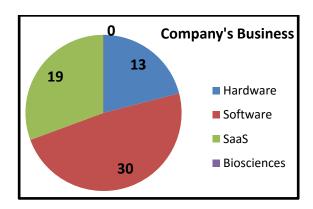


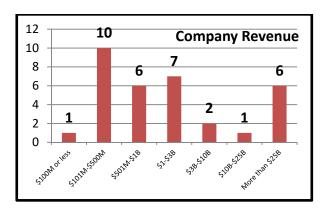
CEdMA Training Market Barometer

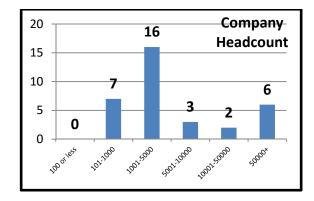
3rd Quarter 2015 actual and forecast for 4th Quarter 2015

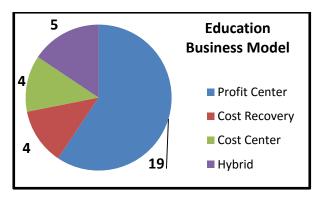
Introduction

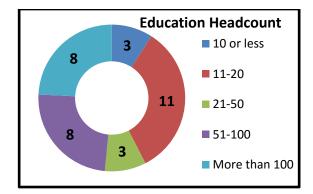
This report is compiled by CEdMA for its members about their Education businesses. It is based around a series of absolute growth or decline percentages in the range +- 12.5%. Revenue and volumes refer to training services delivered in the quarter and not future bookings. Members were asked to indicate whether their data was for the global business or that for North America. Note that in this report, u/f/d is the number of members reporting up/flat/down, respectively. There were 29 responses for global and only 5 for North America so the combined 34 profiles are as follows:

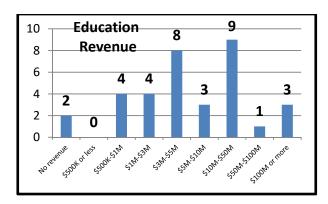












Summary

The unweighted average uses all responses as entered, whereas the weighted average uses the size of the revenue, taking the relevant education value, so larger companies have a bigger impact. These observations are weighted and based on trendlines of 4-period moving averages, giving yearly changes.

Revenue: Grew over 4% in the last four quarters

Profit: Grew nearly 3% in the same period

Live Classroom: Volumes have increased 2% in the last four quarters, having risen from flat in 2013

Virtual Classroom: Volumes have increased 6% over the last four quarters, back from 2% in 2013. Live and virtual classroom data underline the expected trend to virtualize.

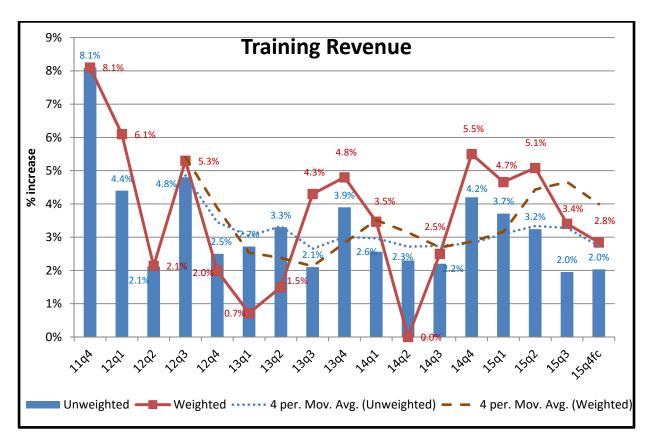
Public versus Private: Private class volumes grew 3% in the last year. Public class volumes grew 1%.

E-Learning: Volumes grew 9% in the last year, up from 5% in 2013.

