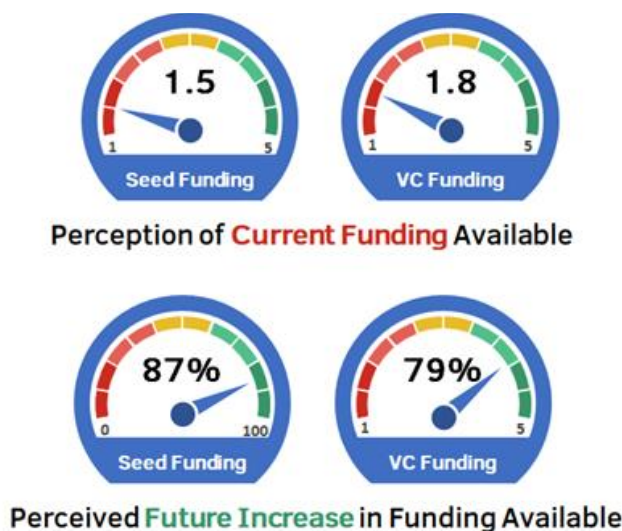


Ecosystem Survey Summary: Regional Perceptions

In the Fall of 2018, Valleys Innovation Council and Virginia Tech conducted a survey of entrepreneurs, investors, professional services providers, and entrepreneurial support organizations to gauge their perceptions of the strength of the regional capital ecosystem to support innovation-based, early-stage companies. The survey asked respondents for their perceptions of the current entrepreneurial activities and state of risk capital from seed through venture capital in the region as well as their projections for how these activities and funding would change over the next three years (2019-2021).

Forty (40) participants provided responses to the survey with several respondents having experience in multiple roles in the regional ecosystem. When asked to assess seed funding and venture capital availability in the region, respondents consistently felt that there were less than adequate amounts of both. These perceptions of the current regional capital landscape for seed and venture capital funding as shown in the figure below align with this study's quantitative findings.

Survey Respondents' Perceptions of Funding Available in Region 2



Interestingly, however, respondents were uniformly optimistic with a positive forecast for future seed funding and VC funding in the region. This optimism was also reflected in a general sense that the broader entrepreneurial ecosystem is moving into an upswing with more investable companies emerging and increasing early-stage fund availability for innovation-based startups.

As a note, the survey was conducted around the same time as Valleys Innovation Council hosted a series of angel investing seminars and the new VTC Seed Fund was announced in late 2018. This may have led to increased optimism on the part of survey participants in their future-focused responses.

Capital Ecosystem Survey Instrument

Start of Block: Informed Consent

Welcome to the Capital Landscape study!

The Valleys Innovation Council is leading an effort to understand the availability and use of capital by entrepreneurs and early-stage companies in the Lynchburg-New River Valley-Roanoke Valley Region.

You are being invited to take part in a research study. You will be asked to respond to several questions about the region's capital ecosystem for entrepreneurs. Please answer each question with the answer that best corresponds to your perception of each aspect of the capital ecosystems in this region. Participation is voluntary. You can choose not to take part, or agree to take part and later change your mind. There will be no penalty or loss of benefits to which you are otherwise entitled.

The purpose of this research is to ask you questions and determine your feedback. Your participation in this research will last until you have completed the questionnaire, which should take about 10 minutes to complete. The only risk is effort involved in the questionnaire. There are no benefits to you from your taking part in this research. Others may benefit from the information gained during this research. Your alternative is to not take part in the research. We may publish the results of this research. As we are not collecting any identifiable information, your information will be confidential. Again, you have the right to withdraw at any point during the survey without consequence. With the exception of the first question to indicate your role(s) in our regional ecosystem, the survey does not contain any other mandatory questions. Please be assured that your responses will be kept completely confidential.

If you would like to contact the Principal Investigator in the study to discuss this research, please e-mail Kevin Carlson at kevinc@vt.edu or call 540-231-6595. By clicking the button below, you acknowledge that:

- Your participation in the study is voluntary
- You are at least 18 years of age
- You are aware that you may choose to terminate your participation in the survey at any time and for any reason.

Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device. If you have questions, concerns, or

complaints, or think this research has hurt you, talk to the research team at the phone number listed above. This research is being overseen by an Institutional Review Board ("IRB"). An IRB is a group of people who perform independent review of research studies. You may talk to them at (800) 562-4789 or email help@wirb.com if you have questions, concerns, or complaints that are not being answered by the research team or you have questions about your rights as a research subject. Thank you. By continuing in the survey, you are consenting to continue. If you choose to participate, we know your time is valuable, and we appreciate you taking that time and sharing your perspectives with us. The information we receive from members of the community like you is vital to increasing the value and the efficacy of the report we produce, and your contribution is appreciated.

A total of 40 respondents provided consent. However, 11 did not complete the full survey, but the responses they provided are included in the analysis; 29 respondents provided full results

- I consent, begin the study
- I do not consent. I do not wish to participate

End of Block: Informed Consent

Start of Block: Identification

[For each question below, the numbers at the left of each response option indicate the number of respondents choosing that option.]

Q4 My role in the region's innovation or technology-based start-up capital ecosystem is as an (check all that apply): **40 Total Responses**

- 18** Entrepreneur (founder, team member)
- 14** Investor (seed, angel, venture capital firm, corporate)
- 16** Professional Advisor/Services Provider (Legal, Accounting, Finance, etc.)
- 13** Ecosystem Support Organization (SBDC, RAMP, RBTC etc.)
- 3** Other _[Valley's Innovation Council]_____

End of Block: Identification

Start of Block: Entrepreneur/Founder Questions

Q6 <div>Have you attempted to raise capital to fund a innovation or technology-based entrepreneurial start-up business? (Indicate all that are relevant): **A total of 17 people provided 21 responses.**

- 5** I am currently
 - 12** I have in the past
 - 4** Never
-

X→

Q30 What sources of capital have you attempted to raise? (Check all that are relevant):

16 people provided a total of 34 responses.

- 6 Funding from friends and family
 - 8 Non-dilutive capital (Federal, State or Local Small Business Grants)
 - 13 Equity Capital (angel or venture capital)
 - 6 Loans
 - 1 Other _____
-

Q31 How recent was your last attempt to raise capital?

- 8 Within the last year
 - 4 Within the last 5 years
 - 4 More than 5 years ago
-

X→

Q37 Which of the following sources of capital did you attempt to raise in your most recent effort?

- 4 Funding from friends and family
 - 8 Non-dilutive capital (Federal, State or Local Small Business Grants)
 - 10 Equity Capital (angel or venture capital)
 - 2 Loans
 - 1 Other _____
-

Q32 Was your last attempt to secure funding successful at the target level?

- 8 Yes
 - 4 Partially
 - 4 No
-

Q37 Will you need to secure additional funding?

- 3** Definitely yes
- 8** Probably yes
- 1** Might or might not
- 4** Probably not
- 0** Definitely not

Q3 What is your awareness of the following sources of funding?

	Not aware of this	Aware but have not applied for it	Applied for but have not received	Applied for and received
Federal R&D Grant or Contract (general)	3	8	1	4
Small Business Innovation Research (SBIR) grant or Small Business Technology Transfer (STTR) grant	1	8	3	5
CIT Commonwealth Research Commercialization Fund	4	7	2	3
Other	0	0	0	1

End of Block: Entrepreneur/Founder Questions

Start of Block: Investor Questions

Q34 When you are considering a private equity investment opportunity, what factors do you prioritize as most essential to your decision whether to invest? How important are these factors when compared to other factors (Insert approximate percentage of importance weight)?

	Management Team	Market Opportunity	Intellectual Property	Return on Investment	Sales and Marketing	Stage of Company	Other
Priority Ranking	2	2.36	2.91	2.91	4.91	4.91	7
Weight/Percentage	30.45	29.10	13.18	17.72	8.89	7.22	0

Q16 What primary geographic scope do you consider for your investments?

