DEVELOPING NATIONAL HUMAN RESOURCES FOR SPECIFIC CAREERS THROUGH STUDENT FINANCIAL AID POLICIES – EXPERIENCE FROM UNITED STATES HIGHER EDUCATION

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ABSTRACT: Student financial assistance programs are forms of cost sharing in higher education. These programs comprise of many types such as: grant, scholarship, student loan which have been very popular in many countries around the world, including Vietnam. These programs have a wide range of effects, including the prominent effect which is used to adjust the national human resource structure towards prioritized high demand occupations in society. If handled well and managed well, student financial aid programs can be an effective tool for implementing national human resource strategies. However, in Viet Nam, we just have few years experience in managing and implementing student financial assistance programs in general and using them in human resource strategy in particular. Therefore, studying international experience in these issues is necessary and practical. From this rational, this study researches experience in developing national human resources for specific careers through student financial assistance programs of United States, then opens up the policy implications for enhancing quality of specific career human resources in Vietnam by student financial assistance programs.

Keywords: Student financial assistance programs, student financial aid programs, specific career, human resources.

I. GENERAL INFORMATION ABOUT STUDENT FINANCIAL AID PROGRAMS

A. Concept and classification of student financial aid programs

Although there are many terms used to describe student financial aid programs such as: Student Financial Assistance Scheme, Financial Assistance Programs for Students, Tertiary Student Finance Schemes, Financial Assistance System for Tertiary Education, Student Financial Aid Programs (herein after written as SFAP) but according to the general opinion of many researchers, the SFAPs for students all have certain common points: First, the SFAPs are a "channel" to provide finance for higher education, in which students will receive financial aid in a variety of forms: non-refundable or refundable assistance, in cash or in-kind aid to cover the direct costs of the study process (tuition, items learning, living expenses) until the completion of the study program. Second, SFAPs are the forms of cost sharing in higher education, in which the costs are contributed by the parties: government, home schools, parents and students and other supporting individuals and organizations.

As mentioned above, student financial aid programs are described by a number of different terms. In addition, these programs also comprise of many categories. The two most common way to classify SFAPs is classification by types of programs and classification by sources of programs.

Classification by types of programs: There are 3 main types of aid, include gift aid, employment aid and student loan (Ronald S. Fecso, 1993):

- Gift aid includes grant and scholarship. This type is aid which does not need to be repaid.
- Employment aid is known as job opportunities for students, helping them to have part-time jobs and earn part of educational expenses.
- Student loan is last main type of aid, in which students receive loans to pay for educational expenses until they complete the training courses in university. After graduating, finding a job and having income, they start to repaid the loans, almost always with interest.

Classification by sources of programs: There are 4 common sources of fund for SFAP (Ronald S. Fecso, 1993), namely:

- Aid from National government, for example aid managed by Ministries, national banks or aid from federal government for federal countries (USA).
- Aid from provincial government, such as aid managed by district government bodies or aid from state government for federal countries.
- Aid from higher educational institutions includes financial support funded and managed by institutions and applying for students of these institutions. In some cases, institutions cooperate with commercial banks to manage and distribute the fund.
- Aid from private foundations or organizations outside the school comprises of financial support funded and managed by non-government organizations, companies/employers or commercial banks

**B. The impact of SFAPs on the structure and quality of national human resources**

The SFAPs bring many meanings and helping effects to implement many macro goals, which can be named as the following: Target in terms of financial budget (with the ability to generate additional income); Accelerate the process of expanding the scope of higher education; Social goals (improving social equity and increasing access to higher education for the poor); Provide support for learners; and one of the foremost goals is to Meet Workforce Needs (Adrian Ziderman, 2006).

In fact, a country-specific program can be designed to meet more than one goal depending on the policies and outcomes that the country is aiming for. Among the above macro goals, the goal of meeting the national human resource needs is always one of the important goals that educational managers take into account when building the program. The SFAPs can be used as a tool to adjust the structure and quality of human resources as well as to attract human resources for high demand careers (Adrian Ziderman, 2006).

SFAPs may specifically aim to support students wishing to study careers that fall under the country's development priority policy or important careers in society (doctor or teacher or educational services in disadvantaged areas). Financial aid programs may also be tailored specifically to those professions (e.g. programs only for medical students) or students enrolled in priority careers will be eligible for special offers such as having the opportunity to apply for more programs, larger grant or scholarship, more privileges in paying loan, interest rate for student loans compared to students studying other professions. By increasing numbers, enhancing quality and encouraging the development of SFAPs for high demand careers, governments and policy makers can attract abundant high-quality human resources for those occupations. More specifically, with each stage, the development strategy of the country, the government can change; adjust the professions which receive preferential policies on student financial aid.

