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- Article IV, Section 53 of the Michigan Constitution

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

June 6, 2014

Mr. John S. Roberts, State Budget Director State Budget Office Department of Technology, Management, and Budget George W. Romney Building Lansing, Michigan

Dear Mr. Roberts:

This is our report on our follow-up of the 3 material conditions (Findings 1, 2, and 3), 2 reportable conditions (Findings 4 and 5), and 6 corresponding recommendations reported in the performance audit of High School Graduation and Dropout Rates, Center for Educational Performance and Information (CEPI), Department of Management and Budget. That audit report was issued and distributed in September 2006. Additional copies are available on request or at <a href="http://audgen.michigan.gov">http://audgen.michigan.gov</a>. In March 2010, subsequent to our performance audit, Executive Order No. 2009-55 renamed the Department of Management and Budget.

This report contains an introduction, our purpose of follow-up, a background, our scope, follow-up conclusions and results, and a glossary of abbreviations and terms.

Our follow-up disclosed that CEPI had complied with 5 recommendations and that 1 recommendation was no longer applicable.

If you have any questions, please call me or Scott M. Strong, C.P.A., C.I.A., Deputy Auditor General.

Sincerely,

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Thomas H. McTavish, C.P.A. Auditor General

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# FOLLOW-UP REPORT HIGH SCHOOL GRADUATION AND DROPOUT RATES CENTER FOR EDUCATIONAL PERFORMANCE AND INFORMATION DEPARTMENT OF TECHNOLOGY, MANAGEMENT, AND BUDGET

# INTRODUCTION

This report contains the results of our follow-up of the material conditions<sup>\*</sup>, reportable conditions<sup>\*</sup>, and corresponding recommendations reported in our performance audit<sup>\*</sup> of High School Graduation and Dropout Rates, Center for Educational Performance and Information (CEPI), Department of Management and Budget (07-181-05), which was issued and distributed in September 2006. The prior audit report included 3 material conditions (Findings 1, 2, and 3) and 2 reportable conditions (Findings 4 and 5). This report also contains CEPI's plan to comply with our prior audit recommendations, which was required by the *Michigan Compiled Laws* and administrative procedures to be developed within 60 days after release of the September 2006 audit report.

# PURPOSE OF FOLLOW-UP

The purpose of this follow-up was to determine whether CEPI had taken appropriate corrective measures in response to the 3 material conditions, 2 reportable conditions, and 6 corresponding recommendations noted within our September 2006 audit report.

# BACKGROUND

CEPI is responsible for collecting data from high schools and calculating an annual graduation and dropout rate for each high school, each district, and the State in compliance with nationally recognized standards. CEPI is also responsible for annually

reporting the rates to the Legislature, the State Budget Director, and the Michigan Department of Education (MDE). MDE was required to report Statewide graduation rates to the U.S. Department of Education in its annual State Report Card as a component in assessing if high schools achieved adequate yearly progress\* (AYP) as part of the federal No Child Left Behind (NCLB) Act of 2001\* requirements until school year\* 2011-12. Beginning with school year 2012-13, MDE released Michigan School Accountability Scorecards, including graduation rates, as an indicator of school and district compliance and assessment participation and assessment performance requirements.

The NCLB Act of 2001 defines graduation rates as the percentage of students who graduate from a secondary school with a regular diploma in a standard number of years. The NCLB Act definition requires states to measure the graduation rate by following an individual student's progress over a four-year period by adjusted cohort\*. The adjusted cohort includes the number of first-time ninth graders (starting cohort) plus the number of students who transferred in and minus the number of students who transferred out, emigrated\*, or died during school years for a four-, five-, or six-year period. The State calculates its annual dropout rate based on those students who are not accounted for in the graduation rate calculation or as other completers\* or off-track continuing\*. Michigan began using the federal calculation required by the NCLB Act with the 2007 cohort. During our prior audit, the State School Aid Act required CEPI to compute this graduation rate by compiling the activity of all students in the high school (grades 9 through 12) for a one-year period, excluding migrant, alternative education, and adult students. CEPI relies on the high schools to report the data necessary to calculate graduation and dropout rates.