- 2** A. Companies within the Lynchburg-New River Valley-Roanoke Valley region.
- 2** B. Companies within Virginia
- 2** C. Companies anywhere in the country
- 0** D. Global - developed markets
- 0** E. Global - emerging markets
- 0** F. A and B
- 3** G. A, B, and C
- 2** H. A, B, C and D and/or E

Q18 According to Pitchbook, the seed and angel funding stage is defined as less than \$500,000 raised in the first round of as reported by a government filing, and when there have been no private equity or venture capital firms involved in the company to date. Firms are categorized as early stage (stock Series A or B), expansion stage (stock Series B or C) or later stage based on "their age, prior financing history, company status, participating investors, and more." With these definitions in mind, in what stages of a young company's life cycle will you consider making an investment? (Select all that apply): **13 individuals provided 22 responses**

- 8** Seed Stage
- 6** Early Stage
- 4** Expansion Stage
- 4** Later Stage

Q28 How many private equity investments will you make in 2018?

- 3** 0
- 6** 1
- 2** 2
- 0** 3
- 2** 4 or more

Q15 Have you ever invested in an innovation or technology-based entrepreneurial start-up in the Lynchburg-New River Valley-Roanoke Valley region?

- 6** I am currently
- 2** Not now, but I have in the past
- 1** Never

Q34 When was your most recent investment in an innovation or technology-based company in this region?

- 5** Within the last year
- 3** Within the last 5 years
- 1** More than 5 years ago

Q19 How would you describe your level of engagement with companies in which you invest?

- 10** Active (includes operational or board involvement)
- 4** Passive (funding only)

Start of Block: Professional Advisor and Ecosystem Support Questions

Q26 How would you describe your level of engagement with companies?

- 1** Active (includes operational or board involvement)
- 1** Support Role (Frequent or ongoing mentoring and advice; may include some funding)
- 1** Passive Support (mentoring or advice only when asked)
- 0** Transactional (paid for services)

End of Block: Professional Advisor and Ecosystem Support Questions

Start of Block: Current Ecosystem Health

Q27 The questions in this section address your perceptions of the current health of the entrepreneurial ecosystem in Lynchburg-New River Valley-Roanoke Valley region. What is your assessment of the current state of the following innovation/technology-based entrepreneurship activities in this region?

	Today						Avg.
	Far too few	Less than Desirable	Adequate	Healthy	Very Strong	Don't Know	
Number of new startups	2	20	4	1	0	2	2.21
Number of investable ideas	4	19	2	2	0	3	2.07
Quality of investable ideas	3	15	5	3	0	4	2.31
Number of investable CEOs and teams	5	16	3	1	2	3	2.22
Number of mentors with relevant expertise for businesses	1	12	9	6	1	1	2.79
Number of businesses that relocate into the region	9	12	3	1	0	4	1.81
Number of businesses that relocate out of the area	0	7	5	2	4	10	3.17
Number of new business failures	1	5	8	2	1	12	2.82

Q28 According to Pitchbook, the seed and angel funding stage is defined as less than \$500,000 raised in the first round of funding as reported by a government filing, and when there have been no private equity or venture capital firms involved in the company to date. Firms are categorized as early stage (stock Series A or B), expansion stage (stock Series B or C) or later stage based on "their age, prior financing history, company status, participating investors, and more. With these definitions in mind, what is your perception of the current state of equity funding for start-ups, from access to seed stage funding through expansion stage funding?

	Today						
	Substantially Less than Adequate	Slightly Less than Adequate	Adequ	Slightly More than Adequate	Substantially More than Adequate	Don't Know	
Amount of seed (initial) funding dollars available for start-ups	13	9	3	1	1	3	1.81
Total amount of seed funding dollars invested	16	7	1	1	0	5	1.48
Number of seed funding rounds closed	16	5	4	0	0	5	1.52
Number of individual seed investors	14	7	2	1	1	5	1.72
Number of start-ups relying on "Friends and Family" for seed funding	2	4	5	6	3	9	3.20
Number of new businesses that leave because of lack of access to capital	4	4	3	3	5	9	3.05
Number of new businesses that close because of difficulty accessing capital	3	3	5	2	4	11	3.06

Q29 What is your current perception of the availability of early stage to later stage venture capital funding in this region for technology- and/or innovation-based businesses?

