US Foreign Trade Zones as the Secret Lover:

Is Uncle Sam Faithful to Tariff Elimination?

By

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Abstract

For centuries the nations and principalities of the world have engaged in trading schemes to boost exports. Conquest, protection of domestic supply through tariffs and eroding domestic currency are all part of the historic policy harem. The United States has a foreign trade zone program. Who knew? FTZs evoke images of women locked inside a dark sweatshop in a jungle making hoodies for football fans. While these "developing" countries have unambiguously embraced FTZs as an export strategy, Uncle Sam has played the unwilling suitor to the concept, making the FTZ a common law revealed preference while engaged with but not quite married to tariff reduction. This essay will compare the US program to its international counterpart and discuss the social policy implications on the US labor force.

Keywords: Foreign Trade Zones, labor, policy analysis, neoclassical and neoliberal, dependency

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Activists and scholars debate the utility of globalization and free trade. While much attention is given to the social and economic consequences of large trade treaties such as the North American Free Trade Agreement (NAFTA), the less well known and perhaps more important Foreign Trade Zone (FTZ) policies also deserves analysis by scholars of social development. If the Free Trade Agreement is the faithful betrothed, the Foreign Trade Zone is the mistress. Why buy the cow if you can have the milk duty free? This paper will summarize the literature about FTZs internationally and use debates in the literature to inform the FTZ program in the United States. Next, I use a combination of content analysis of newspaper and business trade press, websites and interviews with experts to determine if the US program is delivering the benefits of exports and jobs. Then I summarize what administrative and legislative options exist to ensure that workers, their families and communities share the benefits of the FTZ program. The paper concludes with implication for organizing, policy and research.

Research Methods

The primary research method is a policy analysis using the criteria of efficiency and friendliness to the wellbeing of workers, their families and the community. Arguments presented in this paper are the result of a review of scholarly literature, archival and web based information, newspaper and magazine articles and interviews with staff of 12 foreign trade zones, the U.S. Foreign-Trade Zones Board and representatives from four labor unions.

Foreign Trade Zones in an International Context

Free trade has been used since 400 BCE to stimulate trade and economic growth (Avery, 2003). Three theoretical perspectives in the literature discuss the free trade phenomena generally and FTZs specifically.

Definitions of FTZs used by World Bank and International Labor Organization include four kinds of trade related zones: 1) the *export processing zone* (EPZ) which consist of a secure industrial park where goods are manufactured for export under special tax, custom and labor advantages; 2) the *special economic zone* (SEZ), which also have a manufacturing orientation but at a larger scale with a regional development focus that attempts to stimulate domestic participation in the supply chain; 3) the *firm specific zone* (FSZ), which are private firm level manufacturing facilities such as the maquiladoras in Mexico, and 4) the *Freeport* which are import oriented warehouse on ports often in developed countries. The United States FTZ program is most similar to a firm specific zone and has a bonded warehouse program that matches a Freeport scenario (Papadopoulos & Malhotra, 2007). Most of the FTZs discussed in this paper outside of the United States are EPZs and are the type of FTZ that has captured any popular imagination. That being said, it is a puzzle if not a curiosity as to why the United States, one of the wealthiest export oriented economies would need a special program to promote free trade and exports?

The literature on trade offers some insight into the puzzle. Chen (1994) identifies three perspectives: 1) the *neoclassical economic* perspective which would predict that in general any reduction in trade barriers should have a mutually beneficial effect for both parties in that the market would create an equilibrium based on the comparative advantage along factor inputs; 2) the *state oriented* view argues that a strong state can overcome any negative externalities of the market and direct the economy towards economic growth; and finally 3) the *dependency theorists*, who are the critics of export processing zone and globalization in general. Dependistas argue that these are areas of exploitation of the host by global interests that lead to the erosion of labor rights and environmental exploitation. A thorough discussion of these perspectives is not possible in this paper. First, I will discuss the predictions of macroeconomic theory on the impact of the FTZ in a developing country, then move on to select critical histories of FTZs internationally that are influenced by dependency theory.

Macroeconomic Models for Developing Countries: FTZs, National Income and Labor

For the neoclassical, or neoliberal perspective on FTZs, picture Bono and his macro-tutor Jeff Sachs on an African safari with bureaucrats from the US and World Bank in an attempt to put a human face to poverty. Indeed, in *The End of Poverty,* Sachs (2005) argues that FTZs have been critical in reducing poverty by attracting foreign direct investment to create jobs in export oriented industries. For Sachs, development works, provided that macroeconomic analysis is carried out with the loving care of a pediatrician.

Macroeconomists have tried to determine in theory how an FTZ would impact national income and labor. It is important to note that these models have not been tested using actual data. The scenario typical in developing countries is a situation called Harris-Todaro unemployment where high rural unemployment results in rural to urban migration and an oversupply of unskilled urban laborers. For example, Young and Miyagiwa (1987) argue that duty free zones increase national output in countries that have Harris-Todaro unemployment provided these include a tariff reduction on intermediate goods intended for resale of a raw material. Later, they argue that an optimal approach would keep wages low, tariffs high, place FTZs in rural areas to reduce migration to urban areas and use taxation to invest in human capital (Young, 1991; Miyagiwa, 1993).

