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by

Scott M. Hanson

C. Ford Runge

Jerry E. Fruin

Department of Agricultural and Applied Economics

University of Minnesota
Institute of Agriculture, Forestry and Home Economics
St. Paul, Minnesota 55108

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INTRODUCTION

The economic problems of northeastern Minnesota are reflected in the fortunes of the Port of Duluth-Superior. The port is affected not only by the contraction of the steel industry but also by wide flucuations in world agriculutral markets. In the midst of these depressing forces, Duluth-Superior remains a center of the region's economy. Cargoes handled at the ports thus reflect, and have a significant economic impact on the economy of the region.

A major part of the ports' activity has come from a seemingly unlikely source: food donations made by the U.S. government under the Food for Peace program (PL-480). While making up a tiny fraction of the tonnage handled at the ports, PL-480 cargoes are highly labor intensive, and thus have a significant economic impact. A bagging plant run by General Mills, for example, was constructed specifically to accomodate these cargoes.

Ironically, a major constraint to these shipments is yet another subsidy program: cargo preference. Cargo preference is a federal policy requiring that a certain percentage of government cargoes be carried by U.S. flag ships. U.S. flag ships fitted out to carry Food for Peace cargoes are scarce on the Great Lakes, and thus the lake ports argue that they lose these valuable cargoes. Cargo preference is a part of federal maritime policy, and the politics of maritime policy are far beyond the control of the ports.

This paper considers the complex issues underlying cargo preference and its effect on the port of Duluth. First, a brief history of U.S. maritime policy is presented. Second, a brief description of the Food for Peace program (PL-480) is given. The policy of cargo preference is explained third, outlining the cargoes to which the policy applies, and the cost of the policy to the U.S. government. Fourth, the paper explores the politics of the cargo preference issue, explaining the conflicting interests involved. The final section examines cargo preference at the regional level, explaining why cargo preference is important to the Great Lakes and Duluth in particular.

This background document is intended to raise questions rather than to provide definitive answers. However, it argues that the dual effects of the PL-480 and cargo preference subsidies are to hurt the Great Lakes ports without providing material benefits to the U.S. maritime industry.

BACKGROUND OF U.S. MARITIME POLICY

U.S. maritime policy has three pillars: cabotage (excluding foreign vessels from domestic trade), subsidy (direct government payments to shippers and shipbuilders), and preference (requiring domestic ships to transport certain cargoes). All three have a history as long as that of the U.S. itself.[1]

The founders of the American colonies were shipbuilders and sailors. With access to vast forests at a time when forests in Europe were being depleted, it was natural that shipbuilding would become a primary industry. By 1776 onethird of the British merchant fleet was American made. Once independent, the U.S. government continued to support the maritime industry. At the end of the Revolution, a British ban kept U.S. vessels from their former chief trading partners and placed many restrictions on trade with the new nation. The first act of the first Congress in 1789 was a protective tariff on imports, with a 10% discount on goods carried on U.S. ships. Only U.S. built ships could be registered in the U.S., and they received wide discounts in tonnage taxes. The Navigation Act of 1817 included the first provisions for cabotage, restricting U.S. coastal trade to U.S. ships.

By 1839, the British, feeling the pressure from American built sailing ships, began to award mail subsidies to steam ships. These were direct payments to shippers of international mail. While steam had become well developed in U.S. inland trade, the British pioneered its use in ocean vessels. The U.S. authorized mail subsidies of their own in 1845. These subsidies continued until 1858, when Congress discontinued them due to

increasing sectional pressure by the southern states, who objected to payments to northern shippers. Some mail subsidies were resumed after the Civil War.

Despite continued support, the U.S. merchant marine had weakened considerably by the time of the Spanish-American War, which served as the impetus for the Cargo Preference Act of 1904. The Act provided that only U.S. ships would supply U.S. armed forces overseas. World War I greatly inflated shipping rates, and upon entry into the war the U.S. commenced an emergency shipbuilding program. Bureaucratic difficulties made this program slow to start during the war and slow to stop afterward. By 1920, the U.S. fleet was 5 times its prewar size and half of all ships were government owned. These were eventually sold at huge losses.

The Merchant Marine Act of 1936 was the first systematic attempt at maritime policy. It established the Maritime Commission, replaced mail subsidies with direct construction subsidies to shipbuilders, and established operating subsidies to ship owners and operators. These subsidies were designated for ships on "essential trade routes," as defined by the Maritime Commission. Reserve funds were established to cover these subsidies, with additional funds put aside for construction loans.

