11. GLOBAL CHILD LABOR

Past as Prologue

Global child labor is a problem of immense social and economic proportions. In the world today, the International Labour Organization estimates there are 250 million working children under the age of fifteen in the developing nations alone. Of these, 120 million are considered to be fully at work. According to the ILO, 61 percent of child workers are found in Asia, 32 percent in Africa, and 7 percent in Latin America. While Asia has the largest number of child workers, Africa has the highest labor force participation rate at around 40 percent of children between five and fourteen years old.¹

Table 11.1 presents a broad overview of child labor in recent world history. More than a little caution must be urged in viewing these numbers, as the ILO's current estimate of global child labor implies more than a threefold increase in the estimates presented here.² The source of the data in Table 11.1 is the ILO's Economically Active Population. It counts only children from ten to fourteen and relies, for the most part, on official estimates from the member countries. From the table, it appears that, in absolute numbers, global child labor peaked around 1980. But the percentage of children in the total labor force and labor force participation rates of children peaked much earlier, sometime before 1950. Both of these indicators are now on a steady downward path. Rough parallels can be observed in both magnitudes and directional trends between global labor force participation rates and presence of children in the workforce with those observed in U.S. history. To the extent that the data are comparable, which they really are not, global child labor today stands at roughly the level where U.S. child labor stood in 1920, when the United States was on the verge of eliminating child labor from key sectors, especially the mines, mills, and factories. Further, there are a number of striking parallels between the kinds of work performed by children in the world today and the kinds of work performed in the United States then. A majority of the world's working children are in agriculture. It is not known what portion of them are in preindustrial subsistence

Table 11.1

Economically Active Population, Aged Ten to Fourteen, in the World: 1950–1990 (in thousands)

Year	Workers 10–14	Population 10–14	Total workers	Children as % of workforce	Activity rates of children (%)
1950	71,022	257,838	1,206,527	5.89	27.55
1960	76,968	310,607	1,377,254	5.59	24.78
1970	90,104	404,423	1,656,125	5.44	22.28
1980	99,530	499,846	2,054,245	4.85	19.91
1990	75,630	518,289	2,505,793	3.02	14.59

Source: International Labour Organization, Economically Active Population, 1950–2010 (Geneva: ILO, 1997), vol. 5, table 4.

farming and what portion are in commercial agriculture. Next most prominent sectors are domestic services and the street trades. The National Child Labor Committee never investigated domestic services, and little is otherwise known about the American record at the turn of the twentieth century. It is understood that domestic service was not an uncommon occupation, especially for girls. We certainly had a rich body of experience in the street trades. In addition to agriculture and the street trades, global child labor problems exist in each of the sectors investigated by the NCLC and examined in this book. Child labor is common in small-scale mining and quarrying operations. Children work in glassmaking and ceramics. Not so many work in textile factories today, but many work in hand-woven textiles and especially the garment and needle trades in subcontractor and home workshops.

Global child labor is correctly perceived as a problem of economically underdeveloped nations. But if all advanced nations had to pass through a stage of pervasive child labor on the path to advancement, then the economic history of advanced nations may serve as guide to eradication of child labor in the developing nations.

Toward a Theory of Child Labor

Over the last decade or so, there has been a growing awareness in the United States of the problem of global child labor. Media stories, especially when they have involved celebrities or celebrity corporations, have heightened public attention to the problem. Accompanying this growing

awareness has been a modest burgeoning of scholarly writing and research on the topic. Important steps have been taken to integrate various perspectives into a more unified and general "theory of child labor." This section assesses the contribution that insights from U.S. history can make to a theory of child labor.

The thesis advanced here, that industrialization is the cause of both the child labor problem and, later, its eradication, is not entirely novel. During early phases of industrialization, forces came into play that virtually ensured that children would be put to work. In later stages of industrialization, factors conspired to curb child labor.

While child labor has long been a topic of interest to many disciplines, much of the best recent integrative theoretical work on child labor has been in economics. Considerable progress had been made in articulating a formal theory of child labor that appears to have great potential for integrating the work of many disciplines.³ Professor Kaushik Basu of Cornell University, formerly with the World Bank, has developed an elegant formal economic theory of child labor based on a multiple equilibrium model.4 In a very poor society, where adult wages are very low, children must work. In a well-off society, where adult wages are high, no children work. But in between, there may be a societal equilibrium with massive child labor, and another equilibrium with relatively higher adult wages and no child labor. It is only in this middle stage that bans on child labor are warranted. In the earlier stage, a ban will make the poor, including the children, worse off. In the later stage, a ban is no longer needed, even if it remains in place as a vestigial "benign" intervention. By suggesting a "tipping point" in a society's development at which child labor can be eliminated, the theory has enormous policy implications. On the positive side, it is a fundamentally optimistic theory. It points the way to the elimination of child labor through "general economic development, equitably distributed."⁵ On the other hand, the theory urges caution—if we push too hard too soon (or in the wrong way) to eliminate child labor, we can make things worse for everyone, including the children. Furthermore, the theory suggests that a poor society may fall into a "child labor trap"—stuck in the bad equilibrium—where one generation of child workers becomes the next generation's impoverished adult workers who must, in turn, send their children into the workforce.6