In our September 2006 audit report, we noted that CEPI reported Statewide graduation rates of 88.7% and dropout rates of 3.0% for school year 2003-04. For school year 2012-13, CEPI reported Statewide graduation rates of 77.0% for the four-year cohort and dropout rates of 10.5% for the four-year cohort.

In addition to calculating and reporting graduation and dropout rates, CEPI collects and reports on other data required by State and federal law regarding the performance of Michigan's K-12 public schools and students. For example, CEPI collects school

<sup>\*</sup> See glossary at end of report for definition.

districts' data related to student demographics and performance, school personnel demographics and qualifications, and individual school finances and safety.

Executive Order No. 2009-55 renamed the Department of Management and Budget as the Department of Technology, Management, and Budget effective in March 2010. CEPI is organizationally placed within the State Budget Office under DTMB.

# SCOPE

Our fieldwork was performed primarily during February and March 2014. We interviewed CEPI staff and reviewed their corrective action plans to help determine the status of compliance with our audit recommendations. We reviewed and obtained an understanding of current federal and State laws applicable to high school graduation and dropout rates. We obtained an understanding of CEPI's process related to data collection, data quality, and the graduation and dropout rate calculation. We identified the information systems utilized for data collection and reviewed CEPI's general and application controls for those systems. We reviewed application business rules and reasonableness checks conducted for the period October 1, 2011 through October 2, 2013 and identified and reviewed specific business rules and reasonableness checks to determine the effectiveness of the controls.

# FOLLOW-UP CONCLUSIONS AND RESULTS

# ACCURACY OF HIGH SCHOOL GRADUATION AND DROPOUT DATA USED BY CEPI

#### SUMMARY OF THE SEPTEMBER 2006 FINDING

#### 1. <u>Verification of Data Accuracy</u>

CEPI did not have the authority to review high schools' records and the authority to withhold State aid payments for inaccurate reporting or for failure to report graduation and dropout data. Therefore, CEPI could not verify the accuracy of the data used in its calculation of graduation and dropout rates. As a result, federal agencies, the Legislature, MDE, local school districts, and parents that use this data to make education policy decisions and to evaluate individual schools' performance as well as the overall quality of education in Michigan cannot be assured that their decisions are based on accurate information.

#### **RECOMMENDATION (AS REPORTED IN SEPTEMBER 2006)**

We recommend that CEPI seek the authority to review high schools' records and the authority to withhold State aid payments for inaccurate reporting or for failure to report graduation and dropout data.

#### AGENCY PLAN TO COMPLY\*

The *Michigan Compiled Laws* and administrative procedures required CEPI to develop a plan to comply with our audit recommendations within 60 days of the release of the September 2006 audit report. CEPI indicated in its 2006 plan to comply that it intended to comply with the recommendation and that it would seek legislative authorization to incorporate the auditing of graduation and dropout rate data into the auditing of local school districts already done by intermediate school districts (ISDs). CEPI informed us that it would work with MDE to develop and communicate guidelines for school districts defining the circumstances in which payments would be withheld. Also, CEPI informed us that it would notify MDE of school districts that failed to report data or reported inaccurate data so that MDE could withhold State aid payments.

<sup>\*</sup> See glossary at end of report for definition.

#### FOLLOW-UP CONCLUSION

We concluded that CEPI had complied with this recommendation.

#### FOLLOW-UP RESULTS

Our follow-up disclosed that CEPI, along with MDE, secured legislative changes under Section 19 of the State School Aid Act to require all public school districts to submit information necessary for the high school graduation report in compliance with the MDE Pupil Auditing Manual. The MDE Pupil Auditing Manual requires ISD auditors to annually compare submitted graduation and dropout rate data with source documentation retained at the high schools using the Graduation and Dropout Application (GAD) System to help ensure the accuracy of the data. In addition, CEPI continues to work with MDE to ensure that audit rules and information systems appropriately support audit work. The revised State School Aid Act also gives MDE the authority to withhold 5% of total funds from school districts that do not provide the information necessary for the preparation of the district and high school graduation report.