Beladi & Marjit (1992) on the other hand, predicts that a growing FTZs that imports goods that require large investment of machinery, equipment or property, will create a welfare loss for a country with a protected domestic industry and fixed prices because labor will move away from labor intensive domestic industry and capital intensive industry will overproduce goods that people do not need. Others also disagree (e.g. Chuddar & Adhikari, 1993; Basu, 1996).

In short, although the intuition behind a neoclassical approach would say that free trade promotes social welfare, those who have modeled scenarios that incorporate the complexities of rural-urban disparity, labor-capital factor input trade offs and political will point out areas where the wrongly structured policy can have a drain on national income or increase unemployment. Since these models that assume relevant to developing countries, how would we apply them to the United States, which already has an equilibrium between rural and urban employment? In the US, labor and capital are very mobile within the country and we will see that the FTZs are also mobile—that is to say, the costs of developing an FTZ is mostly a soft costs with any fixed property improvements for additional security. Accordingly, there should be equilibrium between the costal and inland FTZ locations as they compete and collaborate in a supply chain for real estate. Since the US FTZ does not provide regulatory relief for the minimum wage or other labor standards, from the perspective of the worker, it should not be a less desirable choice. In short, after the fixed costs of operating a special customs regime are incurred, any increase in exports should go into national income and also produce jobs. However, this begs the question of the neoclassical intuition: if free trade is so good, why not do it wholesale instead of zone by zone? A return to the political economy will help explore this question further.

The Memory of the Dependistas: FTZ Political Economy and Labor

Dependency theorists and their stepchildren, the world systems theorists would argue that it is the export processing zone as a piece of the military and global economic system that prepares workers, particularly women, to become migrants to work in global cities in developed countries. Papadopoulos and Malhotra (2007) offer a "macromarketing" perspective that injects the political economy into the global supply chain. They argue that any failures of the EZP are failures of the state, firm or relationship of the policy variation to its host country national regulatory context and not the concept itself. This approach fits into a state centered model of development.

For example, Rondinelli (1987) found that newer FTZs in India, Indonesia, the Philippines, Sri Lanka and China had not yet benefited from the program in the ways that established zones in Asian Tiger states such as Singapore, Hong Kong, Taiwan and South Korea. These newer FTZ countries had high costs of development, dependence on international firms, rural to urban migration, isolated enclaves and the creation of a mostly female, unskilled, low wage work force that risk being cut as international prices and tariffs change. Rondinelli recommended linkages with domestic firms, technical assistance, regional planning and a domestic enterprise zone program for local firms in order to address shortcomings in implementation.

For an example of a dependency argument, Safa (1997) documents the role of women in FTZs in the Dominican Republic. FTZs grew in the 1980s as the country shifted from an import substitution strategy, which involved protected domestic industry to replace imports, to an export economy based on the comparative advantage of low cost labor. As a result, female labor force participation increased as mostly high school educated women worked in textile plants. Initially considered women's work, men joined only after factories had a need for work on heavier garments. Low wages and poor working conditions led to union activism and in 1992, with support from the United States, the Dominican Republic passed a law to protect collective bargaining rights for workers in the FTZ.

In a similar article, Casperez refutes the theory that the neo-liberal economic order has signaled the end of history given the resistance of unions to FTZ polices. As FTZs grew in Asia in the 1970s and 1980s, many Asian countries, such as Thailand, Korea and India restricted union activity, specifically strikes. Sri Lanka, more socialist in orientation, allowed strikes in FTZs. Malaysia promoted FTZs with wage caps, a 15 year ban on trade unions, low wage female labor with "nimble fingers." Factories recruited young women from rural areas. Strikes were seen as against the national interest in a growing electronics industry critical to Malaysia's growth. The struggle for unionization, according to the author, was not so much from class consciousness but an intersection of nationalism, ethnicity and gender relations. In a similar vein, Likosky (2003) adds legal analysis to the case of Malaysia and describes the evolution of free ports from British Colonialism. These are examples of a "dual legal order" that create a separate domain from the rest of the country that is responsive to the needs of international commerce. He notes that Malaysia attracted Hollywood production companies with a low wage female workforce that could compete with unionized California, but could not prevent Malaysian workers from organizing to demand higher wages. Currently, the FTZ is complemented with a "Science Park" to attract a high wage male workforce (Likosky, 2003).

These select case studies from a dependency or world systems approach show that although FTZs can involve exploitation of labor, by the same token it also creates a site of resistance for labor and as Sassen (1998) would argue, the exposure to international work culture and networks provide opportunities for potential migration flows. Thus, even for those with a pessimistic framework, there are still opportunities for hope.

To return to a macromarketing perspective, why would FTZs flourish in a world that has become the more global through the reduction of trade barriers through free trade agreements and supranational entities like the European Union? Papadopoulos and Malhotra (2007) argue that the world is not as global as we would like to think and furthermore these EPZs are perhaps the primary way global barriers are reduced. Indeed, at the end of the day, most governments, in particular those in developing countries are rather protectionist. The next section will shed insight on to why the US developed an FTZ program.

