

# MTN STUDIES

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### The Impact of Multilateral Trade Liberalization on U.S. Labor

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COMMITTEE ON FINANCE  
UNITED STATES SENATE

RUSSELL B. LONG, *Chairman*

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A Report Prepared at the Request of the  
SUBCOMMITTEE ON INTERNATIONAL TRADE

ABRAHAM RIBICOFF, *Chairman*

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EXECUTIVE SUMMARY

THE IMPACT OF MULTILATERAL  
TRADE LIBERALIZATION ON  
U.S. LABOR

A Report to the Committee on  
Finance, United States Senate

J. David Richardson  
Associate Professor of Economics  
University of Wisconsin, Madison

May 1979

## INTRODUCTION

U.S. participation in multilateral trade liberalization is under attack today from a large segment of organized labor. Careful economic research lends qualitative support to some of labor's apprehensions. But the quantitative support is not usually strong. There are indeed particular U.S. labor groups who lose disproportionately from multilateral trade liberalization, and whose losses are partially shared with the nation at large in the form of reduced productivity. These losses are, however, for the most part temporary, small in absolute size, and quantitatively dwarfed by the increased productivity accompanying trade-induced resource reallocation. Yet even small losses to groups within U.S. society may be significant enough to outweigh material gains to the whole society from the viewpoint of maintaining equity. The issue is subjective, political, and complex. The report explores it, but does not resolve it.

Part I of the report outlines these concerns in more detail. It also reviews the economic benefits that international trade creates for the U.S. economy, and the added benefits that are sometimes available from cautious government trade policy. Parts II and III of the report summarize recent calculations of the impact of multilateral tariff cuts on: U.S. employment, wages, and incomes of various labor groups; on prices; and on national purchasing power.

The report's calculations are indicative, not definitive. They highlight some of the labor-market pressures that the Tokyo-Round agreements will generate, and can be trusted for approximate orders of quantitative magnitude. They focus on the roughly 30 percent tariff cuts that the new trade agreement will involve. But they ignore the prominent agreements on non-tariff measures (NTM's), because of the unusually large margin of error that will dilute any before-the-fact assessment of the likely impact on U.S. labor of these unprecedented, unquantifiable, and carefully circumscribed NTM agreements.

### I. THE GENERAL CASE FOR FOREIGN TRADE AND THE ROLE OF GOVERNMENT

International trade benefits an economy for many reasons. Having some is materially better than having none (although more and more is not necessarily better and better). This is one of the most robust and least assailable of all economic propositions.

That is not to deny, however, that under some circumstances, government intervention in international trade can benefit an economy, and free trade can conceivably hurt it. Trade policy is like situation ethics, unfortunately for the purists at either extreme.

Two important instances in which freer trade could in principle be detrimental arise: (1) if it leads to a sufficiently large and enduring rise in national unemployment and excess capacity that cannot be alleviated quickly (or at all) by conventional government policies; and (2) if freer trade creates uncompensated changes in the income distribution that undermine a population's sense of equity.

These reservations about freer trade are sometimes dismissed out of hand as characterizing only the "short run" (reservation (1)), or as inappropriately identifying social welfare with personal welfare (reservation (2)). Yet short-run losses can dominate even permanent gains when the future is discounted. And it is insensitive to dismiss the self-interest of either dislocated workers, protectionists, or even free-traders as "self-serving" or "selfish" or "special-interest pleading." When both gainers and uncompensated losers exist from a government policy, it may be impossible to define any alternative "public interest" to which to recommend adherence. Disputes over trade policy are not conflicts between pure motives and cupidity, nor between intelligence and stupidity. They are problems of resolving legitimate, well-taken opposition that is justified from the point of view of all antagonists.

Very few attempts have been made to assess the practical importance of these two reservations. This report summarizes some of the more careful.

## II. MULTILATERALLY FREER TRADE AND TEMPORARY DISLOCATION

In the short run after multilateral trade liberalization, downward wage and price rigidity can cause additions to unemployment and excess capacity. The social cost of such temporary dislocation is the value of the output sacrificed from the involuntary unproductivity of displaced people and resources, discounted over however long the sacrifice persists. It will not persist forever because wages and prices eventually achieve some flexibility, and because attrition and expansion of the exportables sector combine over time to shrink the pool of the unemployed. Although in principle this short-run "dislocation cost" of freer trade could dominate its familiar and indefinite gains, three detailed studies of tariff reduction concur that this is highly unlikely in the U.S. One shows that multilateral tariff reduction would increase aggregate U.S. employment (zero dislocation cost). The others show that the output foregone because of temporary dislocation represents only from 17 to 37 percent of the increased aggregate claims over goods and services that trade liberalization allows for the U.S.

But the real controversy in modern trade policy is over equity, not efficiency. Most analysts agree that trade liberalization is likely to move an economy closer to overall efficiency. But who within a society loses from such? And who gains? And are the groups which gain and lose "deserving" or "underserving" relative to income-distributional goals?

This report finds that wage-earners bear a disproportionate share of temporary unemployment compared to recipients of property-type income (roughly 7 times the income reduction). But it also suggests parenthetically that recipients of property-type income bear a disproportionate share (compared to wage-earners) of the permanent income losses caused by altered factor prices in the long run.

Among U.S. labor groups themselves, those who are estimated to be disproportionately displaced in the short run by multilateral trade liberalization work in industries that employ either relatively straight-forward, well-established, labor-intensive production techniques, or else sophisticated, but highly-standardized, labor-intensive techniques. Labor groups which enjoy expanded vacancies in the short run appear, by contrast, to work either in industries employing relatively skilled labor and research personnel, or in agriculture (e.g., tobacco).

Those experiencing disproportionate temporary displacement also appear to earn "middle-level" wages (e.g., the skill groups described as "laborers" and "operatives"). Labor groups which gain disproportionately appear to earn unusually high wages (e.g., professional, technical, and research workers), or unusually low wages (e.g., farmworkers). The dislocation impact of MTN's appears very roughly to be progressive in the lower half of the wage distribution and regressive in the upper half. The quantitative size of these disparities in experience is, however, quite small, only very rarely representing numbers greater than 10,000 persons. Although the quantitative effects are also miniscule, tariff reduction appears to be qualitatively "retrogressive" in its short-run socioeconomic effects -- causing traditionally disadvantaged groups (female and non-white workers) to lose very slightly at the expense of traditionally advantaged groups (males and white workers).

### III. MULTILATERALLY FREER TRADE AND PERMANENT DISTRIBUTIONAL CHANGES

In the short run, income distributional impacts of multilateral trade negotiations (MTN's) are dominated by quantitative adjustments that are in most cases transitory. After they have been made, the enduring income

distributional consequences of MTN's are dominated by altered relative wages and salaries among different occupations; by subsequent alterations in the skill mix and educational backgrounds of the population; by altered relative prices and profitability among different industries; and by subsequent changes in the production mix and standard of living of the country.

Displaced U.S. "laborers" and "operatives," for example, suffer obvious temporary income losses. But they may also suffer permanent (yet somewhat smaller) income losses if the MTN-induced alteration in the U.S. production mix requires fewer workers of their skill class. Any such permanent decline in skill requirements will affect even those "laborers" and "operatives" who remain employed, whether they work in an import-sensitive industry or not. Their ability to work overtime or to negotiate favorable wage increases will be constrained from what it could have been by pressure that displaced "laborers" and "operatives" place on their unions and employers to become re-employed. When and if temporary unemployment is eliminated -- by retirement, voluntary quits, government policy, growth in the economy, relocation of the unemployed, or sub-standard wage increases that last long enough to attract employers toward hiring additional "laborers" and "operatives" -- then these groups will find their wages beginning again to rise at average rates. But their wages will remain permanently behind those of other groups, compared to what they once were.

For symmetric reasons, MTN's may improve employment, wage, and income prospects for U.S. farmworkers and for professional, technical, and research personnel, not only temporarily, but permanently.

Nevertheless, "trickle-down" wage/salary effects from MTN's seem to be quantitatively miniscule in the U.S. Skill requirements are altered by MTN's by amounts in the neighborhood of only 1 position in 2500. Temporarily displaced workers themselves, on the other hand, do appear to suffer long-lasting income losses, ranging from 5 to 24 percent of their pre-layoff income, depending on time elapsed since the layoff and the industry in which they were employed.

Finally, it is often said that all Americans gain in the long run because multilateral trade liberalization reduces prices and the cost of living. Once again, while this is true qualitatively, its quantitative impact is miniscule. It would appear that proponents of trade liberalization make too much of its alleged "anti-inflationary" advantages.

The most comprehensive study of the impact of tariff cuts on the U.S. cost of living implies that the largest likely impact of a 30 percent multilateral tariff cut is a reduction in the U.S. cost of living of 1/10 of 1 percent. The annual dollar value of an indefinite such decline to a person

making an income of \$20,000 a year is roughly \$20.

These estimates are smaller than is frequently heard because they correct for unwarranted assumptions underlying optimistic "back-of-the-envelope" calculations, e.g., that all imports are dutiable, that all are consumables, and if not, that imports nevertheless make up about 10 percent of intermediate purchases, and that no exportables prices rise from MTN's.

The report also reveals that the small permanent reductions in consumer prices that multilateral tariff reduction does bring are spread almost perfectly proportionately across high-, middle-, and low-income groups. The long-run price effects of tariff reduction appear to be neither significantly progressive or regressive.



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Finance, United States Senate**

**J. David Richardson  
Associate Professor of Economics  
University of Wisconsin, Madison**

**Revised Draft  
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## INTRODUCTION

U.S. participation in multilateral trade liberalization is under attack today from a large segment of organized labor. Two characteristics of the modern economy help to explain both this attack and labor's increasing disenchantment with U.S. international trade policy since the late 1960's. One characteristic is historically high unemployment rates, which lengthen the duration of every job-seeker's unemployment, and force those dislocated by trade agreements to experience longer unproductivity and more severe hardship than they otherwise would. The second characteristic is the increasing importance of "equity" in national goals, which leads labor groups to examine U.S. trade policy with heightened vigilance for income-distributional impacts that would be adverse to them.