#### SUMMARY OF THE SEPTEMBER 2006 FINDING

2. Data Evaluation and Validation

CEPI had not developed sufficient reasonableness checks and verification techniques to help identify inaccuracies in high school graduation and dropout data prior to using the data to calculate graduation and dropout rates. As a result, CEPI did not detect inaccuracies in the data submitted by high schools. These types of analyses, in conjunction with comparing the collected data with source documentation retained at high schools (Finding 1), would also help identify inaccurate data that should be investigated prior to using it in the calculation of graduation and dropout rates.

#### **RECOMMENDATION (AS REPORTED IN SEPTEMBER 2006)**

We recommend that CEPI develop reasonableness checks and verification techniques to help identify inaccuracies in high school graduation and dropout data prior to using the data to calculate graduation and dropout rates.

#### AGENCY PLAN TO COMPLY

CEPI indicated in its 2006 plan to comply that it was in the process of approving a contract for upgrading the Single Record Student Database (SRSD) collection software. These upgrades would include numerous electronic checks to help school districts identify data problems before the data was submitted to CEPI. In addition, CEPI informed us that it would continue to seek additional resources from the Legislature to implement a longitudinal Decision Support System (DSS). A longitudinal DSS would allow school districts to validate their data by comparing it with prior year submissions before submitting their official data to CEPI.

#### FOLLOW-UP CONCLUSION

We concluded that CEPI had complied with this recommendation.

## FOLLOW-UP RESULTS

Our follow-up disclosed that CEPI replaced SRSD with the Michigan Student Data System (MSDS) in fall 2009. MSDS has a data quality focus that allows school districts to individually track students throughout high school and informs districts about important counts and data calculation during and after data collection. MSDS allows schools to monitor the data submission process to ensure that errors are identified earlier in the process, minimizing the need for subsequent corrections. In addition, CEPI developed business rules and reasonableness checks to help identify inaccuracies in high school graduation and dropout data prior to using the data to calculate graduation and dropout rates.

We identified 11 business rules that were of great importance to the high school graduation and dropout data collection process. We verified the effectiveness of those rules related to the graduation and dropout data submitted by high schools and accepted into MSDS. We noted that the 11 business rules were effective in preventing inaccurate graduation and dropout data from being submitted by high schools. We also identified three reasonableness checks that we considered to be the most important to ensure the validity of MSDS data. We verified the effectiveness of the reasonableness checks to identify unusual graduation and dropout data submitted by high schools. We noted that the three reasonableness checks were effective in identifying unusual graduation and dropout data submitted by high schools.

#### SUMMARY OF THE SEPTEMBER 2006 FINDING

#### 3. Correction of SRSD Data

CEPI had not developed procedures to correct errors in SRSD data submitted by high schools. As a result, CEPI reported inaccurate data to the National Center for Educational Statistics\* (NCES).

#### **RECOMMENDATION (AS REPORTED IN SEPTEMBER 2006)**

We recommend that CEPI develop procedures to correct errors in SRSD data submitted by high schools.

## AGENCY PLAN TO COMPLY

CEPI indicated in its 2006 plan to comply that it would continue to add electronic error corrections as part of the upgrade of the SRSD collection software. CEPI informed us that it was in the process of implementing a new four-year cohort graduation rate, beginning with the graduating class of 2007. This first four-year cohort rate required five years of historical student-level data and would be calculated beginning in spring/summer 2008. Full implementation depended upon the ability to track the movement of students over time, along with the ability to correct individual-level data. Tracking a cohort of students over time (e.g., through high school) efficiently and accurately required the warehousing functionality of the DSS; this effort was contingent upon the Legislature enacting sufficient funding, which CEPI would continue to pursue.

#### FOLLOW-UP CONCLUSION

We concluded that CEPI had complied with this recommendation.

#### FOLLOW-UP RESULTS

Our follow-up disclosed that CEPI implemented MSDS, which allows school districts to make corrections to previously submitted data sets at any time. MSDS tracks cohorts of students over time and contains various edit checks to ensure the accuracy of the reported data. CEPI also implemented an appeals window for district staff members to review and request changes to graduation and dropout information on individual students in MSDS. In addition, CEPI implemented the GAD System, which allows ISD auditors to review exit status and cohort tracking.

