A Historical Perspective of Federally Administered Programs as to Monies Appropriated for Research and Development, Demonstration Projects, and Curriculum Development.

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IDENTIFIERS *Vocational Education Act 1963; Vocational Education Amendments 1968; Vocational Education Amendments 1976.

ABSTRACT Since 1963, Congress has provided funds and support for vocational education by passing the Vocational Education Act of 1963 and two sets of amendments, the Vocational Education Amendments of 1968 and of 1976. Federally authorized appropriations during this time have increased from eight million dollars in 1963 to eighty million in 1978. Enacted to replace the Smith-Hughes Act (1917), the 1963 Act was designed to meet current needs by funding projects in the areas of research, demonstration projects and models, and training. The Vocational Education Amendments of 1968 divided federal funding into three distinct categories: (1) Part C for research and training, (2) Part D for demonstration projects, and (3) Part I for curriculum development. Under this separation of funding it was found that programs often operated in isolation without continuity from research to demonstration to implementation. To correct this situation, amendments were passed in 1976 to consolidate research, exemplary and innovative programs, and curriculum and staff development into a single category. Unlike the earlier legislation, these laws restricted federal funding to applied, close-ended research projects of national significance. Due to the coordinated approach required by these statutes, curriculum development appears to be receiving less emphasis and financial support than other areas. (ELG)
A Historical Perspective
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Research and Development, Demonstration Projects
and
Curriculum Development

by

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Summer, 1978
The Ohio State University
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Section I

The Vocational Education Act of 1963
The Vocational Education Act of 1963 was passed because of the accumulating evidence that the old federal program of assistance to vocational education -- the one begun by the Smith-Hughes Act in 1917 and augmented and supplemented over the years by other acts of Congress -- was not broad enough, or flexible enough, or rich enough, to meet the needs of today, much less the needs of tomorrow.

WHAT DID THE OLD PROGRAM LACK? A panel of consultants named by the Secretary of Health, Education and Welfare at the request of President Kennedy in 1961, which spent months collecting and studying the evidence of the Nation's needs in vocational education and the shortcomings of the existing program, faced many "staggering" facts. For example, the demand for workers in the service industries was expected to rise rapidly in the 1960's, but the old vocational education acts -- George-Barden and Smith-Hughes -- had given the States little in the way of either funds or encouragement to train such workers. For example, of all the States which in 1961-62 were using Federal funds to help support vocational courses in high schools --

- Only nine were offering training for office-machine repairmen
- Only six, for appliance repairmen
- Only six, for workers in the heating and ventilating business
- Only four, for dental technicians
- Only three, for automobile upholsterers
- Only three, for hospital aides
- Only two, for nurses' aides
- And only one was offering training for business-machine repairmen.1

Furthermore, of the fastest growing segment of the labor force is the one composed of technicians and semiprogressive workers -- those who will require 1 to 3 years of postsecondary education.
But the funds available under the old programs could not be stretched to train all the technicians and other highly skilled workers to meet the economy needs.

Vocational education programs, like all other educational programs, should emphasize quality. Time and money should be spent on a search for more effective and more efficient ways of helping people acquire occupational skills. But the acts that established the old vocational programs, though they called for research, did not give it specific financial encouragement.

As you can see, the panel saw a definite need for monies to be appropriated in the area of research development. The lack of so few courses called for work in the area of curriculum development, and the lack of models to follow called for demonstration projects and programs. Chart No. 1 explains the funding and the method of distribution for the 1963 Vocation Education Act.
### Chart 1: 1963 Vocational Education Act

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Amount of Authorization</th>
<th>Method of Dis.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research/Development</td>
<td>$ 6,000,000-1964</td>
<td>10% of total act to be used in making giants for research and training programs and for experimental or pilot programs designed to meet the special/vocational education needs of young persons</td>
<td></td>
</tr>
<tr>
<td>Section 4(c)</td>
<td>11,800,000-1965</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17,750,000-1966</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22,500,000-1967</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum</td>
<td>Maximum Authorization*</td>
<td>3% of 90% ** A state's allotment may be used in accordance with its approved state plan</td>
<td></td>
</tr>
<tr>
<td>Section 4(a)(6)*</td>
<td>1,620,000-1964</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3,126,000-1965</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4,792,000-1966</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6,075,000-1967</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstration Projects</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ancillary Services and activities:**
1. Training and supervision of teachers.
2. Supervision and evaluation of programs.
3. Experimental and demonstration programs.
5. Improvement of State administration, supervision and leadership.

