WIDENING THE

WINNER'S CIRCLE FROM

GLOBAL TRADE IN

SOUTHERN CALIFORNIA

Manuel Pastor, Jr.

by

Latin American and Latino Studies Center for Justice, Tolerance, and Community University of California, Santa Cruz

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FOREWORD

Manuel Pastor's essay on *"Widening the Winner's Circle from Global Trade in Southern California"* is Mthe third in the Pacific Council's series on Engaging Americans in a Globalizing World, edited by Dr. Gregory F. Treverton, former Director of Studies and now a Senior Fellow at the Pacific Council. The aim of the series is to explore the interplay of global trends and local effects, especially as that interplay is visible from the perspective of the North American West and the Pacific Rim. We hope these papers will contribute to articulating a distinctive framework and vision for how Americans engage in a changing world.

Pastor examines what might be called the double paradox of the global economy. First, while increased trade has been good for southern California as a region, it has not been good for every citizen of the region. Increased trade seems to be associated with increasing income inequality. Second, though, those regions that were more equal to begin with have tended to fare better through trade, even as that trade has tended to push incomes apart. Pastor sorts parts of the region into those that benefit from trade, the "winners," from those that are neutral and those that lose, the "strugglers."

Given the data, the analysis is rough, as Pastor is careful to point out. But it is still striking that the winners turn out to be mostly white and rich, while the strugglers are generally poor and minority. Latinos, for instance, make up 21 percent of the people in the winners (Anglos are 62 percent) but 60 percent of the strugglers. This trade gap also helps explain why there was such opposition to what would have seemed a "win-win" project — the Alameda Corridor, a \$1.8 billion rail project to better link Los Angeles's ports with the transcontinental railyards east of downtown. Yet in 1995, a number of cities along the corridor sued the project; every one of those, it turned out, was a trade struggler. They had reason to feel that they would be left out of the project's benefits but would suffer the noise and lost business of its construction.

Pastor's answer to these paradoxes of globalization is not to turn inward, for that would be impossible and therefore self-defeating. Globalization is here to stay. But if the negative effects of trade are not attended to, opposition from the losers to projects like the Alameda Corridor might lead the region to forego gains from trade. In some cases, like the corridor, there can be specific compensation to those who might otherwise lose, in the form of job preferences in construction. More broadly, to sustain a consensus in favor of continued opening, the region needs, Pastor argues, to pay careful attention to providing opportunities for trade and training to its low-income people.

The Pacific Council is grateful to Dr. Pastor for a stimulating and significant contribution. We also express appreciation to the John Randolph and Dora Haynes Foundation for sponsoring the research project on Southern California's Global Engagement of which Dr. Pastor's essay was a part, and to the Ford Foundation for supporting the ongoing work on Engaging Americans in a Globalizing World.

Comments on this essay would be more than welcome. Please direct them to pcip@usc.edu.

Abraham F. Lowenthal President August 2001

INTRODUCTION

In recent years, the Southern California economy has been marked by a rising level of foreign trade. This partly reflects trends in the state as a whole: between 1992 and 1997, California's foreign trade increased nearly 50 percent, and California was the top state in the country in terms of both the value of exports and the increase in their value from 1993 to 1999. However, exports and imports have been an even more prominent part of the greater Los Angeles economy. The ports of San Pedro and Long Beach saw a startling 16 percent annual increase in total trade between 1976 and 1995; the pace has relaxed, including a 2.5 percent plunge in 1998 due to the Asian financial crisis and an 8.6 percent recovery in 1999. Still, the Los Angeles customs district ranks number one in the country, an honor it has held since 1993, and some analysts claim that upwards of 25 percent of regional GDP is dependent on foreign commerce, with more moderate estimates placing trade dependence at 10 percent.¹

This new "ground zero" for the international economy has also been ground zero for inequality and social tension. The civil unrest of 1992 — in which the areas plagued by riots suffered twice the poverty and unemployment rates as the rest of the city — was a singular but not unique marker of distress.² Even during the boom years of the 1980s, Los Angeles was marked by a "widening divide" by class and race; the sharp recession of the early 1990s exacerbated the difficulties since mass layoffs disproportionately affected minorities and others with lesser tenure in the labor force.³ Longer-term changes in the regional economic structure — including the decline of unionized manufacturing jobs and the relative increase in low-wage service and light industrial positions — have also contributed to an increasing geographic concentration of the poor and greater fragmentation in the region's social hierarchy.

The "coincidence" of internationalization and inequality does not necessarily mean that they are related. Debate has long ranged about the wage and employment effects of lower tariff barriers and increased trade, particularly in light of a steady decline in the relative earnings of less-skilled American workers. Some economists have argued that this wage decline is due not to trade but rather to technology, and others suggest that trade can be quite beneficial since U.S. exports tend to be relatively high-wage.

Still, there remains a significant public sentiment that internationalization contributes to poverty and inequality in the United States. Resentment stemming from unequal income distribution fueled the opposition to granting President Bill Clinton "fast-track" authority needed to negotiate free-trade pacts, and concern over labor and environmental standards was behind the December 1999 protests at the Seattle meeting of the World Trade Organization. In Southern California, political opposition to seemingly win-win projects like the Alameda Corridor is due in part to worries that the new permanent jobs from the area's trade business will not benefit the poor neighborhoods through which the corridor will run.⁴

This paper tries to understand the connections between internationalization and inequality in the Los Angeles area. While I acknowledge — and indeed emphasize — the uneven distribution of the costs and benefits of international trade in the region, I also stress that the global economy is here to stay: the real issue is not how to stop it but rather how to make it more responsive to the needs and concerns of low-income individuals and communities. I suggest that the resulting policy goal — coupling a drive toward internationalization with a commitment to broaden

opportunities for low-income minority residents — may help enhance economic growth, partly by building human capital and partly by creating the sort of social cohesion that can provide a firmer political base for the continued globalization of Los Angeles.

I begin with a brief discussion of the economic literature on the relationship between internationalization and inequality. While much remains unsettled, it is probably fair to conclude that trade has had modest regressive distributional effects in the United States. I suggest that one useful way to understand these effects is by looking at regional economies. I explore a paradox: while trade, which inevitably creates winners and losers, may exacerbate inequality, regions that have the most equitable income distribution are actually more successful in their international transactions.

I then turn to the Los Angeles region itself. I stress the positive impact of trade, noting that communities and individuals in the area gain by their participation in export-oriented industries. I stress the positive impact of trade, noting that communities and individuals in the area gain by their participation in export-oriented industries. The results are striking: it is disproportionately Anglo areas that gain most from international trade and disproportionately minority areas that gain least. I note how, in this racialized and divided context, trade-related projects which may enhance aggregate social welfare can still wind up facing political blockages to their implementation. I close by suggesting that new strategies are needed to widen the circle of beneficiaries from Southern California's global future.

Trade and Inequality: The Debate

In late 1993, shortly before the final Congressional vote on the North American Free Trade Agreement, Senator Bill Bradley of New Jersey met leaders of the most important teachers' union in his state. Expecting a heated discussion about federal cutbacks in education spending, he was surprised when the teachers' listed their number one priority for the year: that Bradley vote against the NAFTA package being pushed by President Clinton.⁵

Many in the general public — even teachers who enjoy relatively high-skilled jobs in the nontradeable sector — worry that trade threatens U.S. growth and the country's standard of living.⁶ Most economists believe that this concern is misplaced: international competition improves efficiency and is associated with higher *aggregate* gains in income. A more serious — and more substantiated — concern involves the impact of internationalization on income distribution, particularly since the recent period of economic globalization has been accompanied by a widening wage gap between less-skilled and higher-skilled workers.

Some economists have their doubts in this arena as well. Lawrence (1996), for example, notes that the vast bulk of U.S. trade in manufactured goods is with other high-wage countries, making international competition an unlikely explanation for the "hollowing out" of U.S. industry and the consequent decline in blue-collar incomes. Sachs and Shatz (1994) estimate that trade reduced U.S. manufacturing employment (and hence the "good jobs" typical of those industries) by only 5 percent between 1978 and 1990. In this view, the real culprit behind rising inequality is technology, particularly the way in which increased use of the computer and other high-tech processes over the 1980s and 1990s increased the premiums paid for skill and education.

Yet technological developments can hardly be divorced from the international competition that drives their adoption.⁷ Moreover, trade does have *some* effect: one recent mainstream analysis (Cline 1997) concludes that trade competition might explain up to 20 percent of the rising wage gap over the last decade and a half.⁸ Rodrik (1997) argues that the effect of globalization on inequality is probably much higher since trade competition constrains both domestic prices and labor's bargaining power while international financial markets give businesses greater mobility and thereby increased leverage over their workers.

