MICHIGAN

OFFICE OF THE AUDITOR GENERAL

AUDIT REPORT

PERFORMANCE AUDIT
OF

SELECTED EDUCATIONAL DATABASES MAINTAINED BY THE CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION

DEPARTMENT OF MANAGEMENT AND BUDGET

November 2005

THOMAS H. MCTAVISH, C.P.A.
AUDITOR GENERAL

07-180-03

"...The auditor general shall conduct post audits of financial transactions and accounts of the state and of all branches, departments, offices, boards, commissions, agencies, authorities and institutions of the state established by this constitution or by law, and performance post audits thereof."

– Article IV, Section 53 of the Michigan Constitution

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REPORT SUMMARY

Performance Audit

Selected Educational Databases Maintained by the Center for Educational Performance and Information

Department of Management and Budget

Report Number:
07-180-03

Released:
November 2005

The Center for Educational Performance and Information (CEPI) is responsible for coordinating the collection of all educational data required by State and federal law from entities receiving funds under the State School Aid Act. CEPI's mission is to become the single source for the most comprehensive, accurate, and useful information about the performance of Michigan's public schools and students.

Audit Objective:
To assess CEPI's effectiveness in maintaining the educational databases.

Audit Conclusion:
We concluded that CEPI was effective in maintaining the educational databases. Our report does not include any reportable conditions related to this audit objective.

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Audit Objective:
To assess CEPI's effectiveness in becoming the "single repository" of educational data.

Audit Conclusion:
We concluded that CEPI was moderately effective in becoming the single repository of educational data. We noted a reportable condition related to achieving CEPI's statutory responsibility (Finding 1).

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Audit Objective:
To assess CEPI's efforts to ensure the completeness and accuracy of the educational data within the Single Record Student Database (SRSD), Registry of Educational Personnel (REP), and School Infrastructure Database (SID) educational databases.

Audit Conclusion:
We concluded that CEPI's efforts were moderately effective in ensuring the completeness and accuracy of the educational data within the SRSD, REP, and SID educational databases. We noted reportable conditions related to assessing the reasonableness of SRSD, REP, and SID data; verifying data for completeness and accuracy; and improving SID and REP instructions and training (Findings 2 through 4).

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Agency Response:

Our audit report contains 4 findings and 4 corresponding recommendations. CEPI indicated that it agrees with all 4 recommendations.

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A copy of the full report can be obtained by calling 517.334.8050 or by visiting our Web site at: http://audgen.michigan.gov

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November 15, 2005

Ms. Mary A. Lannoye, State Budget Director
Office of the State Budget
Department of Management and Budget
George W. Romney Building
Lansing, Michigan

Dear Ms. Lannoye:

This is our report on the performance audit of Selected Educational Databases Maintained by the Center for Educational Performance and Information (CEPI), Department of Management and Budget.

This report contains our report summary; description of agency; audit objectives, scope and methodology and agency responses; comments, findings, recommendations, and agency preliminary responses; tables summarizing the database testing results and flow charts for the CEPI databases, for the CEPI collection and submission processes, and for the Michigan School Report Card - determination of the final composite grade, presented as supplemental information; and a glossary of acronyms and terms.

Our comments, findings, and recommendations are organized by audit objective. The agency preliminary responses were taken from the agency's responses subsequent to our audit fieldwork. The *Michigan Compiled Laws* and administrative procedures require that the audited agency develop a formal response within 60 days after release of the audit report.

We appreciate the courtesy and cooperation extended to us during this audit.

AUDITOR GENERAL

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Description of Agency

In September 2000, Executive Order No. 2000-9 established the Center for Educational Performance and Information (CEPI) as a temporary agency. The Executive Order transferred to CEPI the authority to manage all educational data retained in other State departments and agencies. Included in the transfer were the duties and responsibilities for collecting, managing, and establishing a "single repository" of educational data that was to be shared electronically by all stakeholders, known as the Michigan Educational Information System* (MEIS) warehouse. In April 2002, via Act 191, P.A. 2002 (an amendment to the State School Aid Act), CEPI was placed organizationally within the Office of the State Budget, Department of Management and Budget. Under Act 191, P.A. 2002, CEPI's responsibilities and duties included coordinating the collection of all educational data required by State and federal law from the entities receiving funds under the Act, collecting data in the most efficient manner possible to reduce the administrative burden on reporting entities, and developing procedures to ensure the validity and reliability of the data. The Act removed CEPI's responsibility to manage all educational data in other State departments and the requirement that CEPI become a single repository of educational data to be shared electronically by all stakeholders. Act 180, P.A. 2003, established the time frame for CEPI to coordinate and collect the required educational data.

CEPI's stated mission* is to become the single source for the most comprehensive, accurate, and useful information about the performance of Michigan's public schools and students. To accomplish its mission, CEPI coordinates with the Department of Information Technology in developing and maintaining the MEIS warehouse, which is composed of the following six databases: the Single Record Student Database (SRSD), the Registry of Educational Personnel (REP), the School Infrastructure Database (SID), the School Code Master (SCM), the Financial Information Database (FID), and the Student Test and Achievement Repository (STAR). CEPI also coordinates through working groups with the Michigan Department of Education, the Department of Labor and Economic Growth, and the Department of Community Health to identify the educational data that school districts* are required to submit.

* *See glossary at end of report for definition.*

CEPI is organizationally composed of four areas:

1. MEIS Development and Maintenance Services, which is responsible for developing and maintaining the applications and other activities, including training and customer support.

2. MEIS Analysis Services, which is responsible for verification and analysis of the data and for report preparation, including the State's Graduation/Dropout Rate Report and the School Safety Practices Report.

3. External Affairs, which is responsible for legislative and communication functions.

4. Business Services Division, which is responsible for contract management, budget, and other policy functions.

CEPI expended $6.0 million during fiscal year 2002-03, which included $2.5 million for the school evaluation services contract with a private vendor and $1.9 for Department of Information Technology services, contracts, and purchases. As of September 30, 2003, CEPI had 13 employees.

Audit Objectives, Scope, and Methodology and Agency Responses

Audit Objectives

Our performance audit* of Selected Educational Databases Maintained by the Center for Educational Performance and Information (CEPI), Department of Management and Budget, had the following objectives:

1. To assess CEPI's effectiveness in maintaining the educational databases.

2. To assess CEPI's effectiveness in becoming the "single repository" of educational data.

3. To assess CEPI's efforts to ensure the completeness* and accuracy* of the educational data within the Single Record Student Database (SRSD), Registry of Education Personnel (REP), and School Infrastructure Database (SID) educational databases.