Taking certain liberties with Basu's theory, it is generally consistent with the premise advanced here regarding industrialization. Accepting

the multiple equilibrium premise, a key question involves locating the tipping point where child labor can, at least theoretically, be eliminated. Locating the tipping point concurrent with industrialization has a number of important implications for both the rise and eradication of the child labor problem. First, in preindustrial society where adult wages were low, at least as they would be measured today, we would expect work of children to be a mass phenomenon, but we might not condemn it as a social and economic problem. Children from as early an age as possible, within the confines of a kinship-based household, contributed to production for the group's own consumption. As society began to industrialize, it entered the multiple equilibrium stage of the model where child labor came to be perceived as a problem but also where a solution was possible. Finally, with the continuing advance of industrialization, our society moved beyond child labor in most sectors. Second, placing the tipping point in industrialization invites us to revisit the intriguing and age-old question whether child labor—assumed to be evil—is a necessary evil. If the tipping point was correctly located at the very beginnings of industrialization, then the answer, at least in theory, would be no, child labor is not necessary. A society could choose to industrialize using child labor and hope to grow out of it later. Or a society could industrialize without child labor from the beginning. The latter would be a large claim. Empirical evidence offers very few examples of industrialized societies that have not gone through a stage of pervasive industrial child labor. Nevertheless, the theoretical proposition advanced here is that with industrialization, social and economic forces are unleashed that could do without child labor if necessary, but which are likely to result in child labor unless anticipated.

Kaushik Basu credits rising real money income and elevated standards of living as the forces eliminating child labor, phenomena which should occur shortly after industrialization begins. Thus, poverty is the main explanatory variable. Poor families send their children to work; well-off families do not. That child labor is associated with poverty is well accepted. How poverty relates to child labor is less well understood. Child labor in the United States was clearly a problem of poor Americans. The well-to-do never had a child labor problem, the notable exception being the controversy over child actors, which led to the so-called Jackie Coogan Laws. Indeed, it is a sure sign that a society has gotten beyond most of its child labor problems when it hoards all the

best work opportunities for middle- and upper-middle-class children, leaving the poor out of work. It is certainly true that, in the long run, child labor diminished as incomes rose. But the relationship between child labor and poverty was more complex than that. In America, we saw examples of rising incomes causing a reduction in child labor. As incomes rose in cities like Philadelphia and Baltimore, participation in the annual migration to the berry fields of the Eastern Shore and the seafood canneries on the Gulf Coast diminished.8 But the process was slow. First, fathers skipped the migration and remained in the city. Then young adults began staying at home. Finally, when incomes had risen sufficiently, the women and children stayed at home. But there are also counterintuitive examples showing that child labor diminished as incomes declined. The most rapid reduction in child labor in southern cotton textiles occurred during the industry depression of the 1920s when work-sharing programs were instituted. Likewise, child labor in tenement homework probably reached its lowest ebb during the Great Depression when the NRA Codes were in effect (at least in those sectors regulated by the codes).

Rising incomes may provide an economic foundation for withdrawal of children from the market, but it was also necessary to attack the cultural underpinnings of child labor. For example, when journeymen glassblowers no longer found the industry suitable for their own sons ("I'd rather send my boys straight to hell"), it was the beginning of the end of child labor. While the industry continued to use boys for some time, it was never able to establish a reliable labor supply and eventually turned to substitutes. The rising incomes of skilled workers, secured through their craft unions, may have afforded them the luxury of withholding their boys. But it was the truncation of the craft career ladder, when "dog boy" became dead-end work, that child labor in the glasshouses was doomed. While poverty undoubtedly motivates child labor, the role of custom, habit, and tradition probably played as decisive a role. If the potential tipping point on child labor is coincident with industrialization, it implies that we could have done without child labor. In economic terms, employers should be indifferent as to better paid and more productive adults versus lower-paid and inefficient children. But since children had always worked, custom, habit, and tradition brought them to work in industry. Child labor remained prevalent, long after its justification in economic necessity, until old habits were broken.

Supply of Child Workers

Child workers are supplied to the labor market by the household. Supply can generally be understood within the framework of household economy, for which there is a rich theoretical and empirical literature in both economics and sociology. Earlier theories of household economy treat the household as a unit seeking to maximize a single utility function. Decisions regarding allocation of time—whether and how much to devote to labor or leisure, labor or schooling, production or consumption, production for the household or production for markets, production for markets within the household or in the external market—are made so as to maximize the common good of the household. The head of the household, generally the father but, if absent, then the mother, is assumed to be the decision maker. Under these models, the time of children will be allocated to labor, and more importantly, to the labor market, when returns to household utility are perceived as greater than returns to alternative uses of the time of children.

More recent theories of household economy treat it as a collection of individuals who each possesses his own unique utility function. ¹⁰ The family strategy, then, is to maximize a weighted sum of these utility functions. The weight accorded to any given family member's utility function is determined by his or her bargaining power within the family. Thus, these theories incorporate various bargaining and game-theory models into the household decision-making process. 11 The major contribution of the newer theories is the suggestion that, as children become workers and contribute larger shares to household income, their status in the bargaining hierarchy of the family, and thus their influence on household decisions, is enhanced. This theoretical nuance may alter decisionmaking processes at the margins in special circumstances, but would generally yield the same behavioral predictions as the simpler unitary theories. First, at the point of the initial decision whether the child should work, children are presumed to have near zero bargaining power. Thus, the decision is made by powerful parents without consideration of the child's own utility function because it has no weight. Once the decision to work is made, the child may gain some bargaining power within the family, but this would, ceteris paribus, encourage continued work so as to enhance influence further. Next, under many circumstances—such as pure family wage situations—contributions of individual family members may be inseparable and indistinguishable and so, by necessity, are

treated as unitary. ¹² The earlier model of the unitary family may be a better fit to the historical period under consideration. ¹³