These negative trade effects may be more pronounced for African-American and Latino workers, partly because such workers generally occupy more vulnerable positions in the labor hierarchy. In a careful national-level study conducted for the William C. Velásquez Institute in late 1997, UCLA professor Raúl Hinojosa-Ojeda found that Latino and African-American workers were disproportionately hit (both as a share of the labor force and as a share of manufacturing employment) by the trade dislocations wrought by NAFTA, and that Latinos were particularly over-represented in industries experiencing the highest levels of documented job loss. Partly in response to this information, a large bloc of Latino members of Congress — many of whom cast key votes supporting NAFTA in the original battle of 1993 — opposed the extension of fast-track negotiating authority that allows the president to present a proposed trade treaty for an up-or-down vote without amendment by Congress.⁹

The failure to secure fast track authority suggests a general principle: the political viability of trade depends, in part, on how it affects the distribution of income. Economists, who tend to focus on the net gain figure from trade, often wonder why there is such a fuss about issues like NAFTA and fast-track — but the discussion about NAFTA was heated precisely because the shift in jobs, due to dislocations in some sectors and new job openings in others, was significant compared to the minuscule estimated per capita gain to U.S. consumers. Politicians and policy makers must consider these distributional issues, balancing net wins against the total sum of job shifts and hence political protest.¹⁰ Because of these concerns, distribution should matter to anyone interested in promoting increased international integration.

Regions, Trade, and Inequality

While much of the attention about internationalization and inequality has focused on national impacts, making the outcome of trade more equitable may be done at the regional level. Leamer (1995a) notes that Seattle is not threatened by the cheap products of low-wage Beijing: the aircraft industry will stay in the city because of the mix of high-skilled workers as well as available infrastructure. Silicon Valley is similarly positioned: even with the highest wages in the country and the meltdown of some dot.com companies, it is still a valued location for companies that want to actively "network" with other high-tech businesses. Both regions are able to sustain higher per capita incomes because their particular role in the world economy — based on an industrial mix heavily reliant on high-skill products and deeply interconnected firms — leads business to "stick"; this reduced mobility of capital makes the demand for workers less elastic and has positive consequences even for those not directly involved in trade.¹¹

That regional location matters reflects a concept not often reflected in traditional economics: *social capital.* As Leamer (1995a: 5) insists, "superior productivity of an individual can come from superior effort, superior natural ability, superior tools, and membership on superior teams."¹² Ability reflects human capital, tools reflect physical capital, and team membership reflects "social capital" — the sets of personal, business, and other relationships that, like other forms of capital, allow individuals to be even more effective. Places with dense social capital do well: a software engineer in Silicon Valley is able to benefit from networks with other engineers; firms in the Valley similarly benefit from proximity to complex chains of suppliers and corporate consumers; and even those in seemingly unrelated concerns, such as construction firms, cleaning companies, and the like, gain from being among a thriving cluster of interrelated enterprises.

Indeed, social capital seems to be a key element in explaining why regions have become so important in the world economy. The decline of tariffs and the rise of capital mobility have altered economic geography: the nation-state is less important and the region or the metropolitan area has emerged as a key economic unit.¹³ Why the region? On the one hand, metro areas are large enough that firms can achieve economies of scale — both in terms of a firm's own size and in the sense of having a sufficient range of competitive suppliers. On the other hand, metro areas are small enough that business leaders can have face-to-face and repeated interactions with their suppliers, with local government leaders that regulate their activities, and with the local communities that supply workers and vote in the taxes necessary to build regional infrastructure.

These sustained relationships between the public and private sector, between business and labor, between aggregate economic strategies and particular local communities, lead to trust. This, in turn, produces a more predictable business environment and more rapid economic expansion. Trust, in turn, is connected to equity: where there is a sense of fairness, it is often easier to make and sustain relationships. Following this insight, a series of recent studies (Ledebur and Barnes 1992, 1993; Savitch et al. 1993; Pastor et al. 2000; Voith 1992, 1998) conducted using U.S. data have found those regions that have relatively equitable income distribution actually experience faster growth in per capita income.¹⁴

Trade then seems to present a paradox. On the one hand, regions that are heavily involved in trade may be feeling the regressive distributional effects witnessed at the national level: relative gaps between rich and poor widen as lower-skilled workers are more negatively affected by import competition and less likely to be involved in the production of high-value exports. On the other hand, regions seem to do better at domestic growth — and perhaps international trade — if they start from a base of relative income equality.

Yet this seeming contradiction may be more apparent than real. Imagine a seaside city whose main economic draw is its quality of life. Over time, the city attracts people: housing gets dense, roads get congested, and the quality of life declines. Success, it would seem, has eroded one of the key competitive advantages enjoyed by that city — but the policy challenge city leaders face is how to continue to enjoy the fruits of success while struggling to restore the livability that constituted the area's initial advantage. By analogy, trade strains equity but equity promotes trade, implying that regional policy makers should constantly seek to spread the opportunities from trade, lest they lose the competitive advantage that social consensus and a sense of fairness can bring.

Trade and Equity: A Statistical Investigation

To take a look at the relationships between trade and equity on a regional level, I combined information on seventy-seven of the country's largest cities and metro areas with Commerce Department data on export performance from 1993 to 1998, and a simple classification of trade performance taken from Noponen, Markusen, and Driessen (1995); methodological and data details are explored in the Appendix. Because of the complexities of matching these different databases, we wind up with fewer than seventy different metro areas for which we generally have both full export and trade data.

Starting with the export data and looking for natural breaks, I classified those metro areas with annual export growth over the 1993-98 period of less than 8 percent as "export-weak" (21 of the cases) and those with export growth exceeding 14 percent as "export-strong" (20 of the cases); the remainder of cases were considered as "export-moderate." Figures 1 and 2 show the initial poverty and inequality levels for each category, with both measures taken from 1990 and inequality measured as the ratio of the income of those in the top 10 percent of earners relative to those in the bottom 10 percent in the metro area's central city.¹⁵ The pattern squares with the hypotheses above: where initial poverty is low and income is more equally distributed within the central city, export performance is much stronger for the region as a whole.¹⁶







What about the impact of export growth on poverty and income equality? The regional-level measures used here come from the 1990 Census, several years prior to the 1993-98 period for which I draw export performance. While this means that our analysis is less likely to be plagued by problems of mutual causation, it also implies that the link from exports *to* inequality is difficult to capture. Recall, however, that the national-level evidence suggests (however weakly) that trade has fostered income inequality; assuming that current trade performance is a continuation of past trends, we would therefore expect export-strong regions to have experienced more rapid increases than export-weak regions in metro-level inequality during the 1980 to 1990 period. In fact, there is virtually no difference in the inequality shifts for our different export categories, a result which either suggests no effect on income distribution or maybe simply indicates the weakness of this sort of indirect test.

However, high levels of exports and even relatively rapid export growth do not necessarily indicate trade position. An "export-strong" region also could have been deeply and negatively affected by imports, to wit, Detroit. On an international level, one need go no further than to Mexico, a country which saw a two-fold increase in exports between 1988 and 1994 swamped by a near trebling of its import bill over the same period — and soon experienced a massive currency crash and recession.

While the origins of exports are tracked (albeit quite imperfectly), the destination of imports by region are not. One heroic effort to capture the import effects on a regional basis does so indirectly: Noponen et al. (1995) couple national-level data with information on metro-level industry and then classify metro areas as trade winners, trade losers, domestic-oriented, and import-resistant.¹⁷ Unfortunately, these classifications cover a much earlier period, 1977-86, primarily because of the difficulties and costs of amassing and computing all the appropriate data for the post-1986 period. Still, the data are quite useful for testing our general notion that equality might help trade performance even though trade success itself can create a less equitable income distribution.

Figures 3 to 6 offer a first look at the relationship — and the overall pattern is as expected. First, those regions that are "trade winners" tend to be characterized by lower initial levels of central city poverty and inequality. Second, while the most negative *changes* in poverty and equality are associated with being a trade loser, trade winners are not far behind in the race toward inequality. Domestic-oriented and import-resistant regions experience the least worsening in distributional variables; however, since this change is occurring from a less egalitarian base (see

Figure 3 Trade Clusters and the Initial Central City Poverty Rate













Figures 3 and 4), regional protectionism is not a strategy for success. In any case, globalization appears to be here to stay, implying that the key policy question is how best to move one's region to the ranks of trade winners.

