

# Health Impact Assessment of HB 2800

## FARM TO SCHOOL AND SCHOOL GARDEN POLICY

### EXECUTIVE SUMMARY OF FINDINGS • MAY 2011

Farm to School and School Garden (F2S & SG) programs have gained momentum and visibility over the past decade for their potential contributions to stimulate local economies, foster healthy school food environments, support nutrition education, and build relationships among farmers and school districts.

Oregon House Bill (HB) 2800 would guarantee school districts could purchase Oregon produced, processed, packed and packaged foods with 15 cents for lunch and 7 cents for breakfast in reimbursement funds. The bill also ensures students learn how to choose healthy, local food options in their cafeteria through grants that support school gardens, agriculture and nutrition education.

From fall 2010 to spring 2011, Upstream Public Health collaborated with Farm to School and school garden stakeholders to conduct a Health Impact Assessment (HIA) on HB 2800, evaluating its potential effects on Oregonians' health. This report summarizes the findings of that assessment. The goal of the HIA is to inform legislative decision-making on HB 2800, focusing on the bill's impact upon five health determinants: **1. Employment, 2. Diet and Nutrition, 3. F2S & SG K-12 Education Opportunities, 4. Environmental Health and 5. Social Capital.**

This HIA is supported by grants from the Health Impact Project (a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts) and the Northwest Health Foundation. The opinions are those of the authors and do not necessarily reflect the views of the Health Impact Project, the Robert Wood Johnson Foundation, The Pew Charitable Trusts or the Northwest Health Foundation.

A review of research evidence and an economic analysis establish that **HB 2800 will have significant positive public health benefits.**

#### KEY FINDINGS ON IMPACT OF HB 2800

##### Farm to School reimbursement funds would:

- Create and maintain jobs for Oregonians
- Increase student participation in school meal programs
- Improve household food security
- Strengthen connections within Oregon's food economy

##### Food, Garden & Agriculture grants would:

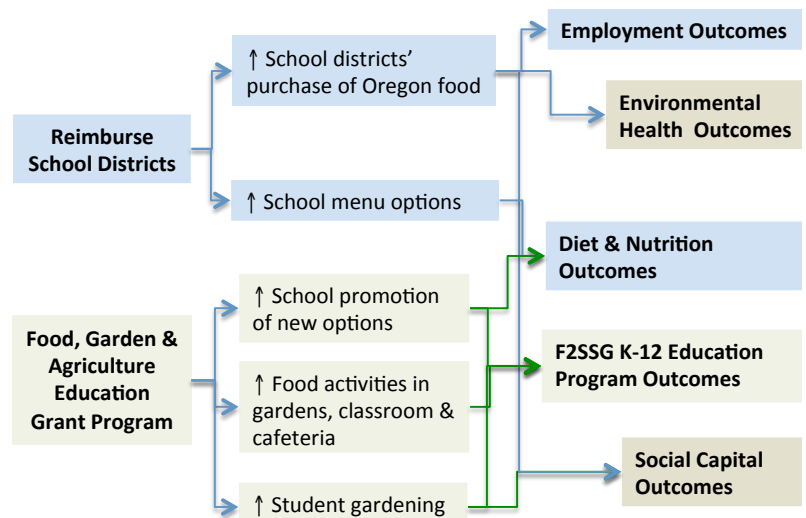
- Increase childhood food preferences for fruits and vegetables
- Shape long-term healthy diet choices that affect children's learning & academic achievement while preventing obesity

#### ABOUT HEALTH IMPACT ASSESSMENTS

A health impact assessment (HIA) is an information-gathering tool used to inform policy decisions and promote decisions that are the most beneficial for health. Understanding the health impacts of Farm to School and School Garden legislation is necessary to craft sound policy.

The World Health Organization defines Health Impact Assessment as "a combination of procedures, methods, and tools by which a policy or project may be judged as to its potential effects on the health of a population, and distribution of those effects within the population."

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HIA health determinant pathways resulting from HB 2800 elements

# MAJOR FINDINGS

## CURRENT CONDITIONS

EMPLOYMENT  
OUTCOMES

- Oregon's unemployment rate was 10.5% in December 2010, higher than the national average of 9% .
- **The recession has hurt Oregon's farms:** almost 2/3 of farms reported net losses. Small & mid-sized farms especially are struggling to compete.

DIET AND NUTRITION  
OUTCOMES

- In 2009, **Oregon was one of the hungriest states** in the nation: 14% of households were food insecure and 6% of them were hungry.
- 19% of Oregon kids live in poverty.
- **Kids on free and reduced meals are more likely to be from food insecure families.**
- In the 2009-'10 school year 33% of kids eligible for free or reduced lunches did not participate.
- 22% of low-income kids did not graduate during the 2006-'08 school years.