Careful economic research lends qualitative support to some of labor's apprehensions. But the quantitative support is not usually strong. There are indeed particular U.S. labor groups who lose disproportionately from multilateral trade liberalization, and whose losses are partially shared with the nation at large in the form of reduced productivity. These losses are, however, for the most part temporary, small in absolute size, and quantitatively dwarfed by the increased productivity accompanying trade-induced resource reallocation. Yet even small losses to groups within U.S. society may be significant enough to outweigh material gains to the whole society from the viewpoint of maintaining equity. The issue is subjective, political, and complex. An attempt is made to explore it below, but not to resolve it.

Part I of the report outlines these concerns in more detail. It also reviews the economic benefits that international trade creates for the U.S. economy, and the added benefits that are sometimes available from cautious

government trade policy. Parts II and III of the report summarize recent calculations of the impact of multilateral tariff cuts on: U.S. employment, wages, and incomes of various labor groups; on prices; and on national purchasing power.

The report's calculations are indicative, not definitive. They highlight some of the labor-market pressures that the Tokyo-Round agreements will generate, and can be trusted for approximate orders of quantitative magnitude. They focus on the roughly 30 percent tariff cuts that the new trade agreement will involve. Textiles and other important exclusions are taken into account (see Table 1), but not the less-than-formula U.S. cuts on some footwear and chemicals. In general, linear cuts are explored rather than formula cuts, in order to make comparable estimates from disparate research, and also because experimentation with alternative formulae altered the flavor of the findings only marginally. Finally, the report ignores the prominent agreements on non-tariff measures (NTM's). The effects of these admittedly pathbreaking agreements could range across the full spectrum from significant to insignificant. It is even harder than usual to assess them before the fact. The NTM agreements on subsidies, safeguards, standards, and procurement are cautiously conditional, carefully circumscribed, and purposely vague. They will be neither "bound" (as are tariffs in the General Agreement on Tariffs and Trade (GATT)), nor extended on a most-favored-nation basis. They will relate in large part to unquantifiable rules of administration, surveillance, consultation, and grievance procedures. Their practical import will vary from "zero" to "substantial," depending both on the wording of enabling legislation to make national laws conform with them, and on the subsequent

evolution of experience that will establish legal precedents for their interpretation and application. Because of the unusually large margin of error that would dilute any assessment of the likely impact of NTM agreements on U.S. labor, no attempt is made to provide one here. Retrospective assessments after future experience with the agreements will be able, by contrast, to be much more precise.

## I. THE GENERAL CASE FOR FOREIGN TRADE AND THE ROLE OF GOVERNMENT

### (1) Benefits from the Existence of Trade

International trade benefits an economy for many reasons. Having some is materially better than having none (although more and more is not necessarily better and better). This is one of the most robust and least assailable of all economic propositions. Thoroughgoing national self-sufficiency may be a virtue in some ways, but any country which attempts it pays a huge economic price.

Robust as this proposition is, it is often superficially proved, then cavalierly applied in problems to which it has no real relevance. The superficial proof goes like this:

"Obviously, certain countries produce some things more cheaply than we do, such as textiles, and we produce some things more cheaply than they, such as aircraft. Therefore both exports and imports are beneficial. Exports provide jobs and income to U.S. labor and resource-owners; imports reduce the U.S. cost of living because they are priced lower than their U.S. equivalents."

While these observations are true, they do not "prove" that trade is beneficial to the U.S. -- any more than fears that exports raise U.S. prices and imports displace U.S. workers "prove" the case false. In fact, all the descriptive observations are usually simultaneously true. Somewhat crudely, exports can

generate employment and upward pressure on prices; imports can "take away" employment but hold down prices. It is necessary to go beyond these superficial statements to prove that some international trade is preferable to none.

Impossible as it sounds, trade enables every country to get more and give up less. It can increase every country's overall consumption of real goods and services without any increase in its use of resources, or it can free up resources for voluntary leisure, while still allowing a country as a whole to consume the same goods and services as it did without trade.

International trade performs this "magic" because it is completely analogous to superior technology. It allows inputs to be transformed into outputs more productively than would be possible without trade<sup>1</sup>-- only exports are the inputs into creating physically different outputs called imports. Just as superior technology allows a country to get more for less, or something for nothing, so does trade.<sup>2</sup> Nations thus

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<sup>1</sup>These points are persuasively and engagingly illustrated in James C. Ingram's "Fable of Trade and Technology," International Economic Problems, New York: John Wiley, 1978, pp. 40-41.

<sup>2</sup>And just as technological innovation opens up a multiplicity of new products and techniques, from which the best are chosen, international trade in a multi-country, multi-commodity world opens up a multiplicity of ways of transforming various exports into various imports, from which the best are chosen. The beneficial



nature of international trade is not at all dependent on the requirement that there be only two goods or two countries (or two productive inputs). Neither, of course, is the beneficial nature of superior technology.

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choose to trade internationally out of self-interest, not altruism. The added material benefits obtained thereby are not due to the exploitation of other countries either. All can gain simultaneously, just as they can from superior technology.

(2) Benefits from the Pattern of Trade

The pattern of trade, and not merely its existence, can also be materially beneficial. The U.S. has comparative advantage in goods that are believed to have special economic and strategic production value: goods which feature stable export earnings and a monopolistic position in the world market; high-technology, growth-promoting manufactures;<sup>3</sup> agriculture;

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<sup>3</sup>Despite well-publicized import penetration by now standardized, once high-technology goods (e.g., consumer and business electronic equipment), there is no convincing empirical evidence that the U.S. is losing its comparative advantage in the most technologically advanced goods. The Commerce Department's Office of the Assistant Secretary for Science and Technology calculates that the U.S. trade balance in "technology-intensive" products out-performed the trade balance in "non-technology-intensive" products from 1957 through 1977. The former was flat from 1957 to 1972, while the latter declined; the former rose rapidly from 1972 to 1975 while the latter was flat; and the former declined from 1975 to 1977 at a slower rate than the latter. See Chart VIII of Imports, Exports, and Jobs: An Economic Perspective on the Trade Deficit, Employment, and Protectionism, New York:

American Importers Association, 1978. As to comparisons with other countries, US exports of technology-intensive manufactures grew at an average annual rate of 28.3 percent over the years 1973-75, faster than either Germany's or Japan's. It would seem that the U.S. comparative advantage has been relatively unaltered over this time period even though the U.S. absolute technology advantage has clearly deteriorated. That is, even though the U.S. is losing much of its across-the-board technological leadership of the 1950's and 1960's, compared to other nations it is still much more competitive in innovative, high-technology goods than in established, standardized goods. In fact, it seems probable that the U.S. will retain comparative advantage and exports in high-technology goods even if some time in the future it slips to a position of absolute technological inferiority, compared to Germany and Japan. On these points, see the International Economic Report of the President, Washington: U.S. Government Printing Office, March 1976, pp. 117-120.

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armaments. The U.S. also has a comparatively well-diversified set of stable suppliers and customers, few of which can match the market power of the U.S. economy. This enhances U.S. independence and bargaining power, and mitigates uncertainty. On balance, both the industrial and geographical pattern of U.S. trade is favorable.

But it may not remain so. Increasing U.S. reliance on imports of petroleum from the Organization of Petroleum Exporting Countries (OPEC) will increase U.S. economic and political vulnerability.<sup>4,5</sup> Increasing dependence on agricultural exports will increase U.S. exposure to volatile export prices. And lower-skill U.S. labor groups may be subject to enduring and productively debilitating pressures as developing countries attempt to raise their share of world industrial production from its current 8-10 percent to roughly 25 percent by the year 2000.<sup>6</sup>

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<sup>4</sup>Balancing its increasing oil dependence, however, is apparent stability (even reduction) in the import shares of U.S. consumption of many other important raw materials. See, for documentation, the International Economic Reports of the President (December 1971, volume II, p. 55; March 1975, p. 26; March 1976, p. 96); The Global Economic Challenge (New York: United Nations Association, 1978, p.xx); and The Trade Debate (Washington: U.S. Department of State Publication 8942, May 1978, p. 11).

<sup>5</sup>The U.S. nevertheless seems less vulnerable on balance than Europe and Japan. The U.S. National Commission on Supplies and Shortages has estimated that for the 1970's the U.S. imported only 15 percent of its critical industrial materials compared to Europe's 75 percent and Japan's 90 percent (Morgan Guaranty Survey, May 1977, p. 7).

<sup>6</sup>This is one of the goals of their proposals for a "new international economic order." U.S. imports of manufactures from developing countries have increased from virtually nothing in the late 1960's to more than one eighth of total U.S. imports today (The Trade Debate, U.S. Department of State Publication 8942, May 1978, p. 13).

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Their attempt will commence with simple, standardized manufacture and assembly that use lower-skill labor intensively. It is an illusion to believe that such manufacturing will not displace a significant portion of comparable production in the U.S. and other developed countries. Finally, multilateral trade liberalization may aggravate problematic changes in U.S. trade patterns such as those sketched above. But its influence by itself is probably tiny compared to the other changes outlined. The most serious impending pressures from changing trade patterns will stem from fundamental economic shifts, and not from policy, from developing countries, and not from traditional trading partners.

Developing countries have welcomed increased industrialization because they view themselves, in contrast to the U.S., as victims of unfavorable trade patterns. Traditional international trade may be materially beneficial to them, but its benefits are allegedly reduced by volatile and highly competitive exports, by specialization on goods with chronically low productivity growth, by lack of bargaining power in import markets, by uncertainty, and by the peculiar kind of "dependence" that "liberal" exchange always imposes on the economically weak.<sup>7</sup>

The most inflammatory trade issue which divides developed and developing countries today is whether economic orders other than market organization would and should distribute the benefits from favorable trade patterns more toward allegedly disadvantaged developing countries.

### (3) Benefits from Government Management of Trade

The insights above, however, shed little light on the practical concerns of trade policy. They deal with comparisons of some trade to none, or of one trade pattern to another. The crucial trade-policy questions thus remain unanswered: "Is free trade better than government-managed trade?" and "Is freer trade better than the status quo?" Should government policy influence the trade pattern? None of these questions can be answered glibly, although both free-

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<sup>7</sup>When markets are organized by competing private individuals and institutions, those who compete most successfully are rewarded with positions of market power (independence). Others are forced into dependency relationships which may be materially gainful, but which are costly in terms of responsibility, freedom of action, and participation in decision-making.

traders and protectionists sometimes try to do so in the heat of controversy. Trade policy is like situation ethics, unfortunately for the purists at either extreme. Appropriate answers to these questions under one set of circumstances are not necessarily appropriate under another. There is no universal, timeless answer to either practical trade-policy question.

