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DEPENDENCE, INEQUALITY, AND THE GROWTH OF THE TERTIARY: A COMPARATIVE ANALYSIS OF LESS DEVELOPED COUNTRIES*

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High levels of economic inequality found in less developed countries have been attributed to the penetration of their economies by investments of multinational enterprises based in more developed nations of the West. This attribution has been widely supported by both historical and quantitative research. There are several interpretations concerning why this might be so, but the one offered here is that foreign investments cause high levels of inequality by distorting the evolution of the labor-force structure. It is suggested that Third World economies penetrated by foreign capital will have unusually rapidly growing proportions of the labor force employed in the tertiary, and it is growth of this proportion which mediates some of the effects of dependence on inequality. Our quantitative analysis of cross-national data (a) corroborates previous research linking dependence to inequality, (b) indicates that dependence is associated with growth of the tertiary, and (c) suggests this is one important link between dependence and inequality.

Watching a superfluous human operator run an automatic elevator is an experience shared by almost everyone who has lived in or visited Third World countries. The experience is more than just a curiosity; it exemplifies a central social dilemma facing Third World countries. The elevator operator's time is valued on the basis of a combination of the "productivity" of the task and the difficulty of finding a replacement. Both are negligible—and so is the wage attached to the job. In consequence, the elevator operator must, in all likelihood, work 70 or 80 hours a week for a wage that does not even insure food and shelter.

The poverty of the elevator operator is, of course, no more severe than that of peasants and agricultural laborers in rural

areas, but it is, in at least one sense, more discouraging. It is a poverty situated in the high-rise heart of the "modern" sector of underdeveloped economies. While the proportion of the labor force locked into the poverty of the traditional rural sector can be expected to shrink over time, the proportion located, like the elevator operator, in the urban tertiary sector is likely to grow. The elevator operator is a disturbing example precisely because of the juxtaposition of modernity and poverty.

Other aspects of the elevator operator's situation are also typical and disturbing. The elevator is automatic because the technology that went into its production was created in a developed country where an elevator which really needed an operator would be considered an expensive anachronism. Even if a multinational corporation did not produce the elevator, it almost certainly licensed the technology that was used to produce it. The operator's plight exemplifies one of the dilemmas that poor countries face in trying to deal with the technology produced by rich countries and with the multinational corporations that control this technology. Finally, the elevator operator's situation,

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like that of domestic servants and others in the tertiary sector, epitomizes the disparities of life chances that are characteristic of societies. Many of the people who ride in the elevator probably make more in a day than the operator does in a month.

The quiet plight of the elevator operator brings together three generally acknowledged features of the current course of development of Third World countries: (1) Much larger proportions of the labor force are employed in the service or tertiary sector than were employed in currently developed countries at similar levels of industrial development. (2) The growth of industry is accompanied by an influx of foreign capital and by increasing dependence on foreign technology. (3) Levels of inequality are substantially in excess of those found in developed countries.

We cannot offer a solution to the elevator operator's plight, but we hope to contribute something to the way in which it is understood. Specifically, we will argue that rapidly growing tertiary sectors, high levels of dependence on foreign investment, and high levels of inequality are empirically associated in Third World countries, or at least were empirically associated during the sixties. The evidence we will present suggests that countries which were hosts to large amounts of foreign investment (relative to their wealth and population) were likely to experience both high levels of inequality and rapid growth of tertiary employment. While we cannot claim that our data are sufficient to prove causal linkages, our findings must certainly be considered reinforcement for those who argue that foreign investment has helped cause high levels of inequality by distorting the distribution of the labor force.

Dependence, Inequality, and the Growth of the Service Sector

Of the connections we will try to make, the one between foreign investment and inequality has been best explored in the literature. It has been argued, on the basis of case studies and theory, that penetration by international capital and depen-

dence on the international market are associated with the generation of an egalitarian model of development (cf. Dos Santos, 1970; Frank, 1967; Barnett and Muller, 1975; Amin, 1976; Cardoso and Faletto, 1979; Evans, 1979). Beginning with Cutright's (1967) finding that reliance on foreign trade was associated with higher levels of inequality, the assertions of the *dependendistas* have been corroborated by a number of different quantitative studies.

Galtung (1971:110), using a measure of "trade composition," found that reliance on exports of primary products and reliance on trade with a single partner were highly associated with higher levels of sectoral income inequality. Jackman (1975) replicated Galtung's "trade composition" findings. Chase-Dunn (1975) has shown that reliance on foreign direct investment was associated with income inequality and Rubinson (1976) replicated his findings. A recent review of the literature (Bornschier et al., 1978) shows the relation between dependence and inequality to be one of the most robust quantitative, aggregate findings available. Subsequent work continues to support their conclusion (e.g., Hout, 1979).

What is needed is better understanding of the processes which account for the connection between dependence on foreign capital and higher levels of inequality. Earlier theorists of imperialism, like Paul Baran (1968), might have argued that the relationship occurred because foreign capital supported "semifeudal" or *comprador* elites and impeded industrialization. In the seventies it seemed equally plausible to argue, as Bill Warren (1973) did, that foreign investments are likely to be associated with the intensification of capitalist accumulation in the Third World. Since it is generally acknowledged that the highest levels of inequality occur at intermediate rather than at the lowest levels of development (Adelman and Morris, 1973; Paukert, 1973; Cline, 1974), the nature of capitalist accumulation rather than the absence of growth is a more likely place to look for the connections between dependence and inequality.

If dependence exacerbates inequality, it is likely to be because of the *kind* of

growth it fosters rather than because it entirely suppresses growth. Among the characteristics of the modern sector, created under the aegis of foreign capital, that might be related to inequality, the growth of the tertiary is a promising possibility.

The relation between the growth of the tertiary and foreign direct investment has been much less thoroughly explored than the relation between dependence and inequality. There are, however, a number of arguments which provide the basis for connecting the two, at least hypothetically. First, foreign direct investment enhances the possibility of the transfer of capital intensive productive techniques. Barnett and Muller (1975:166) put it most forcefully when they say that, "The one characteristic of global corporate technology with the most devastating consequences for poor countries is that it destroys jobs." We do not want to overstate this argument by suggesting that multinational managers can be distinguished from local managers of capital by a perverse, economically irrational proclivity for job-destroying technologies. However, it seems likely that a connection exists between the strength of ties with foreign capital and the existence of a general bias (shared by local firms) toward capital-intensive techniques. At the very least, we agree with Stewart's (1977:87) statement that "within the limited choice that is available more recent and capital intensive techniques are often selected than is strictly necessary."

