In 1981, the Louisiana Legislature passed Act 685 which requires all public schools to provide balanced instruction for creation-science and evolution-science beginning with the 1982-83 school year. In an effort to determine the role of the State Department of Education in assisting the local education agencies in implementing this act, a task force was appointed and a 19-item questionnaire was sent to local superintendents (N=66) to obtain information related to four major research questions. Summarized in this document are the findings of the study and recommendations for future direction. The report concludes among other findings, that superintendents have limited knowledge of Act 685, have received few inquiries about the act, believe that few teachers address either theory, and lack funding for implementation. (DC)
Accountability Development Evaluation
Management Information Systems Research

STATUS ASSESSMENT: ACT 685-BALANCED TREATMENT FOR CREATION-SCIENCE AND EVOLUTION-SCIENCE

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STATUS ASSESSMENT: ACT '685-BALANCED TREATMENT FOR
CREATION-SCIENCE AND EVOLUTION-SCIENCE

November, 1981

Submitted By:

Dr. Janella Rachal
Bureau of Evaluation
Office of Research and Development

Submitted to:

Dr. Robert Gaston
Assistant Superintendent of Academic Programs
and
Chairman of the Overall
Creation-Science and Evolution-Science Committee
EXECUTIVE SUMMARY

During the 1981 Regular Session, the Louisiana Legislature passed Act 685 mandating balanced treatment for creation-science and evolution-science in the public schools commencing with the 1982-1983 school session. As interpreted by the Louisiana State Department of Education (SDE), responsibility for the implementation of Act 685 rests with the local education agencies (LEAs). In keeping with its mandate to provide leadership for Louisiana public education, the SDE established a Task Force under the direction of Assistant Superintendent Robert Gaston to assess and define the role of the SDE in assisting LEAs to implement Act 685.

The Bureau of Evaluation within the Office of Research and Development developed a questionnaire to provide information to the Task Force in response to four major research questions.

1. What is the level of knowledge and awareness among Louisiana superintendents and community members concerning Act 685?

2. What is the current status of instruction concerning creation-science and evolution-science within Louisiana public schools?

3. What is the current status of and what are LEA needs in relation to the implementation of Act 685?

4. What is the potential role of the SDE in the implementation of Act 685?

The 19-item questionnaire sent to the 66 local superintendents across the state led to the following conclusions:

- The current level of knowledge among Louisiana superintendents concerning Act 685 is limited.
- Local superintendents have received few inquiries from community members concerning Act 685.
- As perceived by local superintendents, few teachers currently address either creation-science or evolution-science in their courses. Balanced treatment is not currently being accorded to the teaching of these two theories.
- In general, LEAs have not begun developing plans for implementation of Act 685. New materials and staff development will be needed.
Superintendents report that they do not have funds to implement Act 685.

LEAs want SDE leadership and involvement in the implementation of Act 685 in such areas as curriculum development, inservice, material review/selection, budgetary matters, and policy development.

Based on an analysis of the results of the returned questionnaires, the Bureau of Evaluation makes the following recommendations:

1. The text of Act 685 should be carefully explicated and made available to the LEAs.

2. The SDE should develop projections of the level of expenditures required for implementing Act 685 and identify possible funding sources.

3. The SDE should immediately develop a timetable detailing how all of the activities required for implementing Act 685 will be accomplished by the mandated 1982 date.

4. The SDE should develop a statement of its role concerning the implementation of Act 685 to be made available to LEAs.
INTRODUCTION

RATIONALE

During the 1981 Regular Session, the Louisiana Legislature passed Act 685 (Senate Bill No. 861--entitled "Balanced Treatment for Creation-Science and Evolution-Science" (Appendix A). Under the provisions of this law, public schools are directed to give balanced treatment to creation-science and evolution-science commencing with the 1982-1983 school year.

Similar bills are currently being examined by almost one third of the state legislatures across the country. However, only Arkansas preceded Louisiana in the enactment of legislation requiring schools to give scientific creationism equal time with evolutionary theory. A suit challenging the Arkansas law has been filed in that state by a coalition including the American Civil Liberties Union, a variety of religious leaders, and organizations such as the National Association of Biology Teachers.

As interpreted by the Louisiana State Department of Education (SDE), Act 685 places responsibility for the implementation of balanced treatment on the local education agencies (LEAs). Each city and parish school board is directed to develop and provide to all of its public school classroom teachers curriculum guides for the presentation of creation-science. Existing teacher inservice training funds and existing library acquisition funds are to be used by the LEAs to facilitate implementation. Noticeably absent within the
provisions of Act 685 is a definition of the role which the Department of Education is to assume in the implementation of this law.

The SDE, under the direction of Superintendent J. Kelly Nix, is charged with the responsibility of providing leadership for public education in Louisiana. LEAs normally look to the SDE for technical assistance in planning, curriculum development, and inservice/staff development. In response to the Department's mandate to provide such leadership, a Task Force (Appendix B) was created under the direction of Assistant Superintendent Robert Gaston to assess and define the role of the SDE relative to the implementation of Act 685. The Bureau of Evaluation within the Office of Research and Development was assigned primary responsibility for providing information to the Task Force concerning the potential impact of this law on LEAs.

Research Questions

In response to the request for information from the SDE Task Force concerning the potential impact of Act 685 on LEAs, four general research questions were developed by the Bureau of Evaluation to serve as a guide for data collection.

1. What is the level of knowledge and awareness among Louisiana superintendents and community members concerning Act 685?

2. What is the current status of instruction concerning creation-science and evolution-science within Louisiana's public schools?

