ALASKA LEGISLATURE COMMITTEE FILES 1991-1992 8672
6806 HOUSE HEALTH EDUCATION & SOCIAL SERVICES

FISCAL NOTE

STATE OF ALASKA
1991 LEGISLATIVE SESSION

BILL NO. SB HB27

Revision Date: _____ Department Affected: Education
Title: Delivery and posession of controlled substances...'drug free school zones' BRU: Executive Administration
Component: Executive Administration
Sponsor: Bettye Davis
Requestor: House HESS COMPONENT SERIAL NO. [ ][ ][ ][ ]

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL	12.7	11.5	11.5	11.5	11.5	11.5
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	12.7	11.5	11.5	11.5	11.5	11.5
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	12.7	11.5	11.5	11.5	11.5	11.5
FEDERAL FUNDS						
OTHER						
TOTAL	12.7	11.5	11.5	11.5	11.5	11.5

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

Estimate of current year impact: None

ANALYSIS: (Attach a separate page if necessary.) This fiscal analysis assumes distribution of the information pamphlet to 112,200 students in the 54 public school districts in the state. Four versions of the pamphlet will be developed, targeting grades K-12, 3-5, 6-8, 9-12.

Prepared By: Mary Hakala Phone: 465-2800
Division: Commissioner's Office Date: 2/27/91
Approved by Commissioner: Steve Hoffbeck, Acting Commissioner
Agency: Education Date: 2/27/91

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

HB 27: Delivery and possession of controlled substances and imitation controlled substances, to misconduct involving controlled substances, imitation controlled substances, and alcohol by minors, and to the provision of information that includes penalties applicable to misconduct involving controlled substances; and requiring installation of signs in the vicinity of schools declaring the areas to be 'drug-free school zones'

Fiscal Note Analysis
February 27, 1991
Page 2 of 2

Cost estimate for production of information pamphlet required in section 8:

Year 1:

Graphics/design/typesetting	$1,200
Printing	10,000
Postage/handling	1,500
Total	$12,700

Years 2-5:

Printing	10,000
Postage/handling	1,500
Total	$11,500

FEB 2 7 1991

STATE OF ALASKA
1991 LEGISLATIVE SESSION

BILL NUMBER: HB 27

FISCAL NOTE

Revision Date: 1/21/91
Title:" An Act relating to the Delivery and possesion of controlled substance

Department Affected: DOT&PF
BRU: Maintenance & Operations

Sponsor:
Requestor:

Component: Central, Northern & S. E.
Component Serial Number: 564, 584, 587, 590, & 603

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY92	FY93	FY94	FY95	FY96	FY97
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING:	0	0	0	0	0	0
CAPITAL	148.5	15.0	30.0	30.0	30.0	45.0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUNDS	148.5	15.0	30.0	30.0	30.0	45.0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL FUNDING:	148.5	15.0	30.0	30.0	30.0	45.0

POSITIONS

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year impact:

ANALYSIS: (Attach a separate page if necessary)
See Attached.

Prepared by: Jeffery C. Ottesen, Director — Phone: 465-2951

Division: Engineering and Operations Standards — Date: Feb 26, 1991

Approved by Commissioner: — Phone: 465-3900
Frank G. Turpin

Agency: Department of Transportation and Public Facilities — Date: Feb 26, 1991

Distribution By Preparer: Legislative Finance, Legislative Sponsor, Requestor, OMB, Impacted Agency(ies).

Department of Transportation and Public Facilities
Fiscal Note Analysis: House Bill No. 27 2/25/91
This is the same analysis that was proposed for last year's HB 391

There is no way to make an actual inventory of signed school locations without considerable effort. However, there are 660 schools, and it can reasonably be assumed that at least half are on or near the state system (including municipal arterials), and are marked as schools by school speed zones, marked crosswalks, or advance school warning signs.

Furthermore, where schools are signed there would rarely be less than two marked locations (one in each direction on one road) and probably rarely more than four (one in each direction on two roads) for an average of 3 per school. This amounts to 330 schools X 3 signs per school average = 990 signs total.

Large signing contracts average approximately $50 per square foot for installed signs. The required sign size for legibility and consistency would be about two square feet. However, such smaller signs have much the same mounting, labor and equipment costs as those several times larger. Including the need to locate the signs rather accurately, the estimated cost per sign is conservatively $150 each.

This results in an estimated initial cost of $148,500 in 1990 dollars.

The sign life due to deterioration, accidental destruction, and the high vandalism target value cannot be expected to exceed about five years with, for all causes, 10% loss the first year, 20% the second through the fourth years, and 30% the last year when deterioration sets in, and about 20% per year average thereafter.

This results in maintenance as follows (in 1990 dollars):

1st year	0.10 X $150K = $15,000
2nd thru 4th years	0.20 X $150K = $30,000 per year
5th year	0.30 X $150K = $45,000
thereafter	0.20 X $150K = $30,000 per year

There is no way to accurately speak for the municipalities for the costs on their road system.

HB

31

Alaska State Legislature
Representative Niilo Koponen
House District 21

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Juneau, Alaska 99811
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SPONSOR STATEMENT

House Bill 31
"An Act relating to applicants for pharmacist licenses"

By Representative Niilo Koponen

Foreign-educated doctors, nurses, chiropractors, physical therapists, optometrists and veterinarians may practice in Alaska, provided they successfully complete Alaskan licensing examinations and fulfill all pertinent qualifications. Standard equivalency examinations insure that credentials earned outside of the United States meet American standards of academic and clinical competence.

HB 31 extends the same opportunity to pharmacists trained at non-U.S. institutions. The state would benefit from expanding the universe of trained professionals available to serve the public. Continued exclusion of these Alaskans from practice is inconsistent with treatment of other health professionals and extends no apparent advantage to other state residents.

- Sponsor statement -

Alaska State Legislature

Representative Niilo Koponen

House District 21

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M E M O R A N D U M

TO: House Labor and Commerce Committee Members

FROM: Representative Niilo Koponen

DATE: April 30, 1991

RE: House Bill 31, "An Act relating to applicants for pharmacist licenses"

At the first committee hearing of the HB 31, confusion arose as to the appropriate body to recognize an Alaskan pharmacist's credentials. Here's a quick summary of the players:

- American Council on Pharmaceutical Education (ACPE): accredits all U.S. schools of pharmacy.

- National Association of Boards of Pharmacy Foundation (NABPF): examines and certifies foreign-educated pharmacists, through administration of the Foreign Pharmacy Graduate Equivalency Examination (FPGEE). Successful applicants receive a certificate from the Foreign Pharmacy Graduate Equivalency Committee (FPGEC).

- American Association of Colleges of Pharmacy (AACP): service organization for U.S. schools of pharmacy; publishes regular newsletter, etc.

Today, my staff spoke with Ms. Susan Meyer, Academic Affairs Director for the AACP. She stated unequivocally that the ACPE, not the AACP, was the appropriate body to recognize, certify or accredit U.S.-trained pharmacists, and that the NABPF/FPGEC was the appropriate body to perform the same function for foreign-educated pharmacists. She said the AACP was mostly a fraternal, "industry"-oriented group, not one concerned with professional licensing.

Therefore, the bill should stand as written, with the ACPE listed as the accrediting body.

Finally, the addition of the word "intern" to Sec. 2, Line 1, AS 08.80.116(b) is reasonable. I would accept this change in a CS for this bill.

Department of Commerce & Economic Development / POSITION PAPER

HB 31: An Act relating to applicants for pharmacist licenses.

The Department of Commerce and Economic Development supports passage of HB 31.

The proposed legislation will address a problem of longstanding for the Board of Pharmacy (hereinafter "board") within the Division of Occupational Licensing (hereinafter "division"). Presently, the board has no provision for licensure of pharmacy graduates educated in institutions not recognized by the American Council on Pharmaceutical Education (ACPE) and located outside the United States and its territories (hereinafter "foreign graduates").

The bill amends the qualifications for pharmacy registration to recognize applicants who have received their bachelor of science degree in pharmacy or an equivalent degree from outside of the United States and its territories. Currently, when foreign graduates apply for licensure, regardless of their qualifications, the board must deny licensure.

Nationally, the National Association of Boards of Pharmacy (NABP) Foundation has responded to this problem by developing course review procedures geared towards determining whether the bachelor of science degree in pharmacy attained by a foreign graduate is substantially equivalent to the degree and learning attained by a graduate of an ACPE accredited school in the United States.

The foreign graduate who possesses an NABP Foreign Pharmacy Graduate Equivalency Committee certificate is considered equivalently educated and is, therefore, eligible for licensure (assuming compliance with other admission criteria) in any state throughout the country. HB 31 will allow foreign-trained pharmacy graduates who possess an NABP Foreign Pharmacy Graduate Equivalency Committee certificate the opportunity to become licensed in Alaska.

There exists nationwide a significant shortage of pharmacists and an acute shortage in Alaska. This legislation will enable the state to admit qualified foreign graduates and, potentially improve our ability to meet our employment needs in this area.

Therefore, the department urges passage of HB 31.

Glenn A. Olds, Commissioner

Date: February 1, 1991

GAO/JS/dgl8849D
020191b

DCED Position Paper

HOUSE COMMITTEE REPORT

(7)

Date Referred: May 3, 1991 FURTHER REFERRALS:

Date of Committee Action: _____

The HEALTH, EDUCATION AND SOCIAL SERVICES Committee considered: HB 31

HOUSE BILL NO. 31 APPLICANTS FOR PHARMACIST LICENSING

"An Act relating to applicants for pharmacist licenses."

RECOMMENDATIONS: [ ] the same title
be replaced with _____ [ ] a new title

[ ] have attached amendments(s)
[ ] do pass
[ ] do not pass
[/] no recommendations
[X] individual recommendations
[ ] additional referral to the _____ Committee

ADOPTS: _____ letter of Intent

ATTACHES NEW FISCAL NOTE(s): (Dept) APPROVES PREVIOUS: (Dept/Date)

[ ] fiscal impact _____ [ ] fiscal note(s) _____

[ ] zero fiscal note _____ [X] zero fiscal note(s) Commerce & Econ. Dev. 2/1/91

SIGNING DO PASS	*DP*	*OTHER RECOMMENDATIONS*	*DNP*	*NR*	*AM*
				X	
				X	

_____
CHAIRMAN'S SIGNATURE

FISCAL NOTE

STATE OF ALASKA
1991 LEGISLATIVE SESSION

BILL NO. HB 31

Revision Date: _____ Department Affected: Commerce & Economic Dev.

Title: An Act relating to applicants for pharmacist licenses. BRU: Occupational Licensing

Component: Administration

Sponsor: Rep. Koponen

Requestor: Rep. Koponen COMPONENT SERIAL NO. 0 3 5 6

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME	0	0	0	0	0	
PART-TIME						
TEMPORARY						

Estimate of current year impact: None

ANALYSIS: (Attach a separate page if necessary.)

HB 31 amends pharmacy education requirements for licensure to allow foreign pharmacy graduates an opportunity to become licensed. New funds are not required to implement this bill.

Prepared By: Jennifer Strickler, Administrative Officer Phone: 465-2144

Division: Occupational Licensing Date: February 1, 1991

Approved by Commissioner: Glenn A. Olds

Agency: Department of Commerce & Economic Development Date: February 1, 1991

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies)

Rev 10/90
JS/dg18848D/020191a

FN 6 DCED

PHARMACIST LICENSING FACTS

The American Council on Pharmaceutical Education (ACPE, established 1932) is the national agency for accreditation of professional degree programs in pharmacy and for approval of providers of continuing pharmaceutical education.

The ACPE presently recognizes 74 accredited professional programs in 43 states, plus the District of Columbia and Puerto Rico.

30 other states, the District of Columbia and Puerto Rico allow foreign-educated pharmacists to sit for state licensing exams if they pass the Foreign Pharmacy Graduate Equivalency Examination administered by the Foreign Pharmacy Graduate Examination Committee (FPGEC).

The FPGEC certificate is awarded only to four-year graduates with Bachelor of Science degrees scoring 550 or higher on the Test of English as a Foreign Language.

Some foreign graduates are allowed to enter accredited U.S. schools of pharmacy as advanced students. After graduation, they qualify to take state examinations.

New York and California allow some candidates to take the state examination after their credentials have been evaluated and approved by the state licensing board.

ALASKA FACTS

All pharmacists must be licensed in Alaska.
Operators of pharmacy businesses must also have a license to dispense drugs and controlled substances.
Applicants must be graduates of a college of pharmacy and complete at least 1,500 hours as an intern.

Application fee: $30.00
Examination fee: $150.00
License fee: $180.00
Biennial renewal: $180.00

ALASKA EMPLOYMENT
(Statistics from the Alaska Department of Labor)

Employment in 1989: 188; in 1990: 193; in 1994: 209 (predicted)

Average Annual Job Openings, 1989-1994
Due to Growth: 4; Due to Separations: 5; Total: 9

Current license holders: 489

misc. facts

HB31 Miscellaneous Notes

Alaska licenses the following professionals who were educated at non-U.S. institutions:

Physicians
Nurses
Optometrists
Chiropractors
Physical Therapists
Veterinarians

On 4/25/91, the chairman of the Board of Pharmacy told me (RGC) that he had five vacancies for pharmacists in his company (Carr's) alone.

This is not a one-constituent bill. One constituent brought to light the broader issue -- a statewide shortage of pharmacists, and an inability for Alaskans educated at non-U.S. institutions to work in Alaska.

HOUSE COMMITTEE REPORT

(7)

HES

Date Referred: January 21, 1991 FURTHER REFERRALS: Health, Education & Social Services

Date of Committee Action: 4-30-91

The LABOR AND COMMERCE Committee considered: HB 31

HOUSE BILL NO. 31 APPLICANTS FOR PHARMACIST LICENSING

"An Act relating to applicants for pharmacist licenses."