**II. NON-SPECIFIC CAREER STUDENT FINANCIAL AID PROGRAMS IN THE UNITED STATES**

SFAPs started in the US with the passage of the Higher Education Act (HEA) in 1965. This federal law prescribes financial aid policies and programs for students at the federal level attending the post-secondary and tertiary levels. Since this law was passed, the US Congress has made periodic adjustments, amendments and changes to the provisions of the SFAPs, for example some important changes that can be mentioned: change the language and policies of existing programs, and introduce statutory pricing for federal student credits. At presents, in terms of funding origin, the SFAPs in the United States exist in three groups: The federal SFAPs, the State SFAPs, and the programs of the schools or private organizations. Within each group, SFAPs often take the familiar forms of financial support such as scholarship, grant, work aid (work study job), student loan. Non specific career SFAPs are programs for students in general, studying in any professions. These programs have no differences in regimes and policies among majors targeting in students in general and aiming to help financially to increase the number of graduates and the effectiveness of higher education.

**A. The federal non specific career SFAPs**

<table>
<thead>
<tr>
<th>Grants</th>
<th>Scholarships</th>
<th>Work-Study Jobs</th>
<th>Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pell Grant</td>
<td>None</td>
<td>The Federal Work-Study Program allows students to earn money to pay for school by working part-time</td>
<td>- William D. Ford Federal Direct Loan Program (Direct Loan Program) includes 4 sub-programs:</td>
</tr>
<tr>
<td>- Federal Supplemental Educational Opportunity Grant (FSEOG) for undergraduate students with exceptional financial need</td>
<td></td>
<td></td>
<td>+ Direct Subsidized Loans</td>
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<td></td>
<td></td>
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<td>+ Direct Unsubsidized Loans</td>
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<td>+ Direct PLUS Loans</td>
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<td></td>
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<td>+ Direct Consolidation Loans</td>
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</table>

(Source: Federal Student Aid Website)

Federal student financial aid programs are those implemented and administered by the US federal government. The government agency that administers federal Student Financial Aid programs is the US Department of Education. The US Department of Education assigns a subordinate agency to do the work directly under the scope of federal student financial aid programs, the Federal Student Aid Office - affiliated to The US Department of Education (ED). The Federal Student Aid Office is the largest direct provider of student financial aid in the United States, with an annual
average of $120 billion for more than 13 million students in form of financial aid from grants, student credit and apprenticeship funds. The office responsible for administering student financial aid programs is defined in Section IV of the Higher Education Act 1965 (Federal Student Aid Website).

Specifically, the federal financial aid programs for students regardless of the majors with the specific characteristics of each type are listed on the names and types in the table 1.

B. State Aid Programs

Besides federal SFA programs, almost all the states in the USA have their own SFA programs. There are some common points in terms and conditions of aid programs among states such as: These programs are administered and funded by state governments. The beneficiaries of these programs are states residents. However, there are also a number of differences which vary widely by state. The first main difference is that while some states limit amounts and types of SFA, others fund substantially amounts through a full range of grants, loan and employment. In addition, some states allow private institutions to be eligible for aid of state whereas others do not. One further difference is that some states regulate only institutions within the state are eligible for receiving state aid while some others allow institutions in outside states having reciprocity agreements to receive aid. State governments are by far the largest source funding public institution in the USA (Ronald S. Fecso, Editor, 1993).

C. Institutional Student Aid Programs

The vast majority of higher educational institutions in USA have their own student financial aid schemes, including their own scholarships and grants together with part-time employment programs as well as short term and long term loans. Institutional Student Aid Programs are more popular in private tertiary colleges and universities than in public ones. These programs are usually funded by own financial resources of institution or by sources that institutions could seek. For that reason, institutions can freely determine terms and conditions of programs which are not dependent on federal regulation. However, some institutions still choose to follow federal rules due to administrative facilitation.

D. Non career specific aid from outside organizations

Private out-of-school organizations are also a source of a wide variety of student financial aid programs. The types of financial aid offered by organizations are often in the form of grants, scholarships and loans. There are thousands of them, offered not only by schools, but also by employers, individuals, private companies, nonprofits, communities, religious groups, and professional and social organizations.

Some non-specific career scholarships for college are merit-based. Students earn merit-based scholarships by meeting or exceeding certain standards set by the scholarship-giver. Merit scholarships might be awarded based on academic achievement or on a combination of academics and a special talent, trait, or interest. Other scholarships are based on financial need.

