

ABSTRACT

A Study on Establishing a Mid- to Long-term Teacher Supply and Demand Forecast System

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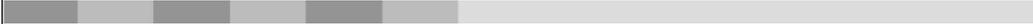
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The objective of this research is to lay out a proposal to establish a predictive framework for the stable, mid- to long-term management of teacher supply and demand. Towards this end, prior literature covering the key characteristics and limitations of educators was analysed. Additionally, the future state of supply and demand of teachers in Korea and their key issues were analysed while simultaneously carrying out document research, interviews with specialists, conferences and workshops.

As a result of the analysis of the current state of Korean education, problems implementing new strategic direction to education, systemic and legal issues, issues associated with the limited number of educators, problems dispatching teachers and professors within municipal and provincial education bureaus as well as the impact of multiple changes to an already varied education platform were found to be major issues that are posing difficulties to the long-term forecast of teacher supply and demand.

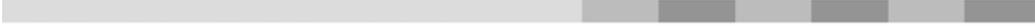
On one hand, analysis of international case studies regarding the operation of



teacher supply and demand forecast systems have uncovered suggestions that may be applied to Korea's current situation. For example, in the case of the United States of America, teacher supply and demand forecasting is not just handled by the federal government, but is carried out by individual states as well. In Minnesota as well as Ohio, it is either legally mandated or regulated by the state education committee that forecast reports regarding teacher supply and demand be written and published regularly. Considering the trend of strengthening self-governance of regional education (i.e. those areas outside of Seoul) within Korea, it should be possible to entrust KEDI or university research centers with the forecasting or estimation of teacher supply and demand across detailed courses of study on a regional level in Korea. On the other side, the case of Japan and its need to establish a refined teacher supply and demand prediction system that considers a diverse set of factors impacted by numerous policy changes holds many similarities with Korea.

Based on the detailed research explained above, the proposed teacher supply and demand forecast system elaborated herein signifies 'the full course required in the prediction of a mid to long-term supply and demand of teachers on a national level to ensure the timely and efficient control over the supply of teachers'. Broadly speaking, this system will be composed of a 'Support System' and a 'Modeling and Operation' function.

The first stage 'Support System' will contain the following five elements. A national policy on education that will first need to be implemented. Second, all education provision related items need to be legally regulated and forecast on a fixed period-basis and all published estimates will need to be distributed. Next, an institute or organization responsible for the mid to long-term teacher supply and demand estimates must be installed. Fourth, a teacher supply and demand forecasting organization will need to gather on an annual or bi-annual basis to frame-up 5 to 10 year forecast values and provide such information to the



relevant central and regional agencies. The fifth factor concerns the agreement that must exist between groups such as the Ministry of Education, municipal and provincial education bureaus, the schools themselves, NECTE, MOSPA, and MOSF regarding ways to facilitate mutually cooperative roles. Additionally, the preparation of a continuous and stable support system (e.g. the establishment of an education provision forecasting branch within a national policy research institution such as KEDI) is an equally urgent matter.

The second stage of a 'Production Model & Operating System' refers to the production model for the delivery of teacher supply and demand forecasts as well as the detailed software system that will handle the processing of those models. Depending on models used to calculate teacher supply and demand, a series of measures will need to be prepared such as the selection of the most appropriate program to match the calculation method, and the securing of documents and connections with other organizations such as the census bureau or other educational institutions depending on the type of statistical data utilized in calculating the forecasts.

On the basis of the conclusions posited in the above research, the following policies may be proposed.

First, a unified direction of education policy must be set while an agreed upon approach to policy is also needed. Additionally, the establishment and operation of a control tower overseeing the various departments in-charge of teacher related works is needed.

Second, a reorganization is needed, not just of teachers and professors, but of school management and specialists, to foster a system wherein human resources are cultivated so as to put them on a course where every role may increasingly develop deeper and deeper connectivity with one another.

Third, stipulation is needed in order to regulate the mid- and long-term supply of teachers and any related items as well as the implementation of supply



and demand forecasts over a fixed period and production of documented results. Forecast autonomy, forecast details, forecast indicator collection periods, forecast periods, the operation of designated specialist institutions and document sharing are all items that must be included within legislation.

Fourth, the appointment of an institution to ensure the professional execution of teacher supply and demand forecasts is paramount. Specialist branches must carry out roles responsible for the establishment of a support system which would entail the creation of production models and operating systems, legal instruments, a budget, staff and connections with related entities, as well as the securing of specialist personnel, recruitment, model development and operation, standardization of data management related to the supply and demand of teachers, and the production and distribution of teacher supply and demand forecast documents.

Fifth, not only do roles need to be added to national standards, as well as municipal and provincial education bureaus and individual school standards in order to facilitate predictions regarding teacher supply and demand, the roles of related institutions need to be inter-connected as well.