History of Foreign Trade Zones in the United States

How then do we explain this peculiar developing world phenomena in the world superpower? Avery (2003), believes that the FTZs in the US focus primarily on regional or community economic development while international FTZs are more narrowly on export promotion and raising national income. Papadopoulos & Malhotra (2007) argue that the United States doesn't have a bona fide export processing zone because their FTZs are import oriented. The data somewhat supports their conclusion. The Foreign Trade Zone Board Annual Report (2008) documents that although exports in US FTZ have had a six-fold increase from $5 billion to over $30 billion; their ratio to foreign imports has declined from 22% in 2003 to 16%. Papadopoulos & Malhotra (2007) also point out that the FTZ sub zones in the US are firm specific so they are unlike international counterparts that have a bona fide industrial park. The US FTZs are a series of warehouses or trade parks adjacent to a port and the sub zones are ad hoc locations of designated specific firms. In short, in a world with two kinds of FTZs, the export oriented and import oriented, they believe the US maintains an import oriented one. Despite the low ratio of exports to imports in the FTZ, the original FTZ act made clear its intent to increase exports. However it was not until the creation of the sub zone before we had a mechanism for allowing manufacturing in the subzones that we developed a manufacturing component in the US foreign trade zone.

The United States enacted the Foreign Trade Zone Act in 1934 in response to the high tariffs imposed by Smoot-Hawley, a law signed by President Hoover after the 1929 stock market crash. The political will for more tariffs came primarily from agricultural states that wanted to protect farmers from foreign competition (“Smoot-Hawley”, 2008). The regulations define an FTZ as a “restricted-access site, in or adjacent to a Customs port of entry, operated pursuant to public utility principles under the sponsorship of a corporation granted authority by the FTZ Board and under supervision of the Customs Service” (15 CFR 400.2(e)). A FTZ must be either within 60 miles or a 90-minute drive of the outer border of the port. Some satisfy the requirement by working with Customs to ensure compliance with all regulations (FTZB 2007).

From 1934 though the 1950s, few firms in the US took advantage of the FTZ program because of a prohibition of manufacturing in US FTZs (FTZ Corp, 2007). Beginning in 1946, the General Agreement on Tariffs and Trade (GATT) brought together 120 nations to negotiate the reduction of tariffs and other trade barriers around the world. In 1950 the US Congress passed a law allowing manufacturing in US FTZs on a case-by–case-basis in order to conform to the practice of FTZs in other countries and prevent them from gaining a competitive edge. At that time, goods manufactured in a US FTZ were assessed duty on the full value added to the product, including domestic labor, parts, profit and overhead. Consequently, in the 1950s and 1960s few US based manufacturers took advantage of the FTZ program because continuing tariffs on imported goods still protected domestic industry. However, as GATT negotiations progressed to lower tariffs on imported goods, the tariff on some finished products became cheaper than the sum of the tariffs on raw materials used in manufacturing. This “inverted tariff” regime shifted the manufacturing advantage for some goods overseas where tariffs on the raw materials were lower (FTZ Corp., 2007).

Manufacturers and organized labor were unable to raise tariffs on imports to protect domestic industry. As a partial solution to the impact of inverted tariffs, the US shifted to bilateral voluntary quotas. In the case of automobiles, this only served to drive Japan into higher end markets (Newman & Rhee, 1990). Inexpensive and reliable transportation and the rise of maquiladores in Mexico also drove manufacturers to produce goods overseas. For eight years, the National Association of Foreign-Trade Zones (NAFTZ) lobbied for exclusion of the portion of the value added manufacturing conducted in a US FTZ from Customs duty when the good entered the domestic market.

In 1980, Customs agreed with this position and US manufacturers in FTZs were able to exclude domestic parts, overhead, profit and labor from duty. This served as a major advantage to manufacturing in FTZs.

Since 1988 the program changed, US Customs has relied on third party audits and surety bonds for FTZ compliance in lieu costly onsite supervision. The surety bonds make businesses liable to Customs if they are found out of compliance. As a result of the savings from onsite supervision, the program became very attractive to firms that wanted to integrate US based operations in a global supply chain. In regards to other benefits to the zone user, the most obvious is cost savings. No duties charged on good being re-exported. For goods going into the US, duty is paid when it leaves and none paid if the goods are destroyed or damaged. In FTZs with manufacturing the firm may pay the inverted tariff, i.e. a rate lower then the one on imported inputs. US customs streamlines procedures in the FTZ charging a flat weekly entry fee rather than per shipment (FTZB 2007). As a result, there are at least 250 General Purpose Zones (GPZ) and 450 subzones. GPZs are the main, multitenant portion of the FTZ while subzones are single buildings approved for a single purpose such as manufacturing (ITA, 2007; FTZC 2007). See Figure 1 for a graphical depiction of the application process.

<Insert figure 1 here>

Public Comment and Denied Applications

After publication of a notice of application in the Federal Registrar, the FTZ board conducts public hearings and takes public comment. This is evidence that a member of the public may use the FTZ approval process to get a concrete action from the FTZ Board, provided that it has the authority to do it. The FTZ program has many explicit prohibitions and requirements. During audits and compliance reviews, customs officers are advised to respect “security, health, safety, and union work rule procedures” as long as they do not get in the way of the review. The purpose of these restrictions is to prevent business from circumventing quotas and tariffs. Accordingly, the FTZ Board restricts grants of authority with explicit caps on the importation of these and other goods (USCBP, 2003). Only 12 applications have been denied in the history of the program (Beck, 2006; FTZB, 2007). Two of the notices stated that the project would violate steel import restrictions. The Mani Can Corporation and Texas City site disapproval notice did not give a reason other than public interest. One cited imported sugar as a reason for disapproval. Press clips suggest opposition from a conservationist Nixon appointee for the Portland, MA denial ("Abstract", 1969) and opposition from the Liberty Union party for a proposed FTZ in Vermont (Kalil, 2005). A follow up correspondence with FTZB staff indicated that the parcels denied in the Brattleboro, VT FTZ were undeveloped with no substantial justification for their use (Personal Communication, May 4th, 2007).

