

REPORT ON THE ADVISORY COUNCIL ON THE EDUCATION OF GIFTED AND TALENTED CHILDREN FIRST ANNUAL REPORT

STATUTORY AUTHORITY:

Section 161.249, RSMo

Consent
Item

Action
Item

Report
Item

DEPARTMENT GOAL NO. 1:

All Missouri students will graduate college and career ready.

SUMMARY:

The Gifted Advisory Council was established by Senate Bill 17 (2013) to provide advice regarding all rules and policies to be adopted by the State Board of Education relating to the education of gifted and talented children. Appointed members began meeting in January 2014. Over the following 16 months, the Council established its operating framework and studied the status of gifted education in Missouri. The Council gathered data related to DESE-approved gifted programs, students served, program expenditures and comparison states. As a result of this study, the Council prepared recommendations for action in five areas: reporting data, identification, programming, educator preparation and professional development, and requiring and funding gifted education.

PRESENTERS:

Dr. Linda Smith, Chair of the Gifted Council, and Mr. David Welch, DESE Director of Gifted Programs, will lead the discussion of this agenda item.

Advisory Council on the Education of Gifted and Talented Children

ADVISORY COUNCIL MEMBERS

Dr. Linda Smith, Chair, Clayton

Dr. Steve Coxon, Maryville University

Dr. Rosemary Hodge Graves, North Kansas City

Ms. Sally Holt, Bernie

Dr. Robin Lady, Rockwood

Ms. Lenae Lazzelle, Springfield

Dr. Beth Winton, Columbia

DESE SUPPORT MEMBERS

Mr. David Welch

Ms. Renee Hasty

DATA ANALYSIS SUPPORT

Dr. Matt Goodman

EducationPlus

Advisory Council for the Education of Gifted and Talented Children RECOMMENDATIONS FOR ACTION – MARCH 2015

Reporting Data on Gifted Students and Programs

RECOMMENDATION 1: DESE should make district information related to state-approved gifted programs readily accessible to the public. Specifically, information available on DESE’s website should include but not be limited to grade levels served, identification criteria, service delivery model by level (per DESE categories), contact minutes per week by level, number of gifted teachers by level and the student-to-teacher ratio by level.

RECOMMENDATION 2: DESE should generate an annual state data report in October on gifted students and state approved gifted programs. The report should use data from the prior school year and include but not be limited to:

- Number and percent of districts with state-approved gifted programs (state totals and disaggregated by DESE region and county)
- Number and percent of gifted students served in state-approved programs (state totals and disaggregated by DESE region and county; by grade level and as a percent of all Missouri students in grade level)
- Number and percent of gifted students identified and not served in state-approved programs (state totals and disaggregated by DESE region and county; by grade level and percent of all identified gifted students)
- Gifted teacher certification in state-approved gifted programs by level (Elementary, Middle School, High School and total)
- Gifted program types and contact minutes per week (state total by program type, level, DESE region and county; average contact minutes by level, DESE region and county)
- Gifted student demographics by DESE region (district cells merged so actual count is possible) and total
- Gifted student achievement (MAP) by grade level tested and in comparison to all students at grade levels tested

Identification of Gifted Students

RECOMMENDATION 3: DESE should eliminate the practice of reporting students as gifted based on the criterion of being enrolled in an Advanced Placement (AP) and/or International Baccalaureate (IB) course. Additionally, AP and/or IB courses should not be counted as part of a state-approved gifted program.

RECOMMENDATION 4: DESE should provide a best practice model for districts to use in identifying and serving students who are traditionally underrepresented in gifted programs, the goal being to have program participants more closely reflect the ethnic, linguistic and socio-economic diversity of individual school districts. The best practice model should include research-based recommendations on identification, interventions to scaffold learning and delivery of gifted program services.

RECOMMENDATION 5: DESE should provide a best practice model for districts to use in identifying students who are twice exceptional (students with both learning challenges due to disabilities and/or physical impairments and exceptional learning abilities).

Programming for Gifted Students

RECOMMENDATION 6: DESE should require all Missouri districts to have a policy allowing acceleration for students demonstrating advanced performance or potential for advanced performance and the social/emotional readiness for such acceleration. The policy should include subject acceleration and whole grade acceleration, among other opportunities.

Educator Preparation and Professional Development

RECOMMENDATION 7: DESE should require teacher preparation programs to include a minimum of one three-credit hour course addressing the nature and needs of gifted students and designing curriculum and instruction to meet those needs.

RECOMMENDATION 8: DESE should require all districts to provide teachers ongoing professional development addressing the nature and needs of gifted students and designing curriculum and instruction to meet those needs. Professional development may include such options as staff development, university coursework, professional conferences, workshops and web-based learning.

Requiring and Funding Gifted Education

RECOMMENDATION 9: Gifted identification and programming should be required in Missouri.

RECOMMENDATION 10: Earmarked funds should be allocated for gifted identification and programming in Missouri.

COUNCIL BACKGROUND

Established in 2013 after passage of State Statute 161.249 by the Missouri legislature

Composed of seven Missouri residents with expertise in gifted education

Members appointed by the Commissioner of Education

Responsible for providing advice “regarding all rules and policies to be adopted by the State Board of Education relating to the education of gifted and talented children” in Missouri.

GOALS OF REPORT

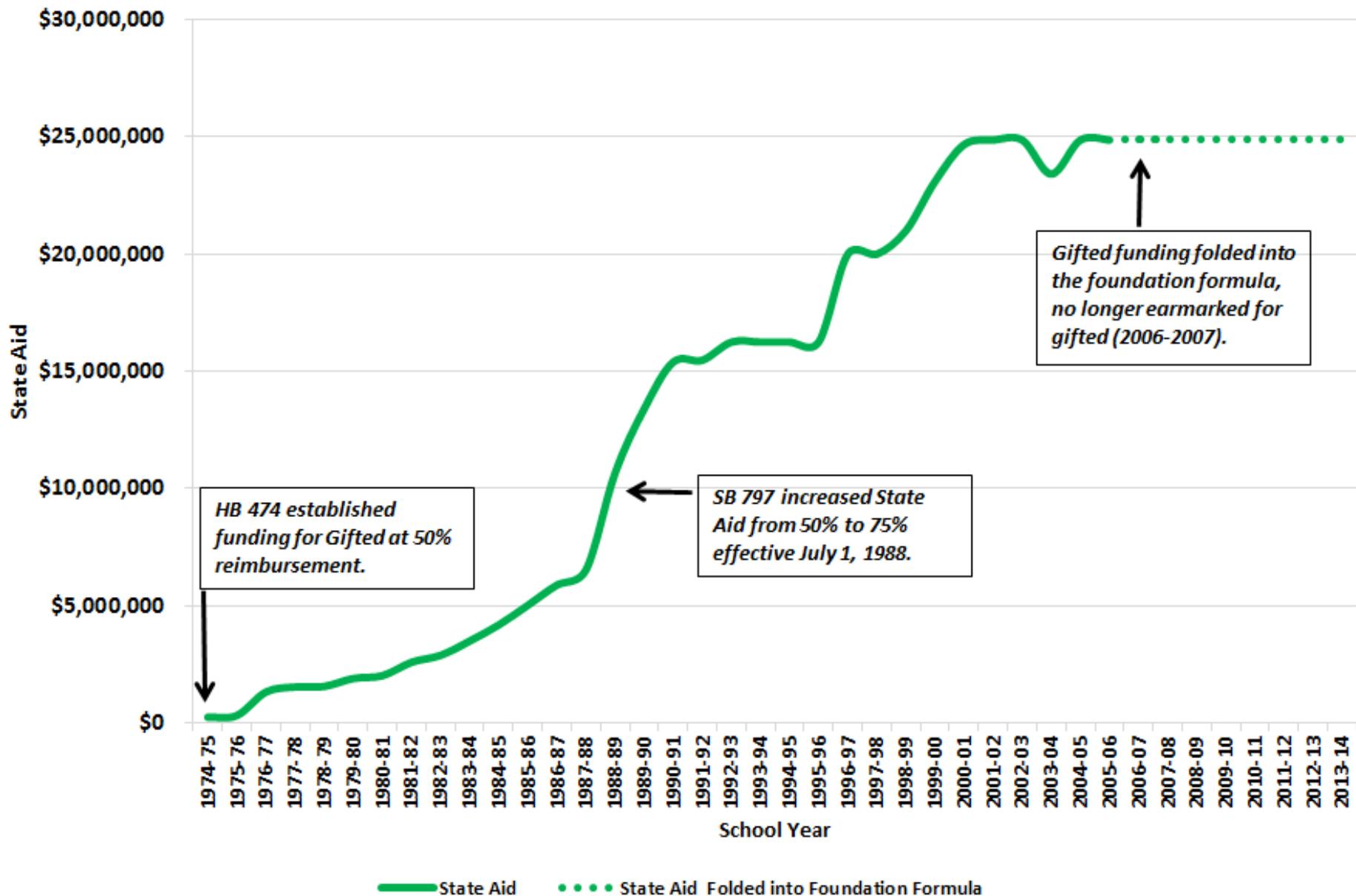
GOAL 1: Create a data-driven understanding of the current status of gifted programs in the state.

GOAL 2: Make recommendations for improvement in Missouri’s efforts related to gifted and talented children.

GOAL 3: Establish a ‘baseline’ for future analyses and recommendations.

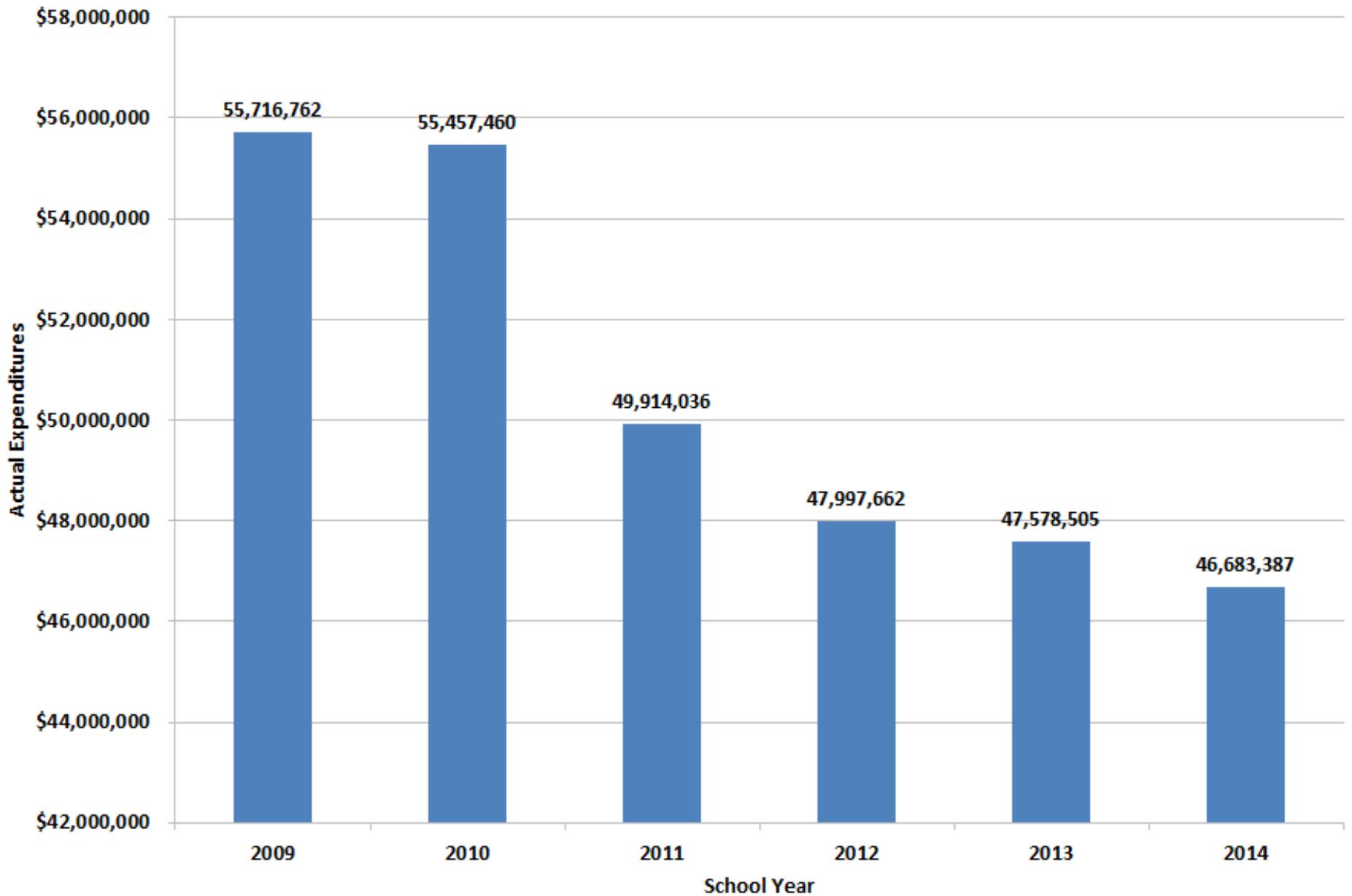
State Aid for State Approved Programs for Gifted Children

1974-1975 to 2013-2014



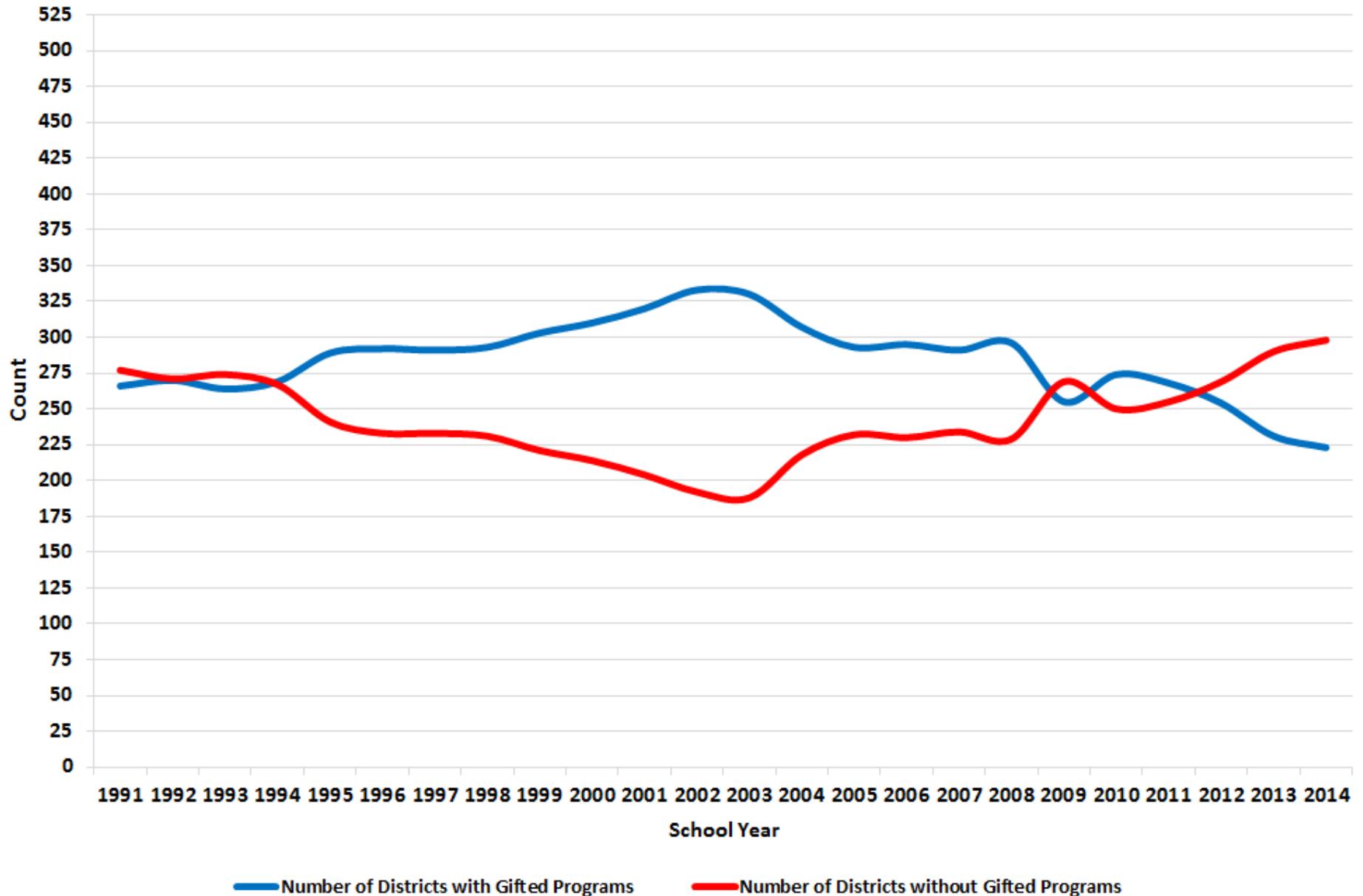
School District Actual Expenditures on Gifted, Statewide

Function Code 1210--Gifted, 2008-2009 to 2013-2014

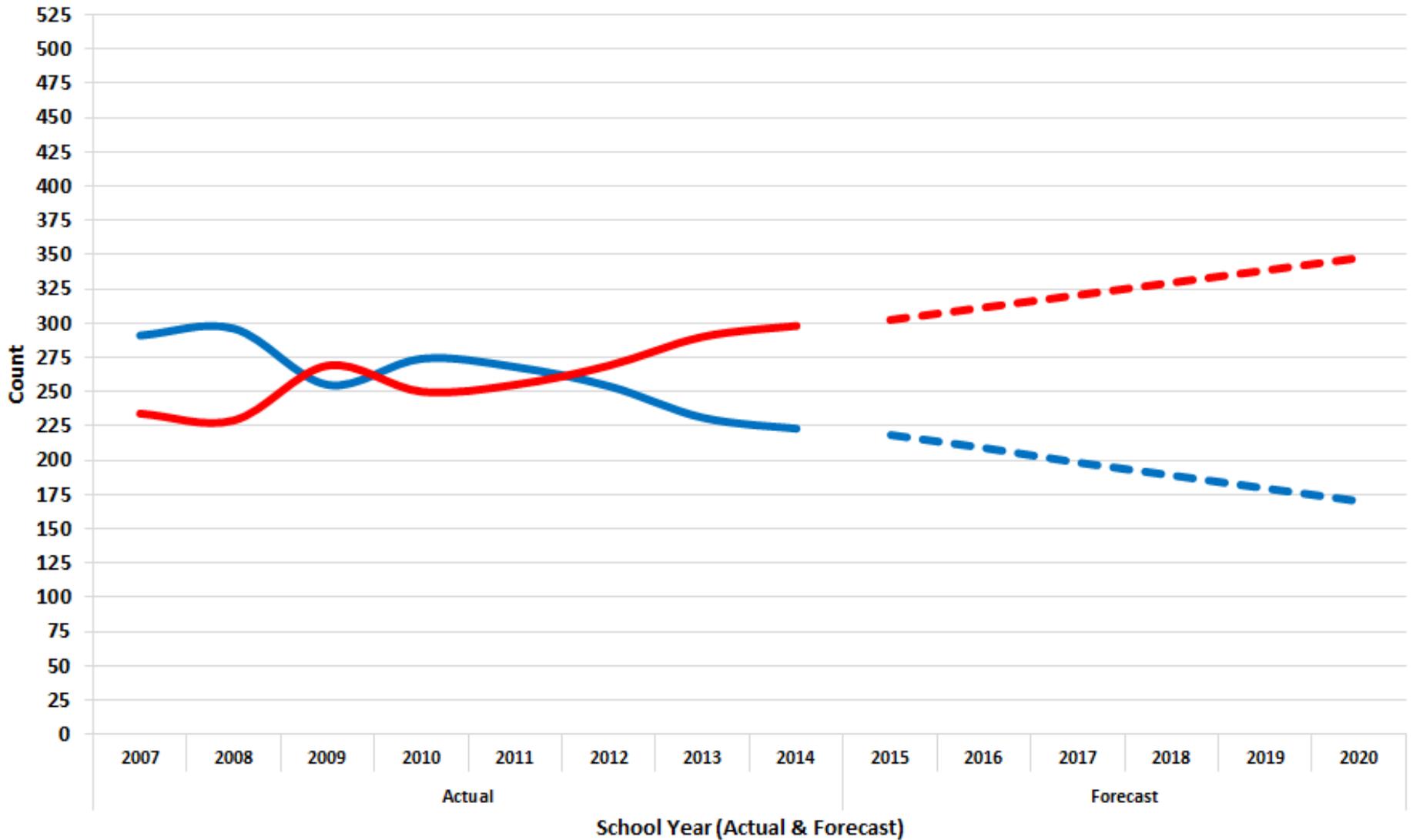


Number of Missouri Districts with State Approved Programs for Gifted Children

1990-1991 to 2013-2014

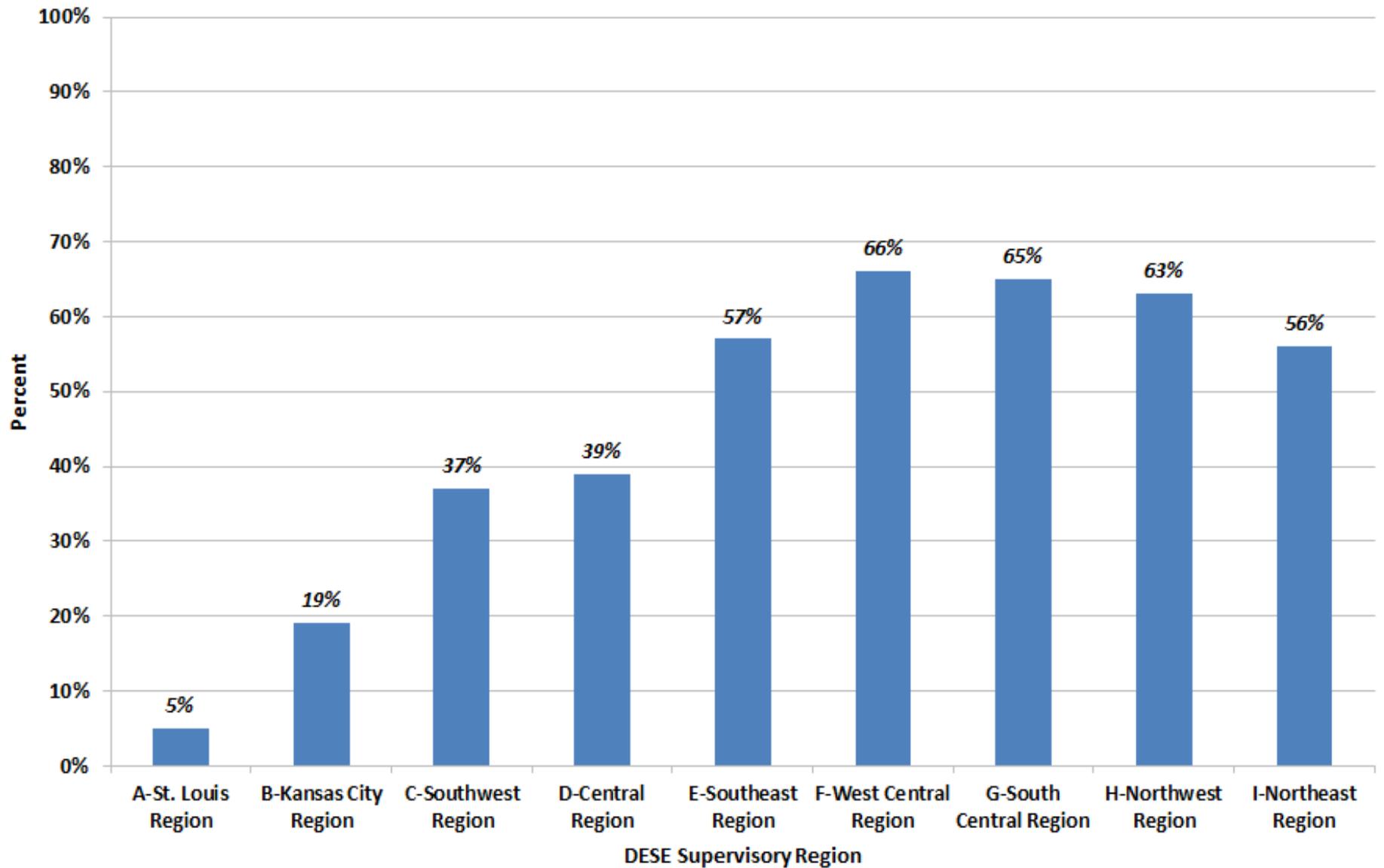


Number of Missouri Districts with State Approved Programs for Gifted Children 2006-2007 to 2013-2014 (Actual) and 2014-2015 to 2019-2020 (Forecast)



- Number of Districts with Gifted Programs (Actual)
 - - - Number of Districts with Gifted Programs (Forecast)
- Number of Districts without Gifted Programs (Actual)
 - - - Number of Districts without Gifted Programs (Forecast)

Percent of Districts Within DESE Supervisory Regions Without a State Approved Gifted Program 2013-2014



Analysis of Current Gifted Served Compared to 5% and 10% of Student Population

Region	2014 Missouri Public School Students	2014 Actual Gifted Students Identified and Served	2014 Current Percent of Students Identified and Served	5%			10%		
				Students Identified and Served	Additional Students to Reach 5%	Percent Increase to Reach 5%	Students Identified and Served	Additional Students to Reach 10%	Percent Increase to Reach 10%
A-St. Louis	265,211	19,252	7.3%	13,261			26,521	7,269	38%
B-Kansas City	175,034	7,568	4.3%	8,752	1,184	16%	17,503	9,935	131%
C-Southwest	141,931	4,845	3.4%	7,097	2,252	47%	14,193	9,348	193%
D-Central	79,368	3,643	4.6%	3,968	325	9%	7,937	4,294	118%
E-Southeast	65,584	1,503	2.3%	3,279	1,776	118%	6,558	5,055	336%
F-West Central	38,241	703	1.8%	1,912	1,209	172%	3,824	3,121	444%
G-South Central	57,345	1,534	2.7%	2,867	1,333	87%	5,735	4,201	274%
H-Northwest	34,007	876	2.6%	1,700	824	94%	3,401	2,525	288%
I-Northeast	28,555	842	2.9%	1,428	586	70%	2,856	2,014	239%
MISSOURI TOTAL	885,276	40,766	4.6%	44,264	9,489	23%	88,528	47,762	117%

COMPARISON STATES

In comparison with border states, only Missouri and Illinois do not have a gifted mandate or earmarked funds for gifted programming. In Iowa and Oklahoma, gifted programming is mandated and fully funded by the state. In Kansas, Arkansas, Tennessee and Kentucky, gifted programming is mandated and partially funded by the state. In Nebraska, gifted programming is not mandated but has funds available for gifted programming.

Of the “Top 10 by 20” DESE comparison states, seven have a mandate for gifted programming. Those states are Connecticut, Maine, Minnesota, Montana, New Jersey, Virginia and Wisconsin. Only Massachusetts, New York and Vermont have no mandate. Five of the states have partial funding for gifted programming. Those states are Maine, Minnesota, New Jersey, Virginia and Wisconsin.

RECOMMENDATIONS

The report concludes with 10 recommendations for action, grouped into five broad areas:

- Reporting data on gifted students and programs
- Identification of gifted students
- Programming for gifted students
- Educator preparation and professional development
- Requiring and funding gifted education

Report Pages: 37-43

Format: Problem – Recommendation – Rationale

FIRST ANNUAL REPORT

Advisory Council on the Education of Gifted and Talented Children

2015

**Prepared by the Gifted Advisory Council
Approved March 4, 2015
Jefferson City, Missouri**

GIFTED ADVISORY COUNCIL MEMBERS

Dr. Linda Smith, Chair

Dr. Steve Coxon

Dr. Rosemary Hodge Graves

Ms. Sally Holt

Dr. Robin Lady

Ms. Lenae Lazzelle

Dr. Beth Winton

DESE SUPPORT MEMBERS

Mr. David Welch

Ms. Renee Hasty

Linda Smith, Ph.D.
Chair, Advisory Council on the Education of
Gifted and Talented Children
205 Jefferson Street
Jefferson City, MO 65102

March 4, 2015

Dr. Margaret Vandeven
Commissioner of Education
Missouri Department of Elementary & Secondary Education
205 Jefferson Street
P.O. Box 480
Jefferson City, MO 65102-0480

Dear Dr. Vandeven:

I am pleased to submit this first annual report on behalf of the Advisory Council on the Education of Gifted and Talented Children. Since the Council's first meeting in January 2014, we have been hard at work defining ourselves as an ongoing enterprise, reviewing and preparing relevant data analyses, and synthesizing our recommendations for your consideration.

Over the coming months, we would like to discuss how we might work together to implement the ideas generated by the Council. We would also request the opportunity to present our report to the State Board of Education at an upcoming Board meeting.

If you have any questions about this report or implementation steps, please contact me at your earliest convenience.

On behalf of the entire Council, I want to thank you for giving the Council the opportunity to positively impact the quality of education for gifted students in Missouri.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Smith".

Linda Smith, Ph.D.
Chair
Advisory Council on the Education of Gifted and Talented Children

Cc: David Welch

Enc: Advisory Council First Annual Report – March 2015

“There are many students with high native abilities that remain uncrystallized because of a lack of opportunity, practice, and motivation. It is the responsibility of families, schools, and society to create a more favorable atmosphere for the full development of all students – including those with outstanding talents.”

James J. Gallagher

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EXECUTIVE SUMMARY

Background on the Gifted Advisory Council

The Gifted Advisory Council was established in 2013 after passage of State Statute 161.249 by the Missouri legislature. The statute called for seven Missouri residents with expertise in gifted education to be appointed by the Commissioner of Education to serve on the advisory council. Those members were charged with the responsibility to provide advice “regarding all rules and policies to be adopted by the State Board of Education relating to the education of gifted and talented children” in Missouri.

The Council’s First Annual Report

This report is the culmination of the Council’s first 15 months of work. Among other things, the report provides information on:

- how the Council operates as an advisory entity
- the history of gifted education in Missouri
- gifted programming in relation to states that surround Missouri
- gifted programming in relation to Missouri’s “Top 10 by 20” comparison states
- financing of gifted education by Missouri and school districts within the Department’s supervisory regions
- the achievement of gifted students on Missouri Assessment Program (MAP) tests

Data for the work of the Council was obtained from a variety of sources, including the Department of Elementary and Secondary Education (DESE), the National Association for Gifted Children (NAGC), and the Davidson Institute in Nevada. The raw data on gifted programs provided by DESE was analyzed with the assistance of EducationPlus, a non-profit educational organization providing support and advocacy for school districts in the St. Louis region as well as the state as a whole.

The report concludes with 10 recommendations for action, grouped into five broad areas:

- reporting data on gifted students and programs
- identification of gifted students
- programming for gifted students
- educator preparation and professional development
- requiring and funding gifted education

Summary of Findings

The Council’s review of data led to the following general findings about Missouri gifted students and programs:

1. ***Gifted programs are in decline in many regions of Missouri.*** The number of districts offering state approved gifted programs has declined by 31%, from a high of 333 districts in 2003 to 230 districts in 2014. Today, only 43% of Missouri districts offer gifted programs versus 64% of districts in 2003. The majority of districts without state approved gifted programs are small, rural and predominantly white. The trend line projects a continuing decline of gifted programs over time if there is no change in policy or funding in the state. (See Figures 4, 5, 9, 10; Tables 1, 2.)

2. ***The number of students identified as gifted has declined by 17% from the highest count in 2012.*** This year, 36,650 students were identified and served, which represents approximately 4.5% of Missouri students. However, due to a 2007 change in state guidelines, the actual number of students served in gifted programs cannot be determined. Starting in 2007, DESE permitted districts to count all students enrolled in AP and IB classes as gifted, resulting in inflated counts of gifted students. In fact, in the year following this change, there was a 25% increase in the number of students reported as gifted. In contrast to that dramatic increase, the prior three years showed less than a one percent annual fluctuation in gifted student counts. One of the Council's recommendations is to reinstitute the more generally accepted approach to identifying gifted students that existed prior to 2007. (See Figure 6.)
3. ***Gifted students in many of the state's regions are underserved.*** Of the gifted students currently served in Missouri, 80% are in the St. Louis, Kansas City, and Southwest regions of the state. The remaining 20% of gifted students are in the other six regions of the state. For comparative purposes, 66% of all Missouri's students are in the St. Louis, Kansas City, and Southwest regions. The remaining 34% of Missouri students are in the other six regions of the state. (See Figures 12, 13; Table 3.)
4. ***The number of certified teachers in gifted programs declined from a high in 2002 of 933 to 820 in 2014, a decrease of 12%.*** This decline would be greater if the counts did not include AP and IB teachers. Starting in 2007, districts were allowed to count AP and IB teachers as gifted teachers, despite not meeting state guidelines for gifted certification. (See Figure 8.)
5. ***Funding by school districts of gifted programs declined by 16%, going from \$55,716,761 to \$46,683,386 in the five years between 2009 and 2014.*** This decline would be even more significant if cost of living increases were entered into the calculations. The per pupil expenditure, statewide, declined from \$63.88 to \$53.88 in the same time period. The majority of all funds allocated for gifted programs are for teacher salaries and benefits. (See Figures 14-18.)
6. ***In comparison with neighboring states, only Missouri and Illinois do not have a gifted mandate or earmarked funds for gifted programming.*** In Iowa and Oklahoma, gifted programming is mandated and fully funded by the state. In Kansas, Arkansas, Tennessee and Kentucky, gifted programming is mandated and partially funded by the state. In Nebraska, gifted programming is not mandated but has funds available for gifted programming. (See Figure 2.)
7. ***Of the "Top 10 by 20" DESE comparison states, seven have a mandate for gifted programming.*** Those states are Connecticut, Maine, Minnesota, Montana, New Jersey, Virginia and Wisconsin. Only Massachusetts, New York and Vermont have no mandate. Five of the states have partial funding for gifted programming. Those states are Maine, Minnesota, New Jersey, Virginia and Wisconsin. (See Figure 3.)
8. ***Students served in gifted programs outperform all other students in Missouri on MAP tests at all grade levels tested.*** The gap between gifted students and all Missouri students combined is significant in both Communication Arts and Math. In grades five through eight, the gap grows even wider in the area of Math, with gifted students performing dramatically better than the population as a whole. (See Figures 19, 20, 21.) With continued academic opportunities and guidance, these gifted students are likely to be the leaders of innovation and economic growth in our state.

Figure 10: Number of Missouri Districts with State Approved Programs – Forecast

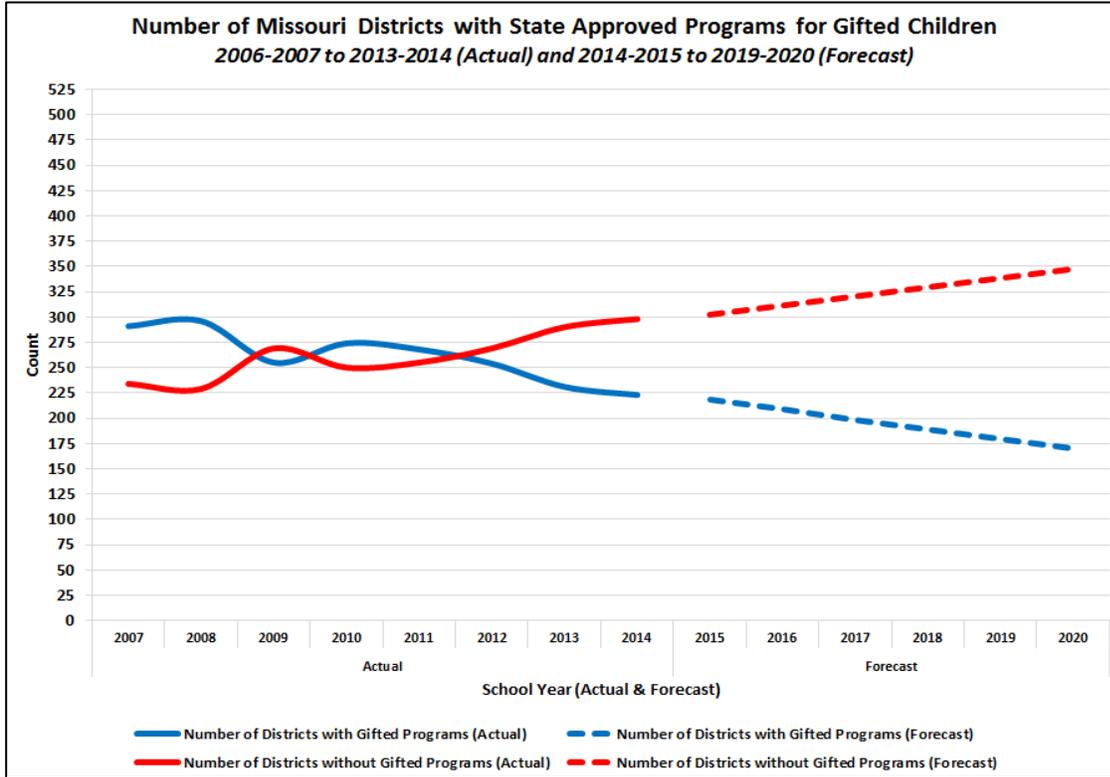


Figure 12: Percent of Missouri Students and Gifted Students Served by DESE Supervisory Region

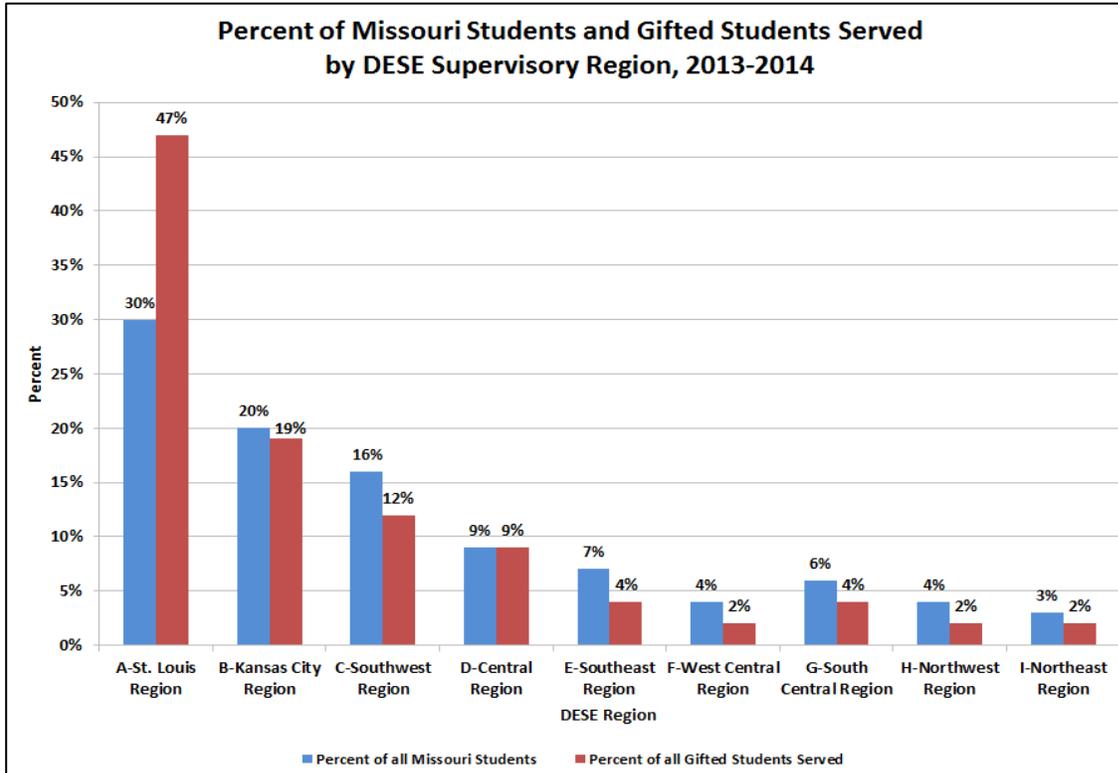


Figure 13: Percent of Districts Within DESE Supervisory Regions Without State Approved Program

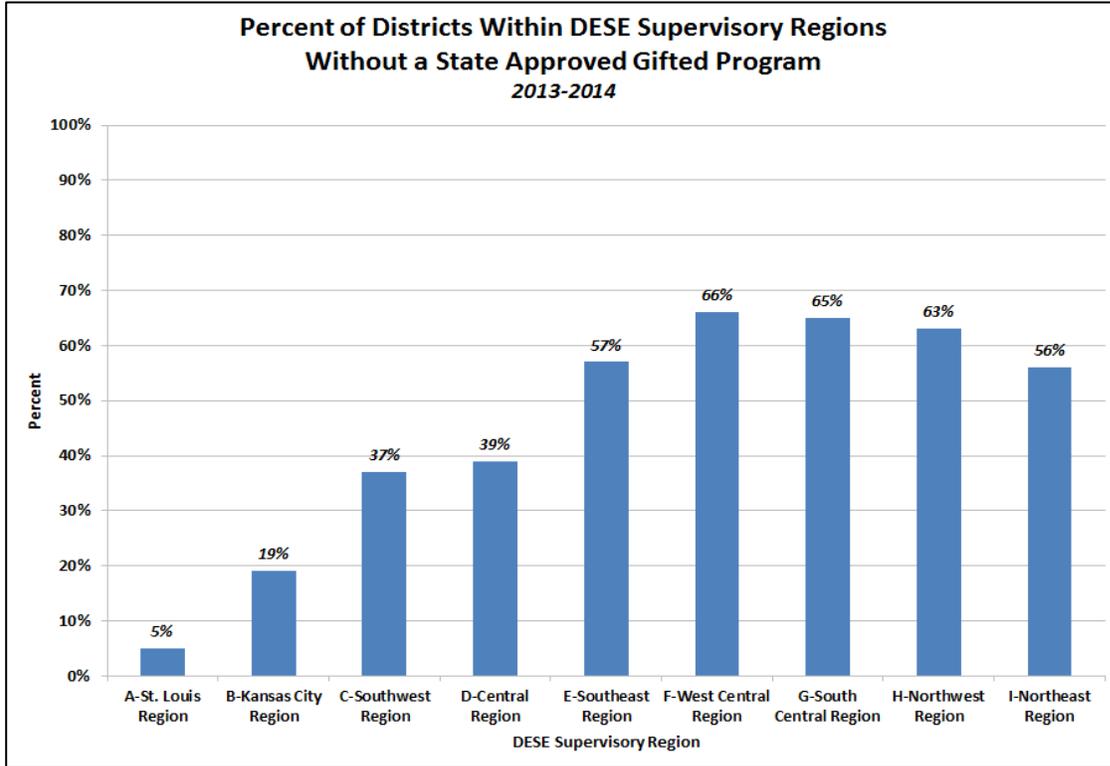
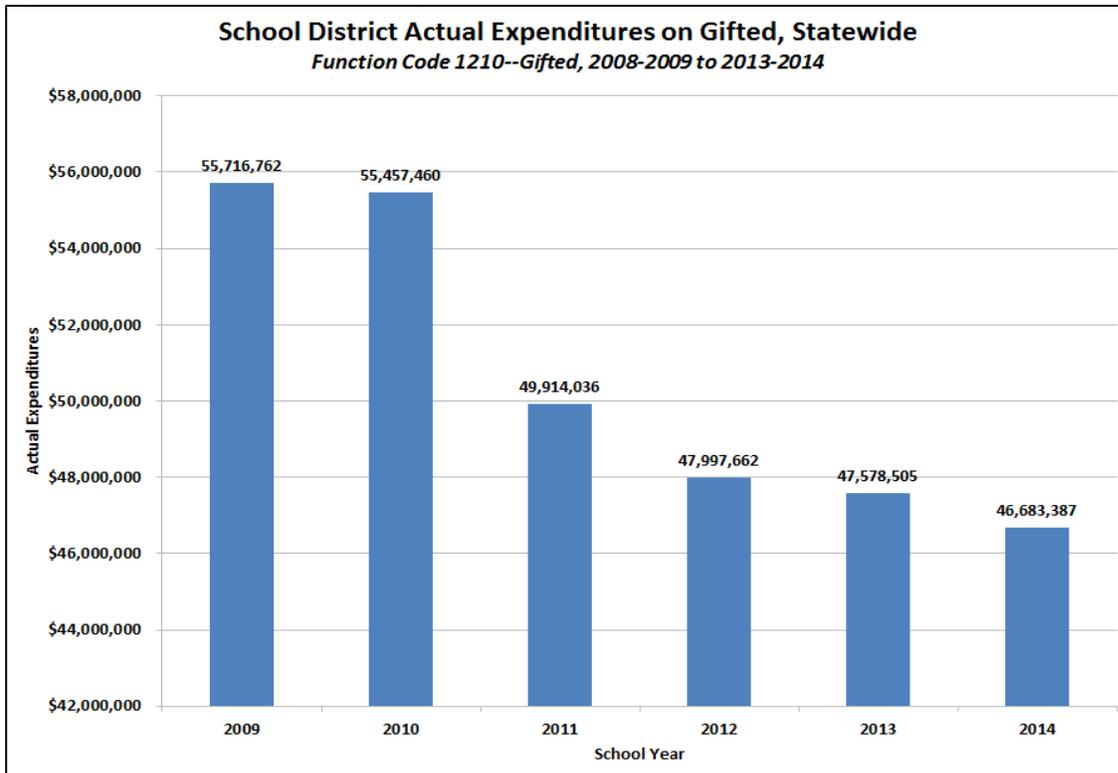


Figure 15: School District Actual Expenditures on Gifted, Statewide



Advisory Council on the Education of Gifted and Talented Children
RECOMMENDATIONS FOR ACTION
March 2015

REPORTING DATA ON GIFTED STUDENTS AND PROGRAMS

PROBLEM: Information submitted by school districts on state approved gifted programs is not accessible by the public on DESE's website.