3. What is the current status of and what are LEA needs in relation to the implementation of Act 685?

4. What is the potential role of the SDE in the implementation of Act 685?
Instrumentation

Based on these broad questions, a questionnaire was developed to obtain information from local superintendents concerning the status of Act 685 within their local school systems. The instrument, entitled "Status Assessment: Act 685 - Balanced Treatment for Creation-Science and Evolution-Science," is included within this report (Appendix C).

Data Collection Procedures

Prior to the actual collection of data, a letter (Appendix D) was sent from the office of Superintendent Nix on October 21, 1981, advising each local superintendent of the passage of Act 685 and of the questionnaire which would be forthcoming concerning the status of that law within each LEA. A copy of Act 685 was included with the correspondence.

On October 28, 1981, a second letter (Appendix E) from Superintendent Nix accompanied the mailing of the "Status Assessment" to all superintendents across the state. The need for the questionnaire was explained and the importance of its completion was emphasized. A deadline of November 11, 1981, was set for its return to the Bureau of Evaluation.
FINDINGS AND DISCUSSION OF RESULTS
Presentation of the Data

The questionnaire "Status Assessment: Act 685 - Balanced Treatment for Creation-Science and Evolution-Science," was sent to all local superintendents of Louisiana's 66 public school systems. Of this number, 45 were returned for a 68.2% response rate. Two of the 45 were unusable due to multiple responses to items requiring the selection of a single option. The following data therefore reflect the combined results obtained from 43 local public school superintendents.

The data received from the "Status Assessment" are reported as response frequencies for each of the 19 items. Questions 1 and 2 (perceived knowledge of Act 685 and of creation-science theory, respectively) are analyzed in terms of the respondents' definitions of creation-science to determine whether those who define it as Biblical in Question 3, were more or less likely to report adequate knowledge. Question 10 also serves as a point of divergence in analyzing subsequent responses. This question distinguishes between LEAs which plan to give no instruction in either evolution-science or creation-science and those which will, or might, offer balanced treatment or some other approach. In response to Question 11, data are presented for only those who selected the balanced treatment option in 10. Questions 12 through 19 deal with LEA plans to implement Act 685, and they are reported in terms of the respondent's indication of either "no treatment" or as a compilation.
of responses indicating "balanced treatment," "other" or "undecided" in terms of planned instruction in evolution-science and creation-science. This report presents data in both categories but discusses only the implementation plans of those respondents who indicated that their LEAs will provide balanced treatment, that they are undecided or that they have other plans. All data are presented in Tables 1 (items 1-11) and 2 (items 12-19).
Table 1. Awareness, Interest and Current Status: Creation-Science and Evolution-Science
(N = 43)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>RESPONSE FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How would you rate your present understanding of the provisions of Act 685?</td>
<td>a) No knowledge 1 2.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Limited knowledge 28 65.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Adequate knowledge 14 32.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Extensive knowledge 0 0.0%</td>
<td></td>
</tr>
<tr>
<td>2. How would you rate your current knowledge of creation-science theory?</td>
<td>a) No knowledge 3 7.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Limited knowledge 29 67.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Adequate knowledge 9 20.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Extensive knowledge 0 0.0%</td>
<td></td>
</tr>
<tr>
<td>3. Act 685 defines creation-science as &quot;the scientific evidences for creation and inferences from those scientific evidences.&quot; Based on this definition, how would you interpret creation-science?</td>
<td>a) The account of the creation of the universe and all living things as it is given in the Bible. 17 39.5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) The argument that all living species appeared about the same time and that, while some species disappeared during natural cataclysms, new species have not appeared since then. 4 9.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) The argument that the universe was made by a creator but that more complex species continue to develop from simpler ones. 15 34.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Other 2 4.7%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e) Don't know 5 11.9%</td>
<td></td>
</tr>
<tr>
<td>4. What is your impression of the attitudes of people within your community about including creation-science in the curriculum?</td>
<td>a) Generally favorable 4 9.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Generally unfavorable 8 18.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Indifferent 14 32.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Don't know 17 39.5%</td>
<td></td>
</tr>
<tr>
<td>5. How many inquiries have you received concerning the imple-</td>
<td>a) 0-5 32 74.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 6-10 5 11.9%</td>
<td></td>
</tr>
</tbody>
</table>
Table 1, Continued

6. a) Do you think that parents and/or other community members will want to be involved in policy decisions concerning the implementation of Act 685? b) Do you plan to involve these individuals in such decisions?

|a) Yes | 16 | 37.2% |
|b) No  | 5  | 11.9% |
c) Don’t know | 22 | 51.2% |

d) If you have received inquiries, which group(s) were concerned?

|a) Parent groups | 2 | N/A |
b) Church groups | 13 | N/A |
c) Teacher groups | 9 | N/A |
d) Publishing companies/consultants | 2 | N/A |
e) Other (No response) | 22 | N/A |

e) Do you think that parents and/or other community members will want to be involved in policy decisions concerning the implementation of Act 685? b) Do you plan to involve these individuals in such decisions?

|a) Yes | 16 | 37.2% |
|b) No  | 5  | 11.9% |
c) Don’t know | 22 | 51.2% |

d) In your estimation what percentage of the teachers within your system currently address creation-science within their courses?

|a) None | 8  | 18.6% |
b) Under 10% | 18 | 41.9% |
c) 10-50% | 4  | 9.3% |
d) 51-90% | 3  | 7.0% |
e) Over 90% | 0  | 0.0% |
f) Don’t know | 10 | 23.3% |

g) What percentage of the teachers currently address evolution-science within their courses?