	Today						
	Substantially Less than Adequate	Slightly Less than Adequate	Adequ	Slightly More than Adequate	Substantially More than Adequate	Don't Know	
Amount of venture capital funding available for ventures	13	6	4	1	1	5	1.84
Number of venture capital groups	13	4	5	1	1	6	1.88
Number of venture funding deals closed	14	6	3	0	0	7	1.52
Total dollars in venture funding closed when the business and VC are both in the region	11	8	3	0	0	8	1.64
Total dollars in venture funding closed when VC is outside the region	10	6	5	0	0	9	1.76
Total dollars in venture funding closed where VC is in the region and business is not	10	4	6	0	0	10	1.80
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

End of Block: Current Ecosystem Health

Start of Block: Ecosystem Change

Q8 The questions in this section address your perceptions of aspects of the entrepreneurial ecosystem in Lynchburg-New River Valley-Roanoke Valley region. In the upcoming one to three years (2019-2021), how do you think each of the following will change in this region?

	Changes in the Upcoming Three Years (2019-2021)						
	Significant Decrease	Slight Decrease	No Change	Slight Increase	Significant Increase	Don't Know	
Number of new startups	0	0	2	19	4	1	4.08
Number of investable ideas	0	1	2	16	6	1	4.08
Quality of investable ideas	0	1	2	15	5	3	4.04
Number of investable CEOs and teams	0	1	7	14	1	3	3.65
Number of mentors with relevant expertise for businesses	0	0	8	15	3	0	3.81
Number of businesses that relocate into the region	0	1	6	13	2	4	3.72
Number of businesses that relocate out of the area	0	5	8	6	2	5	3.24
Number of new business failures	0	2	7	10	0	7	3.42

Q23 In the upcoming one to three years (2019-2021), how do you think each of the following will change in the region with regards to seed funding for technology- and/or innovation-based businesses?

	Changes in the Upcoming Three Years (2019-2021)						
	Significant Decrease	Slight Decrease	No Change	Slight Increase	Significant Increase	Don't Know	
Amount of seed (initial) funding dollars available for start-ups	0	0	3	15	5	3	4.09
Total amount of seed funding dollars closed	0	0	4	13	4	5	4.00
Number of seed funding deals closed	0	1	4	12	4	5	3.90
Average size of seed funding deals closed	0	1	6	9	4	6	3.80
Number of individual seed investors	0	0	6	13	4	3	3.91
Number of start-ups relying on "Friends and Family" for seed funding	0	1	6	10	3	6	3.75
Number of new businesses that leave because of lack of access to capital	0	4	6	8	1	6	3.32
Number of new businesses that close because of difficulty accessing capital	0	3	8	7	1	7	3.32

Q24 In the upcoming one to three years (2019-2021), how do you think each of the following will change in the region with regards to venture capital for technology- and/or innovation-based businesses?

	Changes in the Upcoming Three Years (2019-2021)						
	Significant Decrease	Slight Decrease	No Change	Slight Increase	Significant Increase	Don't Know	
Amount of venture capital funding (from angels or firms) available for technology-based ventures	0	0	5	16	3	2	3.92
Number of venture capital groups	0	1	8	13	0	4	3.54
Number of venture funding deals closed	0	0	5	16	1	4	3.82
Average size of venture funding deals closed	0	1	5	12	1	6	3.68
Total dollars in venture funding closed when the business and venture capital group are both in the region	0	0	6	15	1	4	3.77
Total dollars in venture funding closed when venture capital group is outside the region	0	0	7	11	1	6	3.68
Total dollars in venture funding closed where venture capital group is in the region and business is not	0	0	11	9	0	6	3.45

Q11 From your perspective, please rate the current environments in these locations for technology and/or innovation-based businesses.

	Very Poor/Non-supportive	Poor/Some challenges	Neutral	Good/Generally supportive	Very Good/Highly supportive	Don't Know
Lynchburg	0	7	4	3	1	<input type="radio"/>
New River Valley	1	4	2	9	8	<input type="radio"/>
Roanoke Valley	0	6	1	12	7	<input type="radio"/>

End of Block: Ecosystem Change

Start of Block: Block 3

Q27 Which of the following best describes your primary current work/business location?

- 0 Lynchburg area
- 7 New River Valley
- 18 Roanoke Valley
- 0 Other _____

Q26 What is your age?

- 1 < 30
- 1 31-40
- 7 41-50
- 8 51-60
- 6 61-70
- 2 71-80
- 0 >80

End of Block: Block 3