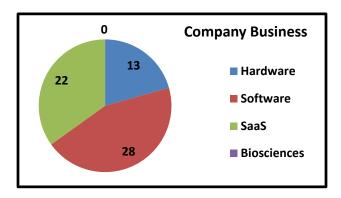


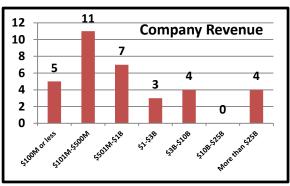
CEdMA Training Market Barometer

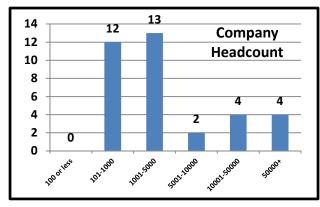
4th Quarter 2014 actual and forecast for 1st Quarter 2015

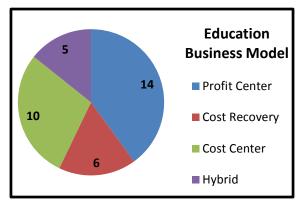
Introduction

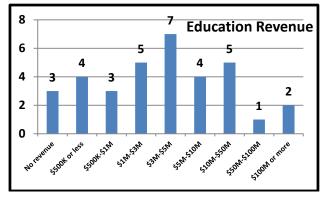
This report is compiled by CEdMA for its members about their Education businesses. It is based around a series of absolute growth or decline percentages in the range +- 12.5%. Revenue and volumes refer to training services delivered in the quarter and not future bookings. Members were asked to indicate 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 30 responses for global and only 5 for North America so the combined 35 profiles are as follows:

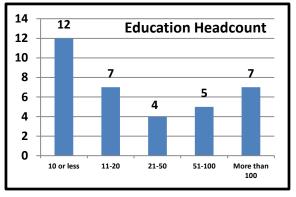












Summary

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 3% in 2014 and 2013, down from 4% in 2012.

Profit: Grew 2.5% in 2014, up from 1.5% in 2013; but 2012 was over 4%.

Live Classroom: Has recovered to 1.5% growth in 2014 from flat in 2013, but 2012 was 2.5%.

Virtual Classroom: Has recovered to 5% growth in 2014 from 2.5% in 2013, but 2012 was 6%. Live and virtual classroom data underline the expected trend to virtualize.

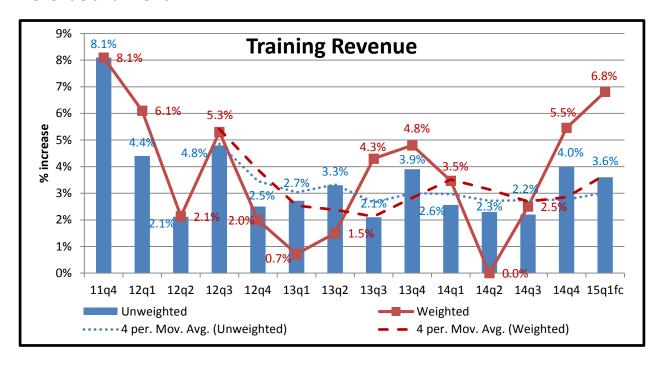
Public versus Private: Private classes grew 3% in 2014, up from 2% growth in 2013. Public classes grew 1% in 2014 from flat in 2013

E-Learning: Grew 8% in 2014, up from 5% in both 2013 and 2012.

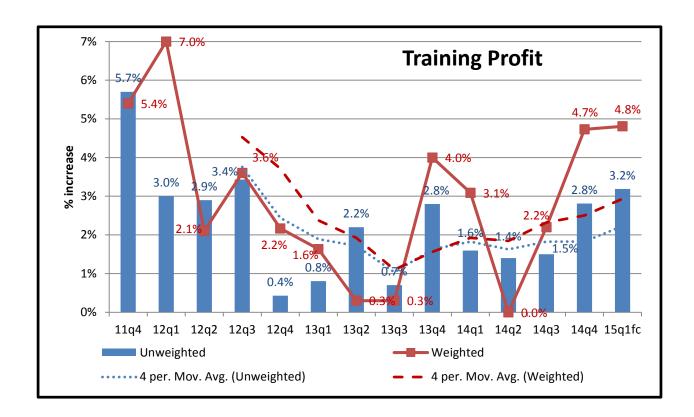
Certification: Has been growing steadily by 4% in 2014, from 3.5% in 2013 and 2.5% in 2012.

