Appendix F

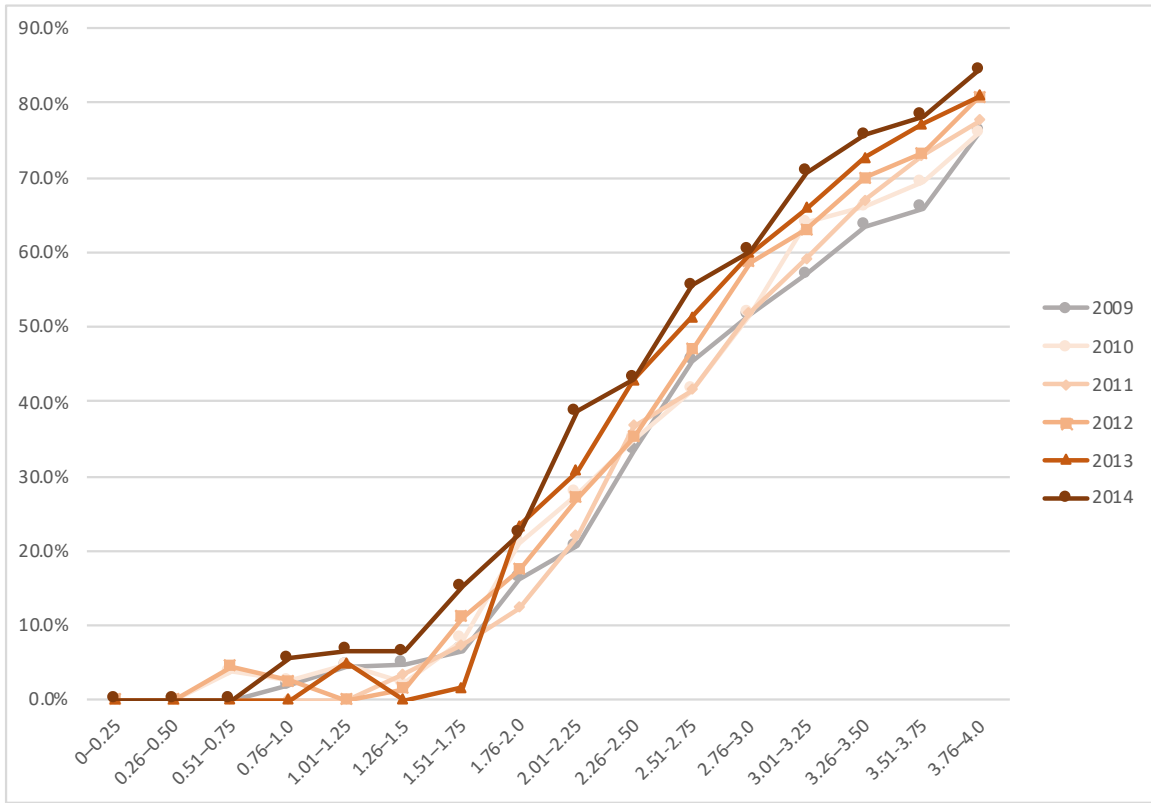# Plots of End of First Year GPA vs. 4-Year Graduation Rates
Data for all UT students, UGS students, a combination graph of all students compared to UGS students, then data for each college

