Research on Optimization of Statistical Talent Development

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Abstract:

The talent introduction, personnel training, talent development plays a key role in statistical work, it is of strategic importance to improve the overall level of statistical personnel and give full play to the statistical staff's enthusiasm and creativity so as to promote the long-term development of statistics. However, problems such as backward personnel mechanism, low level of talent training and the dire shortage of high-end talents or professionals obviously restrict the development of statistical talents. So the overall research of the statistical talent development is very necessary and meaningful.

This paper takes the current situation of statistical talents as the starting point and aims to foster statistical talents that can adapt to new opportunities and challenges confronting official statistical work in the next decade. The paper finds out the existing problems in the development of statistical talents, summarizes the ongoing beneficial attempts and achievements, and proposes suggestions to improve the development of statistical talents. Combining theoretical research and empirical analysis, the paper aims to contribute to the cultivation of statistical talents.

This paper mainly includes four parts:

The first part briefly introduces the current situation of human resources development in China's official statistics, including the basic situation of official statistical agencies and personnel; points out outstanding problems for the talent development mainly from four aspects, namely the structure of talent team, career development channels, the construction of talent training system, and the development of high-end urgently needed talent team.

The second part discusses some measures and methods to solve the four problems raised above, including adjust the personnel policies in time through analysis and judgement; broaden career channels,stimulate talent vitality; enhance the planning and systematization of talent fostering; accelerate high-end and urgently needed talent development.

The third part sorts out the results of the above measures and methods, and summarizes and proposes an optimized model of talent development path.

The fourth part provides conclusion and recommendations from the perspectives of the improvement of talent development mechanism, innovation of talent training mode and strengthening of talent incentives.

Keywords: Talent fostering; Talent flow; Talent incentive; Talent development mechanism.

1. Introduction:

The statistical agency of the Chinese government is composed of the National Bureau of Statistics (NBS) and the general statistical departments of the local government. This research of the talent development focuses on NBS and its direct units, which consists of administrative departments, non-administrative

departments and survey offices in all provinces[1]. The study involved more than 18,000 employees, among them, there are more than 1000 employees in the administrative and non-administrative departments[2], and more than 17000 employees in the survey offices.

As the highest government statistical agency, NBS is responsible for organizing, leading and coordinating national statistical work to ensure the statistical data are authentic, accurate, and timely. The work involves statistical surveys in various fields such as national economic accounting, national censuses, industrial statistics, agricultural statistics, culture and technology statistics, etc. The requirements for the statistical talent team must be both professional and sensitive, be able to keep up with the development of new knowledge and skills as well as comprehensive management capabilities.

In the future, the public will have higher requirements for the data quality of accuracy, timeliness, processing and interpretation, and the authority and credibility of government statistics will face greater challenge. In the new era, the development of statistics needs insightful and forward-looking composite management talents, innovative technical experts who adapt to the development of cutting-edge science and technology, and analytical-research talents who have the ability of excavation and interpretation. However, for the talent development, there is a mismatch between the present condition and the future needs, which is mainly reflected in four points: First, problems of age structure imbalance and talent loss; second, narrow career channels and lack of pertinence; third, the incomplete training system, with insufficient training plan and backward model; and fourth, shortage of high-end and urgently needed professional talents. This paper will mainly focus on solving these problems, in order to find appropriate countermeasures and suggestions to create an efficient statistical talent team for the needs of the new era .
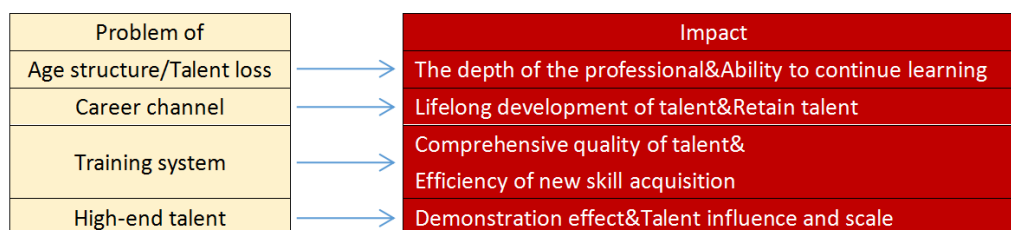
Problem of	Impact
Age structure/Talent loss	The depth of the professional&Ability to continue learning
Career channel	Lifelong development of talent&Retain talent
Training system	Comprehensive quality of talent& Efficiency of new skill acquisition
High-end talent	Demonstration effect&Talent influence and scale