When students receive scholarships, these scholarships can be subtracted from other kinds of aid, such as loans, that students might have been offered. Then, any amount left can be covered by other financial aid for which students are eligible.

Banks and other private sources also offer student loans. Private loans have fewer benefits than federal loans, such as: higher interest rate, credit check or a cosigner need, shorter repaying period,…

III. CAREER SPECIFIC/PROFESSION-SPECIFIC/SUBJECT-SPECIFIC SPAPS

In addition to the non career specific SFAPs, there is another kind of program which is the SFAPs for a number of disciplines with high demand or for some elite, special prioritized subjects. They are called by Career Specific/Profession-Specific/Subject-Specific SPAPs. This kind is considered as a tool to promote human resources in the professional fields that are prioritized in developing in the United States. As when receiving more financial support, the majors will attract more students and encourage more talented college students to enroll in, thereby improving the quality of human resources in industries with high demand. The career specific financial support programs for students are also divided into management levels from federal to state and schools or private organizations and are also organized under the forms of grant, loan, scholarship, ... with tight and unified regulations and conditions, aiming towards the common goal of improving the quality of human resources for high demand industries.

A. The federal career specific SFAPs

The federal career specific SFAPs in the US are summarized in the table below:
Table 2. The career specific SFAPs level in the US

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of program</th>
<th>Regulatory agency</th>
<th>Type of programs</th>
<th>Prioritized Major/Field</th>
<th>Terms and conditions</th>
</tr>
</thead>
</table>
| 1   | The Teacher Education Assistance for College and Higher Education (TEACH) Grant Program | Federal Student Aid Office - under The U.S. Department of Education (ED) | Grant | Teacher Education | **- Awardee:** Undergraduate, post baccalaureate, or graduate students who are enrolled in Teacher Education programs  
**- Conditions to qualify for this grant:**  
+ Accept to teach in low-income district school and/or teach majors in high-need fields of study such as special education, foreign languages, science and math, etc. for at least four academic years  
+ be asked to sign a contract  
+ If an awardee decides not to comply with the conditions of the TEACH Grant Agreement to Serve, then the money received is converted into a Direct Unsubsidized Loan that must be repaid. |
| 2   | The U.S. Department of Health and Human Services (DHHS) nursing scholarships | The U.S. Department of Health and Human Services (DHHS) | Scholarship | Nurse | **Conditions to qualify for this scholarship:** Nursing students who commit to a 2-year service term in a critical shortage health care facility |
| 3   | The National Science and Mathematics Access to Retain Talent (SMART) grant | Federal Student Aid Office - under The U.S. Department of Education (ED) | Grant | STEM science, technology, engineering and math | **Conditions to qualify for this grant:**  
- Must be a Pell awardee;  
- Must be a third- or fourth-year college student majoring in science, technology, engineering and math;  
- Must have a GPA of 3.0 or higher;  
- Must be enrolled in at least one class in the eligible field of study on the year that the granted will be awarded;  
- must demonstrate a need for additional funding beyond the assistance provided by the Pell grant |
| 4   | Iraq and Afghanistan Service Grants | Federal Student Aid Office - under The U.S. Department of Education (ED) | Grant | U.S. army services in Iraq and Afghanistan | **- Awardee:** Students whose parent or guardian was a member of the U.S. armed forces and died as a result of performing military service in Iraq or Afghanistan after the events of 9/11  
**- Conditions to qualify for this grant:**  
+ Must be ineligible for a Pell Grant due to having less financial need than is required to receive Federal Pell Grant funds  
+ Must younger than 24 years old or enrolled at least part-time at a college or career school at the time of the parent’s or guardian’s death |

<table>
<thead>
<tr>
<th>Aid amount/ coverage/ annual award (subject to change)</th>
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</thead>
<tbody>
<tr>
<td>Up to $3,764 for grants first disbursed on or after Oct. 1, 2019, and before Oct. 1, 2020/ awardee</td>
</tr>
<tr>
<td>Monthly allowance plus tuition and other fees</td>
</tr>
<tr>
<td>Up to $4000 for each year of study</td>
</tr>
<tr>
<td>Up to $5,829.50 for grants first disbursed on or after Oct. 1, 2019, and before Oct. 1, 2020</td>
</tr>
</tbody>
</table>


5. **Work-Study Jobs**

| Schools participating in the Federal Work-Study Program | Work-Study Jobs | The Federal Work-Study Program emphasizes employment in civic education | Student will earn at least the current federal minimum wage. However, student may earn more depending on the type of work and the skills required for the position. |

6. **Reserve Officer’s Training Corps (ROTC) Scholarship**

| U.S. Military Scholarship | Military service or for family members of military personnel |

