Collecting accurate data related to assistive technology (AT) can be valuable and useful in many ways. The AT indicator data can be analyzed by PEIMS data elements such as disability categories and instructional arrangement and can be analyzed to determine if equitable services are being provided. The data provide statewide, region, district, and campus measures to use for trends, accountability, setting goals and improvement planning purposes.

PEIMS Data Analysis for 2014-2015

Analysis of Public Education Information Management System (PEIMS) data relative to AT continues to indicate that AT is being significantly under-reported.

The chart below provides data over the years for comparison purposes:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Students in Texas</th>
<th>Special Education Students</th>
<th>% Special Education of Total</th>
<th>Students Coded as Using AT</th>
<th>% of Special Education Coded as Using AT</th>
<th>% of Total Students Coded as Using AT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001-2002</td>
<td>4,059,000</td>
<td>483,000</td>
<td>11.90%</td>
<td>18,159</td>
<td>3.76%</td>
<td>0.45%</td>
</tr>
<tr>
<td>2006-2007</td>
<td>4,600,000</td>
<td>487,000</td>
<td>10.59%</td>
<td>46,100</td>
<td>9.47%</td>
<td>1.00%</td>
</tr>
<tr>
<td>2009-2010</td>
<td>4,825,000</td>
<td>435,000</td>
<td>9.02%</td>
<td>47,100</td>
<td>10.83%</td>
<td>0.98%</td>
</tr>
<tr>
<td>2010-2011</td>
<td>4,934,000</td>
<td>443,000</td>
<td>8.98%</td>
<td>51,700</td>
<td>11.67%</td>
<td>1.05%</td>
</tr>
<tr>
<td>2011-2012</td>
<td>4,998,579</td>
<td>440,743</td>
<td>8.82%</td>
<td>55,888</td>
<td>12.68%</td>
<td>1.12%</td>
</tr>
<tr>
<td>2012-2013</td>
<td>5,075,840</td>
<td>440,570</td>
<td>8.68%</td>
<td>57,640</td>
<td>13.08%</td>
<td>1.14%</td>
</tr>
<tr>
<td>2013-2014</td>
<td>5,150,000</td>
<td>443,795</td>
<td>8.62%</td>
<td>61,014</td>
<td>13.75%</td>
<td>1.18%</td>
</tr>
<tr>
<td>2014-2015</td>
<td>5,232,065</td>
<td>451,606</td>
<td>8.63%</td>
<td>71,524</td>
<td>15.84%</td>
<td>1.37%</td>
</tr>
</tbody>
</table>

Data for 2014-2015 reported by the Texas Education Agency (TEA) cited approximately 5,232,000 students in Texas public schools. Approximately 451,600 were identified as special education students, which is approximately 8.6% of the total. Only 71,524 students were coded in PEIMS as receiving AT devices and/or services. This number is 15.8% of the special education population but only approximately 1% of the total number of students.

The good news is that analysis of the data over the past thirteen years indicates that the coding of the AT indicator has consistently increased. In 2001-2002, the number of students coded as using AT was only 4% of the special education students and in 2014-2015 that number had increased to approximately 16%. However, the bad news is that it is anticipated that the use of AT would be much higher than is reported. In times past, many considered that AT was primarily for students with more significant disabilities, often referred to as low incidence disabilities. Today, however, the benefits of technology for students with high incidence disabilities
such as learning disabilities (LD) are widely recognized. Students with LD are approximately 35% of special education students according to the National Center on Educational Statistics (http://nces.ed.gov/programs/digest/d14/tables/dt14_204.30.asp), and studies show that 80% of the students identified as LD have reading disabilities. There is strong evidence to suggest that supported reading software can positively impact performance of students with reading disabilities. Other students with dyslexia, ADHD, autism, written expression problems are able to perform academic tasks independently and successfully with the use of technology and accessible content. Consider students who have visual impairments. It is hard to imagine such a student who does not need AT devices or services; yet, all students coded as having a visual disability are not coded as receiving AT. In summary, the number of students, both low and high incidence, coded as using AT is projected to be significantly higher than reported.

**What are the benefits of accurate AT data?**

For many students with disabilities, AT plays an important role in their independence, participation and achievement in the general curriculum. It is legally required and critical that AT is appropriately considered during the development and revision of the IEP and that AT devices and services are provided when needed. Overall district and campus results are improved by students with disabilities succeeding academically in the classroom and being able to demonstrate their learning on the accountability measures.