Figure 1. The Problems and Impacts on Talent Development

2. Methodology:

In view of the problems above, we plan to try from four aspects:

2.1. Adjust the personnel policies in time through analysis and judgement.

2.1.1.Using information resources such as personnel annual report, monthly report, personnel information system, etc., regularly summarize and conduct comprehensive analysis on the current

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[1] The survey offices are directly managed under the NBS, and mainly includes Provincial, municipal and county levels.

[2] These two parts constitute the leading organ of NBS.

situation of the team, use talent statistical analysis method[3] to find out the shortcomings of team construction, and timely put forward countermeasures and optimization measures.

2.1.2.In terms of talent team structure, there are problems of aging leadership and shortage of middle-aged (40-50 years old). The "aging leadership" is impacted by selection and promotion conditions and the psychology of "seniority", while the shortage of middle-aged is caused by the historical reasons of national population policy and civil servant recruitment policy. Then, we puts forward remedial measures, such as increase the proportion of middle-aged and young people in the leadership, accelerating the growth of the youth into the backbone, exploring the introduction of middle-aged talents from other units, etc. At the same time, properly adjusting policies and personnel allocation plans to optimize the structure of the talent team.

2.1.3.The career development prospect or salary can not meet the expectation, leading to some young employees choosing to leave. The ordinary countermeasures are mainly to improve the job attraction, broaden the career development platform and improve the salary. But The salary of civil servants can not be easily changed, so the key goal of us is the other two aspects. In prospect of them to play a more powerful role in attracting and retaining talents, we tend to use important post practice, spiritual rewards and other methods to motivate talents, follow the guidance of UNSD "Another way to improve retention is to provide positions of increased responsibility to young and talented people as soon as they have demonstrated their capability"[i].

2.2.Broaden career development channels, stimulate talent vitality.

At the NBS, the professional staff account for about 80%, to a certain extent, the strong specialization of the statistics results in the limitation of personnel flow, the movement is more limited to the internal. The career development mainly depends on the promotion of positions, but the pyramid structure of positions limits many capable talents' development, especially in the grass-roots units, there is only a very small space for employees to rise. From the perspective of long-term career planning, that is not conducive to maintaining the continuous vitality of employees.

2.2.1 In view of these situations, we can improve the internal flow mechanism of the system, increase the flow of talents across departments, regions and different levels, and pay attention to the bottom up selection of outstanding talents from the grass-roots units. Establish internal rotation rules, specify certain leadership positions and key positions[4] must be exchanged within a certain period of time.

2.2.2 At the same time, we should make full use of the existing policy dividend, for example, make good use of the "Parallel System of Post and Rank"[5], which expands the number and layers of non-leading position and establish a "dual channel" career development path to increase promotion opportunities, making the professional employees have larger space to rise.

2.2.3 In addition, we should strengthen the flexible talent introduction and not through employment, pay attention to attracting external excellent talents for our use, and also recommending internal

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[3] Analysis mainly focus on the basic situation of the team(total number of personnel, gender ratio, age structure, regional distribution, level distribution, increase and decrease of personnel, etc.), education background and work experience, in-depth statistical analysis of personnel at different levels or sub units, the trend of key talents, etc.

[4] For example, the positions of human resources department, financial department and supervision department.