7. **Army ROTC scholarships**

| U.S. Army Scholarship | Army |

8. **The Air Force ROTC college scholarship program**

| U.S. Air Force Scholarship | Foreign language, technical degrees, … |

9. **The Navy ROTC**

| U.S. Navy Scholarship | The Navy |

10. **The Navy ROTC Marine Option Scholarship**

| U.S. Navy Scholarship | The Navy |

11. **Department of Veterans Affairs (VA) Education Benefits**

| Department of Veterans Affairs (VA) Grant | Military services |

12. **Privileges of Student Loans**

| Federal Student Aid - Department of Education Subsidize in Student Loan | Military operation - National Guard duty during war - National emergency/ hostilities area services - The U.S. armed forces (current or retired) |

| Limited Interest Rates No interest in up to 60 months Deferment of repayment |

(Source: Federal Student Aid Website)

B. **The state career specific SFAPs**

Aside from federal student aid programs, state governments also provide a number of incentives for students to go into careers that have a high local demand. Number and type of programs vary by states’ current situation.

For example, one career specific student aid program in Illinois is the Illinois Future Teacher Corps (IFTC) Program for third- to fourth-year students who are planning to stay and teach in Illinois after teacher certification.

Another example is The Licensed Mental health Services Provider Educational Program awarding as much as $15,000 to doctoral level students who are already a licensed mental health practitioner with a practice in a high-demand area of
mental health in California. The amount is intended to be used towards the repayment of student loans. The purpose of this program is to boost the supply of social workers in the United States which has fallen so far behind the actual demand.

C. The institutional career specific SFAPs

As mentioned above, almost all the institutions have their own student aid programs. However, there are always some faculties or departments which receive more incentives than others. Student financial assistant programs for these special majors can be considered institutional career specific programs.

The University of Minnesota (UM), for instance, has grants under the administration of the Women’s Center. UM students, staff, and even faculty members who want to pursue women’s studies and related special projects with the aim of enhancing the campus climate for women are eligible to apply for these grants.

There are also some institutions offer research grants and/or fellowships for advanced degrees. For example, Santa Clara University’s School of Law has Social Justice Grants for students and alumni who do work in the public interest for little or no pay.

D. The career specific SFAPs of outside organizations

Not only federal and state governments, institutions have student aid programs to support specific high demand careers, many outside organizations (both national and private ones) have similar programs. Some specific career programs of outside organization are:

<table>
<thead>
<tr>
<th>Organizations funding programs</th>
<th>Terms and conditions</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Institute of Museum and Library Services department of The National Foundation on the Arts and Humanities (NFAH)</td>
<td><strong>Awardee:</strong> High school students</td>
<td>Library science</td>
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<tr>
<td>The National Association of Black Journalists</td>
<td><strong>Awardee:</strong> Black student journalists who are also association members of good standing/professional organization</td>
<td>Journalists</td>
</tr>
<tr>
<td>Corporations E.g: Denny’s chain</td>
<td><strong>Awardee:</strong> Valuable and loyal employees and other beneficiaries <strong>Conditions:</strong> Most companies require awarded employees to stay with the company for a certain number of years after they get an advanced degree. E.g: full-time college undergraduates.</td>
<td>Business, marketing, or entrepreneurship</td>
</tr>
<tr>
<td><strong>Aid from nonprofit organizations to military service or family members of military personnel</strong></td>
<td><strong>Awardee:</strong> Veterans, future military personnel, active duty personnel, those related to veterans or active duty personnel.</td>
<td>Military services</td>
</tr>
<tr>
<td>Privileges of Private Student Loans</td>
<td><strong>Awardee:</strong> Students serving in military or active duty.</td>
<td>Military services</td>
</tr>
<tr>
<td><strong>Financial aid from veterans service organizations. For example:</strong></td>
<td><strong>Awardee:</strong> active duty military, veterans and/or family members of military personnel</td>
<td>Military services</td>
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<tr>
<td>• American Legion</td>
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<td>• AMVETS</td>
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<td>• Paralyzed Veterans of America</td>
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<td>• Veterans of Foreign Wars</td>
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</table>

(Source: Federal Student Aid Website)
IV. EVALUATION AND COMMENT ON FINANCIAL AID PROGRAMS FOR STUDENTS IN THE UNITED STATES AND THEIR ROLE TO HUMAN RESOURCES

A. Career specific SFAPs in relation to non career specific ones

Table 4 below demonstrates the total amount of Student Aid and Non-Federal Loans in 2013 Dollar Rates (Billion USD), from 2003-04 to 2013-14. From the table, we can see that in 2013-14, undergraduate and graduate students received $238,259 billion from student aid forms, increase by 75% compared to 2003-04.