|a) None | 2  | 4.7% |
b) Under 10% | 14 | 32.6% |
c) 10-50% | 8  | 18.6% |
d) 51-90% | 5  | 11.9% |
e) Over 90% | 4  | 9.3% |
f) Don’t know | 10 | 23.3% |

e) In your opinion, is there currently balanced treatment for creation-science and evolution-science instruction within your system?

|a) Yes | 10 | 23.3% |
b) No  | 22 | 51.2% |
c) Don’t know | 11 | 25.6% |

f) At what stage of development is your LEA policy statement addressing Act 685?

|a) Do not plan to develop | 6  | 14.0% |
b) Have not begun | 31 | 72.1% |
c) In progress | 5  | 11.6% |
d) Completed (No response) | 1  | 2.3% |

g) At what stage of development is your LEA plan for implementation of Act 685?

|a) Do not plan to develop | 4  | 9.3% |
b) Have not begun | 35 | 81.4% |
c) In progress | 2  | 4.7% |
d) Completed | 0  | 0.0% |
Table 1, Continued

<table>
<thead>
<tr>
<th>c) Which of the following are included or will be included within your implementation plan?</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Needs assessment</td>
<td>13</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>b) Development of curriculum guides</td>
<td>15</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>c) Materials review and selection</td>
<td>20</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>d) Cost determination</td>
<td>15</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>e) Inservice training for staff</td>
<td>19</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>f) Other</td>
<td>6</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>(No response)</td>
<td>2</td>
<td>4.7%</td>
<td></td>
</tr>
</tbody>
</table>

10. The State Department of Education

| a) Balanced treatment                                                                      | 16| 37.2%    |        |
| b) No instruction in either theory                                                        | 12| 27.9%    |        |
| c) Other                                                                                  | 1 | 2.3%     |        |
| d) Undecided                                                                              | 14| 32.6%    |        |

11. If you plan to implement Act 685 by providing balanced treatment when will this instruction begin?

| a) Has already begun                                                                      | 0 | 0.0%     |        |
| b) Fall, 1982                                                                             | 11| 68.8%    |        |
| c) Spring, 1983                                                                          | 0 | 0.0%     |        |
| d) Undecided                                                                             | 4 | 25.0%    |        |
| (No response)                                                                            | 1 | 6.2%     |        |
Table 2: Implementation Plans:  
Creation-Science and Evolution-Science

<table>
<thead>
<tr>
<th></th>
<th>Balanced, Other or Undecided</th>
<th>No Instruction In Either</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>12. Act 685 specifies that implementation is to be funded through existing teacher and existing library acquisition funds. Do you have such funds to cover the cost of implementation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Yes</td>
<td>3</td>
<td>9.7%</td>
</tr>
<tr>
<td>b) No</td>
<td>19</td>
<td>61.3%</td>
</tr>
<tr>
<td>c) Don't know</td>
<td>6</td>
<td>19.4%</td>
</tr>
<tr>
<td>(No response)</td>
<td>3</td>
<td>9.7%</td>
</tr>
<tr>
<td>13. Do you anticipate hiring additional staff in order to implement Act 685?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Yes</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>b) No</td>
<td>24</td>
<td>77.4%</td>
</tr>
<tr>
<td>c) Don't know</td>
<td>5</td>
<td>16.1%</td>
</tr>
<tr>
<td>(No response)</td>
<td>2</td>
<td>6.5%</td>
</tr>
<tr>
<td>14. To whom will you assign responsibility for material review and selection in implementing Act 685?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Supervisors</td>
<td>27</td>
<td>N/A</td>
</tr>
<tr>
<td>b) Curriculum</td>
<td>11</td>
<td>N/A</td>
</tr>
<tr>
<td>c) Principals</td>
<td>18</td>
<td>N/A</td>
</tr>
<tr>
<td>d) Teachers</td>
<td>19</td>
<td>N/A</td>
</tr>
<tr>
<td>e) Librarians</td>
<td>10</td>
<td>N/A</td>
</tr>
<tr>
<td>f) Parents</td>
<td>11</td>
<td>N/A</td>
</tr>
<tr>
<td>g) Other</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>(No response)</td>
<td>4</td>
<td>N/A</td>
</tr>
<tr>
<td>15. a) Which staff member(s) will be responsible for providing inservice training to assist in implementing Act 685?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Supervisors</td>
<td>27</td>
<td>N/A</td>
</tr>
<tr>
<td>b) Curriculum</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td>c) Principals</td>
<td>10</td>
<td>N/A</td>
</tr>
<tr>
<td>d) Teachers</td>
<td>4</td>
<td>N/A</td>
</tr>
<tr>
<td>e) Other</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>(No response)</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>b) To whom will inservice training be provided?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Supervisors</td>
<td>19</td>
<td>N/A</td>
</tr>
<tr>
<td>b) Curriculum</td>
<td>8</td>
<td>N/A</td>
</tr>
<tr>
<td>c) Principals</td>
<td>33</td>
<td>N/A</td>
</tr>
<tr>
<td>d) Teachers</td>
<td>25</td>
<td>N/A</td>
</tr>
<tr>
<td>e) Other</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>(No response)</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>16. Will you need to purchase new materials to implement Act 685?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Yes</td>
<td>14</td>
<td>45.2%</td>
</tr>
<tr>
<td>b) No</td>
<td>1</td>
<td>3.2%</td>
</tr>
<tr>
<td>c) Don't know</td>
<td>14</td>
<td>45.2%</td>
</tr>
<tr>
<td>(No response)</td>
<td>2</td>
<td>6.5%</td>
</tr>
</tbody>
</table>
Table 2, Continued