Audit Scope

Our audit scope was to examine the activities, processes, and records related to maintaining SRSD, REP, and SID and to analyze and verify selected educational data fields within the databases. In addition, our scope included determining whether CEPI databases met the information needs of selected stakeholders. Our audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and, accordingly, included such tests of the records and such other auditing procedures as we considered necessary in the circumstances.

Audit Methodology

Our audit procedures, conducted from May 2003 through February 2004, included an examination of CEPI's program records and activities for the period October 1, 2000 through September 30, 2003 and school districts' records primarily for the period July 1, 2002 through June 30, 2003.

* *See glossary at end of report for definition.*

Our methodology included a preliminary review of CEPI's operations to gain an understanding of its activities and areas of responsibility. This included a review of applicable laws, regulations, policies and procedures, and other information including contracts and memorandums of understanding with other entities. In addition, we interviewed CEPI and Department of Information Technology staff and documented various key processes and associated controls. We also reviewed similar audits in other states and identified areas of concern related to educational data.

To accomplish our first objective, we conducted interviews with CEPI and Department of Information Technology staff and reviewed CEPI's procedures to ensure the accuracy of the data, the timeliness of the submissions, and the establishment and maintenance of the databases.

To accomplish our second objective, we developed a standard interview tool and conducted interviews with CEPI's State agency stakeholders for whom CEPI collects data to assess their satisfaction with the services provided by CEPI, the usefulness of the data collected by CEPI, and whether the stakeholders collected data directly from school districts and, if so, the reasons for collecting this data directly. We reviewed other State agency data collection systems to identify data similar to that already collected by CEPI.

To accomplish our third objective, we conducted analytical procedures on the data submitted to determine those school districts that appeared to have accurate, complete, and reasonable data. For example, one reasonableness test compared student records in SRSD to school personnel records in REP. In order to verify the accuracy and completeness of the selected significant data fields, we also visited a sample of school districts whose data appeared reasonable based on these analytical procedures. To select sample school districts to visit, we stratified school districts into four groups: large local educational agencies (LEAs), medium LEAs, small LEAs, and public school academies (PSAs). We randomly selected nine school buildings from the three LEA populations to include an elementary, middle, and high school building within each category and to ensure that the school buildings were from school districts geographically representative of the State. We also randomly selected one school building from the PSA population. We examined the source documentation for selected data fields within SRSD, REP, and SID for completeness and accuracy (see Tables 1 through 4, presented as supplemental information, for more information on fields tested and results).

Agency Responses

Our audit report contains 4 findings and 4 corresponding recommendations. CEPI indicated that it agrees with all 4 recommendations.

The agency preliminary response that follows each recommendation in our audit report was taken from the agency's written comments and oral discussion subsequent to our audit fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and Department of Management and Budget Administrative Guide procedure 1280.02 require CEPI to develop a formal response to our audit findings and recommendations within 60 days after release of the report.

COMMENTS, FINDINGS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES

EFFECTIVENESS IN MAINTAINING THE EDUCATIONAL DATABASES

COMMENT

Background: The Center for Educational Performance and Information (CEPI) has experienced significant organizational changes since its establishment as a temporary agency in September 2002. CEPI has had 5 different directors, changes in its statutory responsibilities, and a transfer from the Michigan Department of Education (MDE) to the Department of Management and Budget.

CEPI has developed and/or implemented Single Record Student Database (SRSD), Registry of Educational Personnel (REP), and Financial Information Database (FID) applications and submission processes. In addition, CEPI has performed various activities to maintain these databases. These activities include:

- Ensuring that general control procedures exist for essential information system functions, such as obtaining authorization to modify the system and programs, maintaining system documentation, testing program changes, restricting access to programs and data files, and maintaining a physically secure environment for the system.

- Ensuring that application control procedures exist to ensure that all data is initially captured and recorded and that all data is processed. These procedures include establishing time lines for data collection, interactive data input, error reporting, and programmed edit checks.

- Establishing data definition review groups with other State agencies to systematically identify data that needs to be collected and/or updated for changes in State and federal laws.

- Developing a data access and management policy, including security agreement forms to ensure appropriate user access to the databases.

- Developing various communication methods to inform school district users of submission deadlines, updates to the data manuals, legislative updates, and other issues that impact the data.

Audit Objective: To assess CEPI's effectiveness in maintaining the educational databases.

Conclusion: We concluded that CEPI was effective in maintaining the educational databases. Our audit report does not include any reportable conditions* related to this audit objective.

EFFECTIVENESS IN BECOMING THE SINGLE REPOSITORY OF EDUCATIONAL DATA

COMMENT

Audit Objective: To assess CEPI's effectiveness in becoming the "single repository" of educational data.

Conclusion: We concluded that CEPI was moderately effective in becoming the single repository of educational data. We noted a reportable condition related to achieving CEPI's statutory responsibility (Finding 1).

FINDING

1. Achieving CEPI's Statutory Responsibility

   CEPI did not coordinate the collection of all educational data required by State and federal law from all entities receiving funds under the State School Aid Act. As a result, CEPI did not reduce the administrative burden for reporting entities and it did not provide complete educational data in an easily accessible format to users and State and local policymakers.

   We reviewed other State agencies' educational data collection systems and met with 6 employees from 3 State agencies who were responsible for administering

* *See glossary at end of report for definition.*

large educational programs and with school personnel at 10 school districts. We noted:

a. CEPI did not collect all data required under the State School Aid Act because it perceived its mission to include only the collection of educational related data for K-12 school districts. As a result, CEPI did not collect other data from K-12 school districts that is used by other State agencies for their oversight responsibilities, such as bus driver safety, school building construction, or child day care data. Further, CEPI did not collect data from entities other than K-12 school districts, although other entities, such as universities and work force development boards, received funds under the State School Aid Act.

b. CEPI's process for school districts to submit data did not allow it to collect all data in the time frames needed by its users. CEPI required school districts to report student data on dates that coincided with pupil membership count dates in September and February and at the end of the school year. However, some federal programs required information as of other dates within the school year. For example, MDE is required under federal reporting requirements to report the number of special education students as of December 1. Therefore, MDE requires schools to report the number of these students using the Michigan Compliance Information System (MiCIS), although CEPI collected similar information in SRSD as of the September count date. Coordinating the collection of educational data to include interfacing with other existing State systems and establishing flexible time lines would reduce the reporting burden for school districts.

c. The design of CEPI's systems did not always allow users to share all data collected electronically. The concept of a single repository of educational data that could be shared electronically was intended to reduce the administrative burden on reporting entities and provide information to interested parties in an easily accessible and usable format.