The list of circumstances under which government management of trade can conceivably benefit an economy (and freer trade can hurt it) is quite long. It includes exploiting national monopolistic power in export sales, or monopsonistic power in import purchases. It includes using trade policy to combat foreign monopoly, felt perhaps through predatory dumping, when directly targeted anti-monopoly policy is unavailable or administratively more costly.<sup>8</sup> It includes protecting economic sectors that possess positive production externalities<sup>9</sup>

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<sup>8</sup>That is, when the "resource costs" required to administer (and perhaps to implement from scratch) an anti-monopoly policy that would be just as effective as the trade policy exceed the "resource costs" of the trade policy. "Resource costs" of any policy include people and material inputs which are necessary to administer, plan, audit, and defend it (thus encompassing the resource costs of political initiation, debate, and oversight), and also any output foregone from distorting producer incentives or consumer preferences in such a way that people and material were not involved in their most productive activity (so-called resource-allocation costs).

<sup>9</sup>Externalities are a type of economic gain or loss. They arise in cases where one economic agent's actions in a market cause benefits or costs (externalities) to someone else that cannot themselves be priced in any market (they are "external" to the market mechanism). Familiar illustrations include pollination and pollution.

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(e.g. national defense, or high-technology industries with significant spillovers into the rest of the economy), when more direct, first-best production subsidies are infeasible, politically inflammatory,<sup>10</sup> or sufficiently costly to implement. And most importantly in current world conditions, it includes defending the status quo when trade liberalization would lead to a sufficiently large and enduring rise in national unemployment and excess capacity -- one that could not be alleviated quickly (or at all) by conventional government policies.<sup>11</sup>

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<sup>10</sup> International political conflict over production subsidies has been heated and spreading recently. An important aspect of the Tokyo Round trade agreements is that nations commit themselves to "take into account" the conditions of world trade and production in fashioning their production subsidies, recognizing that they can frequently cause indirect injury to trading partners.

<sup>11</sup> Given the "structural" character of much unemployment and excess capacity today, for example, it is not clear that the familiar tools of fiscal, monetary, and manpower policy are always sufficiently effective to dominate trade policy (on "resource-cost" grounds) as directly-targetted means of reducing wasteful involuntary unproductivity.

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The list of ways in which freer trade might potentially be unfavorable is sometimes dismissed by U.S. economists, who doubt that it could ever convincingly over-rule their presumption that, in practice, freer trade is almost always desirable. But the grounds for their doubts and presumptions are often no more than gut feeling. Some of the still insufficient evidence on the question is summarized below.

Economists' skepticism about the practical application of arguments for government management of trade often reinforces the case of those who favor freer trade out of self-interest (e.g., U.S. wheat farmers, aerospace companies, and retailers). And the arguments are frequently abused by those who gain from government management, and who want to wrap their self-interest in the flag of national welfare.

The abuses of the arguments suggest one important addition to them. Except in ideal worlds, there are always gainers and losers from trade liberalization. To design and carry out practical mechanisms whereby every loser was duly compensated (and more) would require a frightening diversion of people and resources from wealth-producing to wealth-transferring activity. Yet in the absence of such mechanisms, there may be instances in which trade liberalization should be rejected because it undermines a population's sense of equity. In other words, the absence of compensation makes any reference to national economic welfare tenuous and a matter of opinion. Suppose that trade liberalization increased consumption possibilities for 99 out of every 100 individuals by two percent. For the 100th, however, it led to temporary dislocation that reduced consumption possibilities to zero (or to the basket that unemployment compensation will buy).

In the aggregate, as a lump, the society's average standard of living would rise immediately.<sup>12</sup> But a small minority of society

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<sup>12</sup> If the average standard of living were 100 to start with, the new standard of living under liberalized trade would move immediately to 100.98 (= (.99 x 102) + (.01 x 0)).

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would temporarily be made desparately worse off, and a large majority somewhat better off. The possibility should be admitted that the moderately increased satisfaction of the many could be insignificant compared to the dramatic unhappiness visited upon the few. Significant enough distributional consequences of trade liberalization could in turn reduce material welfare through social malaise and unrest, and then through their indirect impacts on incentives, confidence, and uncertainty.<sup>13</sup>

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<sup>13</sup> See the Economic Report of the President 1962, pp. 40-42. The distributional consequences of trade liberalization are not always so dramatic, of course. People do not have to become unemployed, nor need machines be idled, for "losers" to exist. "Income displacement" will frequently take place in that wages or profits are indefinitely reduced in an industry from what they would have been otherwise, because of trade liberalization. See Part III below.

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This discussion also makes it clear why it is insensitive to dismiss the self-interest of either free-traders or protectionists as "self-serving" or "selfish". When both gainers and losers exist from a government policy, it may be impossible to define any alternative "public interest" to which to recommend adherence. Besides, one person's selfishness is another person's concern for home and family. Disputes over trade policy are not conflicts between pure motives and cupidity, nor between intelligence and stupidity. They are problems of resolving legitimate, well-taken differences. My opposition is justified from my point of view; your support is justified from yours. Understanding this is only the beginning of a resolution.

National politicians (and sometimes even economists), of course, resolve such differences to their own satisfaction in practice. But there can be no objective guidelines for doing so. And one source becomes immediately apparent for the notorious disagreement among equally intelligent people on whether international trade liberalization is socially desirable or disastrous. Some weight severe losses for the few more heavily in national welfare than others do. They feel that New England textile workers, New York garment workers, and Youngstown steelworkers are already victims of an ungenerous society, and will recommend foregoing large gains to

avoid victimizing them further. Others feel that these same workers have largely victimized themselves, by not being willing to move and adjust when all the signals prompted them to. There is no such thing as a "correct" position on these matters of opinion, interpretation, and subjective judgment.<sup>14</sup>

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<sup>14</sup> For historical examples of the internal political dynamics of policy formation on international trade, see (for just two examples): Robert E. Baldwin, The Political Economy of Postwar U.S. Trade Policy, New York University, Graduate School of Business Administration, Center for the Study of Financial Institutions, The Bulletin, 1976-4; and Raymond A. Bauer, Ithiel de Sola Pool, and Lewis Anthony Dexter, American Business and Public Policy: The Politics of Foreign Trade, Chicago: Aldine-Atherton, 1972.

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## II. MULTILATERALLY FREER TRADE AND TEMPORARY DISLOCATION

### Introduction

There are two important issues to address if trade liberalization leads to increased national unemployment and excess capacity. First, what is the value of the output sacrificed from the involuntary unproductivity of any displaced people and resources, and for how long does the sacrifice persist? Second, who are the people who suffer from dislocation associated with trade liberalization, and to what degree do their losses undermine the income-distributional goals of the population (i.e., is trade-related dislocation equitably or inequitably distributed)? The second question is the intrinsically subjective question of distributive justice discussed at the end of Part I above. The first question is, by comparison, objective and more conventionally "economic," although subjective judgments and controversial assumptions must always be invoked to answer. We turn to it first.

#### (1) Aggregate Dislocation of Labor and Productive Resources

Unemployment and excess capacity are direct consequences of downward rigidity of prices. Economists often refer to such

rigidity as a "distortion." But it seems more appropriate to treat it as a fact of life -- and not even necessarily a regrettable one, since one person's inflexibility may be another person's predictability. Most prices, including wages, rents, interest, and costs of materials, are contractually determined between buyers and sellers, and cannot legally be altered in the short run. The familiar result of such rigidity is short-run unemployment and excess capacity when any demand declines. Layoffs take place, assembly lines are idled, and whole plants are shut down. Both people and capital are made involuntarily unproductive. National product declines by the value of the goods that could have been produced, but were not. And overall national welfare declines further to the extent that the very real subjective and psychic costs of unemployment reduce future productivity of those displaced.

Problems of unemployment and idle capacity are further exacerbated by other characteristics. Labor skills and resource productivity of those displaced are often specific to a given firm or industry, having been built up there by quite specialized training or experience. They cannot be transferred costlessly to another firm or industry, but must be retrained, retooled, refurbished, and relocated -- all of which engender temporary sub-par productivity and diversion of other resources from production

to retraining, etc.

In the longer run, a number of things happen to reduce the output cost of any added unemployment and excess capacity that trade liberalization causes. (1) Retraining, retooling, refurbishing, and relocating is completed. (2) Inflexibilities moderate, and almost all prices cease to be rigid as contracts expire and are renegotiated.<sup>15</sup> Unemployment that can be linked directly to trade

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<sup>15</sup>Producers then pass along some of the burden of bad business to their own employees and suppliers through harder bargaining in labor negotiations, lease renewals, and loan applications. Their success at doing so makes them more willing to lower their own prices, or else to raise them less readily than others do. Unemployed labor exerts indirect downward pressure on contract-renewal wage demands. Those already employed recognize that widespread unemployment makes them less likely to find another job if their wage demands lead to more layoffs. Generally poor demand for rental property and loans makes landlords and lenders willing to bargain on rates. And substantial overcapacity makes stockholders eventually willing to forego dividends.

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liberalization will diminish, and be swamped by unemployment caused by subsequent shocks.<sup>16</sup> (3) Voluntary quits, retirements, and any

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<sup>16</sup>There may be a resistant strain of "structural" unemployment which continues to afflict certain workers and which may be aggravated by trade liberalization (depending on its detailed provisions). See Section (2) below.

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residual industry growth will have opened up opportunities for those displaced to be re-hired, or for others to be hired directly out of unemployment.<sup>17</sup> (4) Multilateral trade liberalization will have encouraged exportables producers to expand, drawing labor out of

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<sup>17</sup> See, for further discussion, Walter S. Salant, The Effects of Increases in Imports on Domestic Employment: A Clarification of Concepts, Washington: National Commission for Manpower Policy, 1978, pp. 29-32. One can argue that this simply shifts displacement toward new entrants to the labor force, rather than eliminating it. But it seems more plausible that most of the pressure on new entrants will come in the form of downward pressure on starting wages, and that only a few new entrants will actually delay accepting a position. Thus they are not really displaced, although they are probably injured. Their problem is more one of distributive justice, than of involuntary output sacrifice.

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unemployment and other resources out of involuntary idleness.