Instructor Utilization: Has shown a 3% increase over 2012-2014.

Revenue and Profit



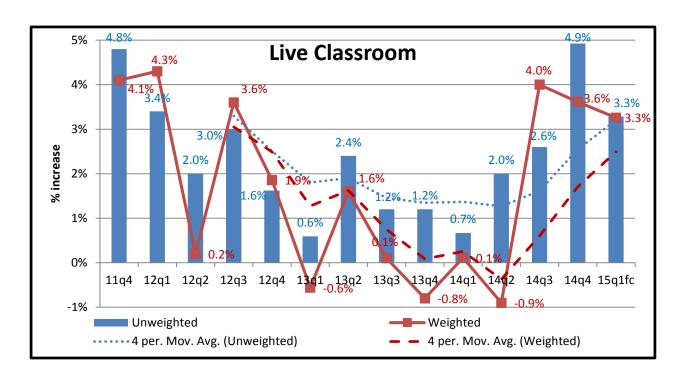
The unweighted total training revenue increase for 14Q4 (u=20, f7, d=6) was 4.0% against a forecast in the last report of 3.4%. The weighted total training revenue increase was 5.5% against 6.8% forecast. The forecast for 15Q1 (u=19, f=7, d=6) is 3.6% unweighted and 6.8% weighted, well up from previous quarters. The 4-period moving average is currently showing an increase just under 3% for both unweighted and weighted, about the same for the last 36 months.



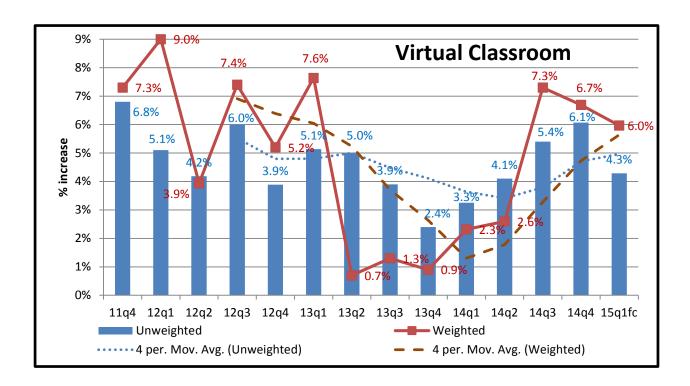
Training profit in 14Q4 (u=16, f=10, d=6) was a 2.8% increase against a forecast of 2.5% unweighted, and 4.7% against a forecast of 4.5% weighted. The 15Q1 forecasts (u=15, f=12, d=2) are 3.2% and 4.8% for unweighted and weighted, respectively. The training profit four-period trendlines currently show a 2% increase for both unweighted and weighted over the last 24 months and rising slightly.

Activities (Customer and Partner Training)

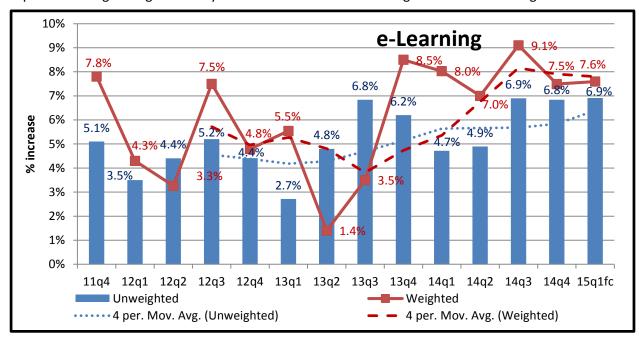
The unweighted live classroom volume increase for 14Q4 (u=25, f=5, d=4) was 4.9% against a forecast in the last report of 1.7%. The weighted live classroom volume increase was 3.6% against 2.0% forecast. The forecast for 15Q1 (u=22, f=7, d=6) is 3.3% unweighted and 3.3% weighted. Live classroom volume, however, is still increasing. The 4-period moving average has taken a swing upwards in the last 12 months and is now showing a 2% increase.