To get at this policy question — and to further explore whether initial equality matters in trade performance — I conducted multivariate regressions on trade performance. Such multivariate regressions allow the researcher to introduce other factors that might impact regional trade performance, control for the fact that some outside factor could be causing both the improved trade performance and equity, separate out the impact of the variables to see whether equity has an impact after one controls for education or other relevant measures, and account for any feedback trade might have on distribution. In the analysis below, I look at just trade winners vs. trade losers, since these are the most clearly divergent and policy-relevant categories.¹⁸

The results of this multivariate regression indicate that a larger foreign population helps trade performance, probably because it allows a region to better connect with foreign markets (for details, see the Appendix). Higher levels of education are also helpful, probably because this helps a metro area produce higher-value products and hence obtain a more stable niche in the international economy. City size has a positive impact, presumably because a larger urban economy provides a wider range of local suppliers. Per capita income has a negative effect — a higher initial wage tends to price a region out of the market. What also helps — and can be influenced by policy — is equity: while higher inequality breeds social tension and hence diminishes trade performance, a more even distribution of opportunities helps build social capital and cement pro-trade alliances.¹⁹

What does this mean from a policy perspective? Let me first stress that two of the control variables are not particularly subject to policy: city size is generally fixed or slowly changing and while lower per capita income might attract investors, policy makers are not likely to want to consciously push for declines in an area's standard of living.²⁰ Thus, the regression exercise suggests that one path to international success lies in being more welcoming to immigrants, raising the level of public education and coming up with new ways to mute the effects of international competition that foster inequality.

INTERNATIONALIZATION IN SOUTHERN CALIFORNIA

Trade and Industry in Los Angeles

C outhern California is in the midst of a major expansion of its international infrastructure. One Of the most important of the ongoing projects is the Alameda Corridor, a \$1.8 billion effort to build a high-speed twenty-mile transportation corridor linking the San Pedro Bay Ports with key transcontinental rail yards near downtown Los Angeles.²¹ During its construction phase, the project will generate at least 10,000 direct jobs. Proponents suggest that, once in operation, it will lead to at least 70,000 (and probably many more) new U.S. jobs in international trade by 2010.

Despite such clear aggregate benefits, a number of the corridor cities including Compton, Lynwood, South Gate and Vernon in 1995 filed a lawsuit addressing issues of governance and seeking to increase their influence over spending, jobs and economic benefits. The specific issues of legal contention involved environmental, traffic and other concerns. The local response, while reflecting significant inconvenience to residents during construction, also reflected an underlying worry that the Alameda Corridor project had, in the words of one knowledgeable observer, "no explicit linkages between the construction of the corridor and actual job creation and business development in the corridor cities."23

To understand why such concerns would arise, we need to separate out the impacts of *trade as industry* and *trade on industry*. There are many positive benefits associated with the trade industry, including an increase in the number of jobs in trucking, warehousing, and related services.²⁴ The trade industry also includes many low-wage jobs, leading some to be concerned about adding to working poverty. Moreover, while it might seem sensible that massive transshipments through local facilities help local producers of manufactured goods, containerization has meant that proximity to a booming port yields much less of an advantage than in the past (see Campbell 1993 and Noponen, Markusen, and Driessen 1995). As a result, a full assessment requires that one tease out more carefully the impact of *trade on industry* in Los Angeles.

In this regard, the picture is far less clear. It is true that export production is important to the region: in 1998, for example, the Commerce Department ranked Los Angeles as the fifth largest metropolitan area in terms of export sales. Yet the extraordinarily rapid growth in port "throughput" has far outpaced Los Angeles's own production of export goods: of the 20 largest exporting metro areas, Los Angeles ranked only 17th in the growth of merchandise exports over the 1993-98 period.

Moreover, in keeping with the national-level debate over internationalization and inequality,

some analysts have linked trade to problematic changes in L.A.'s economy. The shrinkage of Los Angeles's basic industry over the 1980s was at least partly due to increased international competition; one of the unfortunate results of this "de-industrialization" was pressure on wages and an increase in joblessness in the traditional industrial corridors of South Central L.A. and other heavily minority and low-income neighborhoods.²⁵ While the Southland has also witnessed the rapid growth of export-oriented business clusters such as entertainment and high-tech, some other important industries, like garments, have exhibited flat or declining real wages; the bottom end of this "reindustrialization" process has also had a distinct geographic and ethnic slant, with L.A.'s Latino communities containing a disproportionately high share of the working poor.²⁶

Los Angeles's industrial restructuring and widening inequalities have been due to a host of other non-trade factors, and a full analysis of the contribution of trade to the overall pattern would go well beyond the scope of this paper. Here, I adopt a simpler set of tasks: I demonstrate that being connected to export production can help local income and then look at which communities may be winning and losing from trade in Los Angeles.

Gaining From Exports

While many in the public associate export success with low wages, most economic research has found that export producers in the United States tend to pay higher wages than companies that are oriented toward the domestic market (see Richardson 1995). Explanations for this vary but one critical factor is that exporting can increase market share, allowing firms to receive higher profits even as they offer higher wages. To see whether this pattern holds in Los Angeles, I charted the export share of various industries (with shares calculated from the national data using a 1988-92 average) against the hourly wage in Los Angeles County in each of those industries; the wage is drawn from the 1990 Census, with details explained in the Appendix.²⁷ The relationship, as depicted in Figure 7, is as expected: industries with higher export shares also have higher wages.

Of course, the observed correlation could be due to other factors. For example, if workers in export firms tended to be more highly educated, then the higher wages received would reflect individual human capital and not industry characteristics. To test this, I drew a sample of nearly

3,000 full-time, year-round workers, and then ran a multivariate regression in which wages were considered to be a function of the usual human capital (marital status, educational level, work experience, English language skills) and demographic variables (recency of immigration, ethnic group), as well as a measure of the export-orientation of the industry in which an individual worked.

The actual results and methodological details are in the Appendix. The bottom line is that wages rise about 7 percent for each 10 percent increase in the share of an industry's output which is exported, even after controlling for all the individual human





discrimination. The return for being in an exporting industry differs slightly by ethnicity: it is highest for Asians and Latinos, with Anglos and African-Americans experiencing slightly lower returns.28

To summarize, exports are generally associated with higher wages and income — and integration into competitive international trade circuits may be especially useful for Latinos and Asians. Of course, this captures just the export side; to determine the *net* impact of trade (i.e., after accounting for import effects) on community development and concentrated poverty, I decided to follow a procedure similar to Noponen, et al. (1995), and to attempt to determine trade "winners" and trade "losers" by geographic area within the region.

Trade Winners and Trade Strugglers

To look at trade effects by local geography is a novel exercise and involves cobbling together data from several different sources (see the Appendix). Essentially, I took national-level trade information, mapped it onto the industrial structure of 58 different aggregable areas in Los Angeles (which the Census calls Public Use Microdata Areas, or PUMAs; see Figure 8 for a map and the Appendix for a detailed listing), and then calculated a variable that captured the local area's trade balance. Using that as a proxy, I then sorted the 58 different areas into thirds, with the top 19 PUMAs labeled trade "winners," the bottom 19 trade "strugglers," and the remaining 20 trade neutral.29

The analysis merits several caveats. First, the data on trade are from the 1988-92 period to better square with the 1990 neighborhood and employment demographic data drawn from the Census and the Southern California Association of Governments (SCAG). The early 1990s were



Figure 8 Public Use Microdata Areas (PUMAs), Los Angeles County, 1990

challenging years for the Southland, and in the subsequent period, some areas may have been able to reconfigure themselves to do better in the international trade circuit.³⁰ For example, the City of Industry and Burbank are both listed as trade strugglers but over the past decade both neighborhoods have made gains from their integration into the global economy — the City of Industry through investment from Asia and Burbank from international operations of the entertainment business.³¹ Finally, in the classification of areas, I am looking at the jobs in an area and comparing them to the residents in an area; since residents often commute, I am not calculating the effect on residents per se but rather on local job availability. On the other hand, this measure matters greatly to urban poverty given the usual emphasis researchers and policy makers place on "spatial mismatch," that is, the disappearance of employment in general (and "good jobs" in particular) from inner city areas.³²

Table 1 offers a listing of the PUMAs by their trade category; Figure 9 offers a map of the same data so as to afford a spatial view. For those with some knowledge of Los Angeles neighborhoods, the pattern is striking. The areas labeled trade strugglers are generally both poor and minority. The areas winning from trade do include some working-class districts (such as Bellflower and Torrance) but are disproportionately white and well-off. One interesting point to note is that many of the trade struggler PUMAs are, in fact, clustered around the Alameda Corridor — and every one of the cities that sued the Alameda Transportation Corridor Authority is solidly in the trade struggler column.³³

