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
2. Elementary Education 1-6
3. Early Childhood Special Education B-3
4. Early Childhood Education B-3
5. Physics 9-12
6. Biology 9-12
7. General Science 5-9
8. Mathematics 5-9
9. Language Arts 5-9
10. Earth Science 9-12
11. Chemistry 9-12
12. Family and Consumer Science K-12
13. Mathematics 9-12
14. English 9-12
15. Physical Education K-12
16. Social Science 5-9
17. Social Science 9-12
18. English Language Learners K-12
19. Special Reading K-12
20. Music Instrumental K-12
21. Business Education 9-12
22. Spanish K-12
23. Health K-12
24. Gifted Education K-12
25. Business Education 5-9
26. Speech and Theatre 9-12
27. Speech and Theatre 5-9
28. Technology and Engineering 9-12
29. Technology and Engineering 5-9
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:

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>FTE Unqualified</th>
<th>Shortage Indicator by Total FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILD/MODERATE CROSS CATEGORICAL K-12</td>
<td>669.80</td>
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<tr>
<td>ELEMENTARY EDUCATION 1-6</td>
<td>369.00</td>
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<tr>
<td>EARLY CHILDHOOD SPECIAL EDUCATION B-3</td>
<td>260.50</td>
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<tr>
<td>EARLY CHILDHOOD EDUCATION B-3</td>
<td>237.59</td>
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<tr>
<td>PHYSICS 9-12</td>
<td>217.19</td>
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<tr>
<td>BIOLOGY 9-12</td>
<td>155.59</td>
<td>0.22</td>
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<tr>
<td>GENERAL SCIENCE 5-9</td>
<td>129.50</td>
<td>0.18</td>
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<tr>
<td>MATHEMATICS 5-9</td>
<td>127.86</td>
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<td>LANGUAGE ARTS 5-9</td>
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<td>EARTH SCIENCE 9-12</td>
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<td>CHEMISTRY 9-12</td>
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<td>SOCIAL SCIENCE 5-9</td>
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<td>SOCIAL SCIENCE 9-12</td>
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<td>ENGLISH LANGUAGE LEARNERS K-12</td>
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<td>SPECIAL READING K-12</td>
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<td>MUSIC – INSTRUMENTAL K-12</td>
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<td>MARKETING 9-12</td>
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<tr>
<td>AGRICULTURAL EDUCATION 5-9</td>
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Above content areas represent 5.0% of total FTE