

Data Warehousing in Michigan Schools: Executive Summary

August 2005

Between March and August 2005, the ISDs/RESAs in Michigan completed a survey conducted by the MAISA Technology Committee. The purpose of the survey was to determine the status of data warehousing in Michigan schools. The committee included with the survey a definition of data warehousing. The definition given was:

What is data warehousing?

- A tool to help districts become data driven in order to meet the requirements of NCLB and EdYES!
- A collection of various sets of data found in a variety of unrelated locations and formats brought into one relational database.
- It will allow districts to find answers and ask complex questions that uncover underlying problems – leading to the design of data driven student achievement and school improvement strategies.
- Data incorporated into a fully relational data warehouse includes:
 - Financial data
 - Personnel data
 - Building infrastructure data
 - Student demographic data
 - Student achievement data
 - Assessment data

It was noted in the survey introduction that there are many tools that school districts are using across the country that are data mining tools (such as student assessment data, student information systems, and document storage systems). While they are great data collection tools, and may give some relevant and meaningful reports, they are not all 'data warehouses' as defined by the committee.

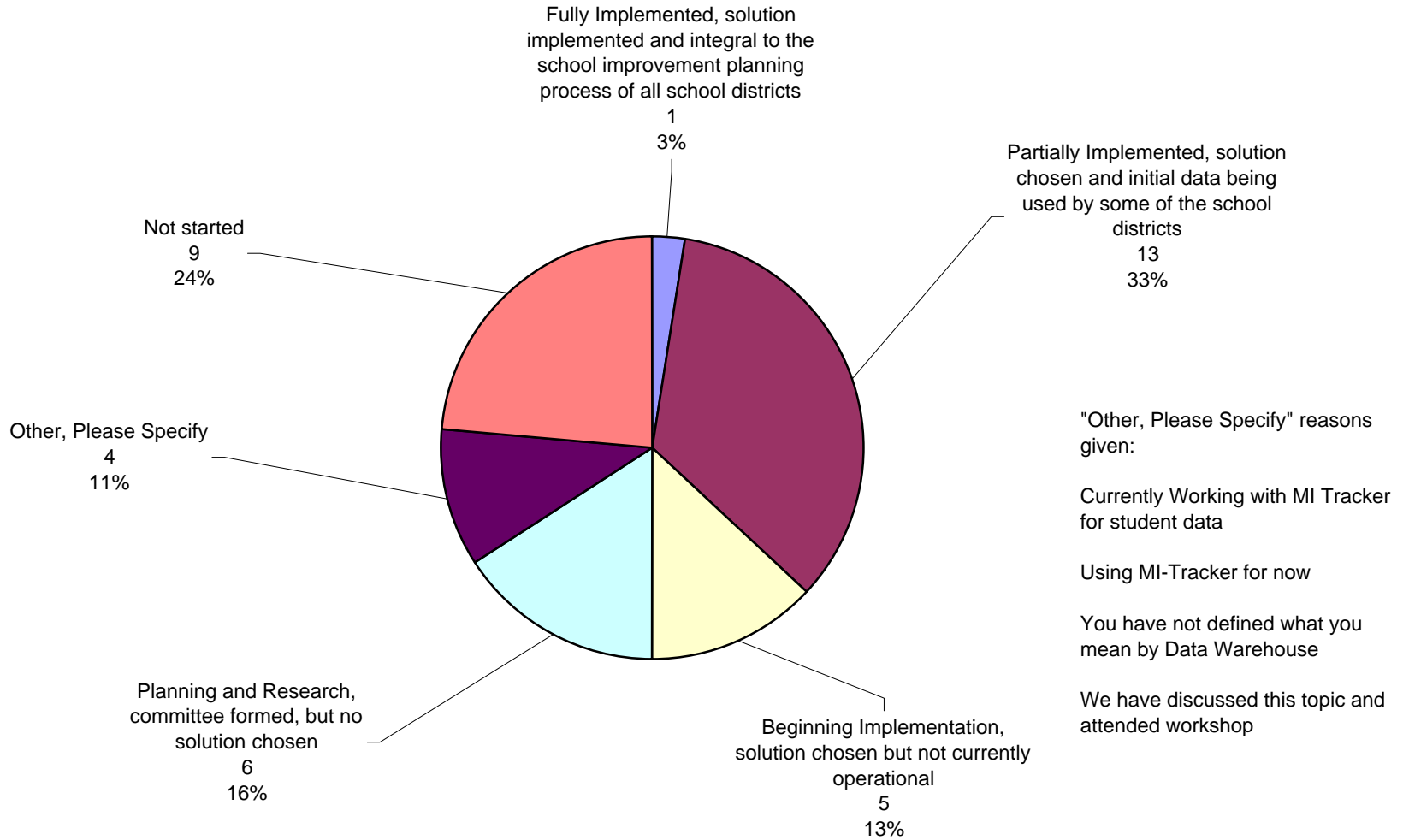
Overall, the majority of responding intermediate school districts or regional service agencies (ISDs/RESAs) are involved in various implementation stages of a data warehousing project. Nearly all of these projects are coordinated through an ISD/RESA and provide trend data and reports on local and state assessments for central curriculum administration, building administration and teachers to use to for school improvement planning.