RECOMMENDATIONS: [ ] the same title
be replaced with _____ [ ] a new title
[ ] have attached amendments(s)
[ ] do pass
[ ] do not pass
[X] no recommendations
[ ] individual recommendations
[ ] additional referral to the _____ Committee

ADOPTS: _____ letter of Intent

ATTACHES NEW FISCAL NOTE(s): (Dept) APPROVES PREVIOUS: (Dept/Date)

[ ] fiscal impact _____ [ ] fiscal note(s) _____

[X] zero fiscal note Commerce & Econ. DEV. [ ] zero fiscal note(s) _____

SIGNING DO PASS: SIGNING OTHER RECOMMENDATIONS:

Finkelstein	Check appropriate column:	Do Not Pass	No Rec	Amend
	TAYLOR		X	
	BRUCKMAN		—	
	IVAN		✓	
	PARNELL		✓	

Finkelstein

Chairman's Signature

HB

32

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HOUSE COMMITTEE REPORT

(7)

Date Referred: January 21, 1991 FURTHER REFERRALS: Finance

Date of Committee Action: __________

The HEALTH, EDUCATION AND SOCIAL SERVICES Committee considered: HB 32

HOUSE BILL NO. 32 STUDENT LOAN REIMBURSEMENT & TAXATION

"An Act relating to reimbursement and taxation of certain student loans; and providing for an effective date."

RECOMMENDATIONS: be replaced with CS HB 32 (HES) [✓] the same title [ ] a new title

[ ] have attached amendments(s)

[ ] do pass

[ ] do not pass

[ ] no recommendations

[✓] individual recommendations

[ ] additional referral to the ______________ Committee

ADOPTS: ______________ letter of Intent

ATTACHES NEW FISCAL NOTE(s): (Dept) APPROVES PREVIOUS: (Dept/Date)

[✓] fiscal impact 3/11/91 (Post Secondary Ed.) [ ] fiscal note(s) __________

[ ] zero fiscal note __________ [ ] zero fiscal note(s) __________

SIGNING DO PASS:	SIGNING OTHER RECOMMENDATIONS: Check appropriate column:	Do Not Pass	No Rec	Amend
Pat Carney				
Cheri Davis				
Mary Miller				
Betty Davis	Mark Hanley		X	
	Bettye Davis		✓	
	John C. Davies		X	

Pat Carney

Chairman's Signature

Alaska State Legislature
Representative Niilo Koponen
House District 21

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POSITION PAPER for HB 32

Early Childhood Development educators have long been underpaid, even though the task of educating young children is of paramount importance. In order to respond to mounting evidence of the need for trained childcare workers, we must create an incentive to encourage people to enter the field. In July of 1990, the statewide average wage for Child Care Workers was $6.12 an hour. The statewide low, $4.30, was the same wage earned by courtesy clerks in grocery stores and by fast food workers. The high, $15.00, was earned by only one person (of 276 State Daycare employees).

Long term national research shows a correlation between inadequate early childhood experiences and social and economic problems in later life. Studies have shown that teen pregnancy, unemployment, school drop-out and juvenile deliquency rates are lower for children who participate in quality ("quality" being a licenced daycare with licenced workers, able to provide education in addition to childcare) early childhood education programs than for those who did not. Insecurity, a lack of adventurism, and a diminished sense of trust characterize children who have not received quality child care. Conversely, children who have received quality child care tend to succeed in school, display social and emotional competence, and enjoy improved opportunities for good health.

This bill provides an incentive designed to attract more people into this field. A 70% reimbursement of graduates' Alaska State Student Loans would be provided after they have begun teaching in or administering an Early Childhood Development program. They will be eligible for reimbursement as long as they continued teaching in Alaska.

FISCAL NOTE

STATE OF ALASKA
1991 LEGISLATIVE SESSION

BILL NO. HB 32

Revision Date: _____ Department Affected: Education

Title: An Act relating to reimbursement and taxation of certain student loans

BRU: Alaska Student Loan Corporation

Component: Student Loan Program

Sponsor: Representative Koponen

Requestor: HESS

COMPONENT SERIAL NO. 0 2 1 8

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL						
REVENUE LOANS BUDGET	-0-	1.2	2.7	4.4	6.4	8.7

FUNDING: (Thousands of Dollars)

GENERAL FUND	-0-	1.2	2.7	4.4	6.4	8.7
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	1.2	2.7	4.4	6.4	8.7

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

Estimate of current year impact: $0

ANALYSIS: (Attach a separate page if necessary.)

SEE ATTACHED

Prepared By: Jane Byers Maynard, Executive Director Phone: 465-2165

Division: Alaska Commission on Postsecondary Education Date: February 11, 1991

Approved by Commissioner: _____

Agency: _____ Date: _____

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

HB 32
Fiscal Analysis

Approximately seven eligible borrowers graduating per year beginning with 1987-88 loan year. Fiscal impact minimal for FY93 through FY98 due to bill provision requiring full loan repayment prior to application for reimbursement.

Assume one borrower each year may repay early rather than on standard ten-year repayment cycle. Most eligible borrowers will be able to apply for the 70% reimbursement in one lump sum, having already been employed for five years.

	FY98	FY99	FY00	FY01	FY02	FY03
General Fund Appropriation	$ 8.7	87.7	88.5	89.4	90.3	90.3

1990-91 average annual loan per borrower $4,890 (figures projected include 1% annual increase in average loan amount up to maximum of $5,500) x 2.5 years of borrowing = $12,225 (average total debt/borrower).

#4345T

DIVISION OF LEGAL SERVICES

LEGISLATIVE AFFAIRS AGENCY
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Court Plaza, Room 500
Mail Stop 3101

MEMORANDUM January 23, 1991

SUBJECT: Sectional analysis (HB 32)

TO: Representative Niilo Koponen

FROM: Michael F. Ford
Legislative Counsel

The following is a section by section analysis of HB 32:

Section 1 - Provides for partial reimbursement of student loans made to borrowers who graduate from early childhood education programs and who are employed in early childhood education. Requires the postsecondary commission to adopt regulations permitting a borrower to exclude the reimbursed portion of a loan from taxable income if allowed by federal law. Provides that reimbursement is subject to legislative appropriation and that bonds sold by the Student Loan Corporation may not be appropriated for reimbursement of loans.

Section 2 - Provides that only employment in early childhood education that occurs after July 1, 1991 qualifies a person for purposes of loan reimbursement.

Section 3 - Effective date.

MFF:gc
91-027.glc

NEA-ALASKA

AFFILIATED WITH THE NATIONAL EDUCATION ASSOCIATION

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FAIRBANKS REGIONAL OFFICE
2118 CUSHMAN STREET
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February 26, 1991

To: **Representatives Carney and Lincoln, Co-Chairs**
Members, House HESS Committee

Re:

HB 32: *An Act relating to reimbursement and taxation of certain student loans; and providing for an effective date."*

NEA-Alaska supports and encourages your favorable consideration of HB 32.

Early childhood education is a critical component in enhancing the probability that each child will realize his or her full potential in our public school system. It has become even more important as a result of a changing society which doesn't always have the essential support systems for children in their formative years.

Unfortunately, professional career options in early childhood education don't receive the attention and emphasis that is placed on other opportunities for our youth. This fact, combined with relatively low pay scales in this field make it essential that some changes be made.

HB 32 properly provides for reimbursement under the student loan program and should be an incentive for more people to consider early childhood education as a professional career alternative. The qualifying criteria in the legislation more than adequately protect against the potential abuse of process.

Thank you for your consideration of our recommendation.

Respectfully submitted,

Bob Manners
Executive Director

Don Oberg
President

cc: **Representative Koponen**

2/19/91 LAO TELECONFERENCE
Testimony by Jo Kuykendall, University of Alaska School of Career and Continuing Education Early Childhood Development Department in support of $78,400 in the UAF budget for SCCE ECHD, AND HB 32.

I am here tonite to share information with you about our role in meeting the needs of young children and families.

According to the 1988 Governor's Interim Commission on Children and Youth report, the care and nurturance of young children NOW "will pay a far greater economic and social dividend for this state's future than all of its other financial investments." (p. 1)

While all children have basic rights, the realities of life falls SHORT for too many children in Alaska. I don't have to tell you that within the US 50% of all married mothers with infants were employed in 1988. By 1995 they predict 80% of women between 25 and 34 will be working and 90% of them will be mothers (ACEI Exchange 1/91).

We are concerned about continuing to improve the quality of existing care, and also worry about what life will be like for children in four years. What kind of care will our children receive?

Research studies have soundly documented the importance of 3 main factors to quality care: 1. Education and training in child development theory and practice of the lead teacher or caregiver; 2. Appropriate group size; and, lastly this past summer we learned about the importance of teachers' salaries. (These research studies were all nationwide, large studies: National Day Care Study, National Day Care Home Study, and National Child Care Staffing Study.)

Education and training in child development theory and practice influences what teachers and caregivers expect from children, the kinds of support they DO or DON't provide families, and how they teach, nurture and discipline during the 10-11 hours a day children are in care. Teachers serve as models to many new parents, and assist many by providing advise and support with the difficult tasks involved in parenting.

The Early CHildhood Development program at SCCE in Fairbanks currently has approximately 250 students enrolled in courses. The number of certificate and degree STUDENTS has approximately doubled in the last three years, increasing 40% from Fall 1989 to Fall 1990. The total number of CREDIT HOURS students are pursuing has increased 133% since 1987 (just 3 years). Most of our degree students are currently working in centers and homes and go to school part time. Because of this, many will not graduate for 2-3 years.

We are struggling to increase our services to local providers, staff and interested parents with a 1/2 time position and minimal space. If we DOUBLE our current numbers, we will just begin to touch the extreme need of understanding young children that is widely apparent in Fairbanks today, let alone meet the increasing education and training needs required by Federal, State and specific agency programs.

Will any kind of care do for our children and our grandchildren? I urge your support of the $78,400 increment in the #1 priority of the President's and Board of Regent's FY92 Operating Budget request-- $78,400 for Early Childhood Development Program at UAF SCCE.

I also URGE your support of HB 32 to help provide Alaska Student Loan forgiveness to help meet the constantly increasing demand for qualified applicants in the field, and provide them some mechanism to finance their education within a profession notoriously underpaid. INVESTING IN QUALITY CARE IS PREVENTION. THANK YOU.

I was then asked about the current status of the Child Care Grant Education and Training Funds. These funds have gone to the information and referral programs statewide, and in Fairbanks, they are now with the social service agency, Resource Center for Parents and Children. While some time has elapsed during this change as to who and how they will be administered, it is my understanding that RCPC is now providing workshops and some reimbursemant for coursework. Reimbursement for coursework is limited; and workshops, while a very helpful part of the entire training network system, lack the emphasis on understanding theory and research, and lack the opportunity for students to have appropriate practice.

* *

Specific stats referred to above:

Total enrollment in ALL ECHD courses, from dept. records:
Fall 87- 72; Fall 90-132 (83% increase).
Spring 88- 160; 90- 231, Spring 91 will be around or over 250.

Total credit hours students pursued in ALL ECHD courses, from dept. records: Fall 87- 148; Fall 90- 345 (133% increase)

Early Childhood Development AAS Degree REQUIRED courses include: *
Child Development - 3 cr.
Intro. to Early Childhood - 3 cr.
Practical Paths to Discipline and Guidance - 1 cr.
Child Nutrition, Health and Safety - 3 cr.
Group Management - 1 cr.
Infant/Toddler Care - 2 cr.
Activities for Young Children - 3 cr.
Intro. to the Exceptional Child - 3 cr.
Culture, Learning and the Young Child - 2 cr.
Practicum I - 3 cr.; Practicum II - 3 cr.

*(Note: Intro. to Psych and The Family are offered by other departments, but both are also REQUIRED of graduates.) Additional general university degree requirements include English, Speech, Math, and electives.

ELECTIVE courses offered by this department include: Activities for School Age, Personnel Mgt. of ECD Programs, Financial Mgt. of ECD Programs, Parents as Partners in Education, Child-Family Relationships, and 1 credit intensives on current issues, specific activity areas, literacy development, etc.

Additional stats;

1. There are 19 million children under age 5 today, up from 16.5 million in 1980. (ACEI Exchange 1/91)

2. In the US, 17.1 percent of all children live below the poverty line, compared with 5.1 % in Switz., 8.2% in West Germany, 9.6% in Canada, and 10.7 % in the United Kingdom. (ACEI Exchange 1/91)

3. Less than 50% of all child care workers receive employer-provided health coverage. (ACEI Exchange 1/91)

4. By conservative estimates, 7 million children under the age of 13 care for themselves at least part of every day. (1987 stat, ACEI Exchange 1/91)

5. 2/3 of working women are the sole provider for the household or are married to men earning less than $15,000 (1988 stat, ACEI Exchange 1/91)

6. According to "One Day in the Lives of American Children" (Children 1990 by Children's Defense Fund), every day 1,849 children are abused or neglected; 2,989 children see thier parents divorced; 105 babies die before thier first birthday; 2,795 teenagers get pregnant; 1,295 teenagers give birth; 135,000 children bring a gun to school; 3,288 children run away from home; 623 teenagers get syphilis or gonorrhea; 211 children are arrested for drug abuse (p. 4).