F2S & SG K-12  
EDUCATION OPPORTUNITIES

- Current Oregon learning standards do not require children to learn where food comes from or how it is made.
- Cafeterias are not connected to classroom curriculum.
- **1 in 4 Oregon adolescents are overweight or obese.**
- 2009: 58% of 11th graders eat three or less servings of fruits and vegetables a day.

IMPACTS

The meal reimbursement program would create jobs and stimulate economic growth.

- **Employment leads to health:** The unemployed are up to twice as likely to die earlier than others of the same age and sex.

Kind of Impact	New Jobs (Full & Part-time)
Direct effect	101
Indirect effect	101
Induced Effect	67
<b>Total Effect</b>	<b>269</b>
<b>Multiplier</b>	<b>2.67</b>

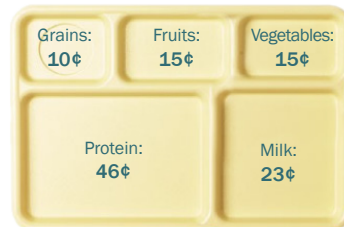
A 2.67 employment multiplier means that for every job created by school districts purchasing local foods, additional economic activity would create another 1.67 jobs.

Estimated economic effects of Oregon purchases during the first biennium (\$19.6 million in reimbursements)

## HB 2800 would improve child diet and nutrition.

- Students who participate in school meal programs learn better and have a better chance of academic achievement.
- HB 2800's reimbursement and garden grant programs improve the quality and diversity of food offered during school meals.
- Studies of Farm to School initiatives show increases in meal participation (for free, reduced, and full-priced meals) between 1.3% and 16%. This helps families buy more food at home, lowering household food insecurity.

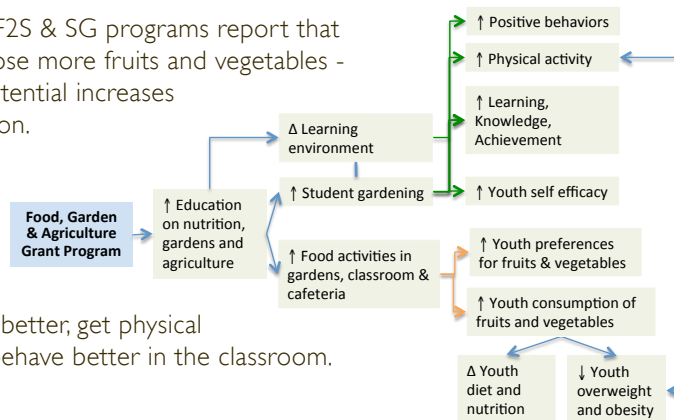
Oregon has been an innovator in finding creative ways to provide its children with fresh and healthy school meals. Without statewide infrastructure to support Farm to School efforts, limited funding for school meals can offer only inconsistent options to support Oregon's children and the farmers who feed them.



2009-'10 estimates for school lunch budget in Oregon

## Food, Garden and Agriculture education grants would increase kids' understanding of what they eat, how it is grown and how it affects their bodies.

- Research of F2S & SG programs report that children choose more fruits and vegetables - leading to potential increases in consumption.
- Studies show that children who spend time in the garden learn better, get physical activity and behave better in the classroom.



## MAJOR FINDINGS cont'd.

### CURRENT CONDITIONS

#### ENVIRONMENTAL HEALTH OUTCOMES

Oregonians currently demand food produced and processed with alternative methods.

Between 2006 and 2008, the total land in organic production nearly doubled, an 86.7% increase from almost 70,000 to over 130,000 acres in response to this demand.

#### SOCIAL CAPITAL OUTCOMES

Social capital is a bank of resources, such as job referrals, that individuals gain through strong relationships to others. This improves people's health and access to opportunities.

If schools build connections with producers, other institutions can build upon these relationships, connecting with those who want to buy Oregon food.

#### IMPACTS

The reimbursement program gives more flexibility to buy sustainably produced food; this can impact environmental health factors.

- A stable product demand helps farmers and processors try new practices such as solar-heated greenhouses or integrated pest management plans. These practices reduce health issues from soil and water contamination.
- A more stable product demand also helps keep farmland in production, which can reduce greenhouse gasses. If all districts just served Oregon fruit or vegetables at lunch one day a month, it would support \$756,000 in sales.
- Buying Oregon products does not reduce greenhouse gas emissions from transportation significantly, depending on the food source.

The reimbursement program will help farmers and nutrition staff build food system connections; the grants will help students work better together.

- Preliminary studies indicate school garden participants have positive changes in social skills and their ability to work with others.
- "Supporting local farmers" is a reported primary benefit for Farm to School programs; research is needed to examine the impact on social isolation and depression.

