

One-to-one TCO Case Studies

Three school districts which have implemented one-to-one student laptop programs were selected by CoSN as case studies for better understanding Total Cost of Ownership and benefits related to their one-to-one program. Two districts were in the second year of their program and one was in their first year.

There were some benefits to selecting districts already into the project, in that actual costs could be measured and resulting benefits could be better understood. However, this approach precluded fully testing CoSN's recommended approach to determining the Value of Investment (VOI) for technology projects, where estimated costs and measurable anticipated benefits are determined:

- Estimate costs and TCO for the project – CoSN Project Cost Estimator
- Factor in probability of success
- Subtract out any dollar savings from real costs or cost avoidance, labor efficiencies or expected increased revenue
- Determine expected benefits in measurable terms – sample spreadsheet available
- Evaluate project in light of projected net cost (projected cost/probability of success – savings) and related measurable benefits
- After the project has been implemented go back and measure actual costs and benefits as compared with projected values.

In particular, these case studies have few projected benefits stated as measurable goals. We have wherever possible stated goals and results-to-date in measurable terms.

The TCO numbers were obtained by using the CoSN-Gartner TCO tool, with the one-to-one project TCO handled a bit differently in each case.

District One Case Study

This rural/small town district with 10,200 students in South Carolina is in the second year of their one-to-one program. The approach is to provide laptops to all freshmen at each of the three high schools plus the career/technology center. Freshmen will keep their laptops through four years of high school. Each year additional laptop computers will be leased for that year's freshman class till the fourth year when all high school students have a laptop.

A baseline TCO assessment, prior to the laptop program, was performed for this district and a one-to-one project TCO was calculated. The one-to-one TCO includes only project numbers: that is just laptop computers and project related technology and labor costs, providing total and per-computer costs for the one-to-one project.

District Two Case Study

This mostly rural 1,800 student district is located between two metropolitan areas in Pennsylvania and is in the second year of their one-to-one student laptop program. They have provided laptops to all students in the high school. The laptops were leased to spread initial costs over the useful life of the equipment.

A baseline TCO assessment for the high school only for the year prior to the laptop program was performed, followed by a TCO assessment for the high school reflecting year one of the one-to-one project, showing overall high school total, per-client computer and per-student TCO both before and after implementation.

District Three Case Study

This small rural Title I district in Pennsylvania has moved from an already technology rich environment to a laptop this school year to one-to-one laptops for seventh through twelfth grades. The laptop program is being funded largely through a three-year grant and the laptops are being leased accordingly.

A baseline TCO assessment for the district (K-12) for the year prior to the laptop program was performed, followed by another district-wide TCO assessment reflecting the one-to-one student laptop program. Total district and per client computer and per-student TCO numbers are presented.

One-to-one Benefits

While there is minimal measurable anticipated benefit information available from these districts, the case studies explore both anticipated and realized benefits and provide measurements where possible.