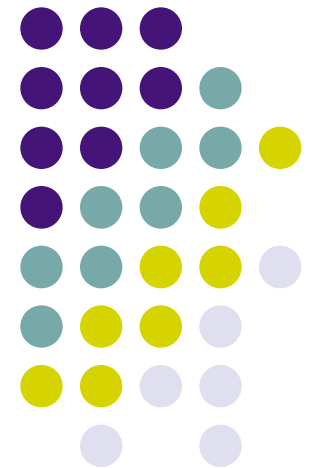


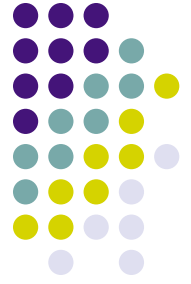
# EPS Funding for Career and Technical Education

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Presented at:  
Maine School Management Association Fall  
Conference

Walter Harris and Debra Allen  
Maine Education Policy Research Institute/Orono  
October 23, 2008

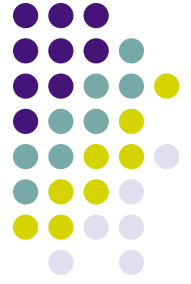




# Background

In March 2006 MEPRI Recommended the following:

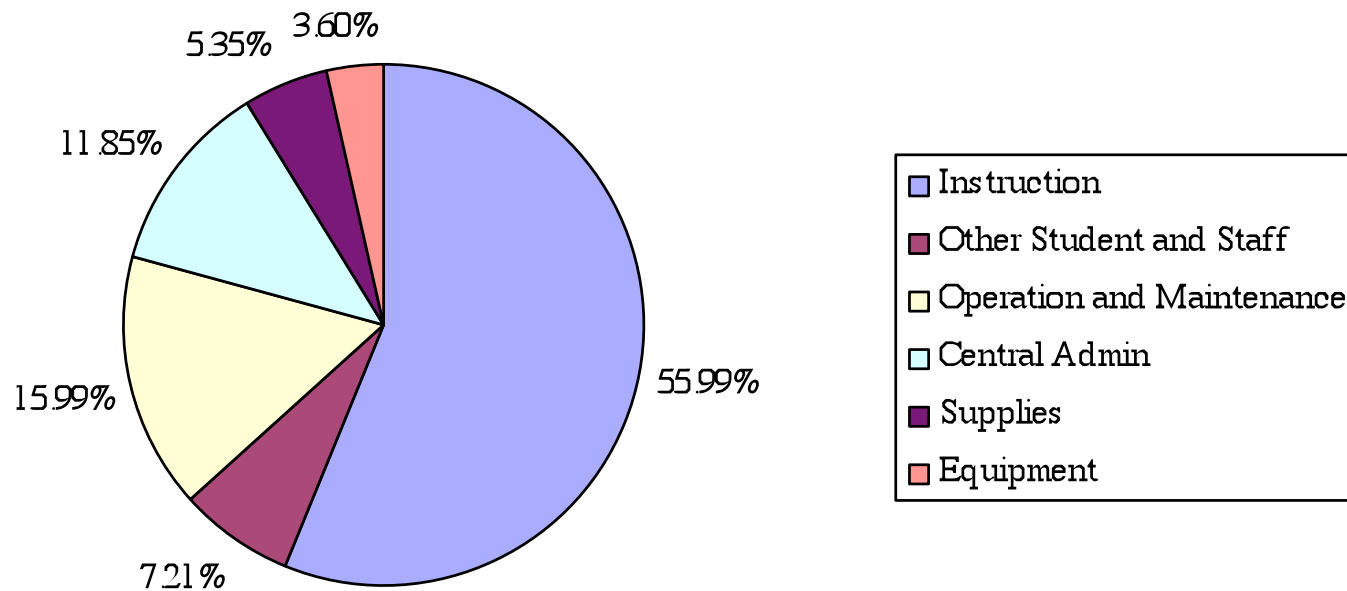
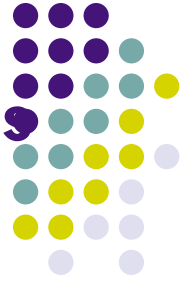
- Continue funding CTE for FY '07 and FY '08 using the current method.
- Work with advisory committee to study CTE programs and expenditures for development of model for FY '09.