Capital-intensive industry means that the secondary sector cannot absorb the growing numbers of people leaving the rural areas. In addition, the size of the exodus from the rural areas depends in part on a bias toward the underutilization of labor in agriculture. Numerous studies of Latin American agriculture have demonstrated the relation between the existing organization of agrarian landholdings and inability of agriculture to provide incomes for the rural population (e.g., Feder, 1971; Barraclough and Domike, 1966; Cline, 1970). R. Paul Shaw (1976:20) argues that the organization of agricultural landholdings is "the major cause of a misallocation of human resources away from potentially

productive agricultural areas." While underutilization of rural labor is usually attributed to the traditional *latifundia* owners, an equal bias toward excessively "labor saving" agrarian strategies may also be characteristic of multinational firms. Foreign investment in agriculture is likely to result in capital-intensive rural enterprises which absorb relatively little labor themselves and take land away from peasant cultivators. In Brazil in the early seventies, for example, gigantic foreign-owned cattle ranches were set up in the states of Para and Mato Grosso, employing few people and expelling communities of peasant farmers (see Davis, 1978).

Finally, multinational corporations are likely to exacerbate what Todaro (1969) has called the "city lights effect." Todaro suggests that rural dwellers will be willing to migrate to urban *slums* as long as they have the expectation of eventually finding employment that will provide high incomes—relative, that is, to the incomes they know are possible in their present rural living areas. Their expectation—and whether they act on it—obviously depends on what information they receive about the modern sector. Multinationals have a proven effectiveness in generating demand for modern consumer goods even in the poorest, most "traditional" segments of Third World societies (see, e.g., Ledogar, 1975). Armed with an intensified desire for modern consumer goods and an unrealistic media-generated expectation of the extent to which those goods are consumed by city dwellers, the rural citizen becomes an even more likely candidate for migration to the city and entry into a marginal job in the urban tertiary sector.

While foreign investments are only one contributing element in this process, it is not unreasonable to expect that high levels of foreign economic penetration will be associated with more stress on the quest for modern consumer goods which, in the absence of expanding employment opportunities in the secondary sector, will be associated with what Amin (1976:260–70) has labeled the "hypertrophy of the tertiary." It is well established that currently developing countries tend to have larger tertiaries than early

industrializers (Timberlake, 1979; Jakobson and Prakash, 1971). Soares (1969:194) notes that, at the point in the industrialization process when about half the labor force was in agriculture, about two-thirds of the rest of the labor force was in the secondary sector in early industrializers, but it is the tertiary sector of currently developing countries that contains the majority of the nonagricultural labor force. What is less well established is how the growth of the tertiary might in turn be related to inequality.

Some would argue against postulating such relationship. Lisa Peattie (1975), for example, has stressed the fact that even in the "informal" service sector of urban slums there are possibilities for making reasonable incomes. Unfortunately, while examples of successful petit bourgeois commercial entrepreneurship in slum communities may be impressive as individual cases, they have little to do with the overall quantitative impact of the growth of the tertiary. A more aggregate level argument might be based on average incomes in tertiary and primary sectors. Since tertiary incomes are generally higher, it could be argued that a transfer of impoverished rural workers from agriculture to the tertiary will increase their wages and, thereby, diminish inequality. This argument, however, does not take into account the importance of the tertiary within sector inequality in shaping the total income distribution. Because the tertiary includes everyone from the most highly paid doctors and lawyers to the most poorly paid domestic servants and street vendors, its growth means the growth of a sector in which income distribution is extremely polarized. One argument connecting the tertiary and inequality would, then, be based on income distribution within the tertiary itself.

There is another way in which the growth of the tertiary may contribute to inequality. The larger the mass of poorly paid, underemployed workers in the tertiary sector, the weaker the bargaining position of those workers who have been fortunate enough to secure jobs in the secondary sector. A poor, unemployed, rural population also provides a "reserve army of labor," but not one that is as

readily available as that group, or population, which is employed at the bottom of the tertiary sector. Since tertiary workers are not likely to take jobs away from skilled industrial workers, the principal effect of their presence will be on the bargaining power of unskilled and semi-skilled secondary workers. If the bargaining power of the lower ranks of secondary workers deteriorates, then we would expect increased inequality within the secondary sector.

Overall, we postulate that rapid growth of the tertiary is associated with a pattern of development in which the fruits of industrial growth and increased productivity accrue only to a restricted segment of the labor force, resulting in higher levels of inequality among those nations that have been more successful at "dependent development" (see Evans, 1979). This pattern of growth is what Taylor and Bacha (1976:198) refer to as the "unequalizing spiral" in which growth creates a "twist in the Lorenz curve with the poor receiving a smaller (and the rich a larger) share of the proceeds. . . ." In contrast to more optimistic models (e.g., Fei and Ranis, 1964), we agree with Taylor and Bacha (1976:216) that once dependent development has been institutionalized "there seem to be few ways to slow down or reverse the concentration process."

Our argument is not just that investment dependence, inequality, and growth of the tertiary are all components of the "unequalizing spiral" of dependent development. We would like to go further and argue that growth of the tertiary is an important intervening mechanism which mediates the effect of investment dependence on inequality. That is to say, that if investment dependence did not result in rapid growth of the tertiary its effect on inequality would be significantly reduced. In order to show this, of course, we must be able to show not only that investment dependence, growth of the tertiary, and inequality are all interconnected but also that when investment dependence and growth of the tertiary are both included in a model predicting inequality, a significant portion of the effects of investment dependence are not direct, but indirect—via the growth of the tertiary.

The Proposed Analysis

While the relationship between inequality and external economic dependence appears to hold for all nations—even controlling for level of economic development (Chase-Dunn, 1975:727; Rubinson, 1976)—our interest is in the developing countries. We are concerned with the ways in which foreign capital *shapes* economic growth. A heavy influx of foreign capital into an economy which was already industrialized should not have the same effects as those which we are postulating.

Our aim, then, is to test a rudimentary version of the line of reasoning which we have laid out. The test results can be only approximate, as we must rely on rather crude indicators of some of our key concepts.

First, we will attempt to replicate the previously discovered relation between foreign investment and inequality, hypothesizing:

- (1) The greater the amount of foreign capital located in a given less-developed country, the higher the level of income inequality that will characterize that country.

Next, we would like to examine the relation between foreign investment and relative growth of the tertiary sector, hypothesizing:

- (2) The greater the amount of foreign capital located in a given less-developed country, the greater will be the growth of the proportion of the labor force employed in the tertiary sector.

Third, we will examine the relation between growth of the tertiary sector and inequality, hypothesizing:

- (3) The greater the increase in the proportion of the labor force employed in the tertiary sector, the greater is the level of income inequality. Furthermore, these overall effects are likely to be the result of the negative impact of the growth of the tertiary on the income of the poor.

Finally, we will examine the combined effect of foreign investment and the growth of the tertiary on inequality, hypothesizing:

- (4) When the growth of the tertiary and investment dependence are considered together, the effect of foreign investment on inequality will be reduced, suggesting that some of the effect of foreign investment on inequality is mediated through its effect on the growth of the tertiary.

The Data and Measurement

Dependency. Two measures of economic dependence are used. The first, which we call Investment Dependence I, is “debits on investment income.” Chase-Dunn (1975) uses this measure, and he has made it available to us. This measure is taken from the International Monetary Fund *Balance of Payments Yearbook* (1950–1955).