7. Although parents place quality at the top of their child care concerns, only 30 states maintain child-to-caregiver staffing requirements for the care of infants in child care centers that meet the professionally accepted minimum safety standards. (Children 1990, CDF, p.8)

8. Smaller class size is an important step in increasing children's learning, but only 7 states and DC maintain class sizes that meet standards recommended by experts in the field (Children 1990, p.8)

Other quotes from national authorities:

1. "One of the critical factors that determine quality is the caliber and stability of staff who care for children."(SOS America, by Childrens' Defense Fund, p. 45)

2. "While millions of families cannot afford safe child care, millions of additional families find that even if they can afford it, the quality of the child care that is available leaves much to be desired." (SOS Am, CDF, p. 45)

3. "The supply of safe and affordable child care in most states and communities is inadequate" (SOS Am. CDF, p. 45)

4. "Programs staffed with teachers who have had a formal education--such as early childhood training in college--and who are rewarded with better wages and benefits, are higher quality child care programs... Activities tailored to a child's age and skill level encourage optimal development and achievement." (SOS Am. CDF, p. 46)

5. "Child care also can play an important role in the treatment of abused children and their parents. Parents can watch program staff work with their children and learn alternative ways to cope with the stress they experience in their childrearing responsibilities, while children receive desperately needed enrichment and stimulation." (SOS Am. CDF, p. 46)

6. States should establish "...scholarships and loan forgiveness programs for individuals seeking early childhood development credentials." (SOS Am. CDF, p. 52)

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

DEPT. OF COMMUNITY & REGIONAL AFFAIRS

OFFICE OF THE COMMISSIONER

P.O. BOX B
JUNEAU, ALASKA 99811-2100
PHONE: (907) 465-4700

949 E. 36TH AVENUE, SUITE 400
ANCHORAGE, ALASKA 99508-4302
PHONE: (907) 563-1073

February 4, 1991

POSITION PAPER

RE: House Bill 51

SPONSOR: Representatives Ulmer, Kopenen, B. Davis, Ellis, Brown

Program Effects of the Bill

The bill increases the base amount for the Child Care Grant Program to the $50 maximum as is allowed under AS 44.47.305(3)(c).

Comments

The Department of Community & Regional Affairs agrees that this amount would be necessary to support the increase in base to the $50 maximum. At present, there are approximately 15,648 licensed child care spaces statewide. We anticipate 95 percent participation at the higher base rate, which would equate to approximately $8,919,000. We also anticipate the development of additional child care facilities statewide and these additional spaces will add to the impact on the program even if the percentage of providers using the program is not constant at 95 percent. The higher rate encourages providers who otherwise would not bother with the additional paperwork to participate in the program and take advantage of the funds.

The Department of Community & Regional Affairs supports the Governors budget. However, if additional funds are received, we would be more than amiable to administering the program in as efficient and cost effective manner as possible.

Ed. Blatchford

Edgar Blatchford, Commissioner

OF SEVENTY STUDENTS SURVEYED (UAF, UAA, UAS) WHO CURRENTLY ARE ENROLLED IN ONE OR MORE CHILDCARE COURSES:

1. 36% are utilizing the Alaska State Student Loan
   64% are not (for varying reasons)

2. 80% are planning on completing a 30-credit or AAS in Early Childhood Development
   20% are not

3. 69% would be influenced (if the bill were to pass) by the incentive to study in this field
   31% wouldn't

4. 53% are currently enrolled in at least 12 credit hours at the University
   47% are enrolled in less than 12

5. 64% are currently working in a center, program, or home licensed or certified by the Federal, State, or municipal government
   36% are not

Alaska State Legislature

Official Business

SURVEY

Pouch V
State Capitol
Juneau, Alaska 99811

1. Are you utilizing the Alaska State Student Loan to assist financing your education? Yes___ No___

2. Are you planning on completing a 30-credit or AAS in early childhood development? Yes___ No___

   What are your reasons?

3. Were Bill 32 to pass, one who has graduated from an early childhood deveopment program (received a certificate or AAS) and has begun to teach in a child care center, Head Start Program or in a similar program providing for the education of children who are less than 6 years of age, he/she would begin to make payments on his/her Student Loan, and at the end of the year would collect a certain percentage of reimbusement. Would this incentive have influence on your final decision? Yes___ No___

   Comments:

4. Are you currently enrolled in 12 credit hours or more? Yes___ No___

5. Are you currently working in a center, program, or home licensed or certified by the Federal, State, or municipal government? Yes___ No___

   Please indicate position title_____
   Pay per hour (optional)_____

   Do you plan to continue working in this field? Yes___ No___

RESULTS OF 20 SURVEYED CHILDCARE DIRECTORS:

120 job openings in the past 12 months
170 people applied - of these 170:

- 4 had a 4 year degree in Child Development Children & Families or Home Economics with a Concentration in Child Development
- 7 had an Associates in the above
- 5 had a 30 Credit Certificate in the above
- 8 had a Child Development Associates
- 8 had a BA in Education with a concentration in Child Development
- 40 had a BA in Education with NO concentration in Child Education

S U R V E Y

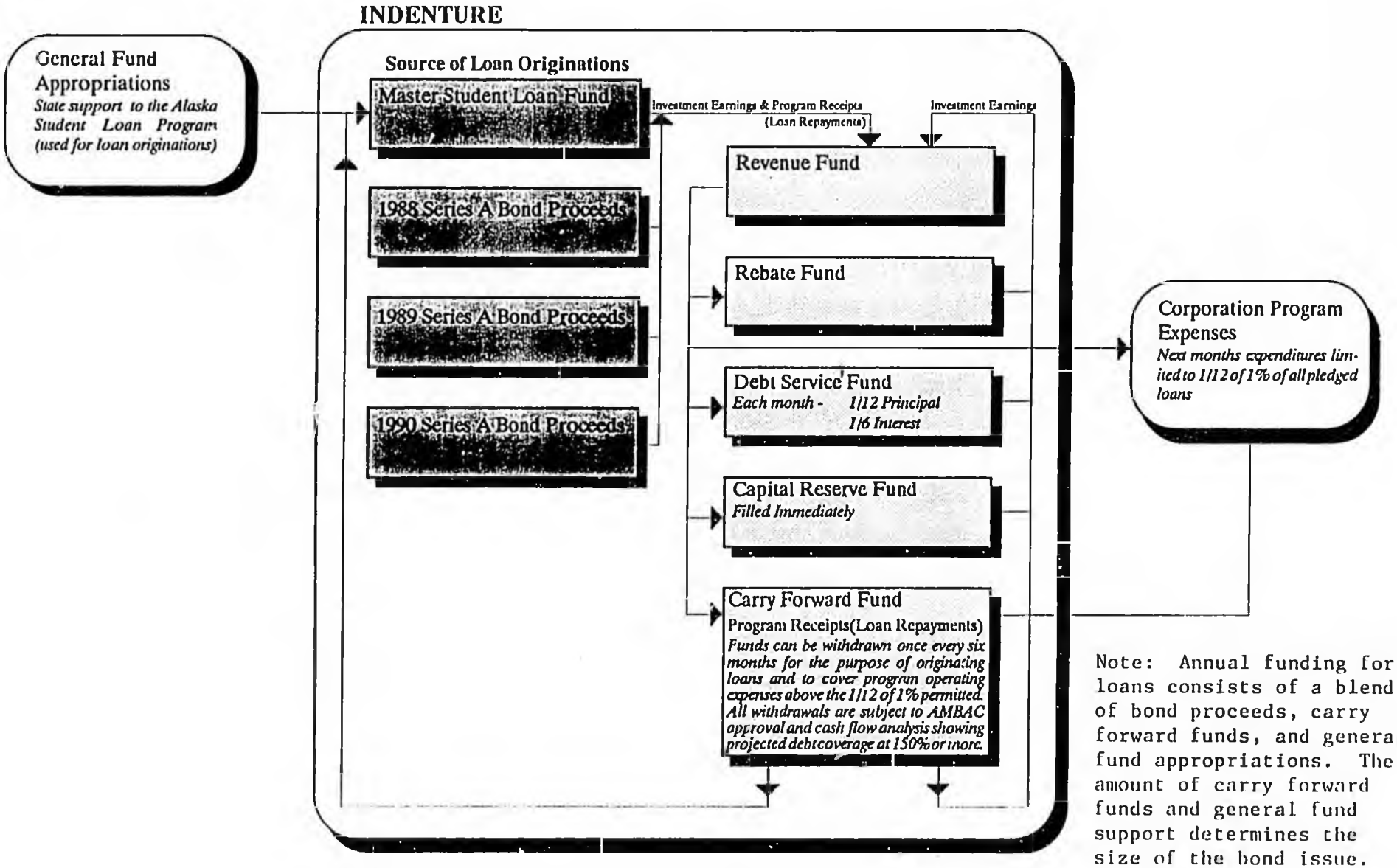
How many job openings for employees to work directly with preschool aged children have you advertised in the last 12 months? _____

How many applicants applied for the last position that you advertised? _____ Next to the last position? _____

Of the LAST group of applicants, approximately how many had completed, or almost completed, any of the following:

a. 4 year degree in CHILD DEVELOPMENT, CHILDREN & FAMILIES, or HOME ECONOMICS WITH A CONCENTRATION IN CHILD DEVELOPMENT? _____
b. ASSOCIATES degree in same? _____
c. 30 Credit Certificate in same? _____
d. Child Development Associate? _____
e. Bachelors in Education with concentration in child development?_____
f. Bachelors in Education with no concentration in child development? _____

Alaska Student Loan Corporation



Note: Annual funding for loans consists of a blend of bond proceeds, carry forward funds, and general fund appropriations. The amount of carry forward funds and general fund support determines the size of the bond issue.

TITLE:	LOCATION:	AGENCY PRIORITY:	NAME AND PHONE OF AGENCY CONTACT:
Alaska Student Loan Program	Statewide	1	Jane Byers Maynard, 465-2854

PROGRAM FUNDING	FY 90	FY 91	FY 92	GOVERNOR
TOTAL ANNUAL LOAN DEMAND	55,483.4	55,500.0	56,332.5	
LOAN BUDGET REQUEST				
1002 FEDERAL RECEIPTS	-0-	-0-	-0-	
1004 GENERAL FUNDS	10,000.0	10,000.0	10,000.0	
1066 GENERAL OBLIGATION BONDS	-0-	-0-	-0-	
OTHER	27,829.0	29,210.1	16,494.4	
TOTAL APPROPRIATIONS/REQUEST - LOANS	37,829.0	39,210.1	26,494.4	
TOTAL APPROPRIATIONS/REQUEST - OTHER	-0-	-0-	-0-	
APPROPRIATED TO GENERAL FUND	(-0-)	(-0-)	(-0-)	( )
TOTAL OTHER PROGRAM FUNDING	64,356.5	68,666.9	73,172.5	
ESTIMATED CARRY FORWARD BALANCE	26,588.4	29,273.8	29,838.1	
INTEREST RETAINED	12,106.1	12,627.7	14,011.5	
OTHER RETAINED EARNINGS	2,775.7	2,893.1	2,834.4	
PRINCIPAL REPAID	22,886.3	23,872.3	26,488.5	

OTHER FINANCIAL INFORMATION (INCLUDING FY 91)	TOTAL
TOTAL APPROPRIATIONS	425,440.1
TOTAL INTEREST RETAINED	52,164.8
TOTAL OTHER RETAINED EARNINGS	11,307.8
TOTAL BONDS ISSUED	134,889.1
BONDS AUTHORIZED BUT NOT ISSUED	-0-
TOTAL PROGRAM FUNDING	623,801.8

WHAT ARE THE TOTAL ADMINISTRATIVE COSTS FOR OPERATING THE LOAN PROGRAM FOR FY 91?

$4,678.3

WHAT AMOUNT OF TOTAL ADMINISTRATIVE COSTS ARE OBTAINED FROM LOAN INTEREST, PRINCIPAL OR FEES?

$4,678.3

DESCRIBE THE PROGRAM AND EXPLAIN IMPACTS ON THE PROGRAM OF RECEIVING IN FY 92 75% of FY 92 REQUESTED GENERAL FUNDS AND 50% of FY 92 REQUESTED GENERAL FUNDS:

The Alaska Student Loan Program provides low interest (8%) loans to full-time students. In FY 1992, it is expected that the total annual demand will stabilize at $56,000,000. It is the Corporation's policy to establish a stable general fund base for several years to facilitate planning and to reach a self-sustaining program by the year 2000. In addition, it is important that the general fund base be sufficiently high to provide a favorable presentation to the financial community, including the rating agencies, credit enhancement providers, and investors. To that end, this request references a minimum and continuation level general fund base of $10,000,000.

L1 LOAN PROGRAM DESCRIPTION

AGENCY Alaska Student Loan Corporation

TITLE Student Loan Program

FY 92

Revised Date:

(7/90) II

If legislation to create a Half-Time Loan Program is enacted in FY 1992, the Corporation will experience a 1.5% loan demand growth. Funding for the Half-Time Loan Program will be provided through loan collections (carry forward funds) so, this program does not impact the Corporation's level of general fund request in FY 1992.

Carry forward funds under other program funding represents loan collections (principal repaid and interest retained on loans) after the Corporation's debt service and operating program expenses have been paid for the year. The aggregate of collections over the year to fund loans is simply not available to the Corporation in time to disburse loans because the loans generating these receipts serve as collateral for the Corporation's bonds. These collections are accessible through the Corporation's trustee and bond indenture only once every six months upon submission of approved projected net cash flow statements. Furthermore, eighty percent of our loans are disbursed within the first six months of the year. This factor, along with the restrictions on loan collections, makes the general fund support and the financing through bond issuance essential in order for the Corporation to fulfill its commitment to students during the first six months of the year.

It is the goal of the Corporation to create a self-sustaining student loan program by the year 2000. The chart on the following page illustrates the interrelationship between the annual general fund support, debt service on bonds, loan growth, and program default rate. As illustrated in the chart, all of these factors directly affect the attainment of this goal.