Detailed graphs are included in this report. Not all 38 respondents answered every question. In summary:

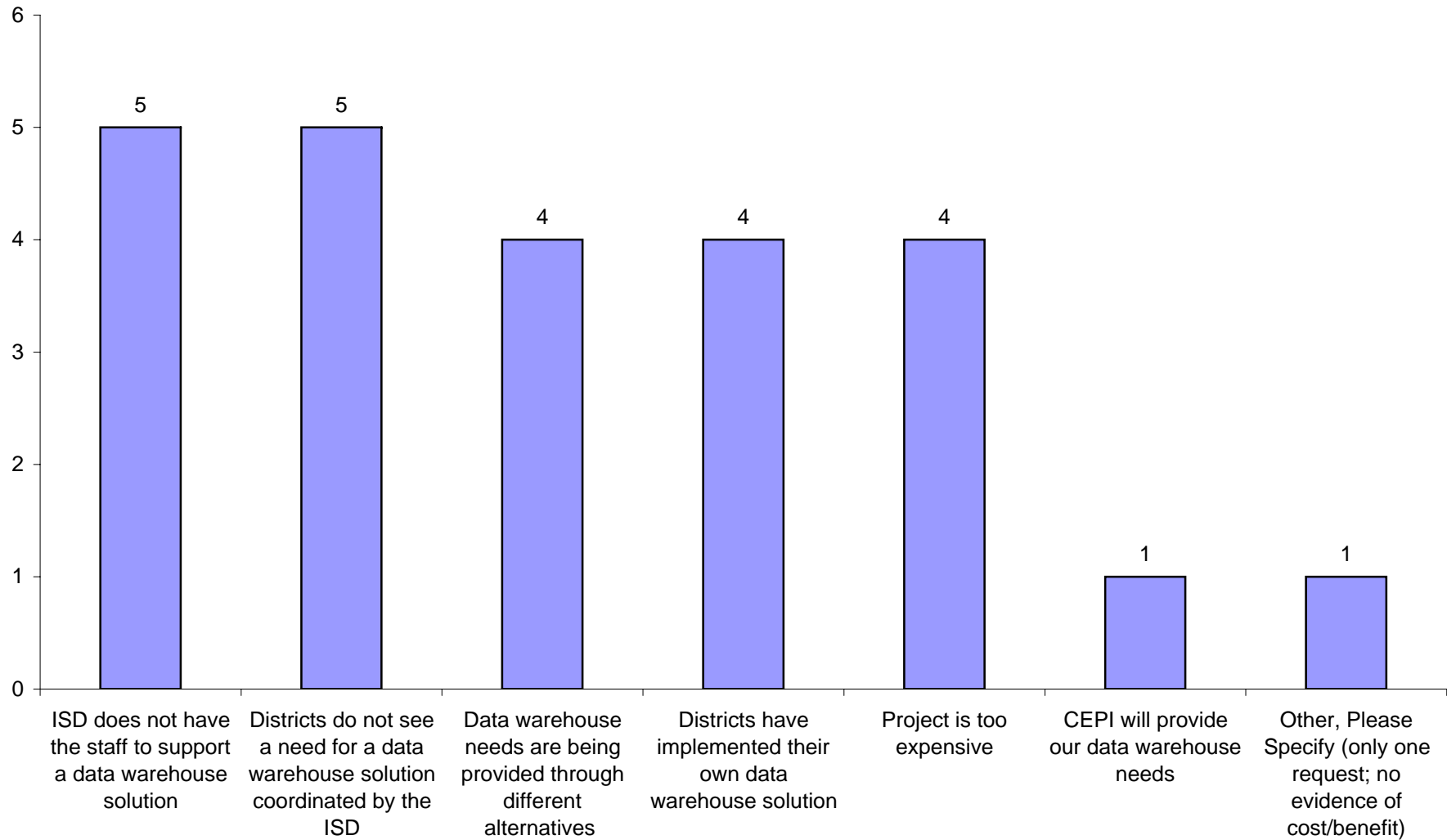
- 25 of the 38 ISDs/RESAs indicated that they were in some stage of data warehousing in their county, half of which were partially or fully implemented.
- 5 of the 13 ISDs/RESAs who have not started a data warehousing project indicated lack of staff resources at the ISD as the reason; four of the same five also indicated their local school districts had implemented their own solutions.
- 'Data is intended to improve the school improvement planning process' was chosen by all 24 of the ISDs/RESAs who identified the components of a data warehouse definition
- 23 of the 24 ISDs/RESAs indicated a consortium of school districts coordinated through one or more ISD/RESA as the chosen model for data warehousing
- 75% of the 28 responding ISDs/RESAs indicated that six or more school districts are involved in a consortium with the ISD/RESA (not necessarily related to the data warehouse).
- Of those identified as having access to the data warehouse, administration (central and building) and teachers were identified most often
- 13 of the 24 respondents identified the combination of central office curriculum administration, building administration, and teachers as the primary users of the data warehouse solution; half of that group also chose central office technology staff
- 19 respondents indicated a need for data/reports on trend data of state assessment; 17 of those also indicated a need for trend data of local assessments; 13 of those 17 also indicated a need for data/reports on students on the edge of passing assessments
- 21 of the 28 indicating various stages of data warehouse implementation identified the number of years the project has been in place: 13 are still in the roll out phase while none have been implemented more than 3 years
- 8 of the 19 ISDs/RESAs who responded indicated that they had evidence that their data warehouse solution is making a difference; some cited evidence which included: data awareness, easier access and use of data, quickly identifying weaknesses, and district MEAP scores increasing. Some of those with no evidence cited that it was too early to assess evidence.

