

Cloud in Education

National e-Learning Platform Enriched With Big Data
Deployed On Cloud



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Real Impact for Better ~~Business~~ **Business** ~~Performance~~ **Performance** ~~and~~ **and** ~~Engagement~~ **Engagement**.

Some trends & challenges
that are shaping the market today

The world is evolving

New global workforce trends means new demands placed on education

Global demand for higher education will expand from **97 million** students in 2000 to **263 million** students by **2025**.

77% of all jobs will require **technical skills**

Over **80%** of new apps will be distributed or deployed on clouds in **2012**.



Shifting Workforce:
Demand for skilled workers means more students in higher education

Economic Realities & ROI:
Global economic pressures forcing institutions to do more with less, seek better ROI

Devices & Access:
Devices and online learning transforming learning and outcomes

21st Century Skills:
Increasing focus on impact of ICT on employability and workforce readiness

Products & Solutions:
New technologies and innovations coming from everywhere



The world's **mobile worker** population will reach

1.3 billion

—over **37%** of the total workforce—by **2015**.



By **2016**, **smartphones** and **tablets** will put power in the pockets of **a billion** global consumers.



65% of companies are deploying at least one **Social software tool**.



80% growth of unstructured data is predicted over the **next five years**.



70% of businesses are either using or investigating **cloud computing solutions** — Meaning they seek workers familiar with cloud solutions



21st century learning

Preparing students for the future

Blending formal
and informal



Digital content
revolution



Employability
and readiness



Personalized
Learning



Technology moving
online in
synchronous and
asynchronous
deliveries

Availability of
information and the
notion of just in
time learning

Big Media has gone
micro –content
being digitized and
delivered in online
formats

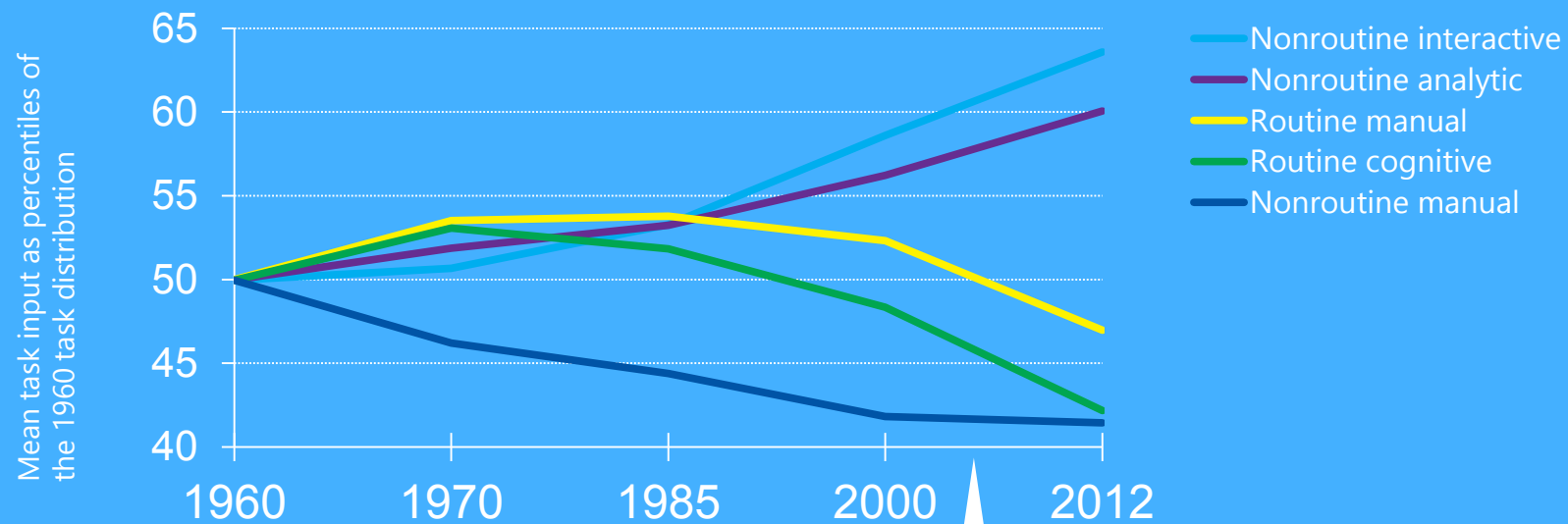
Increasing focus
on employability
and workforce
readiness

Increase in data
and the relative
affordability of
computing
resources

Environment for
each student where
he/she learns best
and most
effectively

how the demand for skills has changed

Economy-wide measures of routine and non-routine task input (US)



The dilemma for schools:

The skills that are easiest to teach and test are also the ones that are easiest to digitise, automate and outsource.

Source: Data for this graph taken from, **How Computerized Work and Globalization Shape Human Skill Demands** by Frank Levy [MIT] and Richard Murnane [Harvard Graduate School of Education], 2005 publication



¿Are we preparing our students for jobs that do not exist today?

1
Critical Thinking &
Problem Solving

2
Global Awareness

3
Skilled
Communication

4
Collaboration

5
Knowledge
Building

6
ICT Use

What can Schools do to cope with those trends and build towards their goals ?

what is the education system looking for?



