



Teacher Shortage Report for Missouri

December 2019

METHOD

The Missouri Department of Elementary and Secondary Education uses teacher qualification to identify the designated areas of critical shortage.

- Shortage areas were defined as those content areas within the state that had an unqualified teacher(s).
- Unqualified teachers by content area were compiled.
- Unqualified teachers by content area were determined by comparing the number of unqualified FTE to the total FTE count for each content area.
- The percentage of FTE shortage was determined by taking the total unqualified teachers by content area and comparing that to the total number of teachers in the state.
- A weighted value to represent the relative prominence for 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 was determined by multiplying the raw percentage FTE shortage by the weighted value.
- 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 SOURCE

- 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

- Unqualified teacher FTE by content area (statewide), defined as less-than-fully qualified personnel.

ASSURANCES

- Written objective standards were used in determining the proposed teacher shortage areas.
- Chief State School Officer's staff consulted with private non-profit school officers within the state.
- 2018-2019 data was used to determine the proposed teacher shortage areas.
- Chief State School Officer will provide an annual list of designated teacher shortage areas to all Chief Administrative Officers of the affected schools in Missouri.

CONTACT PERSON

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CHIEF STATE SCHOOL OFFICER

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



Signature

12/20/2019

Date

- I. Name of State:**
a. Missouri
- II. Applicable School Year:**
a. Designations are for 2020-2021; data used were from the 2018-2019 academic year.
- III. Date Prepared:**
a. December 5, 2019
- IV. Total of all the FTE teaching positions within the state from 2018-2019 academic year: 70,233**
a. The number of unqualified FTE by content area throughout the state that represents 5.0% of the total FTE is 3,512.
- 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. Mild/Moderate Cross Categorical K-12 | 16. Social Science 5-9 |
| 2. Elementary Education 1-6 | 17. Social Science 9-12 |
| 3. Early Childhood Special Education B-3 | 18. English Language Learners K-12 |
| 4. Early Childhood Education B-3 | 19. Special Reading K-12 |
| 5. Physics 9-12 | 20. Music Instrumental K-12 |
| 6. Biology 9-12 | 21. Business Education 9-12 |
| 7. General Science 5-9 | 22. Spanish K-12 |
| 8. Mathematics 5-9 | 23. Health K-12 |
| 9. Language Arts 5-9 | 24. Gifted Education K-12 |
| 10. Earth Science 9-12 | 25. Business Education 5-9 |
| 11. Chemistry 9-12 | 26. Speech and Theatre 9-12 |
| 12. Family and Consumer Science K-12 | 27. Speech and Theatre 5-9 |
| 13. Mathematics 9-12 | 28. Technology and Engineering 9-12 |
| 14. English 9-12 | 29. Technology and Engineering 5-9 |
| 15. Physical Education K-12 | 30. Marketing 9-12 |
| | 31. Agricultural Education 5-9 |

VI. Shortage areas are listed by content for the state in order from most severe to least, as determined by MOSIS data and represents 5.0% of the total FTE in the state:

Subject Area	FTE Unqualified	Shortage Indicator by Total FTE
MILD/MODERATE CROSS CATEGORICAL K-12	669.80	0.95
ELEMENTARY EDUCATION 1-6	369.00	0.53
EARLY CHILDHOOD SPECIAL EDUCATION B-3	260.50	0.37
EARLY CHILDHOOD EDUCATION B-3	237.59	0.34
PHYSICS 9-12	217.19	0.31
BIOLOGY 9-12	155.59	0.22
GENERAL SCIENCE 5-9	129.50	0.18
MATHEMATICS 5-9	127.86	0.18
LANGUAGE ARTS 5-9	112.27	0.16
EARTH SCIENCE 9-12	110.74	0.16
CHEMISTRY 9-12	107.03	0.15
FAMILY AND CONSUMER SCIENCE K-12	97.01	0.14
MATHEMATICS 9-12	88.83	0.13
ENGLISH 9-12	87.60	0.12
PHYSICAL EDUCATION K-12	85.87	0.12
SOCIAL SCIENCE 5-9	85.81	0.12
SOCIAL SCIENCE 9-12	70.31	0.10
ENGLISH LANGUAGE LEARNERS K-12	63.69	0.09
SPECIAL READING K-12	62.53	0.09
MUSIC – INSTRUMENTAL K-12	59.41	0.08
BUSINESS EDUCATION 9-12	53.71	0.08
SPANISH K-12	49.46	0.07
HEALTH K-12	45.53	0.06
GIFTED EDUCATION K-12	42.00	0.06
BUSINESS EDUCATION 5-9	30.50	0.04
SPEECH AND THEATRE 9-12	29.45	0.04
SPEECH AND THEATRE 5-9	16.87	0.02
TECHNOLOGY AND ENGINEERING 9-12	14.41	0.02
TECHNOLOGY AND ENGINEERING 5-9	11.60	0.02
MARKETING 9-12	10.97	0.02
AGRICULTURAL EDUCATION 5-9	9.87	0.01
Above content areas represent 5.0% of total FTE		