Respectfully submitted: Mike Oswalt, Assistant Superintendent, Regional Technology Services, Calhoun ISD

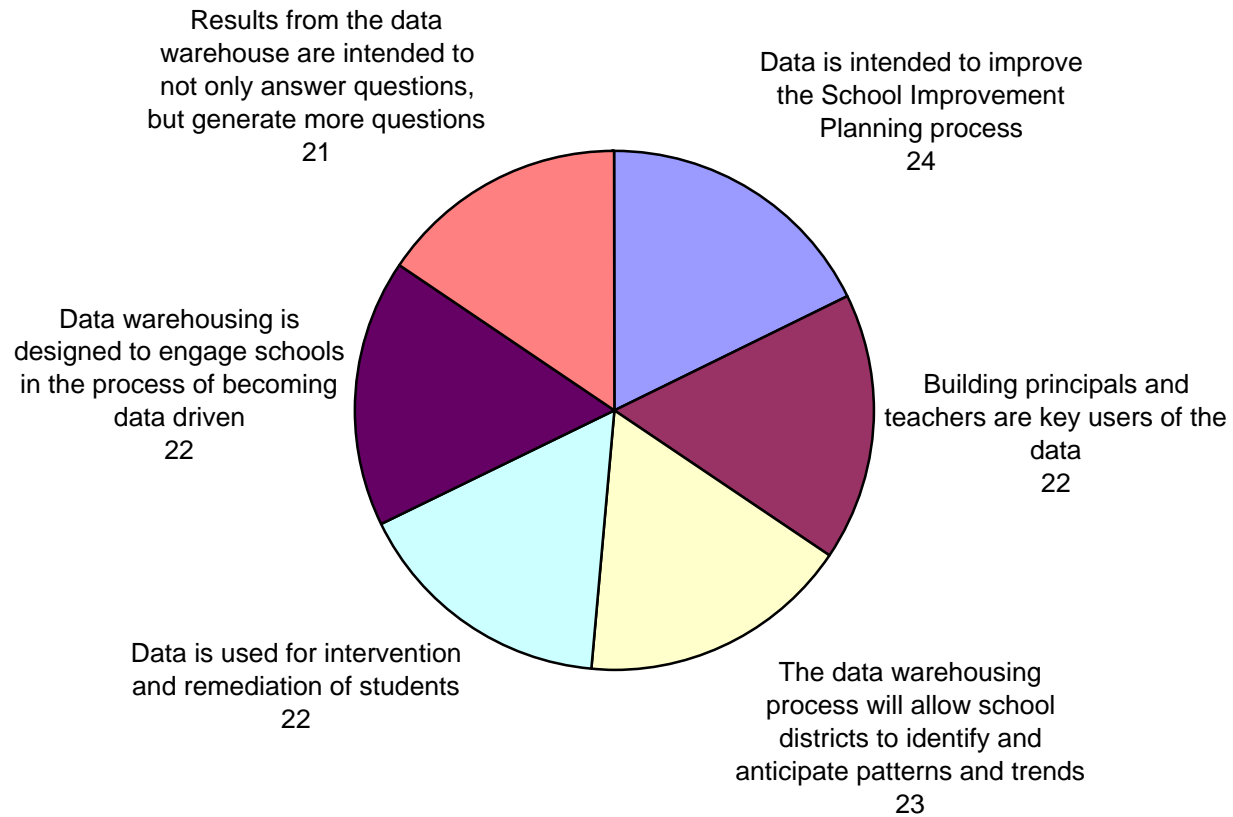
Status of 38 responding ISD/RESA activities in the area of "data warehousing"