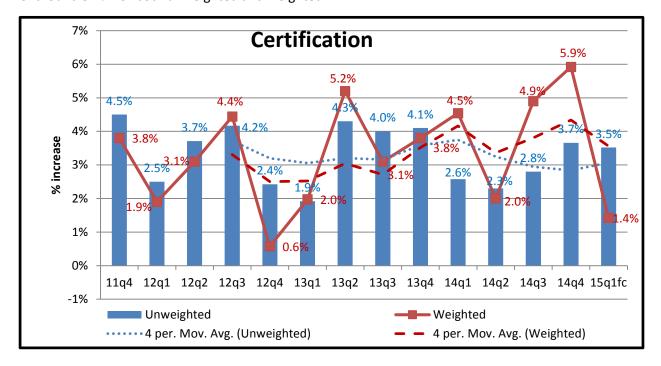
Virtual classroom on the other hand has been growing faster, apart from a small dip in 2013. The unweighted virtual classroom volume increase for 14Q4 (u=24, f=8, d=3) was 6.1% against a forecast in the last report of 3.7%. The weighted virtual classroom volume increase was 6.7% against 4.4% forecast. The 15Q1 forecasts (u=23, f=7, d=5) are 4.3% unweighted and 6.0% weighted, respectively. The 4-period moving averages for both unweighted and weighted have both risen to 5%. Live and virtual classroom data underline the expected trend to virtualize more training to save travel expenses and allow better resource utilization.



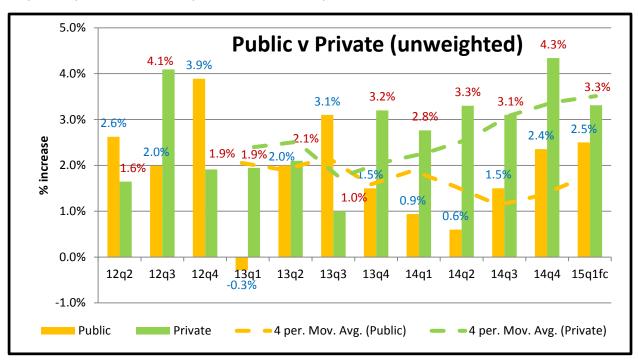
The unweighted e-Learning volume increase in 14Q4 (u=26, f=7, d=1) was 6.8% against a forecast in the last report of 5.7%. The weighted e-Learning volume increase was 7.5% against 6.8% forecast, showing a significant boost for all companies. The 15Q1 forecast (u=26, f=8, d=0) is 6.9% and 7.6% for unweighted and weighted, respectively. The growth over the total period has now overtaken virtual classroom. The 4-period moving average currently shows a 6% increase for unweighted and 8% for weighted.



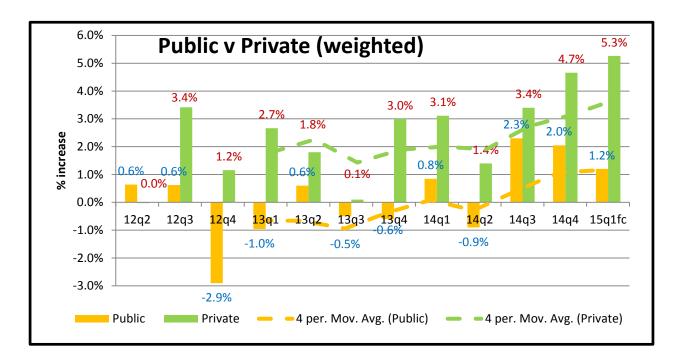
The unweighted certification volume increase for 14Q4 (u=14, f=9, d=5) was 3.7% against a forecast in the last report of 2.8%. The weighted certification volume increase was 5.9% against 0.9% forecast, quite a shift for larger companies. The forecast for 15Q1 (u=13, f=12, d=5) is 3.5% and 1.4% for unweighted and weighted, respectively. The 4-period moving average has consistently shown increases of around 3-4% for both unweighted and weighted.