Emergency shipbuilding during World War II was a success as the fleet grew 14 fold. This time the disposal of the fleet was also a success when it was sold to citizens of the U.S. and its allies after the war. Subsequently, changes in technology, the shift to bulk cargos, and the emergence of flags of convenience all made the U.S. fleet less competitive.

The 1936 act was refined by the 1970 Merchant Marine Act, which did not change maritime policy and offered no new programs or goals. The act continued construction subsidies and the requirement that U.S. flag vessels in domestic trade be constructed in U.S. yards. For ship operators it continued operating subsidies, cabotage, and cargo preference. The oil crisis of the 1973/74 left overcapacity in the shipbuilding industry all over the world. Even before the oil crisis, the world capacity of tankers was growing faster than demand. Many tanker owners responded to the crisis by shifting their ships to dry bulk cargoes, extending overcapacity to that sector as well. The shipping industry throughout the world remains in turmoil, but "to a large extent the climate for U.S. carriers (is) determined by congressional and presidential action, not the world environment."[2]

CARGO PREFERENCE

"Cargo preference" refers to requirements that U.S. ships handle a certain percentage of certain cargoes. Cargo preference has almost always been a key part of U.S. maritime policy. Cabotage is a form of cargo preference. The 1817 Navigation Acts were the first U.S. cabotage laws, prohibiting foreign ships from handling U.S. coastal trade. As the U.S. acquired overseas possessions later that century, the Acts were held to apply to U.S. colonial trade as well. Cabotage laws are still in effect and are commonly known as the Jones Act.

The Military Transportation Act of 1904 was the first cargo preference law that applied to cargo with foreign destinations. It required all military cargo to be carried in U.S. flag or U.S. government owned ships. In 1934, Public Resolution 17 extended these requirements to U.S. government financed exports as well. This requirement was reaffirmed in the Merchant Marine Act of 1936.

Bulk carriers began to dominate world trade after World War II. When U.S. ships found they could not compete in this market, the U.S. government became concerned primarily due to military reasons. Consequently, in 1954 Congress passed that year's Cargo Preference Act (PL-664).[3] The Act established a permanent requirement that 50% of all U.S. government generated cargo be carried by U.S. ships. The requirement was to be computed separately for dry-bulk carriers, dry-bulk liners, and tankers.

This act strongly enhanced the market for U.S. bulk carriers. It reserved a portion of two important and growing markets for U.S. flags: the supply of the growing U.S. overseas military establishment and the new

donations and concessional sales of agricultural commodities under the Food for Peace program (PL-480) passed that same year. It also established cargo preference as a permanent part of maritime policy. Until this Act, preference decisions had been made from year to year. According to H. David Bess and Martin Farris, "it is basically through these cargos (mandated by the 1954 act) that U.S. tramp shipping has remained alive."[4]

The 1985 Federal District Court case Transportation Institute v. Dole[5] found that cargo preference also applied to all export sales (specifically, blended credit shipments) subsidized by the Department of Agriculture, not just PL-480 sales. The Department ended the blended credit program after this decision. The 1985 Food Security Act (commonly known as the 1985 Farm Bill) then exempted the Department of Agriculture's commercial sales from cargo preference, but gradually raised the requirement for PL-480 and other concessionary shipments to 75% by 1988.[6] To compensate the Department of Agriculture, the Act provided that the Transportation Department pay for freight differentials that exceed 20% of the value of exports. If the Transportation Department runs out of money for these differentials, the preference requirement reverts back to 50%.

PUBLIC LAW 480

Public Law 480 has been an important part of U.S. agricultural and foreign policy since its passage in 1954. The act contains a number of goals: expansion of international trade, disposal of surplus agricultural commodities, promotion of stability in U.S. agriculture, encougement of economic development in developing nations, and promotion of U.S. foreign policy. The emphasis of these stated goals has changed over time to reflect changing objectives of agricultural and foreign policy.

Title I of PL-480 authorizes concessional sales of U.S. agricultural commodities. Credits are given with interest rates of 2 to 3 percent and repayment periods of 20 to 40 years. To assure that commercial sales are not disrupted, recipient nations agree to additional commercial purchases based on their imports of the previous 5 years. Seventy-five percent of all sales must be made to countries meeting the poverty criterion of the International Development Association. The government pays differential freight costs to U.S. shippers, that is, only the difference between U.S. flag rates and world market rates.