The cash flow analysis supporting the chart on the following page was performed by the Corporation's financial advisor, Evensen Dodge. A summary of the results of their analysis and additional justification for the Corporation's general fund request is on page 4.

ALASKA STUDENT LOAN CORPORATION

Summary of Millennium Plan Results
October 3, 1990
Default Rate = 8.0%

STATE APPROPRIATION (IN MILLIONS)

	Variable (1)	1% Decline	0% Growth	1.5% Growth	3% Growth
$13	A	1994	1996	1997	1999	2003
	B	1998	1999	2000	2003	2006
	C	N/A	N/A	N/A	N/A	N/A
	D	57.5	78.2	92.4	125.8	211.6
	E	80.1	98.2	109.9	147.2	189.4
10	A	1996	1998	1999	2003	After 2006
	B	1999	2000	2002	2004	After 2006
	C	N/A	N/A	N/A	N/A	N/A
	D	73.0	106.6	127.7	191.6	333.1
	E	75.0	87.1	104.3	131.5	160.0
7	A	1998	1999	2002	After 2006	After 2006
	B	2002	2002	2003	After 2006	After 2006
	C	N/A	N/A	N/A	N/A	N/A
	D	100.7	144.5	183.6	287.8	473.2
	E	65.2	78.0	92.7	114.7	115.0
4	A	2002	2003	2004	After 2006	N/A
	B	2003	2003	2005	After 2006	N/A
	C	N/A	N/A	N/A	N/A	2002
	D	147.9	210.7	272.4	427.5	613.3
	E	57.8	58.0	63.5	70.0	70.0
0	A	After 2006	After 2006	After 2006	N/A	N/A
	B	N/A	N/A	N/A	N/A	N/A
	C	N/A	N/A	N/A	2001	1999
	D	293.9	353.2	451.1	614.3	800.1
	E	100	100	100	100	100

LOAN DEMAND

Legend

- A = Last year required for bond proceeds
- B = Last year required for General Fund support.
- C = Last year with sufficient debt service coverage.
- D = Par amount of bonds (in millions) including Series 1990 bond issue of $33 million.
- E = General Fund Support (in millions) including FY 1991 appropriation of $10 million.

(1) Variable represents a 5% decline in FY 1992 followed by an additional 4% decline in FY 1993; 3% decline in FY 1994; 2% decline in FY 1995 and 1% decline in FY 1996. The next three years (FY 1997-1999) have 0% growth; and 1.5% growth thereafter beginning in FY 2000.

26202201/1

L1 ADDITIONAL EXPLANATION FORM

AGENCY Alaska Student Loan Corporation

BRU Student Loan Program

COMPONENT

FY 92

Revised Date:

(7/90)-ael

EVENSEN DODGE, INC.

MEMO

TO: ALASKA STUDENT LOAN CORPORATION

FROM: EVENSEN DODGE, INC.
Financial Advisor to the Corporation

SUBJECT: Appropriation Request - Justification for $10 Million

The Corporation has a continuation of the $10 million appropriation level.

The Corporation has commissioned Evensen Dodge to prepare a study to assess the long term financing implications of various appropriation levels, default rates, and loan demand. The study measured the number of years and total level of appropriation and bond issues necessary to meet loan demand and maintain the financial adequacy of the Corporation.

The results of the study were analyzed in relation to the Corporation's objectives:

1. Meet anticipated loan demand and Corporation administrative costs.
2. Finance loan demand from carryforward funds, appropriations, and bond proceeds.
3. Minimize the amount and time over which appropriations and bond proceeds will be needed to meet expected loan demand.

The financial projections were analyzed to determine which appropriation level best met the Corporation's objectives. The table below demonstrates that as the amount of annual appropriation increases, total appropriation amounts also increase, total bond proceeds decrease, and the final year when bond proceeds and appropriations are needed is earlier.

The $13 million annual appropriation rate results in the earliest cessation for the need to issue bonds and seek appropriations as well as to minimize total bond proceeds necessary. However, this level of annual appropriation also results in the highest total general fund appropriation amounts. The table below demonstrates (1):

Annual Appropriation Rate	Bond Proceeds (In Millions)		General Fund Appropriation (In Millions)	
Rate	Total	Last Year	Total	Last Year
$13 million	$ 57.5	1994	$80.1	1998
10 million	$ 73.0	1996	$75.0	1999
7 million	$100.7	1998	$65.2	2002

(1) Represents default rate of 8% and variable loan demand as obtained from the Millennium Plan Analysis dated October 3, 1990.

The $10 million annual appropriation rate is recommended because it represents a reasonable balancing of the competing goals of minimizing the amount of bonds and total appropriations. The Corporation will no longer need to issue bonds or request appropriations after the year 2000 for the loan demand level shown in the table.

FY 92

Page 4 of 5

Revised Date:

AGENCY Alaska Student Loan Corporation

BRU Student Loan Program

COMPONENT

L1 ADDITIONAL EXPLANATION FORM

(7/90)-ael

Finally, this year the Corporation again intends to authorize a competitive sale for the issuance of its bonds. The 1990 bond issue was the third year Alaska Student Loan bonds were sold. The competitive sale was highly successful with substantial cost savings from last year's negotiated sale. Based on the 1990 experience, the planned 1991 competitive sale will allow all interested parties an equal opportunity to bid and will encourage the lowest interest cost to the Corporation over the life of its bonds. In addition, the Corporation should obtain the most favorable underwriting costs through the competitive sale process and bidder options should allow the market place to determine the benefits of insurance on the bonds.

L1 ADDITIONAL EXPLANATION FORM

(7/90) acl

AGENCY Alaska Student Loan Corporation

BRU Student Loan Program

COMPONENT

FY 92

Revised Date:

1

OTHER FINANCIAL AND PROGRAM INFORMATION

	FY 90 ACTUAL	FY91 AUTHORIZED	FY 92 REQUEST
ESTIMATED TOTAL SUBSIDY	-0-	-0-	-0-
ESTIMATED RATE OF SUBSIDY	-0-	-0-	-0-
AVERAGE LOAN SIZE	4.2	4.2	4.2
AVERAGE LOAN LENGTH	N/A	N/A	N/A
NUMBER OF LOANS MADE	13.1	13.1	13.3
VALUE OF LOANS MADE ANNUALLY	55,483.4	55,500.0	56,332.5
VALUE OF OUTSTANDING LOANS AT FY END	464,445.2	496,072.9	525,916.9
AVERAGE DELINQUENCY RATE	15.5%	15.5%	14.0%
DEFAULT RATE	11.0%	11.0%	10.0%
OTHER PROGRAM INDICATORS			

INFORMATION FOR SUBSIDY CALCULATION

STATUTORY LOAN RATE	8%
STATUTORY MAXIMUM LOAN MATURITY	10 Years
APPROPRIATE MARKET INTEREST RATE	8%
ESTIMATED RATE FOR BOND ISSUE	7.5%

	YEARS	YES	NO
ARE PRINCIPAL DEFERMENTS ALLOWED?			
IF YES, NUMBER OF YEARS:	1	☒	☐
ARE INTEREST DEFERMENTS ALLOWED?			
IF YES, NUMBER OF YEARS:	1	☒	☐
IS LOAN FORGIVENESS ALLOWED?		☒	☐
IF YES, PERCENT OF LOANS FORGIVEN (Loans prior to July 1987)	50%		
WHAT IS THE CURRENT LOAN LOSS RATE?	13.4%		

PROGRAM JUSTIFICATION:

The objective of the loan program is to permit qualified Alaskans an opportunity and choice in the pursuit of their individual educational goals. Immeasurable benefits accrue to the State because of its broadly and diversely educated citizens.

The Alaska Student Loan Program permits qualified residents of Alaska (two-year minimum residency) to receive up to $5,500/year for undergraduate study or $6,500/year for graduate study for up to eight years (five years maximum of undergraduate or graduate) to attend institutions that are accredited by recognized accrediting agencies or authorized to operate by the Alaska Commission on Postsecondary Education. Loans carry 8% simple interest and ten year payback terms.

L2 LOAN PROGRAM JUSTIFICATION

FY 92

AGENCY Alaska Student Loan Corporation

TITLE Student Loan Program

Revised Date:

(7/90)-12

Certificate

Early Childhood Education (Paraprofessional Level)

To obtain a certificate in early childhood education, the 30-credit hour "Major Requirement" for the associate of applied science in early childhood education must be completed.

The Certificate is available through the Juneau campus, with many of the required courses available through the Sitka campus. Education for the Child Development Associate award may be obtained through specified courses as well.

This certificate is designed to give intensive training in a specific occupational area. Skills gained are job-entry level in nature and work completed may apply toward degree programs in the field.

Students must demonstrate a level of competence in English equivalent to ENGL 111 and a math competency equivalent to MATH 054 in order to graduate from this program. English and Math placement exams are recommended as part of the admissions procedure.

Associate of Applied Science (A.A.S.)

Early Childhood Education

Early Childhood Education courses are designed to prepare teachers for work in preschools, day care programs, Head Start schools, and public school primary grades. The credits earned in the certificate program can be part of the A.A.S. degree.

The Associate degree is offered through the Juneau campus, with many of the required courses available through the Sitka campus. Education for the Child Development Associate award may be obtained through specified courses as well.

With an advisor's help, the A.A.S. degree can be incorporated into a Bachelor's degree in education, which is required for public school teacher certification.

In keeping with an open admissions policy for Associate Degrees, the only admissions requirements are completion of English and Math placement tests for advising purposes.

Degree Requirements: The associate of applied sciences (A.A.S.) degree in early childhood education requires a minimum of 60 credit hours.

General Requirements:		**15**
Written Communication Skills - 6 credits		
ENGL 111	Freshman Composition (3)	
and		
ENGL 211	Intermediate Composition with Modes of Literature (3)	
or		
ENGL 212	Technical Report Writing (3)	
Oral Communication Skills - 3 credits		
Six credits from any one of the following areas: Humanities, Social Sciences, Natural Sciences, Mathematics - 6 credits		
Major Requirements		
ED 101	Parents and Teachers as Partners (3)	
ED 105	Introduction to Early Childhood Education (3)	
ED 119	Child Nutrition and Health (1)	
ED 156	Language and Literature Activities for Young Children (1)	
ED 157	Arts and Crafts Activities for Young Children (1)	
ED 158	Science and Math Cognitive Activities for Young Children (1)	
ED 159	Music and Movement Activities for Young Children (1)	
ED 210	Positive Approaches to Discipline (3)	
ED 250	Practicum in Early Childhood Development I (3)	
ED 251	Practicum in Early Childhood Development II (3)	
ED 280	The Multicultural Classroom (3)	
ED 294	Practicum: Young Children with Special Needs (1)	
ED 327	The Exceptional Child in Modern Schools and Society (3)	
PSY 150	Human Development (3)	
Electives		**15**
Minimum Credit Hours		**60**

Elementary: Early Childhood Education

The ECE endorsement curriculum prepares prospective students to teach kindergarten through third grade, or pre-primary. The specialized skills and understanding required to promote the growth and development of children ages three through eight years are included in the curriculum.

Degree Requirements: Candidates follow the same basic requirements as other Elementary majors. The Early Childhood Education endorsement area consists of 21 credits of professional education courses specific to early childhood education. For students already certified to teach in the elementary schools the 21 credits ECE endorsement courses may be taken which will qualify the student for an ECE endorsement on their Alaska Teaching Certificate.

Common Core General Education Requirements: 34

The complete list of requirements is on page 22-24 of the catalog. The following courses must be included in the GER for this degree: HIST 101 and HIST 102 or HIST 131 and HIST 132, MATH 107, PSY 101.

Major Requirements: 73

Professional Education Sequence—46 credits

ED 313	Educational Psychology (3)
ED 322	Introduction to Reading Instruction (3)
ED 327	The Exceptional Child in Modern Schools and Society (3)
ED 328	Children's Literature (3)
ED 332	Evaluation and Measurement (3)
*ED 424	Mathematics in the Elementary School Curriculum (3)
ED 430	Introduction to the Microcomputer and Educational Computing (3)
ED 452	Student Teaching (12)
ED 480	The Multicultural Classroom (3)
HIST 341	History of Alaska (3)
PSY 150	Human Development (3)
MATH 325	Mathematical Problem Solving (4)

Early Childhood Sequence — 21 credits

ED 105	Introduction to Early Childhood Education (3)
ED 119	Child Nutrition and Health (1)
ED 157	Arts and Crafts Activities for Young Children (1)
ED 159	Music and Movement Activities for Young Children (1)
ED 210	Positive Approaches to Discipline (3)
ED 250	Practicum in Early Childhood Development I (3)
ED 361	Young Children and Literacy (3)
ED 364	Classroom Management for the Young Child (3)
ED 465	Math and Science for Young Children (3)

Emphasis Area — 6 credits

Select six credits in one area below. Advisor's permission required.

- Educational Technology
- Bilingual/Multicultural
- Elementary Methods

Approved Electives 18

Select a minimum of 18 credits in an emphasis which supports the elementary education curriculum approved by an education advisor.

Electives 5

Minimum Credit Hours 130

***Note: Math 325 and Math 107 or equivalent competency prerequisite for ED 424.**

UAS

Elementary: Early Childhood Education Credential Endorsement

Required:

ED 313	Educational Psychology (3)
ED 321	Social Studies in the Elementary School (3)
ED 327	The Exceptional Child in Modern Schools (3)
ED 332	Evaluation and Measurement (3)
ED 452	Student Teaching (12)
ED 480	The Multicultural Classroom (3)
HIST 341	History of Alaska (3)
ED 105	Introduction to Early Childhood Education (3)
ED 119	Child Nutrition and Health (1)
ED 157	Arts and Crafts Activities for Young Children (1)
ED 159	Music & Movement Activities for Young Children (1)
ED 210	Positive Approaches to Discipline (3)
ED 250	Practicum in Early Childhood Education (3)
ED 361	Young Children and Literacy (3)
ED 364	Classroom Management for Young Children (3)
ED 465	Science and Math for Young Children (3)

Note: Total credit hours must include nine approved education credits earned at UAS. Student teaching must also be completed while enrolled at UAS.

