



InCommon®

 **Covalence Solutions LLC**

**NAB Segmentation Review
Phase I**

March 18, 2016

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InCommon Today and Tomorrow

EXECUTIVE SUMMARY

Situation Overview

- InCommon, a not-for-profit, participant owned organization, is uniquely positioned to contribute to protecting the security, identity, and privacy of organizations across the United States—and potentially the globe—to deliver IAM solutions that provide a basis for the R&E community to trust and be safe as they engage across organizations in and out of R&E.
- The number of higher education institutions and people that InCommon could serve is in the thousands of organizations and millions of people.
- Significant growth has occurred in the commercial sector.
- InCommon has limited financial and staff resources that are straining its ability to scale and meet future demand.
- InCommon is in the process of integrating with Internet2, its parent organization. Questions remain about the strategic fit of the organizations and their respective missions.

Challenges

- InCommon primarily engages in relationships with technology executives and mid-management in research and higher education as well as companies that wish to serve them. Bridging past this to build relationships with other stakeholders that decide about IAM in the organizations it serves has been challenging.
- InCommon has limited resources and thus must invest them wisely to maximize its return on investment to participants by focusing on high impact and extensible opportunities.
- Participant expectations about future product and service development are not in keeping with the financial and human resources available to InCommon.
- Pricing levels that InCommon has used were helpful for gaining early traction in the market but were not aligned with the costs of scaling, enhancing, and broadening products and services.
- InCommon needs a more refined way of prioritizing its segment focus to drive greater growth that it can both sustain and support its future product and service offerings.
- InCommon has strong brand equity with large R&E IT audiences, however recently market demand has grown outside of the traditional Internet2 core base.

Research and Education

ANALYSIS AND INSIGHTS

Opportunities

- Tier 1 – 10% of the R&E market or 700 organizations, constitute 80% of the addressable market for InCommon based upon annual revenue. These Tier 1 organizations bring in and largely spend \$502 B a year.
 - ▶ These organizations have large Information Communication Technology (ICT) staffs and budgets making them capable of paying for InCommon solutions and serve 16.2 M people which is 51% of all R&E students and staff.
 - ▶ ICT staff are likely to have qualified IAM staff to deploy, maintain and use InCommon solutions
 - ▶ 58% of Tier 1 organizations are InCommon participants with a 93% penetration of L1.
 - ▶ 300 organizations out of the 700 are not InCommon Participants. 86% of these are L3 and L4. These are prime development targets that should be an easy market extension.

- Tier 2 – The next 10% of the potential market as measured by revenue and number of organizations for InCommon exists in 701 L3 and L4 organizations. They have total revenues of \$62.7 B a year.
 - ▶ While these organizations have on average ICT staffs that are about 1/10th of Tier 1, they spend 25% of Tier 1 making them reasonable prospects for InCommon solutions. They serve 6.5 M people or 21% of all R&E students and staff.
 - ▶ ICT staffing likely indicates a few people with IAM knowledge. However, service and support requirements will increase with these organizations.
 - ▶ Only 14% of these organizations are currently InCommon participants making 86% available for InCommon development
 - ▶ This is still a manageable number of prospective participant organizations but could tax the scale of the service capabilities of InCommon today.

Opportunities

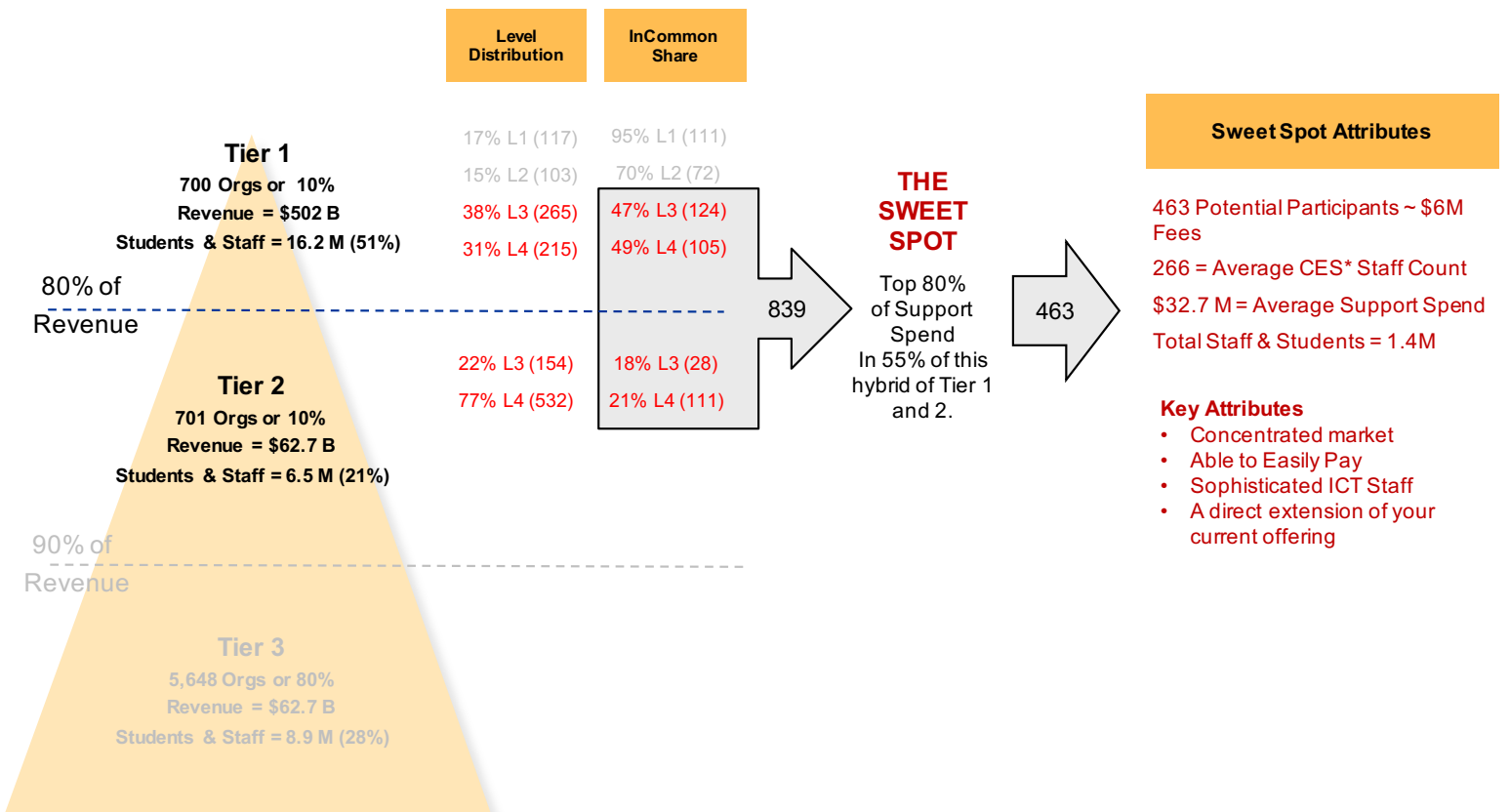
- Tier 3 – The next 10% of the potential market as measured by revenue and 80% as measured by number of organizations presents a vastly different market for InCommon.
 - ▶ 5,648 L3 and mostly L4 organizations. They have total revenues of \$62.7 B a year.
 - ▶ While these organizations have on average ICT staffs that are about 1/10th of Tier 1, they spend 25% of Tier 1 making them reasonable prospects for InCommon solutions. They serve 6.5 M people or 21% of all R&E students and staff.
 - ▶ A new Level 5 was added to represent the less than 1-year non-accredited Education organizations
 - ▶ ICT staffing likely indicates there will only be a few people with IAM knowledge at best and at worst, none. This implies that service and support requirements will be significant with these organizations.
 - ▶ Only 14% of these organizations are currently InCommon participants making 86% available for InCommon development
 - ▶ This is a highly fragmented and high service level group of organizations. Serving this Tier would heavily tax the organization without a turn-key end to end solution and a service partner that can scale to meet the needs of this segment.