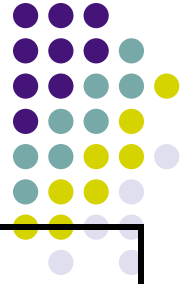
## CTE Advisory Committee

- At the end of 2005, a committee comprised of six directors, three superintendents, one business manager, three DOE staff, and one state board member was created.
- The committee has met on a regular basis (at least bi-monthly) since early 2006.
- Efforts were focused on examining the costs within six distinct categories for the purpose of developing the funding model.
- The committee made recommendations for analysis, provided feedback, and stated concerns throughout the process.

# Distribution of Expenditures Among Categories (State, Local, Federal Funds)



# Direct Instruction



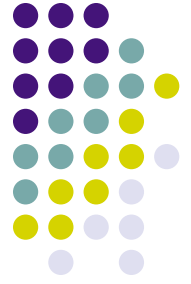
Analyses	Findings
Program, capacity, and staffing survey	<ul style="list-style-type: none"><li>● 76% of programs consist of at least 350 hours per year</li><li>● 67% of programs operate with 20 – 32 students per teacher</li><li>● Coop and inter-disciplinary programs fall outside the range</li></ul>
Starting salary survey	<ul style="list-style-type: none"><li>● Majority of schools reward 1 step for 2 years of work experience</li><li>● Only one reported that additional pay is rewarded for special certifications</li></ul>

# Direct Instruction (Continued)



Analysis of CTE teacher salaries from staff file

Although educational attainment and teaching experience are good predictors of salary, work experience may provide additional explanatory power.

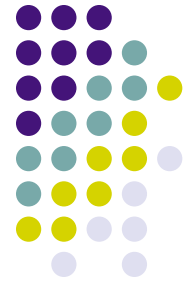


# Direct Instruction Allocation

## Instructors

- Approved coop and multi-disciplinary programs will receive funding for one instructor per program. The number of instructors for the other programs will be determined based on program enrollment ranges.
- A CTE-specific salary matrix will be developed to account for the variation in instructor experience and educational attainment across schools.

# Instructor FTEs per Enrollment Range

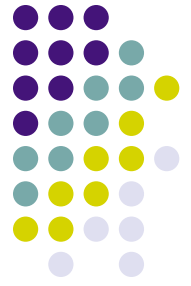


Enrollment Range	Number of Instructor FTEs	Number of Programs	% of Programs
32 or fewer students	1 teacher	261	79%
33 – 39 students	1.5 teachers	28	9%
40 – 64 students	2 teachers	27	8%
65 – 79 students	2.5 teachers	4	1%
80 or more	3 teachers	8	2%

# Instructor Salary Matrix (2007 – 2008 data)



Teaching Experience	Less than Bachelors	Bachelors	Masters
0 - 5 years	1.00	1.05	1.16
6 - 10 years	1.06	1.11	1.22
11 - 15 years	1.15	1.20	1.31
16 - 20 years	1.24	1.29	1.40
21 - 25 years	1.31	1.36	1.47
More than 25 years	1.35	1.40	1.51



# Direct Instruction Allocation

## Ed Techs

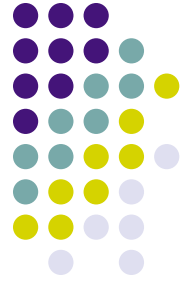
- All Forestry, child care, and electrician programs all eligible for an allocation for one full time ed tech.
- Health occupations programs will receive additional funds for a clinical supervisor.
- Special needs programs are eligible for one ed tech per 27 students.
- Each school will also receive funds for a “floating” ed tech at a ratio of 122:1.

# Supply Costs



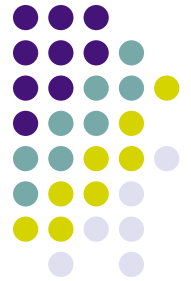
Analyses	Findings
<p>Preliminary analysis of FY '04, FY '05, and FY'06 supply expenses. Expenses were examined at both the school and program levels.</p>	<ul style="list-style-type: none"><li>● Supply expenses are a function of program type and the number of students in the program.</li><li>● The most expensive programs for supplies are culinary, auto-tech, welding, building trades, communications, and computer repair.</li></ul>

# Supply Allocation



- The allocation for supplies is based on program categories (14 broad categories). Each program will generate an amount based on their program category and an incremental amount for each student in the program.

# Supply Allocations Per Program Category



Program Category	Amount
Culinary	\$8,606
Auto-Tech	\$5,515
Welding	\$8,956
Building Trades	\$5,447
Communications	\$5,484
Computer	\$4,496
All Other	\$2,717
Per-Pupil	\$49

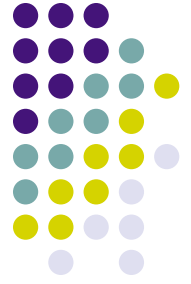
\* These amounts will be inflated to the funding year.