End of first year GPA values were "binned" in 0.25 GPA increments. The observed graduation rates for the students in each of these bins is then plotted on the Y axis. The linear nature of the plots for all UT students verifies that the end of first year GPA accurately predicts 4-year graduation rates when considering all UT students. A reasonable conclusion to draw from this finding is that the overall observed 4-year graduation rate critically depends on the academic preparation and abilities of the students in that program. Further, the slope of these lines is an accurate indicator of program 4-year graduation efficiency. Steeper slopes indicate higher program 4-year graduation efficiency, and vice versa. The value of comparing the slopes of the plots for all of UT vs. UGS is that differences in student demographics are normalized, so an accurate comparison of overall program 4-year graduation efficiencies can be made. **From these data there appears to be no evidence that starting without a major in UGS has a significant effect on 4-year graduation rate efficiencies.** Note that the college specific data is much more scattered and less linear than total UT or UGS data, presumably, at least in part, because of smaller student numbers that introduces more noise. Plots for the larger colleges are generally smoother.
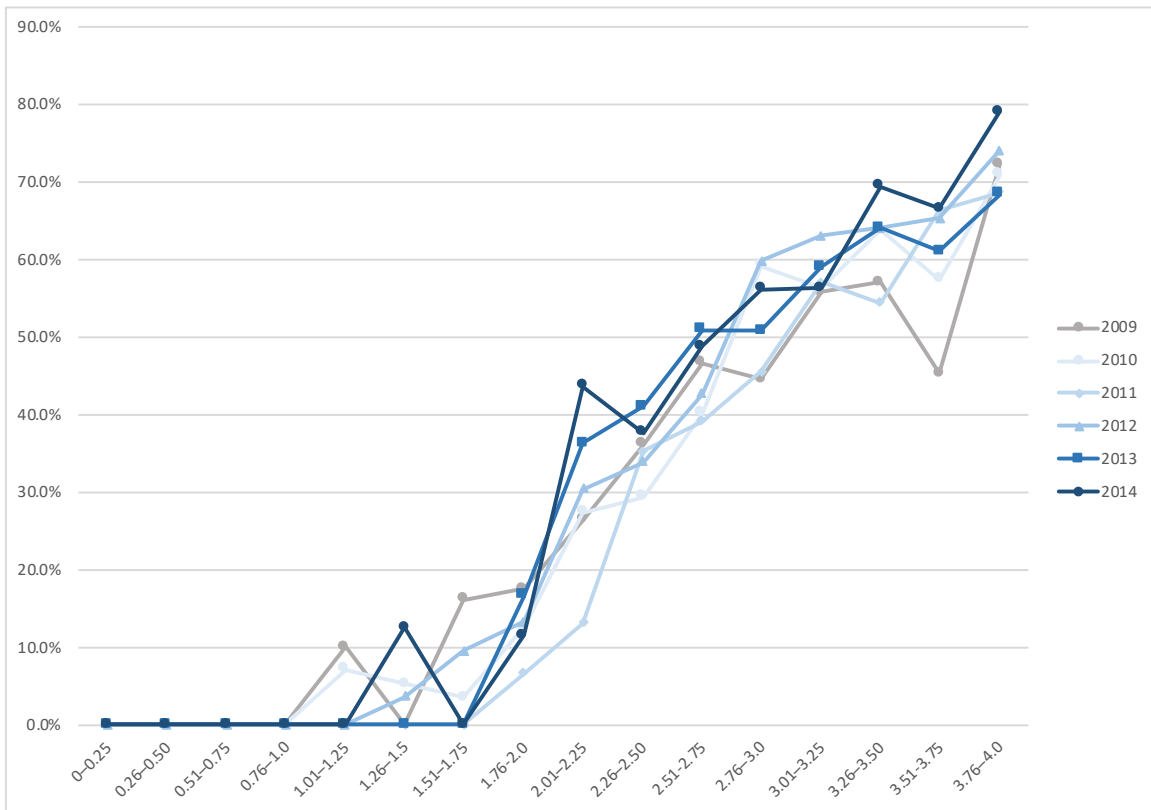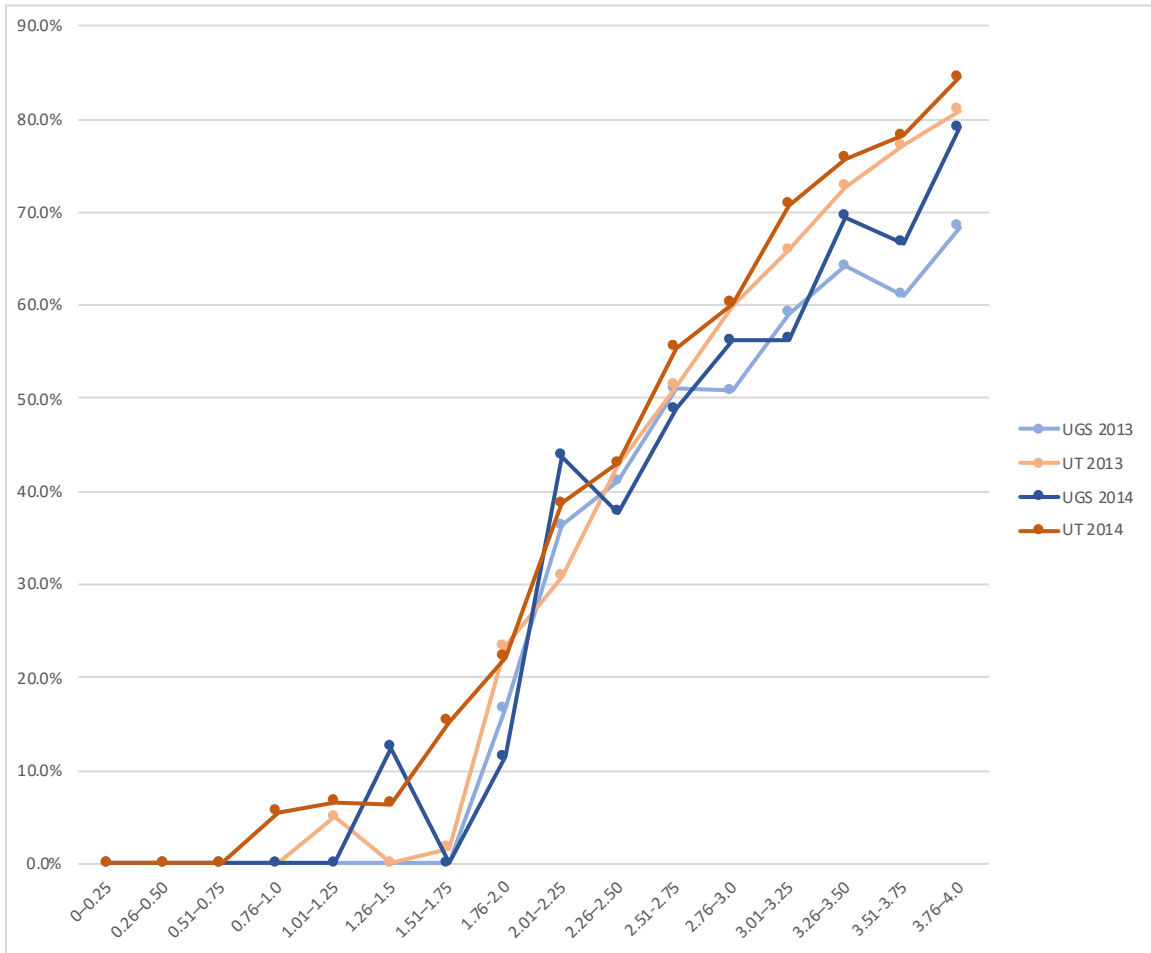
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4-Year degree % plotted against end of first year GPA for all UT Students

4-Year degree % plotted against end of first year GPA for UGS Students

UT and UGS 4-year degree comparison for classes that started in 2013 & 2014

Class that started in 2013 and graduated within 4 years (2017) by school