InCommon Addressable Market

	Level Distribution	InCommon Share	InCommon Avg Lifetime	Tier Attributes
Tier 1 700 Orgs or 10% Revenue = \$502 B Students & Staff = 16.2 M (51%) 80% of Revenue	17% L1 (117) 15% L2 (103) 38% L3 (265) 31% L4 (215)	95% L1 (111) 70% L2 (72) 47% L3 (124) 49% L4 (105)	7 years 5 years 4 years 3 years	77% of IC's Current Revenue 41% Spend > \$10M on Research 278 = Average CES* Staff Count \$56.6 M = Average Support Spend \$25K / FTE = Expense/Person <ul style="list-style-type: none"> 59% InCommon Penetration 5 yrs. average InCommon Lifetime 41% available for growth Concentrated market Able to Easily Pay Sophisticated ICT Staff High \$ spend per Person
Tier 2 701 Orgs or 10% Revenue = \$62.7 B Students & Staff = 6.5 M (21%) 90% of Revenue	0% L1 0% L2 22% L3 (154) 77% L4 (532)	N/A L1 N/A L2 18% L3 (28) 21% L4 (111)	N/A N/A 4 years 2 years	14% of IC's Current Revenue 2% Spend > \$10M on Research 24 = Average CES Staff Count \$14 M = Average Support Spend \$9K / FTE = Expense/Person <ul style="list-style-type: none"> 14% InCommon Penetration 3 yrs. average InCommon Lifetime 86% available for growth Concentrated market Should be able to Pay Smaller but able ICT Staff Moderate \$ spend per Person
Tier 3 5,648 Orgs or 80% Revenue = \$62.7 B Students & Staff = 8.9 M (28%)	0% L1 0% L2 2% L3 (42) 65% L4 (3063) 33% L5 (1847)	N/A L1 N/A L2 0.0% L3 2.8% L4 (87) 0.1% L5 (1)	N/A N/A N/A 1 year 3 years	4% of IC's Current Revenue 0% Spend > \$10M on Research 5 = Average CES Staff Count \$2.8 M = Average Support Spend \$6K / FTE = Expense/Person <ul style="list-style-type: none"> 4% InCommon Penetration 1 yr. average InCommon Lifetime 96% available for growth Highly Fragmented Market May be Difficult to Pay Small ICT Staff – High Support Low \$ spend per Person

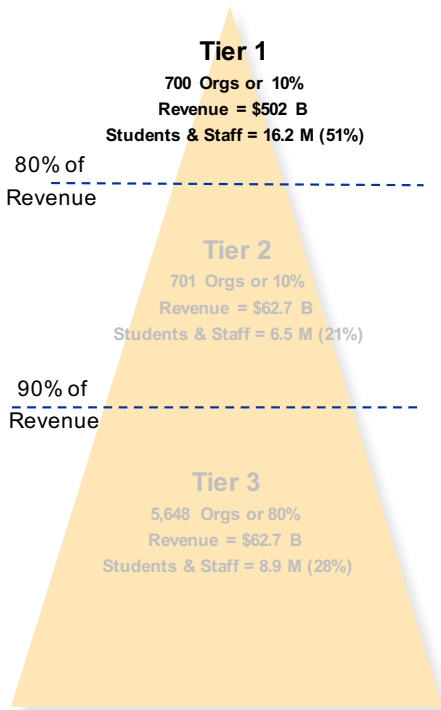
Source: IPEDS 2014 Database analysis in combination with InCommon Sales force data queries. Note: Fuzzy logic matching was used to normalize data where mismatches occurred, manually audited, and in cases, manually corrected for name discrepancies. Income for annual fees at the system level were allocated uniformly to institutions within the system. Where institutions were encountered that paid participant dues and were a member of a system, these fees were left intact and duplicative. Where colleges were paying fees within a university, these were rolled up into the University for this analysis.

InCommon Addressable Market – Extensible Growth

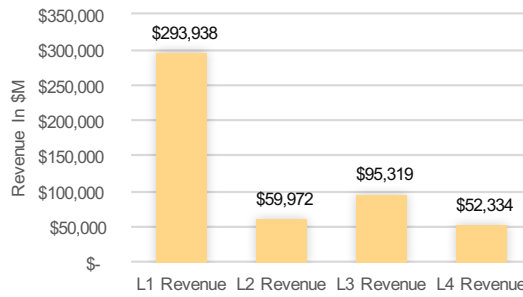


Source: IPEDS 2014 Database analysis in combination with InCommon Sales force data queries. Note: Fuzzy logic matching was used to normalize data where mismatches occurred, manually audited, and in cases, manually corrected for name discrepancies. Income for annual fees at the system level were allocated uniformly to institutions within the system. Where institutions were encountered that paid participant dues and were a member of a system, these fees were left intact and duplicative. Where colleges were paying fees within a university, these were rolled up into the University for this analysis.

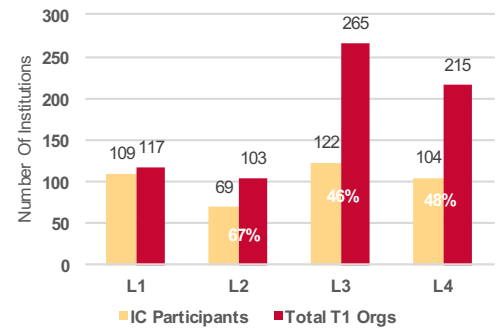
InCommon Addressable Market – Tier 1



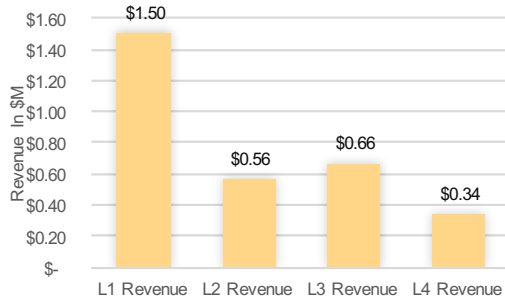
Tier 1 Total Institutional Annual Revenue By Level



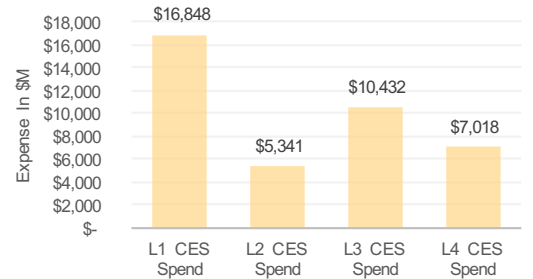
Tier 1 InCommon Penetration By Level



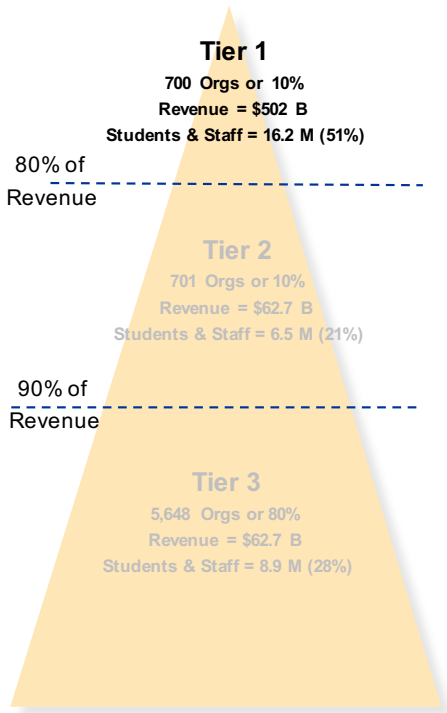
Tier 1 InCommon Total Annual Revenue By Level



