Databurst
Teacher Shortages and Surpluses
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When it comes to guaranteeing that every classroom is led by an excellent teacher, states are critically important. States are uniquely-positioned to ensure that teacher preparation programs meet local hiring needs by preparing an adequate number of teachers in every certification area, rather than overproducing teachers in only a select few grades and subjects.

States must first create cohesive data systems that explicitly connect supply data from each preparation program with district-level hiring needs. Currently, 29 states maintain data systems that collect teacher supply data from preparation programs; however, only eight states address shortages and surpluses by connecting these supply data to district-level hiring statistics.

Despite the important work of some states to ensure access to cohesive supply and demand data, too little is being done to use these data to pursue policy solutions to teacher supply and demand challenges. Although some states have taken an important step by creating predictive models that inform potential areas of shortage or overproduction, it is incumbent upon states to develop explicit policies that hold teacher preparation programs accountable for meeting local hiring needs.

Recognizing that significant work to address both short- and long-term hiring needs remains across all states, this resource provides 1) an overview of promising practices currently being implemented, 2) a snapshot of the different supply and demand data collected in each state, and 3) the noteworthy state policies by region across the country.

> "[Kentucky's] report will assist district superintendents in making projections of their future classroom teachers' needs and recruit the best candidates for those positions. It will also inform our educator preparation providers to recognize the needs of their respective regions and where to focus efforts in preparing teacher candidates."
>
> -Jimmy Adams,
> *Kentucky Education Professional Standards Board (EPSB) Executive Director*

4 Promising State Practices

Maryland collects a rich set of hiring data as well as data on graduates of its approved teacher preparation programs, including the percentage of the states' new hires that come from these programs. These data determine teacher shortage areas by both geographic region and subject area, as well as past areas of surplus. By connecting shortage and surplus data with teacher program data, the state can predict areas where there may be future hiring difficulties. Maryland also collects demographic data for program completers and new hires, teacher attrition data, the number of retired/rehired teachers and principals, and incentives and strategies for recruiting and retaining quality teachers and principals.

For more information, see: Maryland Teacher Staffing Report

Massachusetts is currently the only state to articulate a policy that requires teacher preparation program providers to demonstrate a state-specific need to continue program operation or to begin implementing a new program. As such, institutions must demonstrate that the proposed program is needed to meet the employment demands of the Massachusetts workforce and, to meet the needs of districts, are advised to increase enrollment and completion in programs identified as low-completion.

For more information, see Massachusetts Needs Assessment Overview

Kentucky reports supply and demand data, including statistics for each district, disaggregated by individual subject area. Kentucky makes the following data publicly available: total teacher supply, teacher supply due to migration, teacher supply due to being new, and teacher supply due to re-entry into the profession. The following demand data points are presented: total teacher demand, teacher demand due to attrition, teacher demand due to migration, and teacher demand due to retirement.

For more information, see: Kentucky Center for Education and Workforce Statistics (KCEWS)

Tennessee annually publishes the number of program completers per teacher training program, licensure production information, and the percentage of teachers who receive high-demand endorsements. The state also provides information about the number of completers placed by district, first- and third-year placement rates, beyond-year-one retention rates, and effectiveness of completers who are employed in Tennessee public schools. In addition, Tennessee produces district reports that include information on the educator preparation providers (EPP) that supply a district's novice teachers, as well as EPP annual reports that provide information about the number of completers placed in each district. Tennessee also requires that its EPPs develop data-based recruitment plans in collaboration with district and/or school partners.

For more information, see Tennessee's Teacher Preparation Report Card and Provider Reports