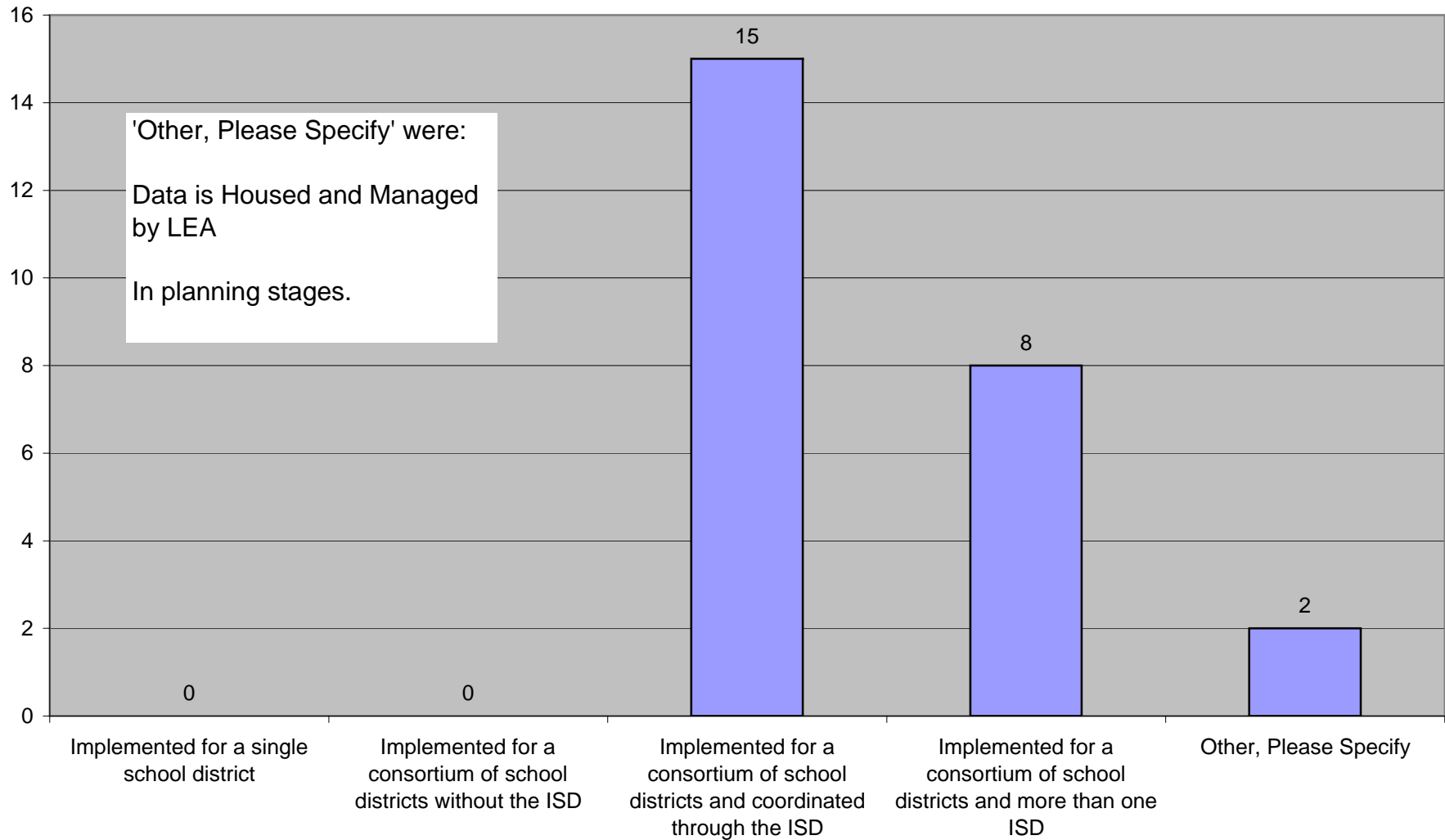
The 13 ISDs/RESAs indicating 'Not Started' or 'Other' for the status of data warehousing listed these reasons why (some chose more than one reason)



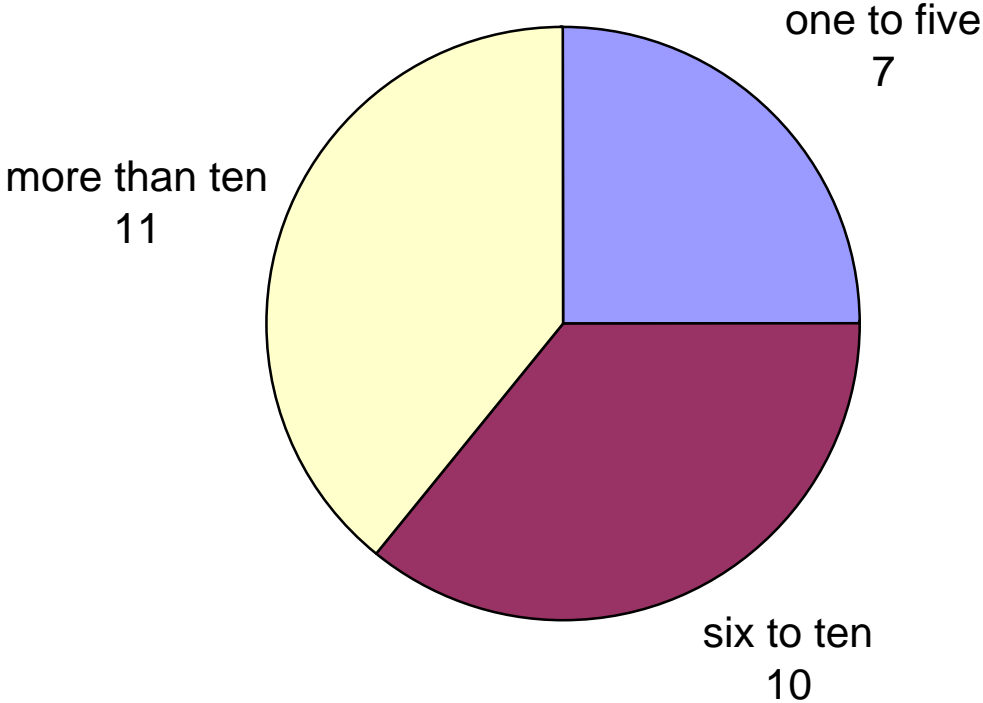
These components were included in definitions of data warehousing by those ISD/RESAs that indicated they had started a data warehousing project (24 respondents)