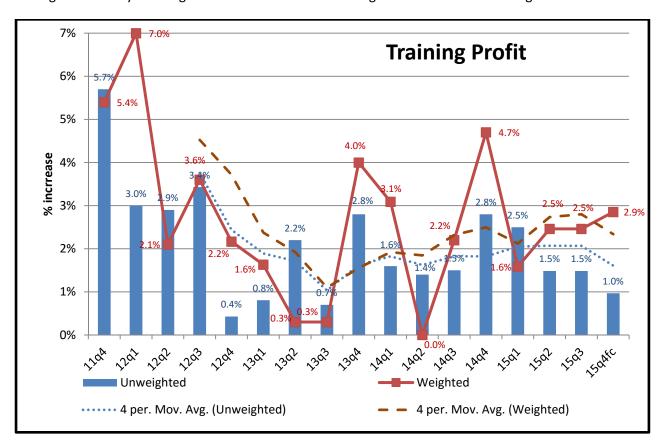
Certification: Is growing steadily at 5-6%, almost double from two years ago.

Instructor Utilization: Has shown over 4% increase over the last year, consistent with the increases in live and virtual volumes.

Revenue and Profit



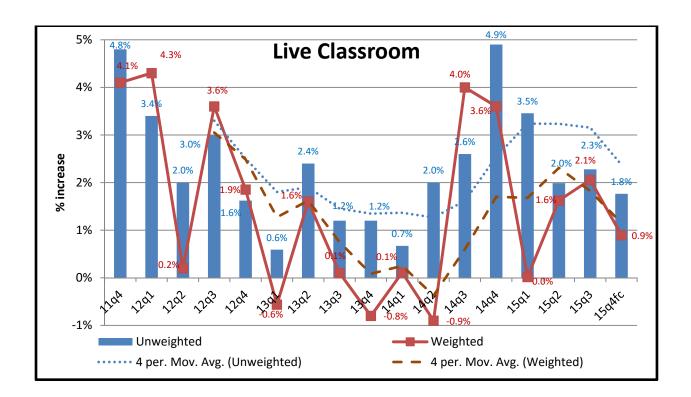
The unweighted total training revenue increase for 15Q3 (u=17, f7, d=8) was 2.0% against a forecast in the last report of 2.8%. The weighted total training revenue increase was 3.4% against 5.2% forecast. The forecast for 15Q4 (u=18, f=4, d=10) is 2.0% unweighted and 2.8 % weighted. The 4-period moving average is currently showing an increase over 3% for unweighted and over 4% for weighted.



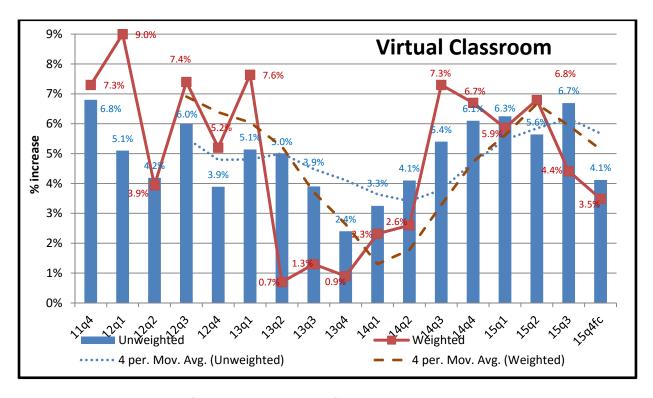
Training profit in 15Q3 (u=13, f=13, d=6) was a 1.5% increase against a forecast of 1.9% unweighted, and 2.5% against a forecast of 3.5% weighted. The 15Q4 forecasts (u=12, f=11, d=8) are 1.0% and 2.9% for unweighted and weighted, respectively. The training profit four-period trendlines currently show a 2% increase for unweighted and 2-33% for weighted over the last two years.