It reports all profits made by foreign direct investment in the “host” country (regardless of whether or not they are repatriated). The average debits on investment income are computed for the period from 1950 to 1955 . . . and divided by the population. This variable, due to its badly skewed distribution, is converted to a logarithmic scale to make it suitable for use in linear regression analysis. (Chase-Dunn, 1975:728)

Since Investment Dependence I is the product of both the stock of foreign capital and of the rate of return on that capital during the period in question, it is a “flow” measure of investment dependence.¹

The second measure of economic dependence (Investment Dependence II) consists of the total amount of direct investments by Organisation for Economic Co-operation and Development (OECD) nations in less developed countries. It is taken from an OECD (1972:4) publication.

This study presents, by host country . . . estimates of the stock of direct private in-

¹ While Chase-Dunn’s measure does represent accumulated profits over the five-year period, 1950–1955, and is a stock measure in this sense (cf. Bornschier et al., 1978:661), it depends on the rate of profit during this period as well as on the amount of capital accumulated previous to the 1950 to 1955 period; it is, therefore, also a “flow” measure when contrasted to a *purely* stock measure (like our Investment Dependence II).

vestment of D.A.C. countries in LDCs at the end of 1967. By the stock of foreign investment in this report is understood the net book value to the direct investor of affiliates (subsidiaries, branches and associates) in LDCs.

Like Investment Dependence I, this measure of investment dependence has been divided by host country population and converted to a logarithmic scale. Unlike Investment Dependence I, it is a purely stock measure, representing the long-term accumulation of foreign capital. One advantage of such a measure is that it is relatively stable over time so that measurements from 1967 can be considered good indicators of levels ten years earlier. This feature is important to our analysis, since we must use the measures from the mid-sixties as indicators of earlier levels in order to maximize our number of cases.

There may be some objection to the use of ratio variables such as these since it may be difficult to distinguish the effects of investments from the effects of population (cf. Bollen and Ward, 1979). Effects of the log of investments, controlling separately for the log of population, have been estimated elsewhere (Timberlake, 1979:142-85), with results essentially the same as those presented here. We decided, here, to use per capita measures as population size had usually shown no significant effect on any of the dependent variables and because it would not, therefore, have been useful to include in the path diagrams.

Inequality. Paukert (1973) was the source of income inequality data for most of the cases in our analysis. He presents data showing the percentage distribution of income by households into quintiles from the poorest 20% to the richest 20%, with the richest quintile being further disaggregated into the 81-95 percentile group and the top (richest) 5%. A Gini index computed on the basis of the distribution of income into these quintiles is also presented by Paukert. These data are supplemented with data presented by Jain (1975), thus allowing us to increase the number of cases in the analysis. Of the data Jain presents, we use *only* the results of income surveys of national samples of households or income recipients. The fact

that measures of relative size of tertiary labor force are available for two time periods will allow us to make causal inferences from our regression analysis when this is the dependent variable. However, our ultimate concern is understanding variation in levels of income inequality across Third World countries, and inequality data are available only for around 1960 for any significant number of countries. Analyses involving inequality as a dependent variable are therefore cross-sectional and, at best, only suggestive of possible causal ordering.

The tertiary sector. Labor force data have been prepared by Moir (1975; 1976) and made available to us. She has collected data on the distribution of the labor force into economic sectors for many countries for around three time periods: 1950, 1960, and 1970. These data were collected and grouped in accordance with a scheme which classifies as part of the tertiary the following groups of industries: wholesale trade and other nonretail commerce; retail trade; transport; storage and communications; government; armed forces; educational services; health services; other community, business and recreation services; domestic services; and restaurants and other personal services (Moir, 1975:60-2).

These data are grouped in such a way that it is impossible to isolate and measure that part of the tertiary that is "superfluous," even if that were, in principle, possible to determine. We have therefore contented ourselves with using the percentage of the labor force in the whole tertiary, and a measure of change over time in that percentage. We became somewhat less concerned with this shortcoming by discovering that the simple correlation is relatively high (.82) between the percentage in the total tertiary and the percentage in what might be termed the "traditional" tertiary (domestic service, and restaurants and other personal services) among the small number of countries (9) for which the latter measure is available in 1960.

Moir's data for around 1950 and around 1960 are used in the regression analysis. In regression equations in which change in the relative size of the tertiary is to be

explained, we use the percentage of the labor force employed in the tertiary industrial groups in 1960 as the dependent variable, with the 1950 measure included as an independent control variable. This allows us to estimate the effects of the other independent variables on the relative size of the tertiary labor force in 1960 independently of its size in 1950. That is, we are estimating effects on *change* in the percentage of the labor force in the tertiary from 1950 to 1960. This method of explaining change has been suggested by Heise (1970) as a method of causal analysis which avoids the pitfalls of using change scores as dependent variables in regression analysis (also see Lord, 1956 and 1958; Bohrnstedt, 1969). Since the actual year in which the labor force data were recorded varies somewhat among the countries, we have also included in these equations the actual number of years that separate the "1950" measure from the "1960" measure. In this way we control for the fact that some tertiary sectors have been given more time to change than others.

We use a measure of change in the tertiary in order to estimate the effects of tertiary growth on levels of inequality. Again, inclusion of early and late measures of the relative size of the tertiary in the regression equation is a method of measuring the effects of change in that variable which is preferable to the use of a simple difference score, since the latter does not fully control for the effects of the initial level of the variable that is changing. However, when this was attempted in estimating the effects of change in the tertiary on inequality, the early and late measures of tertiary employment proved to be too highly intercorrelated to allow meaningful interpretation of the parameter estimates. Instead, we created a change score by computing the difference between the measure of the proportion employed in the tertiary in 1960 and an estimated proportion employed in 1960. The predicted score was computed on the basis of the least squares estimate from the following equation:

$$\hat{Y} = a + b_1X_1 + e \quad (1)$$

where a = constant

- e = error
- X_1 = proportion of the labor force employed in the tertiary, 1950
- \hat{Y} = estimated proportion employed in the tertiary in 1960.

The difference in $\hat{Y} - Y$ is the measure of change in tertiary employment used in the parts of the analysis in which income inequality is the dependent variable and change in the tertiary is one of the independent variables. It is also used in the path analysis. It represents that part of tertiary employment in 1960 that cannot be attributed to the level of tertiary employment in 1950. Since this residualized measure is, by definition, statistically independent of the early measure of tertiary employment, it is superior to the measure of difference between actual 1960 and actual 1950 tertiary employment.

Level of economic development. Per capita domestic product is included in regression equations in order to control for the possible effects of differences in the level of economic development within our sample of nations. The GDP estimates of Hagen and Hawrylyshyn (1969) are used. We use a 1960 measure, rather than an earlier one, in order to avoid further reducing the number of cases included in the tables. This should not be problematic since such indicators of development level are very highly correlated over time.