Teachers



instant messaging, e-mail & video conferencing



online assignments, quizzes, and exams



document management



Integrated calendar



notification dashboards

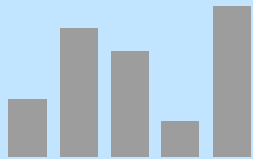


planning & reporting



cost reduction & containment

collecting performance data

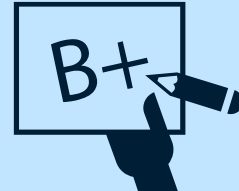


learning resources, curriculum & content authoring

education content



online assessment & grading



tracking & monitor progress



social networking

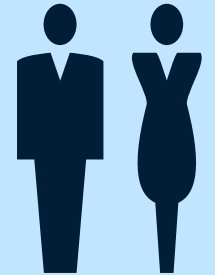


search & research management



mobility & access friendly platforms

parent & alumni involvement

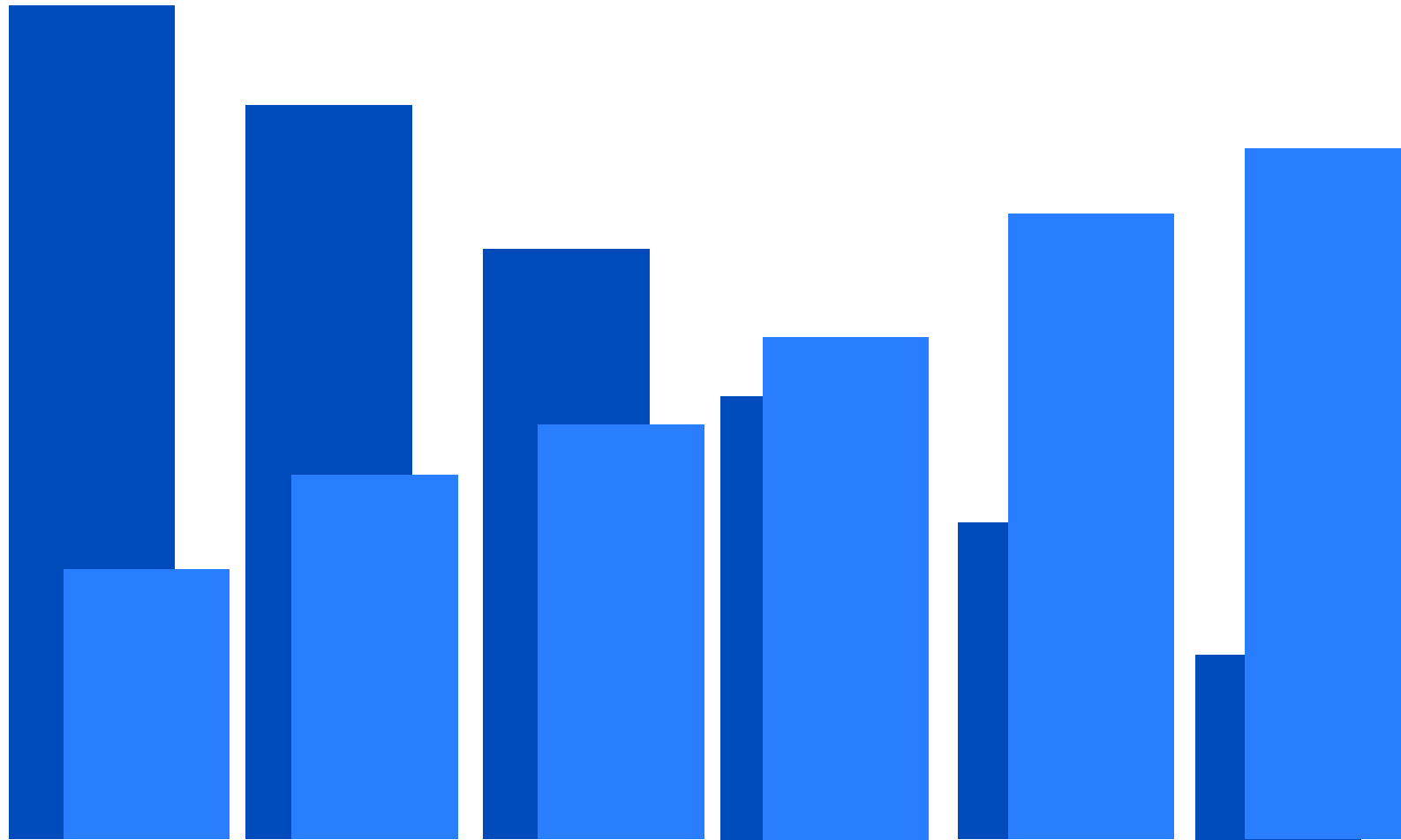


learning platform administration



Students protection, Secure devices, Integrity

The Education Challenge



We work with
and through
technology
paper

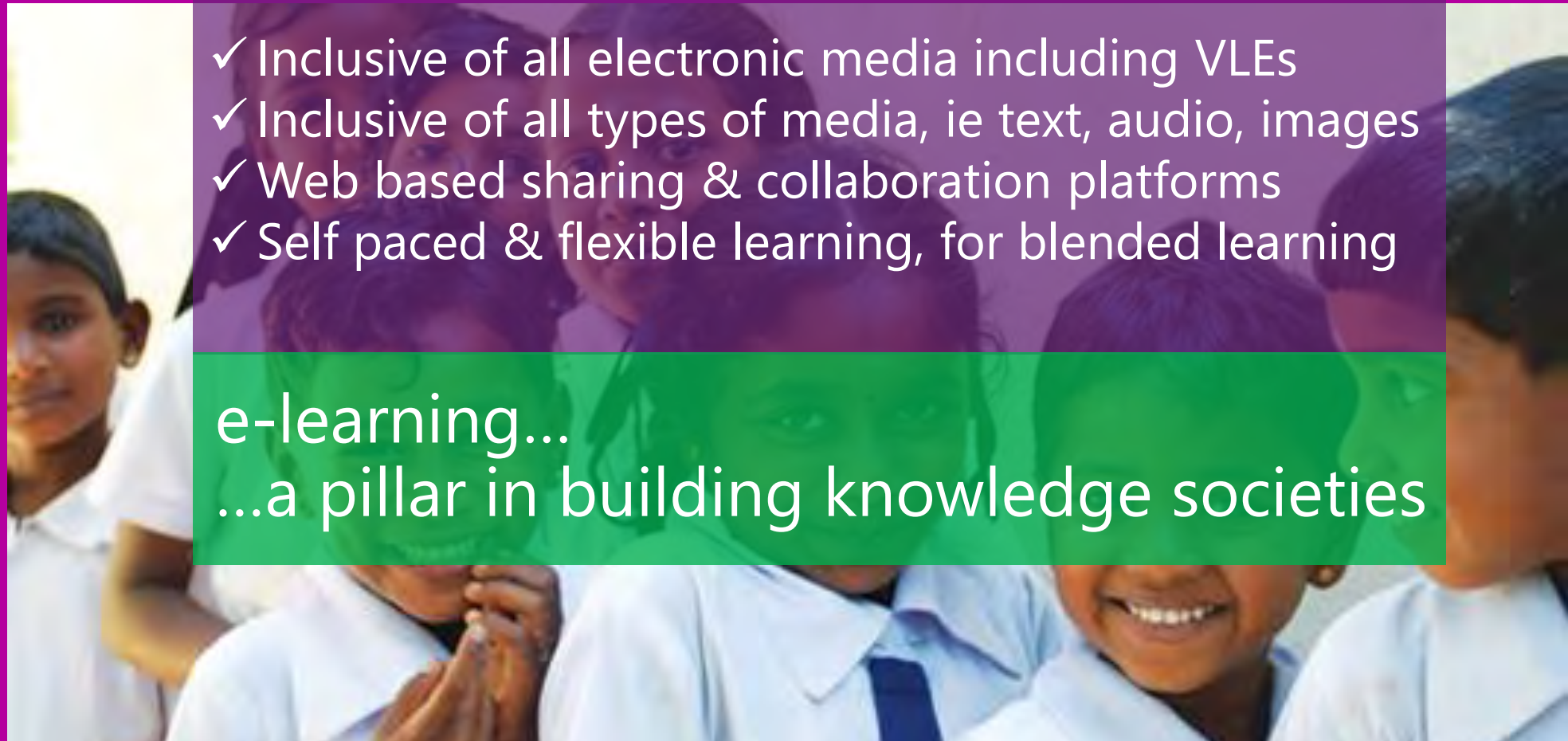


What is e-Learning?

Use of electronic media and ICT in education

- ✓ Inclusive of all electronic media including VLEs
- ✓ Inclusive of all types of media, ie text, audio, images
- ✓ Web based sharing & collaboration platforms
- ✓ Self paced & flexible learning, for blended learning

e-learning...
...a pillar in building knowledge societies



The key elements of e-Learning

The three pillars that make a digital campus tick

CREATE



Multimedia Learning
Content

Rich Teaching
Resources

Employability Skills.

ENABLE



Distant and Blended
Learning

Access from
Anywhere

Communications &
Collaboration

MANAGE



Manage Learning
Outcomes

Admin & Track
Content

Measure & Assess
Performance

&

EMPOWER

ENGAGE

EXPOSE

Understanding the benefits

Key benefits of e-Learning across the new digital campus

Communicating & Collaborating

Tracking Progress

Sharing Content

Expanded
Curriculums Via
Online Courses

Managing the
'Business of
Education'

Empowering
Faculty &
Students



Dashboard

More information



Nicolaus Copernicus



Burning magnesium



Drought-resistant grass



Spray-on skin cells



Why use a pool cover?



Jenolan Caves



Chips and a drink please?



Expanding joints



Rabbits eat Macquarie Island



Murrumbidgee River



Popcorn bounce!



Between sky and sea



There's an emu in the sky!



What does your heart do?