Local Variations to the Application Process

Although all FTZs must conform to a standard federal process, there is variation among grantees depending on what kind of grantee they are and on their internal controls. The required role of state government is to pass authorizing legislation to permit FTZ activity in their state. However, in the case of Hawaii, the Port is also run by the State Department of Economic Development and Tourism, which acts as the grantee and operator. For the most part, subzone applicants seek the assistance of a consulting firm. These firms can help determine if the FTZ status would be cost effective, prepare the application for the grantee and maintain compliance upon award. In some cases, such as the Port of Oakland, operators provide these services. They can also determine if it makes more sense for the grantee to request a subzone or a boundary modification of the GPZ.

The FTZ board prefers that a firm seeking subzone status be sponsored by the nearest GPZ, but this is not a requirement (See Figure 2). Accordingly, less than 20% of subzones in California are within the same local government jurisdiction as the grantee port/GPZ. Consequently, only 30% of GPZ sites are within the same local government jurisdiction as the port city. Overall, only about 25% of all FTZ sites are within the port city limits. The gap between port cities, which have automatic access to GPZ status, and the actual location of the GPZs is striking and is driven by Long Beach and Los Angeles, both of which have limited space inside their ports for the location of a GPZ and its associated businesses (Personal Communication, April 2007).

Economic Predictors of US FTZ activity, Inputs and Outputs

In the previous section, I explained the mechanics of the policy. What does the literature say about 1) the determinants of FTZ establishment and 2) the impact of the policy on exports and jobs? Friedman (1990) developed a model to predict which cities would develop a general purpose zone. She found that cities with international banks increased the probability of GPZ establishment. Another strong predictor were cities with both port of entry status by 1965 and economic distress (Friedman, 1990).

Swenson (2000) found that use of US inputs by a firm declines when the cost of a domestic input is increased due to a strong dollar. Second, those industries that need foreign inputs make a small reduction in shipments when exchange rates are unfavorable and may make adjustments to labor, price and sourcing. Mathur (1997) found that that FTZs had a small effect on exports in the first year of formation and a stronger effect on reexports. He concluded that the program functioned more as a subsidy to firms operating in the US and that goods should be treated equally inside and outside the FTZ. Rather than recommend broader tariff reduction, he listed a series of macromarketing strategies that included public sector marketing, trade fairs and hands on advocacy from US embassies overseas. In regards to the choice of location for the US FTZ, Avery (2003) found that the number of transportation modes available to an FTZ predicted the volume of FTZ activity. FTZs that had all four modes of transit—air, water, rail and highway—had the highest number of active FTZs (97 of 226) and two thirds of those reported activity.

In summary, as noted by Avery, the literature on US FTZ does not look at the impact on labor, or labor costs as a factor in making the business decision to locate in a particular place. Accordingly, recent efforts by advocates to use the program to stimulate jobs do not have a strong empirical ground upon which to make an argument.

Discussion and Analysis

Despite absence of a rich literature on the impact of FTZs on the lives of working families and their communities, the policy has grown in utilization. In the case of coastal ports with large trade volume, there are no vacancies at or near the port to accommodate interested users of FTZ benefits. Accordingly, the FTZ program is run as a public service to the regional economy to bring FTZ benefits to operations where they are needed. Medium volume coastal ports, such as the Port of Portland, use the program but are neutral in how they see it as a benefit (Personal Communication, April 2007). Inland ports tend to have newer FTZs and are very enthusiastic about the program's prospects for economic growth. The FTZ is seen as a must for an economic development strategy at each airport in the same way all new housing comes with granite countertops. California's central valley and Inland Empire, for example, has seen the bulk of FTZ formation in recent years (See Figure 3 and 4 for locations of FTZs).

<Insert figure 3 and 4 about here>

In short, despite the small evidence base, at the local and regional level, interjurisdicational competition and policy diffusion keep the program growing. Unlike its foreign counterparts, the US FTZ may mean more in terms of outsourcing government compliance efforts, promoting a regional economic development strategy and improving the efficiency of the global supply chain through integrated logistics management. Since an FTZ can almost anywhere, there is no real geographic targeting. However, there is clearly an income and information threshold that favors firms that can afford approximately $100,000 a year in fees associated with the program.

Ensuring Worker Friendly Policies in FTZs

How might local governments ensure that FTZs benefit workers as well as small businesses? In the case of San Diego, the City has integrated the FTZ with the state enterprise zone program, which helps recruit and retain a local low wage workforce (CSD, 2007). The Port of Stockton, which operates a public port, chooses tenants that provide “family wage” jobs (Personal Communication, 2007). The Port’s leverage is based on its role as a landlord, not as an FTZ grantee. Similarly, San Francisco’s living wage ordinance applies in the FTZ only because it applies across the whole city. In regards to State action, Hawaii runs the FTZ as a public facility and sells space by the cubic foot. They also have a business incubator at the port and handle all compliance as a public benefit. Thus the Hawaii program can scale down to meet the needs of small businesses (Personal Communication, May 2007). These models—internal standard and local ordinance could be replicated according to the political will of a given local government.