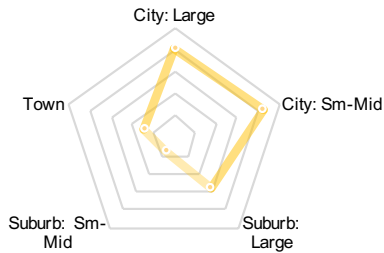
Tier 1 CES Support Total Annual Expenses By Level



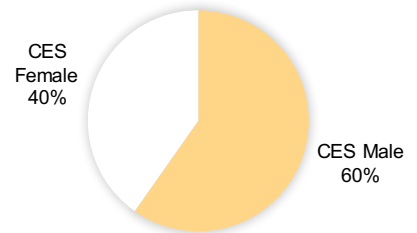
InCommon Addressable Market – Tier 1



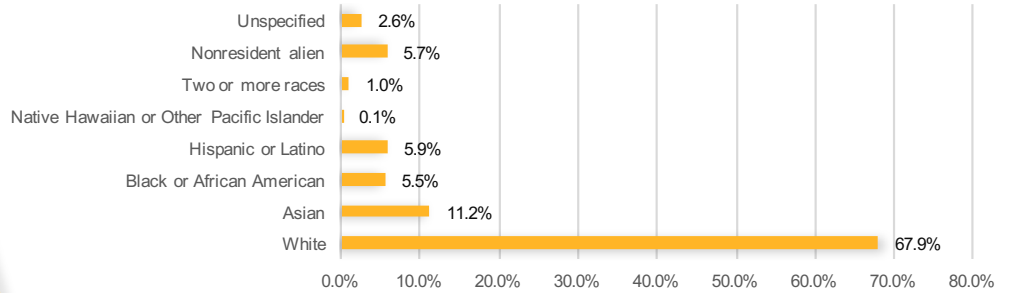
Tier 1 Locations



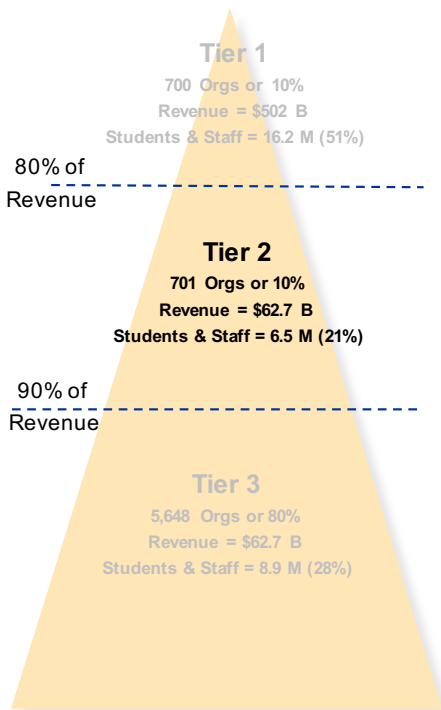
Tier 1 CES Support Demographics



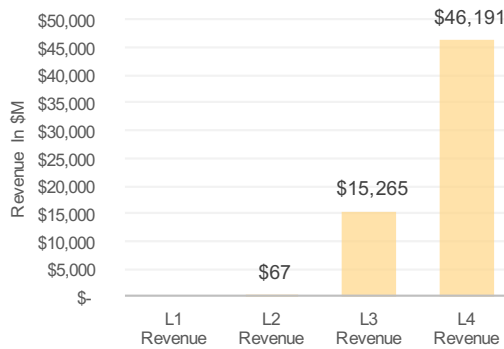
Tier 1 CES Support Ethnicity



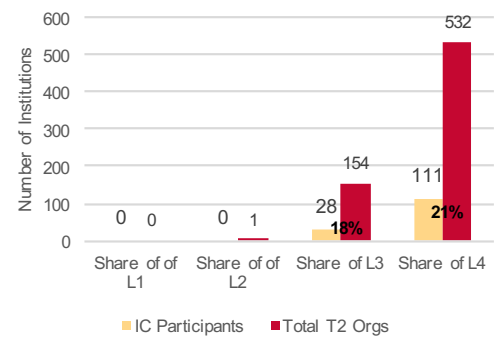
InCommon Addressable Market – Tier 2



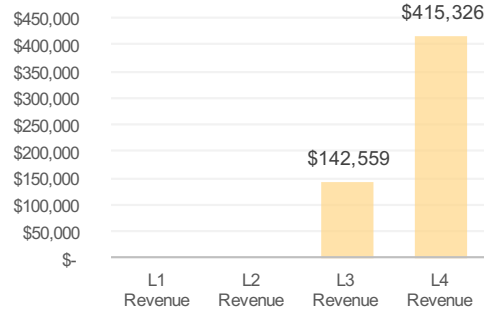
Tier 2 Total Institutional Annual Revenue by Level



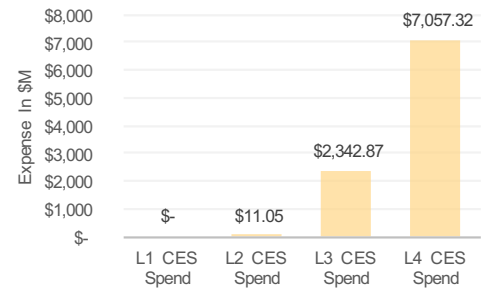
Tier 2 InCommon Penetration by Level



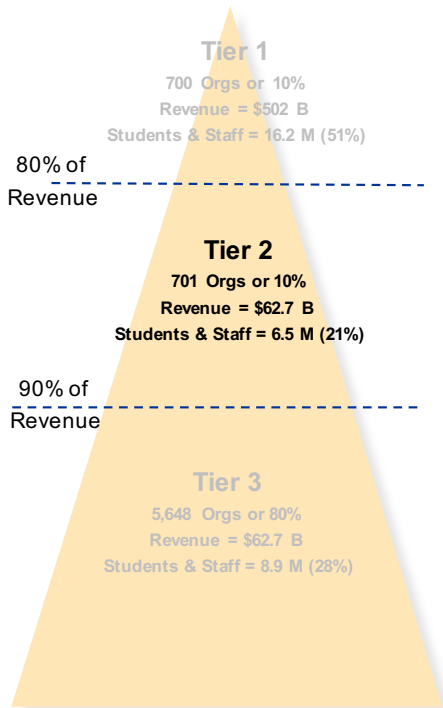
Tier 2 InCommon Total Annual Revenue by Level



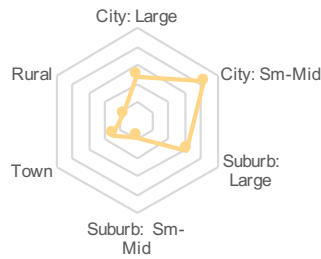
Tier 2 CES Support Total Annual Expenses



