# THE UNIVERSITY OF MICHIGAN Ford School of Public Policy 

SPPIA Trade Policy Seminar

Policy Exercise: Sugar Tariff

Due Friday, July 25, 5:00 PM

Your second and last assignment is to analyze quantitatively the costs and benefits of protection in the U.S. sugar industry. Your data on the industry are given below. Use these data to calculate the costs and benefits that the United States as a whole, and various groups within it, would experience if existing protection of the sugar industry were removed, and thus the benefits and costs of the sugar protection itself. Assume for this purpose that the United States is a small country and that its only form of import protection in the sugar industry is a tariff.
a) In deriving these results you will need first to calculate what the supply and demand for protection would be in the absence of protection. Record these amounts, along with the current prices and quantities (in comparable units), in the spaces provided in the diagram at the top of page 2.
b) Then use the tools of consumer and producer surplus, as we did in class, to calculate the costs and/or benefits created by the sugar tariff for all of the following, and record your results in the spaces on page 2.
i) domestic suppliers of sugar,
ii) domestic demanders of sugar,
iii) the U.S. government, and therefore
iv) the United States as a whole.
c) Finally, assuming that employment in the sugar industry is always proportional to output, calculate the jobs saved by this sugar protection and, using this together with the cost you have found for demanders of sugar, calculate the consumer cost per job saved by the tariff.

Your Name: $\qquad$

## Your Data:

$$
\begin{array}{ll}
\text { U.S. price of sugar: } & 21.8 \text { cents per pound } \\
\text { World price of sugar: } & 15.0 \text { cents per pound } \\
\text { Current U.S. supply of sugar: } & 6.045 \text { million short tons / year } \\
\text { Current employment in the U.S. sugar industry: } & 30,000 \text { workers } \\
\text { Current U.S. demand for sugar: } & 9.025 \text { million short tons / year } \\
\text { Elasticity of domestic supply: } & 1.7 \\
\text { Elasticity of domestic demand: } & -0.2
\end{array}
$$

$(1$ short ton $=2000$ pounds $)$
The U.S. Sugar Market: (fill in the blanks)


## Your Results:

(amount)
(units)
Effect of the sugar tariff on:
U.S. suppliers of sugar:
U.S. demanders of sugar
U.S. government
U.S. as a whole
U.S. jobs in sugar industry $\qquad$
Consumer cost per job saved:

