



Teacher Shortage Report for Missouri



December 2022

METHOD

The Missouri Department of Elementary and Secondary Education uses appropriate certification of teachers to identify the designated areas of critical shortage.

- Shortage areas were defined as those content areas within the state for which positions were filled with inappropriately certified teacher(s) or left vacant due to the absence of certificated candidates.
- Inappropriately certified teachers and total FTE count for each content area were compiled.
- Inappropriately certified teachers by content area were determined by comparing the number of inappropriately certified FTE to the total FTE count for each content area.
- The percentage FTE shortage by content area was determined by calculating the percentage of inappropriately certified teachers per content area as compared to the total number of teachers in the state.
- A weighted value to represent the relative prominence of each content area was calculated as a percentage of the total FTE by content area as compared to the total number of teachers in the state.
- A weighted percentage of FTE shortage by content area was determined by multiplying the raw percentage FTE shortage by the weight of each content area.
- Consistent with the U.S. Department of Education Teacher Shortage Areas External User Guide, the sum of shortage areas was determined not to exceed 5% of the total number of FTE teaching positions within the state.

DATA SOURCES

- School districts in Missouri through the Missouri Student Information System (MOSIS), including educator core data, educator school, educator vacancy, and course assignment collections.
- Department of Elementary and Secondary Education's Educator Certification System.

DATA

- Inappropriately certified teacher FTE by content area (statewide) defined as a teacher not certified for the area in which they are teaching or left vacant.

ASSURANCES

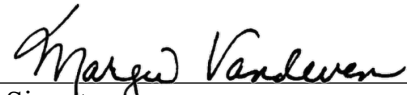
- Written objective standards were used in determining the proposed teacher shortage areas.
- 2021-2022 data was used to determine the proposed teacher shortage areas.
- Chief State School Officer will provide a public posting of the annual list of designated teacher shortage areas in Missouri.

CONTACT

Office of Educator Quality
Missouri Department of Elementary and Secondary Education
P.O. Box 480
Jefferson City, MO 65102-0480
Phone: 573-751-2931
Email: educatorquality@dese.mo.gov

CHIEF STATE SCHOOL OFFICER

Dr. Margie Vandeven
Commissioner of Education
Missouri Department of Elementary and Secondary Education



Signature

11/30/2022

Date

I. Name of State:

- a. Missouri

II. Applicable School Year:

- a. Designations are for 2023-24; data used were from the 2021-22 academic year.

III. Date Prepared:

- a. November 1, 2022

IV. Total of all the FTE teaching positions within the state from 2021-22 academic year: 71,587

- a. The number of inappropriately certified or vacant FTE by content area throughout the state that represents 5.00% of the total FTE is 3,579.

V. Shortage areas are listed by content area in order from most severe to least, as determined by MOSIS data:

Five percent of total FTE

- | | |
|--|-----------------------------|
| 1. Elementary Education 1-6 | 9. Biology 9-12 |
| 2. Mild/Moderate Cross Categorical K-12 | 10. General Science 5-9 |
| 3. Early Childhood Special Education B-3 | 11. Language Arts 5-9 |
| 4. Early Childhood Education B-3 | 12. Mathematics 9-12 |
| 5. Social Science 5-9 | 13. Business Education 9-12 |
| 6. Physics 9-12 | 14. Earth Science 9-12 |
| 7. Mathematics 5-9 | 15. Chemistry 9-12 |
| 8. Severe Development Disabled B-12 | |

VI. Shortage areas are listed by content for the state in order from most severe to least, as determined by MOSIS data and represents 5.40% of the total FTE in the state:

Subject Area	FTE Inappropriately Certified	Shortage Indicator by Total FTE
ELEMENTARY EDUCATION 1-6	523.32	0.73%
MILD/MODERATE CROSS CATEGORICAL K-12	409.20	0.57%
EARLY CHILDHOOD SPECIAL EDUCATION B-3	391.10	0.55%
EARLY CHILDHOOD EDUCATION B-3	372.29	0.52%
SOCIAL SCIENCE 5-9	281.88	0.39%
PHYSICS 9-12	281.67	0.39%
MATHEMATICS 5-9	234.73	0.33%
SEVERE DEVELOPMENT DISABLE B-12	204.77	0.29%
BIOLOGY 9-12	199.07	0.28%
GENERAL SCIENCE 5-9	191.73	0.27%
LANGUAGE ARTS 5-9	178.17	0.25%
MATHEMATICS 9-12	163.82	0.23%
BUSINESS EDUCATION 9-12	153.41	0.21%
EARTH SCIENCE 9-12	144.01	0.20%
CHEMISTRY 9-12	137.05	0.19%
Above content areas represent 5.40% of total FTE		

****Justification Statement for additional 0.40%****

Earth Science and Chemistry are a critical shortage area in Missouri. Currently, about 281 Missouri teachers (144 in Earth Science & 137 in Chemistry), or nearly 0.40%, are inappropriately certified for their position. This is a significant impact on the overall academic success of the students they teach. If Missouri strictly adheres to the 5.0% limit, it would require us to remove two STEM areas from our Critical Shortage list. Based on this additional data, Missouri requests that its list of shortages by content area be expanded from the 5.0% allowable of total FTE to 5.40% to account for this important content area.