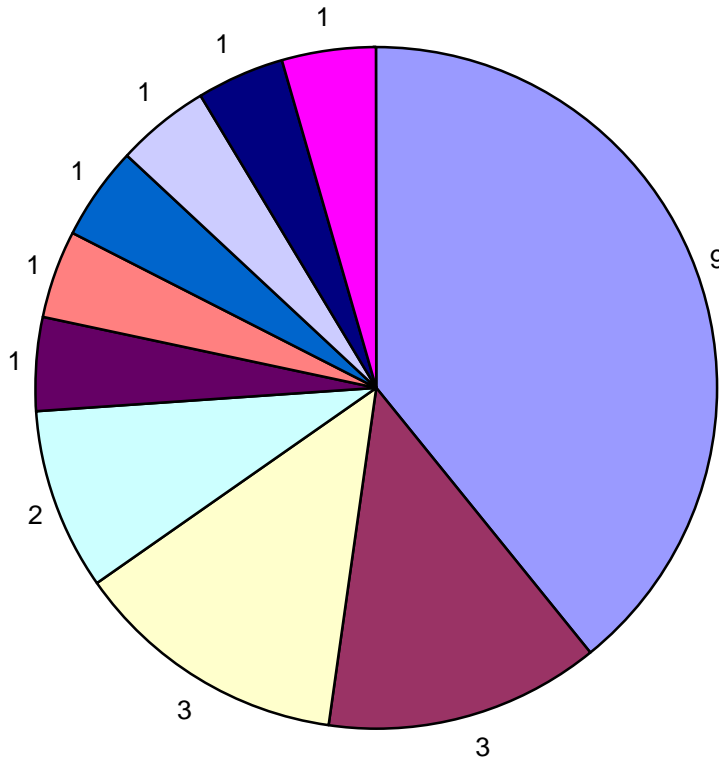
**24 ISD/RESAs responded and indicated which model of data warehousing was chosen
(one respondent chose and also offered an 'other' answer)**



**28 ISD/RESAs responded to
"How many school districts are involved with the ISD in the consortium of districts?"
(not all that responded here indicated they have started a data warehouse project)**