All four influences imply that, as a general rule, there will be only small enduring effects of trade liberalization on aggregate unemployment and capacity utilization. Once export expansion is accounted for, these effects can be as plausibly favorable as unfavorable for any particular country.<sup>18</sup>

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<sup>18</sup>The socioeconomic profile of the "typical" unemployed worker may be altered indefinitely by trade liberalization, however, as discussed in Section (2) below. Furthermore the long-run change in the industry mix when coupled with wage/price flexibility will benefit some groups at the expense of others, as discussed in Part III below.

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Yet even temporary displacement caused by trade liberalization can in some circumstances undermine its desirability, despite the indefinite recurrence of its familiar benefits, because future gains are always subjectively discounted compared to present losses.<sup>19</sup>

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<sup>19</sup> That is to say, almost all people would prefer to receive a dollar today over a dollar tomorrow, and would prefer to lose a dollar tomorrow over losing one today. Trade liberalization sometimes presents an opportunity to gain a dollar per year forever, after undergoing a year in which society loses ten dollars, for example. Whether the opportunity is welcome or not depends on how society discounts the future. Decisionmakers who must be re-elected periodically find it almost always in their interest to discount distant gains heavily, and to avoid policies which impose heavy current costs.

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There is also some tendency in the current world setting for even long-run flexibility of prices to be less than it once was, thus lengthening the duration of temporary displacement, and making any movement from the status quo less desirable than it once was.

Only recently have careful U.S. attempts been made to measure the short-run and long-run impacts of multilateral trade negotiations (MTN's) along the lines outlined above, and to compare the value of the output sacrificed from dislocation to the expanded consumption possibilities that trade provides.<sup>20</sup>

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<sup>20</sup> Trade may expand national consumption possibilities through both the inaptly-named "static" influences described on pp. 11-13 above, or through equally unfelicitous "dynamic" influences. The latter are difficult even to define, much less measure, and are therefore omitted from consideration here. They are usually associated vaguely with economies of scale, increased investment, increased innovation, and sharpened incentives. Rarely do expositors of such "dynamic" gains address the question of whether there is a fallacy of composition in their reasoning, and if so, what its quantitative importance might be: trade shrinks some industries, allows some greater market power, discourages some investment and innovation, and blunts some incentives.

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Table 1 summarizes several of these studies in a way that compromises somewhat the care underlying each (see the footnotes to the table), in order to make them as comparable as possible. Incomparabilities unfortunately remain, but the conclusion of each study on its own is clear. Tariff reductions as a result of MTN's increase even short-run U.S. claims on goods and services by at least two and one half times the value of the output sacrificed because of dislocation. Aggregate dislocation costs may not even exist (Cline et al.), and when they do, they are only temporary. The aggregate net benefits from tariff reductions are positive in the short run, and more and more positive in the long run.



TABLE 1

ROUGH ORDERS OF MAGNITUDE FOR TRANSITORY AND  
INDEFINITE U.S. IMPACTS OF AN IMMEDIATE<sup>a</sup>  
30 PERCENT MULTILATERAL TARIFF CUT

	Baldwin Mutti Richardson <sup>b</sup>	Cline Kawanabe Kronsjö Williams <sup>c</sup>	Magee <sup>d</sup>
Indefinitely larger annual aggregate consumption made possible <sup>e</sup> (millions of end-of-1979 <sup>f</sup> dollars)	128.7	432.9	769.6
Temporary change in aggregate labor requirements <sup>g</sup> (thousands of positions): (i) in import-competitive industries; (ii) in exportables industries; (iii) on balance <sup>h</sup>	(i) -90.7 (ii) +81.5 (iii) - 9.2	(i) -70.4 (ii) +84.8 (iii) +14.4	(i) -294.0 (ii) +119.0 (iii) -175.0
Temporary output loss from net dislocation of labor <sup>g</sup> (millions of end-of-1979 <sup>i</sup> dollars)	41.6	Zero <sup>j</sup>	133.9
Temporary output loss from net dislocation of "capital" <sup>g</sup> (millions of end-of-1979 <sup>i</sup> dollars)	5.6	n.c.	n.c.

## Notes to Table 1:

<sup>a</sup>Immediate as opposed to a more realistic phasing in of a 30 percent cut gradually (see pp. II-13, 15). Phased cuts would leave the first row of the table unaffected, but would shrink the unfavorable dislocation and dislocation costs recorded in rows 2, 3, and 4.

<sup>b</sup>Robert E. Baldwin, John H. Mutti, and J. David Richardson, "Welfare Effects on the United States of a Significant Multilateral Tariff Reduction," manuscript, April 1978. Developing countries were excluded from the tariff reduction, as were a number of products: crude oil and petroleum, textiles, agricultural and other products on which quantitative restrictions apply (including agricultural imports of the European Community on which variable levies apply); also excluded were products subject to U.S. escape-clause action. Exchange-rate variation to restore the trade balance to its pre-liberalization value was assumed.

<sup>c</sup>William R. Cline, Noboru Kawanabe, T.O.M. Kronsjö, and Thomas Williams, Trade Negotiations in the Tokyo Round: A Quantitative Assessment, Washington: The Brookings Institution, 1978. Developing countries were excluded from the tariff reduction, as were crude and refined petroleum, textiles, and products receiving preferential treatment under the Canadian-American Auto Agreement and remaining Commonwealth preferences. Exchange rates were assumed invariant, although this is not a source of significant variation from the Baldwin-Mutti-Richardson results. Only "static welfare gains" were extracted since these were most comparable to Baldwin-Mutti-Richardson and Magee, and were scaled from the estimates recorded for a 60 percent linear cut (Formula 1) in the manner described in note e below. Employment changes and dislocation were scaled from the 60 percent linear cut in the manner described in note g below.

<sup>d</sup>Stephen P. Magee, "The Welfare Effects of Restrictions on U.S. Trade," Brookings Papers on Economic Activity, 3: 1972, pp. 645-707. Developing countries were not apparently excluded from the tariff reduction. But petroleum, textiles, steel, sugar, meat and dairy products, and certain other agricultural goods subject to quantitative restriction were. Exchange rates were apparently assumed invariant. On scaling Magee's welfare and employment estimates, see notes e and g below.

<sup>e</sup>Baldwin, Mutti, and Richardson report estimates for a 50 percent linear cut; Cline et al. for a 60 percent linear cut; and Magee for complete removal. These were crudely deflated to estimates for a 30 percent cut in the following way. Welfare gains and losses of the type being calculated are well known to be proportional to  $(t/1+t)^2$ , where  $t$  = an ad valorem tariff rate (e.g., see Cline et al., pp. 36-44, 81n.). Since average industrial-country tariffs on dutiable imports average 10.7 percent (Cline et al., p. 10), one can very roughly characterize the welfare loss from existing tariffs for the average industrial country as  $L = (x) \cdot (0.107/1.107)^2$ , where  $x$  is unknown. The welfare gain from a 50 percent linear multilateral cut can be approximated as  $L - L^{50}$ , where  $L^{50} = (x) \cdot (0.054/1.054)^2$ . To deflate that welfare gain to one approximately appropriate to a 30 percent multilateral cut, one should multiply it by  $(L - L^{30}) / (L - L^{50})$ , where  $L^{30} = (x) \cdot (0.075/1.075)^2$ . Similar procedures were used to deflate estimates for 60 percent cuts, etc. All are crude and approximate because they ignore the pronounced variation in tariff rates around the 10.7 percent average both among countries and across products.

<sup>f</sup>Estimates by Baldwin, Mutti, and Richardson and by Magee in 1971 dollars were inflated to end-of-1979 levels by multiplying by 1.1 times the ratio of the December 1978 U.S. consumer price index to the 1971 U.S. consumer price index. Estimates by Cline et al. in 1974 dollars were inflated analogously.

<sup>g</sup>Linear scaling was appropriate and employed: Baldwin-Mutti-Richardson estimates were multiplied by 30/50; Cline et al. estimates, by 30/60; Magee estimates by 30/100.

<sup>h</sup>Alan V. Deardorff, Robert M. Stern, and Christopher F. Baum also provide an estimate of the net change in labor requirements from linear multilateral tariff reduction in "A Multi-Country Simulation of the Employment and Exchange-Rate Effects of Post-Kennedy Round Tariff Reductions," in

Their estimated net reduction in labor requirements under variable exchange rates, scaled as outlined in note g (by 30/50) comes very close to that of Baldwin-Mutti-Richardson: -11.4 thousand positions.

<sup>i</sup> Same as note f with the U.S. index of adjusted hourly earnings in the private nonagricultural sector replacing the consumer price index.

<sup>j</sup> Cline et al. do calculate a measure of dislocation costs based on their estimated import displacement alone (70,400 positions). This is inappropriate as a measure of social dislocation costs -- lost output to the society -- since it ignores the workers (84,800 of them) drawn out of the pool of the involuntarily unproductive unemployed by expansion of the exportables sector. The productivity of 84,800 workers rises from zero; that of 70,400 falls temporarily to zero. Greater aggregate output is obtained unless the workers drawn out of unemployment are much less productive on average (less than 704/848 as productive) as those displaced. Note that the identity of those re-employed is not likely to match the identity of those displaced. Whether there are income-distribution or equity-based reasons for worrying about this is discussed in the next section.

n.c. = not calculated.

(2) The Distribution of Dislocation Among Selected Labor Groups and Industries

But the real controversy in modern trade policy is over equity, not efficiency. Most analysts agree that trade liberalization is likely to move the economy closer to overall efficiency -- and Table 1 suggests that for the U.S. at least, this will still be true when account is taken of the efficiency costs of additional MTN-related unemployment and excess capacity.

But who within a society loses from MTN's? And who gains? And are the groups which gain and lose "deserving" or "undeserving" relative to income-distributional goals? This section and Part III of the paper outline tentative answers to the first two of these questions.

One of the striking features of Table 1 is how much larger estimated labor dislocation costs are than estimated "capital" dislocation costs -- more than seven times as large. In part this is due to the fact that "labor" (as measured by employee compensation) accounts for a larger share of measured U.S. income (value-added) than "capital" (as measured by property-type income) -- roughly twice as much. But that is insufficient to explain the comparative magnitudes of dislocation. If dislocation from MTN's were being borne proportionally by labor and capital in the U.S., Table 1's labor dislocation costs would have been roughly double capital dislocation costs, not seven times as large. "Labor" as a whole appears to bear

a disproportionate share of the transitional dislocation burden from MTN's.<sup>21</sup>

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<sup>21</sup> No value judgment is implied. One might argue that labor always bears a disproportionate share of dislocation burdens from every shock which changes the industrial mix. The reason is that labor's price (wages) is less flexible than capital's (profits, dividends, and some rents are highly volatile, up and down). Thus economic flux affects labor primarily with respect to quantity (employment and unemployment) but capital primarily with respect to price. One might argue in parallel fashion that capital always bears a disproportionate share of the burden of price variation from economic shocks. Since economic gains and losses are always a matter of both quantity and price, both must be taken into account in deciding which groups bear the greatest overall burden from MTN's or other economic flux. Part III below examines what MTN's can be expected to do to factor incomes and prices.