MSDS allows ISD auditors to approve or deny changes to the exit status to correct identified errors. Also, CEPI staff review and resolve disputes regarding the primary education-providing entity or student cohort year. We reviewed a judgmental sample of 162 (5.6%) and 87 (2.5%) cohort changes in fiscal years 2011-12 and 2012-13, respectively, and determined that the changes were reasonable.

# EFFECTIVENESS\* OF CEPI'S PROCESS FOR CALCULATING HIGH SCHOOL GRADUATION AND DROPOUT RATES

#### SUMMARY OF THE SEPTEMBER 2006 FINDING

4. <u>Detection of Computer Program Errors</u>

CEPI had not developed sufficient edit checks and error reports to ensure that its computer programs were executing properly. As a result, CEPI provided high schools with inaccurate summaries of transfers in and out, which contributed to the inaccurate calculation and reporting of graduation and dropout rates for 55 high schools for school year 2002-03.

#### **RECOMMENDATION (AS REPORTED IN SEPTEMBER 2006)**

We recommend that CEPI develop sufficient edit checks and error reports to ensure that its computer programs are executing properly.

#### AGENCY PLAN TO COMPLY

CEPI indicated in its 2006 plan to comply that it corrected the specific error for school year 2003-04 and subsequent years. Also, CEPI informed us that it was in the process of establishing pilot testing protocols with school districts to test application software, queries, and reports before they were fully deployed. In addition, CEPI informed us that it has put processes in place to review student count data with the State Budget Office staff responsible for monitoring pupil memberships as an additional reasonableness check.

#### FOLLOW-UP CONCLUSION

We concluded that CEPI had complied with this recommendation.

#### FOLLOW-UP RESULTS

Our follow-up disclosed that CEPI implemented MSDS, which contains sufficient edit checks and business rules to help ensure accurate calculation and reporting of graduation and dropout data. CEPI also completed separate data quality reviews on graduation and dropout data to ensure the proper execution of its computer programs. As a result of data quality reviews, CEPI worked with the school districts to correct potential errors. ISD auditors also reviewed the school districts' data in the GAD System and, when necessary, modifications were made prior to the data review and correction cycle.

We identified 11 business rules that were of great importance to the high school graduation and dropout data collection process. We verified the effectiveness of those rules related to the graduation and dropout data submitted by high schools and accepted into MSDS. We noted that the 11 business rules were effective in preventing inaccurate graduation and dropout data from being submitted by high schools. We also identified three reasonableness checks that we considered to be the most important to ensure the validity of MSDS data. We verified the effectiveness of the reasonableness checks to identify unusual graduation and dropout data submitted by high schools. We noted that the three reasonableness checks were effective in identifying unusual graduation and dropout data submitted by high schools.

In addition, legislative changes under Section 19 of the State School Aid Act require all public school districts to comply with the MDE Pupil Auditing Manual, which requires ISD auditors to perform reviews of graduation and dropout data in conjunction with annual pupil membership audits. We interviewed two ISD auditors and were informed that they review graduation and dropout data submitted by school districts. We also reviewed the supporting documentation for ISD auditor graduation and dropout data reviews of four schools and noted that the ISD reviews complied with the MDE Pupil Auditing Manual requirements.

#### SUMMARY OF THE SEPTEMBER 2006 FINDING

5. <u>Training and Instruction for High Schools</u>

CEPI did not provide high schools with sufficient detailed instructions regarding reporting requirements for migrant education students and midterm promotions.

Also, CEPI should develop alternative training and instruction methods to address significant data quality issues that exist at the high schools. Training and instruction would help to ensure that high schools submit accurate data in both SRSD and the Education Data Network\* (EDN).

#### **RECOMMENDATIONS (AS REPORTED IN SEPTEMBER 2006)**

We recommend that CEPI provide high schools with sufficient detailed instructions regarding reporting requirements for migrant education students and midterm promotions.