**the 90% to be allotted among the states on the hours of the number of persons in the various age groups needing vocational education and the per capita income in the respective states (Sec. 3(a))**
Section II

The Vocational Education Amendments of 1968
As Chart 1 noted, Demonstration Project and Curriculum Materials were grouped together in the Vocational Education Act of 1963 with Research and Development listed separately. However, the Vocational Education Amendments of 1968 separated these into distinct categories, Part C, D and I.

In a speech given at the Southern Vocational Education Research Conference in Blacksburg, Virginia, Dr. Glenn Boerrigter, Chief of Research Branch, Bureau of Occupational and Adult Education, fully explains how Part C, D and I are handled. Since Dr. did such a superb job of explaining these parts, the following is portions of his speech verbatim with no attempts at paraphrasing:

"In terms of bringing you up-to-date, and there may be some that do not know what the existing federal legislation or programs are all about, in essence we have in the Division of Research and Demonstration six different programs. Two of these are at the state level and then we distinctly administer four at the federal level. However, one of those is a training program and I'll characterize it more in just a few minutes.

Let me hit first the Part C program. Under Part C, we do have $18,000,000 and have had that for the last number of years; it's been running level. Half of this goes directly to the states on a formula basis and the other half is administered at the federal level. We refer to it often as the Commissioner's Funds; the Commissioner's Funds in this instance are Section 131A. To give you a few features of the Commissioner's Funds, they are characterized by state allotments and this is very unique in Federal..."
R & D. But in vocational education under Part C, we start out at least with the premise of having state allotments: in other words, there is a formula basis and Part C goes along with the same formula as you have under Part B. So whatever the proportional share that a state would get out of Part B funds is the kind of proportional share you are going to get from Part C. When I say to the state, and I ought to make the distinction because this gets confusing and does cause us problems, when we talk about state allotments with the Commissioner's Funds we are talking about the geographical entity of the state versus the funds that go on a formal basis to the state that go to the political entity. So the funds that we administer go to the geographical entities.

Everyone, except individuals, are eligible for consideration of receiving awards under the Commissioner's share; in other words, profit-making groups, non-profit-making groups, colleges, universities, state departments, LEA's, everyone except individuals are eligible.

In terms of Part C functionally, what kinds of things we can do, Part C is a very broad piece of legislation. Functionally, though the title of it is "Research and Training," we can support research; we can support decision-oriented studies; we can support demonstrations; we can even support dissemination; so, research is somewhat of a misnomer.

Another kind of categorization that is almost a misnomer talks about research and training. The training authority under Part C is very limited. The only kind of training that we
can support are allowed to support would be training with regard to research results or the results of exemplary demonstrations and successful practices. The training function is very limited in nature.

Another feature of the Part C program is that applications from local educational agencies do have to be approved by a state board. In other words, if a state board of vocational education does not approve them, even though we might like to fund them, we could not fund them. In some instances, community colleges are considered to be LEA's. In Virginia, community colleges are not considered to be LEA's because you have a different state board structure. But in some states, that's not true. Community colleges come directly under vocational education and therefore their applications would have to be approved before we could consider funding them.

Another feature of our Part C program, and this is strictly administrative and nothing to do with the law, we have chosen to put a maximum duration of 18 months on our projects. We often end up giving amendments to extend the duration, but anyway, we start out with that kind of premise. One of the reasons we start out with that kind of premise is the fact that under Part D which has, and I'll talk more about it, projects that normally run three years in duration. But with level funding if you run a project three years in duration you obviously are not going to have new competitions. We've wanted to have at least one of our programs available for competition every year. Also, in the federal government if you full fund we have to get a waiver to do so; but you can get this for 18 months, and if
you fund projects then you can have a new waiver each year. So, we've chosen to go that route. Putting 18 months limitations on projects obviously has some implications in terms of types of R & D and so forth. We understand that yet, it seems to be a better strategy for us to follow.

Another kind of thing that we obviously do in research programs is that we announce our priorities in the Federal Register. One of the things if you don't understand you need to understand is that federal administration of R & D is a competitive process. In order to try and keep that competitive process open so that people can compete for funds, have an opportunity for funds, and have, I might say, an equal opportunity for funds, every year we put an announcement in the Federal Register. This announcement, I might add, is for a grant competition. We also put a couple of announcements in the Commerce Business Daily, but those are for contract competitions. A little later in the presentation I'm going to give you a few distinctions between grants and contracts because it's fairly important to know and it certainly is going to impinge on what the new legislation says.