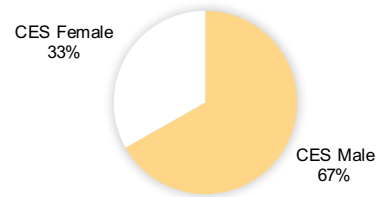
InCommon Addressable Market – Tier 2



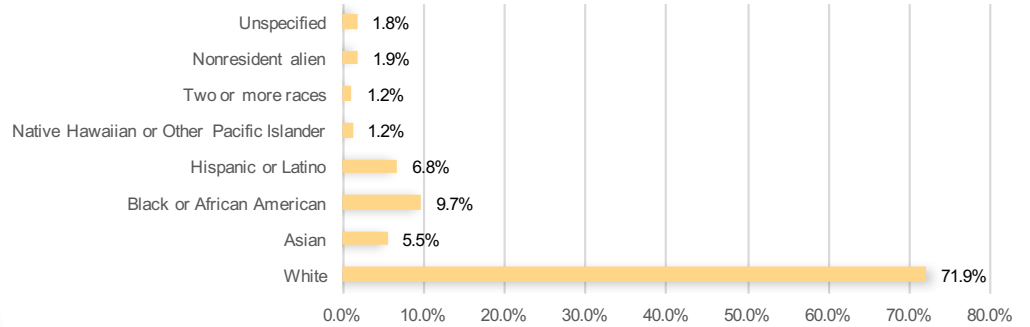
Tier 2 Locations



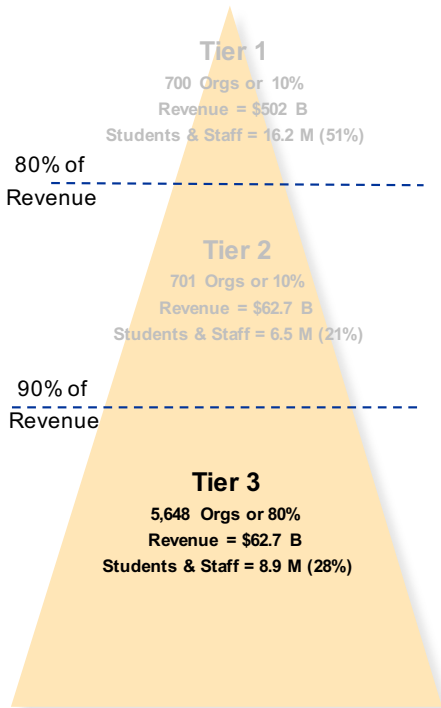
Tier 2 CES Support Demographics



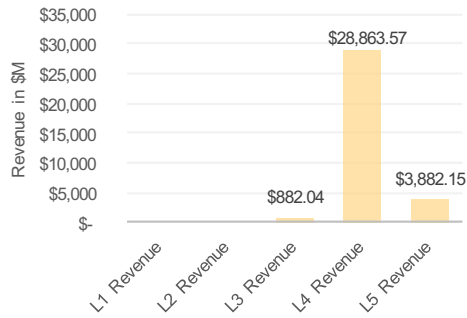
Tier 2 CES Support Ethnicity



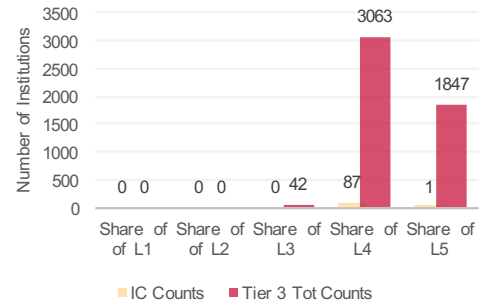
InCommon Addressable Market – Tier 3



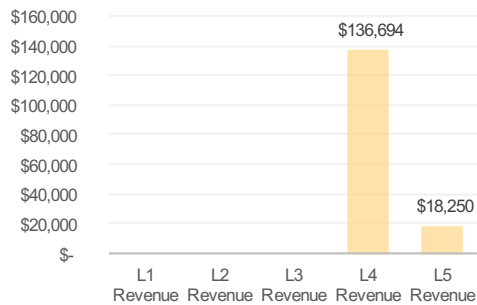
Tier 3 Total Annual Institutional Revenue by Level



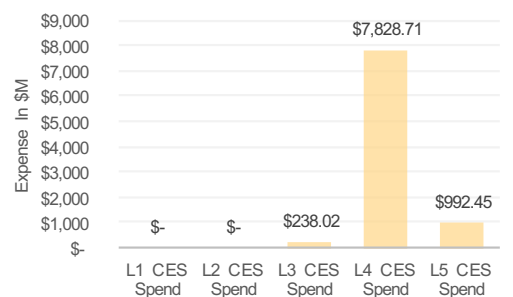
Tier 3 InCommon Penetration by Level



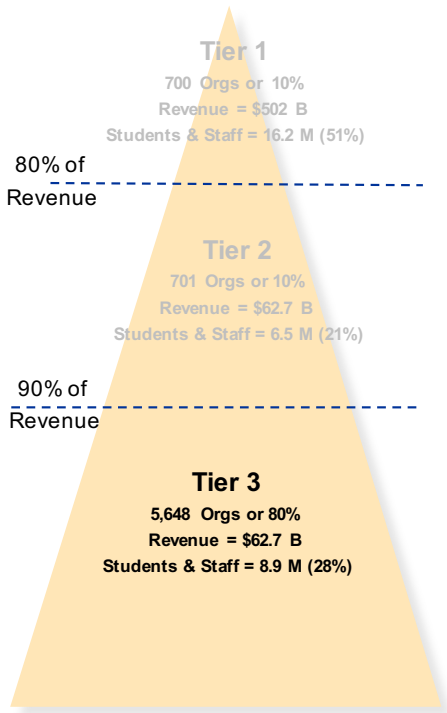
Tier 3 InCommon Total Annual Revenue by Level



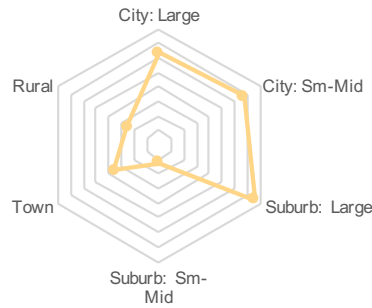
Tier 3 CES Support Total Annual Expenses



