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**Dan Seth\*** ([dseth@wtamu.edu](mailto:dseth@wtamu.edu)), Department of Math, Chemistry and Physics, WTAMU Box 60787, Canyon, TX 79016. *Modeling TOMS (NASA) data to predict the depletion of the ozone layer for various latitudes of the earth.* Preliminary report.

Student groups in a class are assigned different latitude bands for which to collect monthly ozone data for their latitude. Data for each year that ozone data is accessible at the TOMS site is used to model annual average ozone thickness. Groups determine linear regression models to predict future ozone levels and to assess ozone depletion trends by latitude band. Students present their group models and assess trends by latitude band then compare other group models. Additionally, groups study an aspect of physical sciences related to ozone. In upper level classes, students collect all of their own data. In lower level classes, e.g., college algebra, students work with prepared data sets in groups by latitude band. Students find the activity very revealing. They are shocked to see that real, current data belies rather severe trends and issues for their not so distant future. Samples of student work, models, and assessment will be presented. (Received September 03, 2012)