RECOMMENDATION 1: DESE should make district information related to state approved gifted programs readily accessible to the public. Specifically, information available on DESE's website should include but not be limited to grade levels served, identification criteria, service delivery model by level (per DESE categories), contact minutes per week by level, number of gifted teachers by level and the student-to-teacher ratio by level.

PROBLEM: Information currently reported by DESE on gifted students, programs and teachers is not sufficient to understand, monitor and make data-driven recommendations for improving gifted programs in the state.

RECOMMENDATION 2: DESE should generate an annual state data report in October on gifted students and state assisted gifted programs. The report should use data from the prior school year and include but not be limited to:

- **Number and percent of districts with state approved gifted programs (state totals and disaggregated by DESE region and county)**
- **Number and percent of gifted students served in state approved programs (state totals and disaggregated by DESE region and county; by grade level and as a percent of all Missouri students in grade level)**
- **Number and percent of gifted students identified and not served in state approved programs (state totals and disaggregated by DESE region and county; by grade level and percent of all identified gifted students)**
- **Gifted teacher certification in state approved gifted programs by level (Elementary, Middle School, High School and total)**
- **Gifted program types and contact minutes per week (state total by program type, level, DESE region and county; average contact minutes by level, DESE region and county)**
- **Gifted student demographics by DESE region (district cells merged so actual count is possible) and total**
- **Gifted student achievement (MAP) by grade level tested and in comparison to all students at grade levels tested**

IDENTIFICATION OF GIFTED STUDENTS

PROBLEM: Districts are permitted to use enrollment in Advanced Placement (AP) and/or International Baccalaureate (IB) courses to identify students as gifted and report them as such to DESE's Core Data system.

RECOMMENDATION 3: DESE should eliminate the practice of reporting students as gifted based on the criterion of being enrolled in an Advanced Placement (AP) and/or International Baccalaureate (IB) course. Additionally, AP and/or IB courses should not be counted as part of a state approved gifted program, as the majority of high school students are encouraged to enroll in at least one of these courses before graduation.

PROBLEM: Missouri gifted program participants oftentimes do not reflect the ethnic socio-economic or linguistic diversity of school districts.

RECOMMENDATION 4: DESE should provide a best practice model for districts to use in identifying and serving students who are traditionally under-represented in gifted programs, the goal being to have program participants more closely reflect, percentage-wise, the ethnic, socio-economic and linguistic diversity of individual school districts. The best practice model should include research-based recommendations on identification, interventions to scaffold learning and delivery of gifted program services.

PROBLEM: Gifted programs oftentimes do not identify and serve students who are twice exceptional.

RECOMMENDATION 5: DESE should provide a best practice model for districts to use in identifying students who are twice exceptional (students with both learning challenges due to disabilities and/or physical impairments and exceptional learning abilities).

PROGRAMMING FOR GIFTED STUDENT

PROBLEM: While acceleration is the best-researched programming option for gifted students, too few Missouri districts have formal, board-approved acceleration policies. In addition, many administrators and teachers are unaware of the strong academic, social, and emotional benefits of acceleration for gifted students.

RECOMMENDATION 6: DESE should require all Missouri districts to have a policy allowing acceleration for students demonstrating advanced performance or potential for advanced performance and the social/emotional readiness for such acceleration. The policy should include subject acceleration and whole grade acceleration, among other opportunities.

EDUCATOR PREPARATION AND PROFESSIONAL DEVELOPMENT

PROBLEM: Pre-service teachers are not adequately instructed concerning the nature and needs of gifted students or modifying curriculum and instruction to address those needs.

RECOMMENDATION 7: DESE should require all teacher preparation programs to include a minimum of one 3-credit course addressing the nature and needs of gifted students and designing curriculum and instruction to meet those needs.

PROBLEM: Most teachers do not receive professional development concerning the nature and needs of gifted students or modifying curriculum and instruction to address those needs.

RECOMMENDATION 8: DESE should require all districts to provide teachers ongoing professional development addressing the nature and needs of gifted students and designing curriculum and instruction to meet those needs. Professional development may include such options as staff development, university coursework, professional conferences, workshops, and web-based learning.

REQUIRING AND FUNDING GIFTED PROGRAMS

PROBLEM: Many school districts in Missouri do not identify gifted students or provide programs to meet their unique needs.

RECOMMENDATION 9: Gifted identification and programming should be required in Missouri.

PROBLEM: Earmarked funding for gifted programs was eliminated in 2006, resulting in fewer districts identifying and providing programming for gifted students.

RECOMMENDATION 10: Earmarked funds should be allocated for gifted identification and programming in Missouri.

BACKGROUND INFORMATION ON THE GIFTED ADVISORY COUNCIL

Establishing the Advisory Council

In the 2013 legislative session, the legislature passed State Statute 161.249, which established a statewide advisory council focusing on the needs of gifted and talented children. The legislation specified that the council provide advice “regarding all rules and policies to be adopted by the state board of education relating to the education of gifted and talented children.”

The Advisory Council on the Education of Gifted and Talented Children (also referred to as “the Council” and the “Gifted Advisory Council”) consists of seven members appointed by the commissioner of education. Members are residents of Missouri and selected on the basis of their knowledge of gifted education and experience with gifted youth. All terms, after the initial appointments, are four years in length. Council members serve without compensation. (See Appendix A for a copy of the law, RSMO 161.249.)

Gifted Advisory Council Members

In the fall of 2013, the commissioner appointed the inaugural members of the Gifted Advisory Committee and the Committee chairperson. Those members, and their respective terms, are:

Dr. Linda Smith (2013-2017)
Council Chairperson
Former Gifted Program Director, Rockwood School District

Ms. Patty Cookson (2013-2014)
Gifted Education Teacher
Puxico School District

Ms. Sally Holt (2013-2015)
Retired Gifted Education Teacher
Bernie R-VIII School District

Dr. Robin Lady (2013-2015)
President, Gifted Association of Missouri
Gifted Education Teacher, Rockwood School District

Ms. Lenae Lazzelle (2013-2016)
Gifted Education Director
Springfield School District

Ms. Nancy Pate (2013-2017)
Retired Gifted Education Teacher
North Kansas City School District

Dr. Beth Winton (2013-2016)
Gifted Education Teacher
Columbia School District

In the Council's second year, two new members were added to replace Ms. Cookson, whose term expired, and Ms. Pate, who was unable to continue serving on the Council. The new members are:

Dr. Steve Coxon (2014-2018)
Associate Professor of Gifted Education
Maryville University

Dr. Rosemary Hodge Graves (2015-2017)
Former Gifted Program Director
North Kansas City School District

Defining the Council's Structure and Operating Procedures

During the Council's first months of operation, the Council developed and unanimously passed statements related to the Council's purpose, member roles (Appendix B), and operating procedures (Appendix C). The Council also helped plan a web page to share Council information (www.dese.mo.gov/gifted-advisory-council), developed an application for Council membership (application form is listed under 'Quick Links' on the website), and finalized a recommended process for selecting new members for the Council (Appendix D).

Delineating the Council's Focus

In addition to the above-mentioned progress, five focus areas were defined to guide the work of the Council. Each of the focus areas has accompanying sample actions (see below). These focus areas and related actions are intended to ensure a common understanding of the Council's work among Council members and all segments of the community, including administrators, teachers, parents, and students. It also allows the Council to communicate our purpose and establish a presence in the network of gifted councils, agencies and associations that operate in other states around the nation.

1. Identify state and national issues that are relevant to the continued growth of gifted programs in Missouri.

Sample actions include:

- Periodically arrange meetings and obtain input on key topics from individuals and groups related to gifted and talented education
- Review national publications focused on gifted and talented education
- Attend state and national conferences on gifted and talented education
- Review current and proposed legislation related to gifted and talented education

2. Become informed about best practices for gifted and talented education and gifted education's role as an integral facet of education in Missouri.

Sample actions include:

- Periodically arrange meetings and obtain input on key topics from individuals and groups related to gifted and talented education
- Review national publications focused on gifted and talented education
- Attend state and national conferences on gifted and talented education

3. Advise the Commissioner of Education of policies and procedures related to the administration of gifted programs, including but not limited to student identification, teacher certification, curriculum and program evaluation.

Sample actions include:

- Analyze data related to gifted and talented education
 - Review DESE guidelines governing the operation of gifted programs in Missouri
 - Receive periodic status reports from DESE with regard to implementation, completion, or projected timelines related to implementing Council recommendations previously submitted to the Commissioner and State Board of Education
 - Submit to the Commissioner and State Board of Education an annual written report on the work of the Council and recommendations related to implementing and improving services for gifted and talented children in Missouri
 - Request annually to be placed on the State Board of Education agenda to present a progress report on the status of gifted and talented education in Missouri and make recommendations for Board action
 - Support the process for identifying potential new Council members to replace members who have withdrawn or whose term has expired
4. Encourage the development and consistent implementation of comprehensive, high quality services for gifted and talented children throughout the state.

Sample actions include:

- Make Council meeting records and relevant materials and resources available on the DESE website
 - Receive periodic status reports from DESE with regard to implementation, completion, or projected timelines related to implementing Council recommendations previously submitted to the Commissioner and State Board of Education
5. Act as a resource to other groups interested in gifted and talented education.

Sample actions include:

- Make Council meeting records and relevant materials and resources available on the DESE website
- Link Council website to Gifted Association of Missouri website
- Respond to inquiries, questions and ideas submitted to the Council

BACKGROUND INFORMATION ON GIFTED EDUCATION

What is Gifted Education?

Gifted education is the system by which school districts recognize and serve students with exceptional abilities and potential for high levels of achievement. The term covers identification procedures, the specific services and programs offered, as well as the teacher training necessary to provide the academic guidance gifted students need in order to thrive.

The federal definition of gifted students was originally developed in the 1972 Marland Report to Congress, and has been modified several times since then. The current definition, which is located in the Elementary and Secondary Education Act, is: "Students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services and activities not ordinarily provided by the school in order to fully develop those capabilities" (nagc.org).

A similar definition of giftedness is offered by the National Association of Gifted Children (NAGC): "Gifted individuals are those who demonstrate outstanding levels of aptitude (defined as an exceptional ability to reason and learn) or competence (documented performance or achievement in top 10% or rarer) in one or more domains."

Students with outstanding aptitude and/or superior performance tend to display a number of characteristics. Those characteristics include (Renzulli, 2002):

- Superior reasoning power and marked ability to handle complex ideas
- Persistent intellectual curiosity; wide range of interests, often in considerable depth
- Learns rapidly and sees connections among diverse ideas and concepts
- Superior quantity and quality of written and/or spoken vocabulary
- Ability to sustain concentration for long periods of time

There are also affective characteristics that are prevalent in gifted individuals, and which impact student learning and social interactions. Those characteristics include (Clark, 2008):

- Heightened self-awareness, accompanied by feelings of being different
- Unusual sensitivity to the expectations and feelings of others
- High expectations of self and others, often leading to high levels of frustration with self, others, and situations
- Strong need for consistency between abstract values and personal actions
- Unusual emotional depth and intensity
- Earlier development of an inner locus of control and satisfaction
- Advanced cognitive and affective capacity for conceptualizing and solving society's problems

Creative capacities are also distinguishing characteristics of many gifted individuals. Those characteristics include (Colangelo & Davis, 2003):

- Imaginative, resourceful, challenges assumptions, bored by the obvious
- Tolerant of ambiguity, disorder, incongruity
- Receptive to new ideas, other viewpoints, new experiences, and growth
- Individualistic; non-conforming; willing to cope with hostility, failure
- Risk-taker; adventurous and speculative
- Generates a large number of ideas or solutions to problems
- Sees humor in situations that may not appear to be humorous to others

Since every individual has his or her own unique set of characteristics, and no one individual has all characteristics at an exceptional level, the approach used to identify gifted students needs to be carefully designed and implemented. Generally, identification procedures focus on screening to establish a pool of candidates, individual evaluation of candidates based on multiple tools and criteria, and final decisions by trained professionals about the need for gifted services.

Ideally, programs and services for gifted students are multi-faceted and include many options for student learning and interaction with academic and social/emotional peers. Advanced curriculum, faster pacing, and real world problem-solving opportunities are recommended components of gifted education programs, as are opportunities for students to develop and pursue individual interests and talent areas (Clark, 2008). Providing gifted learners with responsive, engaging learning environments should begin as early as possible in their schooling (nagc.org).

Why is Gifted Education Important?

Education has a unique mission in American life. It offers all children, regardless of economic circumstances, ability, religion or heritage, the opportunity to explore and develop their skills, aptitudes and aspirations. Done properly, this effort enables young people to discover not only what their strengths are, but also what is needed to reach the level of excellence required for success in today's complex and competitive world.

The education of gifted students is a particularly heavy responsibility because these students have so much potential. They learn basic information at a rapid rate and need both more advanced and more abstract material to stimulate their interest and facilitate academic growth. Full realization of their ability requires years of increasingly challenging learning experiences and talented mentors as well as the ongoing encouragement and support of classroom teachers and parents alike.

What is the payoff of recognizing special gifts and supporting their realization? On one hand, helping individuals achieve personal and career fulfillment is payoff of its own. Individuals who are using their talents and aptitudes at high levels have a greater likelihood of finding satisfaction in their work and leading fulfilling personal lives. On the other hand, supporting superior skills and competencies in gifted students can result in a better future for all, a future where unique talents and training are used to solve society's complex problems and develop new ideas that make life better and more fulfilling for everyone.

It is the Council's contention that identifying and supporting gifted students in Missouri is both an extraordinary opportunity and a wise investment that will pay dividends long into the future. These students' journey toward excellence, if supported throughout the educational system, will propel our state and country forward in new and unexpected ways, releasing the individual creativity, innovation, and drive needed for tackling our world's complex challenges. As noted by Barbara Clark (2008), a leader in gifted education:

"The consequences of ignoring the needs of the brightest and most promising among us can be devastating. If society is to move forward, find solutions to the overwhelming problems it faces throughout the world, realize its goals for peaceful coexistence of all humankind, and ensure the very continuation of its existence on this planet, we need the ideas our brightest minds can produce, and we will continue to need them far into the future. Such minds do not come fully formed at birth; giftedness must be nurtured."

Myths about Gifted Students

The concept of giftedness, and gifted education in general, is subject to a broad range of misunderstandings that can harm efforts to address these students' special needs. These misunderstandings range from the notion that gifted students will do fine on their own to the idea that gifted programs are 'elitist' and undemocratic. All too often, those ideas create an inherent bias against gifted students and gifted programs in general.

Gifted children have unique characteristics that set them apart from their school-age peers, much the way children at the other end of the learning continuum have unique characteristics that set them apart from their school-age peers. Both groups of students need curriculum and instruction tailored to their learning capacity so they are challenged and supported at a level that promotes their cognitive and affective growth. The more extreme the giftedness or learning difference, the more extensive the response needs to be. When such interventions are not implemented, student motivation decreases, performance suffers and negative behaviors oftentimes result (Colangelo, Assouline & Gross, 2004; Cross, 2011).

In Appendix E, a listing of common 'myths' about gifted students is provided. Each myth is countered with research and statements of 'reality'. This listing is compiled by NAGC from a variety of relevant sources and is presented in somewhat abbreviated form in the Appendix.

History of Gifted Education in Missouri (Source: Gifted Education Programs Procedure Manual)

In 1973, the General Assembly recognized that there were a limited number of academically advanced students whose mental capacity and learning potential were so advanced that they needed services beyond the level of those ordinarily provided in schools. As a result, the General Assembly authorized the state program for gifted students. In so doing, the General Assembly did not intend to diminish in any way the regular program of instruction or to supplant existing programs for the academically advanced (superior) students. The intent was clearly to support special efforts to increase the educational opportunities available for students who are identified as gifted.

The state special education law (H.B. 474) enacted in 1973, authorized the State Board of Education to establish standards for special programs for gifted students. The following sections of state law pertain to gifted education programs:

- Section 162.675. RSMo, defines gifted children as "those children who exhibit precocious development of mental capacity and learning potential as determined by competent professional evaluation to the extent that continued educational growth and stimulation could best be served by an academic environment beyond that offered through a standard grade level curriculum."
- Section 162.720, RSMo, states that school districts may establish programs for gifted children "where a sufficient number of children are determined to be gifted and their development requires programs or services beyond the level of those ordinarily provided in regular public school programs . . ." and states that the State Board of Education "shall determine standards for such programs. Approval of such programs shall be made by the State Department of Education based upon project applications submitted each year."

Beginning in the 1974-1975 school year, the state provided reimbursement to districts offering a state approved program for gifted students. The number of districts with programs and the number of students served increased rapidly over the next several decades, growing from an initial set of seven districts and 1465 students, to a high of 333 districts (2001-2002) and 40,670 students (2006-2007). State aid grew to over \$24 million for gifted programs, with reimbursement rates ranging from 50 percent to 75 percent of relevant expenses.

In 2007, a revised School Foundation Formula was implemented which, among other changes, ended categorical funding for gifted programs. Funding that was once designated exclusively for gifted programs was folded into the foundation formula. The new law established an adjustment to districts' foundation formula payment if gifted enrollment declined in state approved programs by more than 20% from their 2005-2006 levels. This payment adjustment clause expired in 2011.

More recently, in 2012, Senate Bill 599 was passed. Starting with the 2012-2013 school year, this legislation requires districts to report "whether the school district currently has a state approved gifted education program, and the percentage and number of students who are currently being served in the district's state approved gifted education program" on their annual report card. This was a positive development, allowing the state department to assess the status of gifted programming across the state.

In 2013, the legislature passed the state statute that created the Advisory Council on the Education of Gifted and Talented Children.

A National View

According to the National Association for Gifted Children (NAGC), there is a "vast disparity of programs and services across states and often within states, leaving many high-ability students without the supports they need to achieve at high levels, which is a disservice to them and to the nation."

The three maps in this section show gifted education policies for the nation as a whole (Figure 1), for the states that border Missouri (Figure 2) and for Missouri's "Top 10 by 20" initiative (Figure 3).

In comparison with neighboring states (Figure 2), Missouri and Illinois are the only states that do not have a gifted mandate or earmarked funds for gifted programming. In Iowa and Oklahoma, gifted programming is mandated and fully funded by the state. In Kansas, Arkansas, Tennessee and Kentucky, gifted programming is mandated and partially funded by the state. In Nebraska, gifted programming is not mandated but has funds available for gifted programming. The list below summarizes this information:

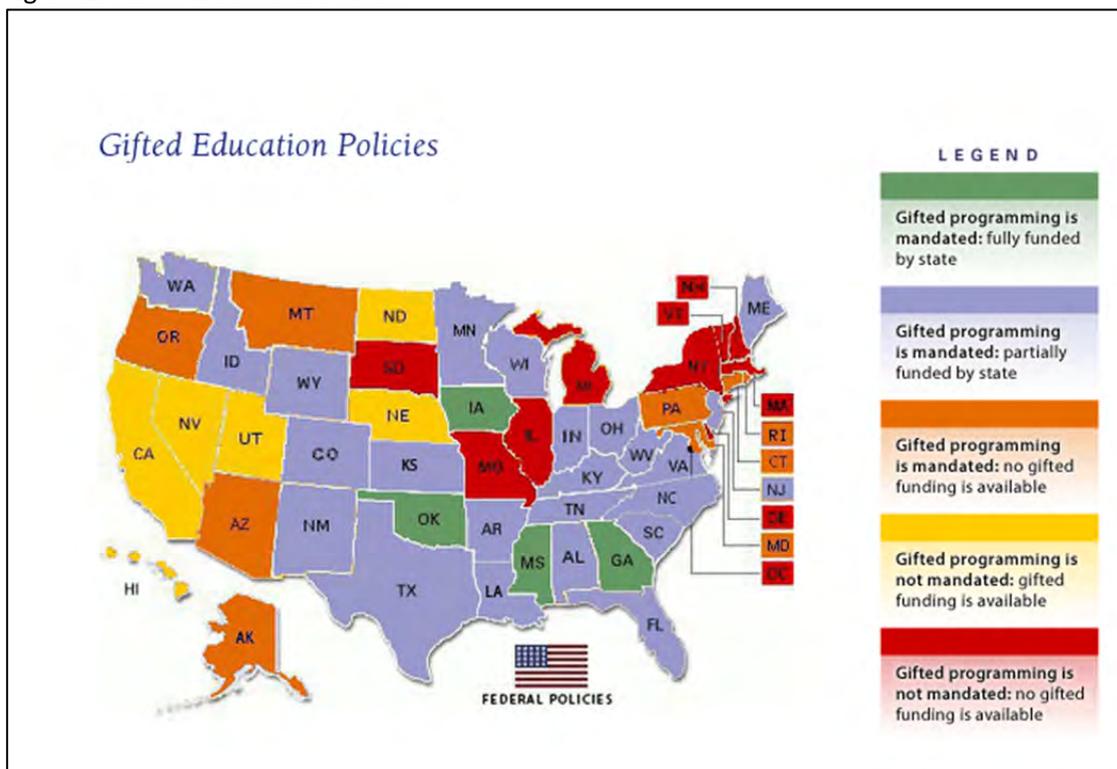
- Iowa – gifted programming mandated, fully funded
- Oklahoma – gifted programming mandated, fully funded
- Kentucky – gifted programming mandated, partial funding
- Tennessee – gifted programming mandated, partial funding
- Arkansas – gifted programming mandated, partial funding
- Kansas – gifted programming mandated, partial funding
- Nebraska – no mandate, partial funding
- Illinois – no mandate, no funding
- *Missouri – no mandate, no earmarked funding*

Of the “Top 10 by 20” DESE comparison states (Figure 3), seven have a mandate for gifted programming. Those states are Connecticut, Maine, Minnesota, Montana, New Jersey, Virginia and Wisconsin. Only Massachusetts, New York and Vermont have no mandate. Five of the states have partial funding for gifted programming. Those states are Maine, Minnesota, New Jersey, Virginia and Wisconsin. The list below summarizes this information:

- Maine – gifted programming mandated, partial funding
- Minnesota – gifted programming mandated, partial funding
- New Jersey – gifted programming mandated, partial funding
- Virginia – gifted programming mandated, partial funding
- Wisconsin – gifted programming mandated, partial funding
- Connecticut – gifted programming mandated, no funding
- Montana – gifted programming mandated, no funding
- Massachusetts – no mandate, no funding
- New York – no mandate, no funding
- Vermont – no mandate, no funding
- *Missouri – no mandate, no earmarked funding*

To be a leader among states in gifted education, both a mandate for gifted programming and earmarked funding are needed. Missouri has neither a mandate nor earmarked funding at this time. The Gifted Advisory Council recommends changing this situation.