We now include questions on public classes and private classes. After a "blip" in 13Q1, both volumes have increased in 14Q4, by 2.4% public and 4.3% private. The forecasts for 15Q1 are 2.5% and 3.3%, respectively. The trendline for public is over 1%, but private shows over 3%.

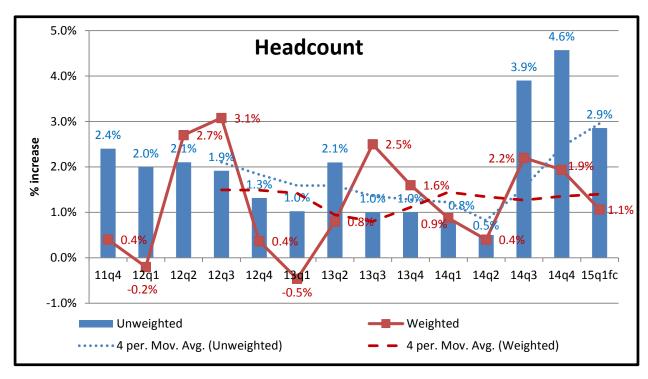


When weighting is taken into account, the changes are more dramatic. The 4-period moving average has risen to 1% for public and 3% increase for private. So, there's now some consistency with both unweighted and weighted trendlines.

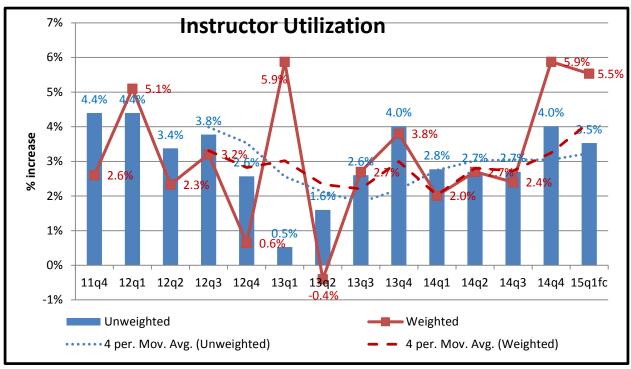


Team

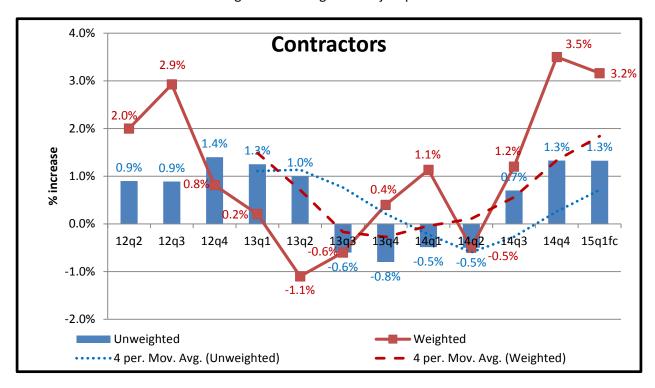
Unweighted headcount has largely remained constant over the whole period, with the weighted numbers showing more erratically. However, 14Q3 and the 14Q4 show a spike upwards. The 4-period moving average currently shows increases around 2% for unweighted and 1% for weighted.



Maybe as a result of the small increase in hiring but increases in volumes for live and virtual delivery, the Instructor Utilization increases have remained fairly constant over time. The 4-period moving average currently shows increases of 3% for both unweighted and 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 just positive.



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

18. Security
19. Linux
20. OnDemand registrations
21. Core eLearning.
22. Private, instructor-led customized training - both instructor-led onsite and virtual classroom courses, new business in EMEA (private courses mainly)
23. Private Customer onsites
24. Customer skills
25. Basic product installation, configuration, management, some troubleshooting
26. We introduced a new product release in Q3 and 3 new classes. We noticed a slight increase in
Q3.
27. data analytics, analytic data mining, system operations, hosted systems maintenance
28. E-Learning continues to grow.
29. Technical classes - Developer and Architect level
30. Public Training
31. Specialty topic areas around primary product line delivered in our webinar series