We also, in the research program under Part C, have what we call "skimming authority," meaning that if we want to skim dollars away from the state allotments or from the states on an equitable basis we can do so. The fact is the matter is we could skim it all away and not be violating the legislation. We've never chosen to do that, we don't think that is the intent of Congress. In fact, a legal opinion on the matter indicated that we may do so and we won't go to jail, but they wouldn't recommend
that we do it and we agree. We should not do it and therefore don't. But we do skim some dollars away. Our announcements in the Federal Register for the past three years have been running about seven and a half million versus nine million that we have.

I could talk about the kinds of projects that we skim away but it would probably suffice to say at this moment that we do some RFP's; we have a few sole sources, and that means that we have gone directly to someone and asked them to do something or we could have received what you call an unsolicited proposal. Some of you in this room, I know, have been submitting proposals to us and I suspect you might have been saying, "Well, gee, I was submitting an unsolicited proposal." No you weren't technically. Technically, you were submitting it to one of our announcements and therefore it was a solicitation on our part. That's a little bit of technical jargon but, anyway, we do have some sole sources and then we also do a little work, because there is pressure to do so, to go to the small business administration. Last year we had two and this year we will have a couple also. There is competition at the small business administration but it's a very limited kind of competition.

Another kind of thing we do with our Part C research is that we support the AIM and ARM Clearinghouse out of the Commissioner's Funds.

The remaining funds, of course, may be used by the state at their discretion. In some cases, it is used right in the department and in some cases they have their own competitions.
That is one kind of program, the research end of it. Let's go on to the demonstration program, Part D. Under the Part D program it has a very limited kind of authority. It is literally limited to the conduct of demonstrations. They have, for example, no skimming authority, and so Part D has awarded no contracts during the last few years. That particular program is a $16,000,000 program, half going directly to the states and half being administered by the Commissioner.

There is quite a different feature built into that program, it is part of the law, and it indicates in this case that state boards have disapproval authority over applications. There is quite a difference; it wouldn't sound like it at first blush between approval authority or disapproval authority, but depending upon how states want to react to this one it can come out quite differently. Some states, maybe not too many, but some choose to disapprove all applications except the one that the state would like to have funded. When that sort of thing happens, fairly obviously, we fund the one or ones that are left that the state did not disapprove. So it makes quite a difference because that's disapproval authority on all applications versus Part C, just for LEA's, where it's only approval authority; so, if they approve it, it doesn't say, jumping back, that we would approve it.

The Part D, obviously, also publish their announcements in the Federal Register. They do have a competition every year but, and the big but is that normally projects are funded for three years and so in a given state where you have projects awarded, they will run for three years and then you'll have
another competition. This particular year is a major competition under Part D. I think there are about 42 states that are eligible for funds and their fund deadline date this year under Part D, I believe, is about June 18. They went through some planning, grant awards and so forth. You might even, and again it's a little technical kind of thing, say, "Well, how do they get their funds awarded this fiscal year if they only start the competition June 18?" Part D happens to have no year funds or they have two year funds, so they don't have to be obligated in the year they're appropriated by Congress.

A couple of other features about Part D is that it, I guess I could say that on C, that it too extends all the way from elementary level through the post-secondary level. Also Part D, in the legislation, has built into it that you have to have cooperation with private schools. You don't find that one in Part C.

Another sort of feature of Part D, incidentally some I'm certain could quibble with me and very strongly, but I guess I would say the first definition at least of career education was Part D. If you look at the legislation and what it says you ought to be doing under Part D, it literally, you can get better definitions but it was the definition, and I think out of the Part D program really eminated career education in the country. Jumping back a little bit, we did support career education under Part C in 1973 and 1974 but the latter three years now we have not gone that route. We've stuck more closely with vocational education, but we continue, and I make some of these distinctions because we continue to get some flap about
"Why are you doing almost career education. Let's-keep your vocational education monies closer to vocational education," and all I can say is under Part D you don't have authority to do that. You have to do fairly well what the legislation spells out for you, and it is, at least, work experience-oriented so we move in that direction.

Under the Part I piece of legislation which pertains to curriculum development for the last three years, has been running at the one million dollar level. It does have an authorization of $10,000,000. The highest it ever got was up to, I guess, four million. We did get one year, about a year or so late after a suit, another million. Congress had appropriated five million and it was held in escrow and what have you. So about a year or so later we picked that up, but it's been running at one million.