17. How do you think you will use the services of the creation-scientists appointed by the governor?

<table>
<thead>
<tr>
<th></th>
<th>a) To assist in LEA policy development</th>
<th>b) To assist in curriculum guide development</th>
<th>c) To provide inservice training</th>
<th>d) To assist in review of curriculum materials</th>
<th>e) To assist in selection of curriculum materials</th>
<th>f) Other</th>
<th>g) Undecided</th>
<th>(No response)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8 N/A</td>
<td>10 N/A</td>
<td>13 N/A</td>
<td>6 N/A</td>
<td>5 N/A</td>
<td>1 N/A</td>
<td>11 N/A</td>
<td>2 N/A</td>
</tr>
</tbody>
</table>

18. The State Department of Education interprets Act 685 to place the responsibility for implementation on the LEAs. Do you want State Department of Education assistance in this implementation?

<table>
<thead>
<tr>
<th></th>
<th>a) Yes</th>
<th>b) No</th>
<th>c) Don't know</th>
<th>(No response)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18 58.1%</td>
<td>3 9.7%</td>
<td>8 25.0%</td>
<td>2 6.5%</td>
</tr>
</tbody>
</table>

19. If you would like State Department of Education assistance in which area(s) would such assistance be needed?

<table>
<thead>
<tr>
<th></th>
<th>a) Conducting needs assessments</th>
<th>b) Assisting with policy development</th>
<th>c) Assisting with curriculum development</th>
<th>d) Material review and/or selection</th>
<th>e) Budgetary matters</th>
<th>f) Providing inservice training</th>
<th>g) Other</th>
<th>(No response)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 N/A</td>
<td>11 N/A</td>
<td>21 N/A</td>
<td>13 N/A</td>
<td>13 N/A</td>
<td>10 N/A</td>
<td>2 N/A</td>
<td>5 N/A</td>
</tr>
</tbody>
</table>

N/A

10 16
Summary of additional comments made by respondents:

1. The State Department of Education is needed and should assist in the implementation of Act 685 as soon as possible. (3 respondents)

2. Teachers in my system have an unfavorable attitude toward the inclusion of creation-science in the curriculum, especially those teaching science. (1 respondent)

3. Evolution should be taught as a theory, not as a fact. (1 respondent)

4. We do not consider either theory of such high priority as to require that teachers devote a substantial amount of time to providing instruction in creation-science or evolution-science. We feel that an awareness of both theories is important; our implementation efforts will be in accordance with this spirit. Please send us your authorized version of creation-science as soon as possible. (1 respondent)

5. Create college and university curricula to train teachers in creation-science and evolution-science theory. (1 respondent)

6. The definitions of creation-science and evolution-science within this questionnaire should be broadened to include "origins". (1 respondent)

7. There may be a church-state conflict, and with litigation pending, implementation should be postponed until trained personnel are available. (1 respondent)
Discussion

Research Question 1: What is the level of knowledge and awareness among Louisiana superintendents and community members concerning Act 685?

Questionnaire items 1-5 are examined in response to Research Question 1. Among the 43 usable responses, 28 (65.1%) superintendents indicated that they have limited knowledge of the provisions of Act 685 while 14 (32.6%) perceive their knowledge to be adequate. In rating their knowledge of creation-science theory (Question 2), 29 (67.4%) perceive their knowledge to be limited while 9 (20.9%) indicate that theirs is adequate.

Item 3 enumerates some of the more popularly held perceptions concerning the definition of creation-science. As interpreted by the SDE, the description most consistent with that identified in Act 685 is the argument that all living species appeared about the same time and that, while some species disappeared during natural cataclysms, new species have not appeared since then (option 2). Of the 43 respondents to the survey, only 4 (9.3%) selected this option as their interpretation of creation-science. The account of the creation of the universe and all living things as it is given in the Bible (option 1) was the most popular response to Question 3. This option was selected by 17 (39.5%) respondents. Among the remaining options; the argument that the universe was made by a creator but that more complex species continue to develop from simpler ones was selected by 15 (34.9%) respondents with 2 (4.7%) selecting "other" and 5 (11.9%) selecting the "don't know" option.
A correlation of the responses to items 1 and 2 (knowledge of Act 685 and knowledge of creation-science theory, respectively) with those to item 3 concerning the respondents' perceived definitions of creation-science provides data vital to the interpretation of the survey results. In response to Question 3, all 4 of the individuals who selected the definition of creation-science which is interpreted by the SDE as being that most consistent with Act 685, perceive themselves as having only limited knowledge of both the provisions of Act 685 and creation-science theory. However, of the 17 respondents who selected the Biblical definition of creation-science in Question 3, almost half (8, or 47.1%) feel that their knowledge of Act 685 (Question 1) is adequate, while the rest perceive their knowledge to be limited. In response to Question 2, 6 of the 17 (35.3%) assess their knowledge of creation-science theory to be adequate while 9 (52.9%) feel that it is only limited (2 did not respond). Of the 9 respondents who perceive their knowledge of creation-science theory to be adequate, not one of these individuals defines creation-science in the manner most consistent with the provisions of Act 685. It is significant to note that no respondents perceive themselves to have extensive knowledge of either the provisions of Act 685 or creation-science theory.