Exit survey


Submit

469
schools 

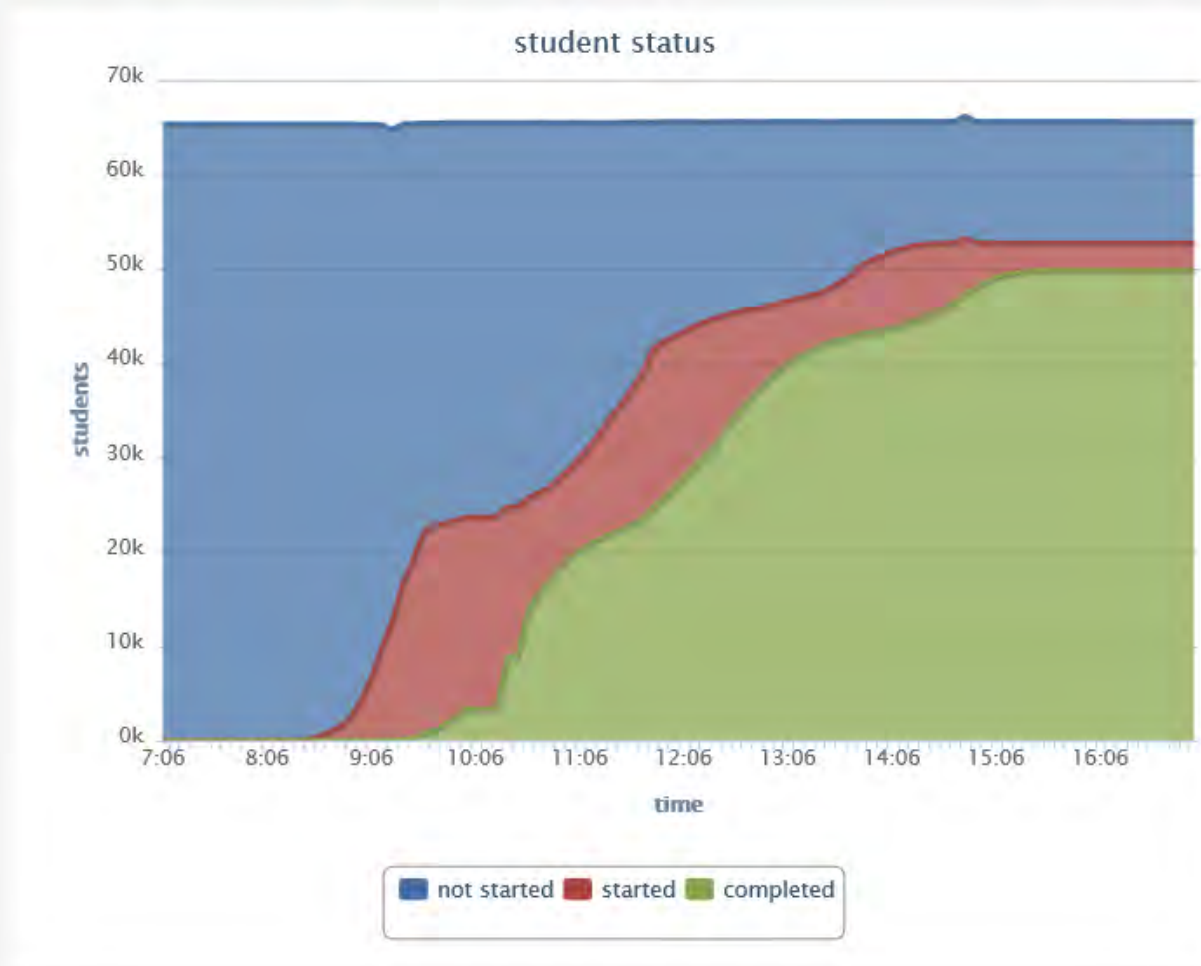
20,343
students 

6%
server cpu 

394 per sec
click to view graphs showing just how much is happening at the transaction level 

 JanisonCAFe and Twitter

student status [active students](#) [stuc](#)