Part I is quite different from either C or D. There are not two halves to it to start with. It is only a Commissioner's pot of money, as I like to refer to it and it does not have state allotments built in. It truly is a nationally-oriented kind of money.

Under Part I program for the last two years they've really been doing two kinds of things: under the grant mode they've been supporting, I believe, six curriculum coordinating centers and at a fairly low level of $40,000 to $50,000 each for a total of about $250,000. The remaining money, about $750,000 has been used for RFD's. Last year they supported, in essence, three projects and went under the contract route.
Besides Boerrigter's speech, other information is available in order to make Parts C, D and I more clear. A rather comprehensive report on the impact of funds expanded for the purposes outlined in Part C, D and I of The 1968 Amendments appears in the Project Baseline Supplemental Report. Although this report does not cover the entire period from 1968 to the present, it does feature detailed information for FY 1971, 1972 and 1973. It also describes some trends for the period of time beyond 1973.

Part C: Money appropriated for Part C of the Vocational Education Amendments of 1968 was designated to be spent for research-related activities. With the aid of a detailed classification system, Miller was able to identify the following uses of Part C funds: 3

a. The Commissioner's Part C Research and Development money was primarily spent for the development of career education programs. Many of the projects had a guidance and counseling component. A large number of projects included elementary career awareness and junior high exploratory and orientation activities.

b. Over 700 state-administered research and development projects were funded in Fiscal Years 1971, 1972 and 1973. During this three year period over fifty-six percent of the money spent was proposed to affect instructional questions, thirty-two percent of the money spent was designed to affect administration questions, and twelve percent was directed at policy questions. The funding pattern was very consistent for each of the three years.

Part D: The development of new ways to create a bridge between school and earning a living for young people is the major thrust of Part D funds. Miller offers us the following information regarding Part D funding practices: 4
a. The Commissioner's Part D money emphasized cooperative education at the high school level and career education. Only a small number of projects focused on cooperative education at the college level.

b. Most of the states' portion of Part D money (seventy-four percent) went to programs for students who were still in school. About twenty-three percent of the funds were spent for post-secondary vocational education. A very small percentage of the total funds (two percent) was used to fund projects for out-of-school youth.

Part I: The major focus of attention for Part I funds throughout FY 1971, 1972 and 1973 was curriculum improvement. To facilitate improvement in this area the USOE was allowed to contract with three types of agencies: (1) colleges and universities; (2) state boards or other public nonprofit agencies; and (3) public or private agencies, organizations or institutions. Part I money was allocated to these agencies in the following manner:

- State Departments and State Boards (22%)
- Independent School Districts (1.5%)
- Colleges and Universities (34.3%)
- Private Concerns (39.6%)

Although Part I funds could be used to support a variety of projects designed to improve vocational-technical curriculum, over eighty percent of the money was used to fund development of curriculum materials.

To put the preceding information into condensed form, refer to Chart 2. You can easily see the increase in expenditures over the Vocational Education Act of 1963.
## Chart 2  Vocational Education Amendments of 1968

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Amount of Authorization</th>
<th>Method of Distribution</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Development.</td>
<td>$85,500,000 - 1969</td>
<td>Half - State Admin. formula)*</td>
<td>Notes:</td>
</tr>
<tr>
<td>Part C</td>
<td>56,500,000 - 1970</td>
<td>Half-Federal Administered**</td>
<td>**Commissioner's Funds in this instance is section 131A.</td>
</tr>
<tr>
<td></td>
<td>67,500,000 - 1971</td>
<td>10% of section 102(a) allotted among the states on the basis of the number of persons in the various age groups needing vocational education and the per capita income in the respective states. (Grants and Contracts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>67,500,000 - 1972</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>56,500,000 - 1973</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(However, 18,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Program in Reality)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Curriculum (Part I)               | $10,000,000 - 1970      | Commissioner's Funds Only* State Departments and State Boards (22%) Independent School Districts (1.5%) Colleges and Universities (34.37%) Private Concerns (39.6%) |
|                                   | 7,000,000 - 1969        |                                                                                        |          |
|                                   | However, only about $1,000,000 level in reality. |                                                                                        |          |

| Demonstration Projects (Part D)   | $15,000,000 - 1969      | Half States * (Grantor Contracts with agencies) Admin. Half Federal Admin. (Commissioner authorized to make grants or contracts with state boards or local educational agencies. |
|                                   | 57,500,000 - 1970       |                                                                                        |          |
|                                   | 75,000,000 - 1971-72    |                                                                                        |          |
|                                   | (However, only about $16,000,000 program in reality. |                                                                                        |          |