Minimum Credit Hours **51**

Note: MATH 325 and MATH 107 or equivalent competency are prerequisites for ED 424.

UNIVERSITY OF ALASKA ANCHORAGE

3211 Providence Drive
Anchorage, Alaska 99508

SCHOOL OF EDUCATION
(907) 786-1771
VAX ID: AYSOE
FAX: 786-1749

Feoruary 10,1991
to: ECD Students
from:Ms Lare', visting Faculty, ECD
re:ECD Fall'91 Class Schedule

The following ECD courses are being recommended for Fall'91. In addition, please remember Psych 245 and ON 145 Child Nutrition.
ECD 194 and ECD 270 may appear with different numbers, or may not appear on the Class Schedule, because they had not made it through the system to be on the computer by the time of printing. Please do check at the time of registration.

ED 120	PARENTING: MORE THAN DISCIPLINE			3.0 CR
	M	7:00P-9:45P	Saxton,K.	9/9-12/16
ECD 111	SAFE LEARNING ENVIRONMENTS			1.0 CR
	TR	6:30P-8:30P	TBA	11/14-12/19
ECD 124	CREATIVE ACTIVITIES FOR YOUNG CHILD.			1.0 CR
	TR	6:30P-8:30P	TBA	9/5-10/3
ECD 131	GUIDANCE & DISCIPLINE			1.0 CR
	W	6:30P-8:30P	TBA	9/4-10/2
ECD 132	SOCIAL DEVELOPMENT			1.0 CR
	TR	6:30P-8:30P	TBA	10/10-11/7
ECD 211	DEVELOPMENT OF SENSE OF SELF			1.0 CR
	T	6:30P-8:30P	TBA	11/12-12/10
ECD 221	FAMILIES			1.0 CR
	W	6:30P-8:30P	TBA	10/9-11/13
ECD 222	PROGRAM MANAGEMENT			1.0 CR
	W	6:30P-8:30P	TBA	11/13-12/11
ECD 223	EXPLORING AND DEVELOPING PERSONAL CAPABILITIES IN TEACHING			1.0 CR
	T	6:30P-8:30P	TBA	9/3-10/1
ECD 224	PROFESSIONALISM			1.0 CR
	T	6:30P-8:30P	TBA	10/8-11/5
ECD 194	INTRODUCTION TO THE FIELD OF EARLY CHILDHOOD			3.0 CR
	M	6:30P-9:15P	TBA	9/9-12/16
ECD 270	PRACTICUM I			3.0 CR
	W	6:30P-9:15P	TBA	9/4-12/11

Testimony: HESS Hearing HB32
Jo Kuykendall 2/27/91

I am Jo Kuykendall, half-time Visiting Assistant Professor of Early Childhood Development Program for the School of Career and Continuing Education at University of Alaska Fairbanks.

I am very pleased to have the opportunity to speak with you today on the topic of early childhood development teacher education and loan forgiveness.

The early childhood development program at SCCE has undergone tremendous growth in the last 3 years! The total number of CREDIT HOURS students are pursuing has increased 133%, with approximately 250 students now enrolled in courses offered by our department.

Growth has occurred because of an increasing awareness—of the importance of understanding the development of young children. We know that education and training in child development theory and practice influences what teachers and caregivers expect from children, the kinds of support they DO or DON't provide families, and how they teach, nurture and discipline during the 10-11 hours a day children are in care. How an adult handles what may appear to be misbehavior often depends crucially on that person's knowledge and expectations of child development.

While Alaska regulations permit adults to teach young children without any college-level education in this discipline, many are aware that the National Association for the Education of Young Children recommends an AAS or a baccalaureate degree in child development or early childhood to teach in programs.

Many pursue higher education out of interest, for higher status, for increased pay, or to prepare for other jobs in the field requiring more years of child development.

Secondly, available jobs are plentiful! Students now consider positions with Head Start, military-sponsored programs, Infant Learning programs, programs for special-needs children, private homes and centers, as well as an array of jobs within the parent-education and family support spectrum. So, while there were close to 3000 certified and licensed child care spaces within local homes and programs in 1988, there were 80 openings for child care workers processed through local job service office. Local early childhood program employers cannot locate, often ANY, applicants with AAS or Baccalaureate Degrees in Early Childhood for teaching and administrative positions in programs since most of our students are already working in the field, going to school part time, and may not graduate for 2-3 years.

Few students take time off work to go to school because they simply cannot afford to. While we receive calls constantly from employers looking for job applicants, and well understand the importance of this knowledge base to quality, there is almost no single student who is not already employed in the field.

Thirdly, if an early childhood program is to promote children's intellectual, social and physical development, it must also be <u>administered</u> by competent specialists in child development who can establish an environment that supports active learning. (Schweinhart and others, p.527) To illustrate, a study done in Alaska in 1986 found that of the 100 responding licensed day care

center directors 78 "evaluate children", and 66 "provide parent education" . While the National Association for the Education of Young Children recommends a graduate degree or baccalaureate with experience for administeringg child care/education programs, almost half of the 100 responding directors indicated that they had not taken, or had only taken, 6 semester units of course work relating to early childhood education. Only 19 had a 4 year degree, or close to it, with a major emphasis of study in a subject area anywhere closely allied to their profession: ECE, HE, Human Deve. or Psych.

Recently Alaska regulations have begun to require 9 credit hours for directors of licensed day care centers, encouraging many to enroll in our courses to learn more about children, families and program administration.

While we are undergoing tremendous growth, we are not touching the need, and they predict an impact in the field: by 1995 80% of women between 25 and 34 will be working and 90% of these will be mothers (ACEI Exchange 1/91). According to US Census report, in 1990 only 26 percent of US families consisted of a married couple with children under age 18, with a surge in single-parent families. We need to provide a baccalaureate degree in child development and family studies to meet increasing job requirements and provide a lab for developmentally and culturally appropriate practice experiences and a high-quality environment model.

Across the nation, as in Alaska, college costs are rising, further eliminating the possibilities of many students pursuing higher education for jobs that are notoriously underpaid. Many high school graduates who love young children, are fascinated with

how they grow and change, and have excellent qualitites for this field, do not qualify for the "outstanding student" scholarships. So, we need incentives to encourage young single parents to learn more about young children and consider caring for others while they are raising their own. We need incentives to draw more young people into the field, and to dedicate a few years working with young children, with the option of moving on to higher-paying jobs such as public school teaching after 5 years or so, if they choose. Many of our students know what an Oct. article in Newsweek ways--the importance of elementary teachers understanding child development: "About 25 percent of our country's kids drop out of school and another 25 percent graduate without basic skills mostly because teachers don't understand how children learn and therefore are not addressing their needs," ..."The better reform, then, would require prospective teachers--in or out of education schools--to learn about the developmental stages children pass through and how best to tailor their lessons to reach them." (p.59)

Many states have successfully used loan-forgiveness as a mechanism to influence their teaching workforces, a College Board report calling them the most frequently legislated incentive to attract students to teaching. IN 1985-86 37 states had some type of loan incentives for teachers. (Education Week 2/28/90, p. 1)

For Alaska, the benefits of HB32 are widespread. We have everything to gain at a minimal cost. With difficult, complex and pervasive problems of abuse, violence, teen pregnancy, alcohol use,

the need for quality prevention services has never been more acute. Prevention STARTS with understanding child development. Prevention STARTS with providing high quality care in our programs for young children-- facilitating appropriate models for young parents to emulate, developmentally and culturally appropriate practice for children, and appropriate advice and support to parents who raise questions about discipline, growth, health and managing their complex lives. Because we know that a staff member's understanding of child development affects whether child care helps or harms children, I urge your support of this bill.

FISCAL NOTE

STATE OF ALASKA
1991 LEGISLATIVE SESSION

BILL NO. CSHB 32

Revision Date: 3/11/91 Department Affected: Education

Title: An act relating to reimbursement ~~and~~ Alaska Student Loan Corporation
and taxation of certain student loans Component: Student Loan Program

Sponsor: Representative Koponen

Requestor: HESS **COMPONENT SERIAL NO.** 0 2 1 8

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL						
LOANS BUDGET	-0-	1.1	3.4	10.3	17.3	18.5

FUNDING: (Thousands of Dollars)

GENERAL FUND	-0-	1.1	3.4	10.3	17.3	18.5
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	1.1	3.4	10.3	17.3	18.5

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

Estimate of current year impact: $0

ANALYSIS: (Attach a separate page if necessary.)

See Attached

Prepared By: Jane Byers Maynard, Executive Director Phone: 465-2165
Division: Alaska Commission on Postsecondary Education Date: March 11, 1991

Approved by Commissioner: _____
Agency: _____ Date: _____

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

CSHB 32
FISCAL ANALYSIS

Estimate approximately seven eligible borrowers graduating each year beginning with 1991-92 loan year. Fiscal impact minimal for FY 93 and FY 94 due to time required for the borrowers to complete course of study, secure employment and enter repayment for a period of time sufficient to qualify for initial reimbursement.

Pool of eligible borrowers increases at a staggered pace allowing for variable course lengths (one-year certificate through four year baccalaureate program).

	FY98	FY99	FY00	FY01	FY02	FY03
General Fund Appropriation:	25.5	26.7	32.7	31.5	31.8	27.3

1990-91 average annual loan per borrower $4,890 (projected figures include 1% annual increase in average loan amount up to the maximum of $5,500) x 1.5 years of borrowing = $7,335 plus interest of $4,146 = $11,481 (average total debt/borrower).

7-LS0300\D
Ford
3/7/91

CS FOR HOUSE BILL NO. 32 (HES)

IN THE LEGISLATURE OF THE STATE OF ALASKA

SEVENTEENTH LEGISLATURE - FIRST SESSION

BY THE HOUSE HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE

Offered:
Referred:

Sponsor(s): REPRESENTATIVE KOPONEN

A BILL

FOR AN ACT ENTITLED

"An Act relating to reimbursement and taxation of certain student loans; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** AS 14.43.120 is amended by adding new subsections to read:

(s) If a borrower has graduated from an early childhood career education program or received an undergraduate degree in early childhood education from a college or university, is employed in early childhood education within the state, and has complied with the other provisions of this section, a portion of the loan payments made by the borrower shall be reimbursed to the borrower by the state equal to the following percentages of the total loan received plus interest up to a total of 70 percent of the total loan plus interest: (1) one year employment, 10 percent; (2) two years employment, an additional 12 percent; (3) three years employment, an additional 14 percent; (4) four years employment, an additional 16 percent; (5) five years employment, an additional 18 percent. The loan amount reimbursed to the borrower may not exceed the loan amount paid by the borrower to the state. In this subsection, "early

childhood education" means employment as a day care provider, in a Head Start program, or in a similar program providing for the education of children that are less than six years of age.

(t) Notwithstanding any other provision of law, while a person's loan is being reimbursed by the state under (s) of this section, that person may not receive forgiveness of a loan under any other provision of this chapter.

(u) The commission shall adopt regulations that permit a borrower to exclude a reimbursed portion of a loan from the gross income of the borrower if allowed under the Internal Revenue Code.

(v) Reimbursement under (s) of this section is subject to appropriation by the legislature. Money obtained from the sale of bonds by the Student Loan Corporation under AS 14.42.220 may not be appropriated for the reimbursement of loans.

*** Sec. 2.** APPLICABILITY. This Act applies to loans entered into on or after July 1, 1991, and to a person's employment in early childhood education that occurs on or after July 1, 1991.

*** Sec. 3.** This Act takes effect July 1, 1991.

FISCAL NOTE

STATE OF ALASKA
1991 LEGISLATIVE SESSION

BILL NO. CSHB 32

Revision Date: 3/11/91 Department Affected: Education

Title: An act relating to reimbursement ~~of~~ Alaska Student Loan Corporation and taxation of certain student loans Component: Student Loan Program

Sponsor: Representative Koponen

Requestor: HESS **COMPONENT SERIAL NO.** 0 2 1 8

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL						
LOANS BUDGET	-0-	1.1	3.4	10.3	17.3	18.5

FUNDING: (Thousands of Dollars)

GENERAL FUND	-0-	1.1	3.4	10.3	17.3	18.5
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	1.1	3.4	10.3	17.3	18.5

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY	-					

Estimate of current year impact: $0

ANALYSIS: (Attach a separate page if necessary.)

See Attached

Prepared By: Jane Byers Maynard, Executive Director Phone: 465-2165

Division: Alaska Commission on Postsecondary Education Date: March 11, 1991

Approved by Commissioner: _____

Agency: _____ Date: _____

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

CSHB 32
FISCAL ANALYSIS

Estimate approximately seven eligible borrowers graduating each year beginning with 1991-92 loan year. Fiscal impact minimal for FY 93 and FY 94 due to time required for the borrowers to complete course of study, secure employment and enter repayment for a period of time sufficient to qualify for initial reimbursement.

Pool of eligible borrowers increases at a staggered pace allowing for variable course lengths (one-year certificate through four year baccalaureate program).

	FY98	FY99	FY00	FY01	FY02	FY03
General Fund Appropriation:	25.5	26.7	32.7	31.5	31.8	27.3

1990-91 average annual loan per borrower $4,890 (projected figures include 1% annual increase in average loan amount up to the maximum of $5,500) x 1.5 years of borrowing = $7,335 plus interest of $4,146 = $11,481 (average total debt/borrower).