Figure 1: Gifted Education Policies



Source: <http://www.davidsongifted.org/db/StatePolicy.aspx>

Figure 2: Border States

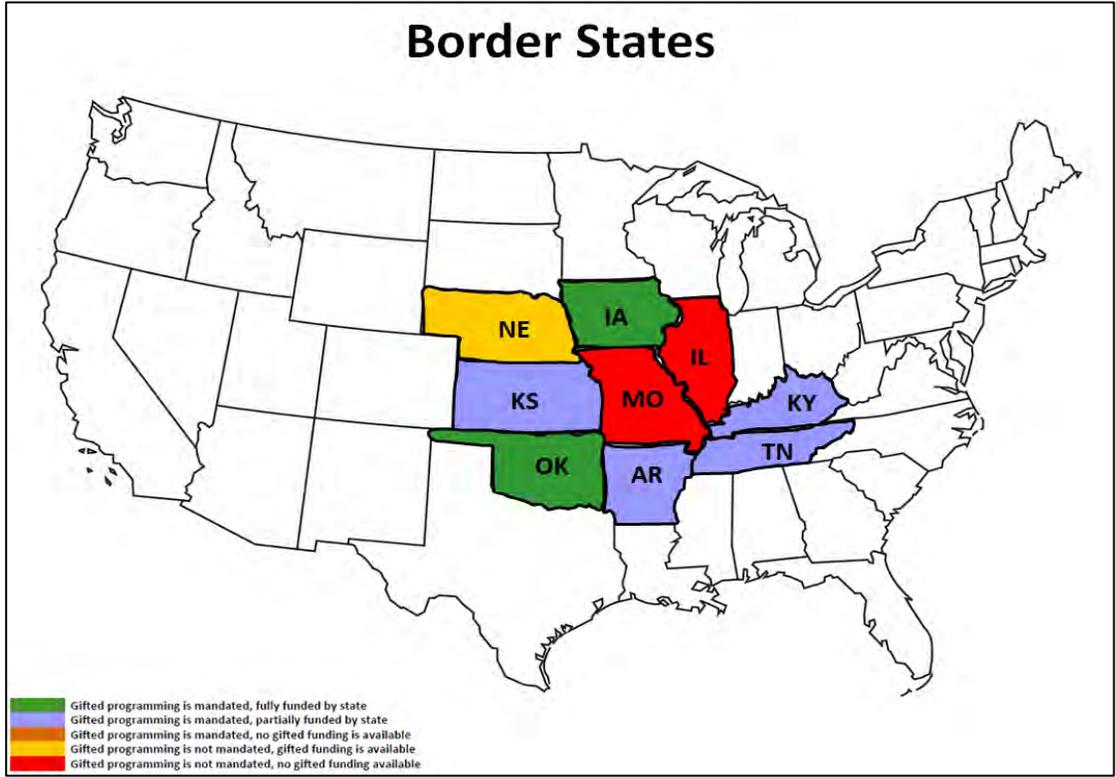
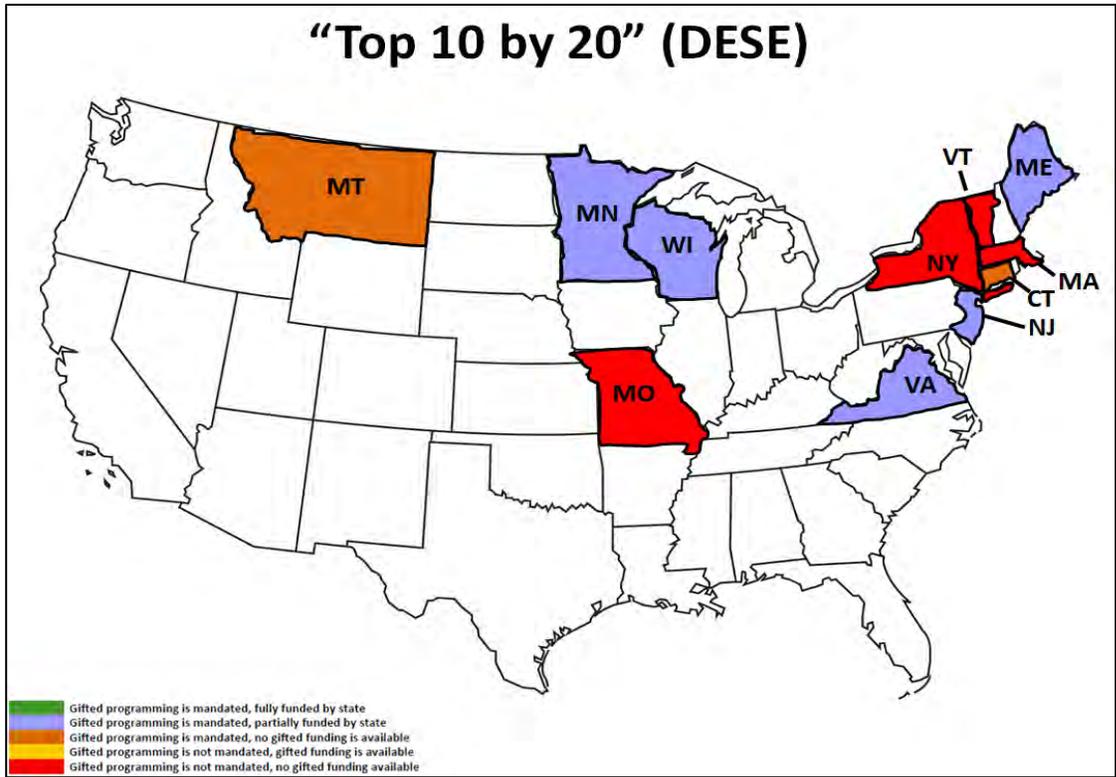


Figure 3: "Top 10 by 20" Comparison States



DATA ON GIFTED PROGRAMS, STUDENTS AND ACHIEVEMENT

This section analyzes information related to gifted education in Missouri. Data was accessed from the Gifted Growth Chart maintained by DESE (see Appendix F), information available from the Missouri Comprehensive Data System (MCDS), and through the 5Sight tool of Forecast5 Analytics.

It should be pointed out that the data analyzed is not without flaws. Those flaws include the fact that data on gifted is based on self-report by districts, is reported at different times of year, and that since 2007, districts have been permitted to include Advanced Placement and International Baccalaureate programs and students in the counts for gifted students served. That being said, we believe that the scale and scope of available data reveals some meaningful realities about gifted education in Missouri.

Overall Perspective

The broadest conclusion that can be drawn from available data is that ***state approved gifted programs are in decline in many regions of the state***. Fewer districts have state approved gifted programs than any time since 1988. As seen in Figure 4, gifted programs have decreased by 31%, from a high of 333 districts in 2003 to 230 districts in 2014. Today, only 43% of Missouri districts offer gifted programs versus 64% of districts in 2003 (Figure 5).

The number of students identified as gifted has declined by 17% from the highest count in 2012 (Figure 6). This year, 36,650 students were identified and served, which represents approximately 4.5% of Missouri students. Starting in 2007, DESE permitted districts to count students enrolled in AP and IB classes as gifted, resulting in a dramatic increase in gifted students in Missouri. In fact, in the year following this change, there was a 25% increase in the number of students reported as gifted. In contrast to that dramatic increase, the prior three years showed less than a one percent annual fluctuation in gifted student counts. One of the Council's recommendations is to reinstitute the more generally accepted approach to identifying gifted students that existed prior to 2007.

Annually, there are students identified as gifted but not served by their district's gifted program (Figure 7). The number is approximately 6,000, which is 13% of all gifted students in the state.

The number of teachers in gifted programs declined from a high in 2002 of 933 to 820 in 2014, a decrease of 12% (Figure 8). This decline would be greater if the counts did not include AP and IB teachers. Starting in 2007, districts were allowed to count AP and IB teachers as gifted teachers, despite not meeting state guidelines for gifted certification.

Figure 4: Number of Missouri Districts with State Approved Programs

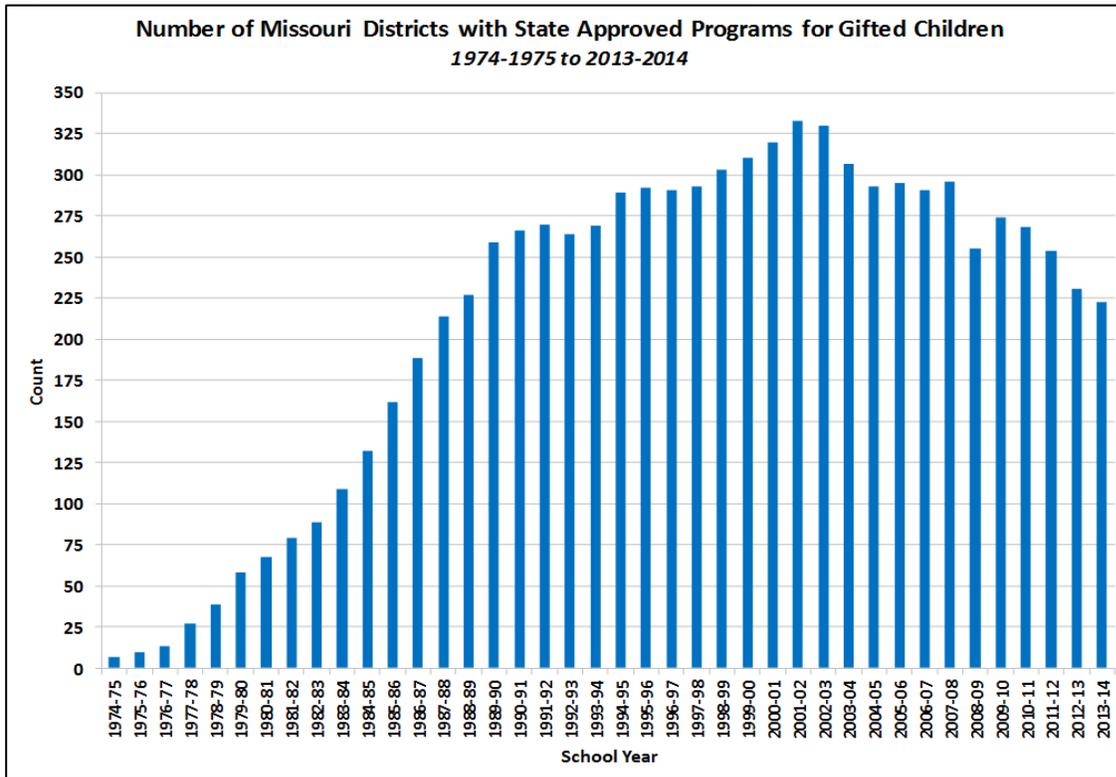


Figure 5: Percent of Missouri Districts with State Approved Programs

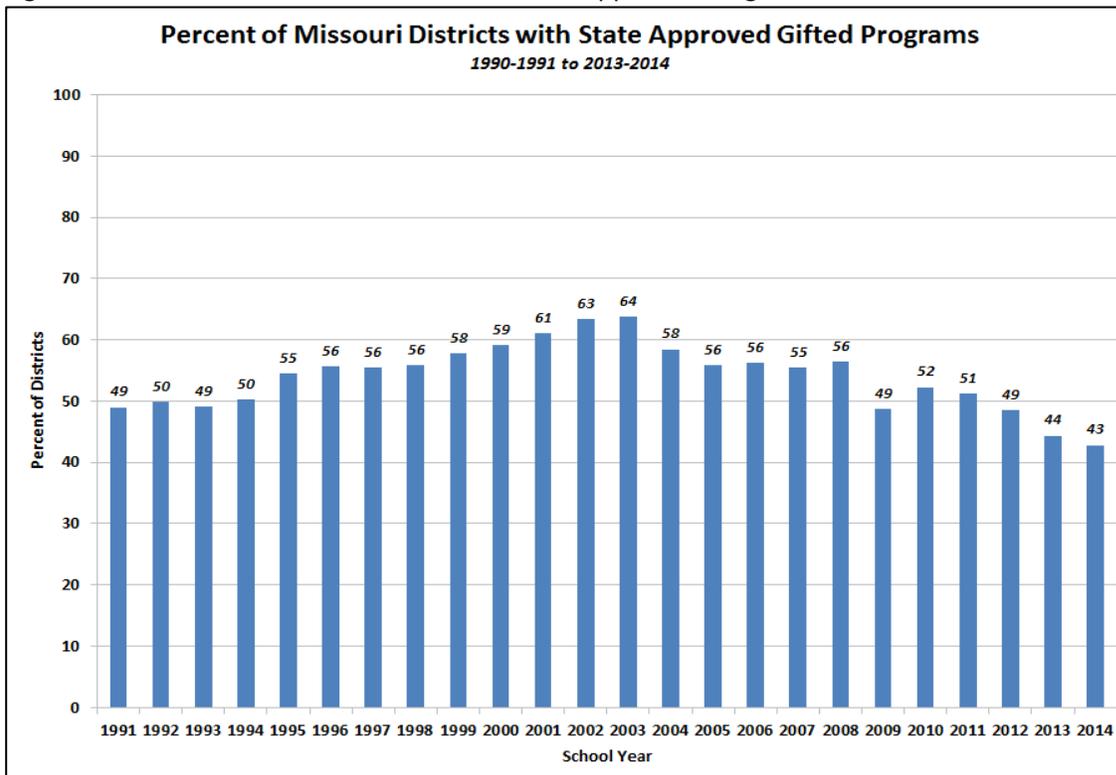


Figure 6: Number of Missouri Students Served in State Approved Programs

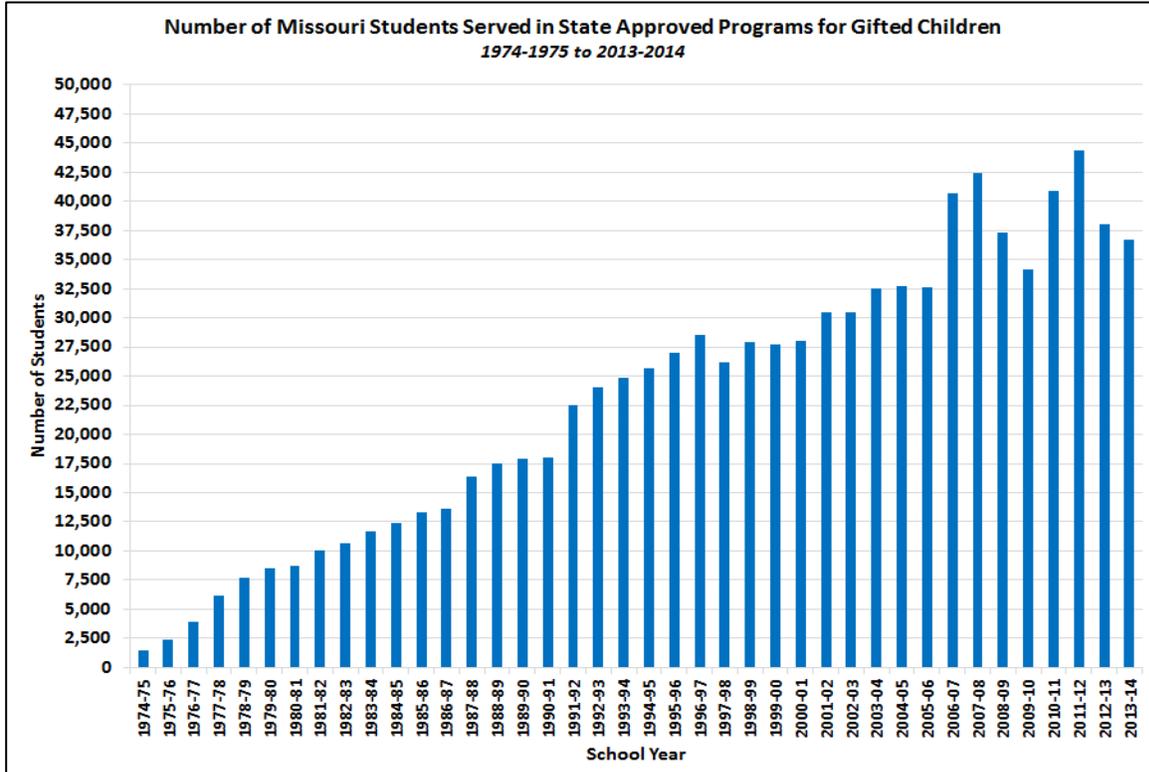


Figure 7: Number of Missouri Gifted Students Identified/Not Served in State Approved Programs

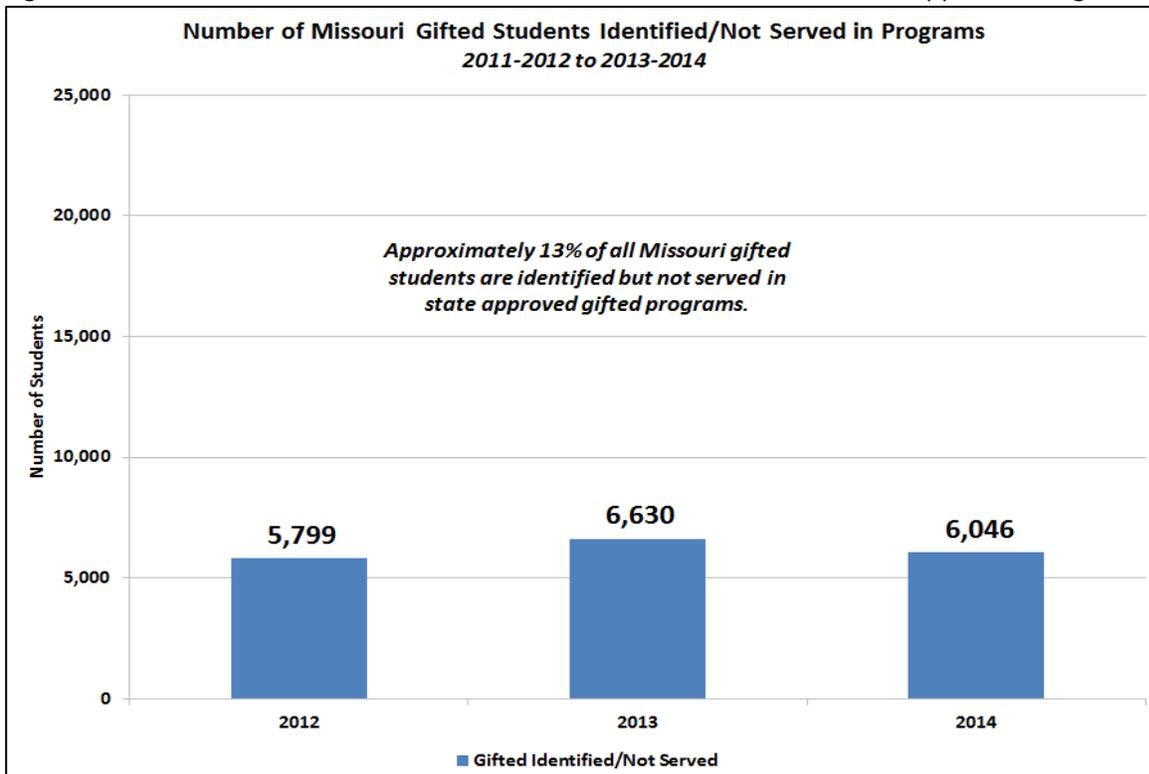


Figure 8: Number of Teachers in State Approved Programs

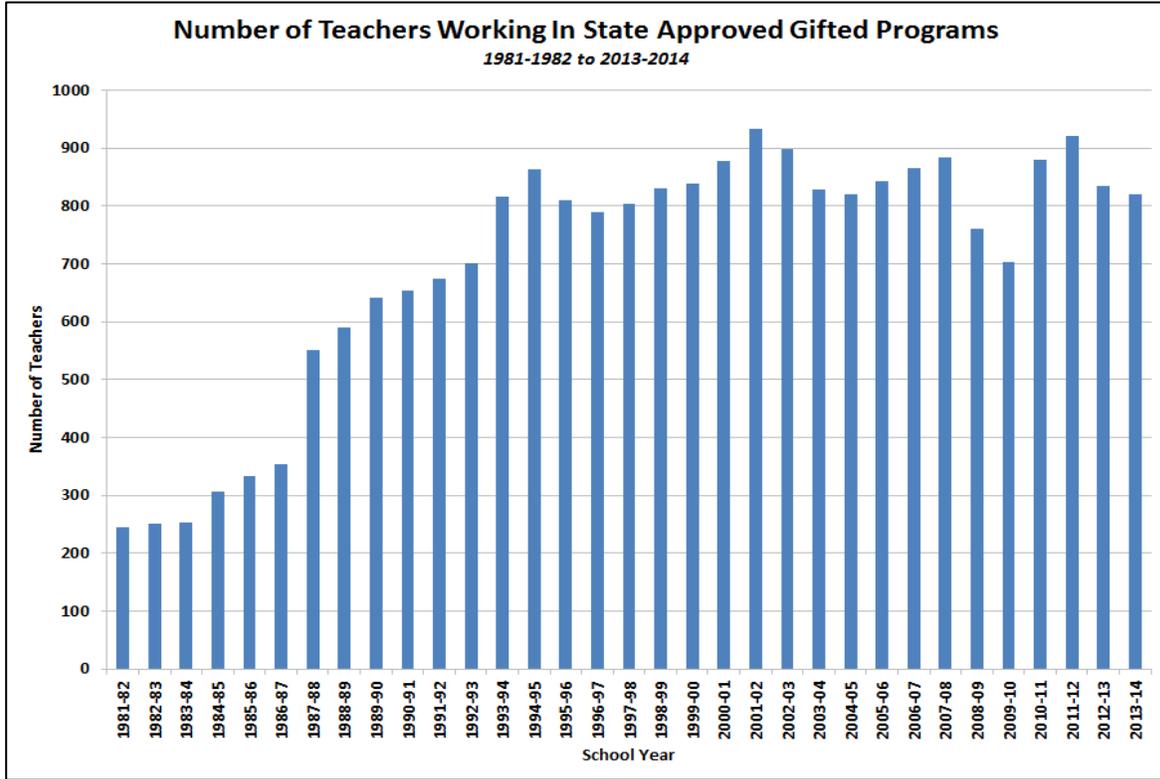


Table 1: Demographic Comparison, Enrollment and Free/Reduced Priced Lunch

	Average District Enrollment	Average of FRL Percent	Total Enrollment	FRL Count Total	Calculated FRL Percent
Districts With Gifted Program	2,857	52.33	777,322	368,307	47.38
Districts Without Gifted Program	357	58.61	88,544	50,024	56.50

Gifted Program=State Approved Gifted Program; FRL=Free/Reduced Priced Lunch

Table 2: Demographic Comparison, Student Ethnicity

	Asian	Black	Hispanic	Amer. Indian/ Alaska Native	Pacific Islander	Multi-Racial	White
Districts With Gifted Program	2.07	16.12	5.43	0.45	0.21	2.68	73.04
Districts Without Gifted Program	0.47	7.38	2.42	0.34	0.05	1.01	88.33

Gifted Program=State Approved Gifted Program

Analysis of state demographic data (Tables 1, 2) reveals that districts without state approved gifted programs tend to be smaller and have a higher percentage of white students and students who qualify for free and reduced lunch. They also fall predominantly in the Southeast, West Central, South Central, Northwest and Northeast regions of the state.

The total number of Missouri districts with state approved programs from 1991-2014 is presented in Figure 9. The trend line projects a continuing decline of gifted programs over time if there is no change in policy or funding in the state (Figure 10).