   CEPI used the existing SRSD application to collect student data electronically in pre-established data formats. However, some federal programs required information in a format not consistent with the SRSD application, such as narrative program information. Therefore, other State agencies collected data directly from the school districts for their decision-making and regulatory

purposes, thereby limiting the data's availability and use by other stakeholders, such as the Legislature, school districts, and citizens. CEPI should consider system design changes in order to provide data in a usable format to assist policymakers and to facilitate the collection of all data required to be reported by State and federal law.

We were informed by CEPI and other State agencies that they believe it is unclear whether CEPI should be the sole collection point and single repository of all school data and whether CEPI should collect more than K-12 educational related data. Prior to becoming a permanent agency within the Department of Management and Budget in April 2002, CEPI was governed by Executive Order No. 2000-9, which required CEPI to establish a single repository of educational data to be shared electronically by all stakeholders. In April 2002, Act 191, P.A. 2002, redefined CEPI's responsibilities to that of coordinating the collection of all data required by State and federal law from all entities receiving funds under the State School Aid Act. It also required CEPI to collect data in the most efficient manner possible in order to reduce the administrative burden of the reporting entities and to provide data in a useful manner to allow State and local policymakers to make informed decisions. Although the specific reference to a single repository was not included in Act 191, P.A. 2002, CEPI has maintained its mission to be a single repository of educational data.

RECOMMENDATION

We recommend that CEPI coordinate the collection of all educational data required by State and federal law from all entities receiving funds under the State School Aid Act.

AGENCY PRELIMINARY RESPONSE

CEPI agrees with the recommendation and indicated that it will continue to work toward full compliance as resources allow.

It should be noted that the period of audit (October 1, 2000 through September 30, 2003) spans the original executive order that created CEPI and the subsequent law that expanded its responsibilities. CEPI stated that the responsibility to begin coordinating all data collection required by State and federal law from all entities receiving funds under the State School Aid Act was not mandated until the end of April 2002.

As noted by the auditors, CEPI has made significant progress in complying with these data collection requirements. CEPI agrees that it has not completed the coordination of the collection of all educational data required by State and federal law from all entities receiving funds under the State School Aid Act. CEPI informed us that it will continue to work with key State and local agencies to achieve that goal.

EFFORTS TO ENSURE THE COMPLETENESS AND ACCURACY OF EDUCATIONAL DATA WITHIN THE DATABASES

COMMENT

Background: Section 388.1694a of the *Michigan Compiled Laws* provides that CEPI and its Advisory Committee develop processes to ensure the validity, reliability, and accuracy of the data within CEPI's databases. To validate the completeness and accuracy of the data, it is necessary to have a process to access source documents at the school district level and compare that information to CEPI's data. Section 388.1768 of the *Michigan Compiled Laws* states that only MDE has the authority to access school district records. However, MDE delegated responsibility for complete and accurate data to each submitting district and does not have a process in place to validate the data submitted to CEPI.

A summary of record counts shows that there were 1,870,818 SRSD records, 228,751 REP personnel records, and 3,439 School Infrastructure Database (SID) school building records submitted to these databases at the end of school year 2002-03.

Audit Objective: To assess CEPI's efforts to ensure the completeness and accuracy of the educational data within the SRSD, REP, and SID educational databases.

Conclusion: We concluded that CEPI's efforts were moderately effective in ensuring the completeness and accuracy of the educational data within the SRSD, REP, and SID educational databases. We noted reportable conditions related to assessing the reasonableness of SRSD, REP, and SID data; verifying data for completeness and accuracy; and improving SID and REP instructions and training (Findings 2 through 4).

See Tables 1 through 4, presented as supplemental information, for the database fields tested and the test results of the supporting documentation for SRSD, REP, and SID.

FINDING

2. Assessing the Reasonableness of SRSD, REP, and SID Data

CEPI had not developed sufficient procedures to assess the reasonableness of data submitted by school districts.

Timely identification of erroneous or missing data using analytical procedures would increase the usefulness of CEPI's databases. Users need to have accurate data for preparing State and federal reports, for evaluating schools' performance, and for making policy decisions. In addition, inaccurate and incomplete data in SRSD, REP, and SID may result in other State agencies maintaining a secondary source of the data (Finding 1).

Section 388.1694a of the *Michigan Compiled Laws* requires CEPI and its Advisory Committee to establish procedures to ensure the validity, reliability, and accuracy of the data submitted to CEPI. CEPI developed edits within the SRSD, REP, and SID applications to ensure that data entered into a data field is a valid data element or an acceptable response. CEPI also developed a process to identify school districts that did not submit required data. However, CEPI did not pursue other analytical review or analysis of the Statewide data that could have identified other unreasonable, invalid, or missing data.

Our analytical review of selected fields and databases disclosed the following types of data inconsistencies within and between CEPI's databases:

a. In SRSD, the student exit status data did not appear reasonable. We analyzed the SRSD exit status field (such as the student graduated, transferred, dropped out) in the end of school year 2002-03 data for 25 high schools within one large school district. We noted that the exit status field for 14 (56.0%) of the 25 high schools analyzed appeared unreasonable when compared to Statewide and district graduation and dropout information from previous years. For example, 3 high schools did not report any students who graduated in the end of the school year submission and 3 high schools did not report any students who dropped out. These types of data inconsistencies could indicate that some schools do not accurately report students who

graduate or drop out of school, which can impact the evaluation of the schools' performance in meeting adequate yearly progress* (AYP) and No Child Left Behind (NCLB) Act of 2001* requirements.

b. Migrant student data was incomplete and inaccurate. Our comparison of school districts' SRSD migrant student records for the fall 2002 submission to the total number of migrant students reported to MDE's school year 2002-03 migrant student database disclosed that MDE's migrant student database included 2,363 more migrant students than reported to SRSD. Neither CEPI nor MDE can ascertain whose migrant student data is accurate and complete. Because MDE uses the number of migrant students reported by school districts to distribute federal funds and for federal reporting purposes, MDE could be incorrectly distributing federal funds and reporting incorrect information to the federal government.

c. Some school districts submitted invalid and incomplete REP data. We reviewed REP data fields for the end of school year 2002-03 and noted missing codes, invalid codes, or unreasonable data for 110 (15.2%) of 724 school districts that submitted data. For example, 26 school districts indicated that there were zero administrators (superintendents, principals, etc.) within the school district. In addition, our comparison of students-to-teacher ratios using student records in SRSD to school personnel records in REP for the end of school year 2002-03 disclosed that 82 (10.2%) of 806 school districts contained student records in SRSD but no school personnel records in REP. REP data is used by MDE to monitor school district teachers and staff qualifications for State and federal purposes. Teacher qualifications and the percentage of classes not taught by highly qualified teachers are required to be reported by the State and school districts under the State's *Education YES*!* school accountability program and the NCLB Act.

d. Some school districts did not report any SID data, and some school districts reported inaccurate or incomplete SID data. We identified 67 school districts that did not report end of school year 2002-03 SID data. Also, we performed an analysis of school building student expulsions by comparing the number and reasons for students reported as expelled in SRSD to the total number of

* *See glossary at end of report for definition.*

corresponding crime and safety incidents reported by the same school building in SID. We identified 62 school buildings that reported they had expelled a total of 149 students for crime or safety incidents in SRSD, but they did not report any corresponding crime or safety incidents in SID. For example, 34 schools reported that they expelled 51 students for dangerous weapons incidents in SRSD; however, the same 34 schools did not report any incidents in the SID weapons on school property field. In addition, 30 schools reported that they expelled 88 students for physical violence/assaults in SRSD; however, the same 30 schools did not report any incidents in the SID physical violence/assaults field. The State is required by the federal government to assess school district safety and report its assessment to parents and the public; therefore, it is important that information submitted to the SID database be complete and accurate.