7-LS0220\G
Ford
3/12/91

CS FOR HOUSE BILL NO. 23 ( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

SEVENTEENTH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVES LARSON, Carney, Taylor

A BILL

FOR AN ACT ENTITLED

"An Act relating to the area cost differential for school districts; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 14.17.051 is repealed and reenacted to read:

Sec. 14.17.051. AREA COST DIFFERENTIAL. The board shall develop a methodology for calculating an area cost differential and shall establish by regulation an area cost differential for each school district. The department shall conduct a survey of school district personnel costs once every five years and a survey of school district nonpersonnel costs once every two years.

* Sec. 2. Notwithstanding AS 14.17.051, as repealed and reenacted by this Act, the area cost differential for the Aleutian East school district is 1.31 for the fiscal year beginning July 1, 1990, and shall be increased in equal percentage amounts over the next two fiscal years, beginning July 1, 1991, until the area cost differential is equal to 1.33.

* Sec. 3. REPORT. The Department of Education shall report to the legislature the methodology used to calculate the area cost differential required by this Act by January 15, 1992.

* Sec. 4. This Act takes effect immediately under AS 01.10.070(c).

Addresses of Testifyers for HB 32
Thursday, February 28 - 8:30 am.

— Phillip Gilbert - Director
Head Start Association
c/o Greater Fairbanks Head Start Assoc.
P.O. Box 724
Fairbanks, AK 99701

452-4267

— Jo Kuykendall
U of A - School of Career and
Continuing Education
Early Childhood Development
Hutchison Career Center
3750 Geist Road
Fairbanks, AK 99709

474-6658

— Bob Manners - Lobbyist for NEA
105 Municipal Way #302
Juneau, AK. 99801

586-3090

— Jane Maynard - Director
Postsecondary Education Commission
P.O. Box FP
Juneau, AK 99811-0500

465-2854

— Patty Merritt-Director
Play 'n Learn Daycare
705 Chena Pump Road
Fairbanks, AK 99709

479-0900

— Mary Trosper-Student
18137 Misty Falls Circle
Eagle River, AK 99577

694-7888

— Mary Whitaker-Director
c/o Infant Learning Program
Bethel Community Services, Inc.
Box 2188
Bethel, AK 99559
Tel. 543-3690

HB

35

TELECOPY COVER SHEET

Kenai Peninsula Legislative Information Office

Phone – (907) 262-9364
Fax – (907) 262-1881

TO: House Hess Secretary

ATTN: Patty Boardman FAX: 465-2864 PHONE: _____

FROM: _____ PHONE: _____

INSTRUCTIONS: Please include in testimony on HB 35.
Thank you – HOPE THIS IS BETTER

~~PLEASE NOTE: ALL ODD NUMBERED PAGES WILL BE TRANSMITTED FIRST, THEN THE EVEN NUMBERED.~~

DATE: 5-10-91 TIME: ~~5:05~~ 12:29
DISCARD ORIGINALS ___ HOLD FOR PICKUP ___

NUMBER OF PAGES (not counting the cover sheet): 2

TRANSMITTED BY: Vesta

MAY 10 '91 12:30 LEG. AFFAIRS - SOLDOTNA

PACE THE PUBLIC AWARENESS COMMITTEE FOR THE ENVIRONMENT
TESTIMONY ON IRRADIATED FOODS HOUSEBILL # 35. MAY 10, 1991

PACE SUPPORTS THE PASSAGE OF HOUSEBILL # 35 FOR THE FOLLOWING REASONS.

1. WE BELIEVE IRRADIATED FOOD IS UNHEALTHY AND UN-SAFE TO CONSUME. IRRADIATED LEVELS RANGE FROM 15,000 RADS TO KILL SPROUTING IN POTATOES, TO 3 MILLION RADS TO KILL BACTERIA IN SPICES. TO PUT THIS IN COMPARISON, A DOSAGE OF IRRADIATION GIVEN TO SPICES EQUALS 30 MILLION X-RAYS.
2. ANIMALS FED IRRADIATED FOODS HAVE DEVELOPED TESTICULAR TUMORS, KIDNEY DISEASE, SHORTENED LIFESPANS, LOSS OF WEIGHT, INCREASED RATE OF INFERTILITY AND DEATH IN OFFSPRING. DO WE WANT THE SAME THING?
3. THERE IS SIGNIFICANT NUTRIENT INJURY AT 100,000 RADS. VITAMINS C,B-1,B-2, AND B-6, A, E, AND K. AMINO AND NUCLEIC ACIDS ARE DAMAGED.
4. THE SOURCES OF GAMMA RADIATION OF FOOD IRRADIATION WILL COME CHIEFLY FROM RADIOACTIVE ISOTOPES CESIUM 137 AND COBALT-60. CESSIUM 137 IS A BY-PRODUCT OF THE DEPARTMENT OF ENERGY NUCLEAR WEAPONS PRODUCTION AND NUCLEAR GENERATION. IT IS THE MOST ABUNDANT ISOTOPE IN THE NATIONS NUCLEAR WASTE AND WILL BE THE MOST IMPORTANT SOURCE IN GAMMA RADIATION. RADIO ACTIVE COBALT-60 IS MADE FROM NON-RADIOACTIVE COBALT-59.
5. MANY IMPORTANT MARKETS FOR ALASKAN SEAFOOD INCLUDING GREAT BRITAIN, WEST GERMANY, NEW ZEALAND, JAPAN, SCANDINAVIAN COUNTRIES, AND AUSTRALIA HAVE EITHER BANNED OR HALTED SALE OF IRRADIATED FOODS.
6. OUT OF 441 TOXICITY STUDIES ON THE EFFECTS OF IRRADIATED FOODS, THE FDA SELECTED ONLY FIVE ANIMAL FEEDING STUDIES AS A BASIS FOR ITS APPROVAL OF IRRADIATION EXPOSED FOODS. WE QUESTION THE VALIDITY OF SUCH A SMALL AMOUNT OF STUDIES FOR THEIR APPROVAL. ARE WE TO BECOME THE GUINEA PIGS?
7. ONE PURPOSE OF GOVERNMENT IS TO PROTECT THE PUBLIC FROM UNSAFE PRODUCTS. IF RESEARCH INDICATES THAT RADIATION EXPOSED FOOD IS HAZARDOUS, LABELING WILL BE AN INADEQUATE WAY TO PROTECT THE PUBLIC INTEREST.
8. IT IS A DOCUMENTED FACT THAT THE PRIMARY ADVOCATES OF RADIATION EXPOSED FOOD ARE THE DOE AND THE INTERNATIONAL NUCLEAR INDUSTRY.
9. THE DOE STATED THAT ITS GOAL IS "TO TRANSFER CESIUM 137 IRRADIATION TECHNOLOGY TO THE COMMERCIAL SECTOR AS RAPIDLY AND SUCCESSFULLY AS POSSIBLE. THE MEASURE OF SUCCESS WILL BE THE DEGREE TO WHICH THIS TECHNOLOGY IS IMPLEMENTED INDUSTRIALLY AND THE SUBSEQUENT DEMAND CREATED FOR CESIUM 137." OUR FOOD CHAIN SHOULD NOT BECOME THE DUMPING GROUND FOR NUCLEAR WASTE.
10. CESIUM 137 COMPRISES OF JUST 3% OF THE VOLUME OF NUCLEAR WASTE, BUT EMITS 50% OF THE HEAT AND 55% OF THE RADIOACTIVITY. DO WE NEED THIS IN OUR BODIES AND FOOD CHAIN?

11. THE FDA'S REQUIREMENT THAT IRRADIATED WHOLE FOODS CARRY A WRITTEN LABEL EXPIRED ON APRIL 18, 1988. MOST IRRADIATED FOODS WILL REMAIN HIDDEN AS UNLABELED INGREDIENTS.
PACE SENT A VIDEO FROM BBS TO SENATOR FINKELSTEIN FOR VIEWING IF ANYONE IS INTERESTED IN MORE KNOWLEDGE ON THIS VERY IMPORTANT SUBJECT.
12. WE FEEL MUCH MORE UNBIASED RESEARCH MUST BE ACCOMPLISHED BEFORE IRRADIATED FOOD IS PROVEN TO BE SAFE OR UNSAFE FOR HUMAN CONSUMPTION.

PLEASE VOTE YES ON HOUSEBILL # 35 AND HELP PROTECT ALASKA'S CONSUMERS.

Patricia Barnette
President, PACE
100 Trading Bay #4
Kenai, Ak 99611

PHONE: 283-7170

FROM SIDNEY D. HEIDERSDORF, 789-9958

Health Physics Society Position Statement on Food Irradiation, July 6, 1988

INTRODUCTION

Evidence is mounting that information campaigns on food irradiation are beginning to assume high profiles in the political and public sectors. Certain messages are being communicated that, for the most part, are factually incorrect. The objective of this position statement is to correct this misinformation through statements of fact currently accepted within the scientific community. This statement has been issued by the Health Physics Society.*

HEALTH PHYSICS SOCIETY SYNOPSIS OF THE ISSUE

In April, 1986, the U.S.Food and Drug Administration (FDA) approved regulations permitting the preservation of fruits and vegetables by irradiation. The purpose of this technique is to kill insects, parasites, and some forms of bacteria and yeasts, as well as to inhibit spoilage by retarding the ripening of fruits. This process is an alternative to chemical preservatives and can reduce the use of pesticides and fumigants to control insect infestation of foods. The United States has become the 25th nation in the world to endorse irradiation for a wide variety of foodstuffs. The following countries are among those that have issued unconditional or provisional approval for commercial irradiation of certain foodstuffs: Belgium, Canada, China, France, Holland, Italy, Israel, Japan, and the USSR. This is not the first time that the FDA has approved the use of gamma radiation to preserve food. The process for wheat and potatoes has been approved for more than 20 years; herbs, dried spices, and processed pork were added to the list earlier in the 1980s. Consideration is currently being given to approving irradiation for poultry and fish.

The technique is quite simple. Containers of food are moved by conveyor belt into a thoroughly shielded chamber. Here high-level radioactive sources irradiate the food with a carefully controlled amount of gamma rays. Similarly to microwaves in an oven, the gamma rays pass through the food. The food does *not* become radioactive, in the same way that a chest x ray does not make the body of the patient radioactive. The gamma rays do not heat the food, which can be stored or packaged and shipped immediately. Radioactivity is not added to the food. The same technique has been used for decades to sterilize medical instruments and hospital supplies.

The World Health Organization (WHO) and the UN Food and Agricultural Organization (FAO) have been urging the use of radiation to preserve food to reduce worldwide famine and to eliminate the need for potentially harmful chemical preservatives. Sealed, treated foods can be kept at room temperature for years, like canned foods. The use of radiation to extend the useful life of fresh foods has special potential usefulness for those countries where refrigeration is unaffordable and grain and food losses are particularly severe. As an example, in China 40 percent of all fruits and vegetables spoil before reaching the marketplace. In addition, food irradiation offers more opportunity for tropical countries to export native fruits by retarding the ripening process. In 1980 the IAEA along with the WHO organized a panel of experts to examine the question of the acceptability and potential risks from the use of irradiated food. After examining the most current scientific studies, this panel concluded that ". . . the irradiation of food introduces no special nutritional or microbiological problems . . . and presents no toxicological hazard." They concluded that food pasteurized or sterilized with a prescribed dose of radiation is safe for human consumption. Historically, it is interesting to note that irradiated meals were eaten on the moon by the Apollo astronauts as well as by the crew of the joint American Soviet Apollo-Solyuz space flight in 1975. American astronauts aboard the Space Shuttle have eaten irradiated beef, pork, smoked turkey, and corned beef. In fact, they preferred food sterilized by radiation over all other types of preserved foods.

POLICY STATEMENT

From the examination of the issues relevant to food sterilization by irradiation, the Health Physics Society has drawn the following conclusions:

(1) Food preservation by irradiation offers great potential benefit with little, if any, offsetting hazard.

(2) The technical feasibility of safely preserving certain foods by irradiation is firmly established by experimental evidence and experience.

(3) Federal regulatory bodies responsible for such matters are proceeding cautiously in approving new applications of this technology and are basing their approvals/disapprovals on the best scientific and technical information.

(4) Foods preserved by FDA-recommended irradiation procedures do not become radioactive or toxic as a result of irradiation.

(5) The application of this technology to the betterment of mankind should neither be permitted nor precluded on the basis of misinformation.

■

NOTE

* The Health Physics Society, formed in 1956, is a scientific organization concerned with the protection of people and the environment from radiation. Today its membership numbers more than 6500 and includes professionals representative of all scientific and technical areas related to radiation protection drawn from academia, government, hospitals and health-care institutions, research laboratories, and industry from the 50 states, the District of Columbia, and Puerto Rico. Although the vast majority of the membership is from the United States, the Society has more than 350 members in nearly 50 foreign countries, about half of whom are Canadian. The Society is chartered in the United States as a non-profit, scientific organization, and as such, it is neither affiliated with nor derives direct support from any governmental or industrial source except in an incidental manner.

MY TURN

By SIDNEY D. HEIDERSDORF

A great deal has been said, in letters to the editor and elsewhere, about the health risks associated with irradiated food. Much of this information is misleading and some of it is factually incorrect. Use of this technology should not be permitted or prohibited on the basis of misinformation. I would like to present some information which may help clarify the debate and put into perspective the use of radiation in food processing.

