

Math Challenge

State fairs are big business! Mr. Nash tells your team that a large study was just completed which shows the average admission price for each visitor is \$7.75. The average person spends an additional \$31.21 at the fair, another \$14.23 on future services from the fair (product orders from vendors, etc.) and \$36.44 in "local impact" (buying gas on the way to the fair, stopping at other businesses, etc.).

- How much local economic impact will the fair have, if all 700,000 expected patrons attend the fair at the average ticket price?
- How much money will be lost if the overall attendance drops by 20 percent because of news reports of a mystery illness?
- How much money will be lost if overall attendance is reduced by 50 percent?
- State and local governments will get a 9 percent portion of the tax revenue on the total spent. How much will state and local governments lose if the overall fair attendance is reduced by 25 percent?