STATE	GOAL SCORE	DOES THE STATE PUBLICLY REPORT TEACHER PRODUCTION DATA RELEVANT TO SCHOOL DISTRICT HIRING NEEDS?		DOES THE STATE PROVIDE CLEAR GUIDELINES ON PROGRAM ACCEPTANCE NUMBERS BY CERTIFICATION AREA?	
AL	○	No	Not reported	No	No guidelines provided
AK	○	No	Not reported	No	No guidelines provided
AZ	○	No	Not reported	No	No guidelines provided
AR	◐	Partially	Publishes Educator Preparation Provider Reports, which outline number of program completers, teachers prepared by subject area, and those employed in public schools. No connection is made to district-level hiring statistics.	No	Collects program-specific teacher production data but does not provide acceptance guidelines.
CA	◐	Partially	Publishes an annual report that includes some information on teacher production. No connection is made to district-level hiring statistics.	No	Collects program-specific teacher production data but does not provide acceptance guidelines.
CO	◐	Partially	Publishes an annual report that includes some information on teacher production, including shortages in rural areas.	No	Collects program-specific teacher production data but does not provide acceptance guidelines.
CT	◐	Partially	Publishes annual reports that include hiring statistics by endorsement and present figures for available positions that year, October 1 vacancies, and median applicants; no information on enrolled or completed candidates at preparation programs.	No	Collects program-specific teacher production data but does not provide acceptance guidelines.
DE	◐	Partially	Publishes an annual report that includes some information on teacher production. No connection is made to district-level hiring statistics.	No	Collects basic program-specific teacher production data but does not provide acceptance guidelines.
DC	◐	Partially	Published a 2014 report that included some information on teacher production. No connection is made to district-level hiring statistics.	No	Collects some program-specific teacher production data but does not provide acceptance guidelines.
FL	◐	Partially	Publishes Critical Shortage Area Reports, which outline critical teacher shortage rankings. Data is not broken down by program, but is used by districts for planning purposes.	No	Collects aggregated program-specific teacher production data but does not provide acceptance guidelines.
GA	○	No	Not reported	No	No guidelines provided
HI	◐	Partially	Publishes an Annual Employment Report, which includes data on the total number of new teacher hires for a particular year, and placement of newly employed teachers by subject and district. No indication information is tied to district-level hiring statistics.	No	Collects basic program-specific teacher production data but does not provide acceptance guidelines.
ID	○	No	Not reported	No	No guidelines provided
IL	◕	Yes	Publishes an annual report that includes the number of program completers and new certificates issued, broken down by type of certification, along with demand factors that include enrollment projections and workforce growth.	No	Collects program-specific teacher production data, and determines areas of over- and under-production, but does not provide acceptance guidelines.
IN	○	No	Not reported	No	No guidelines provided
IA	◐	Partially	Publishes an annual Report on the State of Educator Preparation, which includes the number of program completers and the number of endorsements earned for each subject area. No connection is made to district-level hiring statistics.	No	Collects some program-specific teacher production data but does not provide acceptance guidelines.
KS	◐	Partially	Publishes an annual Licensed Personnel Report, which includes state retention rates, the number of licensed teachers per subject area, and the type and totals of licenses issued by teacher education and licensure. No connection is made to district-level hiring statistics.	No	Collects program-specific teacher production data but does not provide acceptance guidelines.
KY	◕	Yes	Provides local supply and demand data broken down by certification area, as well as data on program completers by certification area, on its Center for Education and Workforce Statistics (KCEWS) website.	No	Collects program-specific teacher production data but does not provide acceptance guidelines.
LA	◐	Partially	Publishes Regional Educator Workforce Reports, which provide recruiting and hiring data that include the number of newly hired teachers per geographic area and the most frequent certification areas for the highest-sending preparation programs. No connection is made to district-level hiring statistics.	No	Collects some program-specific teacher production data but does not provide acceptance guidelines.
ME	○	No	Not reported	No	No guidelines provided
MD	◕	Yes	Publishes an annual Teacher Staffing Report, which provides supply and demand data, including the percentage of new hires from each program, and identifies current and future areas of shortage and surplus.	No	Collects data on the number of program completers but does not provide acceptance guidelines.
MA	◕	Partially	Publishes some data that include information on teacher production that connect program completion, certification, and hiring statistics.	Yes	Providers must demonstrate state-specific need for continued program operation or implement a new one.
MI	◐	Partially	Published "Trends in Michigan Teacher Certification: Initial Certificates Issued 1996-2016," which reports on the issuance of initial teaching certificates. No connection is made to district-level hiring statistics.	No	Collects program-specific teacher production data but does not provide acceptance guidelines.
MN	◐	Partially	Publishes a biannual Teacher Supply and Demand report, which provides state-level hiring and retention statistics by subject-area and identifies future areas of expected hiring difficulty. No connection is made to teacher preparation programs or district-level hiring statistics.	No	No guidelines provided