The other principal reason why "capital" experiences less dislocation than "labor" is that its rate of obsolescence is larger. The assumption underlying Table 1 is that the average productive life of most capital equipment (including facilities) is 10 years. The average working life of most labor is more like 40 years. Thus in a one-year short run under rigid prices, replacement demand alone is capable of reabsorbing temporarily unproductive capital as large as 10 percent of the existing stock, but can reabsorb temporarily unemployed labor only up to 2½ percent of existing industry employment.

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The burden of U.S. labor dislocation from MTN's is not spread proportionally across various labor groups either. Tables 2 through 6 summarize tentative estimates of the way in which dislocation is distributed among labor groups defined by industry of occupation, wage level, skill category and socioeconomic characteristics.<sup>22</sup>

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<sup>22</sup> Wages, skills, and socioeconomic characteristics of workers

were collected industry-by-industry from the 1/1000 sample 1970 U.S. Census of Population, the tape of which was kindly supplied by the Center for Demography at the University of Wisconsin, Madison. Average hourly wages recorded there have been inflated in Table 4 to approximate end-of-1979 levels by multiplying each by 1.1 times the ratio of the December 1978 index for adjusted hourly earnings in the private nonagricultural sector (220.2) to the equivalent 1970 index (120.7). Source: 1979 Economic Report of the President, Table B-35, p. 224.

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Table 2 reveals the industries in which U.S. labor seems most likely to be dislocated from the tariff provisions of current MTN's. The numerical estimates themselves are maxima, however, generated on the assumption that the full 30 percent tariff reduction will be put into effect at one time, and will affect industry labor requirements immediately and proportionately to reduced U.S. output.<sup>23</sup> If by contrast the tariff reductions were phased in gradually at roughly 4 percent

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<sup>23</sup>Most empirical studies, by contrast, suggest that output will not be affected immediately. Changes in prices, exchange rates, and commercial policy require from nine months to three years before they attain 90 percent of their full impact on domestic output. See Robert M. Stern, Jonathan Francis, and Bruce Schumacher, Price Elasticities in International Trade: An Annotated Bibliography (London: Trade Policy Research Center, 1976). Then if employers delay reducing their labor force until they are sure that a sales decline is permanent, there may be further delay before a change in commercial policy affects labor requirements. Employer behavior of this sort may be due to the costs of hiring and training new employees, and has been described as "labor hoarding". See M. Ishaq Nadiri and Sherwin Rosen, A Disequilibrium Model of Demand for Factors of Production (New York: National Bureau of Economic Research, 1974).

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per year over the next eight years, the percentage employment losses would shrink to one eighth their recorded size, and would recur for each year in the coming eight. With only a few exceptions,

TABLE 2

MAXIMUM REDUCED LABOR REQUIREMENTS BY INDUSTRY<sup>a</sup>  
 FROM AN IMMEDIATE MULTILATERAL TARIFF  
 REDUCTION OF 30 PERCENT

<u>Industry<sup>a</sup></u>	Percentage Employment <u>Loss</u>
Food utensils and pottery	12.4
Rubber footwear	7.9
Cutlery	7.4
Motorcycles, bicycles, and parts	7.2
Artificial flowers	6.8
Pottery products	5.8
Scour and combing plants	2.8
Other leather products	2.4
Games and toys	1.9
Industrial leather tanning	1.9
Ceramic wall and floor tile	1.6
Jewelry	1.6
Nonrubber footwear	1.6
Sewing machines	1.6
Radios and TV sets	1.5
Sport and athletic goods	1.5
Watches, clocks and parts	1.5
Buttons, needles, pins and fasteners	1.3
Lace goods	1.3
Musical instruments	1.1
Optical instruments and lenses	1.1
Textile machinery	1.1
Veneer and plywood	1.0
Primary zinc	1.0
Miscellaneous manufactures	1.0

<sup>a</sup>Estimates were calculated for an exhaustive list of 367 U.S. industries, from which this table selects the only 25 which had reduced labor requirements greater than one percent. All others had smaller employment losses or gains.

Source: 3/5 times the entries in a similar table for a 50 percent linear multilateral tariff cut across the board (except on petroleum, textiles, U.S. agricultural exports subject to quantitative restrictions and variable levies, and U.S. imports subject to escape-clause action), to be found in Robert E. Baldwin, John H. Mutti, and J. David Richardson, "Welfare Effects on the United States of a Significant Multilateral Tariff Reduction," manuscript, April 1978.



this amount of dislocation seems potentially small enough to be swamped by the average annual growth of most industries, and by average annual quits and retirements. It is nevertheless true that labor groups in these industries are more likely to suffer dislocation, and if so larger dislocation, than labor groups in other industries. A general impression of the industries in Table 2 is that most employ either relatively straightforward, well-established, labor-intensive production techniques, or else sophisticated, but highly-standardized, labor-intensive techniques.

Table 3 reveals the industries which are most encouraged by MTN's to increase employment. The numerical estimates are again maxima for the same reasons as those in Table 2. The list is notably shorter than that of Table 2. The inter-industry distribution of increased employment from MTN's appears to be tightly packed and concentrated on small numbers. The inter-industry distribution of labor dislocation from Table 2, by contrast, was more diffuse. These observations may help to explain the mildness of industrial lobbying for freer trade in the U.S. compared to industrial lobbying for protection.

TABLE 3  
 MAXIMUM INCREASED LABOR REQUIREMENTS BY INDUSTRY <sup>a</sup>  
 FROM AN IMMEDIATE MULTILATERAL TARIFF  
 REDUCTION OF 30 PERCENT

<u>Industry</u> <sup>a</sup>	Percentage Employment Gain
Semiconductors	3.8
Computing machines	1.9
Tobacco	1.8
Office machines	1.4
Mechanical measuring devices	1.0

<sup>a</sup> Estimates were calculated for an exhaustive list of 367 U.S. industries, from which this table selects the only 5 which had increased labor requirements greater than one percent. All others had smaller employment gains or losses.

Source: 3/5 times the entries in a similar table for a 50 percent linear multilateral tariff cut across the board (except on petroleum, textiles, U.S. agricultural exports subject to quantitative restrictions and variable levies, and U.S. imports subject to escape-clause action), to be found in Robert E. Baldwin, John H. Mutti, and J. David Richardson, "Welfare Effects on the United States of a Significant Multilateral Tariff Reduction," manuscript, April 1978.

Table 4 suggests the way in which short-run, MTN-related dislocation and employment gains are spread across labor groups in different wage classes.<sup>24</sup> The way in which the table should be read can be illustrated from the first row. Of all existing and potential positions that are temporarily lost from MTN's, those lost from the lowest-wage categories represented 3.0 percent. Since these lowest-wage workers account for 7.6 percent of aggregate employment, they are dislocated less than proportionally from MTN's. Furthermore, they gain more of

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<sup>24</sup> The calculations are in fact transformations of the data underlying Tables 2 and 3. Workers dislocated from or drawn into each industry were identified with the average wage paid in that industry, according to the data source described in footnote 22 above.

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total positions created by MTN's -- 12.9 percent -- than their 7.6 percent share of employment would have suggested. The very poorest workers in the U.S. economy are therefore clearly temporary winners from the tariff aspects of MTN's -- they lose less than their share of jobs to imports and gain more than their share as exports expand. As Table 5 reveals, most (but not all) of the poorest - paid labor group are farmworkers.

Some groups enjoy disproportionately low temporary import dislocation and export-related opportunities (e.g., the second poorest group). Since their proportions of each are comparable,

TABLE 4  
 DISTRIBUTION OF U.S. IMPORT  
 DISPLACEMENT AND EXPORT-  
 ENCOURAGED EMPLOYMENT GAINS...

...BY SIZE CLASS OF WAGES

(30 PERCENT MULTILATERAL TARIFF CUT)

Hourly Wages (End-of-1979 <sup>a</sup> Dollars)	Percent of Total Import Displace- ment	Percent of Total Added Export Employ- ment	Percent of Total Employ- ment	Compared to Other Groups, this Group Does...
1.61 to 2.00	3.0	12.9	7.6	Better
4.41 to 4.80	0.8	0.9	3.2	?
4.81 to 5.20	0.3	0.3	0.6	?
5.21 to 5.60	0.3	0.5	0.4	Better
5.61 to 6.00	0.2	0.1	0.1	Worse
5.91 to 6.40	20.2	11.0	8.0	Worse
6.41 to 6.80	4.8	1.5	2.0	Worse
6.81 to 7.20	1.2	0.7	1.1	Worse
7.21 to 8.00	8.6	3.1	2.8	Worse
8.01 to 8.40	10.1	7.0	24.6	Worse
8.41 to 8.80	22.1	24.1	14.6	?
:	8.9	11.8	23.3	?
:	:	:	:	:

TABLE 4 continued

Hourly Wages (End-of-1979 <sup>a</sup> Dollars)	Percent of Total Import Displace- ment	Percent of Total Added Export Employ- ment	Percent of Total Employ- ment	Compared to Other Groups, this Group Does...
8.81 to 9.20	5.8	5.8	2.7	?
9.21 to 9.60	4.5	2.0	1.1	Worse
9.61 to 10.00	2.8	4.0	4.9	Better
10.01 to 10.40	1.9	7.1	0.6	Better
10.41 to 10.80	4.6	7.3	2.4	Better

<sup>a</sup>See footnote 22.

Source: See footnote 24.

they are on balance neither gainers nor losers from MTN's (indicated by "?" in the right-hand column of the table). Other groups are affected both negatively and positively more than their share of employment would suggest (e.g., the group earning from \$6.01 to \$6.40 per hour). Since their disproportional position is most marked with respect to import-related dislocation, however, they are clearly made worse off temporarily by MTN's compared to other labor groups.