Title II authorizes donations for humanitarian purposes, both for emergency and disaster relief and for long term relief projects. A minimum of 1.9 million metric tons are required to be distributed under Title II in 1987, with at least 1.4 million metric tons for non-emergency programs of non-profit voluntary agencies and the World Food Program of the United Nations. The remaining 500,000 metric tons are for emergency relief or to supplement regular programs. All transport and handling costs, including

ocean freight, cargo preference differentials, inland freight costs and packaging are covered by the program.

Title III authorizes sales similar to Title I, except that the sales are designed for economic development objectives. They are multiyear commitments in support of specific development programs in the recipient countries. Loans may be forgiven if programs in the Title III agreement are implemented. The Title III budget must be at least fifteen percent that of Title I.

Title IV covers administration and general provisions. The Secretary of Agriculture must determine commodity availability for the programs. Government stocks must be in excess of domestic requirements and commercial exports. Under the Bellmon amendment, the Secretary must determine that adequate storage facilities exist in recipient countries and that distributions of commodities will not interfere with domestic prodruction and marketing.

The peak volume of the PL-480 program was in the late 1960's, when shipments averaged 16 million metric tons per year. Recently, the program has varied between 5.7 and 6.3 million metric tons per year. The value of shipments has been rather constant, ranging between $1 billion and $1.3 billion, with volume changing in relation to agricultural prices.

EFFECTS OF CARGO PREFERENCE

A 1984 General Accounting Office report[7] stated that U.S. flag cargo subject to cargo preference accounted for substantial additional public and private costs. Of the 37 million tons shipped from U.S. to foreign destinations by U.S. flag carriers in 1980, over one-third, or 12.4 million tons, was government cargo. The GAO estimated the additional shipping costs paid by the government as a result of cargo preference were between $71 million and $79 million.

Of this 12.4 million tons, 99% was provided by five government agencies:

Agency	Total (1000 tons)	Percent	Percent excluding Defense Dept.
Dept of Defense	8800	71%	--
PL-480	2280	18%	63%
AID	670	5%	19%
Dept of Energy	450	4%	12%
Ex-Im Bank	120	1%	3%
Other	100	1%	3%

The largest source of government cargo, the Defense Department, would continue to use U.S. flag carriers even without cargo preference, both for national security reasons and concern for maintaining the U.S. flag fleet. U.S. flag carriers are also used for foreign-to-foreign shipments made by the Defense Department which are not covered by cargo preference.

Of the remaining U.S. government cargo shipped on U.S. flags, nearly two-thirds are PL-480 shipments. Title I shipments (sales to foreign governments) accounted for 1,430,000 tons, all of which would be shipped on foreign flag carriers in the absense of cargo preference due to the wide price

differential between U.S. and foreign flag carriers. During the period of the GAO report, this difference was from $30 to $80 per ton. The remaining 850,000 tons were shipped under Title II (donations to foreign governments). Since these are shipped in smaller lots, it is uncertain how much would be shifted to foreign flag vessels.

The GAO determined that about half of the AID shipments and all the of Department of Energy shipments would be on foreign flag vessels if cargo preference did not exist. In total, of the 3,600,000 tons of the non-Defense government shipments, 2,300,000 tons would be certain to change from U.S. to foreign flag carriers if cargo preference were abolished. The fate of the remaining 1,300,000 is uncertain, though much of it would be expected to be switched to foreign carriers.

Since 1980, PL-480 shipments unders Title I and Title II have been as follows:[8]

Year	Title I	Title II	Total
	(thousands of tons)		
1980	1430	850	2280
1981	3870	1920	5790
1982	3940	1230	5170
1983	4000	1810	5810
1984	4110	2560	6670
1985	5170	3320	8490

CARGO PREFERENCE: THE CONFLICTING INTERESTS

The conflicting interests involved in the cargo preference issue can generally be divided into 3 groups:

1) Agriculture vs. the maritime industry,

2) Conflicts within the maritime industry,

3) Conflicting regional interests.

The tension between agriculture and the shipping industries is as old as the history of the United States. Farmers have always resented the federal subsidies that shipowners and shipbuilders have been given, and see cargo preference as the latest in a long line of such subsidies. Cargo preference is especially galling, as it directly affects PL-480 shipments that accounted for over 10% of all U.S. agicultural exports by value in 1985.[9]

The shipping industry responds that the costs of cargo preference are not borne by either farmers or exporters, but rather by taxpayers, and thus do not affect total exports. Farmers still contend that an additional government dollar used to pay shippers means a dollar less of exports for the program.