Figure 9: Number of Missouri District with State Approved Programs

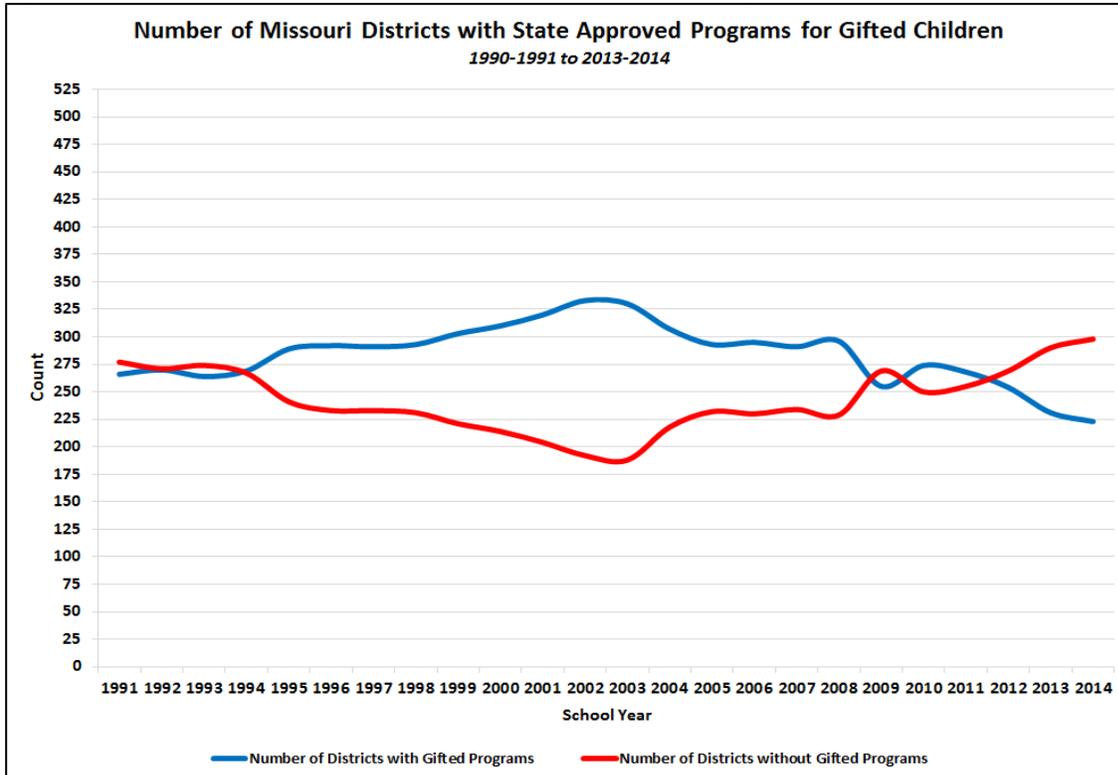
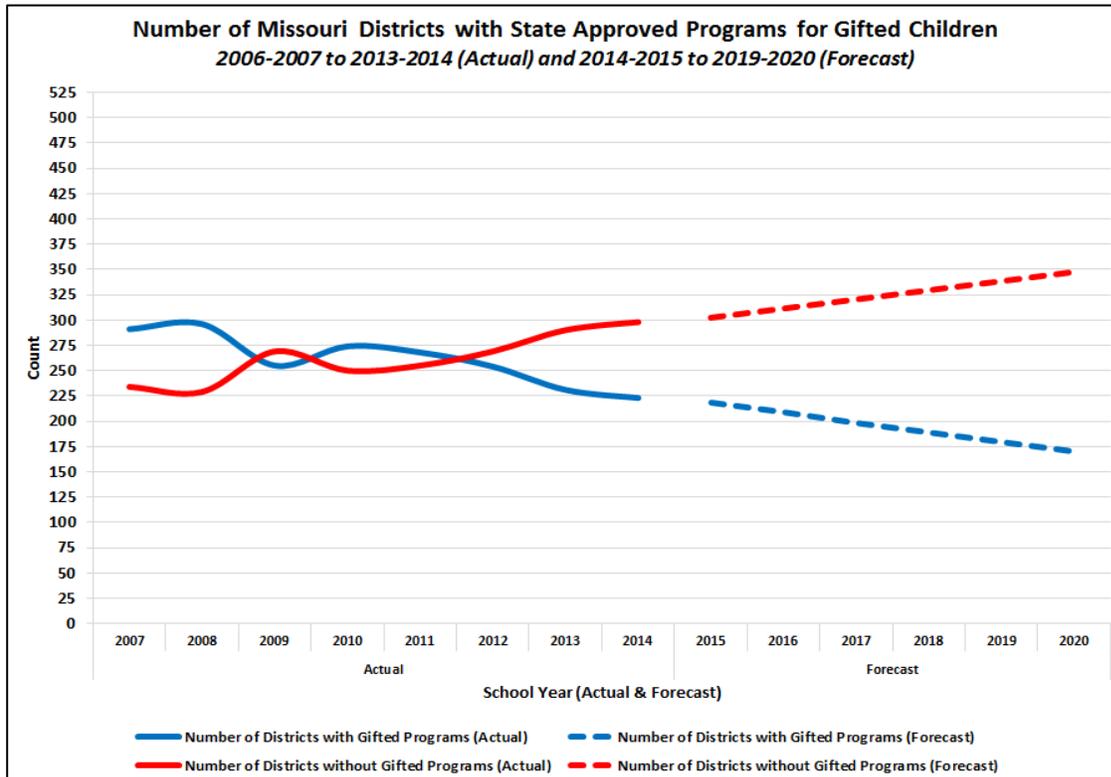


Figure 10: Number of Missouri Districts with State Approved Programs – Forecast



Gifted Programs by DESE Supervisory Region

DESE has nine supervisory regions in the state (Figure 11). Data was analyzed to understand the prevalence of gifted education within these supervisory regions (Table 3). The analyses tell us several things. First, the St. Louis region educates approximately 30% of all Missouri students but serves close to 50% of Missouri’s gifted students. This scenario suggests that the St. Louis region not only has a high density of talented students but is also proactive in recognizing and financially supporting services for gifted students.

Second, it appears that the Southwest region has the highest percentage of the state’s gifted students who are identified but are not receiving gifted program services. At the same time, it should be noted that there are students in every region of the state who are identified and not served by gifted programs. While there are multiple explanations for this situation, the important point is that efforts are needed to ensure that all identified students are served, K-12.

Third, the majority of districts in the Southeast, West, South, Northwest and Northeast regions do not offer state approved gifted programs (Figure 13). The St. Louis area has the lowest percent of districts not offering gifted programs (5%). The Kansas City, Southwest and Central regions have 19%, 37% and 39%, respectively, of its districts do not offer state approved gifted programs. Because gifted programs are not mandated in Missouri, students in different parts of the state have widely varying opportunities to have their giftedness recognized and addressed.

Figure 11: DESE Supervisory Regions

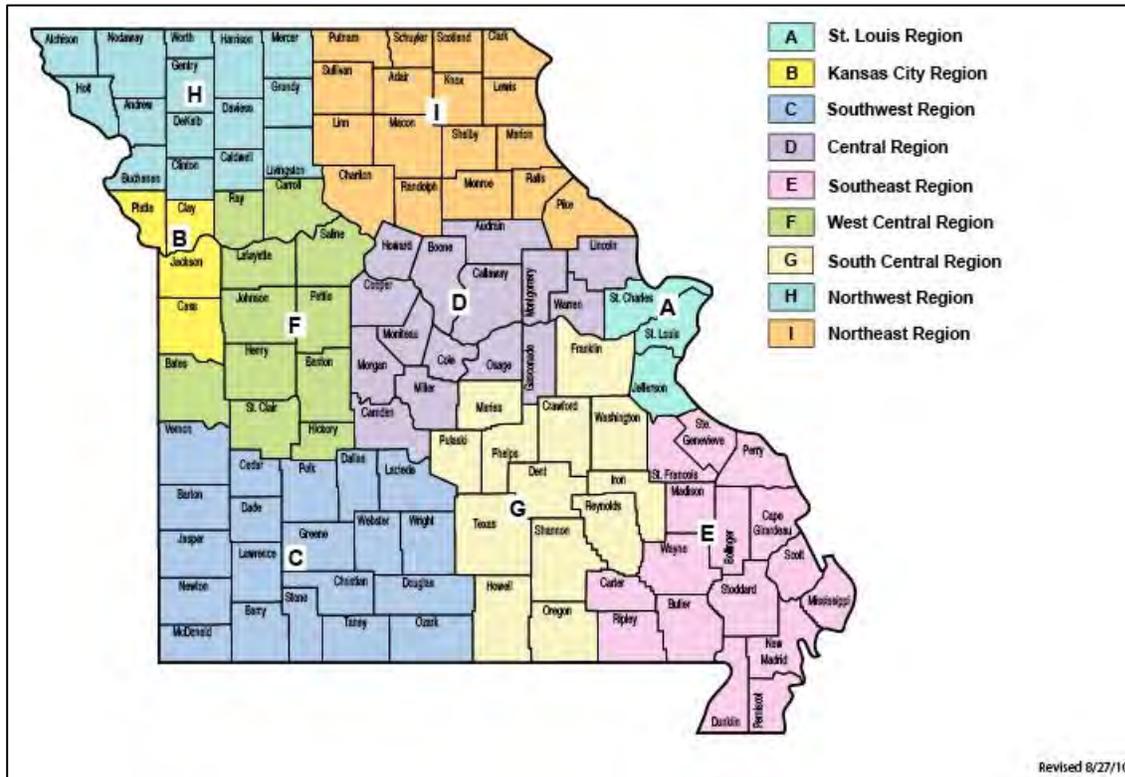


Table 3: Count and Percent of Missouri Students, Gifted Identified and Served, and Gifted Identified but Not Served by DESE Supervisory Region, 2013-2014

	Student Enrollment		Gifted Identified and Served		Gifted Identified but Not Served	
	Count	Percent	Count	Percent	Count	Percent
A-St. Louis	265,211	30.0	19,252	47.2	937	15.9
B-Kansas City	175,034	19.8	7,568	18.6	564	9.5
C-Southwest	141,931	16.0	4,845	11.9	1,982	33.6
D-Central	79,368	9.0	3,643	8.9	842	14.3
E-Southeast	65,584	7.4	1,503	3.7	335	5.7
F-West Central	38,241	4.3	703	1.7	312	5.3
G-South Central	57,345	6.5	1,534	3.8	218	3.7
H-Northwest	34,007	3.8	876	2.1	408	6.9
I-Northeast	28,555	3.2	842	2.1	309	5.2

Figure 12: Percent of Missouri Students and Gifted Students Served by DESE Supervisory Region

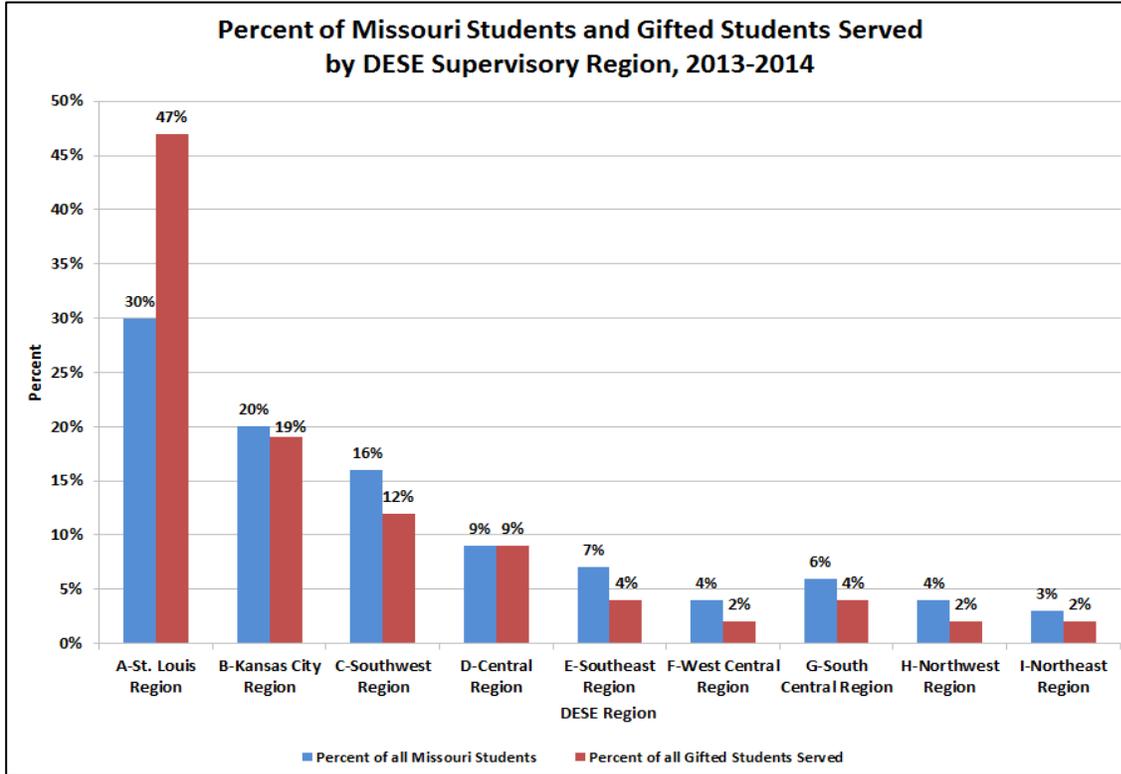
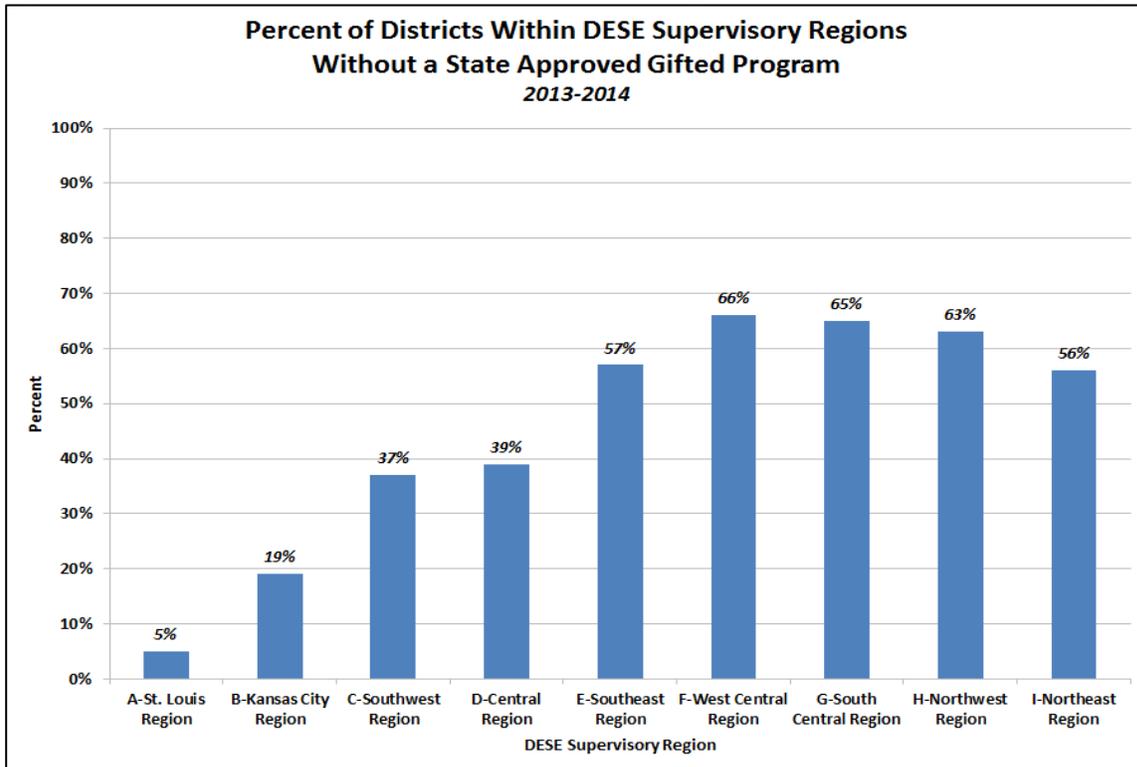


Figure 13: Percent of Districts Within DESE Supervisory Regions Without State Approved Program



Gifted Finances

District financing of gifted education was studied by referring to the Missouri Financial Accounting Function Code 1210-1211 - Gifted and Talented, which reads:

“Programs for pupils who exhibit precocious developments of mental capacity and learning potential and/or talents as determined by competent professional evaluation to the extent that continued educational growth and stimulation could best be served by academic environment beyond that offered through a standard grade level curriculum.”

As can be seen in Figures 14-16 below, less money is being spent by districts on gifted education. Funding by school districts of state approved gifted programs declined by 16%, going from \$55,716,761 to \$46,683,386 in the five years between 2009 and 2014. This decline would be even more significant if cost of living increases were entered into the calculations. The per pupil expenditure, statewide, declined from \$63.88 to \$53.88 in the same time period. The majority of all funds allocated for gifted programs are for teacher salaries and benefits.

If one looks at actual expenditures by DESE supervisory area rather than the state as a whole (Figures 17, 18), one sees that the majority of gifted spending, both total and per pupil, is by regions with the largest populations, including St. Louis, Kansas City and Southwest. In every region of the state, per pupil expenditure for gifted (Figure 20) has declined from the level allocated in 2009. This decline would have been more significant if cost of living increases were factored into the calculations.

Figure 14: State Aid for State Approved Programs for Gifted Children

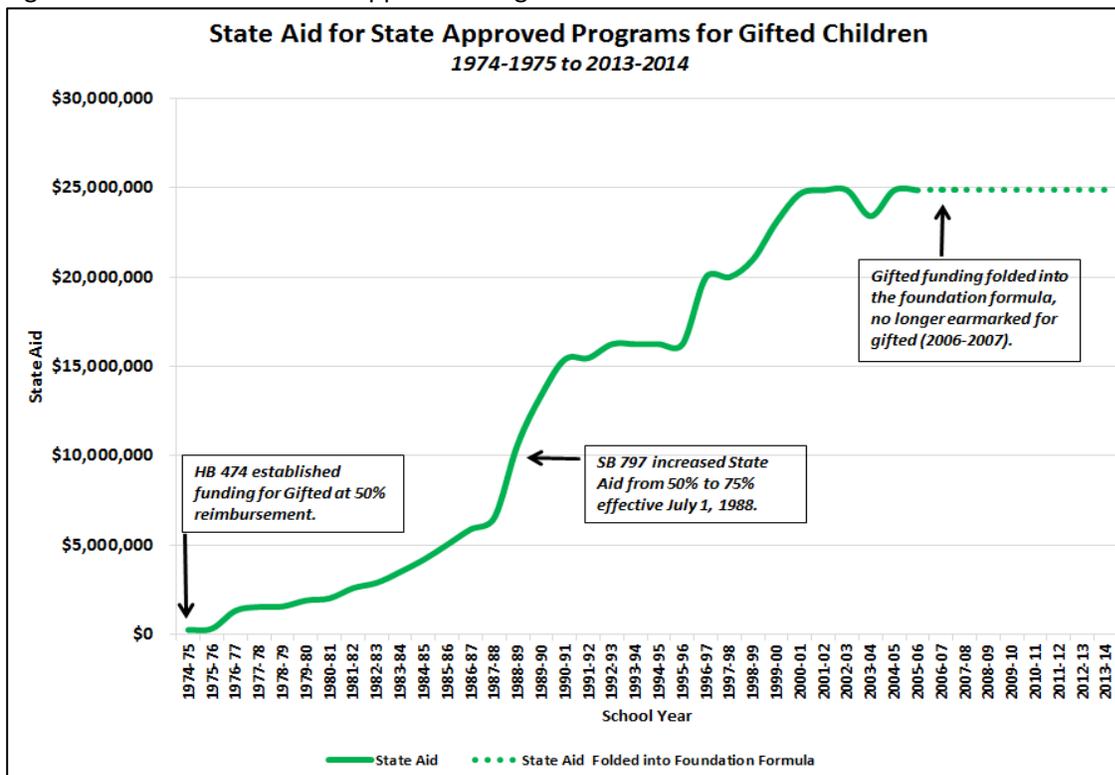


Figure 15: School District Actual Expenditures on Gifted, Statewide

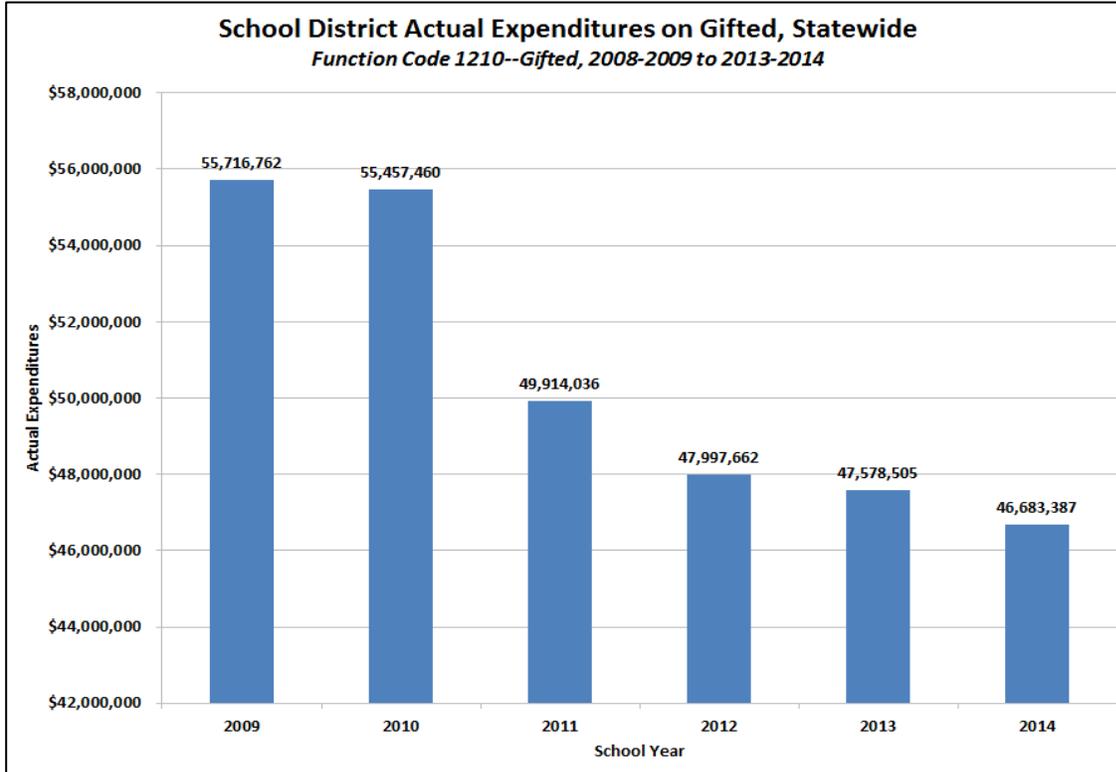


Figure 16: School District Actual Gifted Expenditures Across All Students, Statewide