An important theoretical issue in household decision making is the question of parental altruism. In economic terms, parental altruism implies that parents are willing to forgo some portion of the family's current utility to enhance the child's future utility. Thus, a child may be held out of work, even though it means a current loss of income, in favor of school that may increase future earnings. Most recent economic theories of child labor assume some degree of parental altruism. Generally, under these models, parental poverty drives the decision to supply children to the market. When child labor is seen as essential to economic survival, children will work. But when family income rises above some threshold level of subsistence, children are withdrawn from the labor market. Within the framework of household economy, poverty is widely acclaimed as the first cause of child labor. Everywhere and always, child labor is associated with poverty.¹⁴

But the assumption of parental altruism is grounded in an overly simplistic view of the role of poverty in child labor, as discussed above, and it is not clear that the assumption of parental altruism is warranted, at least not as it has been articulated. While there is ample evidence that many caring but desperate parents, both historically and today, sincerely regretted sending their children into the labor market, there is also ample evidence of low parental altruism. Parents in mining camps and mill villages sent their children to work in accordance with habituated agebased rites of passage and viewed their right to the child's earnings as an entitlement. Altruism was irrelevant to the parents who took their children to the berry fields or the seafood canneries. Once the children were there, what else was there for them to do but work? Donald Parsons and Claudia Goldin constructed models of parental choice with and without altruism and concluded that the data for 1890 in the United States, when child labor was near its peak, were consistent only in the model without parental altruism. They concluded:

The empirical results suggest that parents did not have strong [economic] altruistic concerns for their children. The presence of industries with a high demand for child labor sharply reduced the future wealth position of the offspring. Child labor had the obvious, almost definitional, negative effect on schooling attainment. At the same time, the family provided little . . . to compensate children for their lost schooling and future earnings. The increased family income was apparently absorbed in higher current

family consumption. Indeed much of the apparent gain to family income from child earnings was illusory; the greater child earnings were almost wholly offset by lower earnings for the adult male.¹⁵

There is additional evidence that suggests we should be cautious about adopting the assumption of high parental altruism. Working-class Americans viewed their children as income-producing assets—as poor man's capital. Where children are viewed as income-producing assets, it tends to skew fertility decisions upward. Industrialization is commonly associated with a dramatic decline in fertility rates as parents traded quantity of offspring for quality of offspring. When long-run trends are examined more closely, however, fertility rates remained high through protoindustrialization and well into early industrialization before they finally began to fall. The notion that early industrialization caused fertility rates to drop "belongs to the historian's dustbin; if anything family size increased slightly" as parents sought to exploit the income-producing potential of large families.

The foregoing discussion of parental altruism again suggests the importance of custom, habit, and tradition in determining supply of child workers. Even if parents are generally economically rational, at the same time, they are largely guided by custom, habit, and tradition. In any historical transition, customs, habits, and traditions that were shaped in the period prior to the transition in turn shape behavior of the participants into and during that transition. So, too, preindustrial traditions of child labor were carried forward into industrialization. Since children worked in preindustrial times, they would work into industrial times and would continue working until preindustrial customs, habits, and traditions were broken. Economic rationality might generally and ultimately prevail, but not until overcoming these inertial forces. Custom, habit, and tradition delay the altering of economic behavior as families may persist in sending their children into the labor market long beyond the point demanded by economic necessity for no other reason than that they have always done so.

Consequently the existing practice among craftsmen of working from sunup to sundown, even when this involved fourteen or sixteen hours a day, was carried over into the factory without recognizing the fact that the intermingling of leisure and work which had relieved the fatigue of the craftsman was impossible for the operative. Women and children were employed without thought to the difference in the effect upon them between factory employment and sharing in family craftsmanship.¹⁸

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Consider that mass child labor is not simply a family phenomenon or a societal phenomenon, it is also, at an intermediate level, a community phenomenon. At one extreme, if none of my associates and neighbors send their children to work, despite crushing poverty, I am not likely to send my children to work—I might behave altruistically without being strong on altruism. At the other extreme, if all my associates and neighbors send their children to work, in spite of being fairly well off, I probably will too, even if I am generally altruistic.

On the Role of Schooling

Parental decisions regarding allocation of their children's time, however altruistic the parents may be, are conditioned by the range of available alternatives. Schooling has come to be viewed as the generally preferred alternative to work for children.¹⁹ In allocation of a child's time, schooling is the antithesis of work. A child cannot at the same time be both at work and at school, though part-work–part-school arrangements are not uncommon. Effective schooling presumptively eliminates the detrimental effects of child labor and substitutes acquisition of human capital and earning potentials. It is, as the saying goes, a "win-win situation" for both society and the children.²⁰ It is impossible to overstate the importance of schooling in eliminating child labor and, indeed, in redefining the concept of childhood for the industrial age. As Hugh Cunningham has noted:

There is also little doubt that the introduction of compulsory schooling, normally in the late nineteenth century, did more than any other factor in these five centuries to transform the experience of and the meanings attached to childhood by removing children, in principle if not immediately in fact, from the labour market, now reserved for those who were no longer "children." ²¹

During early industrialization, however, schooling was not necessarily seen as a gain by either the parents or the employers, who lost the current returns on the labor of the children. Their resistance had to be overcome. Eventually, parental values habituated to a view of children as income-producing assets had to become reoriented toward schooling. Only when working-class parents began accepting the view of the economically worthless but emotionally priceless child could they clearly perceive the long-run gains (including but not limited to earnings

potential) in schooling for their children. Likewise, employers eventually came to value schooling. Enlightened employers and their representatives came to see a greater long-run return to sending the children to school while they were young and employing them later, after they had acquired some of the elementary human capital so useful in advanced industrial employment. But during early industrialization, both parental and employer short-term interests always argued for continuation of the child labor system.

