indicator, annual rate of population growth. Thus we may be fairly confident that coercive policy, urbanization/industrialization, and female empowerment are critical independent variables, driving both population and fertility indicators.

Conclusions: Three Important Independent Variables

Of the variables considered above, the most plausible for explaining the results within and across cases are (1) the presence of political coercion, (2) degree of urbanization/industrialization, and (3) level of female empowerment. Yet the nature of the interrelationships among these variables should also be assessed. To this end I will consider these three variables in light of the broadest trends observed in the data.

Program Effectiveness: Highest Highs to Lowest Lows

I note from Table I that over the years, the results of India's population control policies have been much less dramatic than the results of government policy in China, Thailand, or Japan. By 1991 The Chinese government decreased the rate of population growth in China from a high of 2.89 to
1.48 per 100 people per year (difference = 1.41). Since the government's increased receptivity to antinatalist thinking in the 1960s, Thailand has realized a notable decrease in rate of population growth from 5.543 to 1.498 per 100 people (difference=4.05). Meanwhile, India's rate of population growth fell only from 2.24 to 1.88 per 100 people per year (difference = .36). Japan's long-term decrease was from a 1945 high of 5.132 per 100 people per year to .864 by 1960 (difference= 4.268).

In Table V, fertility decreases break down similarly to population growth rate reductions, although the total fertility indicator makes Japan's strides in the post-War period appear to be less dramatic. Between 1971 and 1991, Thailand's total fertility rates dropped from 5.2 to 2.3 (difference = 2.9); China's, from 5.1 to 2.4 (difference = 2.7); India's, from 5.7 to 3.9 (difference = 1.8). In Table VI, Japan's total fertility decreased from a high of 2.7 in the 1950-55 interval to 1.70 in the 1985-90 interval (difference = 1.0).78 Indeed, fertility rates may be "factoring out" the Japanese who returned to Japan after the collapse of the "Co-Prosperity Sphere." This phenomenon would not be evident in the population growth rates discussed above.

78 For population growth rates in Japan, I used the 1946-60 interval to measure broadest trends, because population growth rates level remained consistently around .8 after 1960. Fertility rates have taken longer to "level off;" as Table VI indicates, they have decreased in every five-year interval since 1950. For this reason I have used the interval 1950-1990 to measure broadest trends in fertility rates for Japan.
Fertility indicators (as opposed to population growth rates) demonstrate that the magnitude of Japan's amelioration of the population crisis was not as great as in the other cases. On the other hand, by attaining fertility of 2.07 during the 1955-1960 interval, Japan reached a manageable level of fertility that the other states have yet to achieve. It also started out much further ahead of the other states: Japan's antinatalist policies began when fertility was at 2.70 rather than above 5.0, as in the other cases. These facts imply that Japan's population problem may have never been as pressing as the ones that continue in China, India, and Thailand. Thus, its resolution of the population problem would not have to be of the magnitude necessary in the other cases.

Program Effectiveness: Rapidity of Decreases

Another important measure of any population policy's effectiveness—in addition to the extent of its reduction of population growth rates or fertility rates—is the speed with which sizeable decreases are observed. Table One demonstrates that China's program decreased the rate of population growth from 2.699 to 1.330 per 100 people (difference = 1.37) in a very short nine years (1970-1979). On the other hand, when Thailand announced its official policy in 1970, the population was growing at a rate of 3.079 per 100 people per year. It took eighteen years to realize a decrease similar to the one seen in China within the 1970s. Finally, the return to pre-
1930s levels of population increase in Japan was accomplished within about seven years (roughly, 1945-1954).79

Coercion also succeeded in pushing fertility rates downward within a short period: between 1971 and 1979, fertility rates in China slid from 5.1 to 2.3 (difference = 2.8). In the same interval, the non-coercive Thai policy only decreased fertility rates from 5.2 to 4.0 (difference = 1.2). In Thailand, it took eighteen years to achieve a similar decrease to the one observed in 1970s China. Meanwhile, India has yet to achieve a similar swift decrease of 2.8 in fertility rates. Like India, Japan's reduction in fertility measures, meanwhile, does not appear particularly rapid either. Yet if the magnitude of the population problem in Japan was not as great as in the other cases, as I suggested in the above section, then there would not be a need for rapid reductions in fertility rates.