In terms of funding, the total amount of federal aid programs increases each year with the increase higher than the other types and always accounts for the largest share of total student support (about 70 % or more). The federal aid section has gradually shifted from lending to grants: between 2008-09 and 2013-14, the share of federal student aid in the form of grants increased from 20 percent to 30 %, while loans decreased from 70 % to 58 %.

In terms of program type, in the US higher education student financial aid system, grants and loans are the two main types and make up large proportions, amounting to about 92 % of the total financial aid for students (2013-14). And in each form, the US government offers many different forms.

Correlation of student financial aid programs by majors and non-majors: In the above statistics table, we can see a number of financial aid programs by specific subjects such as: SMART Grand, Veterans and Military, ... have a rather high 10-year growth rate (242 % growth in 10 years of Veterans and Military), and there are programs with high support shares of 20-25 % in total financial support of subsidy programs (Veterans and Military). From this, it can be seen that the career specific financial aid program in the United States are a basic and effective tool of the US Government to adjust human resources into key professions.

Table 4: Student Aid and Non-Federal Loans in 2013 Dollar Rates (Billion USD), from 2003-04 to 2013-14

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Federal Aid</th>
<th>Loans</th>
<th>Total Federal Loans</th>
<th>Federal Work-Study</th>
<th>Education Tax Benefits</th>
<th>Total Federal Aid</th>
<th>State Grants</th>
<th>Institutional Grants</th>
<th>Private and Employer Grants</th>
<th>Total Federal, State, Institutional, and Other Aid</th>
<th>Nonfederal Loans</th>
<th>State- and Institution-Sponsored</th>
<th>Private Sector</th>
<th>Total Student Aid and Nonfederal Loans</th>
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<tbody>
<tr>
<td></td>
<td>Grants</td>
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<td>Pell Grants</td>
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<td>FSEOG</td>
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<td>LEAP</td>
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<td>Academic Competitiveness Grants</td>
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<td></td>
<td>SMART Grants</td>
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<td></td>
<td>Veterans and Military</td>
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<td></td>
<td>Other Grants</td>
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<td></td>
<td>Total Federal Grants</td>
<td>$21,705</td>
<td>$22,934</td>
<td>$21,097</td>
<td>$21,167</td>
<td>$22,072</td>
<td>$26,424</td>
<td>$44,623</td>
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<td>$47,307</td>
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<tr>
<td></td>
<td>Perkins Loans</td>
<td>$2,081</td>
<td>$2,837</td>
<td>$1,905</td>
<td>$1,859</td>
<td>$1,551</td>
<td>$1,021</td>
<td>$888</td>
<td>$918</td>
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<td>$1,030</td>
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<td></td>
<td>Unsubsidized Stafford</td>
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<td>$16,843</td>
<td>$24,224</td>
<td>$27,950</td>
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<td>$56,513</td>
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<td></td>
<td>Parent PLUS</td>
<td>$7,917</td>
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<td>$9,153</td>
<td>$9,333</td>
<td>$9,629</td>
<td>$10,165</td>
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<td></td>
<td>Grad PLUS</td>
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<tr>
<td></td>
<td>Other Loans</td>
<td>$159</td>
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<td>$149</td>
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<td>$140</td>
<td>$127</td>
<td>$220</td>
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<td>$114</td>
<td>$121</td>
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<td></td>
<td>Federal Work-Study</td>
<td>$1,277</td>
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<td>$1,175</td>
<td>$1,118</td>
<td>$1,052</td>
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<td>$975</td>
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<td>Education Tax Benefits</td>
<td>$7,347</td>
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<td>$7,548</td>
<td>$7,567</td>
<td>$7,498</td>
<td>$11,277</td>
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<tr>
<td></td>
<td>Total Federal Aid</td>
<td>$80,776</td>
<td>$85,840</td>
<td>$100,238</td>
<td>$99,980</td>
<td>$108,772</td>
<td>$130,746</td>
<td>$172,223</td>
<td>$187,935</td>
<td>$179,149</td>
<td>$171,148</td>
<td>$164,515</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>State Grants</td>
<td>$7,853</td>
<td>$8,244</td>
<td>$8,420</td>
<td>$8,773</td>
<td>$9,025</td>
<td>$9,033</td>
<td>$8,906</td>
<td>$9,112</td>
<td>$9,219</td>
<td>$9,179</td>
<td>$9,454</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Institutional Grants</td>
<td>$29,163</td>
<td>$28,702</td>
<td>$28,460</td>
<td>$30,086</td>
<td>$31,525</td>
<td>$32,942</td>
<td>$37,761</td>
<td>$41,344</td>
<td>$43,489</td>
<td>$48,075</td>
<td>$49,240</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|               | Private and Employer Grants | $9,781 | $10,930 | $11,773 | $11,984 | $12,419 | $13,200 | $13,494 | $14,243 | $14,894 | $16,060 | $64%