Activities (Customer and Partner Training)

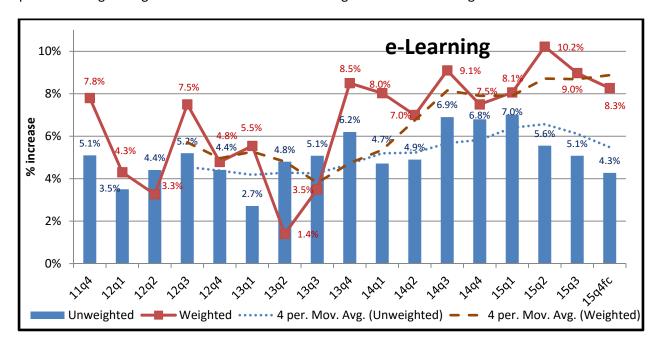
The unweighted live classroom volume increase for 15Q3 (u=16, f=5, d=13) was 2.3% against a forecast in the last report of 3.0%. The weighted live classroom volume increase was 2.1% against 1.1% forecast. The forecast for 15Q4 (u=15, f=6, d=13) is 1.8% unweighted and 0.9% weighted. Live classroom volume, however, is still increasing. The 4-period moving average is holding steady and is now showing a 2% increase when weighted.



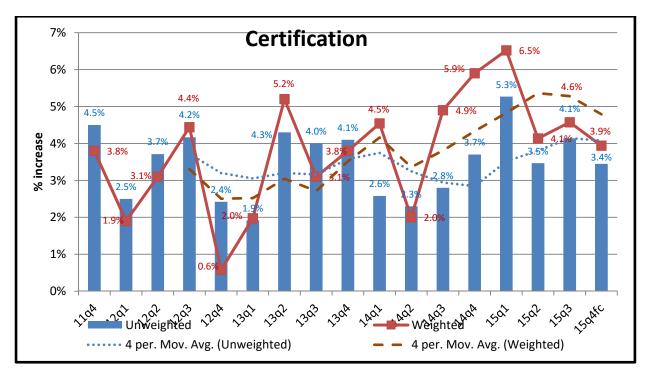
Virtual classroom on the other hand has been growing faster, apart from a small dip in 2013. The unweighted virtual classroom volume increase for 15Q3 (u=26, f=5, d=3) was 6.7% against a forecast in the last report of 5.6%. The weighted virtual classroom volume increase was 6.8% against 6.8% forecast. The 15Q4 forecasts (u=22, f=8, d=4) are 4.1% unweighted and 3.5% weighted, respectively. The 4-period moving averages for both unweighted and weighted have both risen to 6%. Live and virtual classroom data underline the expected trend to virtualize more training to save travel expenses and allow better resource utilization.



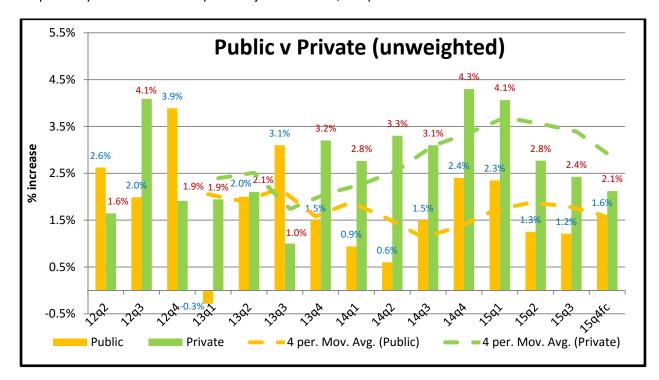
The unweighted e-Learning volume increase in 15Q3 (u=19, f=8, d=4) was 5.1% against a forecast in the last report of 5.1%. The weighted e-Learning volume increase was 9.0% against 9.1% forecast, showing a significant boost for all companies. The 15Q4 forecast (u=16, f=10, d=5) is 4.3% and 8.3% for unweighted and weighted, respectively. The growth over the total period has overtaken virtual classroom. The 4-period moving average shows a 6% increase for unweighted and 9% for weighted.