[5] The policy is issued by the Chinese government in March 2019. It distinguishes the non-leading position from the leading position, clarifies the promotion channels and conditions of the non-leading position.

excellent talents to the outside, give play to the role of publicity and driving, form a good talent flow atmosphere.

2.3.Enhance the planning and systematization of talent fostering.

2.3.1 Establish a classified and hierarchical training plan and optimize training methods. Set up different training for different stage of talent development, timely improve their ability to perform their duties, including induction training, position holding training[6], advanced training, professional training, international training, etc. For example, In the induction training, we let the new recruit understand the history and culture and basic common sense of government statistics, office work, personnel, finance, discipline and other routine work norms to help them adapt to the new environment as soon as possible and cultivate professional loyalty; the position holding training is to help the cadres who will be promoted to obtain the management thinking and ability matching their new positions, and further strengthen their leadership; advanced training is to help employees gain improvement of knowledge and skills in a certain professional field.

2.3.2. Strengthen the development of young talents. Youth is the hope of the future, and it is very important to train them up from the aspects of ideology, ability, attitude and creativity, to improve their growth speed. We should dare to give them important tasks, and let them get experience in practice. At present, we have established a pool of excellent young talents to focus on the cultivation of excellent and potential young talents in various units, pay attention to their development trend, and arrange the mature ones to proper positions as soon as possible.

2.3.3. Foster talents in multiple ways and care about personal growth. Besides training, we have some other methods to foster talents, such as take on important/difficult work, assume a temporary post, to the grass-roots, international short-term work,etc. In these ways, the talents can broaden horizon and improve ability more directly.

2.4.Accelerate the exploration and cultivation of high-end and urgently needed talents.

As the highest leading department of government statistics, we need to gather the top talents who have international vision, leading thinking, excellent ability, and be able to guide the new direction of statistical work in one field. Now we face two problems: First, the number of high-end talents can't keep up with the demand of future development; second, the way to explore and foster high-end talents is not enough.

2.4.1. Improve the evaluation system of high-end talents. Talent evaluation is an effective tool for talent selection, we should strengthen the ability to select and identify those who with potential to become high-end talents, actively absorb high-end talents in short supply, using professional title system, talent project and other means to find and pool talents, making outstanding talents can stand out.

2.4.2. We should build a higher and broader platform for high-end talents to give full play to their role, enable them to participate in decision-making and command professional work; help them to continue their studies, making them become more outstanding, and expand their influence of the industry.

2.4.3. The cultivation of high-end talents is mainly based on internal potential tapping, and the urgently needed talents can be filled through rapid cultivation and external wisdom introduction.We have a good

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[6] Necessary training for promotion of leading positions.

demonstration which called "chief statistician", a senior talent project. It is to gather high-quality experts from all disciplines together within the scope of the NBS, train them at a higher level, organize and introduce them to discuss the policies or key works then offer constructive suggestions for statistical work, recommend them to be guest teachers in statistical colleges, furthermore, having this title will be given priority for promotion.

3. Result:

Through the above-mentioned measures, the construction of the government statistical talent team of NBS has made notable progress, which reflected in the further improvement of the system, the gradual optimization of the talent team structure, the accelerated growth of young talents, the gradual expansion of two-way flow of talents, the improvement of the talent training system, and the continuous emergence of the high-end talents.

3.1. The main results.

3.1.1. We have provided three analysis reports on the team building situation, timely identify problems and propose countermeasures, and now we can see, the problem of age structure fault is being made up gradually, the talent loss rate dropped from 0.9% in 2016 to 0.6 % in 2019.

3.1.2. Non-leading positions are estimated to increase by more than 200%, and the classification of management and professional talents has become more accurate; we have established a contact external expert database, gather them to conduct international exchange, give professional instruction, etc. In the past years, we have established research institutes of big data and micro data in cooperation with well-know domestic colleges and universities, select internal experts for theoretical and technical exchanges.