The greater the number of students that are counted in PEIMS as using AT, the bigger the collective voice there is to advocate for what is needed for them to be successful. Greater representation of AT in PEIMS would support special educators and others in promoting:

- More appropriate accommodations in high stakes accountability measures such as students being able to use the AT they use in the classroom every day.
- Procurement of accessible materials which are usable by the widest range of student variability including specialized formats of print instructional materials and accessible online learning materials and technology.
- Inclusion in state and district wide technology planning and budgeting including the Instructional Materials Allotment process.

Districts and schools are being held accountable for students with disabilities meeting the same high standards on accountability measures as their peers. For many students with disabilities AT and accessible technology provide access to the curriculum and enable them to demonstrate what they know. When being tested on high stakes accountability measures students need appropriate accommodations and to be able to use the same AT that they use in the classroom on a daily basis. It is well documented that students with disabilities have difficulty with transferring skills and, in order to use built-in accommodations on a test, they often are concentrating on trying to operate the technology to the detriment of demonstrating their knowledge. Results could be improved by students with disabilities being able to use their own AT that they use in the classroom every day rather than test specific built-in accommodations. By ensuring that students with disabilities have access to technology and accessible materials that they need, they will be better able to succeed academically and demonstrate that knowledge on high stakes testing.

Increased availability of accessible instructional materials to students who need them provides an avenue for improved results. Many students with disabilities have print disabilities and are unable to read or use standard print materials. These students need specialized formats of print materials in order to be able to participate in and interact with the curriculum. In addition, more and more districts are increasingly using online digital learning materials in the classrooms. Unless digital materials are created with broad accessibility features built-
in up front, they are virtually impossible to retrofit. By purchasing materials and technology that are accessible to all, there are many benefits including —

- Supports all students learning as there are many built-in supports and features that are beneficial to a wide range of students
- Enables students with disabilities to be included and to participate and succeed in the curriculum
- Reduces complexity for teachers who don’t have to teach using multiple programs.
- Reduces costs as districts do not have to provide multiple programs and platforms

In order for the needs of students with disabilities related to assistive technology, accessible materials and accessible technology to be appropriately considered in the district wide technology planning and budgeting process, special educators need to be a collaborative part of the development. The goal is that special education students are considered an integral part of the total student population.

**Why is the AT indicator being under-reported?**

Fundamental issues which may contribute to the lack of reliable data include—

- Students who need of AT but who are not receiving it
- Students who need the technology that is provided in the classroom for all students, but the technology is not included as AT in the IEP. If a student requires the AT to access the curriculum, it should be included in the IEP.
- School personnel may not be fully aware of the broad range of items and services included in the definition of AT devices and services and may fail to document in PEIMS the AT that is being provided.
- Inaccurate information given to the PEIMS clerks who code the data into the software system used to report data to TEA. There may be students who are using AT in classrooms, but it is not being reported accurately to the PEIMS clerks to include in the data.
- Inaccurate information collected by the software programs used to report PEIMS data to TEA. Some of the software programs used by districts are incorrect as they indicate that the AT indicator should only be coded positively if AT is delivered as a related service.

**District action steps**

In order to increase the accuracy and consistency of the data being collected, district special education administrators and personnel are asked to evaluate the services provided and how the data are collected and reported in their districts.

Action items for districts might include—

- Ensure that the need for AT is considered as a part of the development and revision of the IEP, is provided when needed and is used in the classroom on a daily basis
- Ensure that when a student with a disability needs the technology that is available to all students in the classroom that it is included in the IEP. The key question here is —does the student need the technology to be successful? If the technology were removed would the student continue to be able to successfully complete the task? If not, the technology needs to be added to the IEP and, by definition, it would be AT.
- Increase awareness of district staff of the definition of AT devices and services and when it should be coded. District personnel may not recognize all of the items and services that fall under the definition of AT devices and services and may not be “taking credit” for what is being used in the classroom. For example, low tech devices should also be included as AT.
• Determine if the AT data are being coded accurately and consistently? Do the coding sheets used to provide data to the PEIMS clerks accurately contain the AT indicator.
• Add AT issues to data entry trainings for more consistent and accurate data entry.
• Determine if the data collection software program used by the district accurately collects the AT data. Some software programs indicate that the data would only be coded “1” if AT is provided as a related service. This practice is not accurate; the AT indicator should be coded positively if AT is delivered as part of special education, related services or supplementary aids and services. If this is the case, either work with the software developers to correct the item or devise a work-around such as training staff to code the AT indicator “1” if AT devices and/or services are provided.