The agriculture industry also argues that cargo preference has been ineffective. In spite of cargo preference costing U.S.D.A. $1.6 billion over 30 years, in 1985 there were only about 20 U.S. flag bulk carriers in service, with an average age of 17 years. Because they are so few, they are hard to locate and book for shipments, and their age makes them inefficient to load.

The interests of the maritime industry itself, however, are hardly homegeneous. Different sectors of the industry derive different benefits and costs as a result of cargo preference and overall maritime policy.

At first glance, U.S. shipping firms seem to be the major beneficiary of cargo preference requirements, since the law does require that they carry 50% of government owned or financed cargo. However, they are also subject to requirements to use U.S. labor and restictions on buying ships built outside the U.S. They pay for these restrictions and the high costs of the U.S. shipbuilding industry through higher ship prices (although the shipbuilders do receive subsidies of their own.) Therefore, cargo preference can better be seen as a subsidy to the shipbuilding industry rather than the maritime industry as a whole.

Again at first glance, the ports of the U.S. would seem to be neutral observers of the cargo preference issue, since the regulations do not overtly affect the volume of government cargo shipped. The ports' revenues do not depend on the nationalities of the ships calling on the ports. However, since some ports have built various facilities like bagging plants to take advantage of PL-480 shipments, they have a vital interest in how these shipments are distributed. This is entirely at the discretion of the Department of Agriculture, and cargo preference requirements are a major determinant in this distribution. The ports thus are divided along regional lines (Atlantic, Gulf, Pacific and Great Lakes) into trying to obtain their "fair share" of PL-480 and other government shipments.

Since the fortunes of longshoremen are so tied to those of the ports where they work, their interests in the cargo preference issue are parallel to those of the ports. While their national unions have taken a general

position in favor of cargo preference, the real action on the issue takes place among the individual locals trying to ensure that their ports get their share of the work from the cargo preference shipments.

The issue can also be viewed as causing regional tensions, between agriculture and the maritime industry as well as within the maritime industries. Farm states generally oppose cargo preference while coastal states support it. The four coastal regions will also claim that they are not getting their fair share of the cargo preference shipments. These regional differences are important in Congress, as legislators from the various regions with an interest in cargo preference repsond to these interests.

These interests play a role on the committee assignments within Congress. Farm state legislators tend to lobby for and obtain assignments to the agriculture committees. Consequently these committees tend to support the position of the agriculture industry on cargo preference matters. This puts them in opposition to the merchant marine committees, which tend to have coastal legislators as members and tend to lobby for maritime industry positions. This tension between committees was apparent in the drafting of the 1985 Farm Bill. Eventually, a compromise on cargo preference for blended credit programs was hammered out among the various committees in the Senate.

These interests have different effects in the two houses of Congress. Coastal states are more populous and more powerful in the House of Representitives, while power in agriculture is more concentrated in the Senate. Therefore the Senate Agriculture Committee and the House Merchant Marine Subcommittee are the major players on this issue.

Just as Congressional committees tend to voice the positions of the industries they regulate, so too do the agencies of the executive branch. On

cargo preference the respective agencies are the Department of Agriculture on the one side, and the Department of Transportation and its Maritime Administration on the other. These agencies have clashed several times, most recently in the 1985 Federal District Court case Transportation Institute v. Dole which required blended credit programs to be included in cargo preference and in the drafting of the 1985 Farm Bill.

CARGO PREFERENCE: OTHER ISSUES

There are several other issues one should consider when analyzing cargo preference laws. One is that of conflicting subsidies. Any combination of policies that subsidize both the providers and the consumers of any good or service is bound to be less than efficient. Yet such conflicting subsidies are the rule rather than the exception due to the nature of politics and the inclusion of "something for everyone" in any major policy. Such conflicting subsidies abound in this area. Farmers are subsidized by a whole range of price supports but face higher shipping costs due to cargo preference. Shippers are subsidized by cargo preference yet face higher costs due to restrictions on using non U.S. built ships. Foreign recipients of PL-480 shipments find the amount of those shipments are limited by cargo preference requirements. The big losers when subsidies conflict are taxpayers, who find themselves paying for two or more expensive programs when the same effect could be achieved by a single smaller program.

There is no easy solution to this problem, if any solution exists at all. In this instance, both PL-480 and cargo preference are small but integral policies. Both the agriculture and the maritime lobbies wield much influence on government policy. When small portions of those policies are in conflict, the temptation is overwhelming to "pay off" both interest groups, even at higher costs for both policies, rather than to find a politically difficult solution that may be more efficient.