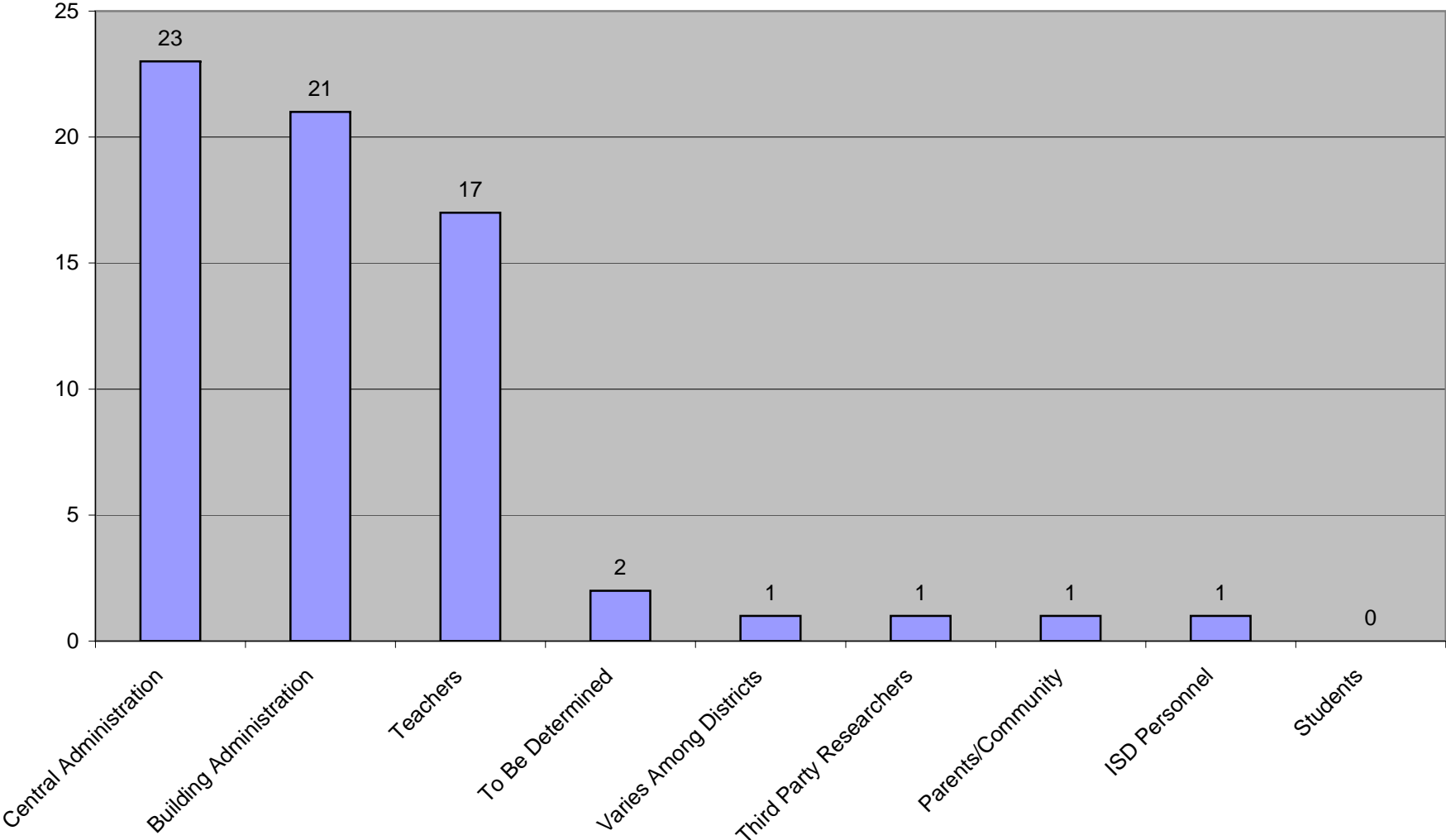


**Data Warehousing Solutions Chosen
as indicated by 21 respondents.
Two indicated two solutions in their county.
Two respondents had indicated they had not started a data warehouse solution, yet indicated
MI-Tracker as their chosen solution**

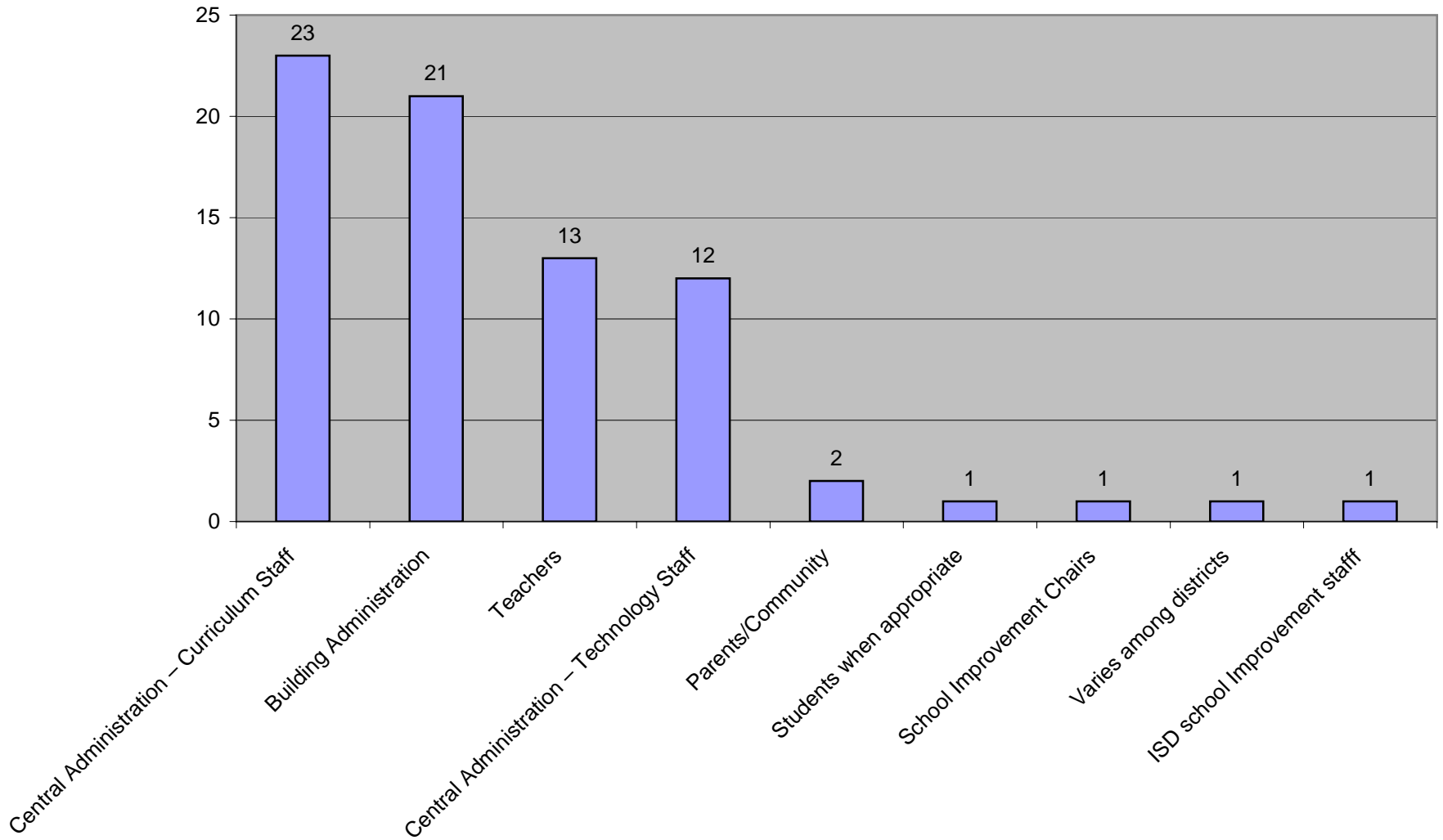


- MI-Tracker <http://www.successlineinc.com/>
- Inform by Pearson - www.pearsonschools.com
- Quality School Portfolio (QSP)
- Achieve Data Solutions - Data Director - www.achievedata.com
- Skyward
- APS (Accountability Profile for Students) Regional Data Systems - www.regionaldata.com
- School City STARS www.schoolcity.com
- CELT Corp. Group 1 Sagent Data Bus Tool
- Edmin
- Home Grown integrated to Class Server