Responses to Question 4 indicate that 3.5% of the superintendents surveyed do not have an assessment of community attitudes toward the inclusion of creation-science in the curriculum; 32.6% perceive the general attitude within their respective communities to be indifferent. The majority of the superintendents surveyed (32, or 74.4%) indicate that they have received five or fewer inquiries.
concerning the implementation of Act 685: Only 4 (9.3%) superintendents reported having received 16 or more inquiries. Church groups and teacher groups were generally associated with most of the inquiries but the 22 (51.2%) superintendents not responding to the item suggests that the majority of the superintendents have received no inquiries at all.

In view of these responses to items 1-5, it appears that local superintendents need additional information concerning the provisions of Act 685 and creation-science in general. A total of 90.7% of the respondents define creation-science in a manner inconsistent with that identified by the SDE as represented by Act 685. Almost 40% of these superintendents interpret creation-science in Biblical terms while the remaining respondents selected other definitions. At this point in time there appears to be limited community interest relative to the implementation of Act 685.

Research Question 2: What is the current status of instruction concerning creation-science and evolution-science within Louisiana public schools?

Responses to survey items 7 and 8 are considered in relation to Research Question 2. In item 7(a), 18 (41.9%) of the superintendents surveyed reported that under 10% of the teachers in their respective systems currently address creation-science within their courses. Ten (23.3%) indicated that they do not know the percentage addressing creation-science while 8 (18.6%) feel that none of the teachers within their systems are presently addressing this theory. In comparison, data provided in item 7(b) indicate that 14 (32.6%) superintendents feel that under 10% of their teachers
currently address evolution-science within their courses, while 10 (23.2%) don't have an assessment of the percentage level. Eight (18.6%) feel that this theory is being addressed by 10-50% of the teachers within their respective systems. When asked whether "balanced treatment" is currently being provided in the teaching of creation-science and evolution-science (Question 8), 22 (51.2%) responded "no," 10 (23.3%) responded "yes," and 11 (25.6%) indicated that they don't know. An examination of this information in terms of the respondents' definition of creation-science reveals that, of the 22 responding "no" to Question 8, 7 (31.8%) of these define creation-science in Biblical terms, while only 3 (13.6%) adhere to the definition deemed most appropriate by the SDE. Of the 10 responding "yes" to Question 8, 8 (80.0%) employ the Biblical definition; none utilize the more consistent definition.

Based on the perceptions of the superintendents surveyed, limited instruction is currently being provided in creation-science theory with slightly more being provided in relation to evolution-science. A substantial number indicated that they cannot assess current teaching levels relative to these two theories. Almost half of the respondents indicated that balanced treatment is not currently being provided; one-fourth were unable to provide information in this area.

Research Question 3: What is the current status of and what are LEA needs in relation to the implementation of Act 685?

In relation to Research Question 3, items 6 and 9-17 are examined. When asked whether they felt that parents and/or other community members will want to be involved in policy decisions...
concerning the implementation of Act 685, 22 (51.2%) responded that they do not know, while 16 (37.2%) responded "yes." Of those who responded in the affirmative, all plan to involve these individuals in making such decisions.

Of the 43 superintendents who responded to Question 9, 31 (72.1%) have not begun developing their LEA policy statements addressing Act 685, and, correspondingly, 35 (81.4%) have not begun developing their LEA plans for implementation. When asked what will be included in this plan, responses were indicated in the areas of materials review and selection, inservice training for staff, cost determination, and the development of curriculum guides.

When asked which option (balanced treatment, no instruction in either theory, other or undecided) will be selected by their respective systems (Question 10), 16 (37.2%) indicated that they will provide balanced treatment in the teaching of creation-science and evolution-science. However, 14 (32.6%) are as yet undecided, with 12 (27.9%) electing to provide no instruction in either theory. Of the 16 who plan to provide balanced treatment (Question 10), a breakdown based on the respondents' definitions of creation-science reveals that the majority, (87.5%) of these individuals define creation-science in terms identified as inconsistent with the SDE's interpretation of Act 685. Of these, 25% perceive creation-science in Biblical terms. Similar analysis relative to the 12 respondents who elected to provide no instruction in either theory (Question 10) reveals that 6 (50.0%) define creation-science in Biblical terms, whereas only 1 (8.3%) employs the consistent definition.
The responses obtained in relation to items such as 1, 2, and 10, point out the need for employing caution in the interpretation of the results of this survey. The information provided by the responding superintendents must be viewed in accordance with their perceived definitions of creation-science. The design of the questionnaire is such that absolute data cannot be obtained in response to the items specified.

In Question 11, of the 16 superintendents who plan to provide balanced treatment in the teaching of creation-science and evolution-science, 11 (68.8%) indicated that such treatment will begin in the Fall of 1982, with 4 (25%) being undecided as to their anticipated date of implementation. Of the 31 who plan to provide balanced treatment, other or who are undecided, in response to Question 10, 19 (61.3%) indicated that existing funds are not available to cover the cost of implementation and 24 (77.4%) indicated that they do not anticipate hiring additional staff in relation to Act 685. When asked who will be assigned responsibility for material review and selection, supervisors, teachers and principals were most often cited. Supervisors and principals were most often designated as being responsible for providing inservice training to assist with the implementation of Act 685. Such training will be provided for teachers, principals and supervisors.

When asked of additional needs concerning the implementation of Act 685, 14 (45.2%) respondents indicated that new materials will have to be purchased but 14 (45.2%) were uncertain as to the need for materials at this time. In response to how they plan to utilize the services of the creation-scientists appointed by the governor,
Superintendents responded that they anticipate requesting that these individuals provide inservice training, assist in curriculum guide development, and assist in LEA policy development.