Although only a grantee port can submit applications to the FTZ Board on behalf of a tenant seeking subzone status, an interested zone tenant may select almost any port with which to do business. Therefore, if one FTZ grantee did not want to do business with a firm whose industry mix and jobs did not meet its standards, the firm could shop elsewhere for an FTZ sponsor. This has important implications for social development because even if a policy advocate could work with particular local government entities to establish criteria, including labor standards, for tenants locating in their GPZs it might not be very helpful because the tenant could always go to another GPZ or seek subzone status through another grantee that is under the jurisdiction of another local government.

In regards to existing FTZs, all operators and users must already comply with all federal and local laws. As a consequence, it creates a situation where firms that rely on undocumented workers self select out of the FTZ to avoid the additional scrutiny by Homeland Security. The security also makes it difficult for organized labor and labor advocates such as worker centers, church ministries and social services to have informal access to FTZ sites to ensure worker rights. However, advocates can prevent designation prospectively. Mal Harper, Vice-Presidential candidate in Vermont for the Liberty Union Party, opposed the FTZ because she believed that it import low wage jobs. She reported that a book bindery moved from Quebec to the FTZ to escape union wage rates but went out of business after a few years (Personal Communication, 2007).

Trade Agreement Parity

In 2008, the quest to make the FTZs a boom to labor took a step forward when Pascrell (D-New Jersey) introduced legislation to eliminate tariffs paid by US manufactures in subzones ("Good Idea", 2008). Currently, US manufactures must pay tariffs to import intermediate goods but competitors in countries for which we have a free trade agreement do not. DeRosa and Hofbauer (2008) argue that the trade agreement parody proposal introduced in the House could create 95,000 jobs in the short run. They believe this is true by taking the estimate the impact of NAFTA on the US economy and applying it to the trade agreement parody proposal. However they caution about drawing strong conclusions because of inherent problems with the gravity model used to derive initial estimates. However, they provide little justification for the use of NAFTA from a legal or policy mechanism and how the impact of the trade agreement parity proposal might be scaled in magnitude or scope. That being said, the bill if it passes, will probably add jobs. Since manufacturing jobs in FTZs in California at least were well above a minimum wage and often carried benefits, this would indeed be a family friendly policy. That being said, what of the workers in the warehouses that serve the manufacturing facilities? Might it serve the public interest to ensure benefits in secure trade parks that are physically isolated and out of reach of the pesky union organizer?

Conclusion: What If The WTO Wins?

Stepping back to the national trend of tariff reduction, Haveman (2006) of the Public Policy Institute of California predicts that if the WTO were to find a genie in a bottle and make all tariffs vanish overnight, California would have a $27 billion or 24% increase in exports. Why? Asian countries would have an incentive to buy more goods from California that they are not already buying more than offsetting predicted declines in purchase from Mexico and Canada. However, the rest of the United States would not necessarily see the same growth due to the nature of goods and existing markets being in the Americas.

Thus, we see in the California case a double bind. While California as a state would benefit enormously by tariff elimination, recent investments by local and regional governments in FTZs in partnership with powerful logistics firms and consultants have created a sizable public private infrastructure. While these firms play a valuable role in the current policy framework, will they advocate for a better tariff structure for all goods? Will the new inland ports become opportunities for organized labor to replace aging members? Or has Uncle Sam settled for a comfortable secret lover: *nuutz amrag* in Mongolian for our new Asian trading partners and *la otra* in the language of our place names.

References

A Democrat's Good Idea. (2008, July 12). *Wall Street Journal*. Retrieved April 28, 2009, from http://online.wsj.com/article/SB121581818574447437.html.

Abstract. (1969, January 6th, 1969). *New York Times,* p. 26.

Avery, M. L. (2003). *Analysis of the relationship of transportation modality and U.S. foreign trade zone productivity.* Unpublished Dissertation, Nova Southeastern University.

Beck, E. (2006, 10/06/06). Foreign-trade zone and subzone applications withdrawn or denied. Retrieved from http://www.millerco.com/referenceguide/tableofcontents/summaries/withdrawn.pdf.

Beladi, H., & Marjit, S. (1992). Foreign capital and protectionism. *The Canadian Journal of Economics, 25*(1), 233.

Caspersz, D. (1998). Globalization and labour: A case study of EPZ workers in Malaysia. *Economic and Industrial Democracy, 19*(2), 253-286.

Chaudhuri, T. D., & Adhikari, S. (1993). Free trade zones with Harris-Todaro unemployment: A note on Young-Miyagiwa. *Journal of Development Economics, 41*(1), 157.

Chen, X. (1994). The changing roles of free economic zones in development: A comparative analysis of capitalist and socialist cases in East Asia. *Studies in Comparative International Development (SCID)*, *29*(3), 3-25. doi: 10.1007/BF02687146.

CSD. (2007, May 16th, 2007). City of San Diego foreign trade zone. Retrieved March 1st, 2007, 2007, from http://www.sandiego.gov/economic-development/business-assistance/incentive/foreign.shtml.

DeRosa, D. A., & Hufbauer, G. (2008). *The Economic Impact of Trade Agreement Parity for Manufacturing Firms Operating in US Foreign-Trade Zones*. Washington D.C.: National Association of Foreign Trade Zones. Retrieved April 25, 2009, from http://naftz.org/index_categories.php/resources/66.

Friedman, J. J. (1990). The importance of specific resources to community actions: The case of foreign trade zones. *Social Science Quarterly (University of Texas Press), 71*, 602-618.