reviewing 13th november 2012

Using and visualising data in the cloud

Analytics for education





I have questions,
I want answers

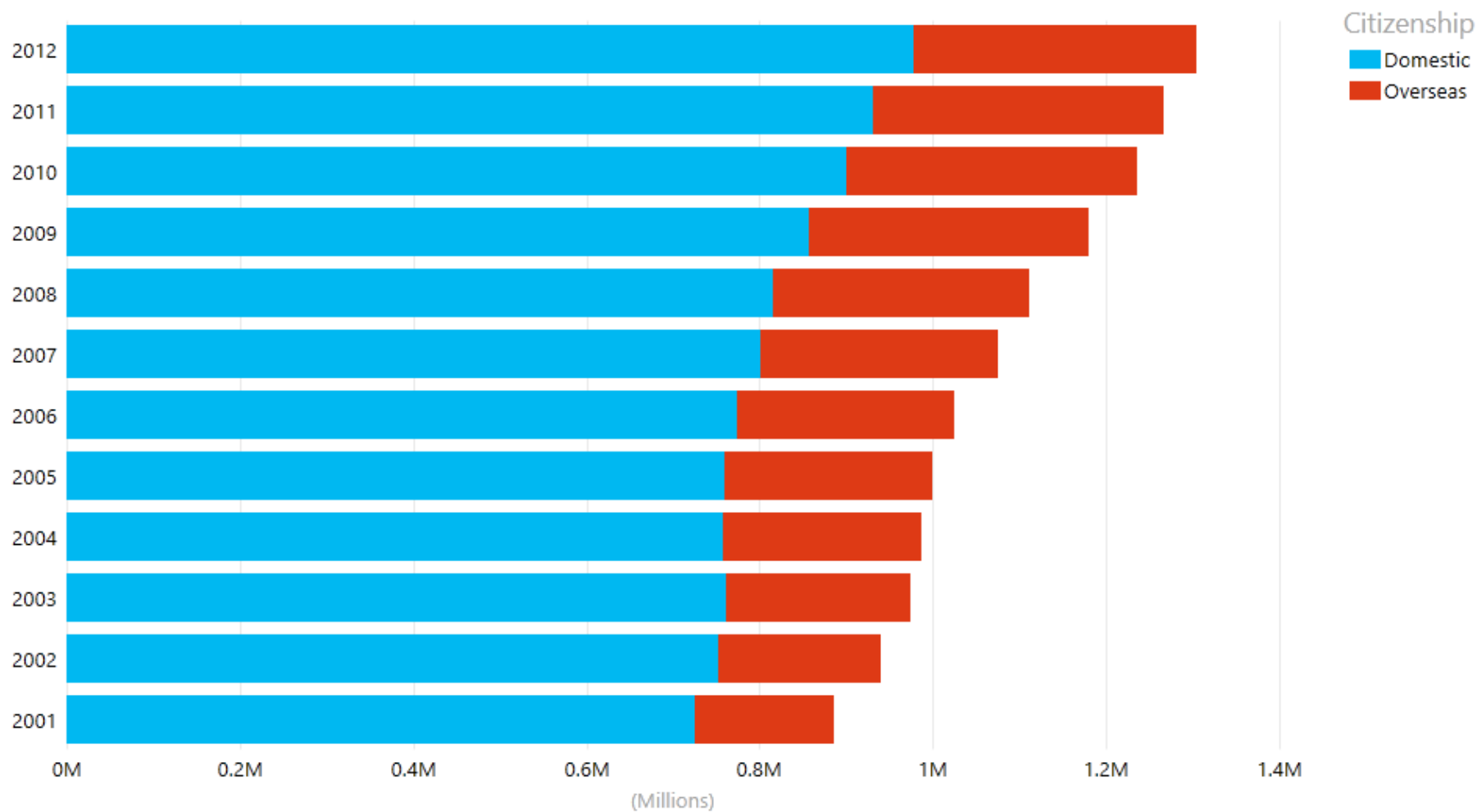


show student count by year, by citizenship

Show student count and citizenship sorted by year descending



Student Count by Year, and Citizenship