3.1.3. We establish five-year(2018-2022)training plan, carry out systematic training for all staff in different levels and classifications, the goal is to allow everyone to get the training that suits them within five years; we have established an excellent young cadre database of 240 youth, establishing a hierarchical management, tracking and training mechanism.

3.1.4. "Chief statistician" project has cultivated more than 60 high-end talents; all regions are establishing local talent projects by reference; more and more talents were selected by national or provincial high-end talent projects(about 90 in total). Through the professional title system reform, set up higher-level titles, carry out classified evaluation on high-end talents, and speed up the excavation of high-level talents.

3.2. The optimized talent development path.

Through a series of efforts, we try to build an optimized talent development path, organically combine the improved modules of talent selection, use, training and motivation, and find a more clear path of talent growth, in order to improve the efficiency of statistical talent development in the future. See Figure 2 below for details.

In reality, because the dual-channel classified management has just been implemented and there are many compound talents, the identities of managers and experts can be transferred to each other or concurrently.
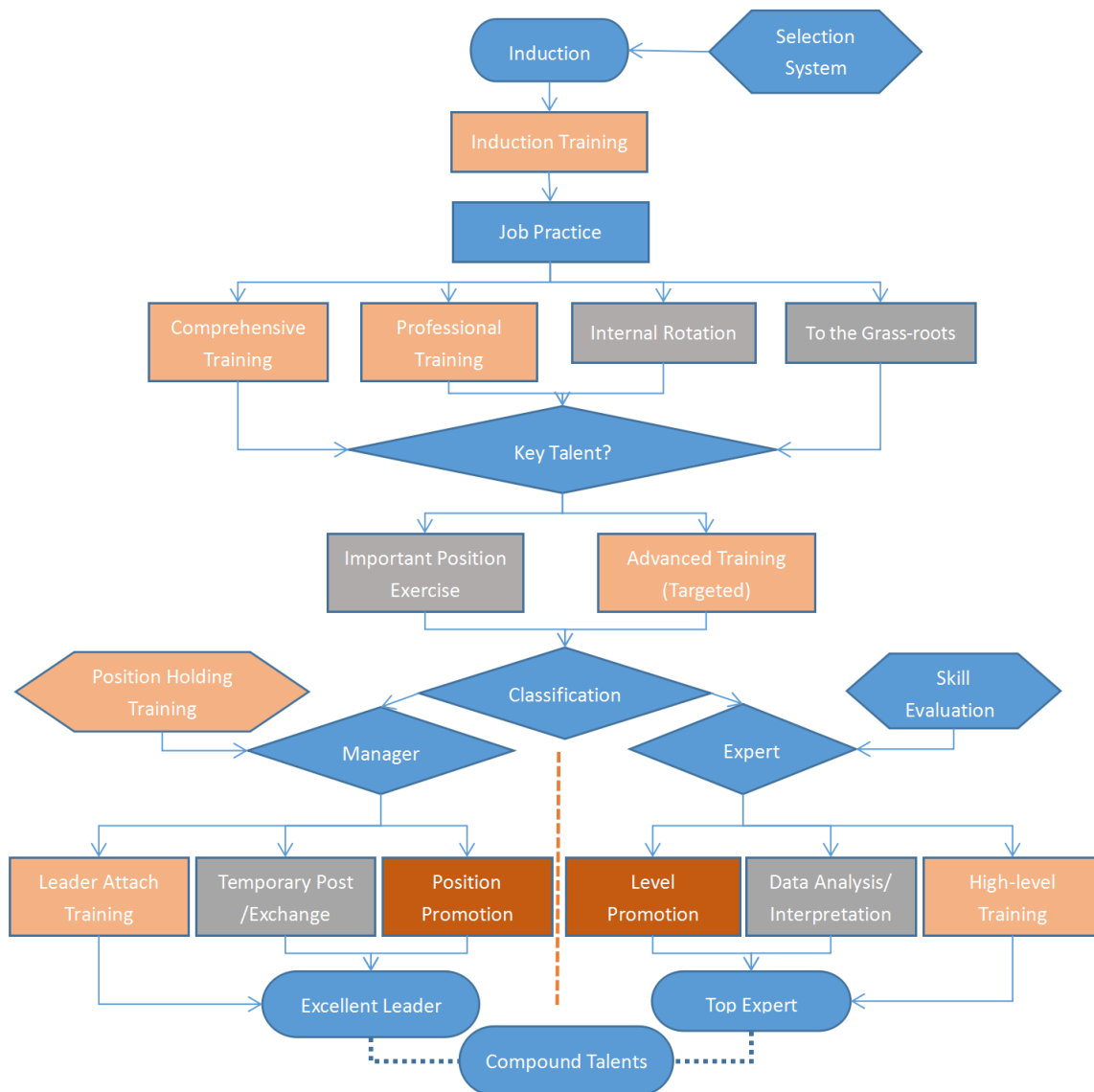
Figure 2. Talent Development Path of NBS