# Central Administration Costs

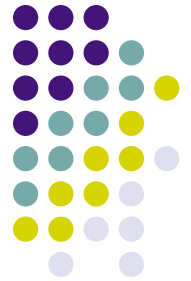
Analyses	Findings
Analysis of per-pupil expenditures by school	In FY '06 administrative expenses per-pupil ranged from \$100 to just over \$1,300
Examination of administrative staff by school	<ul style="list-style-type: none"><li>● All schools employ a director and the largest schools employ an assistant director</li><li>● All regions employ someone in the business manager capacity</li><li>● The average number of students per clerical staff is 245.</li></ul>

# Central Administration Allocation



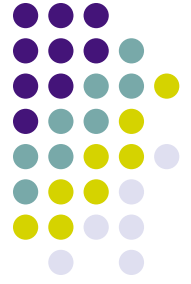
- This portion of the allocation will reflect the cost of salaries and benefits for the following:
  - One director per school
  - One assistant director for schools with more than 350 students
  - One business manager position for regions
  - A 245:1 ratio for clerical staff
  - An additional 16% will be allocated for other central admin costs

# Operation and Maintenance Costs



Analyses	Findings
<p>Analysis of FY '04, FY '05, and FY '06 expenses</p>	<ul style="list-style-type: none"><li>● Per-pupil expenses in FY '05 ranged from \$200 to \$1,400</li><li>● There is a stronger relationship between square feet and expenses than number of students and expenses.</li><li>● The amount per square feet spent in Maine's CTE schools is comparable to the national average (\$5.49).</li></ul>

# Operation and Maintenance Allocation



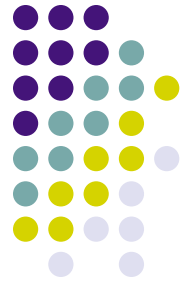
- Schools will receive funding for \$5.49 per square foot.



# Other Student and Staff Costs

Analyses	Findings
Examined potential categories of non-instructional personnel	<ul style="list-style-type: none"><li>● Approximately 8 schools employ guidance counselors</li><li>● Examples of non-instructional staff employed are: coaches, co-curricular staff, CTE evaluators, nurses, social workers</li></ul>
Developed director survey pertaining to professional development and co-curricular costs	<ul style="list-style-type: none"><li>● Low response rate</li><li>● Of the respondents there was tremendous variance in what was spent on these areas</li></ul>

# Allocation for Other Student/ Staff Support



- Schools will receive funds that reflect the following:
  - 1 guidance counselor/student services coordinator per 250 students
  - \$35 per student for technology
  - \$40 per student for safety
  - \$37 per student for co-curricular activities
  - \$19 per student for professional development

\* These amounts will be inflated to the funding year.

# Equipment



- Due to the wide variation in equipment needs due to such issues as program type, replacement cycles, the need to bring equipment up to date, etc... additional work is needed to find an equitable method of allocating funds.
- A survey was distributed to all directors asking for their expected equipment needs for the next three years with clear descriptions of the item, program, and justification for its purchase.
- Responses were received from all but four schools and analyses of the data is being conducted.

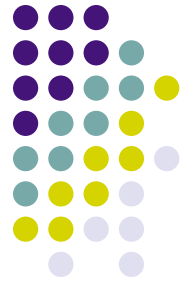


# Estimated Cost in 2009 - 2010



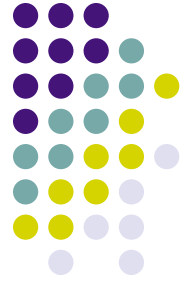
	Full Model	Model with 10% Limit on Gains and Losses
Estimated Cost	\$46,287,532	\$43,193,292
Current 2009 - 2010 Estimate for CTE*	\$42,068,178	\$42,068,178
Dollar Difference	\$4,219,354	\$1,125,114
% Difference	10.03%	2.67%

\* This is based on 2006 - 2007 actual expenditures inflated to 2009 - 2010 dollars.



# Recommendation

- Due to lower revenue projections and the absence in the budget of additional funding for FY '09 it was recommended that the model be approved to be implemented in FY '10.
- Prior to implementation two aspects will be revised:
  - The program equipment estimates to use in the model
  - The method for the distribution of funds



# Current Work in Progress

- Data from the equipment survey are being analyzed. We are looking at:
  - Differences/similarities within and across programs
  - Differences related to type of need (certification, replacement, etc...)
- A new request for data was sent to directors asking for updated square footage information and costs associated with nationally certified programs.