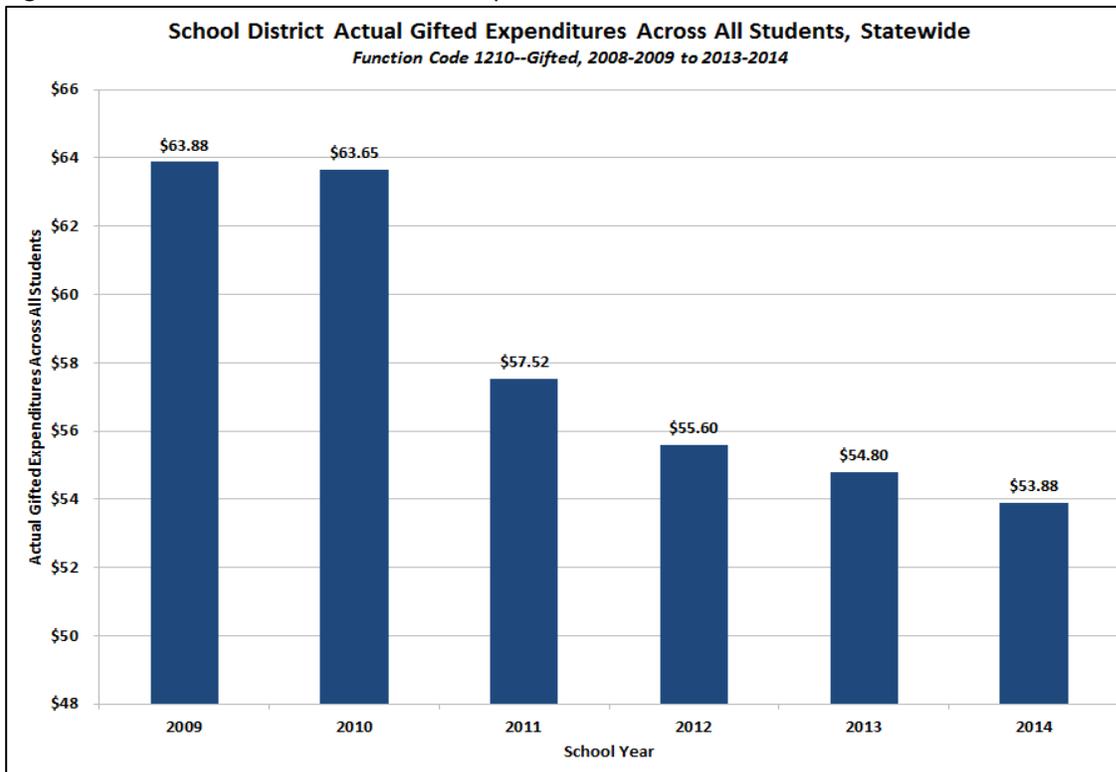


Figure 17: School District Actual Expenditures on Gifted, Statewide, Disaggregated by Object

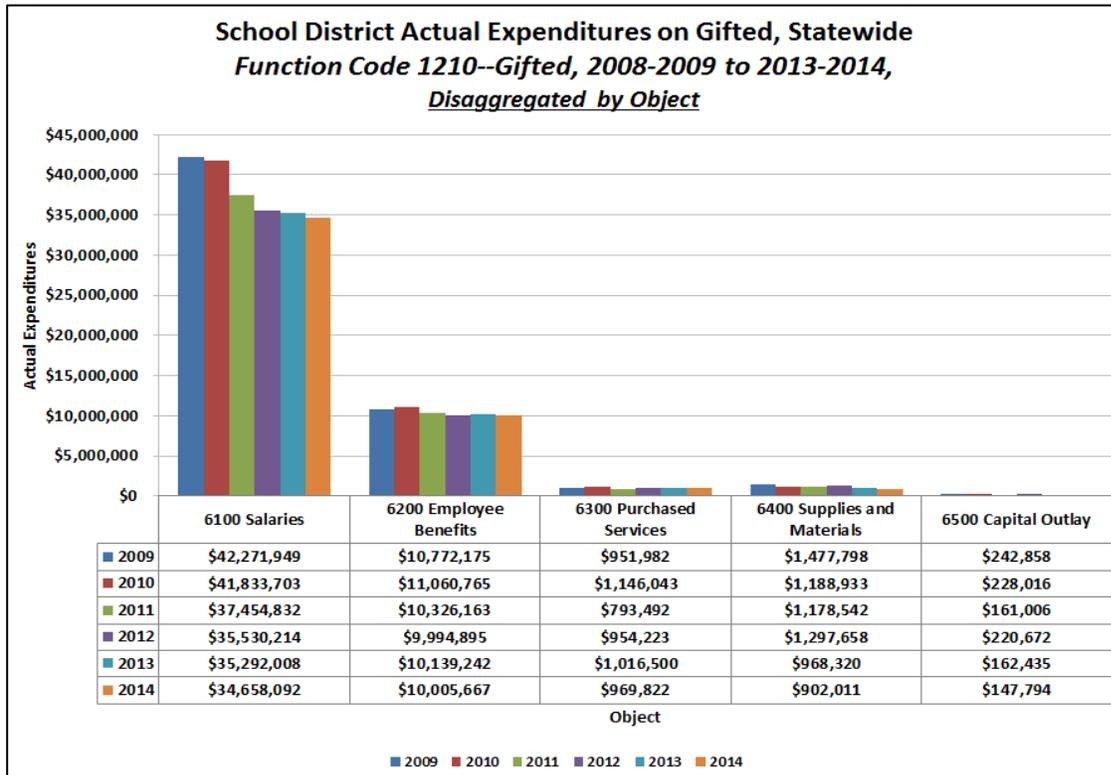


Figure 18: Actual Gifted Expenditures Across All Students, Statewide, Disaggregated by Object

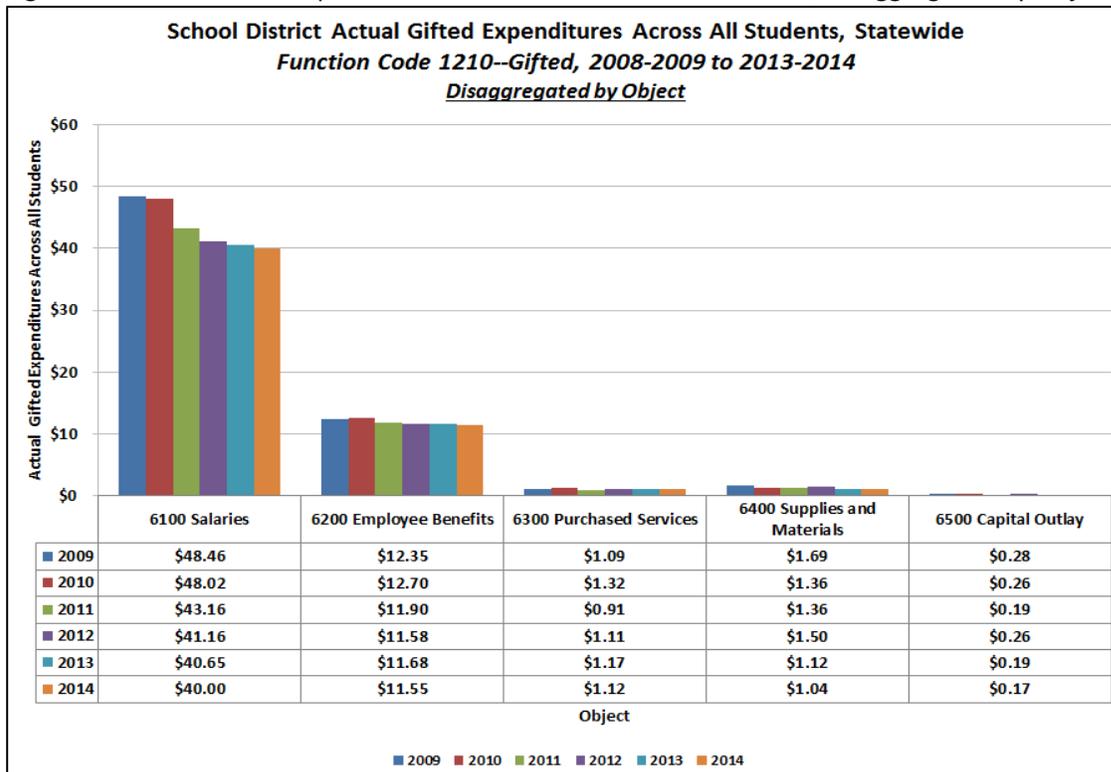


Figure 19: Actual Expenditures on Gifted by DESE Supervisory Region

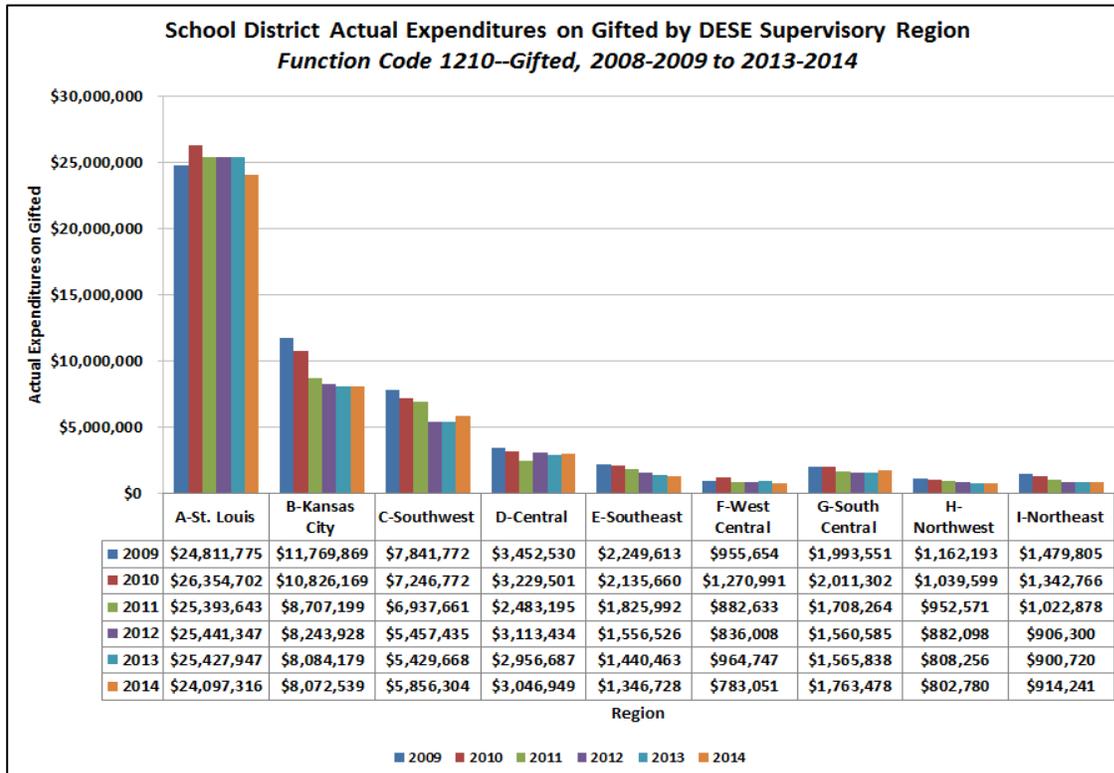
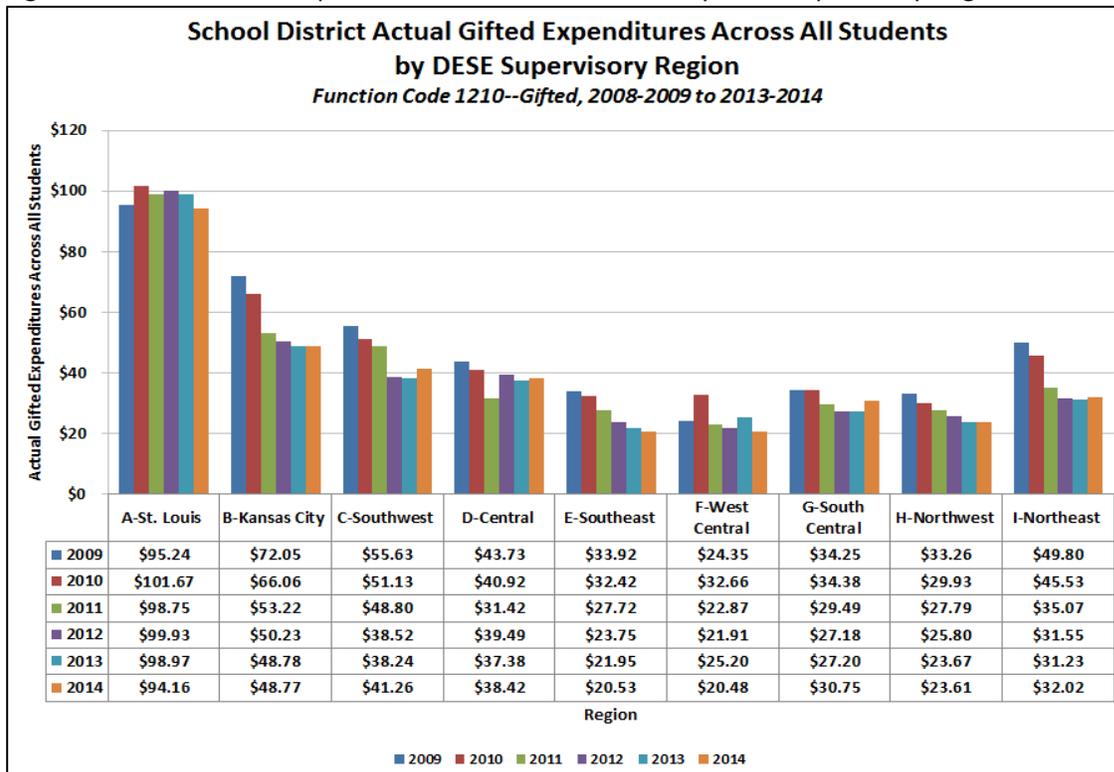


Figure 20: Actual Gifted Expenditures Across All Students by DESE Supervisory Region



Gifted Student Achievement

An analysis was done of MAP scores to assess the level of success of gifted students, both as an identified group and in comparison to all other students in each grade level. Students served in gifted programs outperform all other students in Missouri on MAP tests at all grade levels tested. The gap between gifted students and all Missouri students combined is significant in both Communication Arts and Math. In grades five through eight, the gap between gifted students and all others is even wider in the area of Math. It should be noted that gifted student scores are included in the combined scores labeled as “State Totals”. Thus, the gap in achievement level would be even greater if gifted students scores were compared with all students minus gifted students. Accessing that modified comparison group is a goal for future reports.

Figure 21: Gifted and State Totals, MAP Communication Arts

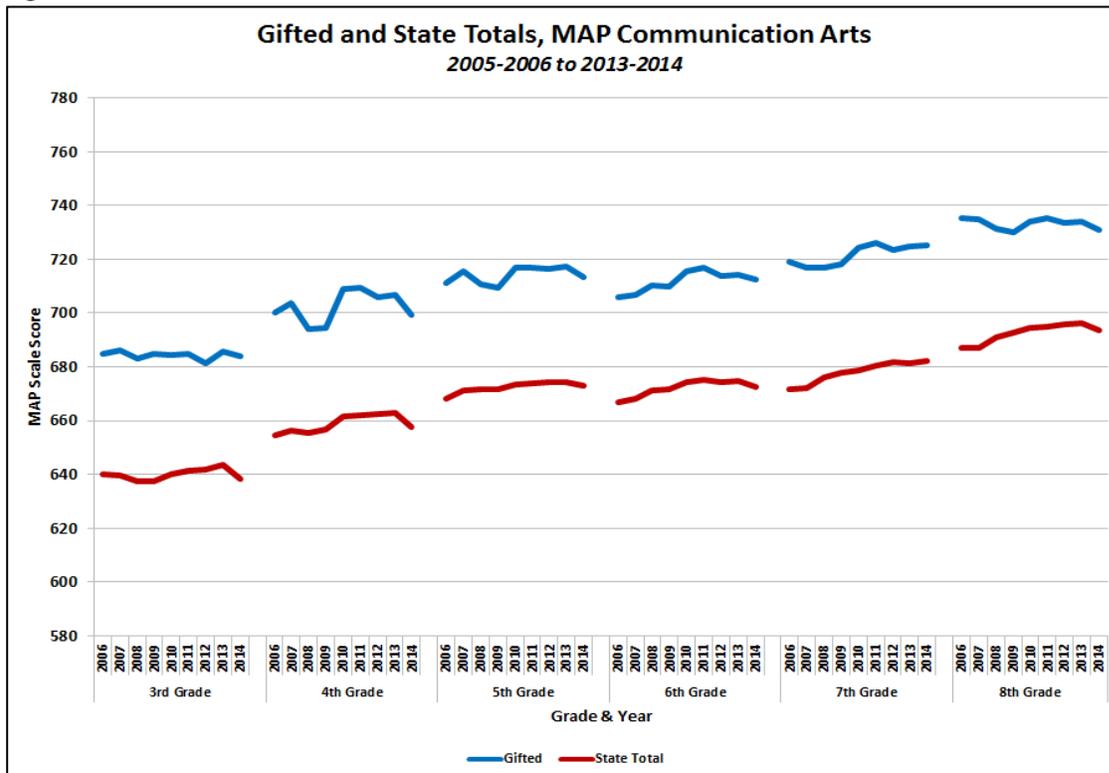


Figure 22: Gifted and State Totals, MAP Mathematics

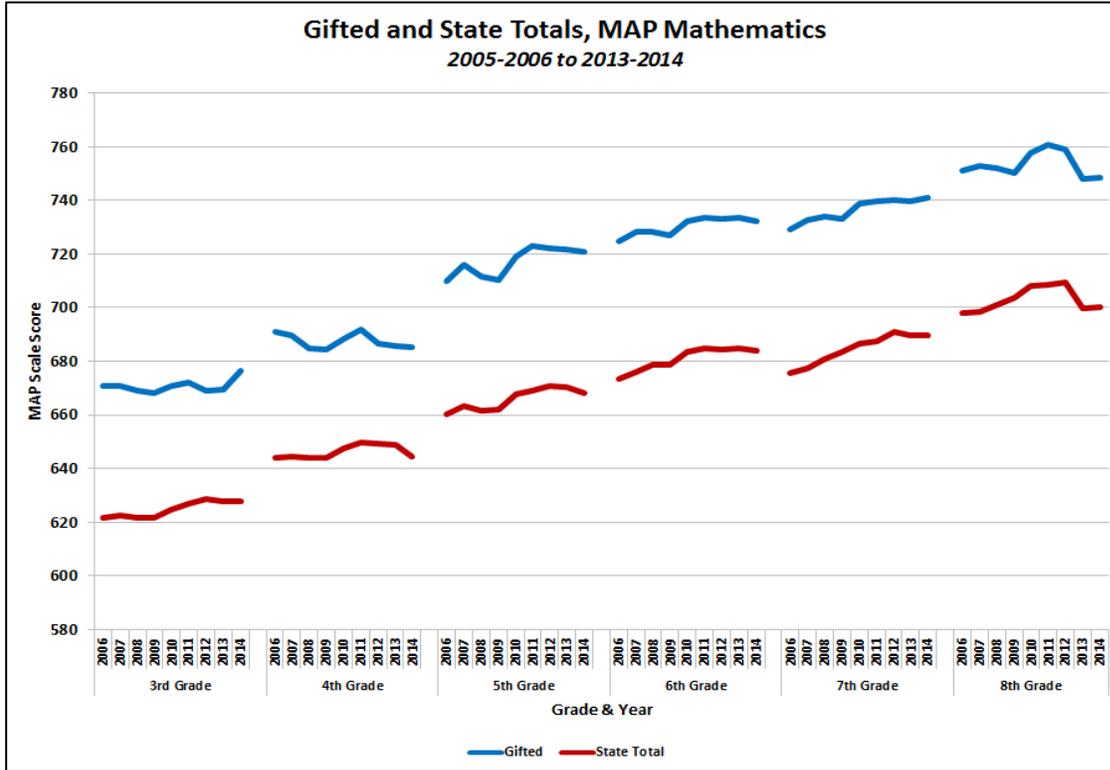
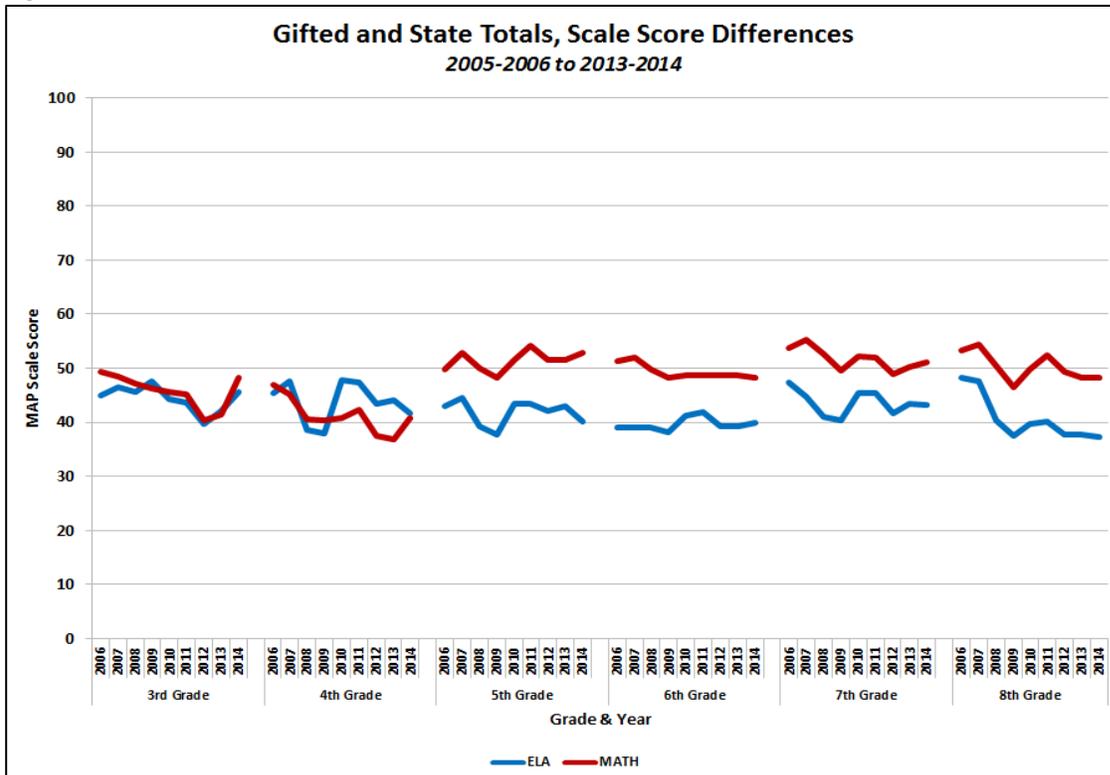


Figure 23: Gifted and State Totals, Scale Score Differences



RECOMMENDATIONS FOR ACTION

Based on the data and resources reviewed by the Council, ten recommendations for action were developed. These recommendations are grouped into five categories:

- Reporting Data on Gifted Students and Programs
- Identification of Gifted Students
- Programming for Gifted Students
- Educator Preparation and Professional Development
- Requiring and Funding Gifted Education

Each recommendation is preceded by a problem statement describing the issue of concern and is followed by a rationale.