## RECOMMENDATIONS for HB 2800: CHANGES TO IMPROVE HEALTH

1. The current policy allows food produced or processed in other states or countries to qualify for a reimbursement. Amend HB 2800 to specify that schools can only get reimbursed for foods produced or processed in Oregon to increase economic activity in our state.
2. To improve health outcomes for vulnerable populations, specify that while grants are open to all school districts, Food, Agriculture and Garden education grants will be preferentially given to school districts serving:
  - a low-income student population, defined where 40% are eligible for free or reduced meals, or;
  - schools with a racially diverse student population, defined as 20% or more non-white, or
  - schools in rural or urban areas with limited food access, defined as 12% or more of residents are low-income and live more than 10 miles from a grocery store.
3. To improve child health outcomes, specify funding criteria for Food, Agriculture and Garden education grants to support schools developing multiple-component programs that increase child health benefits. Garden grants should be preferentially awarded to programs working toward having at least one element in each of the following categories: **Education, Promotion, Procurement** and **Community Involvement**.

# CONCLUSIONS

## SUMMARY OF HEALTH OUTCOMES AND IMPACTS HIGHLIGHTS ON HB 2800 (\$23 MILLION)

### LEGEND

- ▲▲▲▲ Strong impact on many
- ▲▲▲ Strong impact for few or small impact on many
- ▲▲ Moderate impact on medium number or strong impact on few
- ▲ Small impact on few
- None No effect
  
- \*\*\*\* 10+ strong studies
- \*\*\* 5 -10 strong studies or data analysis
- \*\* 5 or more studies of weak and moderate quality; or studies have mixed results
- \* <5 studies and claim consistent with public health principles

1 Enrolled children in Oregon public school system, Oregon Department of Education, 2009-10.

2 Household Food Security in the United States, 2009, US Dept. of Agriculture, Economic Research Service, 2010.

3 Low estimate based on 2007 ODE survey of reported participation in school gardens; would be over two year grant time period.

4 Low estimate from 2010 Oregon Department Education number of School Districts that purchase local.

5 Certified estimate of Oregon population from US Census data, Population Research Center, 2010.

6 Conservative estimates from: (280,000 school lunches served in 2009-10 x \$.30 for fruits and vegetables) x 9 to 180 school days.

+ Indicates schools will have to take action beyond the reimbursement program in the policy.

† See report for full summary table, including impacts without HIA policy recommendations.

Health Outcome or Health Determinant	Magnitude of Impact w/ HIA Recs. †	Distribution	Quality of Evidence
<b>Employment Impacts</b>			
Health & life expectancy	▲▲▲▲	Farm sector and related jobs	****
Job creation	▲▲▲	~270 new jobs	****
Oregon product demand	▲▲▲▲	100—197 School Districts <sup>4</sup>	****
Workers' ability to pay bills	▲▲▲	~270 new jobs	****
Economic activity	▲▲▲▲	3.16 economic multiplier	****
<b>Impacts on Child Diet and Nutrition</b>			
Meal program participation	▲▲▲	561,698 public school children <sup>1</sup>	**
Child learning & academic attainment	▲▲▲	561,698 public school children <sup>1</sup>	****
Household food security	▲▲	210,446 households <sup>2</sup>	***
School meal nutrition	▲▲+	561,698 public school children <sup>1</sup>	*
Child overweight & obesity	▲▲+	1 in 4 children	**
<b>Farm to School and School Garden Education Impacts</b>			
Gardening education	▲▲▲▲	~15,000 new children <sup>3</sup>	****
Child fruit & vegetable consumption	▲▲▲+	561,698 school children <sup>1</sup>	****
Agriculture & nutrition education	▲▲+	~15,000 new children <sup>3</sup>	***
Child nutrition knowledge	▲▲+	~15,000 new children <sup>3</sup>	***
Nutrition staff knowledge	▲▲	100—197 School Districts	**
Child achievement	▲▲	~15,000 new children <sup>3</sup>	*
Child self-efficacy	▲▲	~15,000 new children <sup>3</sup>	*
Child physical activity	▲▲	~15,000 new children <sup>3</sup>	*
<b>Impacts on Environmental Health</b>			
Oregon fruit & vegetable crops maintained	▲▲	\$756,000 — \$15,120,000 in school purchases <sup>6</sup>	***
Demand for food grown with sustainable practices	▲	Oregon food sectors	*
Greenhouse gas emissions from food transport	None	3,844,195 Oregonians <sup>5</sup>	**
<b>Impacts on Social Capital</b>			
Student relationships	▲▲	~15,000 new children <sup>3</sup>	*
Producer, processor & school staff connections	▲▲▲	~100 School Districts	***
Parent school participation	▲▲	~15,000 new children <sup>3</sup>	*