The cases. Since our concern is with the effects of foreign investment on industrializing nations, we eliminated all those nations with per capita incomes higher than \$950 in 1965. Japan was also excluded. The effect of using a strict income criteria was to exclude most of the OPEC countries and include some of the poorer countries of Western Europe. In addition, lack of data eliminated a number of nations which would have otherwise been included. The "sample" consists of 56 poor countries. Among these 56 countries, very few have data on every one of our variables. In order to allow the broadest possible test of each of our hypotheses, we have included in each table all countries in the sample for which data were available for the variables under

consideration in that table. The number of cases ranges between 49 and 18, except that the parameters of the path diagrams are estimated for two sets of "common cases" with 18 and 21 countries, respectively (see Appendix C and Appendix D). The total sample, and the cases used in each table, are shown in Appendix A.

Analysis of Results

The positive relation between investment dependence and inequality in poor countries is thoroughly reconfirmed in Tables 1a and 1b. In 1a we have used Chase-Dunn's measure of dependence and shown that in our sample both the strength of the effect of investment dependence on inequality and the statistical significance of the relation are even greater than they were in Chase-Dunn's original sample (cf. Chase-Dunn, 1975:734). Investment dependence is not only significantly related to the overall Gini index. It also has strong negative effects on the income shares of all three of the lower quintiles and a strong positive effect on the income of the top 5% of the population.

Using our other measure of investment dependence enables us to replicate these findings with a larger number of cases. Since this other measure of investment dependence is simply a measure of the amount of capital invested in a given less developed country and does not depend on the rate of profits obtained in that country, Investment Dependence II provides a good check on the possibility that the relation discovered by Chase-Dunn was due to effects associated with differential rates of profit rather than those associated with different total amounts of foreign investment. Tables 1a and 1b indicate that whether one uses a "flow" measure like Chase-Dunn's or a "stock" measure like Investment Dependence II, foreign investment is associated with inequality. The relation between Investment Dependence II and the Gini index is strong and significant, as are the negative effects on the incomes of the lower 80% of the population and the positive effects on the upper 5%.

These findings indicate that when foreign investment is relatively great in LDCs, then overall income inequality is also relatively great. Furthermore, these statistical effects on overall inequality appear to result from both a negative relationship of investment dependence with the relative amount of income held by the less well-off and its positive relationship with the proportion of income accruing to the rich. The data used here are cross-sectional, thus disallowing causal inference, but they are consistent with the theoretical argument that, in Third World countries, dependence on the capitalist core helps keep the poor impoverished while the rich get richer.

Impressed by these findings but remaining skeptical, we tried to explore the possibility that the relation might be spurious by introducing various additional variables into the equation. We thought, for example, that introducing population growth into the equation might diminish the relation between dependence and inequality. The relation held up well in the face of our experiments. For example, when population growth rate 1950-1960 was included in the regression equation that produced the results shown in Table 1a, the Beta associated with it was small (.013) and did not approach statistical significance. Furthermore, the estimated effect of Investment Dependence I was not reduced in either substantive or statistical significance (Beta = .671). We must conclude that, in the absence of strong future findings to the contrary, reliance on foreign investment must be considered to have negative statistical effects on equality in poor countries.

Next, we examine the effects of dependence on foreign capital on the change in relative size of the tertiary sector of the labor force. As Tables 2a and 2b show, both our measures of investment dependence have significant positive effects on growth of the tertiary. The more a poor country was dependent on foreign capital, the more rapidly the proportion of the labor force in its tertiary sector was likely to expand between 1950 and 1960.

The same is not true of the labor force in the secondary sector. When the same procedures used to test the relation between

Table 1a. Regressions of Gini Index of Income Inequality and Proportion of Total National Income Accruing to Each of Six Percentile Groups of the Income Distribution on Investment Dependence I and Per Capita GDP

Dependent Variables		Gini Index of Income Inequality	% Income to Poorest 20%	% Income to 21-40% Grouping	% Income to 41-60% Grouping	% Income to 61-80% Grouping	% Income to 81-95% Grouping	% Income to Richest 5%
Investment Dependence I	a	31.514	9.007	12.875	16.262	20.990	23.113	17.746
	b	8.824**	-2.141**	-2.312**	-2.039**	-1.324	1.808	5.986**
	Beta	.671	-.720	-.616	-.533	-.292	.284	.498
	s.e.	2.505	.542	.736	.798	1.038	1.460	2.544
Per Capita GDP	F	12.41	15.58	9.86	6.52	1.63	1.53	5.53
	b	-.012	.003	.002	.003	.004	-.004	-.007
	Beta	-.178	.184	.125	.139	.160	-.143	-.111
	s.e.	.012	.003	.004	.004	.005	.007	.012
R ²	.35	.40	.31	.22	.06	.06	.06	.20
n	29	29	29	29	29	29	29	29

Notes: ** = statistically significant to at least the .05 level.

a = intercept

b = regression coefficient

Beta = standardized regression coefficient

s.e. = standardized error of regression coefficient

F = F ratio

Table 1b. Regressions of Gini Index of Income Inequality and Proportion of Total National Income Accruing to Each of Six Percentile Groups of the Income Distribution on Investment Dependence II and Per Capita GDP

Dependent Variables	Gini Index of Income Inequality	% Income to Poorest 20%	% Income to 21-40% Grouping	% Income to 41-60% Grouping	% Income to 61-80% Grouping	% Income to 81-95% Grouping	% Income to Richest 5%
Investment Dependence II	a	7.560	11.007	14.640	20.694	24.370	21.752
	b	-.811**	-1.183**	-1.463**	-1.594**	-.124	5.137**
	Beta	-.585	-.715	-.766	-.741	-.033	.839
	s.e.	.246	.293	.334	.379	.768	1.023
Per Capita GDP 1960	F	10.89	16.35	19.23	17.68	.03	25.23
	b	.001	.006**	.010**	.013**	.009	-.040**
	Beta	.094	.366	.532	.596	.224	-.630
	s.e.	.002	.003	.003	.004	.008	.010
	F	.28	4.28	9.26	11.43	1.21	14.22
	R ²	.27	.28	.29	.28	.04	.36
	n	49	49	49	49	49	49

See notes to Table 1a.

investment dependence and the growth of the tertiary were repeated for the secondary sector, neither measure showed a significant positive relation. The relation was negative and almost significant in one case and insignificant in the other. The findings were, in short, what would be expected from our theoretical discussion of the effects of foreign capital. Foreign capital may draw a poor country's population into the market economy and into the nonagricultural labor force, but it does not appear to play a significant role in the expansion of employment opportunities in the secondary sector.

Turning to the relation between labor force structure and inequality, we found that only change in the tertiary—and not its size relative to other sectors of the labor force at any given point in time—was related to inequality. We examined the relation between various cross-sectional measures of labor force structure and inequality and, while there were a number of suggestive findings, none of them was sufficiently robust to merit real confidence. We did, however, discover a strong and consistent relation between the growth of the tertiary and level of inequality.

Those poor countries in which the tertiary had grown unusually rapidly between 1950 and 1960 had higher levels of inequality than those poor countries whose tertiaries had grown less. These results are shown in Table 3. Table 3 indicates that the growth of the tertiary has strong and statistically significant effects on overall levels of inequality, and its most powerful effects are on the income shares of the bottom 40% of the population.