REPORTING DATA ON GIFTED STUDENTS AND PROGRAMS

PROBLEM: Information submitted by school districts on state approved gifted programs is not accessible by the public on DESE's website.

RECOMMENDATION 1: DESE should make district information related to state approved gifted programs readily accessible to the public. Specifically, information available on DESE's website should include but not be limited to grade levels served, identification criteria, service delivery model by level (per DESE categories), contact minutes per week by level, number of gifted teachers by level and the student-to-teacher ratio by level.

RATIONALE: There is substantial value in making state approved gifted program information available to the general public. First, the information is provided to DESE by districts around the state. The information is not student-specific and therefore not confidential. Until a few years ago, the information was available online for interested parents to view. Modifying the existing system to provide as much information today as DESE provided in years past makes sense. Second, access to state approved gifted program information would save people time. Rather than going to individual district websites, parents and other interested citizens would access one site and obtain basic information about gifted programming throughout the state. Third, access would enhance knowledge and understanding of gifted program options. School district personnel who are developing or managing state approved gifted programs could study examples of services provided in other districts and use that information to build better programs within their own districts. Fourth, accessible information has the potential for enhancing networking. The ability to find other teachers in the same circumstances and within a reasonable distance would open doors for professional collaboration and mentoring, which invariably leads to better curriculum and instruction for students. Finally, in today's world, parents expect to find information online. Sharing non-confidential information about educational programs around the state builds trust and confidence, not only in governmental agencies, but also in the schools and school districts parents choose for their children.

PROBLEM: Information currently reported by DESE on gifted students, programs and teachers is not sufficient to understand, monitor and make data-driven recommendations for improving gifted programs in the state.

RECOMMENDATION 2: DESE should generate an annual state data report in October on gifted students and state assisted gifted programs. The report should use data from the prior school year and include but not be limited to:

- Number and percent of districts with state approved gifted programs (state totals and disaggregated by DESE region and county)
- Number and percent of gifted students served in state approved programs (state totals and disaggregated by DESE region and county; by grade level and as a percent of all Missouri students in grade level)
- Number and percent of gifted students identified and not served in state approved programs (state totals and disaggregated by DESE region and county; by grade level and percent of all identified gifted students)
- Gifted teacher certification in state approved gifted programs by level (Elementary, Middle School, High School and total)
- Gifted program types and contact minutes per week (state total by program type, level, DESE region and county; average contact minutes by level, DESE region and county)
- Gifted student demographics by DESE region (district cells merged so actual count is possible) and total
- Gifted student achievement (MAP) by grade level tested and in comparison to all students at grade levels tested

RATIONALE: In both research and practice, data that is relevant, accurate and timely is needed to discover meaningful trends and provide useful guidance. In the absence of such data, actions can be taken that fail to accomplish desired outcomes. In the case of gifted education in Missouri, quality data is needed to understand, monitor and recommend improvements to gifted programs in the state. Currently, information available is inconsistent and difficult to obtain. In addition, the only data systematically reported is total students served, total districts with gifted programs, and total teachers in gifted programs.

Enhancing accountability, transparency, and quality of reporting related to gifted education is essential. DESE should broaden reporting to include grade level, demographic, and achievement information, as well as program types and information on students who are identified but not served in their districts. Analyses by DESE supervisory region and county would also assist in understanding, monitoring and making recommendations for addressing the needs of Missouri's gifted students. This enhanced reporting will benefit numerous audiences, including parents and educators trying to understand gifted programming in Missouri, as well as administrators and legislators who rely on data to shape policy decisions that impact local, regional and state services.

IDENTIFICATION OF GIFTED STUDENTS

PROBLEM: Districts are permitted to use enrollment in Advanced Placement (AP) and/or International Baccalaureate (IB) courses to identify students as gifted and report them as such to DESE's Core Data system.

RECOMMENDATION 3: DESE should eliminate the practice of reporting students as gifted based on the criterion of being enrolled in an Advanced Placement (AP) and/or International Baccalaureate (IB) course. Additionally, AP and/or IB courses should not be counted as part of a state approved gifted program, as the majority of high school students are encouraged to enroll in at least one of these courses before graduation.

RATIONALE: DESE's current practice of allowing districts to count students enrolled in AP and/or IB classes as gifted is counter to generally accepted policies and procedures used to identify gifted students. The practice undermines the spirit, if not the requirements, of DESE's own standards for gifted programs, which state that multiple criteria for identification of gifted students must be used and that teachers assigned to teach gifted students must have gifted education certification. To avoid the serious, consequential business of identifying giftedness in students, districts are allowed to use weak and unreliable measures to fulfill the requirement of 'multiple criteria.' Districts are then allowed to substitute teachers' AP/IB training requirements for the state's requirements for gifted education certification.

It is important to note that the College Board, which sponsors the AP and IB programs, has implemented a new policy that seeks to "fully close [the] AP/IB participation gap" by "eliminating prerequisites and opening enrollment" (collegeboard.org). While the Council supports expanding student enrollment in advanced courses, placement in an AP or IB class should not result in the identification of students as gifted. Clearly, any system that potentially counts 100% of a school's population as gifted fails to meet any common sense or evidence-based standard for giftedness. It results in inflated counts of gifted students at the high school level and gives a false sense of success in identifying and serving these students. This situation needs to be remedied if gifted education in Missouri is to be credible moving into the future.

PROBLEM: Missouri gifted program participants oftentimes do not reflect the ethnic, socio-economic or linguistic diversity of school districts.

RECOMMENDATION 4: DESE should provide a best practice model for districts to use in identifying and serving students who are traditionally under-represented in gifted programs, the goal being to have program participants more closely reflect, percentage-wise, the ethnic, socio-economic and linguistic diversity of individual school districts. The best practice model should include research-based recommendations on identification, interventions to scaffold learning, and delivery of gifted program services.

RATIONALE: Students who are Black, Hispanic, Native American, English learners, and/or from low socio-economic households are underrepresented in gifted education by 40% or more across the nation (Ford, 2014). Never has there been a more pertinent time to rectify this situation in Missouri. Students who have high ability and who are not offered appropriate accommodations in school are more likely to suffer from behavior problems, underachievement, depression, and, ultimately, unfulfilled potential (Colangelo, Assouline, & Gross, 2004; Cross, 2011; Rogers, 2007; Silverman, 1993). Psychometrician David Lohman (2013) recommends against gifted identification based on national norms, but instead upon local norms and subpopulation status. However, students identified as gifted based on alternative criteria such as subpopulation status likely need significant scaffolded opportunities to be prepared for rigorous, gifted education programs. (See page 59 for demographic data in Missouri.)

PROBLEM: Gifted programs oftentimes do not identify and serve students who are twice exceptional.

RECOMMENDATION 5: DESE should provide a best practice model for districts to use in identifying students who are twice exceptional (students with both learning challenges due to disabilities and/or physical impairments and exceptional learning abilities).

RATIONALE: Twice exceptional (2e) students are those who are identified as gifted along with another identified special need. The other exceptionality (special need) may be unrelated to intelligence level, such as physical impairments, or may mask giftedness, such as learning disabilities. Some of these students may receive services for the other identified need but are oftentimes overlooked and excluded from gifted services. This conundrum was addressed in a March 2009 white paper entitled Twice Exceptionality from NAGC (nagc.org):

“Like all other students with disabilities in America’s schools, gifted students with co-existing disabilities--Twice Exceptional (2e)--have the right to a free, appropriate public education. However, due to challenges inherent in accurately evaluating a student’s learning strengths and weaknesses, and special education identification processes that focus on below grade-level achievement, many 2e students are going unidentified.”

The difficulty of the identification process for twice exceptional students is the foremost reason that such students’ needs are not often addressed. The duality of the exceptions may appear to cancel each other out. For example, students may be overlooked because they do not reflect most educators’ understanding of typical gifted child behaviors, leading to a lack of gifted services. Likewise, high intellectual abilities may hide exceptionalities such as learning disabilities, causing these students to receive no services for either exceptionality. Therefore, a best practice model should be developed by DESE for the identification of gifted students with dual exceptionalities. (See page 59 for subgroup comparisons in Missouri.)

PROGRAMMING FOR GIFTED STUDENTS

PROBLEM: While acceleration is the best-researched programming option for gifted students, too few Missouri districts have formal, board-approved acceleration policies. In addition, many administrators and teachers are unaware of the strong academic, social, and emotional benefits of acceleration for gifted students.

RECOMMENDATION 6: DESE should require all Missouri districts to have a policy allowing acceleration for students demonstrating advanced performance or potential for advanced performance and the social/emotional readiness for such advancement. The policy should include subject acceleration and whole grade acceleration, among other opportunities.

RATIONALE: Acceleration is the most studied and highly regarded accommodation for gifted students. In the book, *A Nation Deceived: How Schools Hold Back America's Brightest Students* (2004), Dr. Colangelo lists 18 types of acceleration available to bright students. These approaches fall into two broad categories: (1) grade-based acceleration, that allows students with advanced skills and content knowledge to skip to a higher grade level, and (2) subject-based acceleration that allows for advanced content earlier than customary within grade levels. The key question raised in the book is not whether to accelerate a gifted learner but rather how to do so.

Acceleration strongly benefits gifted students' academic performance and, despite myths to the contrary, tends to have a positive effect on social and emotional well-being. Rogers' (2007) meta-analysis of hundreds of studies found strong academic gains for grade-level acceleration (grade skipping) and subject acceleration along with social and emotional benefits. Requiring districts to have acceleration policies in place is a win-win situation. Acceleration does not require any additional funding by the district, and gifted students benefit academically, socially, and emotionally. Given that many classroom teachers are not trained to meet the needs of gifted students and that only 43% of Missouri districts have a state approved gifted programs, there are large differences in student opportunities depending on the district students attend and the teachers to whom gifted students are assigned. This inequity in gifted student services is at least partially remedied by having an acceleration policy and allowing students who are interested and meet policy criteria to accelerate their learning through grade skipping or subject acceleration.

EDUCATOR PREPARATION AND PROFESSIONAL DEVELOPMENT

PROBLEM: Pre-service teachers are not adequately instructed concerning the nature and needs of gifted students or modifying curriculum and instruction to address those needs.

RECOMMENDATION 7: DESE should require all teacher preparation programs to include a minimum of one 3-semester course addressing the nature and needs of gifted students and designing curriculum and instruction to meet those needs.

RATIONALE: Public school teachers are responsible for delivering instruction to a wide range of learners, including students with differing cultural and linguistic backgrounds, as well as varying levels of content readiness. In order to equip teachers to effectively tailor learning to students with different needs, the state of Missouri requires teacher candidates to receive exposure to differentiated instruction. While preparatory courses address this topic, there is no direct instruction required in the area of gifted education. Without background in how to identify and respond to students who are ready for advanced curriculum and instruction, efforts to differentiate will be inadequate or misdirected. A separate course that includes background on the nature and needs of gifted students, and effective strategies for meeting those needs, is necessary to give pre-service teachers the skills and confidence to adjust instruction and engage exceptional learners in appropriately challenging learning experiences.

PROBLEM: Most teachers do not receive professional development concerning the nature and needs of gifted students or modifying curriculum and instruction to address those needs.

RECOMMENDATION 8: DESE should require all districts to provide teachers ongoing professional development addressing the nature and needs of gifted students and designing curriculum and instruction to meet those needs. Professional development may include such options as staff development, university coursework, professional conferences, workshops, and web-based learning.

RATIONALE: Most gifted students spend the majority of their school time in the regular classroom setting. Their teachers oftentimes have had no coursework in gifted education. In fact, a recent survey found that 65% of classroom teachers report that they have received little or no training on working with gifted students (Farkas & Duffett, 2008). Working effectively with gifted students is a challenge, regardless of students' age, grade or level of learning. In order to equip teachers to do this work well, it is important for teachers to understand the nature and needs of gifted students, and the unique ways they approach and make sense of information. Exposure to differentiated instruction is good but not sufficient to be effective at this task. Teachers need a conceptual understanding of the social, emotional and academic components of giftedness, as well as recommended approaches to curriculum, instruction and assessment. As teachers' understanding of individual differences and instructional strategies expand to meet the needs of gifted students, it is likely that all students will benefit from teachers with this broadened knowledge and skill set.

REQUIRING AND FUNDING GIFTED PROGRAMS

PROBLEM: Many school districts in Missouri do not identify gifted students or provide programs to meet their unique needs.

RECOMMENDATION 9: Gifted identification and programming should be required in Missouri.

RATIONALE: Gifted children have unique characteristics that set them apart from their school-age peers, much the way children at the other end of the learning continuum have unique characteristics that set them apart from their school-age peers. Both groups of students need curriculum and instruction tailored to their learning capacity so they are challenged and supported at a level that promotes their cognitive and affective growth. The more extreme the giftedness or learning difference, the more extensive the response needs to be. When such interventions are not implemented, student motivation decreases, performance suffers and negative behaviors oftentimes result (Colangelo, Assouline & Gross, 2004; Cross, 2011).

Equal opportunity to learn and grow does not mean providing the same services or learning opportunities for all. It means affording all children opportunities to learn according to their individual strengths, abilities and aptitudes. While education for students with special needs is mandated by federal law, giftedness as a special need is often overlooked. Currently, over 60 percent of Missouri's school districts do not have a state approved gifted education program. Yet, gifted students exist in every region, district and school in Missouri. It is time to require gifted identification and programming by all Missouri districts. The requirement would align Missouri with the best practices of neighboring states and the majority of states in Missouri's "Top 10 by 20" initiative.

PROBLEM: Earmarked funding for gifted programs was eliminated in 2006, resulting in fewer districts identifying and providing programming for gifted students.

RECOMMENDATION 10: Earmarked funds should be allocated for gifted identification and programming in Missouri.

RATIONALE: Categorical funding for Missouri gifted programs began in 1974. The amount of state funding increased from \$249,311 in 1974 to a high of \$24,870,104 in 2000. This level of funding remained static until 2006, when the state legislature eliminated all categorical funding, including gifted education. While gifted funding is technically still included in the annual educational funding package, it is no longer earmarked for the education of gifted students. The funds can be used for any purpose districts see fit to support. As a result of this change, many school districts have reduced or eliminated their gifted education programs. The total number of school districts with a gifted program is at the lowest level since 1988. Today, only 230 districts have state approved gifted programs. With dedicated funding, this trend will be reversed. Districts will have the incentive to identify gifted students and start or enhance gifted programs across the state.

CONCLUDING REMARKS

The Council had three goals for its first annual report on gifted education in Missouri. The first goal was to create a data-driven understanding of the current status of gifted programs in the state. To be meaningful, that understanding needed to include an examination of our state's history of gifted programming, as well as a look at gifted programming in the nation, in neighboring states, and in "Top 10 by 20" comparative states.

The second goal was to make recommendations for improvement in Missouri's efforts related to gifted and talented children. Toward that end, we have included ten recommendations within five broad areas – reporting data, identification, programming, educator preparation and professional development, and requiring and funding gifted education. These recommendations are considered priorities for strengthening and broadening high quality educational opportunities for gifted students in Missouri.

The third goal was to establish a 'baseline' for future analyses and recommendations. Our focus in upcoming annual reports will be on assessing progress with prior recommendations, studying new data to understand programming trends, and making new recommendations based on research, best practices, and input from key audiences around the state.

The Council would like to thank Dr. Matt Goodman, Director of Assessment and Program Evaluation at EducationPlus, for providing statistical expertise to the Council. His efforts included analyzing program and student data and preparing the figures and tables presented in this report. Thanks also go to Dr. Don Senti, Executive Director of EducationPlus, for supporting the Council's efforts to examine gifted education in Missouri. EducationPlus (formerly Cooperating School Districts) is a non-profit educational organization providing support and advocacy for school districts in the greater St. Louis region as well as the state as a whole.

We would also like to thank David Welch, DESE's Director of Gifted Programs, and Renee Hasty, administrative assistant, for support of Council meetings, as well as Leigh Ann Grant and DESE's Office of Data Systems Management, for providing the Council with statewide data on student achievement and enrollment in gifted programs.

Our appreciation is extended to members of the Missouri legislature for forming the Gifted Advisory Council in 2013. Council members consider it a privilege to work with the Commissioner of Education and State Board of Education to effectively address the educational needs of Missouri's gifted and talented children.

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WEBSITES

<http://www.collegeboard.org>

<http://www.davidsongifted.org>

<http://www.dese.mo.gov/gifted-advisory-council>

<http://www.nagc.org>

APPENDIX A

Missouri Revised Statutes
Chapter 161
State Department of Elementary and Secondary Education
Section 161.249

August 28, 2013

Advisory council created, members, appointment, duties.

1. There is hereby created the "Advisory Council on the Education of Gifted and Talented Children" which shall consist of seven members appointed by the commissioner of education. Members shall serve a term of four years, except for the initial appointments, which shall be for the following lengths:

- (1) One member shall be appointed for a term of one year;
- (2) Two members shall be appointed for a term of two years;
- (3) Two members shall be appointed for a term of three years;
- (4) Two members shall be appointed for a term of four years.

2. Upon the expiration of the term of a member, that member shall continue to serve until a replacement is appointed. The council shall organize with a chairperson selected by the commissioner of education. Members of the council shall serve without compensation and shall not be reimbursed for travel to and from meetings.

3. The commissioner of education shall consider recommendations for membership on the council from organizations of educators and parents of gifted and talented children and other groups with an interest in the education of gifted and talented children. The members appointed shall be residents of the state of Missouri and selected on the basis of their knowledge of, or experience in, programs and problems of the education of gifted and talented children.

4. The commissioner of education shall seek the advice of the council regarding all rules and policies to be adopted by the state board of education relating to the education of gifted and talented children. A staff person appointed by the state board of education shall serve as the state board's liaison to the council. The state board of education shall provide necessary clerical support and assistance in order to facilitate meetings of the council.

APPENDIX B
ADVISORY COUNCIL ON THE EDUCATION OF GIFTED AND TALENTED CHILDREN
PURPOSE OF COUNCIL AND BASIC ROLES

Approved: May 29, 2014

I. Purpose of the Advisory Council

The Advisory Council on the Education of Gifted and Talented Children was established by the Missouri legislature in 2013 to provide advice to the Commissioner of Education regarding all rules and policies to be adopted by the State Board of Education relating to the education of gifted and talented children. The legislation governing the Council is Chapter 161 of the Missouri Revised Statutes, Section 161.249.

II. Basic Roles

The Council consists of seven (7) members and two support staff members. The basic roles and responsibilities of these individuals are as follows:

Council Members

- Regularly attend meetings of the Council
- Provide expert input on issues related to gifted and talented children
- Accept assignments for developing materials for Council meetings
- Accept other roles as requested by Chair

Chair

- Establish dates for Council meetings
- Prepare agendas for Council meetings
- Facilitate Council meetings
- Appoint temporary meeting facilitator should absence of Chair occur
- Assign work tasks to interested Council members
- Represent Council in meetings with State Department administrators, the State Board of Education, and other meetings related to the work of the Council
- Confer with the State Board of Education's appointed Liaison to plan and promote the work of the Council
- Accept other roles as needed

Liaison

- Serve as DESE's liaison to the Council
- Provide input to the Council on matters related to educating gifted and talented students in the State
- Provide input related to Council meeting agendas
- Develop materials and reports at the request of the Council Chair
- Secure meeting room facilities for Council meetings
- Ensure appropriate record-keeping of Council work is maintained
- Accept other appropriate liaison services as requested by Chair

Secretary

- Prepare minutes of meetings
- Maintain records of meetings
- Maintain pertinent correspondence
- Reproduce materials for Council meetings
- Accept other appropriate support services as requested by Chair

Custodian of Records

- Duties are fulfilled by the Department's General Council
- Responds to all requests for Council records

APPENDIX C

ADVISORY COUNCIL ON THE EDUCATION OF GIFTED AND TALENTED CHILDREN OPERATING PROCEDURES

Approved: May 29, 2014

I. Regular Meetings

The Council shall meet at a minimum three (3) times a year and may meet more often at the discretion of the Council. The Council will have its regular meetings from 10:00 a.m. to 3:00 p.m. in Jefferson City unless otherwise specified by the Council Chair. Council meetings shall be open and public.

II. Terms of Office of Council Members

The Council consists of seven (7) members. After the first year of operation, members are appointed by the Commissioner of Education to serve four-year terms. Upon the expiration of the term of a member, that member shall continue to serve until a replacement is appointed.

III. Selection of Council Members

The Commissioner considers recommendations for membership on the Council from organizations of educators, parents of gifted and talented children, and other groups with an interest in the education of gifted children. Members appointed shall be residents of the state of Missouri and selected on the basis of their knowledge of, or experience in, programs and problems of the education of gifted and talented children. A Council member can be re-appointed at the discretion of the Commissioner of Education. The Council Chair is appointed by the Commissioner.

IV. Support for the Council

A staff person appointed by the State Board of Education shall serve as the State Board's liaison to the Council. In addition, a Custodian of Records and a Council secretary will be appointed by the Department to support the work of the Council.

V. Expenses

Members of the Council serve in a volunteer role. There is no compensation for the time or effort involved in Council work. In addition, there is no reimbursement for travel to and from meetings.

VI. Termination of Membership

Failure on the part of a Council member to attend any two consecutive meetings without notification to the Chair or DESE Liaison shall constitute resignation from the Council. Any member may resign before expiration of their term by submitting a written resignation to the Council Chair and Commissioner of Education.

VII. Notice of Meetings

Written notice of meetings shall be posted at least 24 hours in advance of the meeting. The notice will include the time, date and place of the meeting, as well as the tentative agenda. When possible, Council members shall be advised of Council meetings at least four (4) weeks in advance of the meeting. When possible, members will advise the Chair and/or State Board Liaison if they are unable to attend a meeting at least seven (7) days ahead of the meeting to facilitate planning or, if necessary, rescheduling. In the event of dangerous weather conditions, email and phone chain communication to cancel meetings will take place no later than 7:30 a.m. on the day of Council meetings.

VIII. Council Communications and Conduct of Meetings

Council business shall be conducted in accordance with Sunshine Law requirements. Minutes of Council meetings, as well as copies of written and electronic communications involving four (4) or more Council members, will be maintained by the Custodian of Records.

IX. Quorum

A minimum of five (5) voting members shall be necessary to constitute a quorum and for the Council to conduct official business. Participation via electronic means is acceptable.

X. Voting

Each member shall be entitled to one vote and may cast that vote on each matter submitted to a vote of the Council. Motions will be considered passed if approved by four (4) voting members of the Council. Proxy voting and absentee ballots shall not be allowed.

XI. Public Input

The public can provide input to the Council by sending written material to the Council's State Board Liaison or by attending Council meetings. Any individual wishing to address the Council must fill out a sign-in form available at Council meetings. The form includes the individual's name, school district of residence, contact information, and the topic to be presented. Only persons completing the sign-in form will be allowed to address to the Council. Each individual will be given a maximum of three (3) minutes to speak. The Council will not respond to comments at the meeting. Both written and verbal comments will be taken under consideration by the Council and, if appropriate, will be addressed at a future date. The Public Comment section of the meeting will be limited to thirty (30) minutes.