(Source: Trends in Student Aid 2014)

B. Career specific financial aid programs for students in the United States and the role of programs to human resources

In terms of majors that enjoy priorities in financial aid, it can be seen that the US Government focuses on some key industries as followed:

- Education and Training (Teacher Education, Civic Education)
- Health (Nurse, mental health practitioner)
The fact shows that these are all focused careers and have an important role in the political, economic, and social development in the United States: Education and Health are two important professions in any country and are also prioritized for development. In addition, the United States is seen as the birthplace of STEM science and STEM education; therefore, STEM has always been a strong point and a development focus of the United States. In addition to the above-mentioned professions, the military is also considered a spearhead industry that plays an important role in the United States. American Presidents have always focused on military development and viewed this as an aspect of national strength and status.

Regarding the type of supporting programs, financial incentives for high demand industries are offered under all types of current programs in the United States, including: grant, scholarship, work-study program, subsidize in student loans and are provided from all funding sources from federal government to the state government, institutions and outside organizations. This shows that in order to focus on attracting and training human resources for industries with high demand, the United States has a very comprehensive solution that attracts the participation of governments at all levels and institutions as well as the whole society. Attracting the talent and investing resources in high-demand professions through student financial aid programs is not just the policy of the federal government, but individual states and private organizations. Although the federal budget still plays a leading role in providing financial assistance to high-demand industries, the financial burden on the state budget has been greatly reduced thanks to participation of other partners. The main involvement and management of the federal government, together with the participation of other actors in financial assistance to attract human resources for high demand occupations are the strengths of the policy. On the one hand, the primary management involvement of the federal government helps to ensure that the financial assistance policies are in line with the goals of attracting and improving the quality of human resources; on the other hand, the co-participation of other actors in the provision of financial supports helps to reduce the burden on the state budget, increasing the number of enrollment for those industries.

For priority industries, financial aid for students is offered under multiple programs, not just a single program. In other words, each prioritized profession is subdivided into different disciplines, and financial aid is also divided into sub-categories. For the Education and Training major, for example, financial aid is offered for each level of education (Teacher Education at Primary, Secondary Level) or specific subjects (STEM Teacher Education). Another example is military services in which financial aid is broken down into many different disciplines and subjects, not simply duty services in general. Specifically, with military services, financial aid for learners are offered according to specific specializations and subjects: U.S. army and U.S. army services in Iraq and Afghanistan, airman, Navy, Veterans and their widows and dependents, National Guard duty, ... The division of each prioritized profession into sub-sectors is to provide financial incentives to more students and effectively attract human resources for higher demand industries.

V. SFAPS IN VIET NAM

A. Non-career specific SFAPs in Vietnam

In Vietnam today there are several types of financial aid programs for students. Student financial aid programs in Vietnam can be divided by categories, including: grants, scholarships, student credit or by funding sources, including: state programs, institutional programs and programs of private organizations. Specifically:

- Since 1998, Vietnam has issued policies to encourage tuition exemptions and reductions for the poor and ethnic minorities. In 2006, about 22% of the difficult college students benefited from the tuition reduction policy, significantly making up to 50% of the total tuition fees. Tuition fee exemption and reduction policy is constantly being revised and supplemented each year (Decree No. 86/2015 / ND-CP, Joint Circular No. 09/2016/TTLT-BGDDT-BTC-BLDDTBXH)

- Vietnam also has programs to support students since the mid-1990s. Since 2006, ethnic minority students have received a package of about 470,000 VND (25US $) per month - which is 1/3 of the total monthly expenditure per a student (Dang Thi Minh Hien etal., 2015). Recent results from household surveys also confirm that the program has a reasonable target audience, in which benefits are concentrated mainly on the poor and ethnic minorities. Since 2007, the scholarship scheme for poor students has also been adjusted to cover the full tuition fees. Excellent students with excellent academic achievements also receive scholarships from the state budget (Decision No. 44/2007 / QD-BGDDT, Decision No. 152/2007 / QD-TTg). In addition, many universities, companies, and private organizations also have separate scholarship funds for excellent students and students with difficult circumstances.