Another consideration is the federal budget and the efforts of the Reagan Administration to reduce the role of the government in areas other than defense. There has been a general pressure to reduce the size of and

expenditures for domestic programs. The effect of this pressure has been miniscule on maritime policy in general and cargo prefence in particular. Too many groups have too much to lose if programs are reduced, and have kept pressure on Congress and the administrative agencies to keep the programs going.

Has cargo preference been successful in its goal of helping maintain the U.S. merchant fleet? The answer is mixed at best. At least for the carriers of bulk agricultural products, the results have been very disappointing. As noted above, in spite of cargo preference costing the Dept. of Agriculture $1.6 billion over 30 years, in 1985 there were only about 20 U.S. flag bulk carriers in service, with an average age of 17 years. Because they are so few, they are hard to locate and book for shipments, and because of their age are inefficient to load. Overall, U.S. ships remain smaller, older, and less efficient than the average ship in the world fleet.

CARGO PREFERENCE AND THE GREAT LAKES

The Great Lakes ports, and the Port of Duluth in particular, feel slighted by the cargo preference requirements on PL-480 shipments. The port of Duluth is especially dependent on PL-480 shipments with the depressed market for taconite, the region's only major non-agricultural export. PL-480 shipments have accounted for 85% of the port's general cargo exports in recent years, and in some years over 90%.[10]

While general cargo is a small portion of the port's total tonnage, it accounts for a large share of the economic impact of the port. The impact of a port on the community can be measured by the amount of money shippers spend on port services. Dry bulk cargoes like grain or taconite require few services and little labor. Many Title II PL-480 shipments are packed in 50 pound bags and must be hand loaded. They are very labor intensive and may account for over 50% of longshoremen hours worked at the port. Runge and Fruin found that general cargo accounts for over 40% of the longshoreman hours worked at Duluth and Superior from 1979 to 1984.[11]

The problem all Lake ports face in attracting PL-480 cargo in the face of cargo preference requirements is the unavailability of U.S. ships for those shipments. There is only one U.S. shipping company offering regular international service from the western Great Lakes. U.S. charter ships find it more lucrative to operate in other coastal regions than the Great Lakes. The port has often found that cargoes allocated to them by the U.S.D.A. have been diverted to other ports to fulfill cargo preference requirements. They feel that U.S.D.A. should consider "lowest landed cost" in allocating these shipments, i.e. take into consideration the barge and rail costs of getting

the commodities to port. Since the Great Lakes are the closest of the coastal regions to the Great Plains, where most of the PL-480 commodities are produced, they feel they deserve a greater share of the shipments.

In terms of total international trade in the U.S., the Great Lakes is the smallest of the coastal regions, shipping only about 10% of the total. The shallow draft of the St. Lawrence Seaway is a major factor in this. It might seem that the shallow draft requirement would be an advantage for the Lakes in attracting U.S. ships since they tend to be smaller than the world average. However, those ships that can move in and out of the Lakes find it more lucrative to look for cargoes elsewhere. There are too few cargoes available and too many risks that can keep a ship bottled up in the Lakes, such as winter closings or canal problems in the St. Lawrence Seaway. Furthermore, the other coastal regions do not feel that the Great Lakes should be extended any special treatment in regard to cargo preference.

In the drafting of the 1985 Farm Bill, the Great Lakes and their representives stubbornly opposed the compromise that increased preference requirements for PL-480 to 75%, although there was a special provision that the share of shipments from the Great Lakes not be reduced. The yearly periods over which the shipments are measured were set to begin on April 1 to correspond with the spring opening of shipping on the Lakes. The requirements were gradully rasied to 60% in 1986, 70% in 1987, and 75% in 1988 and thereafter.

Tables 1 through 4 illustrate PL-480 Title II shipments and total exports in the coastal regions of the U.S. The Great Lakes have handled between 11% and 27% of these shipments since 1978, with an average of 16%. This compares with the Great Lakes' share of 8% to 15% of total U.S. exports

during the same period.

The next two tables illustrate the "dependence" of the Great Lakes on PL-480 shipments compared to the other coastal regions. Table 5 shows the PL-480 share of each region's export tonnage. These percentages are nearly all less than one percent. However, the low percentages understate the importance of the PL-480 cargoes to the ports. Most of the total export tonnage is bulk cargo requiring little handling, unlike the labor intensive PL-480 cargoes.