Trade Strugglers	Trade Neutral	Trade Winners
Adams-La Brea & Crenshaw	Alhambra/S. Pasadena	Agoura/Hidden, Santa Monica, Westlake Village
Bell Gar/Bell/Commerce/Cudahy/Maywood/Vernon	Arcadia/San Gab/San Marino/Temple City	Artesia, Cerritos, & Norwalk
Boyle Heights, Downtown	Avalon, El Segundo, Hermosa, Palos Verdes	Barnes City, Mar Vista, Venice, Westchester
Burbank/San Fernando	Azusa/Baldwin Park, Duarte	Bel Air, Brentwood, Studio City, Pac Palisades
Carson	Chatsworth/Northridge	Bellflower, Hawaiian Gardens, & Lakewood
Central Avenue-South, Green Meadows, and Watts	Covina, West Covina	Beverly Hills, Culver City, West Hollywood
Compton	Downey and Paramount	Canoga Park & Woodland Hills
Eagle-Rock Glassell/El Sereno/High Park/Lincoln H	Encino-Tarzana/Reseda	Claremont/Glendora/La Verne/San Dimas
East Los Angeles	Gardena, Lawndale	Diamond Bar, La Habra Heights, Rowland
El Monte	Harbor City, North Shoestring, San Pedro	Glendale
Hawthorne	Hollywood/Los Feliz	Inglewood
Huntington Park	La Mirada, Santa Fe Springs	La Cañada, Monrovia, Sierra Madre
Industry, La Puente, South El Monte	Long Beach	Lancaster/Palmdale
Lynwood/South Gate	Miracle Mile N, Wilshire Center N&S	Lomita/Torrance
North Hollywood	Monterey Park/Rosemead	Pasadena
Pacoima	Montebello/ Pico Rivera	Santa Clarita
Pomona	Sepulveda	Van Nuys-Sherman Oaks
S Vermont, Vermont Sq, West Adams-Exp Park	Signal Hill, Walnut	Westwood-West Los Angeles
Sun Valley/Tujunga-Sunland	Sylmar/Granada Hills	Whittier
	Westlake & Silverlake-Chinatown	

	Table	1
PUMAs,	by Trade	Performance



To get another view of the distribution of trade benefits, I decided to calculate various ethnic and economic characteristics of those PUMAs in our trade winner, trade neutral, or trade struggler categories. As it turns out, Anglos are 62 percent of those living in the trade winner areas and only 16 percent of those in the trade struggler areas; Asians are 10 percent of the winner population and 6 percent of the strugglers; African-Americans are only 7 percent of the winners but 20 percent of the strugglers; Latinos are 21 percent of those residing in the winner PUMAs but nearly 60 percent of those residing in the struggler PUMAs (see Figure 10).



Figure 10 Ethnic Composition of Trade Winner and Trade Struggler PUMAs (neighborhoods) in L.A. County, 1990

Figure 9 Geographic Location of Trade Benefits in L.A. County, 1990

The data also indicate (as expected) that the poverty rate is substantially lower for those living in trade-winning PUMAs (see Figure 11). If areas remain stable in their trade characterization, the poverty differentials may worsen over time. The general national analysis in the previous section suggested that poverty and inequality increase more rapidly for trade losers than for trade winners. In our L.A. County sample, there is a positive and significant correlation between job growth over the 1980s and export-orientation and net trade performance (see the Appendix); thus, the gap between employment possibilities in trade winner and trade struggler PUMAs may widen as the economy continues to evolve.

Figure 11

Poverty Rate for Trade Winner, Trade Neutral, and Trade Struggler PUMAs (neighborhoods) in L.A. County, 1990



There are numerous limits to this analysis: the trade data do not pick up the positive spillover trade has on services, the time period is limited by the data to the early 1990s, and the classifications are relative rather than absolute. As noted in the Appendix, there are numerous methodological choices, each worthy of debate, behind the calculations. Still, the demographic and economic extremes found by looking at the tail ends of the distribution of trade winners and trade strugglers are striking and suggest the need to ensure a broader spread of the opportunities international trade can bring.

Policy Implications

Recall the example with which I began this section — the Alameda Corridor project, which has prompted unity on the part of regional politicians but discord on the part of local communities. The project's strategy and focus seems "win-win": enhancing the capacity of the rail system to distribute goods arriving at the ports of Los Angeles and San Pedro should generate overall employment increases for the region. Yet the most direct beneficiaries of the initiative are likely to be businesses in the import/export and freight transportation sectors; the industrial corridor itself (see again Figure 9) is composed of many trade strugglers who are poorly positioned to gain from an increase in international trade.³⁴

There are significant potential gains for the corridor cities. One of the key side benefits of the Alameda Corridor will be an improvement in truck traffic as rail shipments go below grade; this will yield environmental gains and could help local producers connect to other markets. However, Alameda Corridor manufacturers are likely to suffer significant losses as the construction process itself snarls local truck shipments — and, given the importance of networks and supplier chains in today's economy, final goods producers that switch away from a Corridor supplier during the construction phase may never rekindle that business relationship.

Understanding these dilemmas and determining an appropriate industrial strategy for both the Corridor and the rest of Southern California is essential. Internationalization cannot be a "drive-by" development strategy in which areas plagued by joblessness and poverty serve as a backdrop for a dynamic economy. The resulting geographic frictions create a context ripe for lawsuits and other political machinations, impeding trade-related projects and regional collaboration in general.

A new approach that brings together equity and growth could have positive benefits for all concerned. A key element will be new rhetoric and action by political and civic leadership — by what Henton, Melville, and Walesh (1997) call the "civic entrepreneurs" so necessary to crafting the cross-sectoral collaboration that defines successful regions. These regional leaders will need to facilitate access for, and engagement of, low-income residents in the process of positioning the region for the global economy. Some of this new inclusion could be relatively formal, including broader participation in the councils of the Southern California Association of Governments and other governmental and quasi-public institutions; some inclusionary efforts could be through non-governmental institutions, such as the efforts of the Pacific Council on International Policy to diversify interest and engagement in international policy issues.

As for policy measures, the Mayor's Office and the Los Angeles Minority Business Opportunity Committee have begun to focus on how minority-owned and small businesses could take advantage of new global opportunities. After taking the heat for not fully including the corridor cities, the Alameda Transportation Corridor Authority established a new Business Outreach Committee; while this is mostly focused on the temporary jobs that will be created during Corridor construction, it could be transformed to help local businesses make better connections to the international opportunities that are bound to result.³⁵ In the meantime, the Alameda Corridor Jobs Coalition, a collection of community-based organizations, churches, and neighborhood groups, has successfully lobbied the Corridor Authority to place local residents in training slots during the construction phase.

More could and should be done. One key will be to adopt a more complex notion of which "business clusters" to favor.³⁶ Surely promoting international traders should be one concern; ensuring that such global enterprises also pay solid wages and offer movement up the job ladder for the working poor is equally important.³⁷ Another critical element will be the involvement of community development corporations (CDCs), often the main vehicle for economic betterment of the poorest communities, in training local residents for internationally oriented jobs. And most important for everyone — business and the poor alike — will be a renewed commitment to the public education system, particularly given the role education plays in making a city more internationally competitive.

There is no shortage of ideas about how best to link the poor to the broader economic dynamics of the region (see, for example, Bollens 1997; Nowak 1997; Pastor, Dreier, Grigsy, and López-Garza 2000; and Rodinelli, Johnson, and Kasarda 1998). What is often missing is the political will, in part because communities divided by race, income, and trade status fail to recognize their interrelated futures. The statistical work of the first section indicated that regions which can overcome these barriers can realize faster growth and an improved trade profile. The statistical work of this section indicates that wages rise with export share, even accounting for individual education and other characteristics; job growth, too, improves with trade competitiveness on both the import and export side. Bringing together pro-trade and pro-equity strategies may therefore have benefits for all and help to build consensus on Southern California's international future.

CONCLUSION

In *The City and the World*, a provocative book recently published by the Council on Foreign Relations, Hunter College professor Meg Crahan and her colleagues consider what they term "New York's global future." Their central premise is that internationalization has made certain urban areas more important: globalization may have decentralized production but it has simultaneously centralized the "command and control" operations of international financial and business services in places like New York, London, and Hong Kong. As a result, the New York economy, after decades of painful fiscal decline and manufacturing losses, is once again buoyant on the tides of the international economy.

Yet internationalization has not benefited everyone. In keeping with the national-level association of trade with widening wage gaps by education, New York's victory in finance has exacerbated income inequality: the share of income accruing to those in the securities industry is nearly five times their share of employment. Meanwhile, incoming immigrants, another reflection of global integration, have sometimes undercut local wages and employment prospects. Both phenomena raise concern that New York's global future may bear more resemblance to the sharp contrasts of Mexico City than to the less polarized environs of Tokyo.

In considering Southern California's own "global future," we must first recognize that we stand at historic crossroads. Just as internationalization has driven the rise of global cities, globalization has made regions — such as Silicon Valley or greater Los Angeles — a key level of both business action and public policy in the international economy. As in New York, the Los Angeles economy has finally begun to climb out of a long period of deep economic restructuring and persistent joblessness, in part because of the boost lent by international trade, tourism, and other globally oriented activities. And just as New York's resurgence has led some to worry about the long-run impacts of worsening inequality, so too should this become a concern for activists and policy makers in the Southland.

That such a worry should be taken seriously is evidenced by the paradox explored above: internationalization may be associated with worsening inequality but the most successful regions tend to be those which have tried to preserve some degree of equity and social cohesion (as well a firm educational base and an openness to immigrants). The research also suggests that tying in to international trade, particularly on the export side, could be very helpful to those at the bottom of income distribution; at the same time, there is currently a distinct geographic and demographic bias in the distribution of the benefits and costs of trade in Los Angeles County.