Our review of SRSD, REP, and SID included only a limited number of possible data review and comparison procedures. Although CEPI compared some of its data to data contained in other State systems during our audit fieldwork and notified school districts regarding irregularities, our analytical comparisons indicate that CEPI should increase its efforts to identify incomplete and inaccurate data in its databases.

RECOMMENDATION

We recommend that CEPI develop sufficient procedures to assess the reasonableness of data submitted by school districts.

AGENCY PRELIMINARY RESPONSE

CEPI agrees with the recommendation and will continue to work to improve data quality. For example, CEPI informed us that it recently developed and launched the Administrator Data Review (ADR). ADR is a Web-based application that is designed to enable school personnel to review their data submissions. CEPI informed us that future reports will include data comparisons between collection cycles and across data sets and help school districts close the loop between individual-level (e.g., SRSD) and school-level (e.g., SID) data reporting and provide them with a data quality index.

CEPI informed us that it is continually increasing the number of edits to the on-line applications and for the processing of bulk record uploads to improve data quality.

CEPI also informed us that it has increased the consistency of the data through two primary methods: the validation of fields within each set of records and the verification of data across multiple data sets. In addition, CEPI indicated that it and MDE have worked jointly to increase the number of school districts that report data. CEPI informed us that for school year 2004-05, 100% of all school districts receiving State school aid had submitted SRSD, REP, and SID data.

FINDING

3. Verifying Data for Completeness and Accuracy

CEPI and MDE had not developed adequate procedures to verify the completeness and accuracy of the detailed data within the SRSD, REP, and SID educational databases. As a result, the databases contained incomplete and inaccurate data, thereby reducing users' confidence in the data for preparing State and federal reports, for evaluating school performance (*Education YES*! and NCLB), and for making policy decisions.

Section 388.1694a of the *Michigan Compiled Laws* requires CEPI and its Advisory Committee to develop procedures to ensure the validity, reliability, and accuracy of the data collected. To ensure that the data submitted is complete and accurate, the procedures should include a comparison of source data retained at the school districts to the information recorded in the database. However, MDE (rather than CEPI) has the statutory authority to access school district records. Therefore, for CEPI to validate the completeness and accuracy of data, it requires the assistance of MDE and the school districts.

To verify the completeness and accuracy of the information contained in the databases, we selected a sample of 10 school districts to visit and examined supporting documentation and other information for SRSD, REP, and SID data as of the end of school year 2002-03. The 10 school districts were randomly selected from only those schools whose data appeared reasonable based on our analytical procedures. We eliminated 371 school districts (of the 745 total in the fall 2002 data submission) that had not submitted data into REP or whose data contained in the databases did not appear reasonable based on our analytical review of fall 2002 data (Finding 2).

Our review of 365 SRSD student records, 93 REP teacher records, 10 SID school building records and other information supplied by the schools disclosed:

a. The attendance rate in SRSD for 148 (56.9%) of 260 elementary and middle school student records and 85 (81.0%) of 105 high school student records did not agree with supporting documentation at the school districts for the end of school year 2002-03 data. For example, at 1 of the 10 schools, the SRSD attendance field indicated only 23 possible days of attendance for 95% of the students. However, school districts are required under the State School Aid Act to provide a minimum of approximately 180 days of instruction in the school year. We determined that for 5 of the 10 schools, these attendance errors occurred because of problems associated with interfacing the school districts' attendance systems with the SRSD application.

   MDE has identified school attendance as a school accountability component in measuring AYP for elementary and middle schools. If the attendance rate in SRSD is not accurate, the school may not be properly reported as either having made or not having made AYP. Schools not having made AYP are subject to school improvement requirements under NCLB, which can include offering students supplemental educational services or the choice to attend a different school.

b. In REP, 7 (7.5%) of 93 teacher records had incorrect position assignment* code(s) for the teacher and 10 (10.8%) of 93 teacher records had incorrect grade assignment* code(s) for the teacher when compared to supporting documentation at the school districts. We also noted that 17 (3.3%) of 517 school building personnel either were not reported or were improperly reported in REP by school building.

   Position and grade assignment codes are used by MDE to ensure that all teachers are properly certified, are teaching in the proper grade level, and are assigned based on their education and certificate endorsements. Complete and accurate coding is essential to ensure that MDE can assess and report to

* *See glossary at end of report for definition.*

the federal government that all teachers meet "highly qualified status" by the 2005-06 NCLB deadline.

c. In SID, the number of crime and safety incidents reported for 5 of 10 schools did not agree with supporting documentation at the school districts. For example, we identified 2 schools with an unreported incident related to illegal possession of controlled substances. Also, we noted 3 schools with the incorrect number of reported physical assaults. In addition, 3 schools lacked documentation for incidents they had reported related to trespassing and vandalism and 1 school reported a weapons related incident that actually related to another school district.

   Complete and accurate SID data is necessary to meet federal reporting requirements, to assist stakeholders in identifying the safety issues confronting the schools, to develop appropriate prevention programs, to provide for continuous assessment, and to provide a safe learning environment for every student.

RECOMMENDATION

We recommend that CEPI and MDE develop adequate procedures to verify the completeness and accuracy of the detailed data within the SRSD, REP, and SID educational databases.

AGENCY PRELIMINARY RESPONSE

CEPI and MDE agree with the recommendation and will continue to expand their efforts to develop adequate procedures to verify the completeness and accuracy of the detailed data within the SRSD, REP, and SID educational databases.