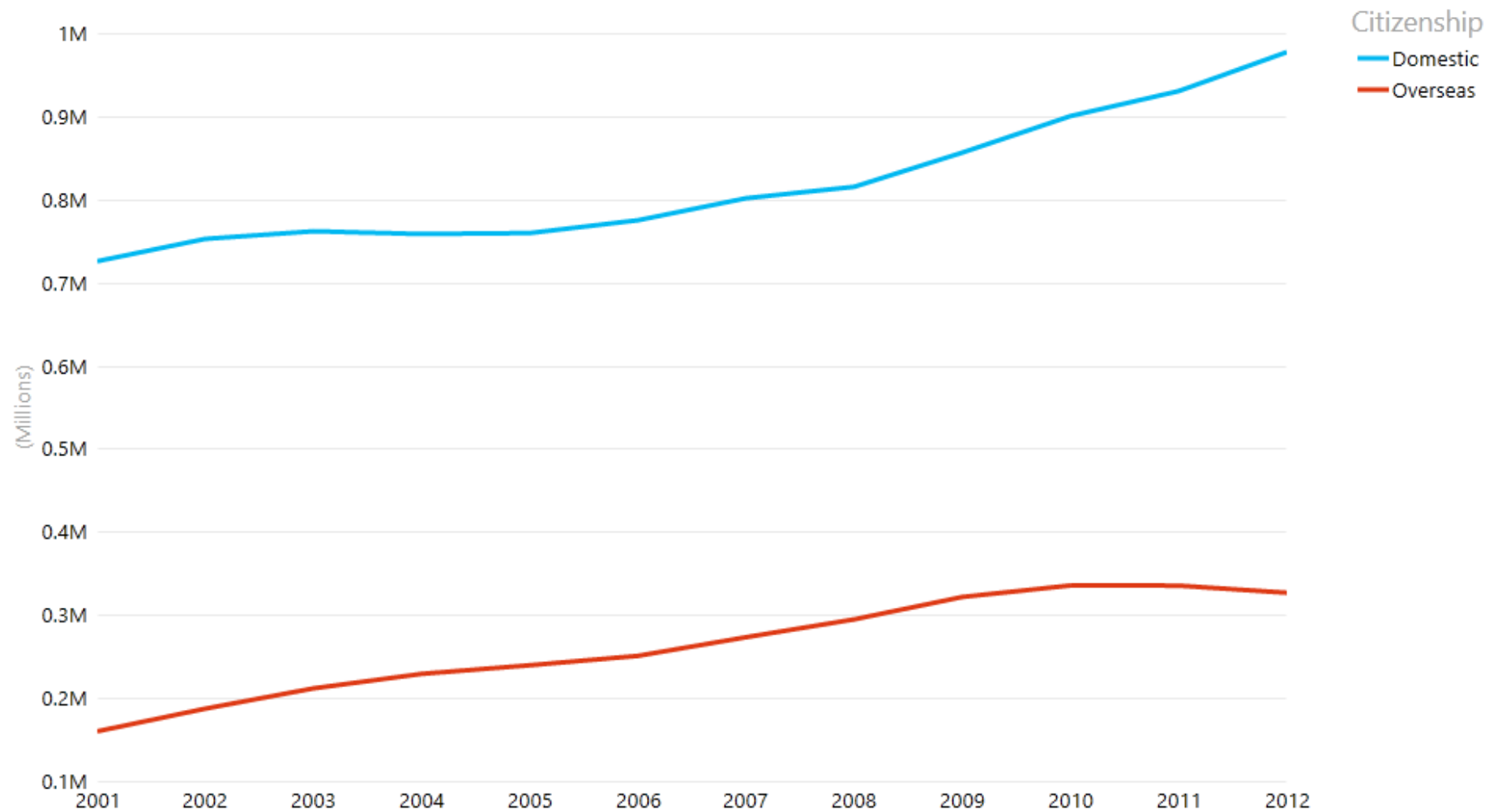


show student count by year, by citizenship, as line chart

Show student count and citizenship sorted by year descending as line chart



Student Count by Year, and Citizenship



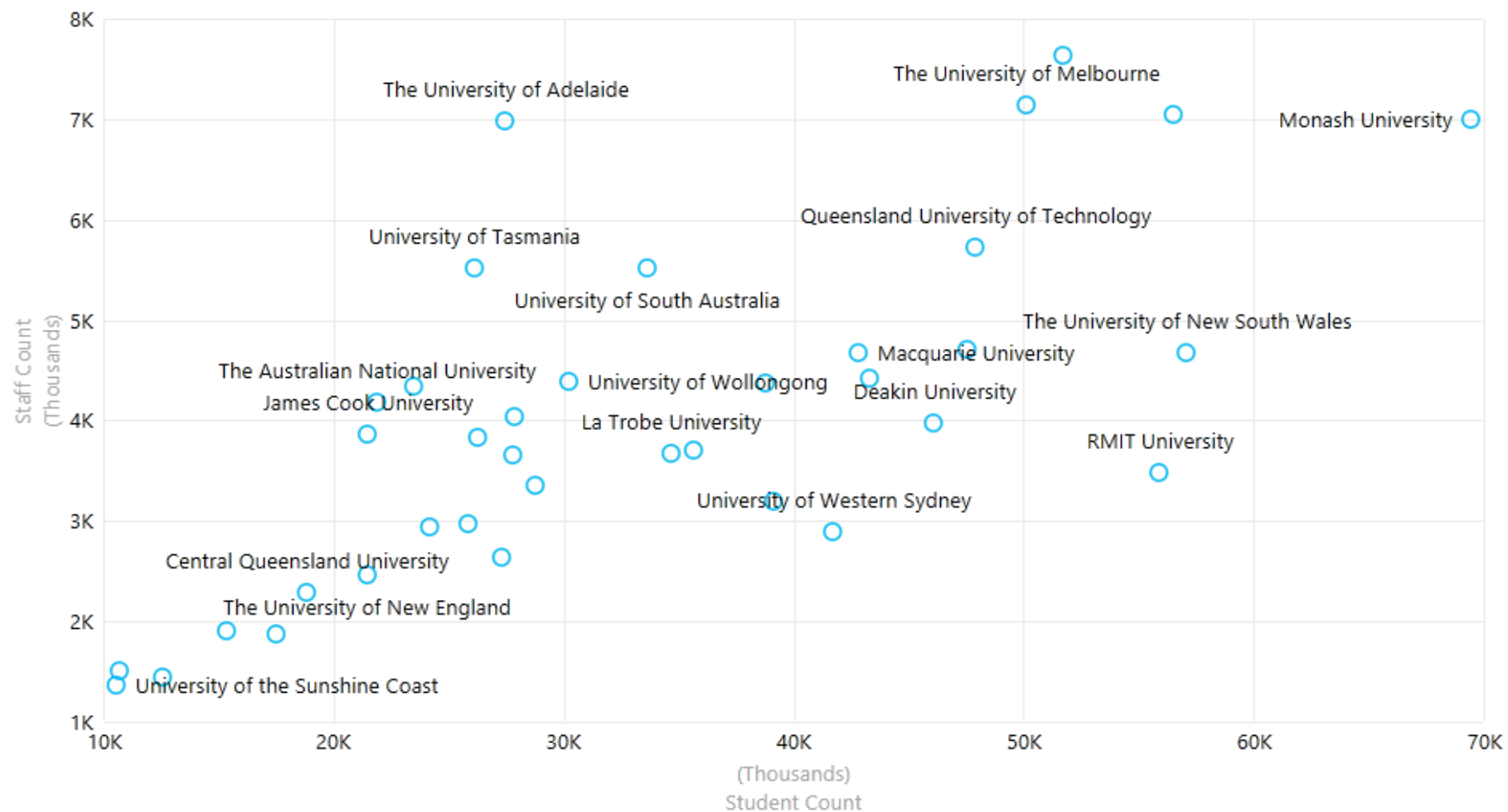


show student count versus staff count, by university for 2012