FTZB. (2007). Foreign-trade zones board. Retrieved from http://ia.ita.doc.gov/ftzpage/index.html

FTZC. (2007). Foreign-trade zone history. 2007, from http://www.foreign-trade-zone.com/history.htm.

Kalil, M. (2005, March 4th, 2005). Officials inspect possible FTZ sites. *Brattleboro Reformer*.

Likosky, M. B. (2003). Dual legal orders: From colonialism to high technology. *Global Jurist Topics, 3*(2), 1.

Miyagiwa, K. (1993). The locational choice for free-trade zones: Rural versus urban options. *Journal of Development Economics, 40*(1), 187.

Newman, R. C., & Rhee, K. A. (1990). Midwest auto transplants: Japanese investment strategies and policies. *Business horizons, 33*(2), 63(7).

Papadopoulos, N., & Malhotra, S. (2007). Export Processing Zones in Development and International Marketing: An Integrative Review and Research Agenda. *Journal of Macromarketing*, *27*(2), 148-161. doi: 10.1177/0276146707300070.

Rondinelli, D. A. (1987). Export processing zones and economic development in Asia: A review and reassessment of a means of promoting growth and jobs. *American Journal of Economics and Sociology, 46*(1), 89-105.

Sachs, J. (2005). *The end of poverty: Economic possibilities for our time*. New York: Penguin Press.

Safa, H. I. (1997). Where the big fish eat the little fish: Women's work in the free-trade zones. *NACLA Report on the Americas, 30*(5), 31.

Sassen, S. (1998). Globalization and its discontents: essays on the new mobility of people and money. New Press.

Smooth, R., & Hawley, W. (1930). *Tariff Act of 1930*. Retrieved April 28, 2009, from http://www.law.cornell.edu/uscode/19/usc_sup_01_19_10_4.html.

Swenson, D. L. (2000). Firm outsourcing decisions: evidence from U.S. foreign trade zones. *Economic inquiry, 38*(2), 175.

The battle of Smoot-Hawley. (2008, December 18). *The Economist*. Retrieved April 28, 2009, from http://www.economist.com/finance/displaystory.cfm?story_id=12798595.

USCBP. (2003). *Foreign trade zones manual*. Retrieved from http://www.cbp.gov/linkhandler/cgov/toolbox/publications/manuals_handbooks/ftzmanual.ctt/FTZManual2.pdf.

Young, L. (1991). Unemployment and the optimal export-processing zone. *Journal of Development Economics, 37*(1,2), 369.

Young, L., & Miyagiwa, K. F. (1987). Unemployment and the formation of duty-free zones. *Journal of Development Economics, 26*(2), 397.

Figure 1: Decision Scenarios (A, B, C) for Foreign Trade Zones.