State		Reported	Details	Guidelines	Guidelines Details
MS	◯	No	Not reported	No	No guidelines provided
MO	◑	Partially	Publishes Annual Performance Reports for Educator Preparation Programs, which outline the number of program completers, the number of teachers prepared by endorsement area, and the number who received certification. Also publishes an annual Recruitment and Retention Report, which reviews the number of current and newly-hired teachers. No connection is made between these indicators.	No	Collects program-specific teacher production data but does not provide acceptance guidelines.
MT	◯	No	Not reported	No	No guidelines provided
NE	◯	No	Not reported	No	No guidelines provided
NV	◯	No	Not reported	No	No guidelines provided
NH	◯	No	Not reported	No	No guidelines provided
NJ	◑	Partially	Publishes Educator Preparation Provider Annual Reports, which present information on employed completers, including the number employed in shortage areas. No connection is made to district-level hiring statistics.	No	Collects basic program-specific teacher production data but does not provide acceptance guidelines.
NM	◯	No	Not reported	No	No guidelines provided
NY	◔	Yes	Publishes an annual Teacher Supply and Demand report, which includes data on the total number of new teacher hires for a particular year; the number of new teacher hires broken down by both region and endorsement; and number of initial certificates issued.	No	Collects teacher production data but not at the program level; does not provide acceptance guidelines.
NC	◔	Yes	Legislation requires a "State of the Teaching Profession Report," which will include supply and demand data for teachers throughout the state.	No	Collects basic program-specific teacher production data but does not provide acceptance guidelines.
ND	◯	No	Not reported	No	No guidelines provided
OH	◔	Yes	Published "Teacher Supply and Demand in Ohio: 2013 Report," which included sections on current and historic information on teachers, teacher vacancies, and projections of number of teachers.	No	Collects teacher production data by endorsement but does not provide acceptance guidelines.
OK	◯	No	Not reported	No	No guidelines provided
OR	◔	Partially	Publishes a Teacher Shortage Report, which compares the number of licenses issued with the number of new hires and identifies endorsement areas and geographic regions where critical shortages exist. No data on completers for individual programs.	No	No guidelines provided
PA	◯	No	Not reported	No	No guidelines provided
RI	◑	Partially	Publishes an Educator Preparation Index, which includes data on completers for programs by endorsement, and employment details broken down at the district level. No connection is made to district-level hiring statistics.	No	Collects basic program-specific teacher production data but does not provide acceptance guidelines.
SC	◑	Partially	Published a Supply and Demand Report in fall 2016, which identified subject areas and geographic regions where there were shortages, and the number of new hires that were graduates of state programs. No connection is made to district-level hiring statistics	No	Collects some data on teacher production but does not provide program acceptance guidelines.
SD	◯	No	Not reported	No	No guidelines provided
TN	◔	Yes	Publishes an annual Report Card on the Effectiveness of Teacher Training Programs, which includes the number of program completers per teaching training program and licensure status.	No	Collects basic program-specific teacher production data, and identifies how many completers have high-demand endorsements, but does not provide acceptance guidelines.
TX	◯	No	Not reported	No	No guidelines provided
UT	◔	Partially	Publishes an annual report that includes some information on teacher production, but no connection is made to district-level hiring statistics.	No	Collects program-specific teacher production data but does not provide acceptance guidelines.
VT	◯	No	Not reported	No	No guidelines provided
VA	◯	No	Not reported	No	No guidelines provided
WA	◑	Partially	The Professional Educator Standards Board (PESB) data resources site provides the number of working versus not working program completers, broken down by endorsement and institution.	No	Collects basic program-specific teacher production data but does not provide acceptance guidelines.
WV	◔	Yes	Publishes an annual Personnel Data Report, which provides information regarding supply and employment, broken down by both specialization and by district.	No	Collects basic program-specific teacher production data but does not provide acceptance guidelines.
WI	◔	Partially	Publishes Educator Preparation Annual Reports, which outline the number of license endorsements by subject area and positions for all preparation programs in the state. No connection is made to district-level hiring statistics.	No	Collects some program-specific teacher production data but does not provide acceptance guidelines.
WY	◯	No	Not reported	No	No guidelines provided

Noteworthy Practices By Region

Pacific

States in the Pacific region—**Alaska**, **Hawaii**, and **Oregon**—should look to **California** and **Washington**, which both make public data on teacher supply and demand. California's Teacher Supply in California Report provides teacher credentialing data, as well as a forecast of future supply broken down by geographic region and subject area. Washington's Professional Educator Standards Board (PESB) website publishes the number of preparation program completers by endorsement area and institution, as well as basic information on state teacher shortage areas.