A relative measure of this dependence is in Table 6. This shows the ratio of each region's share of PL-480 to share of total export tonnage. By definition, this ratio is exactly one for the entire country. A ratio greater than one indicates a higher share of PL-480 than of total exports, and is an indication of the importance of PL-480 to each region. Looking at thje 8 year average ratio for the Great Lakes, we can conclude that PL-480 is 1.7 times as important to Great Lakes ports than to an "average" U.S. port.

Tables 7 through 10 repeats this data for customs regions of the Great Lakes. "Duluth MN" includes both Duluth and Superior. The importance of PL-480 at Duluth is fairly close to the national average by our measures, with both Milwaukee and Chicago very dependent to them. However, the Duluth district handles twice as much total exports as Milwaukee and Chicago combined.

TABLE 1: PL-480 TITLE II TONNAGE BY COASTAL REGION (tons)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1978-1985 AVERAGE
N ATLANTIC	23,581	5,798	20,247	105,814	84,154	90,528	123,371	133,851	84,735	73,418
S ATLANTIC	18,013	28,180	45,125	44,350	113,879	80,002	66,580	123,384	88,178	64,939
GULF*	718,380	633,124	713,854	612,584	575,359	914,681	1,131,673	1,436,666	1,072,125	842,040
PACIFIC	343,395	372,306	272,170	229,827	133,187	95,856	118,257	252,571	170,503	227,196
LAKES	147,628	205,711	180,117	270,373	332,507	355,966	277,579	321,446	264,112	261,416
NATIONAL	1,250,996	1,245,118	1,231,512	1,262,947	1,239,085	1,537,032	1,717,459	2,267,917	1,679,652	1,469,008

*-"Gulf" includes shipments allocated by USDA to inland ports in all tables
SOURCE: Agricultural Stabilization and Conservation Service, U.S. Dept. of Agriculture

TABLE 2: REGIONAL SHARES OF PL-480 TITLE II TONNAGE (percent)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1978-1985 AVERAGE
N ATLANTIC	1.885%	0.466%	1.644%	8.378%	6.792%	5.890%	7.183%	5.902%	5.045%	4.998%
S ATLANTIC	1.440%	2.263%	3.664%	3.512%	9.191%	5.205%	3.877%	5.440%	5.250%	4.421%
GULF*	57.425%	50.849%	57.966%	48.504%	46.434%	59.510%	65.892%	63.347%	63.830%	57.320%
PACIFIC	27.450%	29.901%	22.100%	18.198%	10.749%	6.236%	6.886%	11.137%	10.151%	15.466%
LAKES	11.801%	16.521%	14.626%	21.408%	26.835%	23.159%	16.162%	14.174%	15.724%	17.795%
NATIONAL	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%

TABLE 3: TOTAL EXPORT TONNAGE BY REGION (thousand tons)

	1978	1979	1980	1981	1982	1983	1984	1985	1978-1985 AVERAGE
N ATLANTIC	51,573	77,628	100,698	98,353	101,762	71,840	65,515	78,201	80,696
S ATLANTIC	10,765	13,508	16,029	17,696	17,592	15,555	16,729	14,513	15,298
GULF	136,412	149,033	163,293	171,426	172,753	164,937	167,288	143,865	158,625
PACIFIC	59,265	70,498	78,229	78,392	74,685	78,625	85,747	81,212	75,831
LAKES	43,554	48,663	45,076	43,486	36,285	32,338	40,938	34,210	40,569
NATIONAL	301,568	359,328	403,324	409,352	403,076	363,295	376,216	352,000	371,020

SOURCE: Waterborne Exports and General Imports, U.S. Census Bureau

TABLE 4: REGIONAL SHARE OF TOTAL EXPORT TONNAGE (percent)

	1978	1979	1980	1981	1982	1983	1984	1985	1978-1985 AVERAGE
N ATLANTIC	17.102%	21.604%	24.967%	24.026%	25.246%	19.775%	17.414%	22.216%	21.750%
S ATLANTIC	3.570%	3.759%	3.974%	4.323%	4.364%	4.282%	4.447%	4.123%	4.123%
GULF	45.234%	41.475%	40.487%	41.877%	42.859%	45.400%	44.466%	40.871%	42.754%
PACIFIC	19.652%	19.619%	19.396%	19.150%	18.529%	21.642%	22.792%	23.071%	20.439%
LAKES	14.443%	13.543%	11.176%	10.623%	9.002%	8.901%	10.882%	9.719%	10.934%
NATIONAL	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%