While it is easy to identify schooling as the solution to the child labor problem, it was not an easy solution to implement. To be an effective alternative to child labor, schooling must first be available. Making schooling universally available requires a massive and ongoing public investment, one that all advanced nations eventually made. In America, widespread availability of schooling came sooner to urban areas, where people were concentrated, than to rural areas, where the population was more widely dispersed. In this regard, the mill schools in the southern cotton mill villages made available the only opportunity for any schooling at all for many southern children.

Second in importance to availability is cost. When parents choose schooling over work for their children, they necessarily incur an opportunity cost in lost earnings of the children. To the extent that additional costs are incurred—say for tuition, books and supplies, uniforms, transportation—schooling is a less attractive alternative. Where families are truly dependent on their children's earnings, compulsory schooling may exacerbate poverty. A popular policy-option today suggests providing subsidies to families to keep their children in school. We experimented with a number of "scholarship" programs in our own history. Relief agencies in major cities established scholarship programs designed to enable school attendance without harming the family economically. Some were income-replacement programs calculated on probable lost earnings. Others were means-tested based on household need. Still others provided subsidies for books, supplies, or clothing. We found that these scholarship programs were vital for some families. But we also found that most eligible families never even applied, and of those who did, most needed only a small amount of help for only a short while. The entire cost was borne, in that era, by private charity. The major cost of universal compulsory schooling is provision of the school system itself. Ameliorative incentive programs, even added to compliance and enforcement costs, should add only modestly to the total.

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Making universal schooling available at low cost was necessary, but not sufficient, to transfer the children from work to school. Schooling had to be made compulsory. Customs and habits of parents and employers had to be changed through societal compulsion. But simply establishing agebased enrollment and attendance requirements was also insufficient.²² Additional enforcement mechanisms were required. Parents, employers, and county ordinaries could not be counted on to attest truthfully to the ages of children. The ultimate solution to the problem of trustworthy agecertification was the creation of systems for keeping accurate birth records. Factory inspectors and other law enforcement officials proved inadequate in enforcing compulsory school attendance. This responsibility was to be shifted to the schools themselves as embodied in the truant officer. Migratory families presented, and continue to present, especially difficult problems in enforcement of compulsory schooling laws. These problems are undoubtedly exacerbated by our American tradition of local control over school systems. As migratory children regularly passed from one jurisdiction to the next, no local school system was willing to accept responsibility, or bear the costs, of educating them.

Industrialization confronts society with a quality-quantity trade-off similar to that confronting parents. An educated citizenry eventually proves to be an economic, political, social, and cultural asset. Industrialization creates not only a mass labor market to satisfy a mass consumer market, it also creates a market for schooling of the masses. As with child labor, there appears to be a societal tipping point on school enrollment. When none of my neighbors and associates consider schooling their children, neither do I. When my neighbors and associates start considering school, I might also. Indeed, there is reason to suggest that a number of societal tipping points may converge. Tipping points on child labor, school enrollment, fertility rates, child health, and underdevelopment are all likely to be causally interconnected. Certainly the earlier a society can provide schooling for the masses, the better. Universal compulsory schooling is an enormous investment that is not accomplished overnight. Societies that wait until they discover their child labor problem to address the issue of schooling are likely to prolong child labor, as we undoubtedly did in America.

Demand for Child Workers

If a theory of supply of child workers is fairly well developed, employer demand for child workers is less well understood. We know much less about demand for child workers than we do about supply. Simply positing employer greed as the principal motivation is tempting but theoretically inadequate. Most recent economic theory assumes employers are generally indifferent as to whether they hire adults or children. To be sure, child labor is cheap labor, but it is also low-productivity labor. It is assumed that children and adults are paid in accordance with their marginal productivity, and so, in terms of cost of production, the choice between children and adults is a wash. That employers are generally indifferent, at least on economic grounds, to the choice between children and adults is the most reasonable starting point for theory, and there is at least some historical evidence supporting the assumption, but it is far from the whole story.²³ We cannot explain employer demand for child workers by assuming it away.

Coupling elementary economics with elementary knowledge of children, a number of propositions can be asserted. We know child labor, relative to adult labor, is low-productivity labor. We also know there are limits on the kind of work children can perform. Children can perform work that does not require too much strength, knowledge, or skill and where pressure on employers for high productivity is subdued. Conditions favorable to low-productivity labor would include piece-rate and family-wage payment systems, few restrictions on hours, wages, or conditions, and smaller investments in capital. Piece-rate systems make labor costs more fixed than variable and subdue productivity pressures. Pure family wage systems made productivity of the children utterly irrelevant to employers. On the other hand, any restriction on hours of work, minimum hourly wages, or health and safety requirements would increase employer incentives to get more work from each hour of labor. In the United States, hours restrictions played the more important role in reducing child labor, health and safety played a role that seemed significant but difficult to pin down, and minimum wages were less important (they came later). In the world today, restrictions in any or all of these areas may be expected to have an effect. Finally, increased capital per worker heightens employer concern for productivity. So, we would expect children to be found in labor-intensive than in capital-intensive settings—handwork would be the ideal. Furthermore, where the employer can shift capital costs—for example, by subcontracting or homework—interests in productivity are further subdued. Taken together, these factors suggest we would expect to find child labor exactly where we have found it—in the least advanced, least protected economic backwaters.