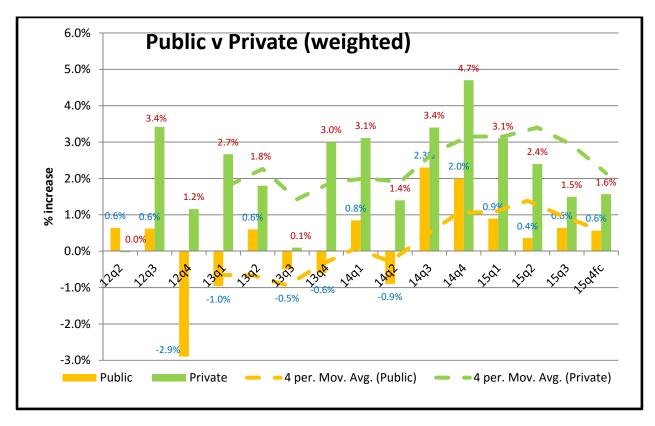
The unweighted certification volume increase for 15Q3 (u=15, f=13, d=1) was 4.1% against a forecast in the last report of 3.3%. The weighted certification volume increase was 4.6% against 4.3% forecast, quite a shift for larger companies. The forecast for 15Q4 (u=15, f=13, d=1) is 3.3% and 4.3% for unweighted and weighted, respectively. The 4-period moving average is showing increases of 4% for unweighted and 5-6% for weighted.



We now include questions on public classes and private classes. After a "blip" in 13Q1, both volumes have increased in 15Q3, by 1.2% public and 2.4% private. The forecasts for 15Q4 are 1.6% and 2.1%, respectively. The trendline for public is just under 2%, but private shows over 3%.

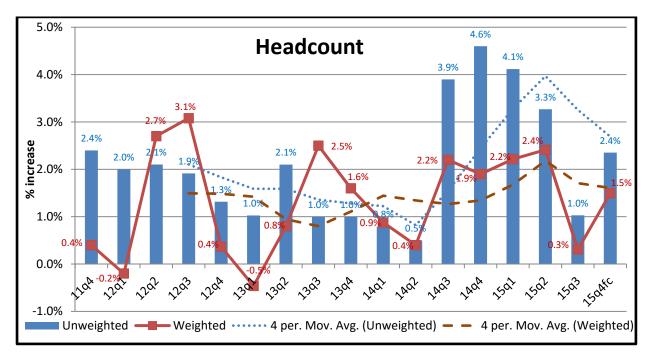


When weighting is taken into account, the changes are more dramatic. The 4-period moving average is 1% for public and over 3% increase for private. So, there's consistency with both unweighted and weighted trendlines.

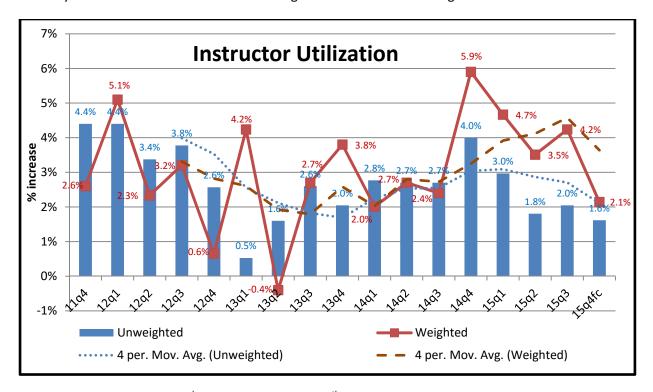


Team

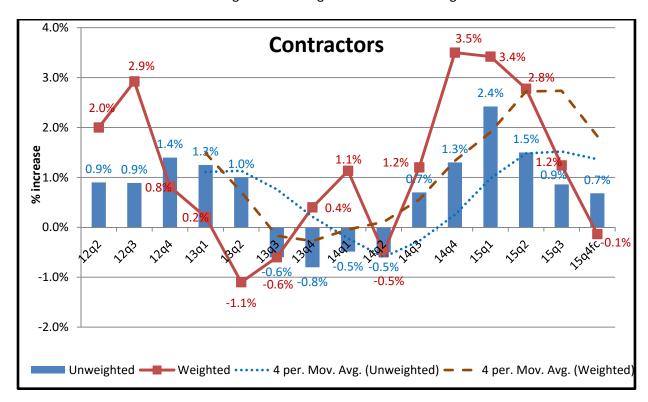
Before 14Q3, unweighted headcount had largely remained constant over the whole period, with the weighted numbers showing more erratically. However, since 14Q3 there has been a spike upwards. The 4-period moving average currently shows increases around 3-4% for unweighted and nearly 2% for weighted.