TABLE 5: PL-480 SHARE OF TOTAL EXPORT TONNAGE BY REGION (percent)

	1978	1979	1980	1981	1982	1983	1984	1985	1978-1985 AVERAGE
N ATLANTIC	0.046%	0.007%	0.020%	0.108%	0.083%	0.126%	0.188%	0.171%	0.094%
S ATLANTIC	0.167%	0.209%	0.282%	0.251%	0.647%	0.514%	0.398%	0.850%	0.415%
GULF*	0.527%	0.425%	0.437%	0.357%	0.333%	0.555%	0.676%	0.999%	0.539%
PACIFIC	0.579%	0.528%	0.348%	0.293%	0.178%	0.122%	0.138%	0.311%	0.312%
LAKES	0.339%	0.423%	0.400%	0.622%	0.916%	1.101%	0.678%	0.940%	0.677%
NATIONAL	0.415%	0.347%	0.305%	0.309%	0.307%	0.423%	0.457%	0.644%	0.401%

TABLE 6: RATIO OF PL-480 SHARE TO TOTAL EXPORT SHARE BY REGION

	1978	1979	1980	1981	1982	1983	1984	1985	1978-1985 AVERAGE
N ATLANTIC	0.110	0.022	0.066	0.349	0.269	0.298	0.413	0.266	0.224
S ATLANTIC	0.403	0.602	0.922	0.812	2.106	1.216	0.872	1.320	1.032
GULF*	1.269	1.226	1.432	1.158	1.083	1.311	1.482	1.550	1.314
PACIFIC	1.397	1.524	1.139	0.950	0.580	0.288	0.302	0.483	0.833
LAKES	0.817	1.220	1.309	2.015	2.981	2.602	1.485	1.458	1.736
NATIONAL	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

TABLE 7: PL-480 TITLE II TONNAGE BY GREAT LAKES CUSTOMS DISTRICTS (tons)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1978-1985 AVERAGE
DULUTH MN	26,914	34,298	18,852	46,790	56,060	31,584	36,461	30,257	103,138	35,152
MILWAUKEE WI	78,887	112,282	111,265	143,527	203,561	250,045	209,150	269,540	144,502	72,282
CHICAGO IL	41,827	59,132	50,000	75,157	66,137	61,078	30,717	21,650	16,472	50,712
CLEVELAND OH	0	0	0	4,900	6,750	13,260	1,252	0	0	3,270
GREAT LAKES	147,628	205,711	180,117	270,373	332,507	355,966	277,579	321,446	264,112	261,416
NATIONAL	1,250,996	1,245,118	1,231,512	1,262,947	1,239,085	1,537,032	1,717,459	2,267,917	1,679,652	1,469,008

TABLE 8: TOTAL EXPORT TONNAGE BY GREAT LAKES CUSTOMS DISTRICTS (thousand tons)

	1978	1979	1980	1981	1982	1983	1984	1985	1978-1985 AVERAGE
OGDENSBURG NY	4	2	16	8	6	4	0	18	7
BUFFALO NY	109	127	42	30	24	31	99	175	79
DULUTH MN	11,659	10,787	9,941	9,125	7,099	6,136	9,586	5,796	8,766
MILWAUKEE WI	1,390	1,926	1,714	1,387	865	934	1,050	797	1,258
DETROIT MI	6,301	7,917	7,660	6,944	3,928	5,207	5,261	5,783	6,125
CHICAGO IL	3,312	3,845	2,642	2,563	1,701	1,064	1,339	1,576	2,255
CLEVELAND OH	20,782	24,061	23,063	23,432	22,663	18,964	23,604	20,068	22,079
GREAT LAKES	43,554	48,663	45,076	43,486	36,285	32,338	40,938	34,210	40,569
NATIONAL	301,569	359,330	403,326	409,353	403,077	363,294	376,212	352,001	371,020

TABLE 9: PL-480 TITLE II SHARE OF TOTAL EXPORT TONNAGE BY GREAT LAKES CUSTOMS DISTRICTS (percent)