Notes:
- * It does not have state allotments built in. Approximately 80% was used to fund the development of curriculum materials.
- **State Boards have disapproval authority over applications. Note: Part D really emanated career education in the country according to Boerrigter.
Section III

The Vocational Education Amendments of 1976
One of the most striking differences between the Vocational Education Amendments of 1975 and those of 1968 is the consolidation of research, exemplary and innovative programs, curriculum development and staff development into a single category. Where each of these activities in the past had categorical funding, under the new amendments the state plan will set forth how funds are to be expended, while the commissioner will determine allocations for programs of national significance. The reason for the consolidations, as stated by the House Committee on Education and Labor, was that the separate programs in the past had too frequently operated in isolation without any continuity from research, to demonstration, to implementation (House Report No. 94-1085, p. 44). Thus the implication is clear at both the state and national level that a comprehensive and incremental program must emerge for moving validated practices and products into widespread use. The achievement of this intent necessitates that: (a) researchers, developers, and program managers be in agreement on the problem areas to be addressed and on the proposed strategies for resolving the problems; (b) researchers, in formulating solutions, consider the availability of dollars needed to implement; (c) program managers be willing to commit funds to implement valid improvement activities; (d) plans for addressing a problem area include the phases of research, development, demonstration, demonstration/training, and adoption to which both the researcher and program manager are committed; and (e) effort be targeted on a few areas of concern.
The new Vocational Amendments of 1976 stress immediate program improvement as the single major concern for programs of research and development. For both the state and national program only those projects are to be funded that show a reasonable probability that they will result in improved teaching techniques or curriculum materials within five years after the termination date of such project. Thus Congress has placed emphasis on using available dollars for applied research, rather than research to generate new and basic knowledge. Through the legislation, Congress reflected a concern over the quality of vocational programs intended that research and development resources be used to improve program effectiveness.

The new legislation places emphasis on research and development activities that have high potential for succeeding. Research and development activities are to be closed-ended rather than open-ended; nowhere is this clearer than in the described nature of applications to be funded. States are limited to contracts in funding research, exemplary and innovative programs, and curriculum development, and may use either grants or contracts for vocational education personnel training. Funds under the programs of national significance are to be used primarily by the Commissioner for contracts, and only in limited cases are they to be used for grants. By limiting research and development activities to grants, Congress intended to require greater precision from the applicants in describing what they proposed to achieve and greater accountability from them during the time of the contract. Under such
arrangement, applicants will be responding to a structured request for a proposal, where there is already considerable agreement regarding the solution of the problem. The emphasis will be on development, demonstration, and validation of a given solution rather than generating and testing several possible solutions.  

The need for research and development activities are emphasized in virtually every major section of the amendments. Table I contains those research and development activities identified within each section of the amendments. Through the amendments, Congress stressed that a priority be placed on the use of federal dollars by the states to extend and improve vocational education. Thus the 20 percent of the basic state grants to be expended for improvement activities is intended to be minimum, and it is expected that states will expend an even greater amount of their state grants on improvement activities. Further, Table I identifies those sections of the amendments with funding that can be used for research and development. The intent is that the tools of research and development be used by vocational education policy makers, managers, planners, and evaluators as a means to improve program effectiveness at the classroom level, especially for those persons with special needs.

The new legislation maintains an emphasis on research and development at both the state and national level. Further, the amendments maintain vocational education research and development as a subsystem within the program of vocational
education. At the state level, program improvement activities are to be an integral part of the state plan.

At the national level, funds can be used (a) to support any activity of national significance authorized under subpart 3 of the amendments; (b) to support a national center for research in vocational education; (c) to construct curriculum materials developed for the Armed Services for use by public and non-profit vocational programs.

The legislation sets forth a structure for administering vocational research and development activities at the national level. First, the commissioner is to fund a national center which shall be non-profit and which shall be assisted by an advisory committee appointed by the commissioner. This center either directly or through other agencies shall conduct a planned program of research and development. A significant assignment given to the national center is to develop and provide information to facilitate national planning and policy development in vocational education.