A clear pattern emerges from Table 4. When tariffs are multilaterally reduced,<sup>25</sup> on balance the worst paid U.S. workers and the best paid

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<sup>25</sup>Tables 4, 5, and 6 are unlike Tables 2 and 3 in being invariant to whether tariffs are cut immediately by 30 percent or phased in gradually and incrementally. The amount of import displacement and added export employment varies, but not its percentage distribution among labor groups.

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workers enjoy immediately better job prospects and suffer less temporary dislocation than the large "middle-class" of workers. With respect to short-run employment opportunities alone, therefore, MTN's are not clearly either progressive or regressive in their overall income-distributional effects. They appear, however, to be roughly progressive in the lower half of the income distribution and regressive in the upper half.

Table 5 suggests the way in which short-run MTN-related dislocation and employment gains are spread across labor groups in different skill classes.<sup>26</sup> The tenor of the results is quite

TABLE 5  
 DISTRIBUTION OF U.S. IMPORT  
 DISPLACEMENT AND EXPORT-  
 ENCOURAGED EMPLOYMENT GAINS...

... BY SKILL GROUP

(30 PERCENT MULTILATERAL TARIFF CUT)

Skill Group	Percent of Total Import Displacement	Percent of Total Added Export Employment	Percent of Total Employment	Compared to Other Groups, this Group Does ...
Farmers, Farm Workers	3.7	17.3	4.7	Better
Laborers	5.6	4.0	5.0	Worse
Operatives	35.7	26.2	18.9	Worse
Clerical Workers	14.9	14.0	19.3	?
Sales, Service, and Secondary Supervisory Workers	7.1	6.2	21.3	Worse (?)
Craftsmen	16.0	13.6	13.0	Worse (?)
Managers and Administrators	8.0	7.0	6.8	Worse (?)
Secondary Professional and Technical Workers	2.1	2.2	6.5	?
:	:	:	:	:

TABLE 5 (continued)

Skill Group	Percent of Total Import Displacement	Percent of Total Added Export Employment	Percent of Total Employment	Compared to Other Groups, this Group Does...
Professional, Technical and Research Workers	7.1	9.4	4.6	Better

Source: See footnote 26.



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<sup>26</sup>The calculations are again transformations of the data underlying Tables 2 and 3. Workers dislocated from or drawn into each industry were apportioned into the skill classes characteristic of that industry, according to the data source described in footnote 22.

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similar to those of

Table 4. The lowest-paid and highest-paid skill groups realize disproportionately larger added demand from MTN's, and disproportionately smaller displacement, than middle-income skill groups do. Freer trade appears to require a skill mix of national production that emphasizes professional, technical, and agricultural workers at the expense of other skill groups. It must be added, however, that the quantitative magnitude (number of positions) of this shift in the skill mix is miniscule.<sup>27</sup>

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<sup>27</sup>It can be obtained by multiplying the percentages in the first column of Table 5 by 90,700 from Table 1, and the percentages in the second column of Table 5 by 81,500 from Table 1.

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Table 6 suggests the way in which short-run, MTN-related dislocation and employment gains affect workers in some familiar socioeconomic categories. While the verbal characterization of their

TABLE 6

DISTRIBUTION OF U.S. IMPORT  
DISPLACEMENT AND EXPORT-  
ENCOURAGED EMPLOYMENT GAINS...

...BY SOCIOECONOMIC CATEGORY

(30 PERCENT MULTILATERAL TARIFF CUT)

Socio-economic Category	Percent of Total Import Displacement	Percent of Total Added Export Employment	Percent of Total Employment	Compared to Other Groups, this Group Does...
Male	63.4	66.7	58.1	Better
Female	36.7	33.3	41.9	Worse
White	91.3	91.7	90.9	Better(?)
Non-white	8.7	8.3	9.1	Worse(?)
Urban <sup>a</sup>	71.9	68.7	72.9	Worse
Rural <sup>a</sup>	25.8	29.2	24.8	Better

<sup>a</sup>Residual category omitted.

Source: See footnote 28.

position in the right-hand column is probably accurate, some of the entries are clearly overstated or understated by the assumption that the socioeconomic characteristics of laid-off and newly-hired workers were the same as those of the typical worker in an industry.<sup>28</sup> More plausibly, males and whites probably suffer less temporary dislocation than the figures indicate because seniority and vestiges of dis-

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<sup>28</sup>Table 6's calculations are again transformations of the data underlying Tables 2 and 3. See footnotes 24 and 26 above.

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crimination lead lay-offs to be disproportionately concentrated on females and non-whites. On the other hand, males and whites probably realize less buoyant demand than indicated from MTN's because affirmative action leads new hiring to be disproportionately concentrated on females and non-whites. It is interesting to note that although the quantitative effects are not at all large, tariff reduction appears to be qualitatively "retrogressive" in its short-run socioeconomic effects -- causing traditionally disadvantaged groups to lose slightly at the expense of traditionally advantaged groups.<sup>29</sup>

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<sup>29</sup>Mention should be made of three studies supported by the Office of Foreign Economic Research in the Bureau of International Labor Affairs, U.S. Department of Labor, that come to conclusions of roughly the same flavor. The first is an elaborately detailed study of four U.S. industries believed to be shrinking primarily because of import penetration: consumer electronics, nonrubber footwear, steel, and

textiles and apparel (two of which already appear to be excluded from current MTN's for U.S. purposes -- footwear and textiles). See Economic Consulting Services, Inc., Impact of Import Penetration on Labor in Selected U.S. Industries and Related Problems of Adjustment, presented at a U.S. Department of Labor Conference on the Employment Effects of International Trade, November 15, 1978. The second and third studies are broader. One is by C. Michael Aho and James A. Orr, "International Trade's Impact on U.S. Workers: Demographic and Occupational Characteristics of Workers in Trade Sensitive Industries," Manuscript, March 1979. The other is Ruttenberg, Friedman, Kilgallon, Gutchess, and Associates, The Impact of Manufacturing Trade on Employment, presented at a U.S. Department of Labor Conference on the Employment Effects of International Trade, November 15, 1978. Both differ in a number of ways from the discussion of the past few pages. They are not studies of the effects of MTN's. Nor do their calculations transfer necessarily or directly into dislocation and economic burdens for workers. They do not focus on employment opportunities created and destroyed by changes in agricultural and other non-manufactures trade. And not even all manufacturing industry is captured -- only 40 out of 367 industries whose employment opportunities were affected extremely are covered. The Aho-Orr study translates recorded changes in imports and exports over the years from 1964 to 1975 into changes in employment by industry. Socioeconomic and occupational characteristics are compared for the average worker in the twenty most favored industries and the twenty least favored. The labor force in the least favored industries is revealed to be comparatively female (41 percent as against 22 percent), minority (12 percent as against 7 percent), non-skilled (62 percent as against 44 percent), with incomes more typically below the poverty level (10 percent as against 6 percent), and with less than four years of high school (66 percent as against 61 percent). See Aho and Orr, Table 3. The Ruttenberg et al. study proceeds along similar methodological lines and comes to similar conclusions. All these calculations can be applied to current MTN's only with great caution, however. There is no necessary reason to expect employment to be affected by MTN's alone in the same way that it was affected by all exogeneous changes in only some manufactured imports and exports from 1964 to 1975.

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It is of course inaccurate to suppose that U.S. workers dislocated by MTN's lose all income. Many of them are eligible for unemployment compensation either under standard programs or through trade adjustment assistance (TAA). It is useful to examine how the dislocation experience of workers displaced because of imports differs systematically from that of workers displaced for all other reasons.<sup>30</sup>

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<sup>30</sup>If there were no differences, for example, one might be tempted to abolish the unemployment-compensation aspects of the U.S. TAA program, and rely instead on existing general programs. Or if there were differences, one might conclude that TAA should be redesigned to relieve the differences deemed undesirable.

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Surveys of "trade-displaced" workers reveal several systematic differences in their dislocation experience.<sup>31</sup> First, they will have had more advance notice of their impending layoff than workers

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<sup>31</sup>The following paragraphs are based on my remarks to a March 7, 1978 conference on Crisis in Trade Policy, held at the New York University Graduate School of Business under the sponsorship of the Salomon Brothers Center for the Study of Financial Institutions. "Trade-displaced" workers were defined in those remarks to be workers certified eligible to receive trade readjustment benefits under the TAA programs of the Trade Expansion Act of 1962. The surveys which formed the basis for this section were: a 1972 U.S. Labor Department survey of 400 workers, summarized in Malcolm D. Balc, Adjustment to Freer Trade: An Analysis of the Adjustment Assistance Provisions of the Trade Expansion Act of 1962, 1973 University of Wisconsin doctoral dissertation and Report No. DLMA 91-55-73-05-1 of the National Technical Information Service (Springfield, Virginia); a 1973 survey of 200 Massachusetts workers in non-rubber footwear conducted by James E. McCarthy, and summarized in his "Contrasting Experiences with Trade Adjustment Assistance," Monthly Labor Review, June 1975, and in

his Trade Adjustment Assistance: A Case Study of the Shoe Industry in Massachusetts (Boston: Federal Reserve Bank of Boston Research Report No. 58, June 1975); a 1975 U.S. Labor Department survey of 700 "trade-displaced" workers and a control group of 200 recipients of standard unemployment compensation, summarized in George R. Neumann, with Morgan V. Lewis and Gerald P. Clyde, assisted by Steven H. Sheingold, The Evaluation of the Trade Adjustment Assistance Program, manuscript, September 1976 (a shorter version of which is George R. Neumann, "The Direct Labor Market Effects of the Trade Adjustment Assistance Program: The Evidence from the TAA Survey," in William G. Dewald, ed., The Impact of International Trade and Investment on Employment, Washington: U.S. Government Printing Office, 1978.

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released for other reasons -- on average about twice as much (6 weeks notice instead of 3). But those who find jobs will have been displaced longer than typical unemployed workers -- roughly one-third again as long.<sup>32</sup> And about two in five trade-displaced workers

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<sup>32</sup> Some analysts believe that this difference is due primarily to the facts that trade-displaced workers are atypically older and are more likely to reside in depressed regions of the country.

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will still not have returned to work two years after their layoff. Some of these will be searching for work; others will have retired, gone back to school, or withdrawn from the labor force for other reasons.<sup>33</sup>

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<sup>33</sup>In McCarthy's sample of "trade-displaced" Massachusetts workers in non-rubber footwear, roughly one in five who retired said they would prefer to have continued employment, and were physically able, but had become discouraged and given up trying. See McCarthy, Trade Adjustment Assistance, p. 67.