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

1. Partner Resellers
2. Legacy products
3. Year End/ Platform
4. Old product training
5. End of life products
6. None
7. End user technical training
8. None
9. Virtualization install, configuration, management; Virtualization overview; Product overview
10. Public classes
11. We continue to offer fewer public classes
12. Niche networking topics
13. Public training
14. No identifiable drops.
15. Technical pre-sales training
16. Legacy operating systems
17. In-person scheduled and account specific courses
18. Instructor Led Online
19. None
20. Virtual Classes
21. None
22. More advanced/specialty courses
23. Private customer classes decreased in Q4.
24. customer-supported systems maintenance
25. Americas private classes

- 26. Private Training
- 27. private classes around core product training

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

- 1. Limited Resources (not enough headcount); Too many concurrent projects all important
- 2. 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'
- 3. Hiring talent; Meeting growth targets; Building the organization to support future growth.
- 4. Customer commitment to take time to train. Getting Sales teams to sell VALUE!
- 5. Industry sales trends and completion; saturation of certifications for internals
- 6. Cost associated with face-to-face training; Challenges in developing effective virtual classroom training
- 7. Shifting mission of our department (from a focus solely on partner training to internal training)
- 8. Internal processes and systems to scale
- 9. Keeping up with growth; Keeping up with rapid product changes
- 10. System limitations (LMS)
- 11. Training subscription renewals
- 12. Need to modularize our classes to make them more applicable to our users. Need to implement LMS
- 13. Entire Portfolio of curriculum needing to be updated for entire suite of product updates. Systems don't meet our ever growing needs.
- 14. Continuing efforts to bring ATPs up to speed. LMS does not match current business model
- 15. Keeping the team morale up when the company is going through restructuring activities.
- 16. Scaling the administrative function of the business to be able to handle the growth (100% Q/Q)
- 17. Lack of human resources, increased number of projects
- 18. Scaling delivery
- 19. Tighter export rules for business in China, Russia, and defense customers in Middle East. Customer reluctance to attend multi-day classes.
- 20. We no longer have a sales force that is dedicated to training subscription and training sales this is our first quarter that we have changed the focus of that group to increasing usage of software. This change in model likely creates a near term disruption in training sales velocity.
- 21. Public attendance. Systems and Infrastructure
- 22. Moving a new organization from 100% classroom based ILT to a blended delivery model.
- 23. Delivery Resources. Keeping up with the introduction of new productions
- 24. Localization and Regionalization of content. Manager Training Program. Certification
- 25. Keeping pace with rapid growth of the company/demand. New training required to support acquired company technology
- 26. Overhauling our courseware to accommodate the new primary BI development tool, which unfortunately had significant product issues resulting in substantial course reworking. Creating Webinar based training classes
- 27. Organizational shifts accompanied by changing priorities
- 28. organizational restructuring; shifting product completion dates

- 29. Uncertain macroeconomic environment; belt tightening at some of our larger customers.
- 30. Staffing and existing capacity versus demand.
- 31. Customers using free e-Learning resources delivered within our products. Customers receiving free of charge training from other departments.
- 32. Customers not consuming training they had bought and paid for no rev rec; Introducing lots of newer offerings and Sales adoption.

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

- 1. Partners are grumbling about continuing education requirements; trying to minimize impact while still keeping them updated on new releases.
- 2. Free...MOOC style training is in high demand. The need for training in product vs going somewhere for it. Training is no longer defined in days but small bytes and easily gotten to...no need to search and deal with registering etc.
- Continuing to see high interest in our SDN courseware and certifications and anticipate this to continue with the release of our new Brocade Vyatta Controller (Open Daylight Based SDN product)
- 4. Good business in niche markets where the training is tied to product sales.
- 5. The generations of young adults raised on the internet are now our target audience and they expect to find small but highly relevant bits of information at their fingertips. They do not expect to attend a class.
- 6. 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.
- 7. Students attending online training are not prepared. 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.
- 8. The impact of moving to a hosted or cloud model is still unclear. We have reduced the need for more advanced technical training to customer. However the internal skill needs are shifting and we are still learning the long term impact.
- 9. Automation and cloud/SDN starting to change the profile of learners; they seeking an evolving skill set.
- 10. Lots of ups and downs with customer buying habits.