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But this still does not adequately explain demand for child labor and, more particularly, persistence of that demand. If, on economic terms, children and adults are effective substitutes, employers would be expected to make that substitution at the first sign that child workers were becoming a social or political cost. It is probably fair to say that new industrial employers "merely took what they found"—that is, they found the preindustrial household economy and took it, at least for a time, to be an effective solution to their labor problem. In doing so, they carried child labor forward into the new industrial regime.²⁴ But we also know that many employers vigorously resisted child labor reform efforts and continued to employ children long after it was fashionable to do so.

There are many reasons that employers might view children as "ideal workers"—why they might, within constraints outlined above, actively prefer child labor. First, even where children and adults are effective substitutes and wages are proportionately adjusted to productivity, as it is assumed they are, employment of large numbers of children can bring economic advantage by depressing adult wages. In theory, where large numbers of children compete with adults for the available work, adult wages must be driven down (or adult unemployment increased, or both). This is an oft-voiced, but rarely tested, proposition. However, in one clear test, Parsons and Goldin found that, in 1890 America, fully 90 percent of child earnings were competed away through lower adult wages.²⁵

Second, employers can reduce transaction costs by hiring whole families. Up-front costs are reduced as the employer transacts for the whole gang at the time of initial hire. Second, turnover costs are reduced as family wage arrangements make it more difficult to move. These savings in transaction costs could be especially important where labor mobility and turnover were otherwise high.

Third, many have suggested that children are more compliant and obedient than adult workers—they are more willing to do as they are told and less likely to cause certain kinds of trouble like organizing unions. It was certainly true that children were less aware of their rights and how to assert them, and that very young children could be intimidated easily. But it was not really true that children were more compliant and obedient. They were often loud and boisterous, careless and inattentive, and they played like children. Task-oriented management in a mine, mill, or factory kindergarten was severely challenging. It might be more appropriate to suggest that the presence of large numbers of children in the workplace made adults more compliant and obedient

than they would otherwise have been. While there is little direct evidence of a causal connection, child labor declined most rapidly in southern cotton textiles concurrent with the growing labor unrest of the 1920s.

Finally, there is the "nimble fingers" argument that children can perform some work better than adults—that, by virtue of small, supple bodies, there are things children can do that adults cannot. While the nimble fingers argument has been debunked in recent writings, 26 it has been a persistent argument throughout history and cannot be dismissed out of hand. Certainly there were advantages to being a child in performing much of the work that children performed. Working for long stretches sitting down and hunched over bent double may have been difficult for breaker boys or mold boys, but it would have been excruciating for most adult men. Dog boys worked at a rapid pace in tight quarters, again giving the advantage to young (slender) boys. The small, nimble doffer boys had an edge in climbing up on the spinning frames, and there was no doubt that supple fingers helped the girls learn spinning. But in each and every case, there were human or mechanical substitutes available that would have performed the work equally effectively or better. 27

On the Role of Mechanization

Early mechanization not only created the factory system, it created demand for children. In her examination of child labor during the British industrial revolution, Carolyn Tuttle advances a theory of "biased technological change" suggesting that technologies developed for the early factories favored employment of children.²⁸ She cites three classes of technological change that operated to increase demand for children: (1) labor-intensive technology, (2) labor-substituting technology, and (3) laborspecific technology. There were examples of each in American history. Sometimes uneven technological advance, especially when coupled with division and specialization of labor, left gaps in the work process between the difficult or skilled jobs. These labor-intensive jobs created a need for a large number of assistants and helpers, roles that could often be filled by children. Doffers and sweepers in textile mills and the dog boys in the glasshouses are prime examples. Other technology allowed employers to substitute unskilled for skilled labor in certain machinetending production processes and, again, created a demand for children. When ring-spinning replaced mule-spinning in cotton textiles, men were displaced and were replaced by girls and young women.

Finally, some technology was labor specific in that the machines specifically required children, rather than adults, to operate them. For example, before the advent of electricity, when textile mills ran on a complex system of belting connected to a central power source, and when much machinery was still made from wood, spinning rooms were located on the top floor of multistory textile mills. In order to reduce vibration, the spinning frames were built close to the floor. For an adult to operate them required back-breaking "stoop" labor. Children, being of shorter stature, could often operate the machinery more easily.²⁹

Whatever the effects of early mechanization, it is clear that advancing mechanization created forces opposed to employment of children. Hand operations and labor-intensive tasks were mechanized, and steadily increasing investments in capital per worker steadily increased both skill requirements of the work and employer concern over worker productivity. Employers eventually realized that it no longer paid to run a kindergarten in a coal breaker, a glasshouse, or a textile mill. In coal mining, mechanical slate pickers replaced boys in the breakers, and machinepowered or electric haulage systems eliminated the need for most of the boys underground. In glasshouses, introduction of pressed-glass technologies reorganized the production processes and automated conveyor systems (along with blacks and immigrants) replaced the dog boys. In textiles, it was not so much the introduction of new machinery that replaced the children, but rather new management strategies to achieve greater efficiencies in use of the existing machinery. In industrial homework, the street trades, and agriculture, the record is mixed. The garment and needle trades remain relatively labor intensive, and where handwork can be put out to subcontractor sweatshops and home workshops, children can still be found working. In newspapers, children in downtown districts have been replaced by vending boxes, but children continue to carry papers on residential routes. In agriculture, wherever hand-harvesting methods were mechanized, child labor was eliminated, but where hand-harvesting remains the method of choice children continue to work.

