




SBIC RURAL INVESTMENTS ENVIRONMENTAL SCAN AND EVALUABILITY ASSESSMENT

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The statements, findings, conclusions, and recommendations found in this study are those of the contractor and do not necessarily reflect the views of the Office of Investments and Innovation, the United States Small Business Administration, or the United States Government.

SECTION 1 – EXECUTIVE SUMMARY

The U.S. Small Business Administration (SBA) seeks to better understand private equity investment in U.S. rural areas and the extent to which SBA’s Small Business Investment Company (SBIC) program might better address small business investment needs in areas outside of urban areas. Through this study, SBA seeks to conduct an “environmental scan” for potentially useful datasets and existing research on the topic, and to assess the “evaluability” of any datasets found that may be of use for a more comprehensive study. The scan and assessment were conducted in the context of eight broad research questions provided by SBA.

For the purposes of our environmental scan, it was important to define key terms – particularly “rural” and “study target market”. We evaluated the multiple definitions of “rural” used by other federal programs and concluded that using the Rural-Urban Continuum Code (RUCC) for counties with population size of less than 250,000 would be most appropriate for the environmental scan. Using this definition, we identified 1,985 counties as “rural” for the purposes of this study. Similarly, we narrowed the definition of this study’s “target market” to facilitate the evaluation of datasets. This definition was derived from guidance received from the SBA. We recognize that the study’s definition of “target market” may exclude a few small businesses that could be eligible under the SBIC’s statutory and regulatory definition, but given their lower profile, they are unlikely to be disclosed on publicly available datasets.

Our environmental scan included reviewing datasets produced by seven types of sources: (1) Federal Government, (2) state and local Government, (3) academic literature, (4) commercial datasets, (5) trade groups and professional associations, (6) private research institutes, and (7) SBA’s SBIC program. We established a database capturing the relevant characteristics for each dataset that would enable a comparison and ranking of the various sources. For our evaluability assessment, we created a multipart scoring methodology to evaluate the datasets based on two primary factors: geographic granularity and statistical robustness. We ranked each dataset based on the statistical characteristics and a subjective assessment of how well it met the needs of the SBA’s research questions.

Our key findings are summarized below, and described in detail in this report along with additional findings under each of the eight research questions.

- 1. Data exists to support a market analysis of private equity investment.** We found that multiple datasets exist but would have to be combined to address the research questions on private equity investments in rural areas.
 - For data on *specific investments*, commercial datasets provide much useful information at address-level geographies. These datasets, however, rely on voluntary disclosure by investors and companies, which may limit the extent of the total population represented.
 - For data on *markets*, many Government-sponsored datasets are available, but these are sometimes limited in the level of geographic detail they can provide.
- 2. Assessing geographic gaps requires data on “supply” and “demand” for capital.** A market analysis of gaps requires two different types of datasets.

“Supply” data (investments actually made) can be obtained from the SBA’s SBIC program (for SBIC supply) and the commercial data sources (for non-SBA private equity). This “supply” data may understate the full “supply”, as commercial data sources tend to collect only voluntary data, and potential “supply” may be higher but placing a number on lost potential would require estimating supply curves. “Demand” data (how much capital a small business owner either wants or is capable of attracting from investors) will have to be estimated by developing demand curve models. In general, the datasets available allow for a footprint estimate of “demand” (i.e., number of small businesses in a geographic area) to be constructed, but it is not necessarily reflective of an economic “demand” (i.e., need) for capital.

3. **Existing datasets offer a tradeoff between desired geographic granularity and comprehensiveness.** We found that in general investment data are less available and inconsistent for smaller geographies. For example, market information is collected and aggregated at the State level and is typically not available at the ZIP code level.
4. **Data on investment characteristics are scarce:** We found that in general, the datasets do not provide information on terms of financing, use of funds, exit strategy, or underwriting criteria.
5. **Datasets seem to indicate that investment activity in rural areas is sparse.** Although this environmental scan did not directly analyze investment data, it was necessary to look at the data in at least enough depth to determine what the data quality would likely be for rural studies. From these brief reviews, we formed the impression that rural private equity is likely to involve small datasets. There are simply fewer small businesses in rural areas compared to urban areas, and there is a predominance of agriculture-related businesses in the rural areas that largely support farming communities.

Overall, we concluded that a market analysis of geographic gap in investment capital is feasible, but datasets are deficient if trying to identify the reasons for “why” such a gap exists or quantify “how much” capital is needed by small businesses in the rural areas. Secondary datasets do not capture data on rejected investment or real economic demand for capital. Customized surveys and interviews would be more appropriate for such information.