It is important to emphasize at this point that what we have found is not simply a relationship between the growth of the nonagricultural labor force and of inequality. Obviously, the growth of the tertiary goes together with a decline of the proportion of the labor force in agriculture. But it is not the movement of labor out of agriculture, in itself, that is related to growing inequality. What is important is that this labor must be absorbed into the tertiary rather than into the secondary sector. We have already shown that there

Table 2a. Regression of % in Tertiary Sector of Labor Force 1960 on That % 1950, Investment Dependence I, Per Capita GDP, and Time Lag

Dependent Variables	Regression Coefficient (b)	Standardized Regression Coeff. (Beta)	Standard Error of b	F Ratio
Investment Dependence I	.032**	.261	.007	18.06
% in Tertiary 1950	.635**	.683	.072	77.36
Per Capita GDP	.000**	.201	.000	5.42
Time Lag	.002	.032	.003	.37
R ² = .95				
n = 24				

** = -.008.

Also see notes to Table 1a.

is no association between the growth of the secondary sector and higher levels of inequality. It is true that a shrinking primary sector is associated with a smaller income share for the poorest quintile. But when we included both change in the tertiary and level of primary employment (in the equation predicting the Gini index and share of the poorest quintile), the effects of level of primary employment were reduced to statistical insignificance.²

One other alternative hypothesis should also be rejected. Since the results shown in Table 3 are essentially cross-sectional, it might be argued that the relationship we have found exists because relatively

rapidly growing tertiary sectors are the result of income inequality. Ideally, we would need inequality data as well as tertiary data for two points in time in order to determine the direction of causation in the relationship between the tertiary and inequality, but we have inequality data for only around 1960. However, since we have measures of the relative size of the tertiary for 1970 (as well as for 1960), we can estimate the effects of income inequality in 1960 on change in the tertiary from 1960 to 1970. When we did this, we found that level of inequality in 1960 had no significant effects on growth of the tertiary from 1960 to 1970 (Beta = -.077). Thus, it seems reasonable to view, tentatively, the relationship between inequality and growth of the tertiary as being the result of the impact of the tertiary on the income distribution, rather than vice versa.

The final step in our analysis was to reexamine the relation between investment dependence and inequality, introducing the growth of the tertiary as an additional variable in the regression equa-

² The addition of a measure of change in primary employment into the equation that produced the results showing the effects of tertiary change on the Gini index and income share of the poorest quintile (Table 3) reduced the magnitudes of the tertiary effects slightly (Beta = .506, F = 3.35, and Beta = -.612, F = 5.50, respectively). However, the effects of change in primary employment were rather small and statistically insignificant (Beta = -.205, F = .59, and Beta = .107, F = .18, respectively).

Table 2b. Regression of % in Tertiary Sector of Labor Force 1960 on That % in 1950, Investment Dependence II, Per Capita GDP, and Time Lag

Dependent Variables	Regression Coefficient (b)	Standardized Regression Coeff. (Beta)	Standard Error of b	F Ratio
Investment Dependence II	.018**	.298	.006	8.35
% in Tertiary 1950	.688**	.664	.094	53.09
Per Capita GDP	.000	.077	.008	.34
Time Lag	.004	.084	.003	1.99
R ² = .93				
n = 26				

** = -.024.

Also see notes to Table 1a.

Table 3. Regressions of Gini Index of Income Inequality and Proportion of Total National Income Accruing to Each of Six Percentile Groups of the Income Distribution on Change in the Tertiary and Per Capita GDP

Dependent Variables	Gini Index of Income Inequality	% Income to Poorest 20%	% Income to 21-40% Grouping	% Income to 41-60% Grouping	% Income to 61-80% Grouping	% Income to 81-95% Grouping	% Income to Richest 5%
Change in Tertiary 1950-1960 (Residualized Change Score)	49.671 151.611**	4.887 -37.134**	7.814 -39.325**	11.675 -25.750	18.392 -6.404	29.825 19.340	27.274 89.777*
	.656	-.691	-.633	-.353	-.066	.123	.435
	44.622	9.690	12.226	16.909	23.539	37.388	45.245
	11.54	14.68	10.34	2.32	.07	.27	3.94
	-.007	.000	.002	.002	.003	-.009	.002
	-.139	.030	.138	.116	-.158	-.266	.004
	.010	.020	.003	.004	.005	.008	.010
	.52	.03	.49	.25	.42	1.25	.03
	.38	.46	.36	.11	.02	.06	.20
	.22	.22	.22	.22	.22	.22	.22

Notes: * = statistically significant to at least the .10 level. Also see notes to Table 1a.

tion. A range of results from this addition would be consistent with our theoretical model. Growth of the tertiary was considered to be an intervening variable and, therefore, more causally proximate to inequality. But we also assumed that other mechanisms, such as those discussed by Chase-Dunn and Rubinson, would operate and might, for some countries, be more important than effects which operated through labor force structure. Thus, investment dependence might continue to have a strong relation with inequality even when the growth of the tertiary was included in the regression equation, insofar as this relation represented effects mediated through other mechanisms. If the effects of investment dependence were reduced to insignificance, it would suggest that, at least for the sample used, growth of the tertiary was the principal intervening variable connecting investment dependence and inequality. Only if the growth of the tertiary ceased to have any effect on inequality once investment dependence was introduced into the equation, would the results have been inconsistent with our theoretical model.

The actual results, shown in Tables 4a and 4b, are quite favorable to our hypothesis. In both tables, the growth of the tertiary continues to have (substantively) rather strong effects on the Gini index, even with investment dependence included in the equation. The effects of change in the tertiary on income accruing to the poorest quintile are negative, as predicted, and moderately strong, but its effects are statistically significant only in the equation with Investment Dependence II (Table 4b). If we restrict our attention to the effects on the overall index of inequality and the income share of the poorest quintile, it is important to note that the effects of the investment-dependence variables were reduced to statistical insignificance, in each case. The magnitudes of the effects of the investment dependence variables are, likewise, dramatically reduced—compared with those estimated for the subsets of 18 and 21 cases common to Tables 4a and 4b, respectively (see Appendix C). These findings indicate that growth of the tertiary does mediate some of the previously

Table 4a Regressions of Gini Index of Income Inequality and Proportion of Total National Income Accruing to Each of Six Percentile Groups of the Income Distribution on Investment Dependence I, Change in Tertiary, and Per Capita GDP

Dependent Variables	Gini Index of Income Inequality	% Income to Poorest 20%	% Income to 21-40% Grouping	% Income to 41-60% Grouping	% Income to 61-80% Grouping	% Income to 81-95% Grouping	% Income to Richest 5%
Investment Dependence I	a	6.799	8.313	12.062	18.969	29.401	24.482
	b	-1.260	-.145	.264	.466	-.374	1.030
	Beta	-.448	-.042	.072	.100	-.058	.093
	s.e.	.837	1.082	1.268	1.841	2.450	3.786
Change in Tertiary 1950-1960	F	2.26	.02	.04	.06	.02	.07
	b	-23.220	-44.839**	-41.060*	-26.862	47.010	89.403
	Beta	-.410	-.648	-.557	-.287	.365	.403
	s.e.	15.308	19.783	23.171	33.653	44.788	69.214
Per Capita GDP	F	2.30	5.14	3.14	.64	1.10	1.67
	b	.004	.001	-.002	-.003	-.009	.008
	Beta	.337	.096	-.097	-.132	-.320	.159
	s.e.	.003	.004	.004	.006	.008	.010
R ²		2.23	.16	.14	.19	1.21	.37
	n	.48	.42	.30	.08	.14	.31
		18	18	18	18	18	18

See notes to Tables 1a and 3.