If, on the supply side, poverty can create a child labor trap, technology can create a child labor trap on the demand side. In discussing technology, it is always important to distinguish between available technology and technology in use. There was often a lag between the time when a technological advance became available and when it was put to use in industry (and eliminated child labor). For example, mechanical slate

pickers were available well before boys were removed from the coal breakers. So long as boys were cheap and readily available, employers had little incentive to invest in advanced technology. They could continue to profitably use a low-productivity production process. When the continued child labor agitation made it more difficult to hire boys, one by one mines began installing mechanical pickers and, one by one, eliminating boys from the breakers. Once the capital investment was made, however, the production process had to be reorganized to spread the increased capital cost over more units of production. Thus, the presence of child workers delayed technological advance and, by the same token, removal of child workers spurred technological advance and productivity improvements.

It should be noted that even modest technological advances could have large implications for child labor. For example, the simple expedient of putting long handles on the hand-held scoops of cranberry pickers displaced the children by requiring adult strength while, at the same time, making cranberry picking a more lucrative proposition for adults. In attacking global child labor, it may often be possible to use simple technologies as low-cost tools for simultaneously eliminating child workers and boosting productivity (and pay) for adult workers. For example, the simple expedient of providing wheelbarrows in quarries around Bogotá, Colombia, displaced the children who had previously carried rock piece by piece.³⁰

On Law and Reform

A prominent theme in economic history is that law matters little in the regulation of child labor. State child labor laws are given little credit for the reduction of child labor in early twentieth-century America. ³¹ Likewise, compulsory schooling laws are given little credit for either increasing school enrollment or decreasing child labor. ³² Finally, there is abundant evidence that, in spite of our laws, widespread and persistent violations occur. ³³

A superficial review of the reform movement's efforts in the realm of U.S. federal regulation would seem to support the view that law matters little. After all, according to census data, child labor peaked in the United States in 1900, before a national child labor movement coalesced. Our first serious attempt at federal legislation, the Beveridge bill of 1906, went nowhere. It was nearly a decade before another bill was seriously

considered. Our first federal child labor law, banning interstate commerce in goods produced by children, was enacted in 1916, but was found unconstitutional. A second attempt—the Child Labor Tax Act of 1918—was also found unconstitutional. In the mid-1920s, Congress recommended a constitutional amendment to the states, but it, too, failed. The Fair Labor Standards Act (FLSA) of 1938 was our first enduring federal child labor legislation. But by the time it was enacted, child labor had largely and long been relegated to the past. On the surface, it appears entirely plausible that federal regulation played little role in abolition of child labor. At best, it may have formally ratified the abolition, but it does not appear to have brought it about.

This skepticism over the role of law carries over to the present debate over global child labor. Legal bans are inherently suspect as not too thinly veiled protectionism designed to remove the common competitive advantage of developing nations—cheap labor.³⁴ Under conditions of crushing poverty, legal bans can leave everyone—from the children to the parents to the employers—worse off.³⁵ The cautionary tale is told how thousands of young girls were summarily dismissed from the Bangladeshi garment industry in 1992 when the Harkin bill banning imports made with child labor was merely introduced in Congress. Many were forced into far worse situations, including prostitution.³⁶ To be sure, economic theory recognizes that, in the long run, banning child labor and promoting schooling is welfare enhancing.³⁷ Legal bans can be effective only to the extent that they hasten the arrival of the long run while cushioning the potentially devastating effects of the short run. Probably the most optimistic view of legal bans in recent theory is that they can help "jolt" an economy out of its reliance on child labor. But once achieved, economics would enforce the ban, and a legal ban would no longer be needed, even if it remains in place as a vestigial "benign" intervention.³⁸

But this view could lead to the quite erroneous conclusion that legalreform efforts matter little. This would be an utterly dangerous conclusion for today's and tomorrow's child workers around the world. It would also be utterly wrong with respect to American history. When federal efforts are examined more deeply than their surface failures, and when federal efforts are examined alongside state efforts, and when the longrun accomplishments of the reform movement itself are examined, a different picture emerges. Coercive powers of the state were critical necessary even if not sufficient—for the abolition of child labor. As adjunct measures in the larger struggle against child labor, laws did indeed ratify milestone achievements, but they were also instrumental in bringing about real reform.

Did the enactment of the Fair Labor Standards Act in 1938 have a measurable effect on the reduction or elimination of child labor in America? Absolutely not. Child labor had been almost entirely eliminated from mining and manufacturing, and was generally well regulated in retail trades, several years earlier. No one seriously claims, let alone has been able to document, any substantial reduction in child labor in these sectors directly attributable to enactment of the FLSA. This would seem to support, if only superficially, the school of thought that laws do not matter much.

But did the movement toward federal regulation have a palpable effect on the reduction of child labor in America? Of course it did. If enactment of the FLSA had no measurable effect on numbers of working children, the movement for which the FLSA was a crowning achievement had a large and decisive effect. It is tempting to note only the reform movement's lack of achievements at the federal level and conclude it was feeble, belated, and ultimately, unnecessary. It is also tempting to conclude that, because the reform movement lost most of the major battles, that it also lost the war. But this overlooks too much. There were other important federal milestones. The formation of a Children's Bureau in 1912 and the commissioning of a massive study by the Labor Bureau (authorized in 1906 and completed from 1910 to 1913) were important first steps. The Children's Bureau would assume responsibility for investigating child labor in the traditional sectors (mining and manufacturing), which freed the NCLC to emphasize other sectors (agriculture, the street trades, and industrial homework). After the 1916 law was found unconstitutional, its provisions were imposed by executive order, as a wartime measure, on federal contractors. The 1918 law remained in force for three full years, at a critical economic juncture, before it was struck down. And finally, many consider the child labor provisions of the NRA Codes to have been the final nail in child labor's coffin. Each of these events, not to mention the great national debate over the Child Labor Amendment, contributed to driving child labor out of industrialized America.