How then should we build Southern California's international future? Community leaders may be right to be concerned about distribution, but they would be wrong to argue for an inward turn. Globalization is here to stay. No amount of wishing will put the international genie back in the bottle, and there is little reason why the region as a whole would make such a wish given the benefits associated with trade. The task is not to resist the winds of international change but rather to ensure that such winds swell all sails.

At the same time, regional elites who seek to build an internationally competitive economy should not dismiss the pleas of "losers" from international trade. In the global economy, it is both the people of an area and their ability to collaborate that make capital "stick." When some sectors of society believe that the glistening peaks of the new global economy are fundamentally

intended to benefit others in the region and the nation, projects that can help everyone are derailed by political squabbling and social tension. In Los Angeles, which has suffered explosions of civil unrest, threats of suburban secession and ongoing political fragmentation, the damage that perceived inequity can do to the business climate should be clear.

Southern California must come together across its fragmented lines of class, race and geography to successfully compete in the new international economy. Community leaders must promote industries that have strong export potential and encourage the training of poorer residents for internationally oriented jobs. The bottom line is this: coupling an openness to the world with a pronounced attention to equity is a development strategy that makes for common ground and common sense.

NOTES

1. See Dave Lesher, "Golden and Global California," Los Angeles Times, January 8, 1998, and Erie (1996: 1). The 10 percent estimate is from the Los Angeles Economic Development Corporation (LAEDC), Economic Research and Consulting Department, May 1999. The trade growth figures come from LAEDC and the Bureau of the Census.

2. See Pastor (1995), Johnson and Farrell (1996), and Johnson, Jones, Farrell, and Oliver (1992).

3. See Ong et al. (1989) for an early look on increasing inequality in Los Angeles and Ong and Lawrence (1995) for a look at the racial effects of one of the wave of layoffs in the early 1990s, in this case in aerospace.

4. For more on opposition to the Alameda Corridor, see Gloria Ohland, "The Economic Engine That Couldn't," L.A. Weekly, June 9-15, 1995, and the discussion below.

5. This story was relayed to the author by a member of Bradley's staff.

6. There is a similar public concern about immigration, an issue I do not cover in this paper.

7. See Rodrik (1997: 16). Gordon (1996) also notes how globalization has altered labor's power but lays much of the blame for inequality on corporate downsizing strategies rather than international competition per se.

8. Borjas, Freeman and Katz (1992) suggest that trade explains 15 percent of the increased difference between college- and high school-educated workers, Borjas and Ramey (1994) suggest that the effect may be larger in more oligopolistic industries, and Cline (1997) settles on a 20 percent top-range figure.

9. See the analysis in Pastor and Wise (1998).

10. Resistance to trade will be even higher when the gains are diffuse and the losses concentrated. For more on balancing net gains and distributional consequences, see Rodrik (1994).

11. This spillover effect, in which the "stickiness" of capital tends to help even those not directly in the region's driving highskill sector, is suggested in Learner (1995a) and modeled in Richardson (1995). Such spillovers can have positive impacts on equity: comparing Los Angeles and Seattle, for example, Borjas and Ramey (1993) find that the wage differential between skilled and unskilled work is less in the latter. In essence, the economic vitality driven by skilled labor and high-tech firms raises demand for the sort of non-traded service sector positions (office worker, restaurant employee, child care, etc.) often occupied by less-educated labor.

12. A more technical version of Learner's analysis of the effects of trade is available in Learner (1995b).

13. See Pastor, Grigsby, Dreier, and López-Garza (2000). Sassen (1997: 171) also argues that global policy trends, including privatization, deregulation, and budget-balancing, have contributed to the decline of the nation and the rise of the region; see also Rondinelli, Johnson, and Kasarda (1998) on the relationship between internationalization and urban development. For more on the rise of regions in the United States, see Barnes and Ledebur (1998), HUD (1996), and Peirce (1993).

14. Two of the more recent studies (Voith 1998, Pastor et al. 2000) have tried to account for the fact that the relationships are two-way: equality may help growth but growth itself generally reduces inequality by tightening the demand for labor. Even when one factors in this "simultaneity," policy attention to relative equality leads to more rapid increases in regional output.

15. I focus here on the central city for several reasons: such anchor cities play a key role in regional performance. Many of the poor live in central cities, and the political challenge within regions generally revolves around getting suburbanites to understand that their fate is bound with that of the central city.

16. Two other measures of relative equality, the ratio of suburban to central city per capita income and an inequality measure based on the whole metro areas, show a similar pattern.

17. Trade winners saw employment grow due to strong performance in both export and domestic markets, trade losers suffered weak performance in both export and domestic markets, domestic-oriented areas saw employment driven largely by domestic demand, and import-resisters faced only relatively modest input penetration. As noted in the Appendix, Noponen et al. (1995) use shift-share analysis on regional industrial mix and then use cluster analysis to determine city groupings.

18. Moreover, the technical requirements of the regression strategy, which begins with a logit procedure, require a simple binary characterization of the dependent variables (see the Appendix).

19. A similar point is made by Rodrik (1997), whose econometric investigations suggest that expanding the social safety net might help build pro-trade coalitions by convincing trade losers that they will be helped in adjusting to the inevitable dislocations brought by a dynamic internationalized economy. See also the analysis of the European experience in Katzenstein (1985).

20. To nuance the statement in the text, it should be acknowledged that city size is somewhat malleable, particularly in cities which have been able to annex adjoining suburbanizing zones; indeed, Rusk (1995) has made much of the relationship between "elasticity" of a city and its economic success. Still, it is generally difficult to simply expand borders and/or add population as a policy choice.

21. There were existing rail lines from the ports to downtown warehousing but they were not grade-separated, a problem which slowed both rail and cross-town truck traffic.

22. The suit was dismissed in October 1996, a decision that was allowed to stand by the State Supreme Court in July 1997. The tensions and dilemmas of consensus-building did lead the Alameda Corridor Transportation Authority to adopt an approach designed to better share the benefits, a topic discussed later in the paper.

23. The quote is from UCLA planning professor Goetz Wolff, as cited in Gloria Ohland, "The Economic Engine That Couldn't," *L.A. Weekly*, June 9-15, 1995. Steve Erie also has noted that "what is missing is a development plan for the cities along the corridor"; see "A Regional Report: The Status of Expanding Southern California's Global Ports and Gateways," *Metro Investment Report*, January 1996.

24. There are similar worries about tourism, an industry that is also booming due to Los Angeles's role as an international destination but one in which both unionization and wages are relatively low.

25. For detailed analyses of how deindustrialization in the region affected poorer individuals and communities, see Wolff (1992), Scott (1993), Morales and Ong (1993), and Johnson, Jones, Farrell, and Oliver (1992).

26. Of those households living below the poverty line in which at least one household member worked at least 50 weeks a year and at least 35 hours a week (the Census definition for "full-time" employment), nearly 75 percent were Latino (as defined by head of household). See Pastor, Dreier, Grigsby, and López-Garza (2000: 38).

27. While wages are probably different by sector now, particularly after the last sharp recession, the key objective here is to gain a sense of the cross-sectional or inter-industry wage differentials in relationship to export shares of the contemporaneous period.

28. Note that we are talking about the *return to exporting.* Anglos actually have higher wages than Latinos and, given their generally higher educational attainment, may be more likely to be in high-skill export jobs. The point is simply that, if such jobs were even more accessible to Latinos and Asians, they would experience a substantial percentage gain in income. The results also suggest that African-Americans may be slightly less likely than Anglos to gain from exports and much less likely than Latinos or Asians to gain from being in an export industry. While the differences may simply reflect some peculiarities of the sample (see the Appendix), they may also be due to some discrimination against African-Americans by export manufacturers. Some have argued that new ethnic entrepreneurs, often tied into the emerging export clusters, have relied on network hiring strategies which can exclude U.S.-born residents in general and African-Americans in particular — and anecdotal evidence does suggest that many entrepreneurs in Los Angeles, particularly immigrant business owners, tend to shy away from hiring African-American employees. For some more substantial evidence of such racial selection based on confidential surveys of personnel managers at both immigrant- and native-owned firms, see Tilly et al. (1997).

29. I use the term trade "strugglers" rather than "losers" because, unlike Noponen et al. (1995), trade "winning" in this procedure is not absolute but rather reflects outcomes relative to those of the region; it could be that everyone is winning (or losing) but this calculation gives us some sense of the relative ranking of area gains (or losses).

30. For example, Huntington Park winds up being designated a trade struggler in this analysis, and this may be quite appropriate given the factory shutdowns that occurred there in the early part of the decade. Yet the city has begun a turnaround, based on dynamic ethnic food processors, an emerging Latino-oriented retail area, and a cluster of small entrepreneurs. See Anne-Marie O'Connor, "A Success Story Is in the Making," *Los Angeles Times,* June 28, 1998.