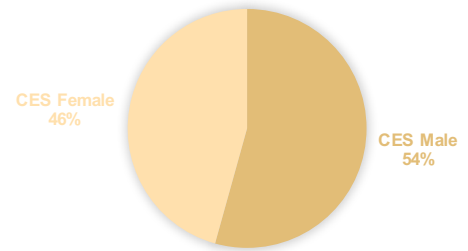
InCommon Addressable Market – Tier 3



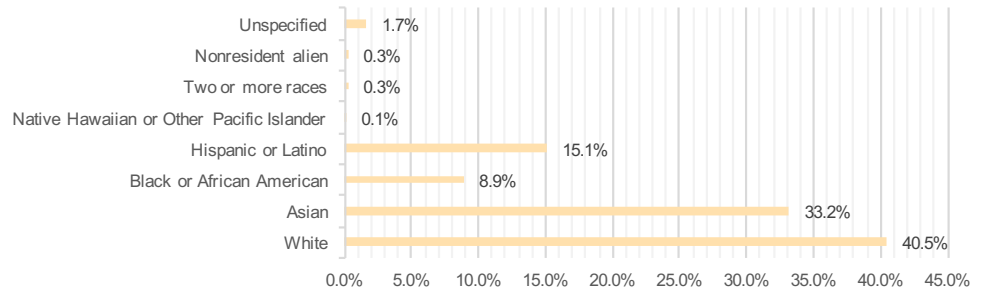
Tier 3 Locations



Tier 3 CES Support Demographics

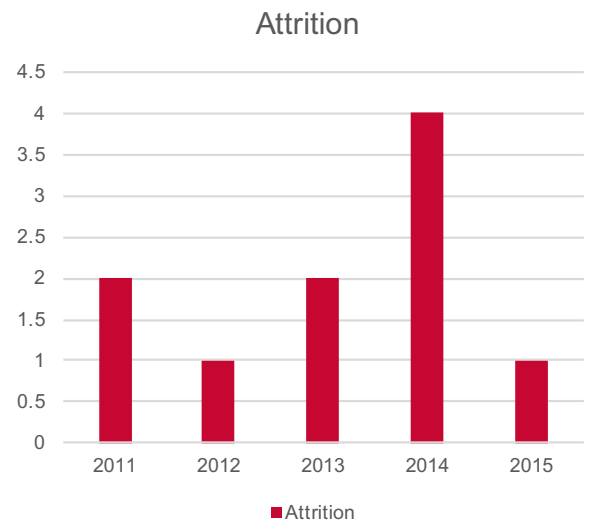
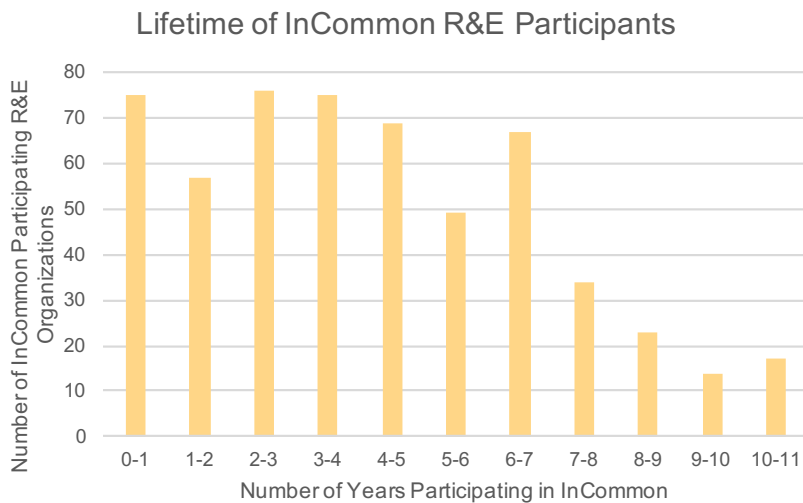


Tier 3 CES Support Ethnicity



Growth and Loyalty of InCommon R&E Participants

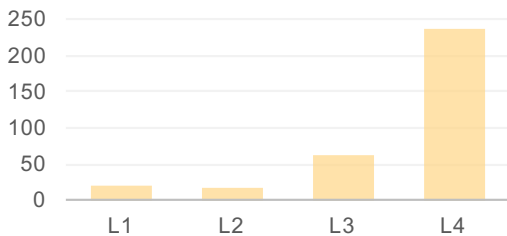
In the first 5 years of InCommon participation grew exponentially. Afterwards, it grew at a steady but flat rate. Growth has been largely driven by word of mouth and organically. By focusing on extensible market segments like the Sweet spot highlighted earlier, InCommon should be able to accelerate growth again and gain funding to support further IAM solution development. Attrition rates indicate once an R&E organization participates they are likely to stay.



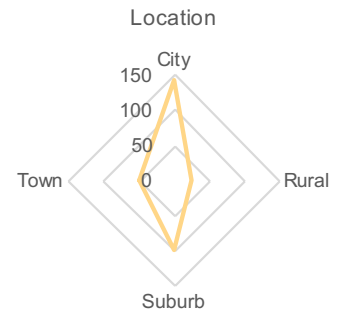
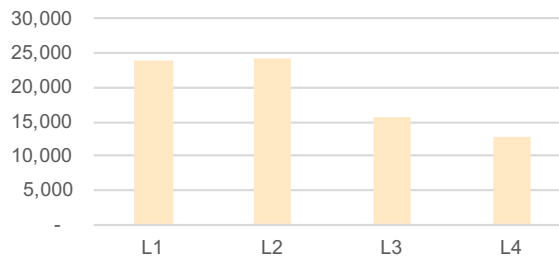
R&E Organizations Joining over the Last 3 Years

Growth in R&E participants over the last several years has occurred primarily in Level 4 – 71% of all new organizations. However this is overshadowed with 113 organizations coming from the California Community College System. These Level 4 organizations have small CES staff counts and therefore could be challenging to support. 34% of these organizations would be in Tier 1 or Tier 2.

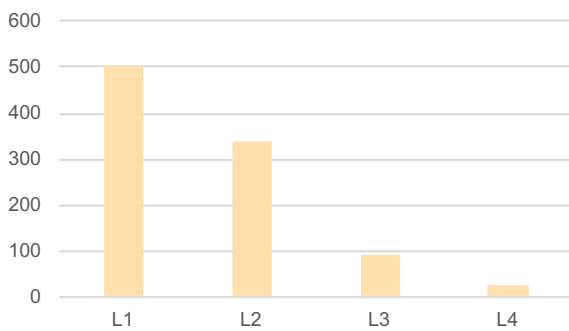
R&E Organizations Joining in the Last 3 Years



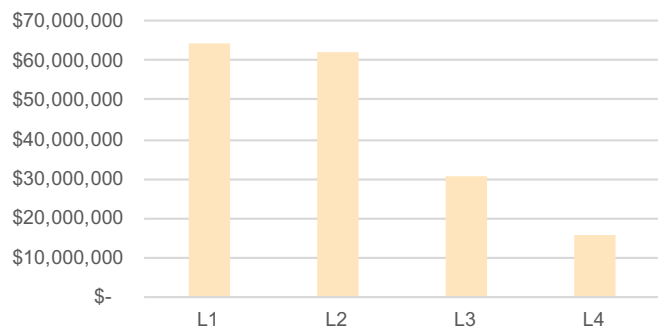
Average Enrollment and Staff Population per Level



Average CES Support Staff FTEs per Level



Average Support Spend per Level



Growth Opportunities and Focus

Consider the following. Acceptance of these suggestions has significant implications for the rest of this project:

- **Immediate Opportunity:** 463 L3 and L4 organizations who are not Participants are an extensible market opportunity. Focus on these organizations should be a priority:
 - ▶ Meeting these organizations needs is a natural extension of InCommon's current offerings and capabilities;
 - ▶ CES staff and funds to participate;
 - ▶ Leverage's InCommon's brand strength in the community;
 - ▶ Small incremental cost to serve against revenue.

- **Medium Term:** 363 L3 and L4 organizations in Tier 2 with reasonable IT staffing present a secondary market opportunity:
 - ▶ Meeting the needs of these organizations will likely require additional support and potentially IAM solutions that are easier to implement;
 - ▶ Once short term organizations are participating, incremental funds could be used to address the needs of these organizations.