Constitutional considerations dictated that the major battles of the child labor movement would be waged at the state level. This required a sustained, multicentered, multifaceted humanitarian reform movement to carry the banner. Progressive states, usually but not always the more industrialized, led; others eventually followed. Specific provisions in law tended toward convergence on a common standard, but specific provisions were often less important than effective compliance and enforcement provisions. As Daniel Nelson has noted, "[T]he exact provisions were often less important than the extent of the enforcement effort. . . . In the last analysis it was the inspectors rather than the legislators who determined the impact of progressive legislation." Furthermore, as the child labor reform movement intersected with other movements, the complexity of law magnified. It was not just minimum ages, hours restrictions, and compulsory schooling that mattered; a wide variety of reforms, from abolition of slavery to adoption of widows' pensions, were also important.

Our American history of child labor reform may be especially informative about the political and geographic contours of the reform movement in the world today. We established ourselves as a republic of sovereign states. Constitutionally protected states' rights effectively barred a federal role regulating the workplace until 1937. Before then, all labor law, whether regulating factory conditions, workers' compensation, or child labor, was state law. At the same time, however, the sovereign states had become increasingly integrated into a strong national economy. In this respect, the United States—then—represents in microcosm the world—now—in which sovereign nations struggle to come to grips with their own child labor problems in the larger context of an increasingly integrated global economy.

Rather than a gradual articulation and refinement of a uniform national policy, America's child labor reform movement and its manifestation in enacted legislation proceeded on a patchwork and piecemeal basis throughout the sovereign states. Unofficially, the federal standard set the standard for the states to follow. The Beveridge bill articulated the first national standard for the states to emulate. Before the Keating-Owen Act was passed, only nine states measured up to its standards. Between 1916 and 1933, most states came into substantial conformity with the federal standard, but only four states exceeded the basic age standard before it was raised by the NRA Codes of 1933. Then the NRA standard rapidly became the norm. Nowhere is this illustrated more clearly than when North Carolina adopted the sixteen-year standard after the NRA was invalidated by the Supreme Court. The unofficial and unenforceable federal standard established the point of convergence.

But each sovereign state made its own separate, but not entirely independent, accommodation to that standard. A few states led, many followed the federal standard closely, and a few lagged.

Similarly, a relatively clear set of official, but still unenforceable, global standards exist. They have been worked out gradually by the representative governments. Basic principles are articulated in the United Nations Declaration of Universal Human Rights (1948), the International Covenant on Economic, Social and Cultural Rights (1966), and the Convention on the Rights of the Child (1989). More specific standards are spelled out in the International Labour Organization's minimum-age convention (Convention 138 [1973]) and the more recent convention on worst forms of child labor (Convention 182 [1999]). Carrying the added cachet of being associated with human rights, these are the standards that developing nations are striving to achieve. At the same time, each sovereign nation must make its own separate, but not entirely independent, accommodation to the global standard within the context of its own unique child labor problems.

Concluding Remarks on the Global Child Labor Problem

We may never completely eradicate global poverty. It is unlikely that we will ever eliminate all abuse and exploitation of children. But it is entirely possible that we will achieve effective abolition of global industrial child labor, and it may happen within the lifetimes of children who are working today. We know how to do it. And we know that we will all be better off for it once it is done, even if transitional costs can sometimes be wrenching. There are a number of optimistic signs that a global movement of sufficient critical mass to abolish global child labor is now under way. Before the 1990s there were a few dedicated policy analysts and scholars soldiering away on the problem of global child labor. 41 Since the 1990s there has been a modest burgeoning of scholarly work and policy analysis. This has been accompanied by a substantial mobilization of resources by the International Labour Organization and other agencies of the United Nations, by national and local governments in several areas, and by a variety of trade associations and human rights, worker rights, and social welfare organizations. Finally, there are indications that the numbers of child workers may be turning downward in many parts of the world.

Consumers from wealthy nations have, so far, proven to be an unreli-

able but potentially very powerful ally in the struggle against global child labor. On the positive side, most consumers have little stomach for exploiting third-world children. When they become aware that their consumer goods were made by poor children, many react with moral indignation, some alter their spending habits, and a few enlist as activists in various labor and environmental rights campaigns. On the negative side, consumers have little capacity to learn much about the conditions under which there goods are produced; collectively, consumers tend to have short memories; and, in the main, their spending decisions are driven more by price than quality. Still, even relatively low levels of consumer awareness and activism can have a substantial impact on the margins of vulnerable firms.