SECTION 2 – DEFINITION OF “RURAL”

There are multiple definitions of rural across the Federal Government, and each has particular significance for the research and Government datasets regarding business investments in rural areas. For the purposes of this study, we considered two key questions when evaluating datasets:

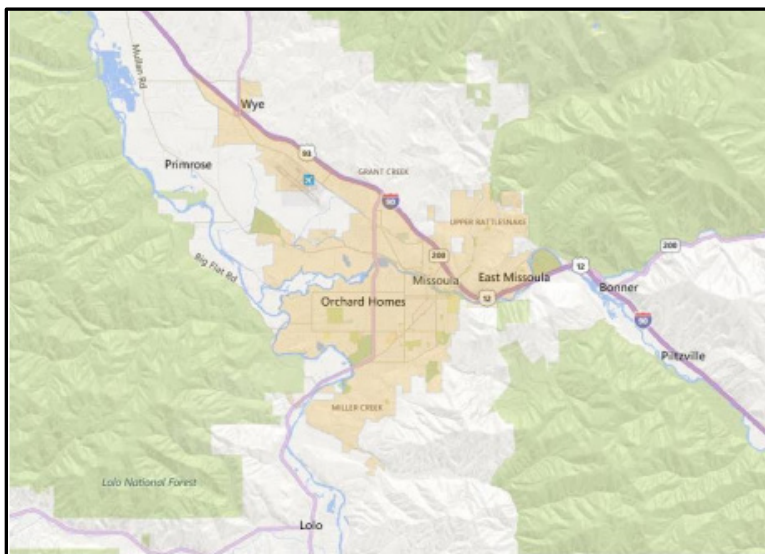
1. **Geographic Granularity:** How large or small a geography to use (i.e., county level, ZIP Code, specific address)?
2. **Rural Character:** What aspects of “rural character” should be studied? Some examples could include distance from markets, composition of labor force, and migration patterns.

Additionally, when identifying the datasets for “rural” records related to small businesses, we looked for datasets to meet certain requirements:

- **Location markers**, such as ZIP Codes, counties, or city boundaries, must be convertible to a standard rural definition. An example of a difficult match would be data for congressional districts, which often include both urban and rural areas in their extended boundaries.
- **Investment industry markers**, such as location of headquarters or a factory site, must be cross-referenceable to a place that can be matched against a standard rural definition.
- **Economic need indicators**, such as income levels, unemployment, out-migration, and property values, for the locality must be cross-referenceable to a standard rural definition.

Given these requirements, the statutory definition of rural that is used by the U.S. Department of Agriculture’s Rural Business Investment Program (RBIC), while is likely the most applicable to the SBIC program, may be constraining for SBA’s purposes of measuring SBIC investments in rural areas. The definition of rural for RBIC is based on population, generally defined as any place NOT in a city greater than 50,000 people. In practice, this definition depends as much on the shapes of city or town boundaries as it does on population.

Figure 1



For example, Figure 1 shows the eligibility map for the area around Missoula, MT. The orange-shaded area is urban; anything outside of that would be considered “rural.” Note that the city’s political boundaries stretch along roads, have islands of rurality, and have sharp edges that do not match county or other boundaries. This is indicative of many rural areas across the Nation when employing the definition of rural used in the RBIC program.

While this definition of rural is used by a RBIC to identify whether a small business with a specific address is located in an eligible “rural” area, it is limiting for the purposes of this study. Some limitations include the following:

- The boundaries as defined under this definition of “rural” do not align with any other dataset boundary definitions, making it difficult to overlay other datasets to estimate the “demand” and “supply” of private capital.
- A specific address is needed for every business in a dataset, which raises the possibility of privacy issues.
- The SBIC program does not have a rural eligibility requirement.

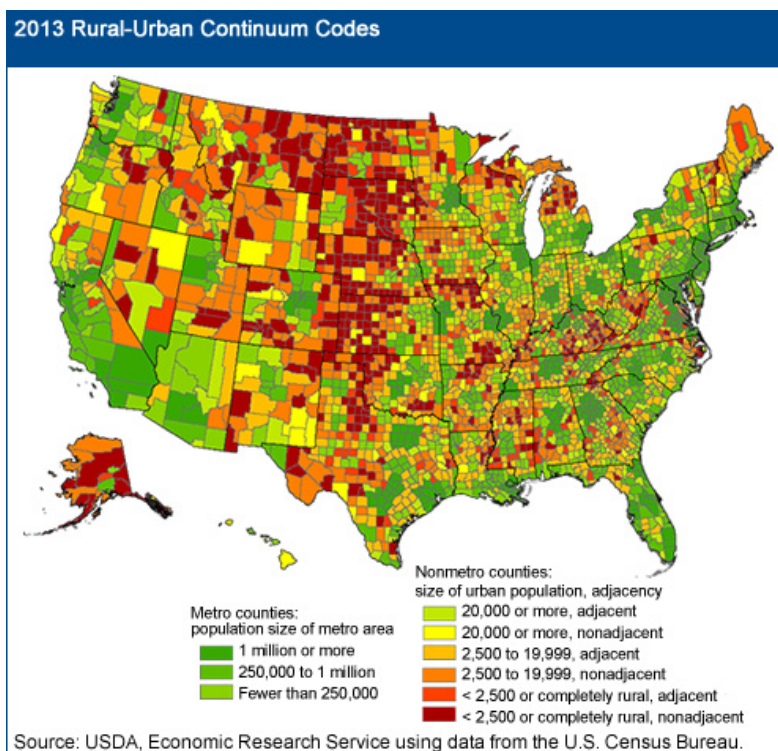
RURAL–URBAN CONTINUUM CODES (RUCCs)