CEPI informed us that since neither MDE nor CEPI have the staff resources to travel to each school district and audit the validity and accuracy of each of the data elements submitted to CEPI, CEPI has leveraged technology to maximize the impact of data quality efforts that include developing and disseminating Web-based tools and training materials, such as animated tutorials, user's guides, edits to data collection applications, and data quality review reports that drill down to the building level. CEPI also indicated that it is working with educational associations to develop training for school districts on "Building a Culture of Quality Data" in accordance with National Center for Educational Statistics (NCES) guidelines.

FINDING

4. Improving SID and REP Instructions and Training

CEPI, in conjunction with its Advisory Committee and MDE, should improve the instructions and training for SID and REP reporting. Insufficient reporting instructions and training may have contributed to inconsistent and inaccurate fall 2002 REP data and end of school year 2002-03 SID and REP data. Therefore, the SID and REP data was of questionable value in evaluating and analyzing issues related to school safety and teacher qualifications.

Section 388.1694a of the *Michigan Compiled Laws* requires CEPI to develop State and model local data collection policies and its Advisory Committee to provide advice to CEPI regarding data management and collection activities, including procedures for the efficient and accurate transmission and collection of data. Also, the State Constitution requires the State Board of Education to provide leadership and general supervision over all public education. As part of that responsibility, the State Board of Education through MDE has the authority and responsibility to set and clarify reporting standards.

Our review of reporting practices and inquiry of personnel at 10 school districts disclosed:

a. Four school districts indicated a need for clarification and training on the requirements for reporting incidents to SID. We noted that school districts applied several different standards for reporting safety related incidents. For example, 3 schools used police notification, 3 schools used student suspension, and 2 schools permitted principal discretion as the criteria for when to report physical assault incidents. The varying standards resulted in inconsistencies in reporting. For example, 2 of the 3 schools that based reporting on police notification did not report any physical assault incidents, while the 3 school districts that used student suspension as their criteria reported physical assault incidents that ranged between 10% and 15% of their student population. School districts have two main sources of guidance to determine what should be reported to SID: the *Michigan Compiled Laws* and the MDE 1999 School Safety Response Guide. Based on our review and discussions with school personnel, we believe that MDE needs to provide clarification as to when an incident reaches the level of a crime; whether school districts have to report all suspensions, not just expulsions; and

whether physical assault incidents that do not result in police notification should be reported.

We believe that the data reported in SID could not be used to compare school districts Statewide to identify issues or best practices related to school safety.

b. Six school districts indicated a need for additional training or instructions for reporting to REP. School districts informed us that they were uncertain how to report such things as the appropriate subject area to assign for teachers; the assignment of multiple subject areas to teachers; part-time employees; and those employees serving in more than one position or in more than one school building. For example, there were 3 schools that were not aware of a minimum full-time equated position threshold or how to calculate those school personnel in an education position and a non-education position (such as a teacher who is also a coach).

Complete and accurate information related to education personnel data is essential to help ensure that AYP and NCLB requirements are met, including support that all teachers are properly certified, are teaching in the proper grade level, and are assigned based on their education and certificate endorsements.

Additional guidance should help to ensure that data is complete and accurate and can be used by State and local policymakers, as well as parents and concerned citizens, to make informed decisions about school safety and teacher qualifications.

RECOMMENDATION

We recommend that CEPI, in conjunction with its Advisory Committee and MDE, improve the instructions and training for SID and REP reporting.

AGENCY PRELIMINARY RESPONSE

CEPI and MDE agree with the recommendation and, along with the CEPI Advisory Committee, will continue to provide and improve the instructions and training for the REP and SID reporting.

SUPPLEMENTAL INFORMATION

Description of Tables

The following tables represent the results of our verification of selected data elements for records in the Single Record Student Database (SRSD), Registry of Educational Personnel (REP), and School Infrastructure Database (SID) educational databases at 10 sample school districts. Prior to selecting our sample, we eliminated 371 school districts (of the 745 total in the fall 2002 data submission) that had not submitted data into REP or whose data contained in the databases did not appear reasonable based on our analytical review of fall 2002 data.

We selected data elements within our sample records that we considered essential to ensure compliance with significant State and federal legislation or activity such as Michigan's *Education YES!* school accreditation program and the federal No Child Left Behind (NCLB) Act of 2001.

Table 1

SELECTED EDUCATIONAL DATABASES MAINTAINED BY THE
CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION
Department of Management and Budget

Results of Accuracy Tests for Selected Fields From the End of School Year 2002-03
Submission in the Single Record Student Database (SRSD)

Number of Student Records Reviewed = 365

SRSD Field Reviewed	Errors Noted	Accuracy Rate
Student Gender Code - Field 11	3	99.2%
Student Grade or Setting Code - Field 19	3	99.2%
Student Attendance - Field 21	233	36.2%
Student Racial/Ethic Code - Field 22	6	98.4%
Student Exit Status Code - Field 23	3	99.2%
Title I Code - Field 29a	15	95.9%
Special Education Code - Field 29b	3	99.2%
Early-On Code - Field 29c	0	100.0%
Career and Technical Vocation Code - Field 29d	8	97.8%
Gifted and Talented Code - Field 29e	1	99.7%
Limited English Proficient Code - Field 29f	3	99.2%
Migrant Education Code - Field 29g	0	100.0%
Adult Education Code - Field 29h	0	100.0%
Section 504 Code (Disabled Student) - Field 29i	0	100.0%

Note: Sampled school districts were selected from school districts whose data fields appeared reasonable in their fall 2002 submission.

The results indicate that 13 of the 14 data elements reviewed contained records that were accurate more than 95% of the time. We noted one data element (student attendance) that contained records that were accurate less than 40% of the time. Attendance is one criteria used by the State to determine adequate yearly progress (AYP) under the federal No Child Left Behind (NCLB) Act of 2001.

Table 2

SELECTED EDUCATIONAL DATABASES MAINTAINED BY THE
CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION
Department of Management and Budget

Results of Accuracy Tests for Selected Fields From the End of School Year 2002-03
Submission in the Registry of Educational Personnel (REP)

Number of Teacher Records Reviewed = 93

REP Field Reviewed	Errors Noted	Accuracy Rate
Position Assignment Code - Field 10b	7	92.5%
Grade Assignment - Field 10c	10	89.2%
Credential Type - Field 17	5	94.6%

Note: Sampled school districts were selected from school districts whose data fields appeared reasonable in their fall 2002 submission.

The results indicate that 2 of the 3 data elements reviewed contained records that were accurate more than 90% of the time and 1 data element was accurate 89% of the time. The REP data is used for reporting teacher qualifications for the federal No Child Left Behind (NCLB) Act of 2001 and various State functions, including the Michigan Department of Education's audit of school personnel.