Multinational corporations from wealthy nations have become more sensitive to the potential problem of child labor within their sourcing networks. Whether motivated by humanitarian or economic interests, many multinationals are coming to recognize that they had better accept responsibility for clean sourcing because they are likely to be held responsible for problems that are exposed. When textile interests from Lowell, Massachusetts, moved south to take advantage of cheap labor, they were willing to accept, and allow their local agents to defend, the child labor system. This is becoming more difficult for multinational corporations. In turn, local partners, contractors, and subcontractors that desire to maintain their contracts with multinationals are beginning to recognize a competitive advantage in maintaining conditions that will not be a source of embarrassment to their wealthy benefactors. Historically, few instruments, aside from trade unions and occasionally insurance interests, existed for establishing and enforcing the principle of joint liability for labor conditions throughout the commodity chain (from retailer to manufacturer to contractor to subcontractor). Today, additional instruments exist—from corporate and trade association codes of conduct, to social accounting and certification standards, to global trade agreements and human rights accords—that have the capacity to reinforce principles of joint liability for labor conditions.

While global standards and a global movement are important, and while wealthy consumers and multinational corporations can play a critical role, most of the heavy lifting in the struggle to abolish child labor must necessarily take place on the ground, in one country or region and then the next, in one industrial or occupational sector and then the next. There are some important additional steps that advanced nations can

take. In America we could start, for example, by finally resolving some of our own residual child labor problems in agriculture, the street trades, and sweatshop homework. Even if it is only a symbolic gesture, we could ratify the United Nations Convention on the Rights of the Child and the International Labour Organization's minimum-age convention. That we have ratified neither diminishes our global credibility when we claim to be champions of human rights. Finally, we could take the lead in advocating incorporation of labor standards into global trading accords. This includes, most importantly, the World Trade Organization, but also institutions such as the World Bank and the International Monetary Fund. There is little doubt that, if the advanced economies spoke with one voice on the question of labor standards, those standards would be adopted. If all we insisted on were the consensus global human rights in employment, it would require the abolition of industrial child labor. Beyond this, we can offer our moral, financial, institutional, and legal support to those in the developing world who are working to eliminate their own domestic child labor problems.

Each developing nation must ultimately make its own unique accommodation to its own unique child labor problem. As nations and regions move from less advanced to more advanced, whether that movement is characterized as industrialization, development, growth, democratization, or whatever, the strictures of a rigorous laissez-faire capitalism must be relegated to the ashbin of history, and children must be deliberately, consciously, and forcibly removed from the industrial labor market (and placed in school). Coming to grips with child labor, if not a ticket to advancement, at least appears to be a cultural requisite of advanced nations and regions. In their efforts to abolish child labor, developing nations should be mindful of the history of the developed nations that have already been through the process. In addition to attacking work detrimental to children, for example, it might be useful to attack all industrial employment of children, as that phrase was defined in the previous chapter. Distinguishing preindustrial and postindustrial patterns of work with industrial employment of children, and attacking the latter, may help developing nations seeking to abolish child labor accomplish the task sooner and more completely. Children have always worked and will always continue to do work, but industrial child labor can be eradicated.

If past is prologue, once a sustainable global movement to abolish child labor is under way, child labor is no longer sustainable. Most employers will eventually surrender their child workers, even if some employers must be coerced into letting them go. As light shines on child labor, it predictably retreats to the economic backwaters of society. But even if much child labor is hidden from public view, we know where to look to find it. The movement will pursue abolition of child labor to the point of a societal accommodation. The movement may not achieve all of its aims. But it will achieve some. Child labor will be abolished in a few nations at a time. If past is prologue, there are likely to be holes in society's accommodation—holes that pockets of working children can slip through. But if we learn from the past, we know where these holes are likely remain—in agriculture, in the street trades, in homework.

American history with child labor does not answer all the questions developing nations must confront in order to eliminate child labor. For example, in many parts of the world, child labor is reinforced by systems of slavery, debt bondage, indenture, and other forms of forced labor. In the United States we effectively abolished slavery well before we turned our attention to industrial child labor. Likewise, our experience with the effects of war, famine, epidemic, and other catastrophic events on child labor was limited. We know that whatever impoverishes the working classes, or enfeebles the adults, or results in a proliferation of widows and orphans, exacerbates whatever child labor problems are already present. Furthermore, that which enfeebles and impoverishes one generation exacerbates the child labor problems of the next generation. Finally, American experience in the abolition of child labor tells us little about how child labor might be effectively abolished in nondemocratic, totalitarian nations. Judging from American experience, our pluralistic and democratic traditions and institutions seem critical to the reform movement's success. The movement relied on freedom of speech, freedom of association, freedom of the press, and the freedom to elect (or defeat) to achieve its aims. Whether similar success can be achieved in the absence of pluralism and democracy cannot be deduced from American experience. But clearly, lessons learned from American experience with child labor can be valuable to many developing nations seeking to overcome their child labor problems.

A final word regarding costs. In the short run, the costs of abolishing child labor can be substantial, even prohibitive. Thus, for policy purposes, it may be necessary to proceed on a step-by-step basis absorbing costs as they can be afforded. Gradualism and incremental gains may be dictated by necessity. But in the long run, there are no costs, only gains.

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The major costs in eliminating child labor are in establishing and maintaining the schools and school systems. The cost of universal compulsory schooling is enormous. But schooling is not simply a cost, it is principally an investment. An educated citizenry is a valuable economic asset and a priceless cultural asset. Other costs associated with abolishing child labor, including the direct costs of forgone income and production, as well as the gamut of indirect costs for everything from regulation, inspection, and enforcement, and compliance, to establishing systems of birth records and widows' and orphans' pensions, are, in the long run, more than compensated for by the increase in productivity (and the consequent increase in adult pay) that comes from getting the children out of the workplace so the adults can get the work done. In the long run, as Karl Polanyi observed, "An industrial society can afford to be free."