- In addition to scholarships, Vietnam has also reformed its student loan regime since 2006 (Decision No. 157/2007 / QD-TTg), thereby increasing the lending amount to 250% (from 300,000 VND per month to 800,000 VND, equivalent to from 15 to 41 US $ per month), from 26/8/2009 increasing to 860,000 VND / student / month; from
1/8/2013 to 1,100,000 VND and from 15/6/2017 to 1,500,000 VND; from 1/12/2019, the new maximum loan amount is 2.5 million VND/month/student; at the same time allowing to extend repayment period (Nguyen Thanh Tam, 2019). This mechanism currently supports 29% of the total number of students of 103 universities. Loans from 1/8/2013 are applied with the interest rate of 0.65% / month. However, this level of lending is generally only covering about 50% of the learner's spending needs (compared with the average training costs per student in 2012) (Dang Minh Hien et al., 2015). State student loan programs and private student loan programs have also been implemented in a number of provinces. Some universities (affiliated with commercial banks) have additional student loan programs for students who are studying at the school. In addition, some commercial banks also have student loan programs for in-need student.

**B. Career specific financial aid programs for students in Vietnam**

In Vietnam, besides non career specific scholarships, grants and student loan, there are also a number of programs and policies that prioritize certain professions to attract more students and excellent students to study, thereby improving the quality of human resources for professions with high demand. Some career specific financial aid programs/policies for students are listed in the table below 5.

<table>
<thead>
<tr>
<th>No</th>
<th>Regulatory document</th>
<th>Terms and conditions</th>
<th>SFAP Type</th>
<th>Prioritized Career</th>
</tr>
</thead>
</table>
| 1  | Joint Circular 09/2016 / TTLT-BGDDT-BTC-BLDTBXH | Students do not have to pay tuition fees:  
- Regular pedagogical students who are studying at public vocational and higher education institutions, according to the training quota of the State;  
- Students studying specific specialties to meet the requirements of socio-economic development, national defense and security according to the Law on Higher Education. Specialized branches are promulgated by competent state agencies. | Grant Scholarship | -Teacher Education  
- Specific specialties: National Defense, Military, Police, Public Security |
|    |                     | Students are exempt from tuition fees:  
- Students majoring in Marxism - Leninism and Ho Chi Minh Thought;  
- Students, learners study one of the majors of Tuberculosis, Leprosy, Psychiatry, Forensic Examination, Forensic Medicine and Pathology at public health human resources training establishments, according to the training quota of the State;  
- Students, learners research in the field of atomic energy. | Grant Scholarship | -Marxism Leninism  
- Ho Chi Minh Thought  
- Tuberculosis,  
- Leprosy, Psychiatry, Forensic Examination, Forensic Medicine and Pathology  
- Atomic energy |
|    |                     | Students receive a 70% discount on tuition fees:  
Students study traditional and specific arts majors in public and non-public cultural and art institutions | Grant Scholarship | Traditional and specific arts majors |
| 2  | Decision No. 70/2008 / QD-BLDTBXH | Students and apprentices at full-time vocational colleges and vocational secondary schools, at public, private and foreign-invested vocational colleges and vocational schools having good academic results can receive scholarships. | Scholarship | Vocational |
| 3  | Decision 09/2016 / QD-TTg | Medical students after graduating, while practicing at medical examination and treatment facilities to get a practice certificate, may continue to participate in the Student Loan Program of the state. | Subsidize in Student Loan | Medical Health |

(Source: Legal Documents)
VI. LIMITATIONS OF FINANCIAL AID PROGRAMS FOR STUDENTS IN VIET NAM IN IMPROVING THE QUALITY OF HUMAN RESOURCES AND EXPERIENCE FROM THE UNITED STATES

A. Expanding more programs and funding sources

In general, the financial support programs for students in Vietnam are still limited in terms of types and funding sources. More specifically, when compared with US education, it can be seen that the program system in Vietnam is much less in number. Overall, some types of programs such as work-study jobs are not available in Vietnam. Considering each type of program separately, the forms of organization in Vietnam are also simpler and much more limited in number. Take student loan as an example, while in the US, student loan is divided into a variety of program types from federal, state, schools and private organizations; the number of programs in Vietnam is limited to state programs and only a few private programs at some schools. For loan programs with national coverage such as federal programs (in the United States) and public programs administered by Social Policy Bank (in Vietnam), awardees and coverage of programs in the US is also much broader than the ones in Vietnam. In the United States, almost all students can borrow money to cover their studies whereas in Vietnam, the scope of loans is only limited to students with difficult circumstances, students from poor households.