Mountain

At present, no states in the Mountain region are taking meaningful steps to connect supply data from teacher preparation programs with data on local hiring needs, nor has any state in this region established parameters that govern the number of teachers trained in each major certification area. Given the lack of strong policies in this region, states from the Mountain region—**Arizona**, **Colorado**, **Idaho**, **Montana**, **Nevada**, **New Mexico**, **Utah**, and **Wyoming**—should look to states in the neighboring Midwest and Pacific regions for promising policies and practices.

South

States in the Southern region—**Alabama**, **Arkansas**, **Louisiana**, **Mississippi**, **Oklahoma**, and **Texas**—should look to **Kentucky** and **Tennessee**, which both publish data that can inform supply and demand policies. Kentucky's Center for Education and Workforce Statistics (KCEWS) website publishes supply and demand data, as well as the number of program completers by certification area and those that are employed in each school district across the state. Tennessee's Teacher Preparation Report Card includes program-specific information on completers, including district placements, and numbers of high-demand endorsements and retention. The state's Human Capital reports include district-level data on new hires.

South-Atlantic

States in the South-Atlantic region—**Delaware**, **Florida**, **Georgia**, **South Carolina**, **Virginia**, and **West Virginia**—as well as the **District of Columbia**, should look to **Maryland** and **North Carolina**. The rich dataset in Maryland's Teacher Staffing Report includes district hiring data and data on each program's graduates, and it allows the state to determine areas of shortage and surplus as well as to predict areas of future difficulty. North Carolina has adopted Senate Bill 599 requiring a "State of the Teaching Profession Report," which will provide supply and demand data, including the number of vacancies by subject area and school at both the state and district levels.

Midwest

States in the Midwestern region—**Indiana**, **Iowa**, **Kansas**, **Michigan**, **Minnesota**, **Missouri**, **Nebraska**, **North Dakota**, **Ohio**, **South Dakota**, and **Wisconsin**—should look to **Illinois**, which publishes a triennial Educator Supply and Demand report. This report contains information on the number of program completers, including field, content area and level, as well as information on past hiring trends, to determine areas of greatest need, regional shortage areas, and areas for which institutions may be under- or over producing educators.

Mid-Atlantic

States in the Mid-Atlantic region—**New Jersey** and **Pennsylvania**—should look to **New York**, which publishes the Teacher Supply and Demand Report. This report provides data on the total number of initial certificates and new hires, broken down by region and endorsement, and also identifies areas of shortage in the state. The report presents a practical display of data that has the potential to inform valuable policy solutions.

New England

States in the New England region—**Connecticut**, **Maine**, **New Hampshire**, **Rhode Island**, and **Vermont**—should look to **Massachusetts**, which has adopted a policy requiring all educator preparation program providers to demonstrate that they are meeting a state-specific need, including the employment demands of the state and surrounding districts.

Recommendations

Along with these noteworthy practices found among regions, all states should work to adopt a more coherent set of policies that permit district-level hiring needs to be met by teacher preparation program providers. To do so, states must:

1. Collect teacher labor market data at the local level;
2. Collect data on teacher preparation program graduates, including completion rates and certification area, as well as data on hiring and retention;
3. Explicitly connect program supply data to district-level demand data to identify areas of shortage and surplus;
4. Use existing data to predict potential areas of over- and under-production in future years; and
5. Require preparation programs to set parameters around the number of candidates that can be prepared in each certification area based on existing and predicted need.

Each state should also consider opportunities to expand its pool of teachers in high-need, hard-to-staff schools and subjects. By implementing policies that attract a broader range of candidates to the profession, states can begin to address discrete, persistent shortages. To facilitate this work, states should review their compensation structures to ensure that they provide districts with an opportunity to adequately account for relevant, prior work experience. States should also consider opportunities to facilitate their districts' use of part-time teachers with expertise in high-need, hard-to-staff subjects, such as the secondary sciences.