31. Because of the way export and import data are recorded, we have information for manufacturing but not services, an area in which trade may have quite positive effects. However, such service gains from trade are more likely to be in the high-end business activities and therefore "success" here may actually contribute to a pattern of inequality. In contrast, industrial measures are useful since where the manufacturing sector is doing well in trade, there are likely to be positive spillovers to local service jobs (particularly medium-skill employment). Grobar's (1998) work on export activities in the Southland faces similar data limitations due to the way trade is recorded; however, she is able to estimate a measure for export services and finds that manufactured exports are 85 percent of the total, a composition that lends some credibility to the manufacturing focus taken here.

32. See, for example, the national-level argument of Wilson (1996) and the L.A.-specific argument of Johnson and Farrell (1996).

33. The City of Alhambra filed a separate suit against the Corridor Authority but this was based on the claim that the Alameda Corridor project was diverting money away from the completion of the 710 freeway, a route whose failure to be constructed (due to resistance from South Pasadena) has diverted traffic into Alhambra. This is analytically separable from the economic tensions I am trying to capture here.

34. Of course, some residents in the downtown/East L.A area may benefit from transshipment of goods as well, particularly from the warehousing activity likely to result. However, such warehousing tends to use up significant amounts of land per job in an area — the downtown industrial district — that is already land-scarce, and so this may not be an optimal community development strategy.

35. See Marla Dickerson, Lee Romney, and Vicki Torres, "Despite Wilson Order, Goals for Diversity Thrive Elsewhere," Los Angeles Times, March 13, 1998. The Alameda Corridor Transportation Authority has set a goal that 22 percent of its construction spending should go to small "disadvantaged" firms. There is an emerging dispute over how many actual construction jobs will be created by the corridor project and what percent, despite official promises, will actually accrue to residents along the corridor path; see Dan Weikel, "Senator to Reopen Hearings on Alameda Corridor Jobs," Los Angeles Times, July 3, 1998.

36. The cluster strategy has been endorsed by Southern California Association of Governments in its Regional Comprehensive Plan; the basic notion in both is to promote businesses that have strategic "interdependencies" with other businesses (such as in the complex of firms that make up the entertainment industry). For a detailed analysis, see Pastor, Dreier, Grigsby, and López-Garza (2000: 65-68).

37. This was the strategy deployed by RLA (formerly Rebuild L.A.) in its later years as it began to promote those firms in disadvantaged areas which might have the biggest impact on employment of local residents. One interesting model of how to build ladders for the working poor, including job training, into cluster strategy efforts is the Wisconsin Regional Training Partnership (for more information, including a bibliography of articles on this effort, see http://bovine.ssc.wisc.edu). The Los Angeles Economic Development Corporation has also conducted analyses to understand clusters in terms of their potential to help transition individuals from welfare to sustainable employment.

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APPENDIX

his appendix deals with data and methodological details for all sections of the paper. The first \mathbf{L} exercises in the paper involve combining regional data with trade data. The regional data are taken from "The State of the Nation's Cities" (SNC), a database compiled by Norman J. Glickman, Michael Lahr, and Elvin Wyly; specifically, I used version 2.11A (September 22, 1997). The database was initially assembled under HUD contract by the Center for Urban Policy Research to meet the data needs of the United Nations' Habitat II Conference held in Istanbul in June 1996, and has been expanded in variable coverage since. This database includes information on 77 of the country's largest cities and metro areas, with most variables drawn from the 1970, 1980, and 1990 censuses; for the purposes of this paper, what is most important is that this database includes calculations of income inequality at both the city and the metro level. Unfortunately, SNC does not include direct trade data; that information was pulled from two other sources.

The first of these is a Commerce Department database listing the dollar value of exports from 253 different metro areas of all sizes for 1993 to 1998, which can be obtained from http://www.ita.doc.gov/industry/otea/metro. Some states, such as Wyoming and South Dakota, are not included in the export data base because these states do not cooperate in this data collection effort, and some metropolitan statistical areas (MSAs) that combine two large cities, such as Minneapolis-St. Paul, are conflated in the export data and separated in the SNC database. Moreover, some areas simply have missing observations in the SNC database; as a result, the exact number of useable observations ranges as low as 68 in my analysis depending on which variable from SNC I wish to compare with our export performance data.

I also make use of the Noponen, Markusen, and Driessen (NMD) (1995) classification of trade winners and losers. This classification is based on combining national data on trade with metrolevel shift-share analysis. The authors use the attribute changes in local industrial structure to export growth, import competition, domestic demand, and improved productivity. They then use cluster analysis to determine 20 different groups of cities; these are then combined into four "neighboring" clusters: trade winners, trade losers, domestic-oriented, and import-resistant. Their data cover 1977-86, primarily because of the costs involved in going beyond this period. Metro areas that transformed themselves over the last ten years are characterized by their "past life" in the NMD database; Los Angeles, for example, is considered to be domestically oriented in the earlier period (probably because of the reliance on federal defense expenditures), but has certainly become far more international in the years since. Yet recall that the objective here is not to categorize cities now but rather to understand how various types of regions do in both international and domestic markets; in the time period consistent with the sample, the database is appropriate for this task.

As noted in the text, the NMD breakdown of trade winners vs. trade losers is used for a multivariate regression exercise in which trade performance is the dependent variable. The binary categorization is used in part so that I can employ a logit technique to estimate the effects of the independent variables. I check the logit results in two ways: a linear probability model (a method that usually yields results similar to a logit but with less of a "fit" or explanatory power), and a "simultaneous" model in which trade performance itself is allowed to affect the level of inequality. The linear (OLS) model is mostly used to see whether the OLS approach is reasonable since the simultaneous or two-stage least squares (2SLS) model is estimated linearly. Such a simultaneous technique is particularly relevant since this "initial" 1980 level is actually a few years into the time period used to categorize trade performance and since my argument focuses on both the effects of

initial equality on trade performance and the effects of trade on equity.

The right-hand-side variables in the regressions are: (1) percent of the population that is foreign-born, (2) percent of the population that is college-educated, (3) per capita income, (4) the initial level of inequality, and (5) city size (calculated as a dummy variable which equals one when the population of the central city exceeds 500,000). I expect that a larger foreign population helps a region understand and connect with foreign markets and that higher levels of education might help a metro area obtain a higher value and hence more stable niche in the international economy. As for per capita income, I expect a negative sign — a higher initial wage tends to price a region out of the market — while for city size I expect a positive sign since a larger urban economy provides producers with a wider range of suppliers. Finally, I have argued above that higher inequality can diminish trade performance.

Each of the three regression (logit, OLS, 2SLS) approaches is actually used on two slightly different sets of variables, one which calculates the foreign-born, income inequality, and other variables at the city level, and one which enters the variables with their metro area values. In those metro-level regressions, the one variable which is not reset is the dummy variable for city size. The reasons are both analytical and practical. On the analytical side, what really counts is the size and density of the central city; if a region has many people but is very spread out, it is not clear how important the face-to-face relations typical of business clusters will be. On the practical side, there is a standard cut-off for city size, which is used in other econometric investigations and repeated here; there is no such standard in the literature for metro areas.

The results of these exercises are shown in Table A1, and they are supportive of the model. Percent foreign-born and college-educated have a positive effect and are generally significant at least at the 10 percent level. Per capita income has a negative effect and is almost always significant at, or better than, the 10 percent level. City size is less important, particularly in the runs making use of metro data. Inequality has a negative impact on trade success and the impact is even stronger in the simultaneous model estimations where we have controlled for the trade feedback on

Table A1 Predicting Trade Winners and Losers

dependent variable: trade (0 if "loser," 1 if "winner")

Type of estimate/	estimation of logit model		estimation of linear probability model		estimation of simultaneous model	
Level of analysis:	central city	metro area	central city	metro area	central city	metro area
Variables in regression:						
% foreign-born	0.532	1.002	0.035	0.061	0.032	0.063
	(1.888*)	(1.954*)	(2.522**)	(2.590**)	(2.155**)	(2.640**)
% college-educated	0.515	1.832	0.067	0.108	0.068	0.106
	(2.052**)	(1.987**)	(3.182***)	(3.667***)	(3.181***)	(3.588***)
per capita income	-0.144	-0.388	-0.019	-0.024	-0.022	-0.026
	(-1.606#)	(-1.914*)	(-2.383**)	(-2.883***)	(-2.511**)	(-2.996***)
degree of inequality	-1.069	-3.212	-0.126	-0.156	-0.180	-0.205
	(-1.546#)	(-1.764*)	(-1.747*)	(-1.391#)	(-1.877*)	(-1.635#)
city size	2.531	3.608	0.364	0.201	0.439	0.230
	(1.395#)	(1.667*)	(1.906*)	(1.129)	(2.075**)	(1.265#)
explanatory power	0.507	0.691	0.402	0.484	0.401	0.489

** significant at the .01 level ** signifi significant at the .10 level # signifi

** significant at the .05 level # significant at the .20 level distribution. In the simultaneous model, the instruments are the percent Black and Latino in the area (either central city or metro) and the 1970 level of inequality; I should note that a simple ordinary least squares regression on distribution as a function of trade category (which is essentially the other side of the trade-equity relationship) yields the expected negative sign but I did not fully specify a simultaneous estimation strategy for that side.