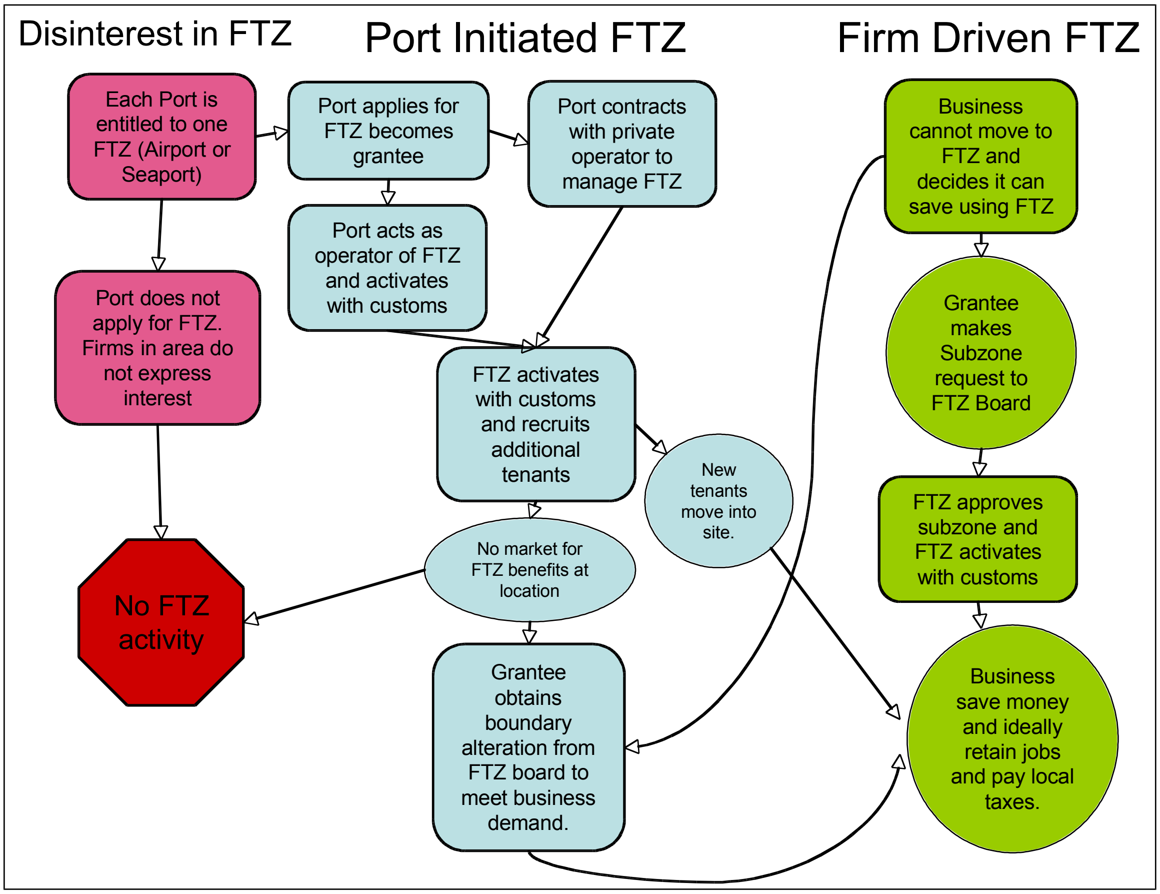


Figure 2: FTZs Located Within Same Jurisdiction as Port City (*Los Angeles includes San Pedro and Wilmington FTZs)