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Only about one in forty "trade-displaced" workers will move residence to seek employment within two years of their lay-off, although they are thereby more mobile geographically than a typical unemployed worker (1 in 100). They also seem somewhat more mobile occupationally. Almost four out of five who are relocated switch "industries," whereas only three out of five workers dislocated for other reasons do.<sup>34</sup>

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<sup>34</sup> McCarthy reports, however, that only 1 out of 3 relocated Massachusetts footwear workers switched industries. See McCarthy, Trade Adjustment Assistance, p. 63. And the same occupational immobility seems to characterize trade-displaced and relocated autoworkers.

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Unemployment insurance and TAA, of course, only alleviate dislocation losses, and do not eliminate them. They are partial compensation for the injury that trade liberalization sometimes creates. The difficult subjective question which remains is whether the compensation is "sufficient" -- in the sense that a social consensus judges the injury to have been adequately reduced by income support, for which the ultimate source is taxes on the additional incomes of the gainers.

### III. MULTILATERALLY FREER TRADE AND PERMANENT DISTRIBUTIONAL CHANGES

#### Introduction

Who within a nation loses economically from multilateral trade liberalization and who gains? And are the identities of the two groups consistent with society's notion (if there is some consensus) of economic equity?

Part II of this report summarized U.S. evidence on the first of these questions for the comparatively short period of time after trade liberalization in which many wages, prices, and costs are as yet unaffected by the change. Part III summarizes evidence on the same question after wages, prices, and costs become flexible again.

In the short run, income distributional impacts of multilateral trade negotiations (MTN's) are dominated by layoffs, new vacancies, and job creation; by bankruptcies, idle equipment, new investment and entry; and by retraining, retooling, refurbishing, and relocating. Most of these quantitative adjustments are transitory. After they have been made, the enduring income distributional consequences of MTN's are dominated by altered relative wages and salaries among different occupations; by subsequent alterations in the skill mix and educational backgrounds of the population; by altered relative prices and profitability among different industries; and by subsequent changes in the



production mix and standard of living of the country.

Immediate gainers and losers from freer trade can be determined largely from knowing the industry with which they are most intimately connected. Generally in the U.S., workers, managers, shareholders, and creditors all gain initially the more dependent is their livelihood on agriculture, commercial aircraft, computers, chemicals, heavy machinery -- all major U.S. exportables. U.S. workers, managers, shareholders, and creditors whose incomes depend importantly on textiles, apparel, footwear, basic steel products, and standardized electronic equipment will all be under temporary pressure from across-the-board liberalization. Service workers, government employees, students, and retirees all will be comparatively unaffected by MTN's in the short run -- even as consumers, since both price-adjustment lags and the phased implementation of freer trade delay its impact on the cost of living.

Long-run gainers and losers from freer trade cannot be identified easily or principally by industry labels. There are two potentially dominating additional pieces of information which must be known:

- (1) how trade liberalization alters nation-wide or region-wide requirements for "labor" of various skills and characteristics, including managers, engineers, and supportive professionals;<sup>35</sup>
- (2) how trade liberalization alters the real cost of living of various individuals or groups -- that is, the purchasing

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<sup>35</sup> The region-wide perspective is appropriate for types of "labor" who are highly immobile geographically. Louisiana lawyers are made more or less prosperous in the long run from how trade liberalization affects the long-run demand for their services in Louisiana, since the Napoleonic part of their legal training limits the marketability of their services elsewhere.

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power of their incomes, or their ability to consume more for the same effort.<sup>36</sup>

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<sup>36</sup> See the discussion on pp. 12-3 above.

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(1) The Effects of U.S. Trade Liberalization on Earnings

Table 5 is useful for illustrating the first long-run influence sketched above. Although the effects are quantitatively very small, some of the qualitative impacts are clear. U.S. groups such as laborers and operatives are disproportionately displaced by multi-lateral trade liberalization.

Displaced laborers and operatives suffer obvious temporary income losses. But so may those who remain employed, whether they work in an import-sensitive industry or not. Their ability to work overtime or to negotiate favorable wage increases will be constrained from what it could have been by pressure that displaced laborers and operatives place on their unions and employers to become re-employed.

When and if temporary unemployment is eliminated -- by retirement, voluntary quits, government policy, growth in the economy, relocation of the unemployed, or sub-standard wage increases that last long enough to attract employers toward hiring additional laborers and operatives -- then these groups will find their wages beginning again to rise at average rates. But their wages will remain permanently behind those of other groups, compared to what they once were. If laborers and operatives try to "catch up" to these other groups, the effort is likely to be only partially successful -- resulting in strikes, work slowdowns, further lay-offs, and employer reluctance, all of which limit the attempt to regain what these groups lose.<sup>37</sup>

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<sup>37</sup>The observation that trade liberalization permanently alters the relative wages of various labor groups is not sufficiently appreciated in most discussions. For an exception, see Louis S. Jacobson, "Earnings Losses of Workers Displaced from Manufacturing Industries," in William G. Dewald, ed., The Impact of International Trade and Investment on Employment, Washington: U.S. Government Printing Office, 1978.

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Table 5 also reveals that tariff cuts improve employment prospects for farmworkers and for professional, technical, and research personnel. For as long as job markets for these groups remain buoyant, they should be able collectively and individually to "cash in" the buoyancy in the form of larger rates of increase in wages. Higher wages and new entrants to the occupation will

eventually deflate the buoyancy, and wages and salaries of these groups will begin again to rise at average rates. But they are also likely to remain permanently higher than those of other groups, compared to what they once were.

How large can these indefinite wage/salary effects of trade liberalization be in the U.S.? The answer from Tables 1 through 6 is "very small in the aggregate." The wage/salary impacts from reduced labor requirements facing laborers and operatives stem from only 12,800 positions -- loss of roughly one out of every 2500 laborer/operative positions nationwide.<sup>38</sup> And the loss would be even smaller if tariff

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<sup>38</sup> These calculations come from multiplying the proportions from Table 5 by the gained and lost positions from Table 1.

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reductions were phased incrementally over a price pressure from such small adjustments must itself be very small. The increased labor requirements facing farm, professional, technical, and research workers are comparably small, representing 12,000 positions, or even fewer under phased reductions. Insignificant national wage and salary pressure from trade liberalization would undoubtedly be swamped by much more important economic influences-- cyclical flux, weather patterns, energy and environmental shocks, internal U.S. migration, external migration to the U.S., etc.

From a regional and individual perspective, the enduring earnings consequences are somewhat larger. In the surveys of "trade-displaced" workers discussed above,<sup>39</sup> Bale found real hourly

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<sup>39</sup> See footnote 31.

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compensation roughly 14 percent lower than it used to be for workers who found new positions within 8 months;<sup>40</sup> Neumann found it 25 percent lower for workers re-employed within 24 months;<sup>41</sup> and McCarthy

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<sup>40</sup> Real hourly compensation is the change in the dollar amount of hourly compensation less the change in the consumer price index, in this case roughly 3 percent over the eight-month period.

<sup>41</sup> 28 percent lower for men, 21 percent lower for women. Neumann's figures on the decline in real weekly wages suggest also that displaced workers worked about one hour less per week in their new jobs than in their old, thereby contributing to an even larger decline in their incomes than in their wages. The decline in earnings is aggravated further by the marked increase in ongoing job instability for displaced workers, meaning that their post-lay-off re-employment is punctuated frequently with new periods of unemployment.

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found it 13 percent lower for shoeworkers in jobs filled within 40 months.<sup>42</sup> While these averages are hardly definitive, they are possibly suggestive of a pattern. The first "trade-displaced" workers to be re-hired may realize only small earnings losses compared to those re-absorbed later, perhaps because they are the ones with the best opportunities and most attractive traits to employers.

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<sup>42</sup>Female shoeworkers bore more than the brunt of this decline. McCarthy found anomalously that male shoeworkers actually enjoyed higher real earnings in their new job than in their old.

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Then as time and trial-and-error labor search match people to positions more appropriately than at first, and as retraining and experience increase the productivity of workers who must switch jobs, their real earnings losses relative to former jobs shrink.<sup>43</sup>

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<sup>43</sup>Jacobson, in the study referenced in footnote 37, found that the extent to which dislocated workers had lower earnings over an entire 72-month period was highly variable from industry to industry. It ranged from 24 percent lower on average in the auto and steel industries to slightly less in most other "high-wage" industries, to 5 percent lower on average in "low-wage" industries, to zero in a few cases. Jacobson, however, was focussing on dislocation for all reasons, only a small part of which was due to trade liberalization.

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Evidence is even sketchier on the extent to which temporary displacement held down earnings for those who remained working by weakening their bargaining position and reducing overtime opportunities and promotion possibilities. The only evidence on such "income displacement" is very indirect, and comes from McCarthy's survey of "trade-displaced" shoeworkers. His figures imply that those New England shoeworkers who remained employed during the 40-month focus of his

study settled for raises about one-half percent less per year than other wage-earners on average. That is, the real wage of continuously employed Massachusetts shoeworkers compared to other employed workers declined almost two percent over that period.<sup>44</sup> And their earnings losses over a longer-term horizon might well be even larger.<sup>45</sup>

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<sup>44</sup> McCarthy finds that workers who remained employed in the footwear industry made \$11.25 more per week (\$100.40) than those who were displaced and found jobs in "other industries." Since the latter earned 13 percent less than they used to before displacement, the former can be viewed as accepting 1.75 percent less than they could have earned in those same "other industries" over the time period in order to remain employed in the shoe industry (0.13 less \$11.25/\$100.40).

<sup>45</sup> To be more cautious, however, since McCarthy was unable to control for all the other economic flux that might affect relative wages during the period of his survey, it could be that the two percent change either understates or overstates the impact of lower trade barriers, because it reflects more influences than just them.

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(2) The Effects of U.S. Trade Liberalization on the Cost of Living

It is often said that all Americans gain in the long run because multilateral trade liberalization reduces prices and the cost of living. Quantitative estimates of this influence are rare, however,<sup>46</sup> and apart from casual reflection, no one seems to have calculated

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<sup>46</sup> Cline, Kawanabe, Kronsjö, and Williams provide one of the few in Trade Negotiations in the Tokyo Round: A Quantitative Assessment, Washington: The Brookings Institution, 1978, p. 81.