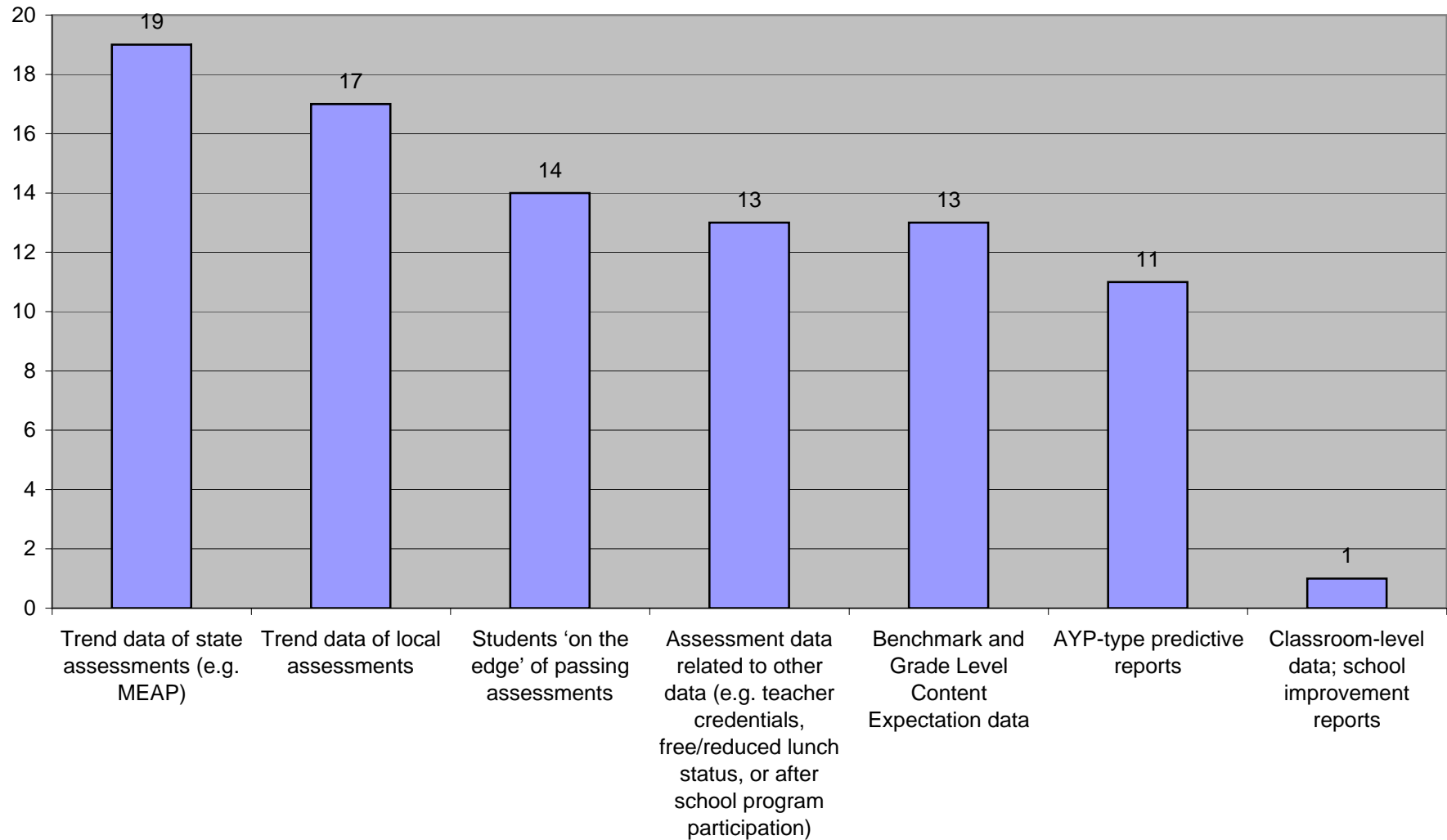
**26 ISD/RESAs indicated who has access to the data warehouse they are implementing
(some chose more than one group)**