Lessons learned from US education show that it is very important to expand the types of financial aid programs for students in general and the coverage of each type of program in particular. When these types of programs are expanded, many types of students can access financial aid, which in turn can complete higher education programs, which means the students’ access to higher education increase. High quality human resources in all professions will then be strengthened. On the other hand, when the financial aid programs are expanded, it will help develop the national human resources in general, and at the same time create a good basis for supporting programs for majors in need to be highly effective, aiming to students who are really suitable for the job, minimizing the situation of a number of students choose the wrong subject because of financial incentives. Some solutions to expand the type and scope of the program include:

- Review, adjust and consolidate the system of legal documents governing various types of programs; public-private programs; grants - scholarships - study by work - student loan
- Strengthen the role of educational institutions in administering programs
- Develop a mechanism for close coordination between educational authorities, schools and other parties involved in the management of the programs

B. Expanding supporting programs aiming at high-demand occupations

The expansion of financial aid programs in general is a favorable premise for the development of the program group towards high demand occupations. After broadening general financial aid programs, it is also important to broaden the types and scope of career-specific assistance programs. Career specific support programs are an effective tool for implementing human resource strategy for target occupations (Adrian Ziderman, 2006). To effectively expand the support programs by discipline, there are some specific measures that can be taken:

- Build and unify occupations with high demand in human resources, and industries that should be given priority
- Develop financial support policies for each prioritized industry
- Mobilize the participation of schools, private organizations in capital support, co-management of financial assistance programs
- Having incentive policies to encourage businesses, organizations and individuals to organize and manage career specific financial assistance programs which can be connected with recruitment and personnel policies of businesses.

C. Solutions to improve the quality of the group of career specific financial aid programs

The quality of the programs comes from regulations, policies, and how they are organized and managed. In Vietnam, although the number of career specific financial support programs is small, in the way of organizing and the content of policies are still quite limited.

The first limitation is that with the majors prioritized on tuition exemptions (education, the military), there is no mechanism to bind students after graduation or in other words there is no requirement for students of these careers in responsibilities for the financial aid they received. This fact raises a lot of problems such as: students enrolling in the fields of study are exempt from tuition fees even if they do not have aspirations or are not suitable for the profession; after graduating, students do not work in the trained profession but work in the opposite direction, students do not work in a prioritized occupation but do not have to pay back training costs; students attending the prioritized majors after graduation are not assigned any specific work positions, leading to the situation that the state budget is not used effectively and the general quality of human resources for prioritized occupations are not enhanced. Compared with
education in the United States, we can see more clearly the gaps in regulations in Vietnam: In the US, any preferential financial support in any discipline comes with requirements and constraints after graduation, for example, specifying the specific period of time the student must work in the industry, prescribing the place of work after graduation; if the student does not fulfill the committed obligations, the support incentives automatically switch to non-concessional student loans. Therefore, the career specific financial aid programs in Vietnam need to add stricter regulations to minimize ineffective problems, specifically:

- There should be a clear law on preferential financial programs in terms of: requirements for students when receiving aid, after receiving aid, after graduation.
- Manage specifically student profiles, post-graduate information, and student work to effectively manage the use of preferential financial resources.

The next limitation is that the system of SFAPs for each prioritized profession has not been strictly managed, unified, leading to overlap, reducing efficiency in management and using preferential financial resources. Experience from American education shows that although this country has a large number of support programs for students, the programs are managed effectively, without overlapping. Specifically, there are clear provisions on the program categories that a student can apply for, if the student has received a certain incentive (grant, scholarship), the possibility of receiving other incentives will be smaller, ensuring equality for other students. Some support programs for the priority disciplines also specify that if students have enjoyed incentives for their majors, they cannot apply for other popular programs and/or apply for more student loans. This shows that among financial aid programs in the United States, there is a tightly regulated relationship, ensuring fairness, increasing accessibility for students while still ensuring priority for students enrolled in high demand careers. From the current situation of the United States and Vietnam, a number of measures can be drawn to improve the effectiveness of management of student support programs in Vietnam:

- There are provisions on the relationship between the non career specific and career specific support programs, ensuring incentives and avoiding overlaps between programs;
- There are regulations on the priority order between the types of programs: grants, scholarships, student loans and the number of programs in each type a student are allowed to participate.

VII. REFERENCES

[16] Prime Minister (2016) Decision No. 09/2016/QĐ-TTg dated March 2, 2016 on credit for medical students after graduation.


[19] Prime Minister (2016), Decision No. 09/2016/QĐ-TTg on credit for medical students and students after graduation, during their practice at medical examination and treatment facilities practicing certificate.