

Vermont State College System Headcount versus Tuition and Demographics

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Executive Summary: A preliminary analysis was performed to assess which is a better predictor of enrollment at the VSCS: declining demographics of the state, or increasing student costs. Linear regression of publicly reported data suggests VSCS headcount is more closely associated with student costs than demographics. In fact, there was no observed linkage between declining headcount and declining demographics.

Method: Student Headcount and student revenues of the VSCS since 2011 were recorded from the [VSCS Sourcebooks for Institutional Data](#). Demographic data on the number of Vermonters aged 18-24 since 2011 was recorded from the [annual reports of the Vermont Department of Health](#). "Revenue Per Student" was calculated by taking total student revenues and dividing by headcount. The data was imported into R, and a least squares linear regression was performed.

Results:

- Headcount at the VSC is negatively associated with Revenue Per Student (coefficient = -1.194; adjusted $R^2 = 0.884$; $p = 0.00032$ ***). See Figure 1.
- Headcount at the VSC is negatively associated to the number of Vermonters aged 18-24 (coefficient = -0.7297; adjusted $R^2 = 0.2072$; $p = 0.170$). See Figure 2.
- Headcount at the VSC is negatively associated with Castleton University Tuition (coefficient = -7.158e-01; adjusted $R^2 = 0.9556$; $p = 1.75e-05$ ***). See Figure 3.

Fig 1: Headcount V. Rev. Per Stu.

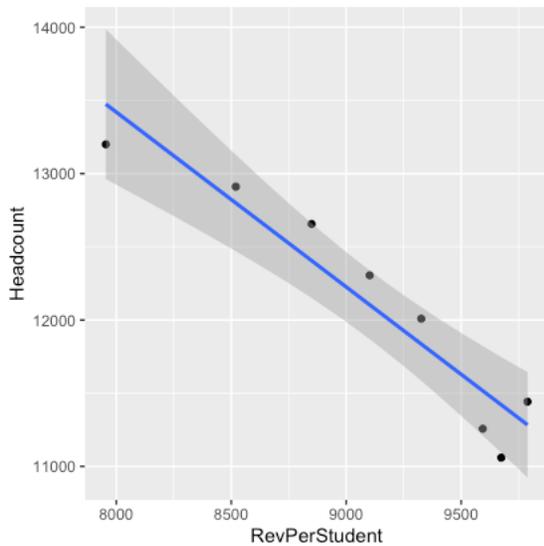


Fig 2: Headcount V. Demographics

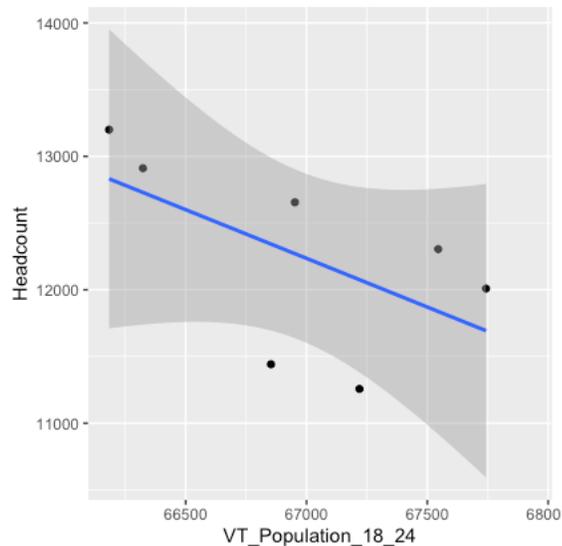
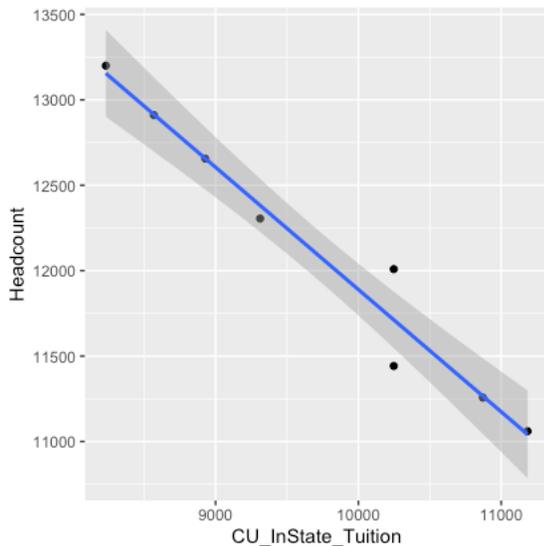


Fig 3: Headcount V. Tuition



Discussion: Taken at face value, these results indicate that Tuition and Revenue Per Student are more explanatory of the decline in headcount than demographic trends. In fact, the non-statistically significant result in Figure 2 indicates that increases in the number of Vermonters aged 18 to 24 are associated with decreases in VSCS enrollment.

Data: See attached "VSC_StudentRevenueAnalysis.xlsx"