**PEIMS Data Standards for Assistive Technology**

<table>
<thead>
<tr>
<th>PEIMS Data Standards</th>
<th>(<a href="http://tea.texas.gov/Reports_and_Data/Data_Submission/PEIMS/PEIMS_Data_Standards/2015-2016_Data_Standards/">http://tea.texas.gov/Reports_and_Data/Data_Submission/PEIMS/PEIMS_Data_Standards/2015-2016_Data_Standards/</a>)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record Type</td>
<td>163 Student Data - Special Education</td>
</tr>
<tr>
<td>Data Element</td>
<td>EO997 Assistive Technology Indicator Code</td>
</tr>
<tr>
<td>Code</td>
<td>CO88</td>
</tr>
</tbody>
</table>

For PEIMS data collection, a 163 Student Data – Special Education record - must be reported for each student receiving special education and related services. The Assistive Technology Data Element EO997 is reported on the 163 record and is defined in the PEIMS Data Standards. The PEIMS definition of AT devices and services is the same as in the Individuals with Disabilities Education Act (see the box below). If an AT device and/or service is included in the IEP, it should be coded in PEIMS.

The participation code used for the AT indicator is Code Table CO88. The AT indicator should be coded “0” if the student is not receiving AT devices and/or services. The AT indicator should be coded “1” if the student is receiving devices and/or services. If the student is receiving or is scheduled to receive an AT device or service when the snapshot data are collected, the AT indicator should be coded “1”. The rule of thumb is that if the ARD Committee determines that a student requires an AT device or service, and it is included in the IEP, the AT participation code should be coded “1.” See the “Assistive Tech Indicator Code” provided below for definitions.

ASSISTIVE-TECH-INDICATOR-CODE indicates whether the student receiving special education and related services received, or is scheduled to receive, an assistive technology device or service during the current school semester. "Assistive technology device" means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities. The term does not include a medical device that is surgically implanted or the replacement of such device. "Assistive technology service" means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. The term includes: a) the evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment; b) purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities; c) selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing assistive technology devices; d) coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs; e) training or technical assistance for a child with a disability or, if appropriate, that child's family; and f) training or technical assistance for professionals (including individuals providing education or rehabilitation services), employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of children with disabilities. Assistive technology devices and/or services must be made available if required as part of a child's special education, as a related service, or as supplementary aids and services. (See 34 CFR §§300.5-300.6 and 19 TAC §89.1050.)
Frequently asked questions —

Is it true that AT should only be coded as a “1” when provided as a related service?  
No, AT devices and/or services must be made available if required as part of a child’s special education, as a related service, or as supplementary aids and services. (34 CFR Section 300.105)

How should no tech or low tech items be coded?  
Based on the definition of AT, items range from low to high tech; and, if the no or low tech items are used by a student, they should be included in the IEP and the AT indicator should be coded “1.”

What about adaptive equipment provided by related service personnel? Is the adaptive equipment considered AT?  
Yes, the definition of AT includes any item that improves functional capabilities.

What if a student is using the same technology that other students in the classroom are using, should this technology be included in the IEP?  
The answer is “yes,” if the student needs the technology in order to access and achieve in the curriculum.

Is a calculator AT?  
The answer is “yes,” if the student requires the calculator in order to access the curriculum. For example, a student with a learning disability in math or a physical disability might require a calculator to execute math problems. If so, the calculator should be included in the IEP and by definition would be AT.

Is an AT evaluation required before an item can be coded as AT?”  
The answer is “no” – there is no requirement that a formal AT evaluation must be completed. If the ARD Committee determines that the student needs an item used in the classroom in order to improve functional capabilities, then it should be included in the IEP and coded as AT in PEIMS.

Would a scheduled AT evaluation be coded as AT?  
Yes, the AT indicator should be coded when AT devices and or services are provided. Services include AT evaluations, which if scheduled during the fall semester when snapshot data are collected should also be included.

Contacts
Your commitment to continual improvement in the provision of AT devices and services and data collection in Texas is appreciated. If you have any questions or concerns, please do not hesitate to contact me at kirk.behnke@esc4.net or your regional representative. Each Education Service Center (ESC) provides AT training and technical assistance. For assistance at your ESC, refer to the ESC Contact listing on the “Contact Us” page http://www.texasat.net/default.aspx?name=contacttatn