The charge for research and development is to pursue improvement activities that increase the potential of vocational education to meet the needs of special students and to serve female students in non-traditional programs. The Vocational Amendments of 1976 provide considerable emphasis on activities that would improve the effectiveness of vocational education in serving disadvantaged and handicapped youth and adults. This would include unemployed youth, youth and adults from areas of high unemployment and geographical areas sparsely populated. Considerable importance is given to serving female youth and
adults in vocational programs that have traditionally been for members of the opposite sex. Some emphasis is given to post-secondary students and to all students in relation to determining program effectiveness. From the emphasis in the 1976 Amendments on improving teaching skills and techniques, one could deduct several possible areas of major research and development activities:

1. Competency based preservice and in-service education;
2. Development and use of reliable and valid instruments to assess on-job performance of vocational teachers as a basis for improvement;
3. Development and demonstration of a performance based certification system for vocational teachers;
4. Identification and validation of those teaching skills that facilitate student learning;
5. Identification and validation of those teaching skills that enable vocational teachers to serve students with special needs in regular programs and female students in traditional programs; and
6. Development and demonstration of preservice and in-service training designs that result in teachers demonstrating expected skills on the job, and that result in administrators, teachers, and counselors overcoming sex stereotyping and discrimination.

Further, the emphasis given in the 1976 Amendments to the democratization signed to prepare state and local leaders to involve others in state and local planning and to provide visionary leadership in maintaining effective programs, in developing and expanding programs in areas of needs, and in continually searching for ways to improve program effectiveness.
Fully explaining the funding process is a near impossible task. Due to history, researching, budgeting publications and the clarity of the divisions (Parts) of the Vocational Education Act of 1963 and the Vocational Education Amendments of 1968, I was able to give a fairly close estimate of the expenditure for Research and Development, Demonstration Projects and Curriculum Improvement. However, as mentioned earlier, this is a near impossible task to request for the Vocational Education Amendments of 1976 because they are grouped together under one expenditure category (Part A - Subpart 3; Program Improvement and Supportive Services). Besides research, exemplary and innovative programs (maybe demonstration projects) and curriculum development also included in Subpart 3 is Guidance and Counseling Services, Pre-service, In-service training and grants the overcome sex bias. However, not less than 20% of Subpart 3, "shall be used to support programs for vocational development guidance and counseling programs and services." 12

Although an exact amount cannot be given for the expenditures for research and development, demonstration project and curriculum development, the process can be explained which will give a "ballpark figure." However, even this amount will be theoretical since the authorizations versus the appropriations are not the same. Refer to Chart Number 3 for the explanation of the process. As the chart explains, Section 102(a) authorized $880,000,000 for the purpose of carrying out subparts 2 and 3. However, before this is allocated to the state, the Commissioner reserves 5 percent. From this amount, he transfers $3,000,000 (minimum) to $5 million (maximum) per year to the National Occupa-
tional Information Coordinating Committee. The remainder is then used by the Commissioner for programs of national significance (Part B, Subpart 2). From the remaining 95 percent, the Commissioner reserves one percent for vocational programs for Indians, to be contracted directly with eligible tribes, with any remaining portion transferred to the Bureau of Indian Affairs. All remaining funds are then allocated (94% of $880,000,000) to the states under the same formula as the 1968 Amendments. Of the funds which are then allocated to each state, 80 percent is used for subpart 2, and 20 percent for subpart 3.

From the 20 percent (subpart 3), 20 percent shall be used for vocational guidance and counseling. The other funds under Subpart 3 carry no stipulations.

Even if a true amount could be determined under Subpart 3, the fact that a portion of the Commissioner's 5 percent would have to be added along with all the other allocations listed under Table I, would change the total amount again for research development, demonstration projects and curriculum development.

Several tables and charts are listed in the Appendix which will help explain other areas of the funding process. Also select pages from the Federal Register are provided to aid in explaining the funding process.
### Chart 3  
1976 Amendments - Title I - Vocational Education

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Amount of Authorization</th>
<th>Method of Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A - Subpart 3*</td>
<td>$176,000,000 (which is 20% of basic grant. section 102(a)*</td>
<td>Grants to States under this subpart may be used in accordance with five-year state plans, and annual program plans</td>
</tr>
<tr>
<td>Program Improvement and Supportive Services 1978</td>
<td>$176,000,000</td>
<td>(Sec. 134) Pre-service and in-service training</td>
</tr>
<tr>
<td>Section 131-Research 1978</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-10,056,000 (.06) comm. land and Indians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-35,000,000 20% not less than this mandated in Section 134</td>
<td></td>
<td></td>
</tr>
<tr>
<td>165,944,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>130,944,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 132 - Exemplary and Innovative Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979 - $154,912,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980 - $178,472,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981 - $199,180,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982 - $223,344,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 133 - Curriculum Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>And Judicial Review <strong>the other 80%.i. authorized in section 120 1978-704,000,000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Funds will be allocated to states under same formula as 1968 amendments. -In most states the RCU's allocate this money with approval of state department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Sex bias monitoring personnel (Sec. 104(b) ($50,000 per state) Work study (Sec. 122) Energy Education (Sec. 123) Residential Schools (Sec. 124)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Commissioner's Fund 1979 is $23,707,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table I

