

# Innovation, Technical Change, and Productivity Growth

Innovation, Technical Change, and Productivity Growth

## V(A). Planned Program (Summary)

### 1. Name of the Planned Program

Innovation, Technical Change, and Productivity Growth

## V(B). Program Knowledge Area(s)

### 1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
609	Economic Theory and Methods			100%	
	<b>Total</b>			100%	

## V(C). Planned Program (Inputs)

### 1. Actual amount of professional FTE/SYs expended this Program

Year: 2008	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	0.0	0.0	1.3	0.0
<b>Actual</b>	0.0	0.0	1.6	0.0

### 2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
	0	78272	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	393392	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	141771	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

- Conduct Research Experiments.
- Develop models, computer algorithms
- Develop Products, Resources.
- Assessments.
- Partnering.

**2. Brief description of the target audience**

Public sector  
Private sector  
economists.  
policy makers.

agricultural biotechnology firms  
farmers

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

**Target for the number of persons (contacts) reached through direct and indirect contact methods**

	<b>Direct Contacts Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
<b>Plan</b>	100	0	0	0
2008	52	0	0	0

**2. Number of Patent Applications Submitted (Standard Research Output)**

**Patent Applications Submitted**

<b>Year</b>	<b>Target</b>
Plan:	0
2008:	0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Plan</b>	0	3	
2008	0	2	2

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

PROVIDE ECONOMIC AND MARKETING MODELS AND ANALYSES THAT INFORM DECISION-MAKERS, INDUSTRY, AND PEERS generate theoretical and computational tools, both parametric and non-parametric, for evaluating technical change, capacity utilization, and productivity growth. incorporate bads into production model dynamizing the technology technological change in function spaces effects on nature and origins of technical shifts apply economic tools to a number of industries and products important to Oregon's agriculture and rural economy. examine rural health look at rate of biotechnological innovation formulate types of technical change to sustain per capita output and income growth identify determinants of innovation in agricultural biotechnology to examine coordination between public and private sector and the mix of public-good and private-good inventions. responsiveness of biotechnical and agricultural innovations to alternative government investment strategies optimal R&D investments

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2008	0	4

**V(G). State Defined Outcomes**

O No.	Outcome Name
1	Learning, awareness, knowledge, skills, motivations Information exchange - Peers understand the reverse impact of downstream on upstream research - Peers and decision-makers gain information on the following assumptions - whether basic research has a decisive influence on downstream applications and product development, - that cross-field spillovers are pronounced, - that intellectual property regimes greatly influence the course and intensity of innovation Improved technologies and practices - Decision-makers learn whether returns to public R&D are skewed, risky, but on average high - Decision-makers learn where to distribute investments on the basic-to-applied research continuum and in which fields or subfields to focus. For example, - do research investments directly influence outputs - do investments influence outputs in collateral fields and at points above and below them on the R&D continuum - does one institution's investments influence another's?
2	Action such as behavior, practices, decision-making, policies Best Practices - Funding agencies make better investments in basic-to-applied research continuum

**Outcome #1**

**1. Outcome Measures**

*Not reporting on this Outcome for this Annual Report*

**2. Associated Institution Types**

**3a. Outcome Type:**

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
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**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
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**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

**Brief Explanation**

{No Data Entered}

**V(I). Planned Program (Evaluation Studies and Data Collection)**

**1. Evaluation Studies Planned**

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}