The next section of the paper moves from national analysis of regions to a specific characterization of Los Angeles. The first part charts wages against export share in an industry and then performs a multivariate regression on wages as a function of a variety of variables, including industry export share. Average industry wages are calculated from the Public Use Microdata Sample (PUMS) for 1990. Part of the array of U.S. Census data sources, PUMS includes raw questionnaire data for 5 percent of the population; in L.A. County, the sample includes nearly 450,000 observations. Export share for industry is taken from a database from the National Bureau of Economic Research which includes national-level imports, exports, and total shipments by manufacturing industry; the computer file with the data was compiled by various researchers associated with the NBER and can be downloaded from <u>http://www.nber.org.</u> The data are quite rich in detail, going down to the level of four-digit SICs (Standard Industrial Codes). Moreover, the whole database, which covers the period 1972 to 1994, has been thoroughly cleaned and cross-referenced with other sources of trade activity, making it relatively reliable.

To draw the average wage by sector in Los Angeles County, I aggregated the individuals in PUMS by industry and calculated the mean wage. Since industries are at the two-digit level, I aggregated the four-digit data on exports and shipments to the two-digit level to calculate an export share. As I note below, the data are just for the manufacturing sector; another limit is that I am assuming that the export share for the industry at a national level is the same as that for the industry in Los Angeles. While these are problems, the resulting pattern is still illustrative of the positive association of exports and wages.

The wage regressions discussed in the text draw on a sample of 2,803 full-time year-round male workers in manufacturing taken from PUMS. This sample is actually based on an earlier random sample constructed for Pastor and Adams (1996); see that article for methodological details. The sample there was larger since I also included workers who were not in manufacturing; since I am constrained here to manufacturing by the export data, the sample here is smaller. As is standard practice in such wage regressions, the dependent variable is the log of wages and so the coefficients reflect the percentage increase in wages (for example, an extra year of education will raise wages by around 6 percent). The basic results are given in column (1) of Table A2; those familiar with these sorts of regressions will note that all variables are significant and signed as expected, and both explanatory power and coefficient values are within the usual range found in the literature. Of special interest is that an increase in export share by 10 percentage points will raise wages by around 7 percent, a coefficient featured in the text.

	Table A2	
Wage and	Export Share in Lo	s Angeles

Equation:	(1) All	(2) Anglos	(3) African- Americans	(4) Latinos	(5) Asians
Years of Education	0.060 (19.030) ***	0.079 (10.205) ***	0.077 (7.200) ***	0.042 (9.851) ***	0.075 (10.463) ***
Work Experience	0.033 (11.643) ***	0.040 (7.232) ***	0.038 (5.481) ***	0.028 (6.037) ***	0.028 (4.162) ***
Work Experience, squared	0.000 (-8.599) ***	-0.001 (-4.941) ***	-0.001 (-3.963) ***	0.000 (-4.519) ***	0.000 (-3.732) ***
Married (1 if married)	0.145 (6.863) ***	0.133 (3.312) ***	0.149 (3.374) ***	0.143 (3.978) ***	0.177 (3.572) ***
English Skills (1 if limited English)	-0.171 (-5.425) ***	-0.503 (-3.053) ***		-0.185 (-5.126) ***	-0.152 (-2.341)**
Immigrated in 1970s	-0.136 (-4.739) ***			-0.197 (-4.954) ***	-0.125 (-2.598) ***
Immigrated in 1980s	-0.305 (-9.740) ***		-0.398 (-2.418) **	-0.348 (-7.604) ***	-0.328 (-6.462) ***
Latino	-0.207 (-7.014) ***				
African-American	-0.184 (-6.475) ***				
Asian	-0.083 (-2.837) ***				
Export Share in Worker's Industry	0.660 (4.964) ***	0.467 (1.761) *	0.384 (1.288) #	0.612 (2.755) *	0.804 (2.825) ***
Adjusted R-squared	0.452	0.244	0.243	0.407	0.337
Number of jobs	2803	809	443	886	665
F-value	211.0 ***	44.4 ***	24.7 ***	76.8 ***	43.2 ***

Notes to table: Adjusted R-squared indicates explanatory power of regression. The square of work experience is entered to reflect declining gains from each additional year of work experience. Sample is of male year-round, full-time workers; the dependent variable is the log of hourly wages. Wage and other data from the Public Use Microdata Sample (PUMS), 1990.

*** significant at the .01 level

* significant at the .10 level

** significant at the .05 level

significant at the .20 level

In the next four columns of Table A2, I look at each of Los Angeles's four main ethnic groups separately; along the way, I drop the dummy variables for race/ethnicity as well as any other variables that do not attain standard levels of significance. As can be seen, the return for being in an exporting industry is highest for Asians and Latinos, with Anglos trailing behind and African-Americans in last place (see the four columns in Table A2). While the divergences in the return to being in an export industry exist (note that there are also differences in the return to education or work experience), it is not clear that these differences are statistically significant, nor is there a handy explanation for the differentials. It may be that ties to exports help workers who tend to be low-wage more than workers who tend to be high-wage. The clearest comparison here is Anglos

and Latinos, but it should be noted that because of the peculiarities of sample selection — we are considering only full-time workers in manufacturing — we have probably drawn higher-wage African-Americans and lower-wage Asians, implying that the parallel would extend to those groups as well. Still, further exploration of these tentative explanations is needed (but is clearly part of another paper).

The next step in the analysis is a consideration of the localized impacts of trade. I draw on three data sources: the aforementioned national-level industry export and trade shares taken from the NBER database, a two-digit accounting of employment by industry made available by the Southern California Association of Governments, and demographic data from the U.S. Census. Essentially, what I do is reorganize the census and employment data to a common geographic unit: a set of 58 different "neighborhoods" in L.A. County. I then take the national-level industry figures and apply them to the neighborhood employment data to see how each area fares in terms of international trade. The procedure parallels the effort in Noponen et al. (1995) in which nationallevel trade data is used to understand metro area shifts in employment.

There are several limits to this exercise, which are mentioned in the text, including the fact that we are constrained to the period of the later 1980s and early 1990s (given the desire to use the Census data and SCAG employment data for 1990); we are only looking at manufacturing (given how trade is recorded; a similar constraint is in Grobar 1998, Noponen et al. 1995, and other studies); and we have chosen to look at the effects on local industry rather than local residents per se. I should also note that since figures for imports are available only at the national level, I must take the export and domestically produced shipment data from that level as well. As a result, I am essentially assuming that the national-level export share or trade balance for an industry is also typical of that industry as constituted in Southern California; a similar assumption is made in Grobar (1998).

In any case, the national-level industry figures are coupled with a local employment database supplied by the Southern California Association of Governments (SCAG); again, as in Grobar (1998), I am interested in the employment impacts of trade. This database records the number of jobs at the two-digit SIC level that are located in each Census tract in L.A. County; to make the NBER trade data correspond to this database, I aggregated the four-digit trade data up to the twodigit level. The figures for jobs in the Census tract can then be coupled with the trade information to derive a sort of weighted (by industry) trade exposure by geographic area. Unfortunately, the unit in the SCAG data is the census tract and a median census tract in L.A. County is only about a half square mile in size and has less than 5,000 jobs. We clearly need a bigger unit if we are to capture the notion of a "neighborhood" labor market.

That is why we make use of Public Use Microdata Areas (PUMAs). Such categorizations come from the U.S. Census Public Use Microdata Sample (PUMS) for 1990. Given that PUMS includes full individual responses, the Census Bureau worries that tagging each person with his or her Census tract would reduce confidentiality. Instead, the Bureau tags each person by residence in one of fifty-eight PUMAs, an aggregated unit deemed appropriate in seeking a balance between confidentiality and geographic identification. As can be gleaned from both the map in Figure 8 in the text and the full listing in Table A3, the PUMAs are geographically compact and populations within each PUMA average around 150,000 (jobs within each PUMA average slightly less than 80,000). This seems like a more reasonable scale to consider localized labor market effects of trade and industrial mix. Since the PUMS CD-ROM includes a listing of the Census tract contents of each PUMA, I took this list and applied it to the SCAG data to place the employment figures for each of L.A.'s 1652 tracts into the appropriate PUMA. I then aggregated to PUMA-level measures and applied the trade data to this.