They estimate that multilateral tariff cuts of 60 percent across the board, with reduction of tariff rates below 5 percent to zero, would reduce the U.S. cost of living by 23/100 of one percent. Their characterization of this change as "anti-inflationary" is ill-considered, however, even after taking into account potentially favorable Phillips-curve side benefits (see Cline et al., pp. 77-82). Such benefits do not recur indefinitely, and shrink as time passes from the initial trade liberalization.

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whether the reduced cost of living that MTN's induce is enjoyed broadly across a society, or disproportionately by certain individuals or groups (whether "deserving" or not).

The most comprehensive study of the quantitative impact of tariff cuts on the U.S. cost of living is by Wayne E. Lewis.<sup>47</sup> Lewis finds that for a number of alternative assumptions about macro-economic health and exchange-rate regime, the overall U.S. cost-of-living effect of realistic multilateral trade liberalization is miniscule. The largest of 40 alternative estimates for cuts in tariffs and non-tariff measures<sup>48</sup> as large as 50 percent across

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<sup>47</sup>Wayne E. Lewis, The Effects of Multilateral Trade Liberalization on U.S. Domestic Prices, unpublished doctoral dissertation, University of Wisconsin, Madison, 1977.

<sup>48</sup>Lewis cuts the tariff equivalents of the following non-tariff measures by the particular tariff-cutting formula under consideration: U.S. import quotas on agricultural products and textiles; foreign import quotas on U.S. textiles; European Community variable levies on U.S. agricultural produce.

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the board is a reduction in the U.S. cost of living of 16/100 of one percent; the smallest, 4/100 of a percent!<sup>49</sup> The annual

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<sup>49</sup>Lewis, pp. 166-168.

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dollar value of an indefinite such decline to a person making an income of \$20,000 per year is at most \$32, still quite small, but within the range of many alterations in personal tax incentives designed to bring about some desired result (e.g., recent credits and surcharges).

Why are these calculations so small? First, for trade barriers as low as they are at present, even an apparently large 50 percent elimination has small consequences for dutiable import prices -- a reduction of 4 percent at most, according to Lewis. And since currently more than a quarter of all U.S. imports enter duty-free, the overall import-price effect of such liberalization is less than 3 percent.

Second, commentators are in the habit of multiplying any decline in import prices by the ratio of imports to gross national product to get a back-of-the-envelope estimate of the cost-of-living impact (e.g., 0.10 times 3 percent = 30/100 of one percent). This is inappropriate because a preferable ratio to use would be the ratio of imports for consumers' final demand to overall consumption -- a ratio currently around 4 percent, not 10 percent. And the

estimate grows only slightly from taking account of the fact that lower import prices reduce the cost of raw materials and intermediate goods -- such imports represent only roughly 6 percent of total intermediate-goods demand.<sup>50</sup>

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<sup>50</sup>The whole problem with the usual back-of-the-envelope calculation is that recorded imports include imports for both final demand and intermediate demand. Gross national product includes only final demands. Dividing recorded imports by gross national product, therefore, is like dividing apples by oranges. The numerical magnitudes in the text are obtained by updating (doubling) the 1967 input-output table's ratios of consumers' final demand for imports to total personal consumption expenditures (9,870/490,660) and of intermediate use of imported inputs to total intermediate outputs ((3,826 + 22,570)/ 725,127). See U.S. Department of Commerce, Survey of Current Business, 54 (February 1974), p. 43.

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Third and finally, multilateral trade liberalization actually puts potential upward pressure on domestic exportable prices because it increases their foreign competitiveness. The degree to which that potential pressure translates into actual increases in the cost of living depends on how close the overall economy is to full employment and capacity utilization, and on how much supply bottlenecks and increased resource costs of expansion afflict particular export sectors in the long run. For sensible relations between sectoral output supplies and prices near full employment, Lewis found that the higher price of U.S. exportables could raise the U.S. cost of living by as much as 5/100 of one percent. But this contrary cost-of-living impact was always dominated by lower

U.S. prices of imports and of products dependent on imports as inputs.

The question still remains whether even these small long-run impacts on consumer prices are distributed among the U.S. population "equitably." Table 7 reveals estimates of the reduced cost of living from a multilateral 30 percent cut in tariffs arranged by income levels. <sup>51</sup>

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<sup>51</sup> Lewis also reports domestic price impacts of MTN's by two-digit input-output category (about 80 sectors) in his dissertation cited above. Deborah DuBourdieu drew up a concordance between his SIC-based input-output categories and those which were used in the U.S. 1972-73 Consumer Expenditure Survey. Lewis' price changes could then be translated into price changes in average consumer baskets, which are calculated in the Survey by income class.

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The figures are almost indistinguishable from each other. The tariff cuts are infinitesimally regressive with respect to their cost-of-living effects below \$15,000 of income, proportional until \$25,000, and infinitesimally progressive beyond. The estimates are so small that the whole distribution could be made proportional by taking one nickel, dime, or quarter every year from individuals above \$15,000 and giving it to those below! It seems clear that tariff cuts at least do not discriminate against or in favor of any income group in their long-run cost-of-living impact.

TABLE 7

ULTIMATE DECLINE IN THE U.S. COST OF  
LIVING BY INCOME CLASS  
FROM MULTILATERAL TARIFF  
REDUCTION OF 30 PERCENT

<u>Annual Income</u>	<u>Hundreths of one Percent</u>
up to \$5,000	3.6
\$5,000 - \$10,000	3.9
\$10,000 - \$15,000	4.0
\$15,000 - \$20,000	4.1
\$20,000 - \$25,000	4.1
above \$25,000	4.0

Source: See footnote 51.

## SUMMARY

Some U.S. representatives of organized labor have claimed that U.S. participation in the "Tokyo Round" of trade liberalization is detrimental not only to labor, but to the nation as a whole.

Two important instances in which freer trade could in principle be nationally detrimental arise: (1) if it leads to a sufficiently large and enduring rise in national unemployment and excess capacity that cannot be alleviated quickly (or at all) by conventional government policies; or (2) if freer trade creates uncompensated changes in the income distribution that undermine a population's sense of equity.

These reservations about freer trade are sometime dismissed out of hand as characterizing only the "short run" (reservation (1)), or as inappropriately identifying social welfare with personal welfare (reservation (2)). Yet short-run losses can dominate even permanent gains when the future is discounted. And when both gainers and uncompensated losers exist from a government policy, it may be impossible to define any "social" welfare to which to recommend adherence.

Very few attempts have been made to assess the practical importance of these two reservations. This report has summarized some of the more careful.

In the short run after multilateral trade liberalization, downward wage and price rigidity can cause socially costly additions to unemployment and excess capacity. Although in principle this short-run "dislocation cost" of freer trade could dominate its familiar and indefinite gains, three detailed studies of tariff reduction concur that this is highly unlikely in the U.S. One shows that multilateral tariff reduction would increase aggregate U.S. employment (zero dislocation cost). The others show that the

output foregone because of temporary dislocation represents only from 17 to 37 percent of the increased aggregate claims over goods and services that trade liberalization allows for the U.S.

But the real controversy in modern trade policy is over equity, not efficiency. Who within a society loses from MTN's? And are the groups which gain and lose "deserving" or "undeserving" relative to income-distributional goals?

This report finds that U.S. wage-earners bear a disproportionate share of temporary unemployment compared to recipients of property-type income (roughly 7 times the income reduction). But it also suggests parenthetically that U.S. recipients of property-type income bear a disproportionate share (compared to wage-earners) of the permanent income losses caused by altered factor prices in the long run.

Among U.S. labor groups themselves, those who are estimated to be disproportionately displaced in the short run by multilateral trade liberalization appear to work in industries that employ either relatively straightforward, well-established, labor-intensive production techniques, or else sophisticated, but highly-standardized, labor-intensive techniques. Labor groups which enjoy expanded vacancies in the short run appear, by contrast, to work either in industries employing relatively skilled labor and research personnel, or in agriculture (e.g., tobacco).

Those experiencing disproportionate temporary displacement also appear to earn "middle-level" wages (e.g., the skill groups described as "laborers" and "operatives"). Labor groups which gain disproportionately appear to earn unusually high wages (e.g. professional, technical, and research workers), or unusually low wages (e.g., farmworkers). The dislocation impact of MTN's appears very roughly to be progressive in the lower half of the wage distri-

bution and regressive in the upper half. The quantitative size of these disparities in experience is, however, quite small, only very rarely representing numbers greater than 10,000 persons. Although the quantitative effects are also miniscule, tariff reduction appears to be qualitatively "retrogressive" in its short-run socioeconomic effects -- causing traditionally disadvantaged groups (female and non-white workers) to lose very slightly at the expense of traditionally advantaged groups (males and white workers).

In the short run, income distributional impacts of multilateral trade negotiations (MTN's) are dominated by quantitative adjustments that are in most cases transitory. After they have been made, the enduring income distributional consequences of MTN's are dominated by altered relative wages and salaries among different occupations; by subsequent changes in the skill mix and educational backgrounds of the population; by altered relative prices and profitability among different industries; and by subsequent changes in the production mix and standard of living of the country.

"Trickle-down" wage/salary effects from MTN's seem to be quantitatively miniscule in the U.S. Skill requirements are altered by MTN's by amounts in the neighborhood of only 1 position in 2500. Temporarily displaced workers themselves, on the other hand, do appear to suffer long-lasting income losses, ranging from 5 to 24 percent of their pre-layoff income, depending on time elapsed since the layoff and the industry in which they were employed.

While it is true that all Americans gain in the long run because multilateral trade liberalization reduces prices and the cost of living, its quantitative impact is miniscule. It would appear that proponents of trade

liberalization make too much of its alleged "anti-inflationary" advantages. The most comprehensive study implies that the largest likely impact of a 30 percent multilateral tariff cut is a reduction in the U.S. cost of living by 1/10 of 1 percent. The annual dollar value of an indefinite such decline to a person making an income of \$20,000 a year is roughly \$20. These estimates are smaller than is frequently heard because they correct for unwarranted assumptions underlying optimistic "back-of-the-envelope" calculations, e.g., that all imports are dutiable, that all are consumables, and if not, that imports nevertheless make up about 10 percent of intermediate purchases, and that no exportable prices rise from MTN's.

The report also reveals that the small permanent reductions in consumer prices that multilateral tariff reduction does bring are spread almost perfectly proportionately across high-, middle-, and low-income groups. The long-run price effects of tariff reduction appear to be neither significantly progressive or regressive.