An analyses of these results indicate the need for additional planning by the LEAs in preparation for the implementation of Act 685. Whereas most indicated that new materials will be needed, the funds for purchasing these are not available. Responsibility for materials and inservice training is being delegated among several levels of professional personnel.

Research Question 4: What is the potential role of the SDE in the implementation of Act 685?

Items 18 and 19 address the vital issue raised in Research Question 4. According to the SDE interpretation of Act 685, the responsibility for implementation rests with the LEAs. When asked whether they want SDE assistance in this implementation, 18 (58.1%) of the 31 who plan to provide balanced treatment indicated "yes," 8 (25.8%) selected the "don't know" option, and 3 (9.7%) indicated "no." The potential areas in which SDE assistance may be needed include assisting with curriculum development, providing inservice training, material review and/or selection, budgetary matters, and assisting with policy development. Additional comments provided by the respondents similarly emphasize the need for SDE assistance in the implementation of Act 685.
CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the information received from local superintendents in response to the "Status Assessment: Act 685 - Balanced Treatment for Creation-Science and Evolution-Science," the following conclusions have been reached by the Bureau of Evaluation:

- The current level of knowledge among Louisiana superintendents concerning Act 685 is limited.
- Local superintendents have received few inquiries from community members concerning Act 685.
- As perceived by local superintendents, few teachers currently address either creation-science or evolution-science in their courses. Balanced treatment is not currently being accorded to the teaching of these two theories.
- In general, LEAs have not begun developing plans for implementation of Act 685. New materials and staff development will be needed.
- Superintendents report that they do not have funds to implement Act 685.
- LEAs want SDE leadership and involvement in the implementation of Act 685 in such areas as curriculum development, inservice, material review/selection, budgetary matters, and policy development.
Recommendations

The following recommendations are presented by the Bureau of Evaluation based on analysis of data obtained from the returned "Status Assessment" questionnaires:

1. The text of Act 685 should be carefully explicated and made available to the LEAs.

2. The SDE should develop projections of the level of expenditures required for implementing Act 685 and identify possible funding sources.

3. The SDE should immediately develop a timetable detailing how all of the activities required for implementing Act 685 will be accomplished by the mandated 1982 date.

4. The SDE should develop a statement of its role concerning the implementation of Act 685 to be made available to LEAs.
Acknowledgements

The Bureau of Evaluation wishes to thank the many SDE staff members who assisted in the development of the "Status Assessment" questionnaire and in the interpretation of the results. We would especially like to acknowledge the contributions of the following individuals:

Mrs. Sylvia Johnson - Special Assistant to the Superintendent

Don McGehee - Supervisor, Science

Dr. Helen Brown - Director, Curriculum, Inservice and Staff Development

Dr. Sylvia Torbet - Assistant Director, Curriculum, Inservice and Staff Development

Sister Mary Jeanne Girshefski - Supervisor, Special Education Liaison

Robert Ginn - Director, Materials of Instruction and Textbooks

Addendum

The Bureau acknowledges the receipt of 10 additional questionnaires after the stated due date and appreciates the participation of these individuals. Future analyses of the data will incorporate the additional responses.
APPENDICES

A. Act 685 – Balanced Treatment for Creation-Science and Evolution-Science

B. Overall Creation-Science and Evolution-Science Committee

C. Status Assessment: Act 685 – Balanced Treatment for Creation-Science and Evolution-Science

D. Correspondence – October 21, 1981

E. Correspondence – October 28, 1981
AN ACT

To amend Part III of Chapter I of Title 17 of the Louisiana Revised Statutes of 1950 by adding thereto a new Sub-Part, to be designated as Sub-Part D-2 thereof, comprised of Sections 286.1 through 286.7, both inclusive, relative to balanced treatment of creation-science and evolution-science in public schools, to require such balanced treatment, to bar discrimination on the basis of creationist or evolutionist belief, to provide definitions and clarifications, to declare the legislative purpose, to provide relative to inservice teacher training and materials acquisition, to provide relative to curriculum development, and otherwise to provide with respect thereto.

Be it enacted by the Legislature of Louisiana:

Section 1. Sub-Part D-2 of Part III of Chapter I of Title 17 of the Louisiana Revised Statutes of 1950, comprised of Sections 286.1 through 286.7, both inclusive, is hereby enacted to read as follows:

CHAPTER I. GENERAL SCHOOL LAW

PART III. PUBLIC SCHOOLS AND SCHOOL CHILDREN

SUB-PART D-2. BALANCED TREATMENT FOR CREATION-SCIENCE AND EVOLUTION-SCIENCE IN PUBLIC SCHOOL INSTRUCTION

§286.1. Short Title

This Subpart shall be known as the "Balanced Treatment for Creation-Science and Evolution-Science Act."
§286.2. Purpose

This Subpart is enacted for the purposes of protecting academic freedom.

§286.3. Definitions

As used in this Subpart; unless otherwise clearly indicated, the following terms have the following meanings:

(1) "Balanced treatment" means providing whatever information and instruction in both creation and evolution models the classroom teacher determines is necessary and appropriate to provide insight into both theories in view of the textbooks and other instructional materials available for use in his classroom.

(2) "Creation-science" means the scientific evidences for creation and inferences from those scientific evidences.

(3) "Evolution-science" means the scientific evidences for evolution and inferences from those scientific evidences.

(4) "Public schools" mean public secondary and elementary schools.