At the outset, it should be understood that the U.S. Food and Drug Administration (FDA) has approved only certain foods for irradiation under specified upper dose limits. Irradiation is approved for the control of insect and microbial infestation and to inhibit spoilage of fresh fruits. The process can extend shelf life and has the potential to reduce food-borne illness associated with chicken, pork and beef. It is an alternative to use of potentially harmful chemical preservatives and can reduce the use of pesticides and fumigants to control insect infestation of foods. Worldwide, the interest in food irradiation is tied to the technology's potential to reduce the incidence of food-borne illness and widespread post-harvest food losses. This is particularly a problem in underdeveloped countries where refrigeration is not available and food loss through spoilage is severe. The primary interest to Alaska is the possible application of radiation in the processing of seafood. Irradiation is not appropriate for all foods, and to date, the FDA has not approved it for seafood.

Irradiation of food is a simple process. The food is moved by a conveyor into a shielded chamber where it is exposed to a controlled level of radiation in the form of X or gamma rays. The food does not become radioactive, just as a chest X-ray does not make the patient radioactive. The process does not heat the food and radioactivity is not added to the food.

All scientific studies purporting to show harmful effects associated with the consumption of irradiated food have been closely examined by the FDA. After review of all the data, including the claims of those opposed to food irradiation, the FDA has concluded there is no scientific evidence meeting FDA standards for toxicological studies that show adverse effects on health from the consumption of irradiated food. Results of studies used to support claims of harmful effects have been rejected for numerous reasons, including lack of adequate scientific design and controls, irradiation of foods not approved by the FDA, use of dose levels far exceeding approved doses and irradiation under conditions not meeting normal food handling requirements. For example, in one case the radiation dose used was 55 times the maximum dose approved by the FDA. This might be compared to cooking a cake at 350 degrees Fahrenheit for 55 hours. In addition, where specific scientific studies seemed to show harmful effects, attempts were made to duplicate the results by repeated experiments which were properly designed to eliminate confounding factors. These follow-up experiments did not show harmful effects.

The FDA has responded to all areas of concern and has explained the reasons for rejecting certain data. The opponents of food irradiation have not presented any evidence which would call into question FDA conclusions and there has not been a response explaining why or where the FDA was in error. Instead, the original claims are simply repeated over again or the public is told that the FDA did not consider all available information.

Space does not permit consideration of all health related claims but it might be instructive to show how one important health issue is presented by opponents of irradiated foods. They argue that such foods are unsafe because of the production of carcinogens. It is true that irradiation of some foods may produce small quantities of carcinogens. However, not mentioned is the fact that conventional cooking is known to produce carcinogens in food. For example, frying an egg or charcoaling a steak produces quantities of carcinogens far exceeding irradiation of food under the FDA guidelines. In addition, a large number of substances that occur naturally in foods have been found to be carcinogenic. It is believed that these natural carcinogens are more numerous, and in some cases, more potent than man-made carcinogens in food. Therefore, food irradiation cannot reasonably be rejected on that basis while continuing to accept cooking or eating of unprocessed natural foods known to possess carcinogens.

In addition to the FDA, numerous other national and international organizations have addressed the safety issues relating to irradiated food. This includes such diverse organizations as the Council for Agricultural Science and Technology, the World Health Organization, the Food and Agricultural Organization of the United Nations, the Health Physics Society, the American Medical Association, and the International Atomic Energy Agency. These organizations have experts qualified by scientific training and experience in broad areas of health, food technology and radiation safety. They have closely examined all claims of harmful effects and, without exception, have determined that food processed by radiation is safe for human consumption.

The type of legislation presently being considered in the Alaska Legislature, which would prohibit the sale of irradiated food in Alaska, has the potential of causing a great deal of mischief.

It will be easy for legislators to vote for this prohibition without looking closely at the issues involved since there is no lobby for food irradiation because irradiated food is not presently on the market. However, the law is a teacher and what this law teaches is opposed to facts currently accepted in the scientific community. In addition, even though the law is probably unconstitutional since it represents restraints of interstate commerce, it could cause trouble for Alaskans who wish to purchase irradiated food when it appears on the market.

The desire to protect Alaskans from consuming food of their choice, which is considered safe by the FDA, is curious. Particularly since irradiated food is required to be labeled. Those who wish to avoid it can do so. Much of the opposition can be understood only in terms of a strong anti-nuclear sentiment in which there is opposition to nuclear technology in

Juneau Empire 3/21/89

Facts on food irradiation

general. For these individuals, there is a strong emotional response against the irradiation of food. As reported in an anti-food irradiation article published in "This Magazine" the authors state, "Some peace activists believe we will never rid the world of nuclear weapons until the so-called peaceful atom is eliminated. Food irradiation seems like a good place to start." Like electricity and fire, there are good uses and bad. Each use should stand or fall on its own merits.

There are frequent expressions of concern about hazards to the environment or from transportation of radioactive materials associated with food irradiation – as if the safety aspect of radiation processing is new, uncharted territory. These concerns ignore 40 years of experience in nuclear technology safely using materials in medical, industrial and educational institutions. Presently there are over 500 large irradiators operating worldwide. Over the past two decades, industrial sources for radiation processing have grown at a rate of 10-15 percent per year. In this country alone, nearly 50 percent of all disposable medical supplies are sterilized by radiation. The economic and health benefits derived from the use of radiation are many.

One of the great ironies of the food irradiation debate is the frequently expressed concern that the food irradiation industry will use waste material (Cesium-137) from nuclear weapons production as a radiation source for food irradiation. The irony is that many of the radiation sources used so beneficially, for decades, in medicine and industry are of the same type and origin as Cesium-137 (byproduct materials). We can be grateful there was no organized effort to prohibit the use of nuclear materials in medicine. There are an estimated 10,000 gamma imaging instruments used in nuclear medicine alone. Those who find the use of byproduct materials resulting from weapon material production unacceptable for irradiation of food apparently are not aware that such materials are also injected into or swallowed by patients undergoing nuclear medicine exams or therapy. In the U.S., nuclear medicine is routine with more than 10 million procedures performed annually. In reality, the concern about Cesium 137 is unnecessary. There are other more suitable sources of radiation for food processing. Of the four food irradiators presently being built in the U.S., none of them will be using CS-137.

It is unfortunate that the issue of irradiated food cannot be considered on its own merits. It is not sufficient to say that irradiated foods are unsafe because the process causes chemical changes in food, produces carcinogens or affects nutritional quality. These issues must be considered in light of the effects of other acceptable methods of food processing on food and even food in its natural state. When that is done, the conclusion of health authorities is that irradiated food is safe for human consumption. The process of food irradiation may cause minor changes in foods similar to those caused by cooking or canning and consumers may prefer one taste to another, but these differences do not affect safety. It has also been shown that the nutritional value of the food is not significantly changed when irradiated under the guidelines required by the FDA. Hopefully, decisions made regarding irradiated foods will be based on facts, not emotion.

Sidney D. Heldersdorf is a radiological physicist with the state Division of Public Health.

HB35
TESTIMONY BEFORE HOUSE HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE
MAY10, 1991

Madame Chairman, Members of the Committee, I am Dr. Mollie TeVrucht. My Ph.D. is in the field of analytical chemistry, and I urge you to support HB35.

As a scientist, I cannot endorse the irradiation of food as a safe process.

** Unique radiolytic products are created in irradiated foods. These compounds are potentially carcinogenic and mutagenic chemicals.

** Because of the chemical complexity of food, it is virtually impossible to identify and quantitate the unique radiolytic and other products generated upon radiation.

** Irradiation of food produces chemicals that have been defended as "natural." However, many naturally-occurring compounds are carcinogenic, mutagenic, or are otherwise harmful to health.

** Benzene is an example of a carcinogen produced in irradiated food. Just because other processes (e.g. charbroiling) can also produce benzene in food is no defense. We should strive to limit harmful chemicals in our food, not allow the further contamination of food through irradiation.

** Losses in nutritional value may result from irradiation.

** Fradulent food irradiation practices will be difficult to detect, since there are no universal chemical markers of irradiation.

I urge you to support this bill. Thank you for the opportunity to testify.

Official Business

Alaska State Legislature

REPRESENTATIVE RANDY PHILLIPS
HOUSE DISTRICT 15
(907) 465-4949

P.O. Box V
State Capitol
Juneau, Alaska 99811

Memorandum

TO: Representative Pat Carney, Co-Chair
Representative Georgianna Lincoln, Co-Chair
House Health, Education and Social Services Committee

FROM: Representative Randy Phillips R.E.P.

DATE: May 7, 1991

RE: Sponsor Statement in Support of: House Bill 35
"An Act prohibiting under the Alaska Food, Drug, and Cosmetic Act the knowing sale of irradiated food; authorizing embargo and detention remedies in the case of a violation of the prohibition against the sale of irradiated food; and making the commissioner of environmental conservation responsible for enforcing the prohibition."

The above referenced bill is scheduled to be heard by the Health, Education, and Social Services Committee. This bill would ban the sale of irradiated food except for certain spices in Alaska.

The proposed **Committee Substitute** for House Bill 35 would prohibit the sale of irradiated food, **unless irradiated food is required by a physician for medical purposes.**

Food irradiation is a process by which foods are exposed to radiation as a means of killing harmful organisms and thus extending the shelf life of that food. It does not leave the food radioactive, but it does cause chemical changes to the food and leaves potentially harmful substances in the food. Research on the health effects of irradiated food have produced mixed results. Some studies show no harmful effects. **Others indicate that the chemical changes to the food may cause cancer or other health effects.**

CS SPONSOR STATEMENT

I believe that it is responsible to ban the sale of irradiated food until the research shows that this technology is completely safe. Irradiated food has been banned in a number of states, including New Jersey, Maine, and New York. Several companies such as H.J. Heinz, Quaker Oats, Ralston Purina, Borden Foods, Beatrice/Hunt-Wesson and McDonalds, are on record as opposing the use of food irradiation technology. Also, several countries including Great Britain, West Germany, Australia, Denmark, Sweden, New Zealand and Alaska's largest consumer, Japan, have banned the sale of irradiated food.

The marketing position of Alaska's products depends on an image of natural purity. Since the major consuming nation for Alaska seafood products has banned irradiated food. A ban on irradiated food in Alaska would reassure our trading partners about the freshness and quality of our seafood products.

Nothing in the bill would prevent further research on food irradiation from occurring in Alaska. I would encourage further research, and if the technology is proven to be safe, then the ban should be removed by a future Legislature.

Alaska State Legislature

REPRESENTATIVE RANDY PHILLIPS
HOUSE DISTRICT 15
(907) 465-4949

Official Business

P.O. Box V
State Capitol
Juneau, Alaska 99811

Memorandum

TO: Representative David Finkelstein, Chair
House Labor and Commerce Committee

FROM: Representative Randy Phillips REP

DATE: March 13, 1991

RE: Sponsor Statement in Support of: House Bill 35
"An Act prohibiting under the Alaska Food, Drug, and Cosmetic Act the knowing sale of irradiated food; authorizing embargo and detention remedies in the case of a violation of the prohibition against the sale of irradiated food; and making the commissioner of environmental conservation responsible for enforcing the prohibition."

The above referenced bill is scheduled to be heard by the Labor and Commerce Committee. This bill would ban the sale of irradiated food, except for certain spices, in Alaska.

Food irradiation is a process by which foods are exposed to radiation as a means of killing harmful organisms and thus extending the shelf life of that food. It does not leave the food radioactive, but it does cause chemical changes to the food and leaves potentially harmful substances in the food. Research on the health effects of irradiated food have produced mixed results. Some studies show no harmful effects. **Others indicate that the chemical changes to the food may cause cancer or other health effects.**

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sponsor stmt

The marketing position of Alaska's products depends on an image of natural purity. Since the major consuming nation for Alaska seafood products has banned irradiated food. A ban on irradiated food in Alaska would reassure our trading partners about the freshness and quality of our seafood products.

Nothing in the bill would prevent further research on food irradiation from occurring in Alaska. I would encourage further research, and if the technology is proven to be safe, then the ban should be removed by a future Legislature.

7-LS0269\D
Bannister
3/14/91

CS FOR HOUSE BILL NO. 35 ( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

SEVENTEENTH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVE R.PHILLIPS

A BILL

FOR AN ACT ENTITLED

"An Act prohibiting under the Alaska Food, Drug, and Cosmetic Act the knowing sale of irradiated food; authorizing embargo and detention remedies in the case of a violation of the prohibition against the sale of irradiated food; and making the commissioner of environmental conservation responsible for enforcing the prohibition."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* **Section 1.** AS 17.20.230 is amended by adding a new subsection to read:

(c) If the commissioner of environmental conservation finds or has probable cause to believe that a person is violating AS 17.20.290(d), the commissioner may affix to the food that is the subject of the violation a tag or other appropriate marking that gives notice that the food may not be sold and warning all persons not to remove or dispose of the food until permission for removal or disposal is given by the commissioner or a court. A person may not remove or dispose of the detained or embargoed food without this permission.

* **Sec. 2.** AS 17.20.290(b) is amended to read:

(b) The commissioner of environmental conservation or a designee of the commissioner

New Text Underlined [DELETED TEXT BRACKETED]

CS HB 35( )

is responsible for enforcing the provisions of [PARAGRAPHS] (a)(1), (2), (3), (4), (6), (7), (8), (9), and (10) of this section, if the subject of the prohibited act involves food or cosmetics, and the provisions of [PARAGRAPH] (a)(12) and (d) of this section. This subsection does not limit the authority of peace officers.

* Sec. 3. AS 17.20.290 is amended by adding a new subsection to read:

(d) The knowing sale of irradiated food is prohibited, unless irradiated food is required by a physician for medical purposes.

* Sec. 4. AS 17.20.370 is amended by adding a new paragraph to read:

(15) "irradiated food" means food that has been treated with gamma radiation or other ionizing radiation; "irradiated food" does not include spices that have been irradiated or food that contains spices that have been irradiated unless there are other irradiated ingredients in the food.