4.   Discussion, Conclusion and Recommendations:

4.1. Pay attention to the match between the needs of statistical reform in the new era and the development of talents.

In today's highly developed informatization background, statistics can no longer stop at the old system or methods. The rapid development of big data, cloud computing, micro data and other fields are challenging traditional statistical methods, the high sharing and exchange of information is gradually breaking the boundaries between countries or industry. Government statistics requires the use and cultivation of talents to grasp the most cutting-edge statistical methods. Statistical talents is not only to be proficient in classic statistical theories and methods, but also to maintain the thinking and ability of continuous learning. We must actively absorb new ideas, establish data connections with all walks of life, and strengthen cooperation and exchanges with other countries to maintain a consistently high level and specialization. This requires wise decision-making by the leadership, timely planning by the HR department and decisive execution by the executive departments.

4.2. The systematic, differentiated and chain fostering mode is a beneficial attempt.

The "systematic" means to combine the parts of talent fostering, the use of these parts should be around the talent development and work together. For example, for the talents who are about to be promoted to the leading positions of professional departments, they can not only acquire management ability through post exchange and post exercise, but also need to enhance professional knowledge through professional training.

The "differentiated" refers to the targeted cultivation of talents. In space, there should be a variety of ways to cultivate a talent at the same time, such as taking part in training and job exercise; In terms of time, different training means should be set at different stages of talent development, for example, new recruits should receive basic statistical knowledge training, while those who have worked for years should attend higher professional training. As we know, monotonous training mode will inevitably lead to waste of resources and reduced efficiency, different types of talents need to be distinguished(such as management talents or expert talents)and given different training; each types of talents are divided into different levels too, from the lower to the higher, we also have different training goals for them.

The "chain" means a clear development path. At present, the talent fostering is more limited to the block cultivation within their own specialties, but there is less vertical cultivation planning that runs through one's career. We can help every new recruit from the beginning, to design their career path, and according to individual situation to make up for shortcomings and gave full play to advantages. At the same time, regularly review the individual's development process and provide a possible way to adjust the development direction if they are willing to go. What we want to see in the end is everyone can do their best and everyone can become a talent.

4.3. It is a mission of human resource managers: with open and inclusive thinking to build an arena for talents.

Talent is the first resource of competition. To develop statistical talent, we must respect the law of talent development, be a good booster for the discovery of talents, and a accelerator for talent growth.

Talents needs to flow to generate vitality. Fully tapping potential is also an effective driving force for talents to make continuous breakthroughs. We should give potential or outstanding talents the opportunity to display, and let the talents' intellectual energy fully burst out. The way can be experience of an important post, a subject research in a professional field, a customized training, a further study to improve the ability, a visit to broaden the vision, an exchange and discussion among experts, etc.

Each country or region has its own talent resources and development goals. It is necessary to formulate talent development strategies according to local conditions, and to maximize strengths in order to achieve maximum efficiency.

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