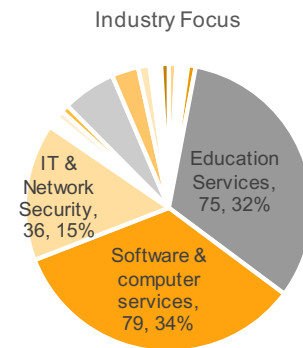
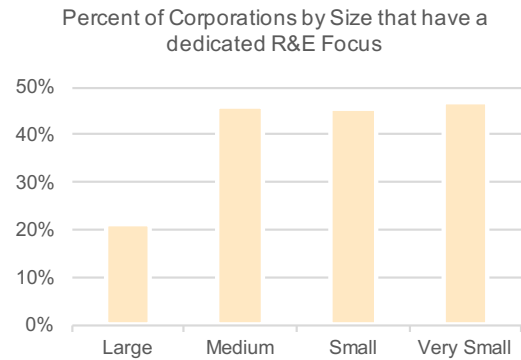
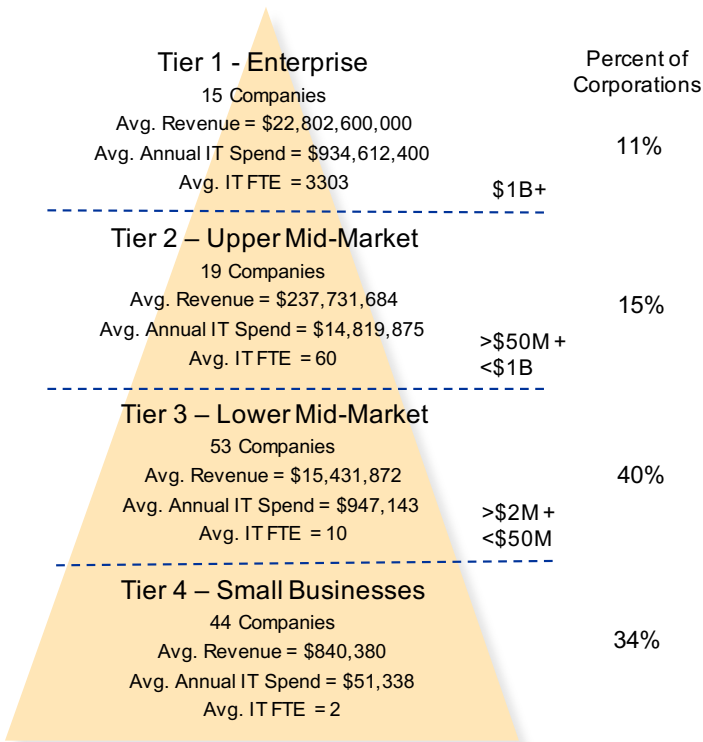
- **Long Term:** Where do you draw a cut off for the addressable market? In the absence of a turn key solution, moving down into Tier 3 has significant scaling and support issues.

Commercial Participants

ANALYSIS AND INSIGHTS

InCommon Corporate Participants

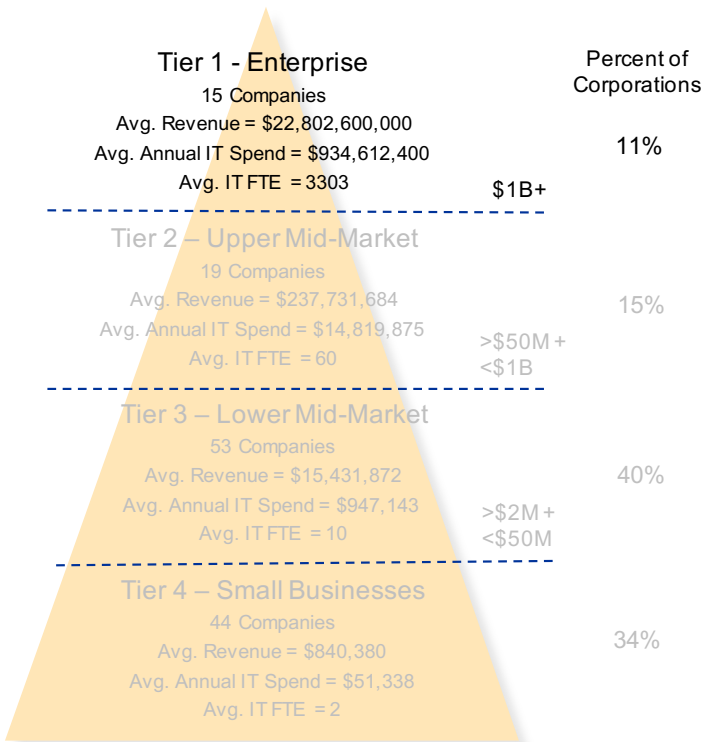
74% of companies are lower mid-market to small businesses. Not surprisingly the alignment with R&E increases outside the Enterprise sector.



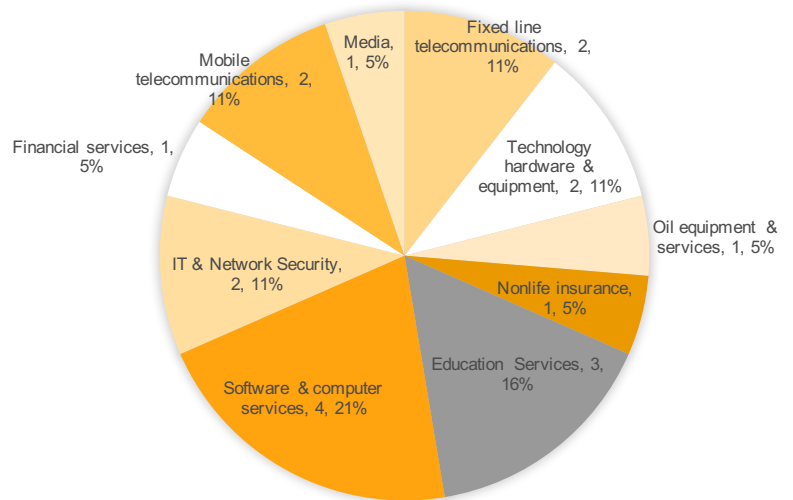
Source: Salesforce queries of InCommon data and Gartner categorization schema for companies with the addition of the Small Business category.

InCommon Corporate Participants - Enterprise

Enterprise participants are widely dispersed across industry segments. However, given their large size they contribute to InCommon proportionately to their smaller number.



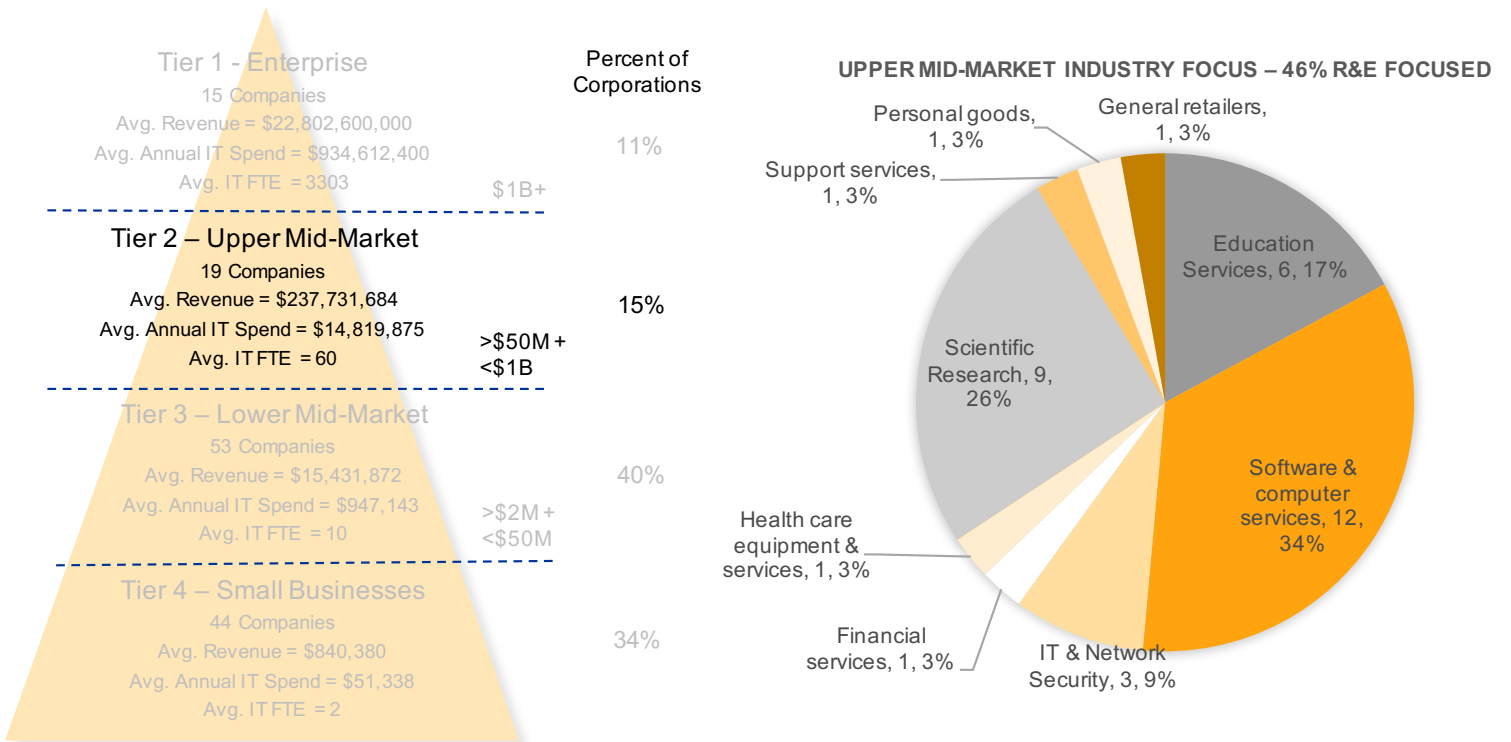
ENTERPRISE INDUSTRY FOCUS – 21% WITH R&E FOCUS