Maybe as a result of the small increase in hiring but higher increases in volumes for live and virtual delivery, the Instructor Utilization increases have shown a steady increase. The 4-period moving average currently shows an increase of 2-3% for unweighted and over 4% for weighted.



We also added a question on the use of contractors in 12Q2. While the results overall have been erratic, the trendlines show that both unweighted and weighted are now showing small increases.



Which subject areas saw the biggest increases in your training volumes in the last 3-6 months?

- 1. Private Classes still
- 2. eLearning and VILT increase in demand due to subscription offering, private classes on the rise
- 3. Online live virtual classroom and on-site classes
- 4. Introduction of new products and services and business intelligence courses.
- 5. Administration, finance
- 6. All
- 7. Sales enablement
- 8. Networking Virtualization; SDDC; Cloud Management
- 9. Live online training
- 10. Gateway/Internet of Things topics
- 11. Platform (core product)
- 12. Product fundamentals courses (product operating system courses)
- 13. Internet of Things Certification
- 14. Virtual ILT classes; On-site classes
- 15. Identity workflow management.
- 16. Core product eLearning.
- 17. Customer skills
- 18. Private, instructor-led customized training both instructor-led onsite and virtual classroom courses, new business in EMEA and APAC
- 19. networking, data center

- 20. SDN, NFV
- 21. Video editing; Storage
- 22. Security
- 23. We introduced new 3 new classes; we noticed a slight increase in Q3 and Q4.
- 24. Virtual public training
- 25. All of our classes are F5-product specific; we saw the biggest increase in our security products.
- 26. Strategic acquisitions, cloud and technology
- 27. Scheduled Course Registrations
- 28. Consistent growth in all areas/technologies.
- 29. Developer Training
- 30. Acquired products
- 31. eLearning/informal training;
- 32. Certification attempts
- 33. Private Training in APAC

Which subject areas saw the biggest decreases in your training volumes in the last 3-6 months?

- 1. Still Public classes
- 2. ILT courses
- 3. instructor led public classes
- 4. Legacy products
- 5. Year End/ Platform
- 6. None
- 7. Developer training
- 8. vSphere; EUC; Enterprise Desktop
- 9. In-person public classes
- 10. Legacy operating systems
- 11. Older Product versions
- 12. Courses on our NetMRI product
- 13. Project based training delays at customer end
- 14. Public training; Certifications
- 15. No identifiable drops.
- 16. Instructor Led Online
- 17. None
- 18. An overall softness over past 3 months -- some of it seasonal, some due to project schedule churn (That is, slipping out milestones and delaying training due dates.)
- 19. Storage
- 20. Layer 4-7
- 21. End User training
- 22. Public Classroom classes decreased in Q3 & Q4.
- 23. Our older products
- 24. Industry topics
- 25. Account Specific
- 26. None
- 27. None

- 28. Products with no updates, patches, and so on.
- 29. Americas private classes are down a lot
- 30. Classroom/Private based training.
- 31. Public Training in North America

What were the two greatest challenges you faced in running your business in the last 3-6 months?