Table 4b. Regressions of Gini Index of Income Inequality and Proportion of Total National Income Accruing to Each of Six Percentile Groups of the Income Distribution on Investment Dependence II, Change in Tertiary, and Per Capita GDP 1960

Dependent Variables	Gini Index of Income Inequality	% Income to Poorest 20%	% Income to 21-40% Grouping	% Income to 41-60% Grouping	% Income to 61-80% Grouping	% Income to 81-95% Grouping	% Income to Richest 5%
Investment Dependence II	a	45.064	8.37	12.926	21.962*	29.260	21.928
	b	2.858	-.414	-.759	-1.858	.135	3.332*
	Beta	.544	-.310	-.446	-.910	.040	.728
	s.e.	1.898	.494	.781	.916	1.701	1.878
Change in Tertiary 1950-1960	F	2.27	.70	.94	4.12	.00	3.15
	b	113.684**	-34.174**	-15.491	20.302	17.338	44.327
	Beta	.511	-.605	-.215	.235	.118	.229
	s.e.	49.362	12.844	20.313	23.813	44.222	48.826
Per Capita GDP	F	5.30	7.08	.58	.73	.15	.82
	b	-.029*	.006	.008	.013*	-.008	-.024
	Beta	-.597	.480	.473	.700	-.232	-.552
	s.e.	.016	.004	.006	.008	.014	.015
	R ²	3.59	2.21	1.39	3.20	.29	2.36
	n	.48	.45	.16	.20	.04	.33
		21	21	21	21	21	21

See notes to Tables 1a and 3.

disclosed effects of investment dependence.

A somewhat more elegant way of illustrating the same argument with these findings is to use path diagrams to display the results of the common case analyses. We have done this, focusing on the Gini index of income inequality. Our fourth hypothesis suggests that change in the tertiary mediates some of the effects of dependency. To test this argument, we need to decompose the total effect of dependency on income inequality. Path analytic techniques provide a way to state this total effect in such a way that the direct and indirect effects can be distinguished.³

Figures 1a and 1b, one for each of the two dependency measures, represent path diagrams of the model we are suggesting. The indirect effect of Investment Dependence I on the Gini index through the growing tertiary ($p_{43}p_{31} = .457$) is more than four times greater than the direct effect of this measure of dependency ($p_{41} = .106$). As the direct effect is the only other positive coefficient, one could argue that more than 80% of the positive direct and indirect effects of Investment Dependence

I on the Gini index operate through its effects on the bloating tertiary. The results obtained when we compute the direct and indirect effects of Investment Dependence II on the measure of income inequality from Figure 1b are not as dramatic, but they also support the hypothesis that the exacerbating effects of dependence on levels of inequality are mediated by the effects of investment on the tertiary. In this case the mediated effects ($p_{43}p_{31} = .4425$) are somewhat smaller than the direct effects of Investment Dependence II ($p_{41} = .5440$) and they account for about 45% of the total positive direct and indirect effects of dependency ($p_{43}p_{31} + p_{41} = .9865$) on the Gini index. The results shown in the two path diagrams and discussed here provide rather strong support for viewing the growth of the tertiary as an important way in which dependence adversely affects the income distribution.

Discussion

The findings presented here must be considered strong empirical reinforcement for the idea that reliance on foreign capital is likely to contribute to the inequality of the distribution of incomes in poor countries. We have not only replicated Chase-Dunn's and Rubinson's results

³ A discussion of the way in which the path coefficients were estimated can be found in Appendix D.