§286.4. Authorization for balanced treatment; requirement for nondiscrimination

A. Commencing with the 1982-1983 school year, public schools within this state shall give balanced treatment to creation-science and to evolution-science. Balanced treatment of these two models shall be given in classroom lectures taken as a whole for each course, in textbook materials taken as a whole for each course, in library materials taken as a whole for the sciences and taken as a whole for the humanities, and in other educational programs in public schools, to the extent that such lectures, textbooks, library materials, or educational programs deal in any way with the subject of the origin of man, life, the earth, or the universe. When creation or evolution is taught, each shall be taught as a theory, rather than as proven scientific fact.

B. Public schools within this state and their personnel shall not discriminate by reducing a grade or a student or by singling out and publicly criticizing any student who demonstrates a satisfactory understanding of both evolution-science or creation-science and who
accepts or rejects either model in whole or part.

C. No teacher in public elementary or secondary school or instructor in any state-supported university in Louisiana, who chooses to be a creation-scientist or to teach scientific data which points to creationism shall, for that reason, be discriminated against in any way by any school board, college board, or administrator.

§286.5. Classifications

This Subpart does not require any instruction in the subject of origins but simply permits instruction in both scientific models (of evolution-science and creation-science) if public schools choose to teach either. This Subpart does not require each individual textbook or library book to give balanced treatment to the models of evolution-science and creation-science; it does not require any school books to be discarded. This Subpart does not require each individual classroom lecture in a course to give such balanced treatment but simply permits the lectures as a whole to give balanced treatment; it permits some lectures to present evolution-science and other lectures to present creation-science.

§286.6. Funding of Inservice Training and Materials Acquisition

Any public school that elects to present any model of origins shall use existing teacher inservice training funds to prepare teachers of public school courses presenting any model of origins to give balanced treatment to the creation-science model and the evolution-science model. Existing library acquisition funds shall be used to purchase nonreligious library books as necessary to give balanced treatment to the creation-science model and the evolution-science model.

§286.7. Curriculum Development

A. Each city and parish school board shall develop and provide to each public school classroom teacher in the system a curriculum guide on presentation of creation-science.

B. The governor shall designate seven creation-scientists who shall provide resource services in the development of curriculum guides to any city or parish school board upon request. Each such creation-scientist shall be designated from among the full-time
faculty members teaching in any college and university in Louisiana. These creation-scientists shall serve at the pleasure of the governor and without compensation.

Section 2. If any provision or item of this Act or the application thereof is held invalid, such invalidity shall not affect other provisions, items, or applications of this Act which can be given effect without the invalid provisions, items, or applications, and to this end the provisions of this Act are hereby declared severable.

Section 3. All laws or parts of laws in conflict herewith are hereby repealed.

APPROVED: 

PRESIDENT OF THE SENATE

SPEAKER OF THE HOUSE OF REPRESENTATIVES

GOVERNOR OF THE STATE OF LOUISIANA

APPROVED: 

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APPENDIX B
STATE OF LOUISIANA
DEPARTMENT OF EDUCATION

J. KELLY NIX
State Superintendent

August 21, 1981

TO: SUPERINTENDENT J. KELLY NIX
FROM: Robert Gaston, Ed.D.

SUBJECT: Early September Meeting of the Overall Creation-Science and Evolution-Science Committee regarding the BALANCED TREATMENT FOR CREATION-SCIENCE AND EVOLUTION-SCIENCE ACT (Act 685).

The following personnel are recommended for the Overall Creation-Science and Evolution-Science Committee, the Curriculum Development Committee, and the Materials of Instruction Committee:

Overall Creation-Science and Evolution-Science Committee
(in house)

Chairman: Dr. Robert Gaston, Assistant Superintendent, Office of Academic Programs

Dr. Helen Brown, Director, Curriculum, Inservice, and Staff Development
Dr. Gerald Cobb, Director, Secondary Education
Dr. William Davis, Director, Elementary Education
Mr. Robert Ginn, Director, Materials of Instruction and Textbooks
Sr. Mary Jeanne Girsheski, Ph.D., Supervisor, Special Education Liaison
Mrs. Sylvia Johnson, Special Assistant to the Superintendent
Mr. Eugene Limar, Assistant Superintendent, Auxiliary Programs
Mr. Don McGehee, Supervisor, Science
Dr. Sylvia Torbet, Assistant Director, Curriculum, Inservice, and Staff Development
Dr. Suzanne Triplett, Director, Evaluation
Mr. Joe Williams, Director, Accountability
Mr. David Hamilton, Legal Counsel for the State Department of Education
Dr. Robert Garvue, Assistant Director, Research
Mr. Ed Canvienne, Coordinator, Competency Based Education
Curriculum Development Committee
(Subcommittee - Inhouse)
Chairman: Dr. Helen Brown, Director, Curriculum, Inservice, and Staff Development
Mrs. Copelie Barnes, Supervisor, English and Language Arts
Mrs. Sylvia Johnson, Special Assistant to the Superintendent
Mr. Don McGehee, Supervisor, Science
Dr. Catherine Nelson, Section Chief, Special Education Programs
Ms. Diane Reynolds, Assistant Director, Elementary Education
Dr. Sylvia Torbet, Assistant Director, Curriculum, Inservice, and Staff Development
Ms. Connie Gaines, Supervisor, Business and Office Education
Dr. Rosalie Biven, Section Chief, Home Economics