Table 3

SELECTED EDUCATIONAL DATABASES MAINTAINED BY THE
CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION
Department of Management and Budget

Results of Accuracy Tests for Selected Fields From the End of School Year 2002-03
Submission in the School Infrastructure Database (SID)

Number of School Infrastructure Records Reviewed = 10

SID Field Reviewed	Errors Noted	Accuracy Rate
Safety Plan Addresses - Shootings - Field 2a*	1	90.0%
Safety Plan Addresses - Riots or Large Scale Fights - Field 2b*	1	90.0%
Safety Plan Addresses - Bomb Scares or Comparable Threats - Field 2c*	1	90.0%
Safety Plan Addresses - Natural Disasters - Field 2d*	1	90.0%
Safety Plan Addresses - Hostages - Field 2e*	1	90.0%
Illegal Possession - Field 7	2	80.0%
Trespassers or Intruders - Field 8	1	90.0%
Vandalism - Field 9	2	80.0%
Weapons on School Property - Field 15	1	90.0%
Title I Program - Field 29	3	70.0%

Note: Sampled school districts were selected from school districts whose data fields appeared reasonable in their fall 2002 submission.

* Field 2 is used to report whether the school's safety plan addressed these safety issues and is not used to report actual incidents of this type.

The results indicate that the 5 data elements related to school safety plans were accurate for 9 of 10 records. The results also indicated that 4 data elements relating to actual crime and safety incident reporting were accurate for 9 of 10 records for 2 data elements and for 8 of 10 records for the remaining 2 data elements. Also, 1 data element related to program participation was accurate for 7 of 10 records. The SID data is used for State and federal reporting requirements and to assist stakeholders in developing school safety policies.

Table 4

SELECTED EDUCATIONAL DATABASES MAINTAINED BY THE
CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION
Department of Management and Budget

Results of Completeness Tests From the End of School Year 2002-03
Submission for Records in the Single Record Student Database (SRSD), Registry of Educational Personnel (REP), and School Infrastructure Database (SID)

Student Record Count Verified (SRSD) = 5,007
School Personnel Record Count Verified (REP) = 513
Buildings Data Reviewed (SID and SRSD Expulsion Fields) = 10

	Errors Noted	Completeness Rate
SRSD - Students Properly Reported	44	99.1%
SRSD - Expulsion Fields 112 - 120 Properly Reported	3	70.0%
REP - All School Personnel Properly Reported	13	97.5%
SID - School Incidents Report/System Contains the Necessary Safety Categories for SID Reporting	1	90.0%

Note: Sampled school districts were selected from school districts whose data fields appeared reasonable in their fall 2002 submission.

The results indicate that SRSD contained the correct number of student records 99.1% of the time and that REP contained the correct number of school personnel records 97.4% of the time. Also, the systems used to collect incident data for SID reporting was complete for 9 of 10 school buildings. In addition, for 3 of 10 sample school buildings, at least 1 student expulsion occurred and was not reported correctly on the student's SRSD record (Fields 112 - 120). The completeness of SRSD, REP, and SID is important to ensure that the State uses the most accurate data for reporting and evaluation. SRSD expulsion fields are used to determine if a school building meets the definition of a persistently dangerous school.

Description of Flow Charts

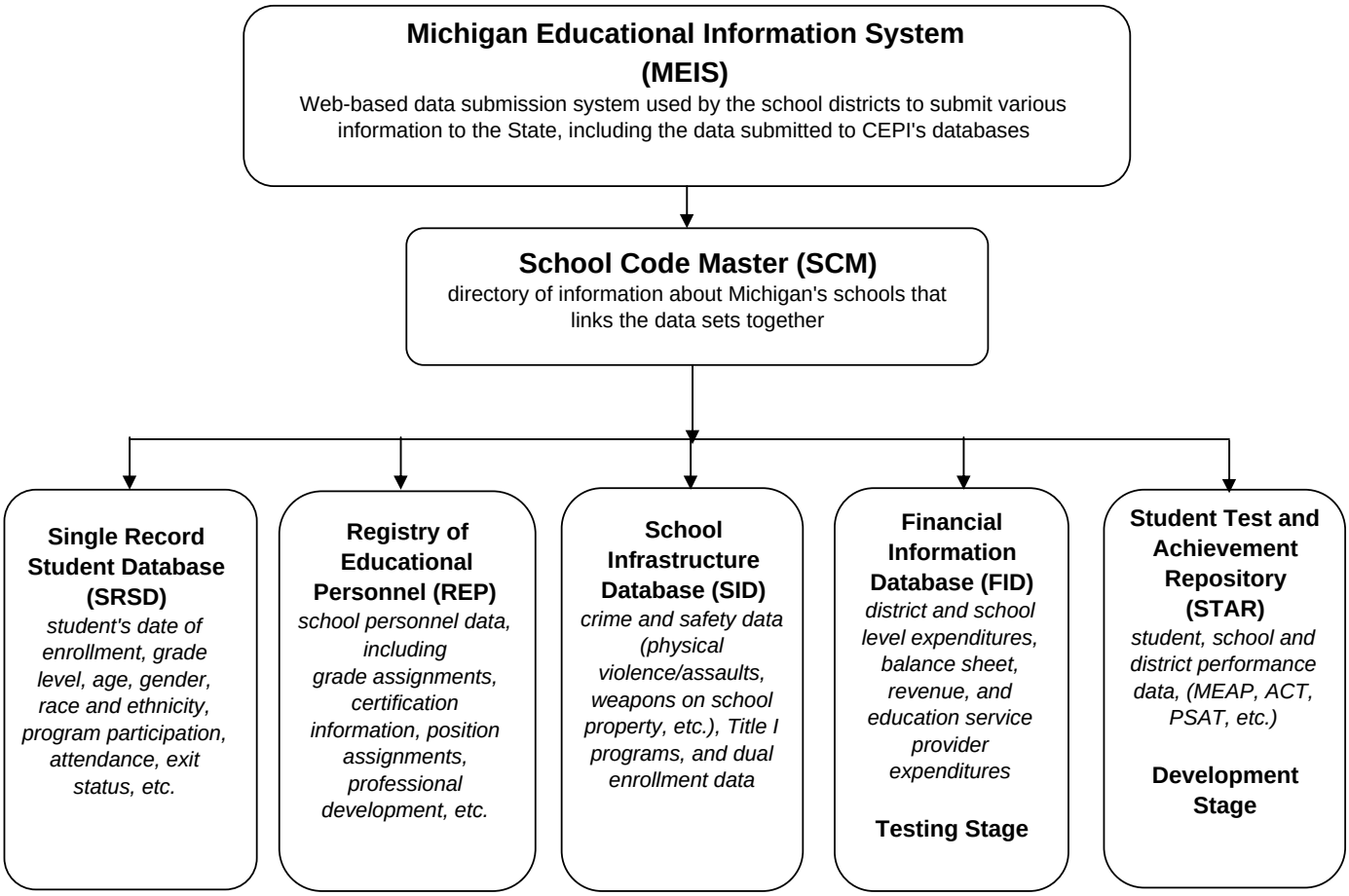
The following flow charts provide an overview of the Center for Educational Performance and Information (CEPI) databases, the databases' collection and submission processes, and the relationship between the databases and MDE's Michigan School Report Card, which is used to evaluate schools.

