

Northeast Regional Center for Rural Development
Supplement to Innovation Issues Research Brief No. 2019-1:
Innovation, Broadly Measured, and Its Effects on Business and Community Economic Health

The specific innovation-related questions in Rural Establishment Innovation Survey¹ used to construct the innovation index described in the brief are:

NEWINFO – Sources of New Information

(Mean = 9.22, range = 0-18)

Q. 18. Businesses obtain information about new opportunities or new ways of doing things from many sources. Which sources have been most valuable for this firm?

Sources of new information:

(0 = Not at all valuable, 1= Somewhat valuable, 2 = Very valuable)

- Suppliers
- Customers
- Other business people in your industry
- Other business people NOT in your industry
- Business or trade association conferences or publications
- Your own workers
- Media (e.g. newspapers, television, Internet)
- Private consultants
- University extension, community colleges, or business schools

SATISFACTION – Monitor Customer Satisfaction

(Mean = 1.18, range = 0-2)

Q. 25. How often does this business monitor customer satisfaction through analysis of complaints, customer satisfaction surveys, focus groups, or other methods?

___(0)___ Never ___(1)___ Occasionally ___(2)___ Regularly

COMPLAINTIMPACT– Impact of Customer Complaints on Business Practices

(Mean = 1.49, range = 0-2)

Q. 26. How often are processes changed to fix problems identified through customer complaints?

___(0)___ Never ___(1)___ Occasionally ___(2)___ Regularly

NEWGOODS – New goods or services in the past 3 years

(Mean = 3.25, range = 0-6)

Q. 27. In the past 3 years, did this business...

(Yes = 1 for each)

¹ Source: USDA-ERS Rural Establishment Innovation Survey, as cited in Whitacre, B.E., D. Meadowcroft, and R. Gallardo. 2019. "Firm and Regional Economic Outcomes Associated with a New, Broad Measure of Business Innovation." *Entrepreneurship & Regional Development*, June, 1–23.
<https://doi.org/10.1080/08985626.2019.1630486>.

- Produce any new or significantly improved goods?
- Produce any new or significantly improved services?
- Introduce new or significantly improved methods of manufacturing or producing goods or services?
- Introduce new or significantly improved logistics, delivery, or distribution methods for your inputs, goods, or services?
- Introduce new or significantly improved support activities for your processes?
- Introduce new or significant improvements in your marketing methods?

ABANDONED – Abandoned or incomplete innovation activities

(Mean = 0.56, range = 0-2)

Q. 28. In the past 3 years, did this business have any improvement or innovation activities that were...

(Yes = 1 for each)

- Abandoned
- Incomplete

IMPROVEDGOODS – Improved goods or services in 2013

(Mean = 2.58, range = 0-5)

Q. 30. In 2013, did this business sell any new or significantly improved services with the following improvements?

(Yes = 1 for each)

- Improved performance
- More user-friendly
- Reduced costs
- New features
- New service capabilities

SELLNEWGOODEARLY- Sell new goods or services before competitors

(Mean = 0.55, range = 0-1)

Q. 31. In the past 3 years, did this business start selling any new or significantly improved goods or services before your competitors in at least one of your markets (Include a product even if it was available in another market).

(Yes = 1)

NEWGOOD%SALES– Percentage of sales from new or improved goods

(Mean = 14.71, range = -5 – 100)

Q. 32. In 2013, what percent of this business’s sales came from new or significantly improved goods or services? ([If note, enter 0 (zero).]

_____ percent of sales

INNOVACTIVITIES – Engage in innovation-related activities

(Mean = 3.71, range = 0-10)

Q. 33. In the past 3 years, did this business engage in any of the following innovation-related activities?

(Yes = 1 for each)

- In-house research and development (R&D) to increase knowledge or devise innovations
- Purchase research and development (R&D) from research organizations or other branches of this business
- Conduct in-house design activities to improve aesthetics of product or packaging
- Purchase design services
- Purchase machinery, equipment, computers, or software to implement innovations
- Purchase or license patents or inventions to implement innovations
- Purchase knowledge or expertise to implement innovations
- Plan, engineer, design, or conduct other development work to implement innovations
- Train staff to develop or introduce innovations
- Market research, advertising, or other marketing activities linked to implementing innovations

EXTRACASH – Extra cash spent on innovation or investments

(Mean = 2.32, range = 0 – 4)

Q. 34. In the current environment, if excess cash were available, how likely is it that these funds would be used to...

(“Probably” = 1, “Most definitely” = 2)

- Fund additional innovation projects
- Fund additional investment projects, such as replacing old equipment or for expansion

PATENTAPP- Business participated in patent applications

(Mean = 0.08, range = 0-1)

Q. 36. In the past 3 years, did this business participate in any patent applications?

(Yes = 1)

TRADEMARKS – Trademarks, copyright, non-disclosure agreements

(Mean = 0.62, range = 0-4)

Q. 37. In the past 3 years, did this business...

(Yes = 1 for each)

- Register an industrial design
- Register a trademark
- Produce materials eligible for copyright
- Use trade secret protections (e.g., non-disclosure agreements, non-compete clauses, or sought remedies for misappropriation)

RECESSION – Innovate during recession

(Mean = -0.15, range = -1 – 1)

Q. 38. During the economic recession period (2008-2009), to what extent did this business commit resources to innovate?

- Increased resources for innovation (1)
- There was no change in innovation resources (0)
- Delayed or decreased resources (-1)

INCREASE13 – Innovation increased since 2013

(Mean = 0.23, range = -1 – 1)

Q. 39. Compared to 2013, in this current year (2014) would you say resources for innovation at this business have been:

- Increased (1)
- Kept the same (0)
- Decreased (-1)

IMPROV3YRS – Growth in the past 3 years

(Mean = 4.08, range – 0-9)

Q. 40. In the past 3 years, has this business...

(Yes = 1 for each)

- Increased the variety of goods or services offered
- Increased market share or entered new markets
- Begun exporting goods or services
- Reduced time to respond to customer needs
- Improved flexibility of production or service provision
- Increased capacity of production or service provision
- Reduced labor costs per unit output
- Reduced materials and energy required per unit output
- Improved worker satisfaction or reduced worker turnover