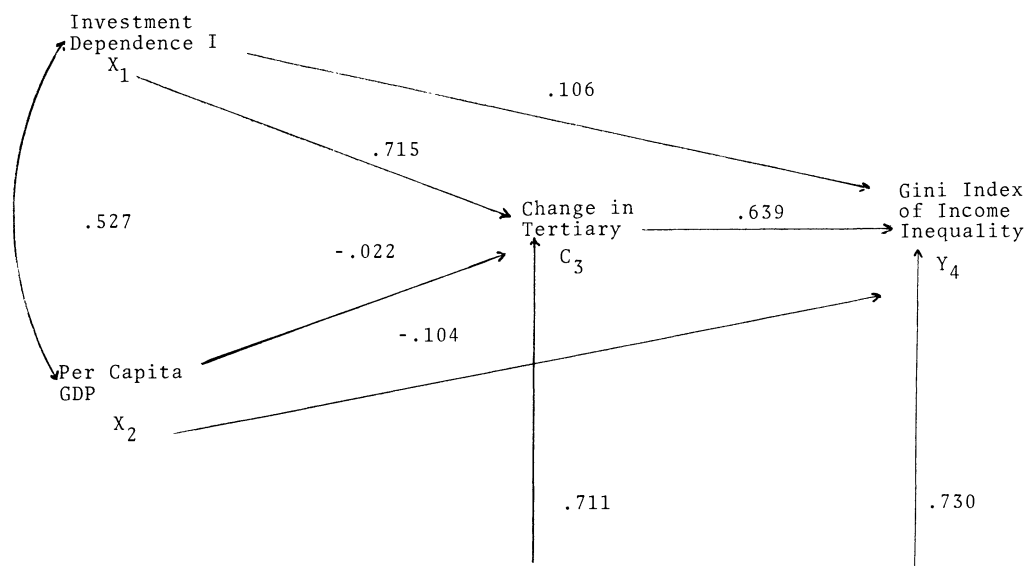


Figure 1a. Path Diagram of Final Model with Investment Dependence I

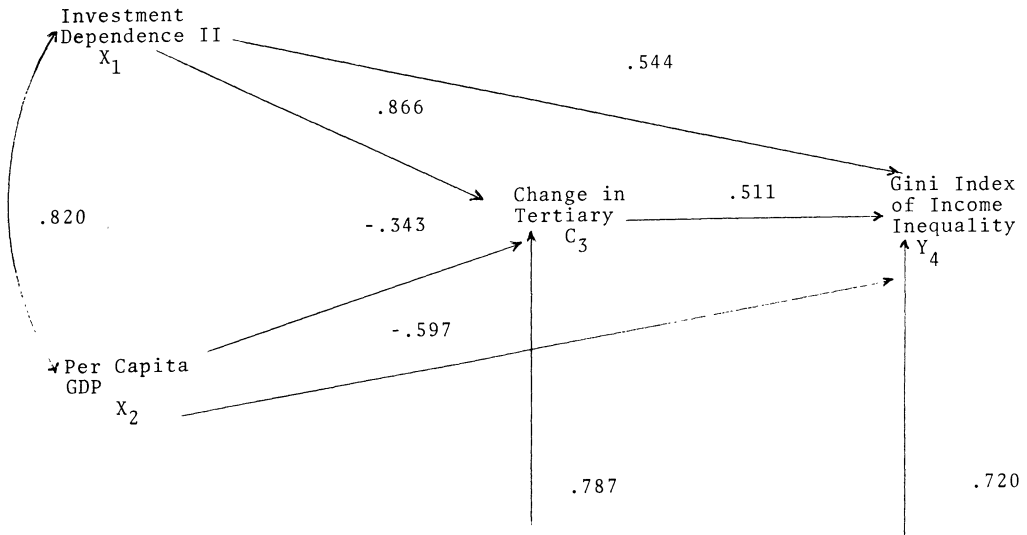


Figure 1b. Path Diagram of Final Model with Investment Dependence II

with additional inequality data and confirmed them, but also tested the hypothesis using a conceptually different measure of investment dependence. While Chase-Dunn's measure of dependence is a "flow" measure—that is, one which indicates the flow of profits from foreign-owned investors during a given period—our second measure of investment is a "stock" measure. That is, it indicates the total stock of foreign investment which has been accumulated in a given country, over time. The fact that the relation between investment dependence and inequality can be confirmed for both flow and stock measures makes the findings all the more convincing.

The credibility of the relation has also been increased because we were able to test it across a broader sample of poor countries than in any previous investigation. Using our second measure of dependency, we were able to include almost 50 less-developed countries in our sample. Given our findings, it is very difficult to argue that the relation between investment dependence and inequality is due to the peculiarities of a restricted subset of Third World countries. It may still be the case that foreign capital is associated with inequality only during a specific historical period. But it seems safe to say that, at least during the sixties, high levels of ex-

ternal economic dependence went along with high levels of inequality throughout the Third World.

We found a fairly strong, positive relation between the growth of the tertiary and our measures of inequality and a clear relation between reliance on foreign capital and the growth of the tertiary sector. Our data also support the idea that the growth of the tertiary can be considered one of the mechanisms through which reliance on foreign capital is related to higher levels of inequality.

Furthermore, we have found that growth of the employment in the secondary sector is not related to higher levels of inequality and that high levels of dependence on foreign investment are not associated with rapid growth of employment in the secondary sector. In short, dependence is not associated with inequality simply because dependence is associated with the growth of the modern sector; the relation between dependence and inequality is a function of the *kind* of modern sector that is created.

The findings presented here have several implications for students of inequality in developing countries. For those trying to elucidate the relation between investment dependence and inequality, our results reinforce the idea that foreign investment exacerbates inequality not be-

cause it prevents capitalist accumulation in the Third World but because the capitalist accumulation it fosters is so strongly exclusionary and inegalitarian. For those who are interested primarily in labor force structure, the main contribution of our findings is to suggest that variables not often considered in such studies, like investment dependence, may be of significant help in explaining differences in labor force structure among countries at similar levels of development. It would be most interesting, for example, to discover whether other kinds of dependence, like trade dependence and aid dependence, have similar consequences for the growth of the tertiary.

More immediately, the empirical confirmation of the connection between foreign investment and the growth of the tertiary makes essential further exploration of the reasons for this connection. So far, it has been assumed that foreign investors may influence the shape of the labor force by choosing different technologies of production than local capitalists would. Other kinds of influence deserve more attention.

Nontechnological effects of penetration by foreign capital on the labor-absorbing capacity of the agrarian sector deserve further attention. So does the hypothesized tendency of the multinational to exacerbate the "city lights effect."

For those interested in policy rather than in further research, the results do not offer too much in the way of positive suggestions, but may provide some useful suggestive information. On the one hand, they supply yet another piece of evidence against the assumption that the growth of the modern sector will diminish inequality. On the other hand, they suggest that reducing investment dependence will have an impact on inequality only if the social structural consequences of past dependence are also dealt with. If we are correct in assuming that most of the influence of investment dependence is mediated through changes in underlying social structure, the resultant inequality will persist long after the last subsidiary is nationalized. But this is, of course, what the elevator operator has suspected all along.

APPENDIX A
LIST OF COUNTRIES IN THE ANALYSIS

Country	Appears in Table:						
	1a	1b	2a	2b	3	4a	4b
<i>Latin America</i>							
1. Dominican Republic			X	X			
2. Jamaica		X		X	X		X
3. Trinidad and Tobago		X		X	X		X
4. Mexico	X	X	X	X	X	X	X
5. Guatemala			X	X			
6. Honduras	X	X	X	X	X	X	X
7. El Salvador	X	X	X	X	X	X	X
8. Nicaragua			X	X			
9. Costa Rica	X	X	X	X	X	X	X
10. Panama	X	X	X	X	X	X	X
11. Colombia	X	X	X	X	X	X	X
12. Ecuador	X	X	X	X	X	X	X
13. Peru	X	X					
14. Brazil	X	X	X	X	X	X	X
15. Bolivia	X	X					
16. Paraguay			X	X			
17. Chile	X	X	X	X	X	X	X
18. Argentina	X	X	X	X	X	X	X
19. Uruguay	X	X					
<i>Europe</i>							
20. Ireland			X	X			
21. Spain		X			X		X
22. Portugal			X	X			
23. Yugoslavia	X	X					
24. Greece	X	X	X	X	X	X	X
<i>Africa</i>							
25. Senegal		X					
26. Dahomey		X					
27. Niger		X					
28. Ivory Coast		X					
29. Sierra Leone		X					
30. Nigeria		X					
31. Gabon		X					
32. Chad		X					
33. Kenya		X					
34. Tanzania		X					
35. Zambia		X					
36. Rhodesia		X					
37. Malawi		X					
38. South Africa	X		X	X	X	X	
39. Malagasy Republic		X					
40. Morocco		X			X		X
41. Tunisia		X					
42. Sudan	X	X					
<i>Middle East</i>							
43. Turkey	X	X					
44. Iraq	X	X					
45. United Arab Republic	X	X	X	X	X	X	X
46. Lebanon	X	X					
<i>Asia</i>							
47. Taiwan	X	X					
48. Hong Kong		X					
49. South Korea		X					
50. India	X	X	X	X	X	X	X
51. Pakistan	X	X	X	X	X	X	X
52. Burma	X	X					
53. Sri Lanka	X	X	X	X	X	X	X
54. Nepal							
55. Thailand	X	X	X	X	X	X	X
56. Philippines	X	X	X	X	X	X	X
57. Indonesia	X	X					
<i>Total Appearances</i>	==	==	==	==	==	==	==
	29	49	24	26	22	18	21

APPENDIX B

CORRELATION MATRIX OF VARIABLES IN THE ANALYSIS (MAXIMUM CASES)

		1	2	3	4	5	6	7	8	9
1. % in Tertiary 1950	r	1.000	.931*	.078	-.118	.805*	-.164*	-.101	.392*	.568*
	n		29	29	34	34	23	23	27	30
2. % in Tertiary 1960	r		1.000	.432*	-.180	.774*	.004	-.274	.344*	.504*
	n			29	49	49	33	33	35	46
3. Change in Tertiary Employment 1950-60	r			1.000	-.358	.423*	.606*	-.679*	.646*	.600*
	n				29	29	22	22	24	26
4. Population Size 1960	r				1.000	-.107	-.260*	.241*	-.284*	-.215*
	n					106	51	51	42	90
5. Per Capita GDP	r					1.000	.106	-.361*	.571*	.656*
	n						51	51	42	90
6. Income Inequality Gini Index	r						1.000	-.799*	.572*	.476*
	n							51	29	49
7. Proportion of Income Accruing to Poorest 20%	r							1.000	-.671*	-.519*
	n								29	49
8. Investment Dependence I	r								1.000	.732
	n									38
9. Investment Dependence II	r									1.000
	n									
	Mean	.221	.235	.008	202.981	208.2	47.96	5.167	2.136	3.100
	SD	.097	.100	.034	758.036	168.9	9.54	2.086	.741	1.454

* Significant to at least the .05 level.