**Research and Development Emphasis within New Vocational Education Amendments of 1976**

<table>
<thead>
<tr>
<th>Program</th>
<th>R &amp; D Activities and Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Basic State Grants (Sec. 120)</td>
<td>1.1 Reduce sex stereotyping and sex discrimination in vocational education.</td>
</tr>
<tr>
<td></td>
<td>1.2 Development of state planning information: employment projections, enrollment projections, program effectiveness, and efficiency information.</td>
</tr>
<tr>
<td></td>
<td>1.3 Develop model programs to reduce sex stereotyping in all occupations.</td>
</tr>
<tr>
<td></td>
<td>1.4 Develop model programs for serving disadvantaged and handicapped students in regular vocational education programs.</td>
</tr>
<tr>
<td></td>
<td>1.5 Conduct program evaluation to determine if graduates obtained employment related to their training and to determine if employers considered them well trained.</td>
</tr>
<tr>
<td></td>
<td>1.6 Conduct supplementary demonstration projects related to energy education.</td>
</tr>
<tr>
<td>2. Program Improvement and Supportive Services (Sec. 130)</td>
<td>2.1 Comprehensive plans of program improvement involving applied research and development in vocational education.</td>
</tr>
<tr>
<td>A—Research (Sec. 131)</td>
<td>2.2 Experimental, developmental, and pilot programs to test effectiveness of research findings, including programs to overcome sex bias and stereotyping.</td>
</tr>
<tr>
<td></td>
<td>2.3 Improved curriculum materials and new materials for new and emerging job fields.</td>
</tr>
<tr>
<td></td>
<td>2.4 Projects in the development of new careers and occupations.</td>
</tr>
<tr>
<td></td>
<td>2.5 Dissemination of R &amp; D project results.</td>
</tr>
<tr>
<td></td>
<td>2.6 All approved projects must demonstrate reasonable probability that within five years it will result in improved teaching techniques or curriculum materials.</td>
</tr>
<tr>
<td></td>
<td>2.7 Funds may be used for development of high quality programs for urban centers with high concentration of disadvantaged.</td>
</tr>
<tr>
<td></td>
<td>2.8 Development of programs for persons in sparsely populated areas.</td>
</tr>
<tr>
<td></td>
<td>2.9 Development of programs for persons of limited English speaking ability.</td>
</tr>
<tr>
<td></td>
<td>2.10 Improved correlation between vocational education and projected labor market needs.</td>
</tr>
<tr>
<td></td>
<td>2.11 Programs to improve occupational aspiration and opportunities of youth especially disadvantaged and handicapped.</td>
</tr>
<tr>
<td></td>
<td>2.12 Projects to familiarize K-twelve students with broad range of occupations, their skill requirements, and training requisites.</td>
</tr>
<tr>
<td></td>
<td>2.13 Projects to facilitate participation of employers and labor organizations in post-secondary vocational education.</td>
</tr>
<tr>
<td></td>
<td>2.14 Projects to reduce sex stereotyping.</td>
</tr>
<tr>
<td></td>
<td>2.15 Development and dissemination of new curriculum materials for new and changing occupational fields and for persons with special needs.</td>
</tr>
<tr>
<td></td>
<td>2.16 Development of curriculum and guidance and testing materials to overcome sex bias.</td>
</tr>
<tr>
<td>3. Consumer and Homemaking (Sec. 150)</td>
<td>3.1 Research, development, demonstration, curriculum, or evaluation activities that would assure quality in homemaking education.</td>
</tr>
</tbody>
</table>
Table I (Continued)