Implications

From my consideration of these broad patterns in the data, I believe that some generalizations are possible about

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79 Using the pre-1930s figures as a baseline is helpful because before the 1930s, the Japanese population would not have been socialized in the ethic of high fertility, which deliberately pushed the growth rate upward. I also note that although the data for the 1930s through the early 1940s do not indicate the success of staunch pronatalism, there was also massive out-migration from Japan beginning after the 1931 invasion of Manchuria. The leadership's "success" in socializing high fertility is more evident after the return of troops and civilians to the Japanese islands following Allied victory in World War II. Please see YuKi Miura, 24'.
the roles of these independent variables in determining the effectiveness of population control policies.

While political coercion, urbanization/industrialization, and female empowerment all correlate with decreased rates of population growth and reductions in fertility rates, the variable that correlates best with rapid decreases in the population growth rate is political coercion.\textsuperscript{80} The data from China suggest this relationship: the use of coercive tactics beginning in the 1970s achieved remarkable results within one decade. The 1974-1977 interval is particularly striking; a second "wave" of coercive policy in the early 1980s pushed population growth rates and fertility rates even lower before a policy relaxation in the mid-1980s. Though the effects of political coercion are most evident in the data for China, in India, too, coercion pushed resistant growth rates and fertility rates to levels that would not recur until the early- or mid-1980s.

The Thai example supports the notion that coercion has been a sufficient condition for remarkable short-term decreases in growth rates. The Thai policy has reaped notable results without coercion, but these results have been attained in the longer term. Furthermore, although Japan returned to its pre-1930s rate of population growth within seven years and did so with little or no coercion--seeming to disprove the

\textsuperscript{80}Here I understand "rapid" to mean an interval shorter than a decade.
relationship I suggest—in this case a generally non-compulsory policy was only reversing an older pronatalist policy that had artificially driven up growth rates. Furthermore, as I noted above, while fertility rates did not decrease as dramatically as population growth rates did, the time-series data on fertility do suggest that perhaps Japan's population problem was not as pressing as in the other states. Thus, unique socialization experience and a less pressing population crisis make it difficult to use the case of Japan to disprove the relationship I posit between coercion and short-term decreases in population growth rates and fertility rates.

The other two independent variables that correlate well with decreases in the rate of population growth were urbanization/industrialization and female empowerment. Both of these variables have probably complemented the effects of China's program (coercive) and Thailand's program (non-coercive), with the effects of urbanization/industrialization most pronounced in the former, and the effects of female empowerment most pronounced in the latter. The two variables aid in explaining the relatively less remarkable effects of India's population program (non-coercive with one interruption), for India falls close to Thailand on the urbanization variable, but appallingly far behind both China and Thailand on correcting female illiteracy rates. In Japan, female empowerment and urbanization/industrialization
doubtless help explain the rapid decline in growth rates observed in post-War Japan, and the (although less notable) decreases in fertility rates. Japan after World War II was already a largely urban and industrial society; with the revamping and improvement of female education after World War II, the two variables complemented the effects of the generally non-compulsory Japanese Eugenics Law of 1948 which liberalized abortion and contraceptive alternatives. Given (1) Japan's pre- and post-War strides toward urbanization and industrialization, (2) its post-War efforts to improve female education, (3) that its population policy had been strongly pronatalist before the war, and (4) the apparently less pressing nature of its population problem, one should not be surprised that coercive measures were never used to attain rapid decreases in the short-term.

Prospects for Population Planning in a Democratizing World

What lessons are we to draw from this survey of four Asian states? Upon examining the data, I suggested that the independent variables that held the most promising explanatory power for reducing rates of population growth are urbanization/industrialization, policies that empower women, and the degree of coercion evident in population planning policies. More specifically, while all of the suggested independent variables are linked to declining rates of population growth, the presence of coercion in population control policies
appeared to be a sufficient condition for rapid decreases in population growth rates. The Chinese data demonstrate this well. Of the case studies, political coercion was present for a sustained period only in China, and it is the only case--aside from the unique case of Japan--in which dramatic short-term decreases in population growth rates were observed. Furthermore, Japanese reduction in fertility, a more sophisticated indicator of policy effectiveness, was not as dramatic.