	1978	1979	1980	1981	1982	1983	1984	1985	1978-1985 AVERAGE
DULUTH MN	0.231%	0.318%	0.190%	0.513%	0.790%	0.515%	0.380%	0.522%	0.401%
MILWAUKEE WI	5.677%	5.831%	6.492%	10.352%	23.547%	26.771%	19.919%	33.841%	13.700%
CHICAGO IL	1.263%	1.538%	1.893%	2.933%	3.888%	5.740%	2.294%	1.374%	2.249%
CLEVELAND OH	0.000%	0.000%	0.000%	0.021%	0.030%	0.070%	0.005%	0.000%	0.015%
GREAT LAKES	0.339%	0.423%	0.400%	0.622%	0.916%	1.101%	0.678%	0.940%	0.644%
NATIONAL	0.415%	0.347%	0.305%	0.309%	0.307%	0.423%	0.457%	0.644%	0.396%

TABLE 10: RATIO OF PL-480 TITLE II SHARE TO TOTAL EXPORT SHARE BY GREAT LAKES CUSTOMS DISTRICTS

	1978	1979	1980	1981	1982	1983	1984	1985	1978-1985 AVERAGE
DULUTH MN	0.557	0.918	0.621	1.662	2.569	1.217	0.833	0.810	1.013
MILWAUKEE WI	13.686	16.829	21.260	33.553	76.598	63.277	43.633	52.523	34.601
CHICAGO IL	3.044	4.439	6.199	9.506	12.648	13.568	5.025	2.133	5.680
CLEVELAND OH	0.000	0.000	0.000	0.068	0.097	0.165	0.012	0.000	0.037
GREAT LAKES	0.817	1.220	1.309	2.015	2.981	2.602	1.485	1.458	1.627

CONCLUSION

As stated in the introduction, this paper only asks questions. It gives no answers. Hopefully the paper lays the groundwork for examining how the port of Duluth can best address the problems it faces as a result of cargo preference.

The high ratio of the Great Lakes PL-480 share to total export share could be interpreted as a "dependence" on PL-480. It could also be interpreted that the Great Lakes already gets too large a share of PL-480. The concept of dependence can be studied more closely. Total port activity can be exaimined rather than only exports. The compostion of exports may be studied. Examination of the origin of PL-480 cargoes and their transportation charges to the export port may reveal whether a region's share of PL-480 is reasonable. Actual longshore labor used in handling PL-480 will give a more accurate indication of the impact of PL-480 on the Great Lakes and at Duluth.

The process of allocating PL-480 shipments to ports should also be examined. The written laws and reguluations governing the PL-480 program might be not indicate how the bureaucrats actually administer the program. If the Great Lakes want to attract more PL-480 cargoes, more should be learned about the allocation of those cargoes.

Finally, should the Great Lakes and Duluth make special efforts to attract PL-480, or are their efforts best spent making their facilities more attractive to all shippers? This may seem like a moot question, since more PL-480 is always good for a port. But are the ports resources and influence

best used in lobbying to obtain PL-480 shipments? Would the rewards perhaps be greater by concentrating efforts elsewhere?

Duluth and the Great Lakes do have disadvantages in competing for cargoes. Their resources are limited. The economic problems of northeastern Minnesota make the stakes even higher, and the port has a responsibility as a center of economic activity for that region. Therefore these questions about cargo preference and the competitiveness of the port are important in setting priorities for port development activities.

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NOTES

1. This brief summary of the history of U.S. maritime policy is drawn on Bess and Farris, U.S. Maritime Policy, chapters 1-5.

2. Bess and Farris, U.S. Maritime Policy, p. 210.

3. The Cargo Preference Act of 1954 is codified at 46 U.S. Code sec. 1241.

4. Bess and Farris, U.S. Maritime Policy, p. 82.

5. Transportation Institute v. Dole, 603 F.Supp. 888 (1985).

6. The amendments to the Cargo Preference Act made by the 1985 Farm Bill are codified at 46 U.S. Code sec. 1241d - 1241p.

7. U.S. General Accounting Office. Report to the Chairman, Committee on Merchant Marine and Fisheries: Economic Effect of Cargo Preference Laws. 1984.

8. U.S. Department of Agriculture, Foreign Agricultural Service, Food for Peace: Annual Report on Public Law 480 (1981, 1983, 1984, 1985)

9. Letter of Richard W. Goldberg, U.S. Department of Agriculture, to Rep. James Oberstar, Maritime/Agriculture Cargo Preference Compromise and Great Lakes Cargo Preference, Hearings..., p. 307.

10. Testimony of Davis Helberg, executive director, Seaway Port Authority of Duluth, Great Lakes Cargo Preference, Hearings..., p. 159.

11. Runge, C. Ford and Jerry E. Fruin. A Preliminary Analysis of Season Extension and the Duluth-Superior Economy, p. 29 (Table 4).