PUMA	POPULATION	DESCRIPTION (Table A3; PUMAs in L.A. County)
5200	166,223	Burbank and San Fernando
5300	180,038	Glendale
5400	120,076	Monterey Park and Rosemead
5500	126,379	East Los Angeles
5600	127,934	Huntington Park, Florence-Graham* and Walnut Park*
5700	148,229	Lynwood and South Gate
5800	106,209	El Monte
5900	131,723	Pomona
6000	104,138	Carson and West Carson*
6100	109,602	Inglewood
6200	132,398	Beverly Hills, Culver City, West Hollywood, Ladera Heights*, Marina del Rey*, and View Park-Windsor Hills*
6300	131,591	Pasadena
6401	236,084	Lancaster, Palmdale, and various areas in northern central L.A. County*
6402	141,472	Santa Clarita, Val Verde*, and various areas in northwestern L.A. County
6403	139,618	La Cañada Flintridge, Monrovia, Sierra Madre, Altadena*, and La Crescenta-Montrose*
6404	106,042	Alhambra and South Pasadena
6405	145,597	Arcadia, San Gabriel, San Marino, Temple City, East Pasadena*, and North El Monte*
6406	139,685	Bell Gardens, Bell, Commerce, Cudahy, Maywood, and Vernon
6407	144,089	Compton, East Compton*, and Willowbrook*
6408	144,711	Azusa, Baldwin Park, Bradbury, Duarte, Irwindale, and Citrus*
6409	156,380	Claremont, Glendora, La Verne, San Dimas, and Charter Oak*
6410	103,653	Diamond Bar, La Habra Heights, and Rowland Heights
6411	157,437	Covina, West Covina, and Vincent*
6412	111,998	Industry, La Puente, South El Monte, Avocado Heights*, Valinda*, and West Puente Valley*
6413	159,220	Whittier, Hacienda Heights*, and West Whittier-Los Nietos*
6414	118,741	Montebello and Pico Rivera
6415	114,853	La Mirada, Santa Fe Springs, East La Mirada*, and South Whittier*
6416	163,405	Artesia, Cerritos, and Norwalk
6417	139,113	Downey and Paramount
6418	149,011	Bellflower, Hawaiian Gardens, and Lakewood
6419	152,489	Lomita and Torrance

Table A3 1990 Public Use Microdata Areas (PUMAs) in Los Angeles County

PUMA	POPULATION	DESCRIPTION (Table A3; PUMAs in L.A. County)
6420	195,581	Avalon, El Segundo, Hermosa Beach, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, and Rolling Hills Estates
6421	129,410	Gardena, Lawndale, Alondra Park*, West Athens*, and Westmont*
6422	102,219	Hawthorne, Del Aire*, and Lennox*
6423	159,644	Agoura Hills, Hidden Hills, Santa Monica, Westlake Village, and other small parts of western L.A. County*
6424	103,341	Signal Hill, Walnut, East San Gabriel*, Palmdale East*, and South San Jose Hills*
6501	237,315	Eagle-Rock Glassell, El Sereno, Highland Park, and Lincoln Heights
6502	134,932	Boyle Heights, Downtown, and parts of Wholesale
6503	234,621	Central Avenue-South, Green Meadows, and Watts
6504	169,397	Adams-La Brea and Crenshaw
6505	257,469	South Vermont, Vermont Square, and West Adams-Exposition Park
6506	240,908	Miracle Mile North, Wilshire Center North and South
6507	247,665	Hollywood and part of Los Feliz
6508	188,661	Westlake and Silverlake-Chinatown
6509	150,525	Bel Air, Brentwood Hills, Studio City, Pacific Palisades, and parts of other areas in West L.A. San Fernando Valley
6510	120,242	North Hollywood
6511	100,672	Pacoima
6512	130,700	Van Nuys-Sherman Oaks
6513	103,378	Sepulveda and part of Mission Hills
6514	120,016	Sun Valley and Tujunga-Sunland
6515	111,882	Sylmar, parts of Mission Hills, and Granada Hills
6516	150,541	Canoga Park and Woodland Hills
6517	146,056	Chatsworth, Northridge, and part of Granada Hills
6518	152,805	Encino-Tarzana and Reseda
6519	104,101	Westwood-West Los Angeles, and parts of Brentwood-Sawtelle and Palms
6520	195,481	Barnes City, Mar Vista, Venice, and Westchester
6521	188,031	Harbor City, North Shoestring, and San Pedro
6600	429,433	Long Beach

Notes to table: Areas marked with an asterisk (*) are unincorporated areas of the County, defined here by the names used by the L.A. County Office of Regional Planning. PUMAs 6501 to 6521 are all part of the City of Los Angeles; we offer their neighborhood names which are again taken from the regional planning authorities. When a PUMA includes a very small portion of a neighborhood (and most of the neighborhood is another PUMA), we drop mention here in order to focus on the central character of each PUMA.

Given the constraints of data, time, and costs, I was unable to do the sort of complex shiftshare analysis Noponen et al. (1995) conducted on the national level; I therefore followed a simpler procedure based on using the NBER database to construct a rough trade balance by twodigit SIC industry, using an approach to calculation that sought to avoid overstating the import effects (since not every import is competitive and therefore threatening to local employment). To understand this, note that we have data on export (X), import (M), and total shipments (T) by industry. The most straightforward calculation of percentage job effects would start with

(X/(T-X)), that is, add the percentage of jobs due to export to the jobs base without exports, and subtract away (M/(T-X)), that is, the percentage of jobs that might be added to the non-export base if there were no imports. The latter surely overstates potential job growth since domestic products must be more expensive (or they wouldn't be replaced by imports), and so it is inappropriate not to adjust this variable downward. One possible calculation is import penetration of the domestic market (M/(T-X+M)); however, the effect here is muted further (and appropriately) by using (M/(T+M)) on the import side and (X/T) on the export side to calculate a balance figure.

I then applied these trade balances against the industry mix of employment in each PUMA (similar to the exercise in Noponen et al. 1995) to determine its status as a trade winner, trade struggler, or trade neutral, with the categories determined by arraying PUMAs by their aggregate (across-industry) trade balance and breaking them into thirds. Because of this procedure, trade "winning" simply reflects outcomes relative to those of the region. Once again, I heartily acknowledge that, given the full range of assumptions necessary to get at these calculations, the exact ranking of each PUMA is not likely to be completely accurate; moreover, unlike Grobar (1998), I have not been able to consider the multiplier or secondary impacts of trade through seemingly domestic industries. Still, the broad categories offered here may indicate who is likely to do well in international trade — and who is likely to resist further globalization of the local economy. After the classification, I then use the Census data to calculate the poverty rates and ethnic composition for the various PUMAs and use the category averages for the figures depicted in the text.

In the text, I report results for categories based on trade share measures. Classifying PUMAs by manufacturing export performance alone yields similar results: contrasting export-strong to export-weak PUMAs, I found that the former had a poverty rate half as high and tended to be disproportionately Anglo by about the same differential as that noted above for trade winners and trade losers. However, when we place export shares in the context of the entire industrial mix (i.e., going beyond manufacturing to include services, etc.), the differences are not as sharp. By contrast, the trade share measures yield similar differences in PUMA-level poverty rates and demographic characteristics regardless of whether trade shares are calculated for manufacturing only or on the base of all employment; in the text, I am reporting for the share of total employment.

I also discuss the relationship between job growth and exports. To do this, I used another SCAG database that contained total employment by tract for 1980, remapped it into 1990 tracts, and then aggregated up to the PUMA level to compare it with the job total in 1990 by PUMA. The resulting figures for job growth varied. For export-weak and export-strong PUMAs, job growth was 15 percent and 36 percent respectively, while the average job growth rate in the trade struggler and trade winner PUMAs was 19 percent and 55 percent respectively; the larger difference for the trade categorization probably reflects the ability of that distinction to capture import effects. Of course, a superior measure of the trade performance-job growth relationship would compare 1980s employment gains to the trade categorization from 1980, the beginning of the period, and not 1990, the end of the period; unfortunately, the SCAG data do not provide the necessary industrial breakdown for 1980. Still, the correlation noted above is indicative of the potential positive impact of trade on employment gains — and the potential that differing trade categories will see widening differences in their employment base over time.

The various combinations of data here involve a series of technical choices — and the constraints of the data have also limited the time period (to around 1990, the date of the Census) that can be most accurately examined. It would be interesting to take more recent employment data from SCAG to see how the various PUMAs have been faring over the 1990s. One constraint to this exercise is that reliable and available trade data by SIC from the NBER only run up to 1994; part of the reason for choosing 1990 in the first place, was to use a five year average of trade (1988-1992) so as not to distort calculations by relying on a particular year. In any case, while any attempt to proxy local effects with national data, local industrial structure, and local demographics is worthy of debate, I believe that the various methodological choices made here are reasonable, and that the results are sensible and suggest that further research may be warranted.

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