Show student count, staff count, and university, where year is in 2012



Student Count, and Staff Count by University

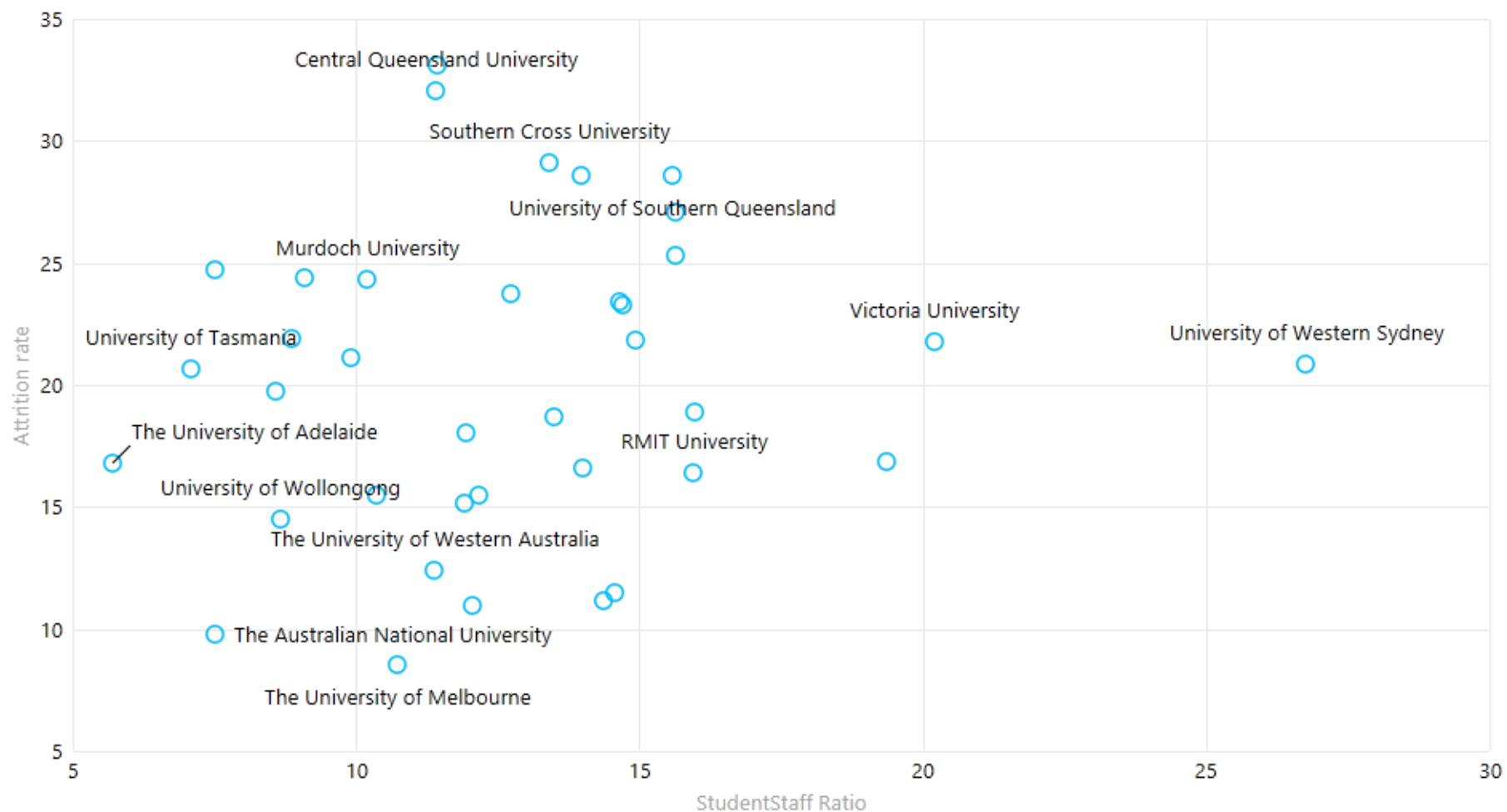




low student staff ratio vs attrition rate, by university for domestic for 2011

Show student staff ratio, attrition rate, and university, where citizenship is domestic and year is in 2011