UNITED FISHERMEN OF ALASKA

211 4th Street, Suite 106
Juneau, AK 99801
907-586-2820

UNITED FISHERMEN OF ALASKA
Resolution 89-5

WHEREAS food irradiation destroys or depletes amino acids, nucleic acids, and vitamins A, B (thiamin), B2, B3, B6, B12, C, E, K and folic acid, and

WHEREAS food high in polyunsaturated fatty acids (which are increasingly being valued for their contribution to health), when irradiated, form large molecules that cannot be degraded by the body, can partially obstruct blood vessels and increase blood pressure, and

WHEREAS food irradiation is known to produce unstable, chemically reactive free radicals which are highly toxic and increase carcinogenesis, mutogenesis and cardiovascular disease in animals and in man, and,

WHEREAS reviews of the available literature on irradiated food overwhelmingly indicate adverse effects on animals including development of testicular tumors, kidney diseases, shortened life spans, loss of weight, increased rate of infertility and death of offspring, and

WHEREAS the botulism bacterium, Clostridium botulism, is perversely resistant to gamma radiation (irradiation), while most of its natural competitors, including those that alert us to the decay of foods, are destroyed, and

WHEREAS resistant strains of Salmonellae have been developed by repeated irradiation under laboratory conditions, and

WHEREAS acceptable and effective methods of preserving food (freezing, canning, vacuum packing, etc.) already exist and irradiation does not eliminate the need for refrigeration, packaging and good food hygiene, and

WHEREAS several major markets for Alaska seafood, including Japan, Great Britain, the Scandinavian countries, West Germany, New Zealand and some states, have completely banned the sale of irradiated foor for public consumption or halted further exploration of irradiated food due to consumer opposition, and

WHEREAS the price of irradiated food will be 2 to 24 cents per pound higher than non-irradiated food, and

UFA Resolution

WHEREAS the Department of Energy has provided $400,000 to the University of Alaska, Fairbanks, to help Alaska determine the feasibility of irradiating fresh and frozen fish, other seafood and agricultural products, and

WHEREAS the Department of Energy is the primary promoter of food irradiation as a means of inexpensively extracting weapons-grade plutonium from the reprocessing of nuclear waste, and

WHEREAS the specific use of radioactive cesium-137 or other radioactive waste products for food irradiation treatment in Alaska involves another whole range of concerns, including but not limited to worker and public safety (permitted radioactive emissions are 20 times higher than nuclear power plants), transportation of nuclear waste, construction of a radiation facility in a seismically inactive and tsunami-free area, and contamination of groundwater, the food chain and the environment by the highly water-soluble cesium-137,

NOW THEREFORE BE IT RESOLVED that United Fishermen of Alaska strongly opposes the irradiation of seafood in the state of Alaska.

Theo Matthews — Feb 14, 1989

Theo Matthews
President

Date

[redacted] HOUSE COMMITTEE REPORT [redacted]

(7)

Date Referred: January 21, 1991 FURTHER REFERRALS: Health, Education & Social Services
Finance

Date of Committee Action: 3-14-91

The LABOR AND COMMERCE Committee considered: HB 35

HOUSE BILL NO. 35 BAN SALE OF CERTAIN IRRADIATED FOOD

"An Act prohibiting under the Alaska Food, Drug, and Cosmetic Act the knowing sale of irradiated food; authorizing embargo and detention remedies in the case of a violation of the prohibition against the sale of irradiated food; and making the commissioner of environmental conservation responsible for enforcing the prohibition."

RECOMMENDATIONS: [ ] the same title
be replaced with _____ [ ] a new title

[ ] have attached amendments(s)

[ ] do pass

[ ] do not pass

[X] no recommendations

[ ] individual recommendations

[ ] additional referral to the _____ Committee

ADOPTS: _____ letter of Intent

ATTACHES NEW FISCAL NOTE(s): (Dept) APPROVES PREVIOUS: (Dept/Date)

[ ] fiscal impact _____ [ ] fiscal note(s) _____

[ ] zero fiscal note DEC [ ] zero fiscal note(s) _____

SIGNING DO PASS: SIGNING OTHER RECOMMENDATIONS:

	Check appropriate column:	Do Not Pass	No Rec	Amend
			✓	
			–	
		X		
			✓	
			✓	

Chairman's Signature

L+C Comm. Report

FOOD & WATER
INCORPORATED

OBJECTION AND REQUEST FOR HEARING
TO THE FOOD & DRUG ADMINISTRATION (FDA)
REGARDING:

IRRADIATION IN THE PRODUCTION, PROCESSING, AND HANDLING OF FOOD

Final Rule; 21 CFR Part 179

[Docket Nos. 86F-0507 & 86F-0509]

A final rule to permit the irradiation of poultry

Submitted by:

Richard G. Piccioni, Ph.D.
FOOD & WATER, INC,

JUNE 1, 1990

(Revised Oct.18, 1990)

FOOD & WATER
INCORPORATED

On behalf of Food & Water, Inc., I wish to file an objection and request for a hearing regarding amendment by the Food and Drug Administration (FDA) of 21 CFR Part 179, Irradiation in the Production, Processing and Handling of Food, to provide for the use of sources of ionizing radiation in poultry at 300,000 rad [FDA, 1980].

Food and Water's objection is based upon the conviction that the FDA has failed to demonstrate that there is a "reasonable certainty" that irradiation of poultry at 300 krad is not harmful.

Food and Water's request for a hearing is based upon clear indications, discussed below, that review of the cited studies and other research findings by disinterested members of the scientific community is essential for the protection of the public. Few actions by the FDA have as great a potential impact upon the health of the US population as this approval, affecting the largest sources of animal protein in the US diet.

Additional objections by Food and Water regarding the environmental aspects of FDA rule and based upon the agency's Finding of No Significant Impact, are being submitted separately.

BACKGROUND

Exposure of food to ionizing radiation results in complex, incompletely understood chemical changes and the production of radiolytic residues which remain in the food, ultimately to be ingested by consumers. Since the photon energy in radiations intended for use in food processing (gamma from Cobalt-60 or Cesium-137, high-energy x-rays from machine sources) are tens of thousands of times greater than that required to sever any molecular bond, the number of potential transformations and radiolytic products in a medium as chemically complex as avian muscle, fat, and skin, is vast. This is particularly true when irradiation is carried out in the presence of oxygen [Piccioni, 1988, and references therein].

Because of the enormous number of chemmical transformations potentially brought about by irradiation, the presence of genotoxic substances (i.e., substances which are mutagenic, carcinogenic, and/or teratogenic) in the resulting inventory of radiolytic products is to be expected. Indeed, such genotoxicity has been observed. Numerous reports in the peer-reviewed scientific literature provid evidence of the presence of genotoxic substances in irradiated foods or food components, and a number of specific, known mutagens and carcinogens have been identified amoung radiolytic products. These studies are listed in Tables I and II.

125 Lafayette Street, Suite 612 • New York City, New York 10012 • (212) 941-9340 • Fax (212) 941-5678

Given the evidence that the formation of genotoxic radiolytic products can and does occur, a petitioner seeking approval of irradiation of poultry, a major component of the US diet, logically bears the burden of establishing the magnitude of the expected cancer risk, or of establishing that the risk is below a stated level.

Because of the complexity of both unirradiated and irradiated foods, chemical analysis of irradiated foods, and comparison with its unirradiated counterpart will provide at best only a partial knowledge of the inventory of radiolytic products consumers will ingest and cannot provide a definitive basis for a determination of actual cancer risk. Estimation of the cancer risk inherent in eating irradiated poultry therefore requires exposure of experimental animals (or in vitro systems of equal or greater sensitivity) to the actual mix of radiolytic products which results from irradiation of poultry meats under expected conditions. In accordance with procedures applied to food additives generally, testing must be of such sensitivity that even a "small" incremental risk of cancer will not escape detection. In accordance with other areas regulation of carcinogens in food, this risk is widely taken to be 1 per million for a lifetime of human exposure.

In the case of direct food additives tested for carcinogenicity using chronic feeding studies in animals, the required sensitivity is attained by greatly amplifying the dose administered in the test system over that expected in human consumers. This is necessary because statistical fluctuations in the numbers of tumors observed in control and experimental subjects preclude the detection of increments in the rates of tumor development if the increment is much less than 10%. Clearly, a 10% increment in cancer in a large human population would be unconscionable, representing tens of thousands of excess cancer cases. Dose amplification provides the necessary magnification of any effect, so that, absent a positive observation, the actual risk to humans can be said with some assurance to be much smaller than the minimum detectable risk in the animal experiment.

In standard protocols described by the FDA, the required dose exaggeration, absent knowledge of the chemical structure of the test substance, is a minimum of 2000 [FDA, 1982]. In the case of whole-irradiated food feeding studies, such as those described below, it is roughly 100 times lower. Feeding studies carried out under such low dose exaggeration are of little value in risk determination, unless a positive effect is observed. In such studies, "negative" results, serve only to establish a very high upper bound to risk. This point will be illustrated in the case of the actual studies used by the FDA in supporting their approval of poultry irradiation at 300 krad.

POWER CURVE ANALYSIS OF THE CIVO CHRONIC (2-YEAR) RAT FEEDING STUDY

Memoranda and other materials provided by the FDA on the occasion of its announcement of its approval of poultry irradiation at 300 krad, indicate that the FDA's decision is primarily based upon a series of three studies conducted in the late 1960s and early 1970s by the Dutch Centraal Instituut voor Voedingsonderzoek (CIVO). To the best of my knowledge, none of these studies has been published in peer-reviewed scientific journals. Other studies are mentioned, but their use is heavily qualified by FDA for a variety of reasons. Only the CIVO studies are described as being "of high quality" [FDA, 1990].

The CIVO studies are typical whole-irradiated food feeding studies, in which dose exaggeration is limited to a very modest factor. Chicken, unirradiated or exposed to 300 or 600 krad of gamma radiation, was steamed, lyophilized (freeze-dried), mixed with other components of a stock diet, and fed to rats and beagle dogs at a level which amounted to 35% of the dry weight of the diet. By comparison, chicken currently represents 5.4% of the US diet (see note to Table 3) giving a dose factor of about 6.5 due to the dietary mix. For the 600 krad chicken an additional factor of 2 results from the radiation dose, resulting in a maximum dose exaggeration factor of about 13. As noted above, this is a fraction of the factor (2000 or higher) required of other food additives of unknown chemical structure.

The particular CIVO study which was directed most specifically to the question of cancer risk resulting from lifetime exposure was a chronic (2-year) feeding study in which 120 rats were fed unirradiated chicken, and 120 fed chicken irradiated at each of the two dose levels. Histological examination was carried out after "spontaneous" death, or sacrifice at the end of the two-year period, and the number of tumors or leukemias noted.

I was able to obtain copies of the original CIVO reports of the chronic feeding and other studies, which provide raw data of tumor and leukemia incidence [Til, 1971; de Knecht-van Eekelen et al., 1971; de Knecht-van Eekelen et al., 1972;]. Concerns, described above, regarding the statistical limitations of the "negative" results cited in whole-food feeding studies, were substantiated for the CIVO chronic feeding study by power curve analysis of the data reported by the CIVO group. This analysis was carried out with the assistance of TRUE EPISTAT (Epistat Services, Richardson TX) a statistical software package used widely in the biomedical community. Results of such an analysis of all sites combined, and for leukemia alone, are shown in Figures 1 and 2, respectively, and in Table 3.

The curves in Figure 1 and 2 show the probability of detecting, with statistical significance ($p <= 0.05$) an actual difference in the proportion of rats developing tumors in the experimental and control groups. To give the CIVO study the benefit of the doubt, the 300 krad and 600 krad experimental groups were pooled, and treated as if all had been fed 600 krad chicken. Even with this benefit, the first column of Table 3, taken from points on the curves in Figures 1 and 2, shows that, in the case of all sites, the experiment conducted had only a 1 in 10 chance of detecting an actual 3.7% excess tumor risk in the exposed rats, and only a 1 in 2 chance of detecting an 11% risk. This means that it is highly probable that excess tumor risks as high as 4% would have completely escaped detection. For leukemia, the experiment had only a 1 in 10 chance of detecting an actual excess risk of 1.6%, and a 1 in 2 chance of detecting a 4.5% excess risk.

The second column of Table 3 shows the excess risk expressed as excess cases per million individuals consuming 300 krad poultry as 5.4% of their diet, instead of the 35%, 600 krad poultry consumed by the CIVO rats. Risk is assumed to be proportional to the dietary exposure and radiation dose. Again, the CIVO result is being given the benefit of the doubt in assuming that all experimental rats ate 600 krad chicken, when in fact half ate 300 krad chicken. The third column shows number of excess cases in a population of 230 million. Note that I have not included a possible additional factor of 3 going from rat to human risk [OTA, 1981].

The numbers of excess cases per million individuals, 2,800 and 1,200 for all sites and leukemia, respectively, are not even remotely within the range of "acceptable" risk, one per million individuals. Applied to a population of 230 million, this represents some 655,000 and 283,000 excess cases, the risk of which the CIVO study would have only a 1 in 10 chance of detecting. Thus CIVO study provides no assurance whatsoever that the actual risk of eating irradiated chicken is less than an extremely high upper bound. I submit that this risk is unacceptably high, and indicates unambiguously that the CIVO study cannot provide a basis for approval.

Alternatives exist to improve sensitivity. First, the radiation dose to the chicken could be increased 10 fold, to 6 megarad, with a proportional increase in sensitivity; however, this would not be enough to bring the detectable risk within an acceptable range. Second, as discussed below, concentrated extracts, ideally containing all potential radiolytic carcinogens, could be administered to the experimental animals instead of feeding them whole irradiated chicken. Without such measures, "negative" results, such as those of the CIVO chronic feeding study, are essentially meaningless.