Source: Salesforce queries of InCommon data and Gartner categorization schema for companies with the addition of the Small Business category.

InCommon Corporate Participants – Upper Mid-Market

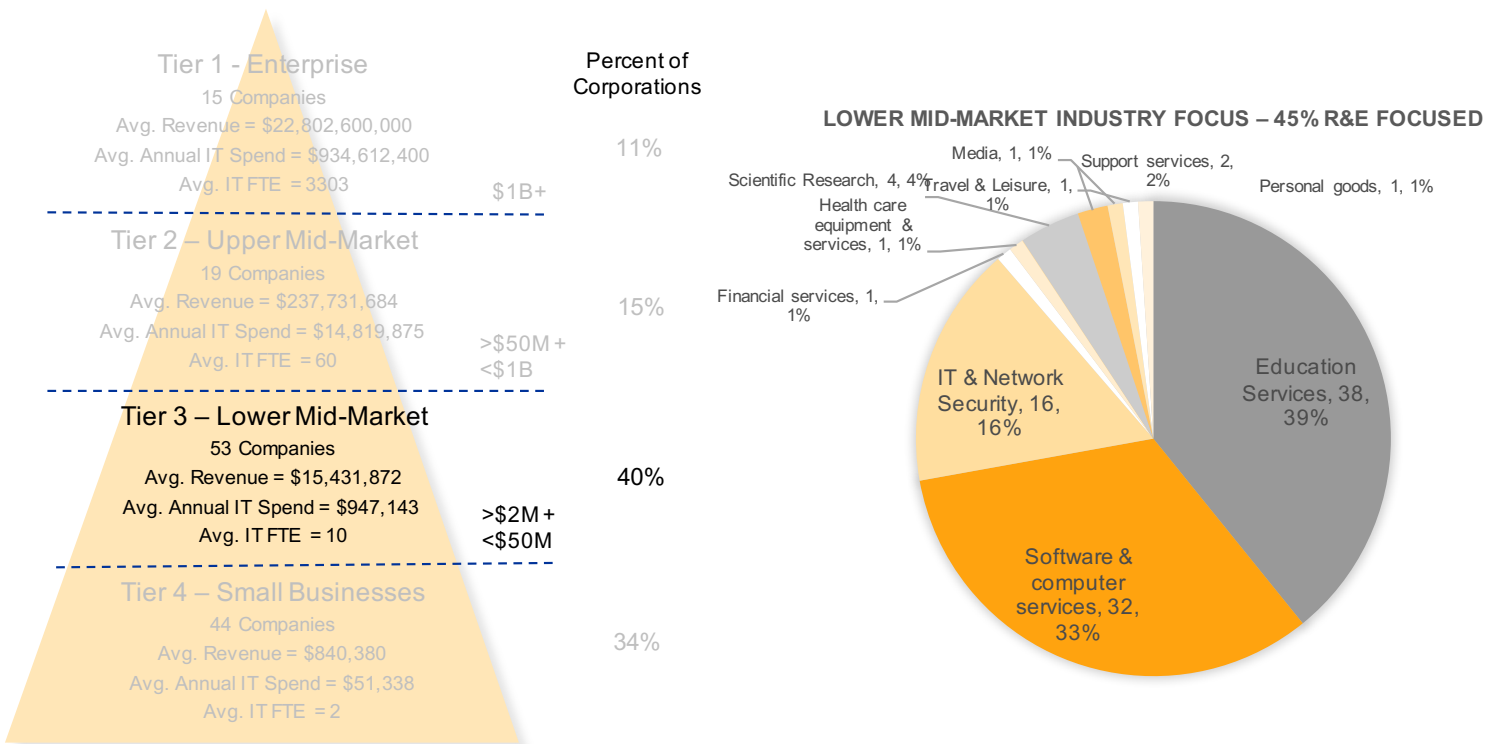
Mid-Market are more closely aligned with InCommon's core offering and focus.



Source: Salesforce queries of InCommon data and Gartner categorization schema for companies with the addition of the Small Business category.

InCommon Corporate Participants – Lower Mid-Market

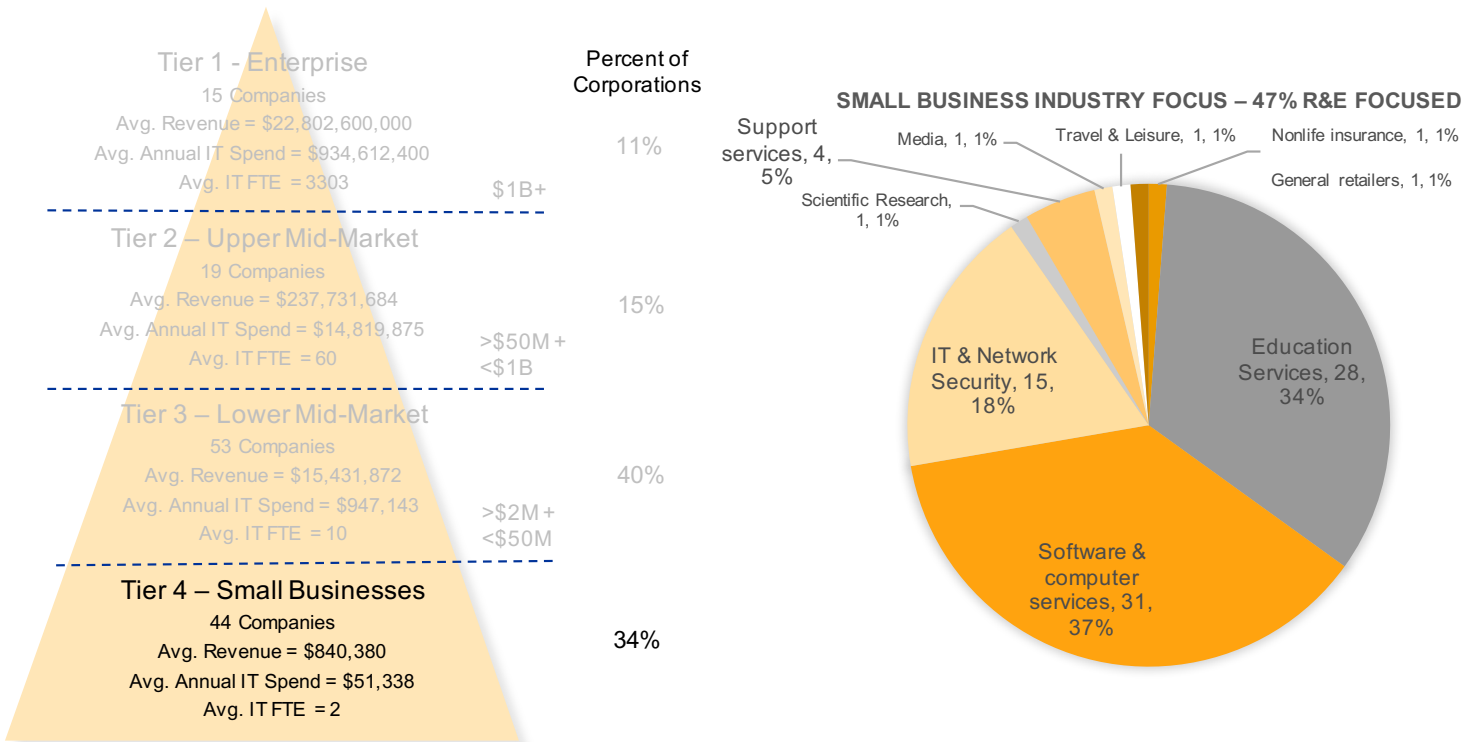
Lower Mid-Market has good alignment with InCommon’s offerings and focus.