- 1. Change in total business model to be more mindful of margins. Services team 100% revamped which had a direct negative impact on the education business in Q3. (July Oct)
- 2. Keeping up with rapid product changes.
- 3. Maintaining and updating training curricula; Auto-attach training to all software deals
- 4. Filling seats; larger revenue number set by executive level; higher profit margins
- 5. Acquiring adequate data in advance of need, to support training needs for new customers; Greater than anticipated demand, causing us to increase size of classes beyond our typical limits
- 6. Hiring talent; Meeting growth targets; Building the organization to support future growth.
- 7. Staff resigning and having a hard time replacing; increased responsibilities since our training team integrated with another, but no accompanying budget
- 8. System limitations (LMS); Data integrity/integration
- 9. Company direction changed. Increase margin
- 10. Decline in product sales, thus fewer deals to attach to. Reorganization in the teams that previously supplied instructors to teach, causing us to have to quickly develop contractor pool.
- 11. Free or heavily discounted training for partners and/or sales giving away training. Tracking and reporting on utilization rates.
- 12. New VP with a very prescription approach to the way training should be run. Splitting up of current team into enablement and customer training.
- 13. Predictability of large engagements (schedule, etc.)
- 14. As a consequence for the restructuring activities, trying to keep up with course development work, when less resources available but company is renewing its portfolio, and at the same time getting a lot of training demand for the renewed portfolio.
- 15. Engaging a rapidly growing non-training salesforce.
- 16. Public attendance. Systems and Infrastructure
- 17. Localization and Regionalization of content; Manager Training; Program Certification
- 18. Moving a new organization from 100% classroom based ILT to a blended delivery model.
- 19. Driving adoption the volume of new product introductions
- 20. LMS migration; Transition to role-based courses and certifications
- 21. Continued Downturn is the US market just being covered by growth in EMEA and APAC
- 22. Process improvement, alignment of roles and responsibilities to meet project requirements.
- 23. Updating our courseware to accommodate the new software releases, while trying to develop new classes to support over 1000 new features in our BI product. Creating self-paced training classes
- 24. Customers less willing to attend multi-day classes, want shorter classes with very targeted agendas
- 25. Keeping instructors up-to-date as we release updated classes to meet our rapid releases.
- 26. Creating an efficient back-end operation for our learning platform; Usability of our learning platform
- 27. Actively transitioning a formerly all training sales team to a user advocacy function and this modification has created some challenges during the process of transition. With this change the training conversations have to begin to shift back to the named account representatives in

Corporate (outside) accounts and to potentially several sales representatives as our inside sales teams have transitioned to product-specific tasks per rep whereby any one of several reps of could be having a training conversation. It's going to take some additional time to work through this change internally.

- 28. Symantec/Veritas Separation complexity; limited automation/systems challenges.
- 29. Developing asynchronous delivery model. Partner revenue in EMEA flat.
- 30. Evolving business and portfolio strategies and major restructuring
- 31. Belt tightening at some of our larger customers. Turnover in account teams.
- 32. Reduced Backlog causing fall in fill rates in classes and deferred revenue to draw from. Lackluster license sales driving new training business (and private classes).
- 33. Budget issues for customers in select verticals leading to cut in discretionary spending such as training; Customers receiving free of charge training from other departments

Please add any other comments or observations you have on the state of the IT Training market

- 1. Still seems Executive Management is willing to accept lower margins in return for higher Customer Success/Customer Sat ratings.
- 2. End user training seems variable we see up and down interest from quarter to quarter.
- 3. Trend away from multi-day in-classroom training is accelerating. Customers expect shorter and online training.
- 4. People still want ILT training, even though managers want to save money and want an alternative, like self-study or virtual training.
- 5. Subscription model impact changes rev rec practices...fight for a % in overall subscription pricing
- 6. Good business in niche markets where the training is tied to product sales.
- 7. People are willing to spend on training...but only so much. Good acceptance of customized training plans that are tightly integrated w/project schedules. Relevance and timeliness, skills focused.
- 8. Seeing an increased demand in New IP training related to third platform (mobile) technologies -> programming, scripting, orchestration, virtualization, etc. Demand for video and mobile enabled content
- 9. Students attending online training continue to be not prepared. No matter how many reminders we send prior to the class, they wait until last minute to do the pre-test of connection and sound and then are not experienced in using multiple monitors or don't have multiple monitors. Many also don't purchase the printed material nor do they print the course PDF prior to class.
- 10. Training need is as strong as ever but customers are demanding it on their terms: 1) just in time 2) Specific topics rather than broad curriculum and 3) on demand to suit their availability.
- 11. Technology is evolving rapidly, making it difficult to keep materials current
- 12. Automation continues to grow in importance as do design training offerings.