We also recommend that CEPI develop alternative training and instruction methods to address significant data quality issues that exist at the high schools.

# AGENCY PLAN TO COMPLY

The State School Aid Act changed in 2005, and migrant students were no longer excluded from the calculation of graduation and dropout rates. CEPI informed us that it would continue to expand its current training by working with school districts and education associations to implement a data quality curriculum based on the NCES Forum Guide to Building a Culture of Quality Data. CEPI also informed us that, in May 2006, it conducted a Statewide training "Webinar" for the GAD System and made those materials available via the CEPI Web site, including information about midterm promotions.

#### FOLLOW-UP CONCLUSION

We concluded that the recommendation that CEPI provide high schools with sufficient detailed instructions regarding reporting requirements for migrant education students and midterm promotions was no longer applicable.

We also concluded that CEPI had complied with the recommendation that CEPI develop alternative training and instruction methods to address significant data quality issues that exist at the high schools.

#### FOLLOW-UP RESULTS

Our follow-up disclosed that the State School Aid Act changed in 2005 and that migrant students were no longer excluded from the calculation of graduation and

dropout rates. CEPI now tracks students when they first enter ninth grade by placing them in a cohort. CEPI ascertains if the student graduates within four years. Tracking midterm promotions is no longer an issue with the new cohort process utilized by CEPI.

In addition, CEPI developed Web-based training for users and partnered with the Michigan Pupil Accounting and Attendance Association for annual MSDS and GAD System training. Also, CEPI provided information on its Web site, including frequently asked questions, application user guides, and information on how rates are calculated.

Our follow-up also disclosed that CEPI significantly increased its staff size since the prior audit. As of March 31, 2014, CEPI had 51 employees, including 6 who were dedicated to customer support. During the prior audit, CEPI had a total of 13 employees.

#### Glossary of Abbreviations and Terms

- adequate yearlyThe measure used to hold schools and districts responsible<br/>for student achievement in English language arts and<br/>mathematics. AYP is based on Michigan Educational<br/>Assessment Program (MEAP) test results, participation rates<br/>in MEAP testing, and attendance or graduation rates.
- agency plan to comply The response required by Section 18.1462 of the *Michigan Compiled Laws* and the State of Michigan Financial Management Guide (Part VII, Chapter 4, Section 100). The audited agency is required to develop a plan to comply with the Office of the Auditor General audit recommendations and submit the plan within 60 days after release of the audit report to the Office of Internal Audit Services, State Budget Office. Within 30 days of receipt, the Office of Internal Audit Services is required to review the plan and either accept the plan as final or contact the agency to take additional steps to finalize the plan.
- CEPI Center for Educational Performance and Information.
- cohort A group of students who enter high school (ninth grade) at the same time and are placed into a cohort year when they are first identified as ninth graders.

DSS Decision Support System.

Education DataAn electronic network used to collect pupil information for<br/>calculating graduation and dropout rates.

effectiveness Success in achieving mission and goals.

emigrate To leave the school district residency to live in another state, country, or region.

GAD System Graduation and Dropout Application System.

ISD intermediate school district.

material condition A reportable condition that could impair the ability of management to operate a program in an effective and efficient manner and/or could adversely affect the judgment of an interested person concerning the effectiveness and efficiency of the program.

MDE Michigan Department of Education.

MSDS Michigan Student Data System.

National Center for The primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. NCES activities are designed to address high priority education data needs; to provide consistent, reliable, complete, and accurate indicators of education status and trends; and to report timely, useful, and high-quality data to the U.S. Department of Education, the U.S. Congress, the states, other education policymakers, practitioners, data users, and the general public.

No Child Left BehindThe federal law that authorizes funding and contains the<br/>current requirements for Title I and other federal educational<br/>programs.

off-track continuing A CEPI-designated category of students who did not complete high school in four years and are still continuing in high school.

other completers A CEPI-designated category of students who earned a GED or other certificate or a special education student who attained the maximum age for program participation (26 years of age in Michigan).

- 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.
- 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.
- school year The start of a school's academic year to August 31.

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SRSD Single Record Student Database.
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