Flow Chart 1 - CEPI's Databases
This flow chart identifies CEPI's databases and examples of the education information contained in each.

Flow Chart 2 - CEPI's Collection and Submission Process
This flow chart identifies the data collection processes, including a description of the number of submissions and the time frame for data submission each school year.

Flow Chart 3 - Michigan School Report Card
This flow chart identifies CEPI data used as components to derive or partially derive the grade on the Michigan School Report Card.

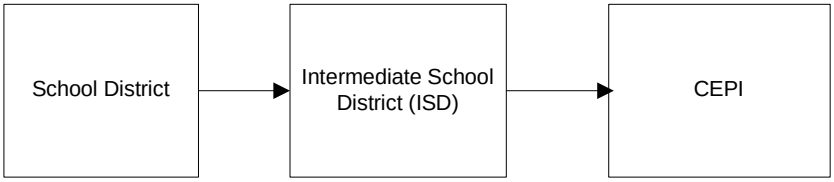
SELECTED EDUCATIONAL DATABASES MAINTAINED BY THE
CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION (CEPI)
Department of Management and Budget
CEPI Databases



SELECTED EDUCATIONAL DATABASES MAINTAINED BY THE CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION (CEPI)

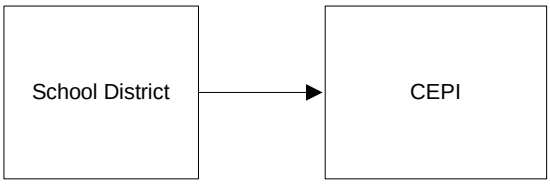
Department of Management and Budget
CEPI Collection and Submission Processes

Single Record Student Database (SRSD)



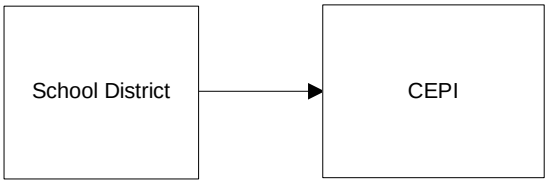
SRSD: Submitted three times a school year: fall, spring, and end of year. The school district has a one-month to two-month period, depending upon the submission, to submit its data to the ISD. The ISD has two weeks to submit the data to CEPI. Starting with the spring 2002 submission, the school districts were required to submit student data via SRSD.

Registry of Educational Personnel (REP)



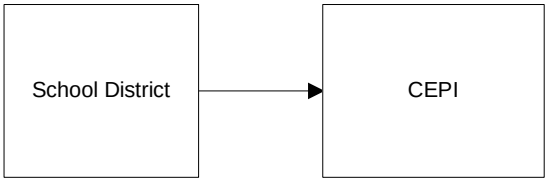
REP: Submitted two times a school year: fall and end of year. The school district has a one-half month period to submit its data for the fall submission and a three-month period to submit its data for the end of year submission. Starting with the end of year 2002 submission, the school districts were required to submit personnel data via RFP.

School Infrastructure Database (SID)



SID: Submitted once a school year: end of year. The school district has a three-month period to submit its data for the end of year submission. Starting with the end of year 2001 submission, the school districts were required to submit crime and safety and program participation data via SID.

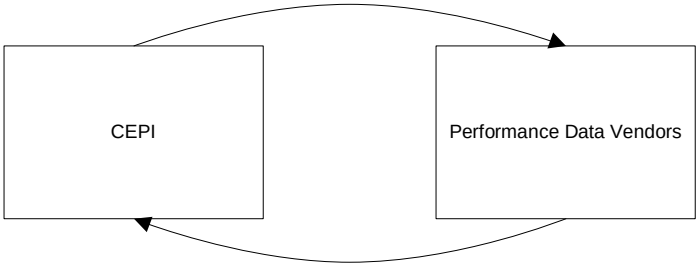
Financial Information Database (FID)



FID: Submitted once a school year: fall. FID is in a testing period for all districts. The fall 2004 submission will be the first required submission.

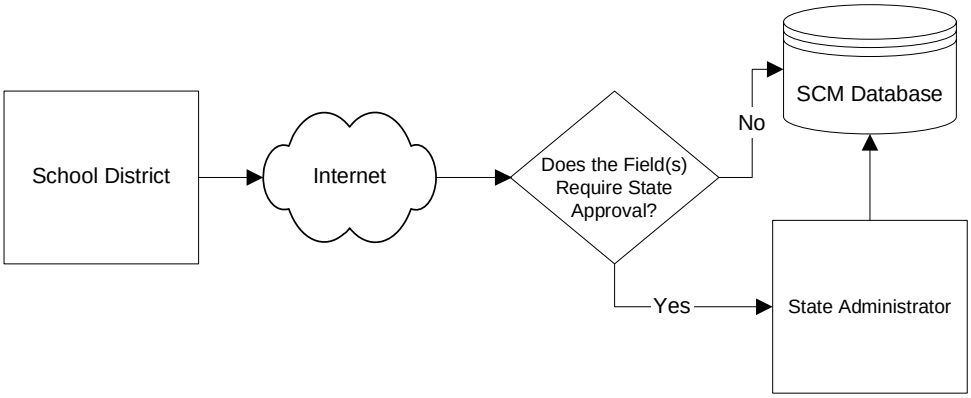
SELECTED EDUCATIONAL DATABASES MAINTAINED BY THE
CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION (CEPI)
Department of Management and Budget
CEPI Collection and Submission Processes
Continued

Student Test and Achievement Repository (STAR)



STAR: Performance data obtained by CEPI from various vendors managing performance data for the State and/or federal governments.