<table>
<thead>
<tr>
<th>Program</th>
<th>R &amp; D Activities and Emphasis</th>
</tr>
</thead>
</table>
| 4. National Advisory Council (Sec. 162) | 4.1 Conduct such studies as necessary to formulate appropriate recommendations.  
4.2 Conduct independent evaluations of programs.  
4.3 Support a national center for vocational education research.  
4.4 Conduct applied research and development on problems of national significance in vocational education.  
4.5 Provide leadership development on advanced study centers and in-service education activities for state and local vocational leaders.  
4.6 Disseminate results of projects funded.  
4.7 Develop and provide information to facilitate national planning and policy development in vocational education.  
4.8 Develop methods for program evaluation including follow-up studies.  
4.9 Convert Armed Services curriculum materials for use by public and private vocational programs.  
4.10 Disseminate results of projects funded.  
4.11 Develop instructional material, methods, or techniques for bilingual vocational training.  
4.12 Research in bilingual vocational training.  
4.13 Projects designed to test the effectiveness of research findings. |
| 5. State Advisory Council (Sec. 105) | 5.1 Conduct such studies as necessary to formulate appropriate recommendations.  
5.2 Conduct independent evaluations of programs.  
5.3 Support a national center for vocational education research.  
5.4 Conduct applied research and development on problems of national significance in vocational education.  
5.5 Provide leadership development on advanced study centers and in-service education activities for state and local vocational leaders.  
5.6 Disseminate results of projects funded.  
5.7 Develop and provide information to facilitate national planning and policy development in vocational education.  
5.8 Develop methods for program evaluation including follow-up studies.  
5.9 Convert Armed Services curriculum materials for use by public and private vocational programs.  
5.10 Disseminate results of projects funded.  
5.11 Develop instructional material, methods, or techniques for bilingual vocational training.  
5.12 Research in bilingual vocational training.  
5.13 Projects designed to test the effectiveness of research findings. |
| 6. Programs of National Significance | 6.1 Support a national center for vocational education research.  
6.2 Conduct applied research and development on problems of national significance in vocational education.  
6.3 Provide leadership development on advanced study centers and in-service education activities for state and local vocational leaders.  
6.4 Disseminate results of projects funded.  
6.5 Develop and provide information to facilitate national planning and policy development in vocational education.  
6.6 Develop methods for program evaluation including follow-up studies.  
6.7 Convert Armed Services curriculum materials for use by public and private vocational programs.  
6.8 Grants made can demonstrate a reasonable probability that such grant will result in improved teaching techniques or curriculum materials in a substantial number of classrooms or other learning situations within five years.  
6.9 Develop instructional material, methods, or techniques for bilingual vocational training.  
6.10 Research in bilingual vocational training.  
6.11 Projects designed to test the effectiveness of research findings. |
| 7. Bilingual Training | 7.1 Develop instructional material, methods, or techniques for bilingual vocational training.  
7.2 Research in bilingual vocational training.  
7.3 Projects designed to test the effectiveness of research findings. |

Summary

Since 1963, appropriations for Research and Development, Demonstration Projects and Curriculum Development has increased from approximately $8 million annually to $80 million dollars in 1978. Although the preceding figures are authorizations and not actual monies spent, it still shows the ratio of the income. Also it is interesting to note how Congress groups Research and Development, Demonstration Projects and Curriculum Development. However, by doing this, it is the intent of Congress to get full cooperation, understanding and co-ordination of all agencies.

In conclusion, it appears that Curriculum Development is receiving far too little emphasis. It seems that more monies should be spent on Curriculum Development. Why? Well structured, well written curriculum materials can be utilized by new students which will aid their institution which should make a significant impact on student learning. Research
in Vocational Education should always be a result of aiding
the student either directly or indirectly. Is one million
annually spent on Curriculum Development getting the job done?
What is the one reason that all of us in Vocational Education
have jobs? Is it not the students?
1. HEW, Pamphlet entitled The Vocational Education Act of 1963.


3. A.M. Lee, Learning a Living Across the Nation, p. 14

4. Ibid, p. 14

5. Ibid, p. 15


7. Ibid, p. 2

8. Ibid, p. 2

9. Ibid, p. 3

10. Ibid, p. 4

11. Ibid, p. 6

REFERENCES


Lee, A.M. Learning a Living Across the Nation. Project Baseline. Flagstaff, AZ: Northern Arizona University (over 20 reports cited in ERIC under Project Baseline description, including Miller & Miller).


TELEPHONE INTERVIEWS

Bob Balthaser, Research and Planning, Ohio State Division of Vocational Education.

Harold Dais, Bureau of Occupational and Adult Education, Washington, D.C.

Staff Representative, Ohio Vocational Association

Lucy C. Thrane, The National Center for Research in Vocational Education.
Appendices A-C of this document were removed prior to its being submitted to the ERIC Document Reproduction Service because they would not reproduce in microfiche.