ECON 1201 Spring 2010 Problem Set #1

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1 Specialization & the PPF

The 60 residents of the sleepy hamlet of Billville are all exactly alike: each resident (they are all named "Bill") supplies one unit of labor per year, with which he can make either 4 beanies or 4 whoopie hats (or fractional combinations thereof). Draw Billville's production possibilities frontier. (Let's put beanies on the vertical axis for each PPF we draw.)

The 60 residents of the bucolic burg of Bobtown come in one of two types: 30 of the Bobs can make either 3 beanies or 5 whoopie hats with their one unit of labor per year; the other 30 Bobs can make either 5 beanies or 3 whoopie hats with their unit of labor. Draw Bobtown's PPF.

The 60 residents of the pictureque parish of Bettyford are one of three types: 20 can make either 1 beanie or 8 whoopie hats; 20 can make either 3 beanies or 3 whoopie hats; and 20 can make either 8 beanies or 1 whoopie hat. Draw Bettyford's PPF.

(You can assume, by the way, that hat-making materials fall from the sky in great abundance every night, and that none of the workers care about leisure time—their entire lives are devoted to millinery!)

How does the opportunity cost of making one more hat vary along the PPF of each town?

2 Billville Goes Global

One day mayor Bill decrees that the residents of Billville can freely trade their beanies and/or whoopie hats with the rest of the world. Billville is small relative to the rest of the world, so we can ignore the effect of their production on the world price of hats and take the world price as given to the Bills. Suppose that the world price of beanies this year is 3 whoopie hats (or, to put it another way, the world price of a whoopie hat is $\frac{1}{3}$ of a beanie). If you are a Bill, what should you produce? Beanies or whoopie hats? What can you say about Billville's possibilities for *consumption* this year compared to the situation with no trade?