Materials of Instruction Committee
(Subcommittee - Inhouse)
Chairman: Mr. Robert Ginn, Director, Materials of Instruction and Textbooks
Dr. Helen Brown, Director, Curriculum, Inservice, and Staff Development
Ms. Gayle Clement, Education Specialist, Audiovisual Education
Mrs. Louise Cobb, Supervisor, English and Language Arts
Dr. James Cookston, Supervisor, School Libraries
Mr. Don McGehee, Supervisor, Science
Mrs. Lenora Shyne, Supervisor, Elementary Education
Dr. Sylvia Torbet, Assistant Director, Curriculum, Inservice, and Staff Development
Mr. Paul Vanderburg, Supervisor, Curriculum, Inservice, and Staff Development

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SUPERINTENDENT J. KELLY NIX
August 21, 1981
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APPENDIX C

STATUS ASSESSMENT: ACT 685 - BALANCED TREATMENT FOR CREATION-SCIENCE AND EVOLUTION-SCIENCE

This survey is to gather information from superintendents on the potential impact of Act 685 and to provide guidance to the State Department of Education in planning its role in the implementation of this law. This information will be used for action planning purposes only and respondents will remain anonymous.

Directions: Based on your present understanding of Act 685 please respond to each item below by checking (x) the appropriate response(s). Please feel free to add any comments, questions or suggestions that are not reflected in the survey.

1. How would you rate your present understanding of the provisions of Act 685?
   - No knowledge
   - Limited knowledge
   - Adequate knowledge
   - Extensive knowledge

2. How would you rate your current knowledge of creation-science theory?
   - No knowledge
   - Limited knowledge
   - Adequate knowledge
   - Extensive knowledge

3. Act 685 defines creation-science as "the scientific evidence for creation and inference from these scientific evidences." Based on this definition, how would you interpret creation-science?
   - The account of the creation of the universe and all living things as it is given in the Bible.
   - The argument that all living species appeared about the same time and that, while some species disappeared during natural cataclysms, new species have not appeared since then.
   - The argument that the universe was made by a creator but that more complex species continue to develop from simpler ones.
   - Other (please specify)

4. What is your impression of the attitudes of people within your community about excluding creation-science from the curriculum?
   - Generally favorable
   - Generally unfavorable
   - Indifferent
   - Don't know

5. a) How many inquiries have you received concerning the implementation of Act 685?
   - 0-5
   - 6-10
   - 11-15
   - 16 or more

   b) If you have received inquiries, which group(s) were concerned?
   - Parent groups
   - Church groups
   - Teacher groups
   - Publishing companies/consultants
   - Other (specify)

6. a) Do you think that parents and/or other community members will want to be involved in policy decisions concerning the implementation of Act 685?
   - Yes
   - No
   - Don't know

   b) Do you plan to involve these individuals in such decisions?
   - Yes
   - No
   - Don't know

7. a) In your estimation what percentage of the teachers within your system currently address creation-science within their courses?
   - None
   - Under 10%
   - 10-50%
   - 51-90%
   - Over 90%
   - Don't know

   b) What percentage of the teachers currently address evolution-science within their courses?
   - None
   - Under 10%
   - 10-50%
   - 51-90%
   - Over 90%
   - Don't know

8. In your opinion, do these currently balanced treatment for creation-science and evolution-science in instruction within your system?
   - Yes
   - No
   - Don't know

9. a) At what stage of development is your LEA policy statement addressing Act 685?
   - Have not began
   - In progress
   - Completed

   b) At what stage of development is your LEA plan for implementation of Act 685?
   - Have not begun
   - In progress
   - Completed

   c) Which of the following are included or will be included within your implementation plan?
   - Needs assessment
   - Development of curriculum guides
   - Materials review and selection
   - Inservice training for staff
   - Other (specify)

10. The State Department of Education interprets Act 685 as requiring instruction in both creation-science and evolution-science of public schools except to teach ethics. Which option do you think your system will select?
   - Balanced treatment
   - No instruction in either theory
   - Other (specify)

11. If you plan to implement Act 685 by providing balanced treatment, when will this instruction begin?
   - Has already begun
   - Fall 1982
   - Spring 1983
   - Undecided
12. Act 685 specifies that implementation is to be funded through existing teacher retirement training funds and existing education acquisition funds. Do you have such funds to cover the cost of implementation?

   Yes    No    Don't know

13. Do you anticipate hiring additional staff in order to implement Act 685?

   Yes    No    Don't know

14. To whom will you assign responsibility for material review and selection in implementing Act 685?

   Supervisors  Curriculum specialists  Principals  Teachers  Librarians  Parents  Other (specify)

15. a) Which staff member(s) will be responsible for providing inservice training to assist in implementing Act 685?

   Supervisors  Curriculum specialists  Principals  Teachers  Other (specify)

b) To whom will inservice training be provided?

   Supervisors  Curriculum specialists  Principals  Teachers  Other (specify)

16. Will you need to purchase new materials to implement Act 685?

   Yes    No    Don't know

17. How do you think you will use the services of the coordinating committee appointed by the governor?

   To assist in LEA policy development  To assist in curriculum guide development  To provide inservice training  To assist in review of curriculum materials  To assist in selection of curriculum materials  Other (specify)  Undecided

18. The State Department of Education interprets Act 685 to place the responsibility for implementation on LEA's. Do you want State Department of Education assistance in this implementation?

   Yes    No    Don't know

19. If you would like State Department of Educ. assistance, in which area(s) would such assistance be needed?

   Conducting needs assessments  Providing assistance with policy development  Assisting with curriculum development  Material review and/or selection  Budgetary matters  Providing inservice training  Other (specify)

Additional Comments:

Please return please fold and staple so that return address appears on front.

State of Louisiana
Department of Education
Bureau of Evaluation
P. O. Box 44064
Baton Rouge, LA 70804