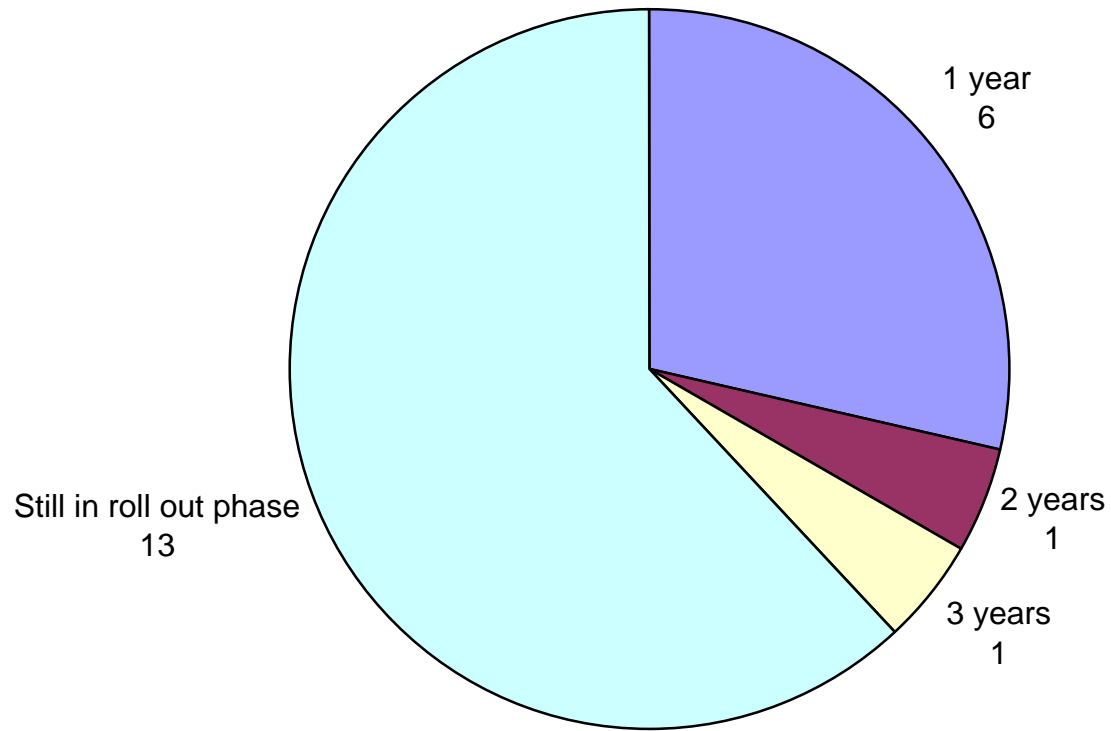
**24 ISD/RESAs indicated the primary users of the data warehouse they were implementing
(some chose more than one)**



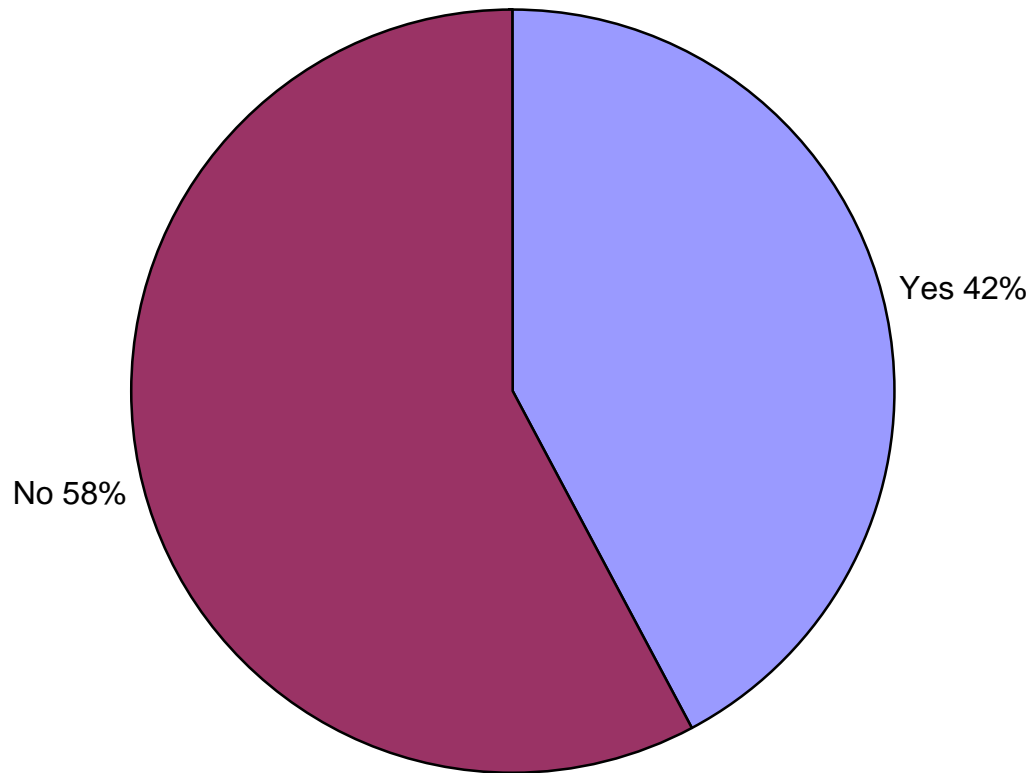
19 ISD/RESAs listed these types of data/reports available in the data warehouse solution they provided



Number of years a Data Warehouse solution has been in place (21 respondents)



19 ISD/RESAs indicating whether they had evidence that their Data Warehousing Solution is making a difference



Those that indicated 'Yes' had these comments:

Schools are finding they are saving time and getting good data. It's is also early to assess full benefit.

Teachers and administrators are much more aware of achievement data as it relates to student achievement of subgroups. They are also looking more at trends.

Easier access to achievement data.

Districts have become more savvy about the type of data they need and what they want to be able to do with the data.

Buildings are identifying their weak areas and are able to address them right away. Positive feedback from end-users has been received.

Individual district MEAP score increases. NWEA assessment usage and achievement. Local assessments centered on literacy.

MI Tracker reports are clear and concise. Teachers have had a very positive response. Data has been used effectively in planning.