Source: Salesforce queries of InCommon data and Gartner categorization schema for companies with the addition of the Small Business category.

InCommon Corporate Participants – Small Business

Again good alignment exists with small business participants. Given the current dues structure, this segment would be the easiest to grow to drive incremental revenue since it is so large.

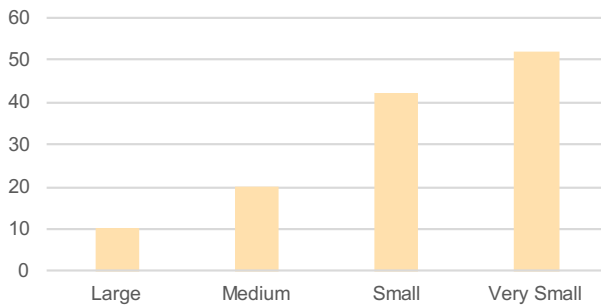


Source: Salesforce queries of InCommon data and Gartner categorization schema for companies with the addition of the Small Business category.

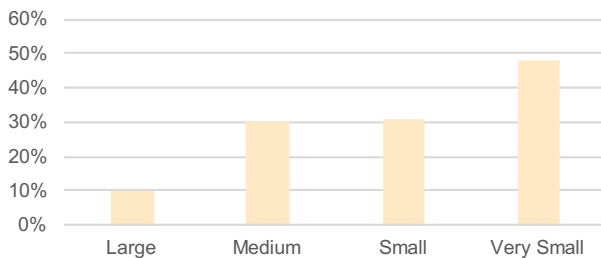
Commercial Participants in the Last 3 Years

Companies that have joined InCommon over the last three years in 56% of cases are small or very small organizations are more focused on R&E than larger organizations. This speaks to greater alignment of smaller companies with the focus of InCommon. These companies in general are also technology companies or purveyors of educational services.

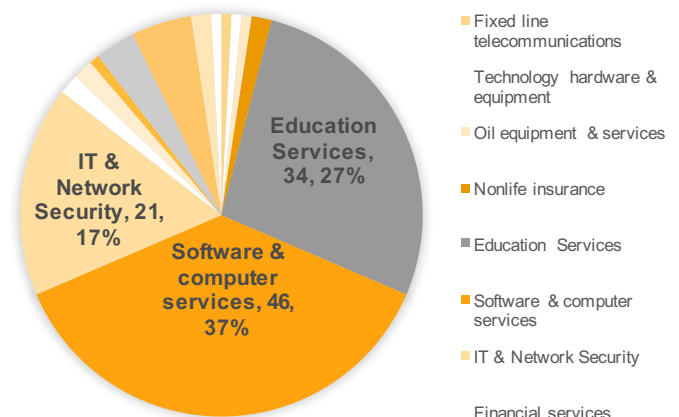
Number of Companies Joining by Size



Percentage of Companies by Size that are R&E Focused

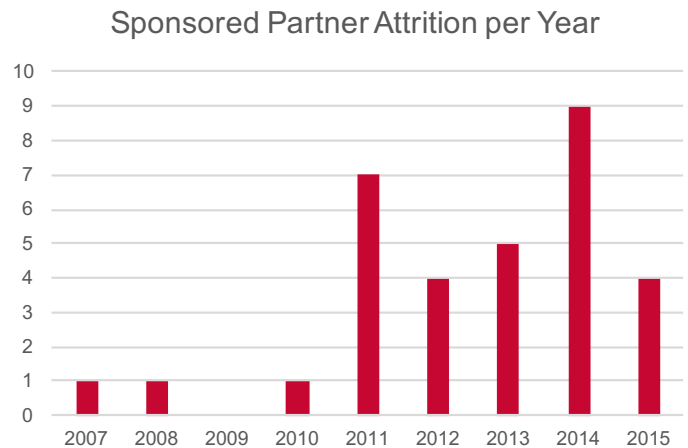
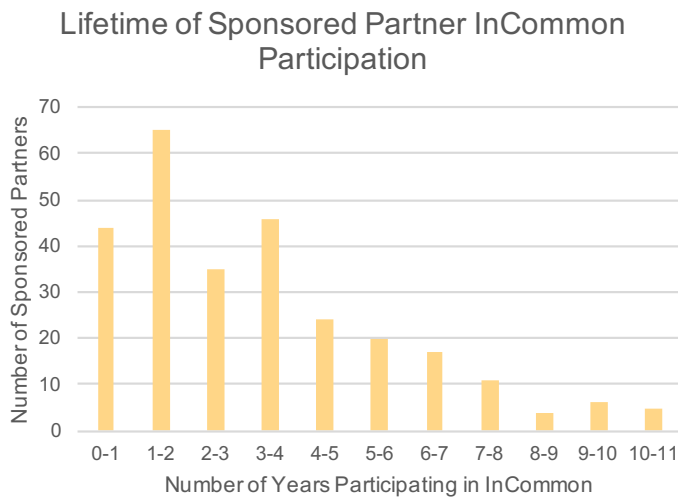


INDUSTRY BREAKDOWN



Growth and Loyalty of InCommon Commercial Participants

Growth of corporate and sponsored partner participation has been increasing in the last few years. However, attrition is higher than R&E running at +10% per year.



Corporate Participation Hypothetical Framework

Corporations form strategic alliances for the one or more of the following reasons:

1. Critical to the success of a core business goal or objective;
2. Critical to the development or maintenance of a core competency or other source of competitive advantage;
3. Blocks a competitive threat;
4. Creates or maintains strategic choices for the firm;
5. Mitigates a significant risk to the business.

Our hypothesis that needs validation is that each corporate segment participates in InCommon for the following reasons:

- Enterprise:
 - ▶ 1 – Uses InCommon as a sales channel to reach Higher Ed CxOs
 - ▶ 3 & 5 – Keeps up to date on what InCommon is doing that could impact them in the R&E space
- Upper Mid-Market and Lower Mid-Market:
 - ▶ 1 & 4 – Marketing and Sales Channel, Reduces friction and opens up opportunities in R&E that could have been challenging to bridge
- Small Business:
 - ▶ 1, 2, 4, 5 – Other than blocking a threat, this group has the most to gain from a relationship with InCommon