School Code Master (SCM)



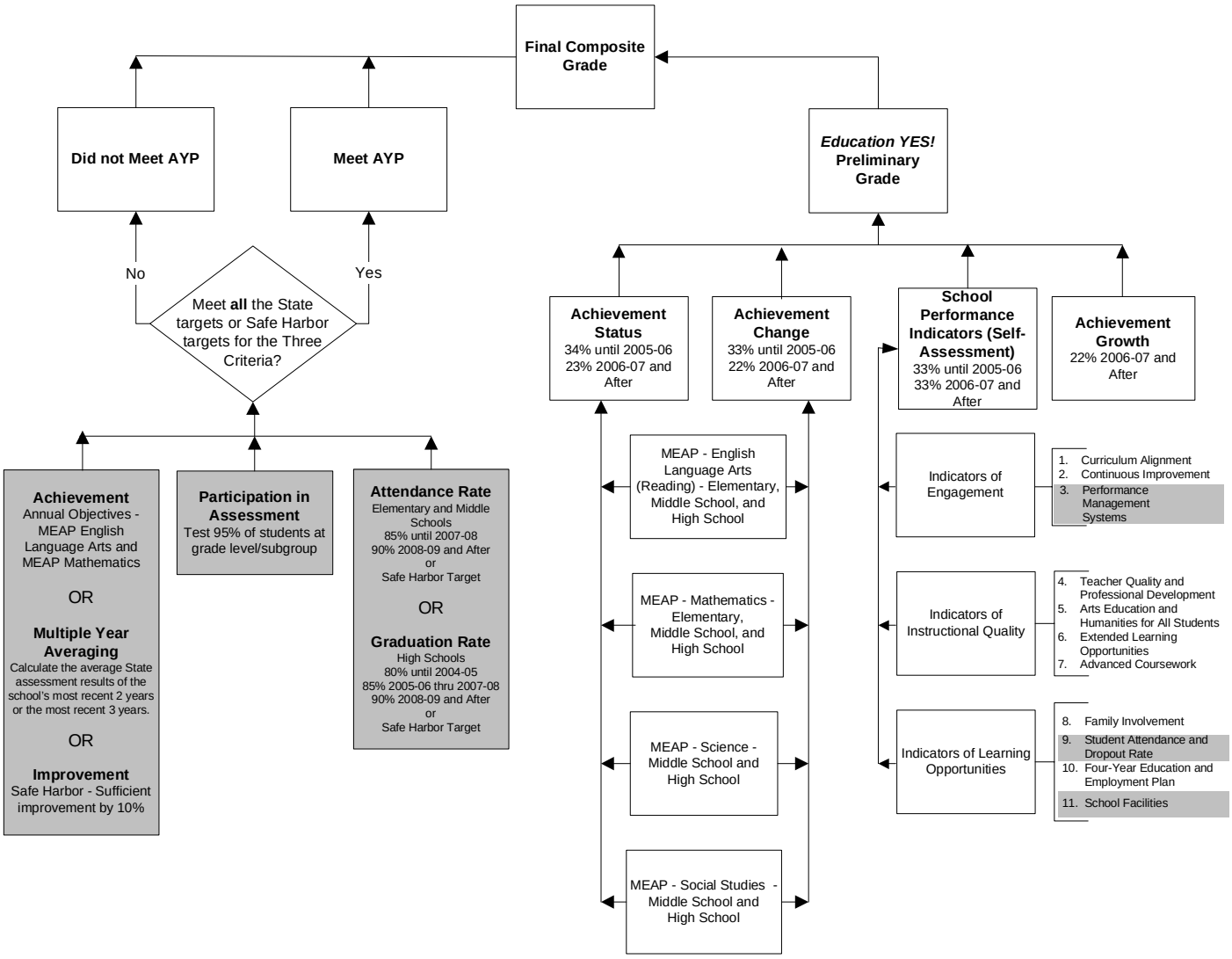
SCM: The school district can continuously update its district information throughout the entire school year. SCM is the official directory of schools and facility information. SCM links the Michigan Educational Information System (MEIS) data sets by the SCM (facility) number. For example, name of school, contact information, grade range adjustments, etc.

Flow Chart 3

SELECTED EDUCATIONAL DATABASES MAINTAINED BY THE
CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION (CEPI)
Department of Management and Budget
Michigan School Report Card*
Determination of the Final Composite Grade

Adequate Yearly Progress (AYP) under the federal No Child Left Behind Act of 2001

Michigan's School Performance Standards *Education YES!* - A Yardstick for Excellent Schools



Gray = Components that use CEPI data sets.

* The Michigan School Report Card is the responsibility of the Michigan Department of Education.

GLOSSARY

Glossary of Acronyms and Terms

accuracy	Degree to which the data in a database reflects the data entered at the source or, if available, in the source documents. A subcategory of accuracy is consistency. Consistency refers to data that is clear and well-defined to yield similar results in similar analyses.
ACT	American College Test.
adequate yearly progress (AYP)	The measure used to hold schools and school districts responsible for student achievement in English language arts and mathematics. AYP is based on Michigan Educational Assessment Program (MEAP) test results, participation rates in MEAP testing, and attendance or graduation rates.
ADR	Administrator Data Review.
CEPI	Center for Educational Performance and Information.
completeness	Degree to which a database contains all of the data elements and records.
Education YES!	The State's school accountability system used in Michigan to determine AYP under the federal NCLB Act. Each school is graded on its MEAP achievement and MEAP improvement, as well as 11 other performance indicators.
FID	Financial Information Database.
grade assignment	The grade level(s) or education setting(s) that the teacher has been assigned to teach and reported in a REP data field.
ISD	intermediate school district.
LEA	local educational agency.

MDE	Michigan Department of Education.
Michigan Educational Assessment Program (MEAP)	The Statewide assessment program used to test and report student achievement in the core academic subjects at certain grade levels.
Michigan Educational Information System (MEIS)	The system used by school districts to submit data to the State and by CEPI to combine, store, and report that data.
mission	The agency's main purpose or the reason that the agency was established.
No Child Left Behind (NCLB) Act of 2001	The federal law that authorizes funding and contains the current requirements for Title I and other federal educational programs.
performance audit	An economy and efficiency audit or a program audit that is designed to provide an independent assessment of the performance of a governmental entity, program, activity, or function to improve public accountability and to facilitate decision making by parties responsible for overseeing or initiating corrective action.
position assignment	The subject area(s) that the teacher has been assigned to teach and reported in a REP data field.
PSA	public school academy.
PSAT	Preliminary Scholarship Aptitude Test.
REP	Registry of Educational Personnel.
reportable condition	A matter that, in the auditor's judgment, represents either an opportunity for improvement or a significant deficiency in management's ability to operate a program in an effective and efficient manner.

SCM	School Code Master.
school districts	LEA districts and PSA districts.
SID	School Infrastructure Database.
SRSD	Single Record Student Database.
STAR	Student Test and Achievement Repository.
Title I	The first section of the federal Elementary and Secondary Education Act, known as the NCLB Act. Title I refers to programs aimed at America's most disadvantaged students. Title I, Part A provides assistance to improve the teaching and learning of children to meet challenging State academic content and performance standards.

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STATE OF MICHIGAN

OFFICE of the AUDITOR GENERAL