It is the Thai case that gives hope for population control on a planet that is increasingly populous and increasingly democratic. Thailand's history is like much of the developing world: one of attempts to implement democratic processes that alternate with military coups. Despite Thailand's being less a "model" Third World democracy than India (which lapsed only 1975-1977), all Thai governments (whether military or elected) have consistently advocated and implemented voluntary family planning measures since the inception of that state's population control policy. The Thai elite has acted more wisely than India's Emergency leadership, which politicized the family planning issue by using coercive tactics. The Thai experience, then, is perhaps the most instructive for today's increasingly democratized Third World; Thailand fought "natural" population growth rates and

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fertility rates with voluntary measures.\textsuperscript{82}

Moreover, while a moral argument may be—and increasingly, will be—advanced against coercive practices in population planning, Thai case points to a practical argument against coercion as well. While Thailand began in 1971 with fertility rates very similar to China, it also had similar fertility rates in 1991, after twenty years (indeed, Thailand was slightly ahead: see Table V). Furthermore, across the twenty-seven years of population growth rate data, Thailand's population growth rate was also quite similar to China's (see Table I). While coercion in a closed society might be cheaper than a well-funded and comprehensive population planning initiative, and achieve dramatic results in the short term, it did not really put China any further ahead of Thailand by 1991. As the history of the Chinese policy indicated, periods of restrictive and coercive population policy seemed invariably to be followed by liberalization and relaxation. While systematic application of coercion may achieve rapid decreases in either population growth rates or fertility rates—as suggested by this analysis—the history of Chinese policy suggests that coercion itself might only work in the short term. Even in a closed society, the Chinese case seems to suggest, there are limits to how long coercion can last before a reaction sets in (taking the form of dissension among

\textsuperscript{82}This may be understood in contrast to Japan, where the government only reversed an earlier regime's manipulation of the growth rate.
the elite or unrest in the countryside, which result in relaxation of coercive tactics). In short, while coercion achieves rapid results in the short term, it may only work in the short term.

By committing to a non-coercive strategy for controlling population growth in an urbanizing and industrializing society, and by implementing educational policies that empower its female population, the Thai government has made remarkable progress within an eighteen-year interval. One may be observing a similar pattern in 1980s India, but we might anticipate that decreases in India's growth rate will remain sluggish as long as the relative status of women remains so low. Coercion might be a sufficient condition for dramatic short-term decreases in the rate of population growth, as the Chinese case indicates; for a democratizing world to effect population control, however, it will have to rely on well-funded and comprehensive voluntary family planning initiatives, policies that educate women, and the forces of urbanization. The moral norms of democratization demand this strategy; the apparent limitations of coercion as long-term strategy also recommend it.

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83 The only exception to the recent decrease in Indian growth rates is the interval of 1990-1991, where there is a large and seemingly out-of-place increase in the annual rate of population growth. Data for the 1992-1994 interval should clarify whether this is outlying data or a new pattern emerging. On the other hand, the 1991 total fertility rate for India was not outlying data, so this apparent aberration might only be a limitation of using population growth rates as a measure.
What must be remembered, however, is that voluntary measures (in conjunction with the other two variables of urbanization/industrialization and female empowerment) appear to have their effects in the longer term. Probably most would express a certain satisfaction that coercive tactics may have practical limitations and will further lose their utility (through a normative argument) in a more democratic world. On the other hand, neither should we forget the urgency of the population question underscored at the outset of this discussion: there is evidence that many of the neo-Malthusian population crises are already here and will not be resolved easily. Furthermore, we can already envision where these crises might end—politically, ecologically, and economically. Given the urgency of resolving population-related crises, and the length of time needed to implement the Thai model, the real lesson that emerges from this analysis is the importance of acting immediately to replicate the model elsewhere in the Third World. Achieving the lower-bound population projections for 2100 with voluntary measures will be easier if those measures are implemented sooner rather than later, for population numbers carry from within their own momentum. With the probability—or even possibility—of major disruptions occasioned by a world of 14 or 15 billion, the enormous importance of such an investment becomes clear.
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