APPENDIX C

THE COMMON CASES ANALYSIS

The results shown in Tables 1a-4b are based on the maximum possible number of cases. Since data on some variables are missing for some countries, this leads to differences in the cases included in the tables, depending on the variables involved. Inferences made on the basis of comparisons between or among tables can be questioned because differences or

similarities may be the result of switching cases rather than due to "real" differences. We have therefore replicated these results on two sets of "common cases." One set consists of the 18 cases for which we have measures of Investment Dependence I, proportion of the labor force in the tertiary in 1950 and 1960, per capita GDP, and inequality. The other set of cases consists of the 21 countries with measures of Investment Dependence II, and the other 4

Table C1. Standardized Regression Coefficients from Tables 1a-3 and from "Common Cases" Analyses

Table Number	Dependent Variables	Independent Variables	Standardized Regression Coefficient (Beta)		Maximum Cases (Betas from Tables 1a-3)
			n = 18	n = 21	
1a	Gini Index	Investment Dep. I	.563**		.671**
		Per capita GDP	-.118		-.178
1b	Gini Index	Investment Dep. II		.986**	.786**
		Per capita GDP		-.772**	-.440**
2a	Tertiary 1960	Investment Dep. I	.290**		.261**
		Tertiary 1950	.636		.683
		Per capita GDP	.202*		.201**
		Time Lag	.057		.032
2b	Tertiary 1960	Investment Dep. II		.290**	.298
		Tertiary 1950		.649**	.664**
		Per capita GDP		.100	.077
		Time Lag		.098	.084
3	Gini Index	Tertiary Change	.702**	.689**	.644**
		Per Capita GDP	-.070	-.216	-.130

Notes: * = significant to between the .05 and .10 level.

** = significant to at least the .05 level.

Table C2. Correlation Matrix of Variables in Analysis Using Cases Common with Table 4a (n = 18)

	1	2	3	4	5	6	7	8
1. % in Tertiary 1950	1.000	.916*	.000	-.240	.771*	-.126	-.015	.418*
2. % in Tertiary 1960		1.000	.399*	-.424*	.846*	.160	-.254	.662*
3. Change in Tertiary Employment 1950-60			1.000	-.493*	.354	.677*	-.605*	.703*
4. Population Size 1960				1.000	-.395*	-.455*	.372	-.520*
5. Per Capita GDP					1.000	.178	-.404*	.527*
6. Income Inequality Gini Index						1.000	-.848*	.501*
7. Proportion of Income Accruing to Poorest 20%							1.000	-.558*
8. Investment Dependence I								1.000
Mean	.236	.259	.002	443.07	268.34	47.722	5.072	2.281
SD	.090	.083	.334	999.10	148.66	8.600	1.892	.672

* Significant to at least the .05 level.

variables. Table 4a is already based on the first of these sets of cases, and Table 4b is based on the second set. The results in Tables 1a-2b have been reestimated for the appropriate set of common cases, depending upon which of the two investment dependence measures was used. Table 3 has been reestimated for both sets of common cases. Table C1 summarizes these results by presenting the standardized regression coefficients (Betas) from the common cases analysis in comparison to the corresponding Betas from the "maximum cases" analysis (Tables 1a-3). Both measures of investment dependence have fairly strong, posi-

tive, and statistically significant effects on the Gini index of income inequality in the replications of Tables 1a and 1b. Both investment dependence measures continue to have moderately strong and statistically significant positive effects on growth of the tertiary, and growth of the tertiary continues to have significant positive effects on the Gini index in both sets of cases. In short, the results obtained earlier are very similar to the results obtained when attention is restricted to sets of common cases. Tables C2 and C3 present correlations among the variables in the analysis for the two sets of common cases.

Table C3. Correlation Matrix of Variables in Analysis Using Cases Common with Table 4b (n = 21)

	1	2	3	4	5	6	7	8
1. % in Tertiary 1950	1.000	.911*	.000	-.245	.795*	-.231	-.054	.550*
2. % in Tertiary 1960		1.000	.406*	-.392*	.877*	.043	-.341	.732*
3. Change in Tertiary Employment 1950-60			1.000	-.406*	.368	.609*	-.706*	.585*
4. Population Size 1960				1.000	-.373*	-.436*	.361	-.450*
5. Per Capita GDP					1.000	.037	-.149	.820*
6. Income Inequality Gini Index						1.000	-.753*	.353
7. Proportion of Income Accruing to Poorest 20%							1.000	-.424*
8. Investment Dependence II								1.000
Mean	.237	.262	-.003	393.32	283.30	47.143	5.148	3.634
SD	.087	.090	.037	930.93	163.74	8.089	1.826	1.534

* Significant to at least the .05 level.

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ERRATA

■ Three errors unfortunately occurred in "Synthesis and Comparison of Stratification Theories: A Reply" (to Attewell and Fitzgerald's Comment on an earlier article) by Robert V. Robinson and Jonathan Kelley in the April, 1980, *ASR*.

On page 328, column two, last paragraph, a type-correction line for the previous paragraph was, incorrectly, inserted as the second line of the first sentence. The second line should have read "zation of control, we defined the capitalist". The entire correct sentence—Employing this definition and operationalization of control, we defined the capitalist class as those who control the means of production and exercise authority (that is, have employees or subordinates) and the petite bourgeoisie as those who control the means of production but do not exercise

authority.—was critical to Robinson and Kelley's reply, toward explaining their position and toward understanding the remainder of the article.

On page 329, Table 1, second column, the "Control (1)" figure—.184—for "Dahrendorf: Authority" should have read: .184*—the asterisk indicating that it, too, was significant at the .05 level.

On page 332, Table 3, the third-column figure—.115—for "Marx: Control (cols. 1 and 2) or Ownership (cols. 3 and 4)" should have read .115*—the asterisk indicating that it is significant at $p < .05$. Because of the omission of the asterisk, Attewell and Fitzgerald's claim (that [Robinson and Kelley] slighted the Marxian model by employing a job earnings measure) seems to be more substantiated than it, in fact, is.