XII. Annual Report

The Council shall report its activities to the Missouri Department of Education through its meeting minutes. On an annual basis, the Council will prepare a report for the Commissioner of Education and the State Board of Education. That report will summarize progress of the Council and recommendations related to rules and policies governing the education of gifted and talented children in Missouri. When feasible, Council members will present their recommendations at a State Board of Education meeting.

XIII. Operating Procedures Amendments

These Operating Procedures may be amended by approval of at least four (4) Council members.

APPENDIX D

ADVISORY COUNCIL ON THE EDUCATION OF GIFTED AND TALENTED CHILDREN RECOMMENDED PROCESS FOR SELECTION OF COUNCIL MEMBERS

Approved: August 4, 2014

OVERVIEW

The Council consists of seven (7) members. Members are appointed by the Commissioner of Education to serve four-year terms. Upon the expiration of the term of a member, that member shall continue to serve until a replacement is appointed. The Commissioner considers recommendations for membership on the Council from organizations of educators, parents of gifted and talented children, and other groups with an interest in the education of gifted children. Members appointed shall be residents of the state of Missouri and selected on the basis of their knowledge of, or experience in, programs and problems of the education of gifted and talented children. A Council member can be re-appointed at the discretion of the Commissioner of Education. The Council Chair is appointed by the Commissioner.

GENERAL GUIDELINES

1. Service on the Council begins September 1 of each year. Terms expire August 31 in the final year of each Council member's appointment.
2. Any newly appointed Council members will be notified on or before August 1 of each year, or the earliest time possible after August 1.
3. The Council values diversity. Thus, over time, it seeks to include representatives from diverse districts, backgrounds, and experiences related to gifted and talented education.
4. The Council Chair is recommended to be a two-year appointment, with annual extensions possible. The Council will submit its leadership recommendation to the Commissioner on or before May 31 of relevant years. Candidates for Chair need a minimum of one year of service on the Council. They also need to have both an interest in and time available to serve in this capacity.

RECOMMENDED SELECTION PROCESS

Members who are currently serving on the Council

1. A minimum of three months in advance of their term expiring, Council members must submit to the Chairperson and the Commissioner in writing their desire to be reappointed or not be reappointed to the Council.

General Public submissions for appointment to the Council

1. A minimum of two months in advance of any expiring term, the Council via the Chairperson may submit via written or electronic means a list of potential new Council members to the Commissioner for consideration.
2. A self-nomination application for Council membership will be posted continuously on the Council website. A minimum of four months in advance of any expiring term, the Council will post on its website an invitation for individuals to complete and submit the form to be

considered for an appointment to the Council. Only completed self-nomination forms submitted a minimum of three months in advance of the expired term will be forwarded to the Commissioner.

3. The Council will request that an invitation for submitting the self-nominating form for appointment to the Council be posted in any publication the Council believes supports the education of gifted and talented children in a manner and time consistent with the publication(s) publishing schedule so as to allow individuals to submit the completed self-nomination form a minimum of three months prior to an expiring term.
4. The Council may at its discretion publicize the opportunity for appointment to the Council via any means it deems reasonable and appropriate.

APPENDIX E

MYTHS ABOUT GIFTED STUDENTS

See references at:

<http://www.nagc.org/resources-publications/resources/myths-about-gifted-students>

Myth: Gifted Students Don't Need Help; They'll Do Fine On Their Own

Truth: Would you send a star athlete to train for the Olympics without a coach? Gifted students need guidance from well-trained teachers who challenge and support them in order to fully develop their abilities. Many gifted students may be so far ahead of their same-age peers that they know more than half of the grade-level curriculum before the school year begins. Their resulting boredom and frustration can lead to low achievement, despondency, or unhealthy work habits. The role of the teacher is crucial for spotting and nurturing talents in school.

Myth: Teachers Challenge All The Students, So Gifted Kids Will Be Fine In The Regular Classroom

Truth: Although teachers try to challenge all students they are frequently unfamiliar with the needs of gifted children and do not know how to best serve them in the classroom. A national study conducted by the Fordham Institute found that 58% of teachers have received no professional development focused on teaching academically advanced students in the past few years and 73% of teachers agreed that "Too often, the brightest students are bored and under-challenged in school – we're not giving them a sufficient chance to thrive. This report confirms what many families have known: not all teachers are able to recognize and support gifted learners.

Myth: Gifted Students Make Everyone Else In The Class Smarter By Providing A Role Model Or A Challenge

Truth: Average or below-average students do not look to the gifted students in the class as role models. Watching or relying on someone who is expected to succeed does little to increase a struggling student's sense of self-confidence.² Similarly, gifted students benefit from classroom interactions with peers at similar performance levels and become bored, frustrated, and unmotivated when placed in classrooms with low or average-ability students.

Myth: All Children Are Gifted

Truth: All children have strengths and positive attributes, but not all children are gifted in the educational sense of the word. The label "gifted" in a school setting means that when compared to others his or her age or grade, a child has an advanced capacity to learn and apply what is learned in one or more subject areas, or in the performing or fine arts. This advanced capacity requires modifications to the regular curriculum to ensure these children are challenged and learn new material. Gifted does not connote good or better; it is a term that allows students to be identified for services that meet their unique learning needs.

Myth: Acceleration Placement Options Are Socially Harmful For Gifted Students

Truth: Academically gifted students often feel bored or out of place with their age peers and naturally gravitate towards older students who are more similar as "intellectual peers." Studies have shown that many students are happier with older students who share their interest than they are with children the same age. Therefore, acceleration placement options such as early entrance to Kindergarten, grade skipping, or early exit should be considered for these students.

Myth: Gifted Education Programs Are Elitist

Truth: Gifted education programs are meant to help all high-ability students. Gifted learners are found in all cultures, ethnic backgrounds, and socioeconomic groups. However, many of these students are denied the opportunity to maximize their potential because of the way in which programs and services are funded, and/or flawed identification practices. For example, reliance on a single test score for gifted education services may exclude selection of students with different cultural experiences and opportunities. Additionally, with no federal money and few states providing an adequate funding stream, most gifted education programs and services are dependent solely on local funds and parent demand. This means that in spite of the need, often only higher-income school districts are able to provide services, giving the appearance of elitism.

Myth: That Student Can't Be Gifted, He Is Receiving Poor Grades

Truth: Underachievement describes a discrepancy between a student's performance and his actual ability. The roots of this problem differ, based on each child's experiences. Gifted students may become bored or frustrated in an unchallenging classroom situation causing them to lose interest, learn bad study habits, or distrust the school environment. Other students may mask their abilities to try to fit in socially with their same-age peers and still others may have a learning disability that masks their giftedness. No matter the cause, it is imperative that a caring and perceptive adult help gifted learners break the cycle of underachievement in order to achieve their full potential.

Myth: Gifted Students Are Happy, Popular, And Well Adjusted In School

Truth: Many gifted students flourish in their community and school environment. However, some gifted children differ in terms of their emotional and moral intensity, sensitivity to expectations and feelings, perfectionism, and deep concerns about societal problems. Others do not share interests with their classmates, resulting in isolation or being labeled unfavorably as a "nerd." Because of these difficulties, the school experience is one to be endured rather than celebrated.

Myth: This Child Can't Be Gifted, He Has A Disability

Truth: Some gifted students also have learning or other disabilities. These "twice-exceptional" students often go undetected in regular classrooms because their disability and gifts mask each other, making them appear "average." Other twice-exceptional students are identified as having a learning disability and as a result, are not considered for gifted services. In both cases, it is important to focus on the students' abilities and allow them to have challenging curricula in addition to receiving help for their learning disability

Myth: Our District Has A Gifted And Talented Program: We Have AP Courses

Truth: While AP classes offer rigorous, advanced coursework, they are not a gifted education program. The AP program is designed as college-level classes taught by high school teachers for students willing to work hard. The program is limited in its service to gifted and talented students in two major areas: First AP is limited by the subjects offered, which in most districts is only a small handful. Second it is limited in that, typically, it is offered only in high school and is generally available only for 11th and 12th grade students. The College Board acknowledges that AP courses are for any student who is academically prepared and motivated to take a college-level course.

APPENDIX F



STATE ASSISTED PROGRAMS FOR GIFTED CHILDREN GROWTH CHART

School Year	Number of Districts with Programs	Number of Students Served in Programs	Number of Teachers Working In Programs	State Aid	Percent of Reimbursement
1974-75	7	1,465		◆\$249,311	50%
1975-76	10	2,343		\$323,651	50%
1976-77	13	3,943		\$1,325,264	50%
1977-78	27	6,196		\$1,539,362	50%
1978-79	39	7,665		\$1,560,362	50%
1979-80	58	8,546		\$1,900,336	50%
1980-81	68	8,757		\$2,017,492	50%
1981-82	79	10,078	244	\$2,591,692	50%
1982-83	89	10,666	250	\$2,886,159	50%
1983-84	109	11,686	253	\$3,493,822	50%
1984-85	132	12,375	306	\$4,184,007	50%
1985-86	162	13,333	333	\$5,022,991	50%
1986-87	189	13,645	353	\$5,886,109	50%
1987-88	214	16,361	551	\$6,529,558	50%
1988-89	227	17,472	590	■\$10,663,156	75%
1989-90	259	17,921	641	\$13,398,433	75%
1990-91	266	18,050	653	\$15,400,199	75%
1991-92	270	22,511	674	\$15,474,704	73%
1992-93	264	24,082	700	\$16,249,489	69%
1993-94	269	24,877	817	\$16,249,489	65%
1994-95	289	25,644	863	\$16,249,489	64%
1995-96	292	27,000	→810	\$16,249,489	56%
1996-97	291	28,525	790	\$20,000,000	72%
1997-98	293	26,219	804	\$20,000,000	70%
1998-99	303	27,916	831	\$21,000,000	70%
1999-00	310	27,738	839	\$23,100,000	72%
2000-01	320	28,060	877	\$24,671,753	74%
2001-02	333	30,487	933	\$24,864,153	67%
2002-03	330	30,487	899	\$24,864,153	65%
2003-04	307	32,559	829	\$23,415,942	63%
2004-05	293	32,673	820	\$24,870,104	65%
2005-06	295	32,641	842	\$24,870,104	62%
2006-07	291	❖ 40,670	❖ 865	*\$24,870,104	0%
2007-08	296	❖ 42,375	❖ 884	*\$24,870,104	0%

School Year	Number of Districts with Programs	Number of Students Served in Programs	Number of Teachers Working In Programs	State Aid	Percent of Reimbursement
2008-09	255	❖ 37,262	❖ 760	*\$24,870,104	0%
2009-10	274	❖ 34,112	❖ 704	*\$24,870,104	0%
2010-11	268	❖ 40,931	❖ 879	*\$24,870,104	0%
2011-12	254	❖ 44,371	❖ 920	*\$24,870,104	0%
2012-13	231	❖ 38,045	❖ 835	*\$24,870,104	0%
2013-14	223	❖ 36,650	❖ 820	*\$24,870,104	0%

- ◆ HB 474 established funding for Gifted at 50% reimbursement.
- SB 797 increased State Aid from 50 to 75% effective July 1, 1988.
- ➔ Mandatory certification endorsement became effective September 1, 1995.
- * Gifted funding folded into the foundation formula
- ❖ Number of students and teachers in Advanced Placement and International Baccalaureate classes included.

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APPENDIX G

Advisory Council for the Education of Gifted and Talented Children RECOMMENDATIONS FOR ACTION – MARCH 2015

Reporting Data on Gifted Students and Programs

RECOMMENDATION 1: DESE should make district information related to state approved gifted programs readily accessible to the public. Specifically, information available on DESE’s website should include but not be limited to grade levels served, identification criteria, service delivery model by level (per DESE categories), contact minutes per week by level, number of gifted teachers by level and the student-to-teacher ratio by level.

RECOMMENDATION 2: DESE should generate an annual state data report in October on gifted students and state assisted gifted programs. The report should use data from the prior school year and include but not be limited to:

- Number and percent of districts with state approved gifted programs (state totals and disaggregated by DESE region and county)
- Number and percent of gifted students served in state approved programs (state totals and disaggregated by DESE region and county; by grade level and as a percent of all Missouri students in grade level)
- Number and percent of gifted students identified and not served in state approved programs (state totals and disaggregated by DESE region and county; by grade level and percent of all identified gifted students)
- Gifted teacher certification in state approved gifted programs by level (Elementary, Middle School, High School and total)
- Gifted program types and contact minutes per week (state total by program type, level, DESE region and county; average contact minutes by level, DESE region and county)
- Gifted student demographics by DESE region (district cells merged so actual count is possible) and total
- Gifted student achievement (MAP) by grade level tested and in comparison to all students at grade levels tested

Identification of Gifted Students

RECOMMENDATION 3: DESE should eliminate the practice of reporting students as gifted based on the criterion of being enrolled in an Advanced Placement (AP) and/or International Baccalaureate (IB) course. Additionally, AP and/or IB courses should not be counted as part of a state approved gifted program.

RECOMMENDATION 4: DESE should provide a best practice model for districts to use in identifying and serving students who are traditionally under-represented in gifted programs, the goal being to have program participants more closely reflect, percentage-wise, the ethnic, linguistic and socio-economic diversity of individual school districts. The best practice model should include research-based recommendations on identification, interventions to scaffold learning and delivery of gifted program services.

RECOMMENDATION 5: DESE should provide a best practice model for districts to use in identifying students who are twice exceptional (students with both learning challenges due to disabilities and/or physical impairments and exceptional learning abilities).

Programming for Gifted Students

RECOMMENDATION 6: DESE should require all Missouri districts to have a policy allowing acceleration for students demonstrating advanced performance or potential for advanced performance and the social/emotional readiness for such acceleration. The policy should include subject acceleration and whole grade acceleration, among other opportunities.

Educator Preparation and Professional Development

RECOMMENDATION 7: DESE should require teacher preparation programs to include a minimum of one 3-credit course addressing the nature and needs of gifted students and designing curriculum and instruction to meet those needs.

RECOMMENDATION 8: DESE should require all districts to provide teachers ongoing professional development addressing the nature and needs of gifted students and designing curriculum and instruction to meet those needs. Professional development may include such options as staff development, university coursework, professional conferences, workshops and web-based learning.

Requiring and Funding Gifted Education

RECOMMENDATION 9: Gifted identification and programming should be required in Missouri.

RECOMMENDATION 10: Earmarked funds should be allocated for gifted identification and programming in Missouri.

APPENDIX H

Q & As ABOUT GIFTED EDUCATION IN MISSOURI

1. How much funding is allocated in Missouri’s foundation formula for gifted education?

Prior to fiscal year 2007, gifted education was considered a categorical in Missouri’s School Foundation Formula and was funded at \$24.8 million. Starting in fiscal year 2007, a new foundation formula was instituted, with funding for gifted education folded into the foundation formula. The funds received by districts with pre-existing state approved gifted programs were no longer earmarked for gifted education. Rather, funds could be used at district discretion to support any program or need. This loss of earmarked funding has resulted in a steep decline of gifted programs in Missouri. Today, only 43% of Missouri districts report having a state approved gifted program.

2. In today’s dollars, how much funding would be needed to equate to \$24.8 million in 2007?

Based on the consumer price index, one would need approximately \$28.0 million to match the ‘buying power’ of \$24.8 million in 2007.

3. What percent of Missouri’s budget for elementary and secondary education does the portion for gifted education represent?

\$24.8 million represents less than one half of one percent (0.41%) of Missouri’s 2014 budget for elementary and secondary education.

4. On average, how much do districts spend per gifted student for gifted education?

The average added cost per pupil in state approved gifted programs in Missouri is \$1,188. The number of districts by range of expenditures per gifted students served is shown below for 2013-2014.

	Under \$500	\$500-\$999	\$1,000-\$1,499	\$1,500-\$1,999	\$2,000 and above	Expenditures/ No Gifted Count
# Districts	34	69	65	26	25	36

5. For comparison purposes, how do expenditures on gifted students compare to expenditures on special education students in Missouri? What percent of district budgets, on average, do those expenditures represent?

In 2013-2014, districts spent approximately \$937,000,000 of all district expenditures on special education (function code 1221) and \$47,000,000 on gifted education (function code 1210). Those dollar amounts represent, on average, 8.15% of their budget on special education and 0.41% of their budget on gifted education. This is a twenty-fold difference in funding. Thus, for every \$1,000 spent on gifted education, approximately \$20,000 is spent on special education.

6. What are the demographics of gifted program participants? How do these demographics compare to the state as a whole?

Demographic Comparison – Percent of Students in State and in State Approved Gifted Programs – 2013-2014

	Black	Hispanic	White	All Others
Percent in State	16.4	5.3	73.3	5.0
Percent in Programs	8.9	3.3	79.3	8.5

All Others Includes Asian, Indian, Pacific Islander, Multi

Subgroup Comparison – Percent in State and in State Approved Gifted Programs – 2013-2014

	IEP	LEP	FRL
Percent in State	12.6	.31	49.0
Percent in Programs	3.1	.14	20.2

Programs=State Approved Gifted Programs, IEP=Individualized Education Plan, LEP=Limited English Proficient, FRL=Free/Reduced Priced Lunch

7. What does being a state approved gifted program entail?

State approved gifted programs in Missouri must use state guidelines for student identification and provide a minimum of 150 minutes per week of contact time in which identified gifted students work exclusively with a certified teacher of the gifted. There are recommended maximum caseloads per gifted teacher and recommended class or group sizes depending on the nature of the gifted program. See the Gifted Education Programs Procedure Manual on DESE’s website for additional information.

8. How are gifted students identified in Missouri’s state approved gifted programs?

The student selection process consists of at least the following two stages: screening and individual evaluation and placement. DESE advises that screening should be as inclusive as possible and that evaluation and placement requires at least three of the following four criteria: (1) individual intelligence test results at or above the 95th percentile, (2) academic ability at or above the 95th percentile, (3) outstanding ability in creativity, reasoning and/or problem-solving ability, and (4) other documented evidence of exceptional performance in a general academic area, a fine arts area, or another area related to the design of the gifted program. Alternative student selection procedures may be submitted for approval by the state department. Such plans must include: (1) established criteria for selection, (2) objective measures, and (3) competent professional evaluation. See the Gifted Education Programs Procedure Manual on DESE’s website for additional information.

9. What are the certification requirements for gifted education teachers?

There are general requirements and professional requirements for gifted certification. The general requirements include (1) a valid Missouri permanent or professional certificate of license, (2) two years of classroom teaching experience, and (3) psychology and/or education of the exceptional child (including the gifted). The professional requirements include a minimum of 15 semester hours of coursework as follows:

- A. *A minimum of nine semester hours selected from five basic fields of knowledge:*
 - 1. *A Survey of Gifted and Talented Education*
 - 2. *Programming Planning and Development: An Understanding of Administration and Supervision of Gifted Programs*

3. Screening, Assessing, and Evaluating Gifted Students
4. Curriculum and Instruction for the Gifted
5. Meeting the Affective Needs of Gifted Student

B. A minimum of one graduate course in research procedures

C. A three semester hour practicum beyond the courses required for elementary and secondary certification, involving college or university supervised instruction of gifted students

10. Why Are Gifted Programs Needed? (From <http://www.nagc.org/resources-publications/gifted-education-practices/why-are-gifted-programs-needed#sthash.U0tjT3AL.dpuf>)

According to a recent report on high-achieving students, more than 7 in 10 teachers of these students surveyed noted that their brightest students were not challenged or given a chance to “thrive” in their classrooms. [1] Additionally, gifted students need gifted programming in many cases because the “general education program is not yet ready to meet the needs of gifted students” (p. 9) due to lack of general educators’ training in gifted education and the pressure classroom teachers face to raise the performance of their struggling students. [2]

It’s more than just giving students a challenge in classrooms: Gifted programming positively influences students’ futures. Several longitudinal studies have shown that gifted programs have a positive effect on students’ post-secondary plans. For example, studies found that 320 gifted students identified during adolescence who received services through the secondary level pursued doctoral degrees at more than 50X the base rate expectations. [3] In a follow-up report on the same study participants at age 38, 203 participants, or 63%, reported holding advanced terminal degrees (master’s and above). Of these, 142 (44%) held doctoral degrees and 8 of these 142 had more than one doctoral degree. As a benchmark for this accomplishment, the authors of this study compared these rates to the general U.S. population, noting that only approximately 2% of the general population held a doctoral degree according to the 2010 U.S. Census. [4]

Additionally, in a study looking at gifted students who participated in talent development through competitions, the researchers reported a long-term impact on these students’ postsecondary achievements, with 52% of the 345 students who participated having earned doctoral degrees. [5]

Further benefits of gifted programs have been shown to include that students who had participated in gifted programs maintained their interests over time and stayed involved in creative productive work after they finished college and graduate school. [6]

A sample of 2,409 intellectually talented adolescents (top 1%) who were assessed on the SAT by age 13, and provided services through a talent search program, was tracked longitudinally for more than 25 years. Their creative accomplishments, with particular emphasis on literary achievement and scientific-technical innovation, were examined and results showed that distinct ability patterns identified by age 13 foreshadowed creative accomplishments in middle age. Among the sample, participants had earned 817 patents and published 93 books, one had been awarded the Fields Medal in mathematics, and another had won the John Bates Clark Medal for the most outstanding economist under 40. [7]

- ¹ Loveless, T., Farkas, S., & Duffett, A. (2008). *High-achieving students in the era of NCLB*. Washington, DC: Thomas B. Fordham Institute.
- ² Hertberg-Davis, H. L., & Callahan, C. M. (2013). Introduction. In H. L. Hertberg-Davis & C. M. Callahan (Eds.), *Fundamentals of gifted education* (pp. 1–10). New York, NY: Routledge.
- ³ Lubinski, D., Webb, R. M., Morelock, M. J., & Benbow, C. P. (2001). Top 1 in 10,000: A 10 year follow-up of the profoundly gifted. *Journal of Applied Psychology, 4*, 718–729.
- ⁴ Kell, H. J., Lubinski, D., & Benbow, C. P. (2013). Who rises to the top? Early indicators. *Psychological Science, 24*, 648–659.
- ⁵ Campbell, J. R., & Walberg, H. J. (2011). Olympiad studies: Competitions provide alternatives to developing talents that serve national interests. *Roeper Review, 33*, 8–17.
- ⁶ Westberg, K. L. (1999, Summer). What happens to young, creative producers? *NAGC: Creativity and Curriculum Division Newsletter, 3*, 13–16.
- ⁷ Park, G., Lubinski, D., & Benbow, C. P. (2007) *Contrasting intellectual patterns predict creativity in the arts and sciences: Tracking intellectually precocious youth over 25 years. Psychological Science, 18*, 948–995. - See more at: <http://www.nagc.org/resources-publications/gifted-education-practices/why-are-gifted-programs-needed#sthash.q6kalsof.dpuf>

“Failure to help the gifted child is a societal tragedy, the extent of which is difficult to measure but which is surely great. How can we measure the sonata unwritten, the curative drug undiscovered, the absence of political insight? They are the difference between what we are and what we could be as a society.”

James J. Gallagher