StudentStaff Ratio, and Attrition rate by University

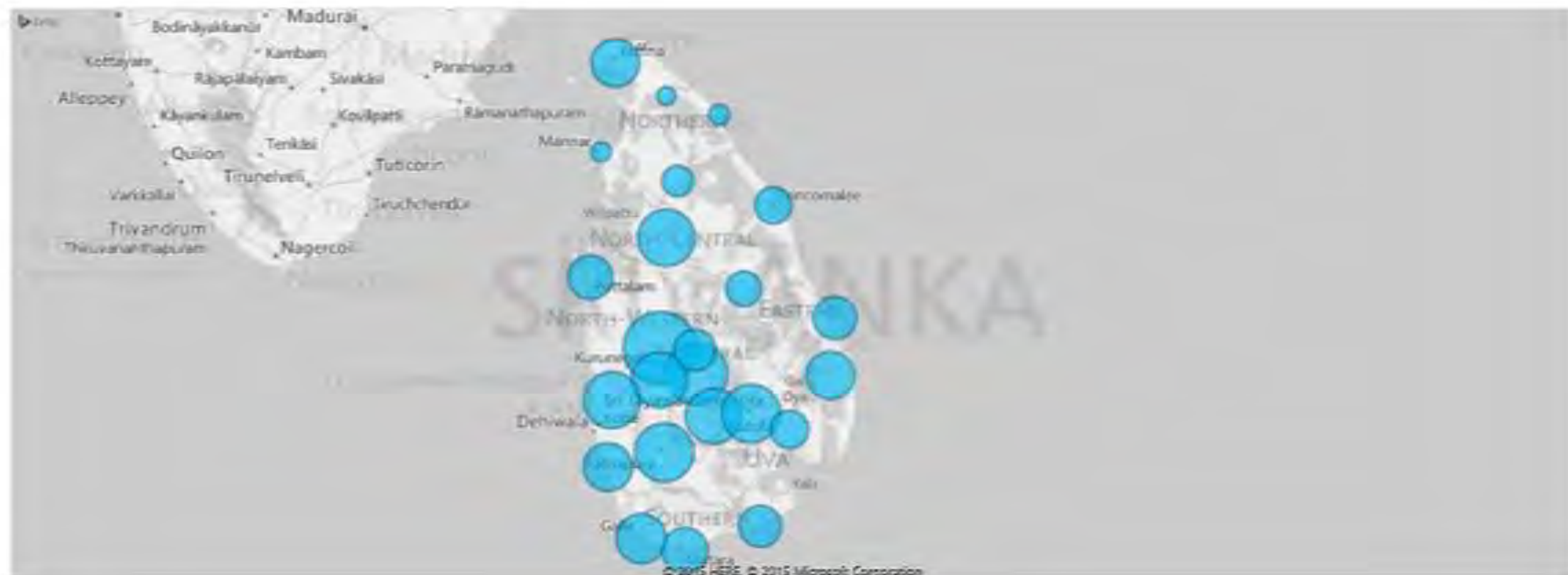


show me national schools in map

Show table 6s and their school as map

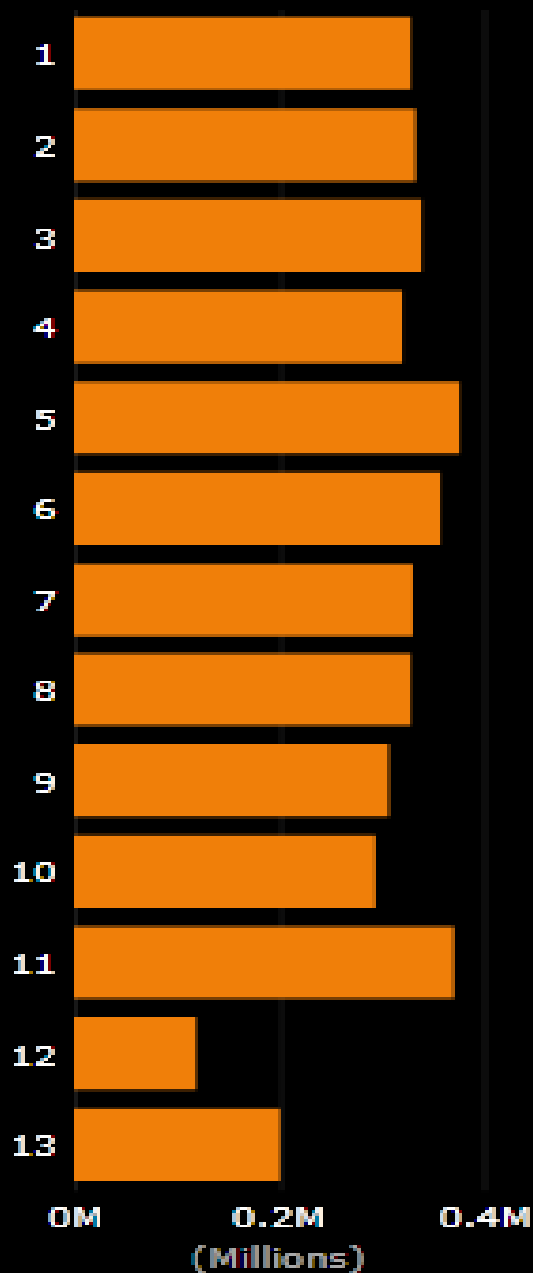


Schools by District

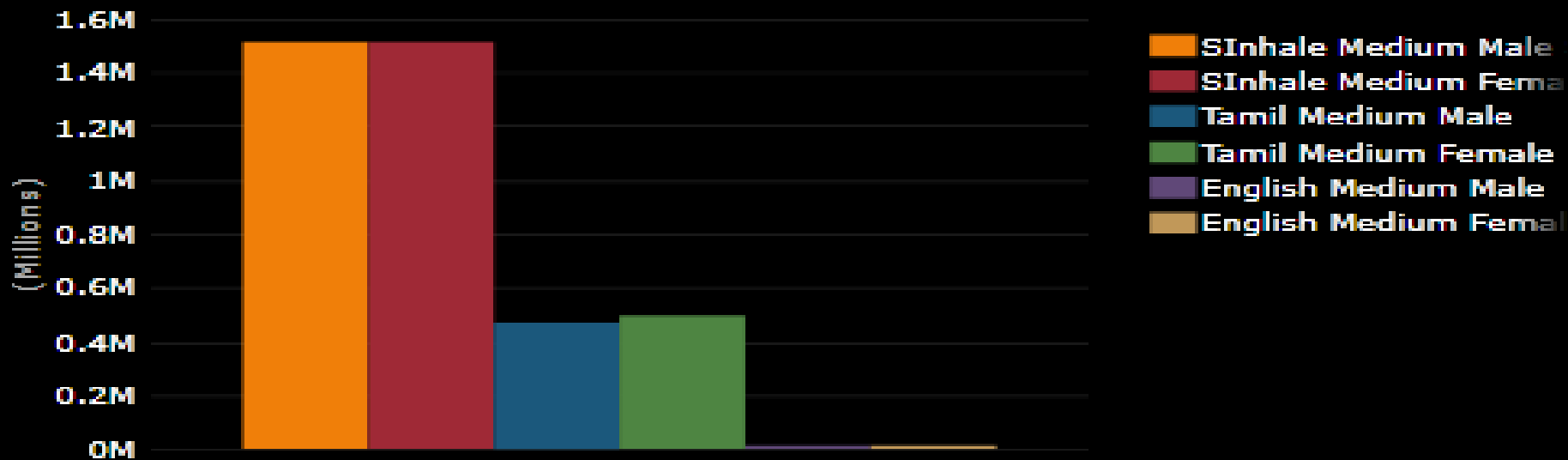


Dashboard on Grade

Total Students by Grade

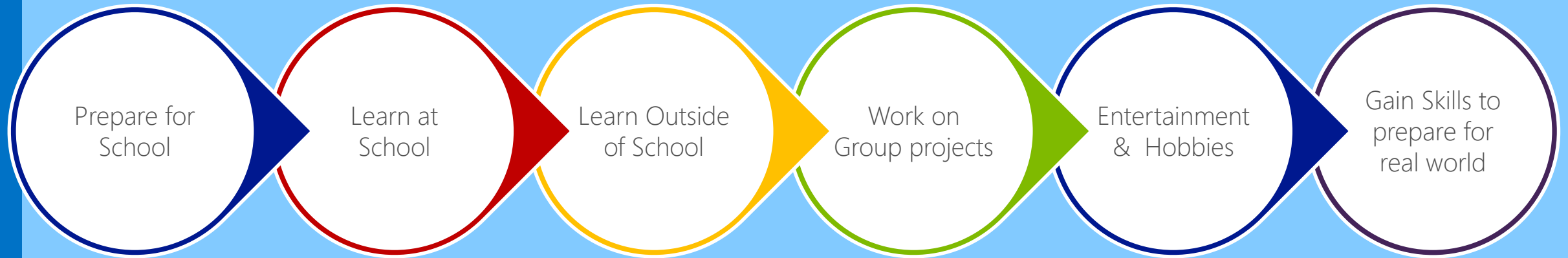


1512205 Sinhale Medium Male Students	1511228 Sinhale Medium Female Students
471188 Tamil Medium Male	495460 Tamil Medium Female
1081 English Medium Male	1252 English Medium Female



- Sinhale Medium Male
- Sinhale Medium Female
- Tamil Medium Male
- Tamil Medium Female
- English Medium Male
- English Medium Female

A day in the life of a student (SCENARIO)



- At night student reviews next day activities including sports, what materials to bring for external and teamwork activities

- Prints and Save Group presentation or Notes to study for exam to review on school bus (offline)

- Takes and share notes or copy notes from the best student of the class
- Interact with facebook and twitter about the class and after school activities
- Create documents for classes and capture information from different internet sources

- Search for information to do homework
- Review audio & video recorded in class
- Creates documents while visiting other friends or while using the parent computer at their work
- Share notes, information and ideas while in the car driving (parents) back home

- Shares documents, information in real time with other students
- Calls and video conference with other students from their school or other school

- Video Gaming, Robotics, Astronomy, Photography and Art activities outside the school
- Agenda with friends fo schedule group activities related to a sport

- Studies extra curricular material and topics including other languages or technology related topics like Mobile and web development, databases, Graphic Design



Questions?

Thank You