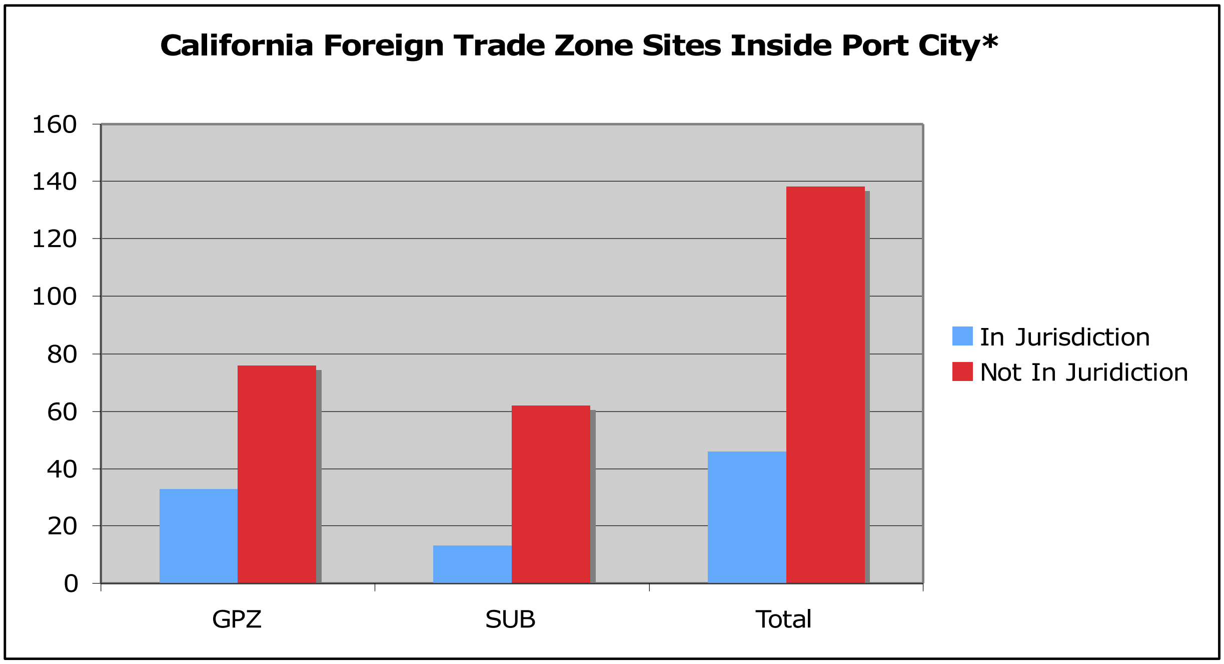


Figure 3: USA West Coast Foreign Trade Zones

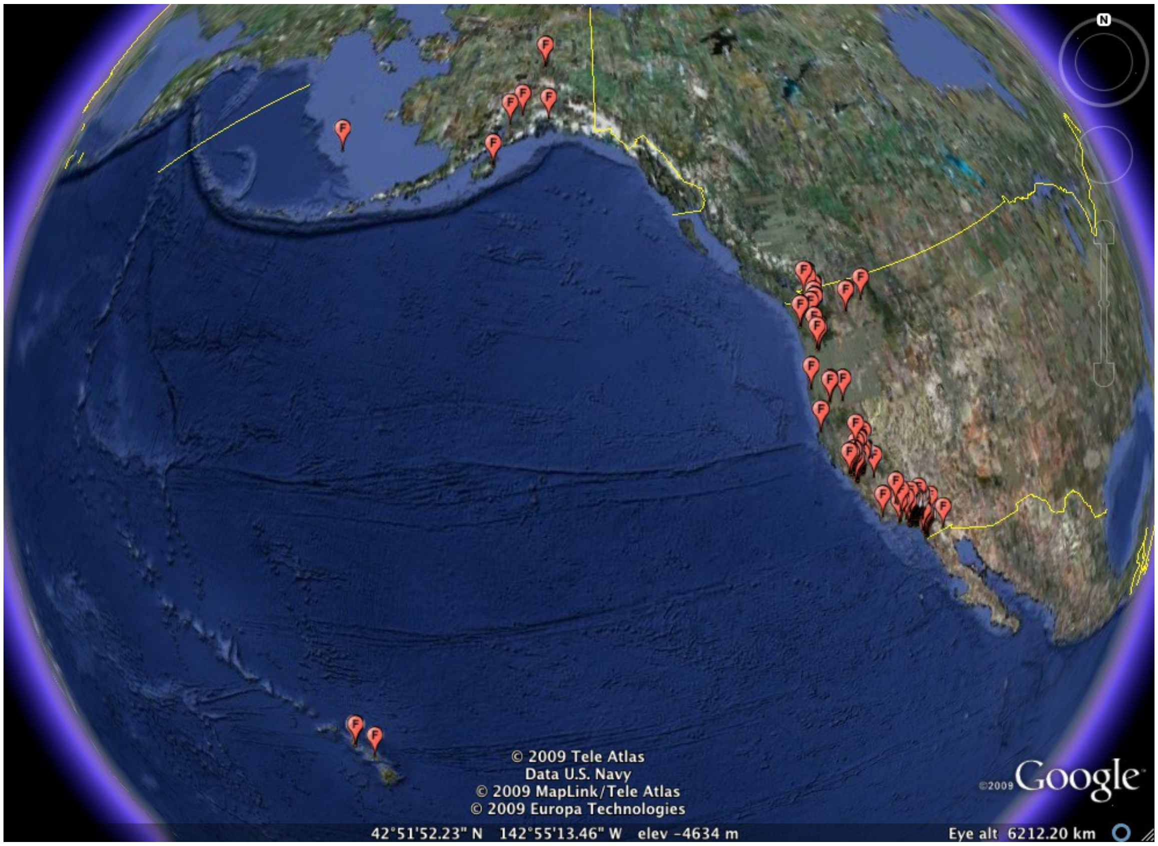
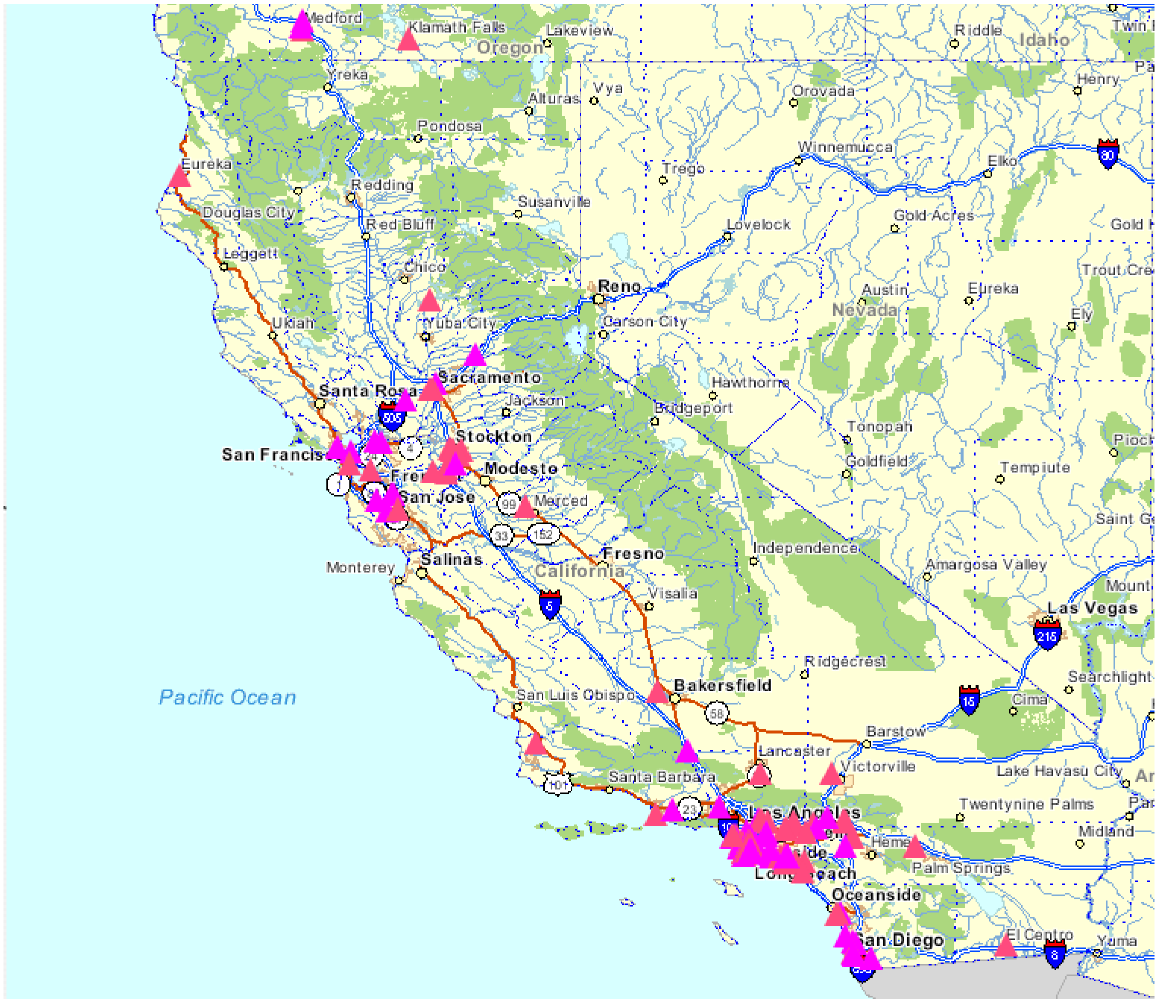


Figure 4: California Foreign Trade Zones



Note: General Purpose Zones in Violet, Subzones in Red.