An alternative to the RBIC’s regulatory definition of “rural” is the Rural–Urban Continuum Code (RUCC), which is a nine-level scale developed in the 1970s by USDA’s Economic Research Service (ERS). The RUCCs maintain key county classifications that measure rurality and assess economic and social diversity of rural America beyond the metropolitan/nonmetropolitan dichotomy. They distinguish metropolitan (metro) counties by the population size of their metro area, and nonmetropolitan (nonmetro) counties by degree of urbanization and adjacency to metro areas. The “adjacency” consideration uses such factors as commuting time and density patterns relative to nearby areas to capture the nature of urban “bedroom communities” that are only transitionally rural.

To create the RUCCs, all U.S. counties and county equivalents are first grouped according to their official metro-nonmetro status, as defined by the Office of

Management and Budget (OMB) in February 2013. For the RUCC determination, the metro counties are then divided into three categories according to the total population size of the metro, as Figure 2 shows: 1 million people or more, 250,000 to 1 million people, and below 250,000.

Figure 2



As shown in Figure 2, RUCCs grade every county on a scale of 1–9 for “rurality” (green indicating the least rural and dark red indicating the most rural). The higher the scale level, the smaller the population density, the fewer the number of commuters, and the less likely for the county to be “adjacent” to a “metro” area.¹

The benefits of using RUCCs for SBIC’s market gap study include:

- **Available at the county level:** Data for a market gap study is available at the county level. We identified 1,985 counties that have a population size of fewer than 250,000. This definition provided us with a common geographic denominator (i.e., county level) to enable the layering of “supply” and “demand” of investment capital variables.
- **Informative for level of “rurality”:** The levels of rurality can be determined using the RUCCs, particularly when evaluating the target market for SBIC investments.

¹ The methodology for computing RUCCs is described at <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>, as of March 5, 2020.

As with any single definition, there are limitations created by the use of the RUCC concept:

- **County boundaries do not always align with other geographic boundaries.** Some datasets denote locations by city or town only, or census tract, or Native American reservation, or a program-specific boundary. To the extent SBA targets rural areas based on populations such as 50,000 to 150,000 people, estimates will have to be introduced to account for boundaries that may cross county lines.
- **Population densities will be less obvious in the data.** County areas vary, so the effects of density will have to be considered; the RUCC measure was designed to give more weight to distance and economic isolation than density.

We recognize that the RUCCs can be unwieldy, but our proposed approach of identifying areas with population of fewer than 250,000 can be helpful in capturing the desired level of rurality. We also recognize that the economic characteristics of rural areas vary, as do the economic challenges they face; a single-digit definition of rural may need further characterization.

SECTION 3 – DEFINITION OF “STUDY TARGET MARKET”

The Statutory and Regulatory Definition of Eligible SBIC Investments

As described in 13 CFR 121.301(c)(1), SBICs may invest in small businesses that are eligible under designated NAICS codes and under the SBIC program’s alternative size standard (13 CFR 121.301(c)(2)). The NAICS codes’ size standards are expressed either in the number of employees or annual receipts in millions of dollars (13 CFR 121.201). The SBIC program’s alternative size standard is “tangible net worth not in excess of \$19.5 million, and average net income after Federal income taxes (excluding any carry-over losses) for the preceding two completed fiscal years not in excess of \$6.5 million.”

Moreover, SBICs are required to invest 25 percent of their capital in “smaller enterprises,” which either (1) are a NAICS code-eligible small business or (2) have a tangible net worth of \$6 million and average after tax income of \$2 million.

Study Target Market for the Environmental Scan

Derived from guidance received from the SBA, the target market for this study was defined using the criteria shown in Figure 3 below. The purpose of defining the “study target market” in this manner was to facilitate evaluation of datasets based on companies that are more likely to be profiled.

Figure 3

Criteria	SBIC Relevancy Common SBIC Investment Focus
Revenues	Small businesses with revenues of at least \$5 million, located in rural areas.
Investment Type	Mezzanine, between pure equity and debt levels.
Stage	Mature cash-flowing (post-startup, pre-initial public offering (IPO)).
Investor Type	Institutional Investor (e.g., not a business owner’s paid-in-capital or retained earnings).
Use of Funds	For growth or expansion (no real estate or physical asset speculation) For federally permitted uses only.
Industry	Manufacturing, IT, corporate services, and other NAICS codes traditionally targeted by SBICs (e.g., farms and small retail are not included).

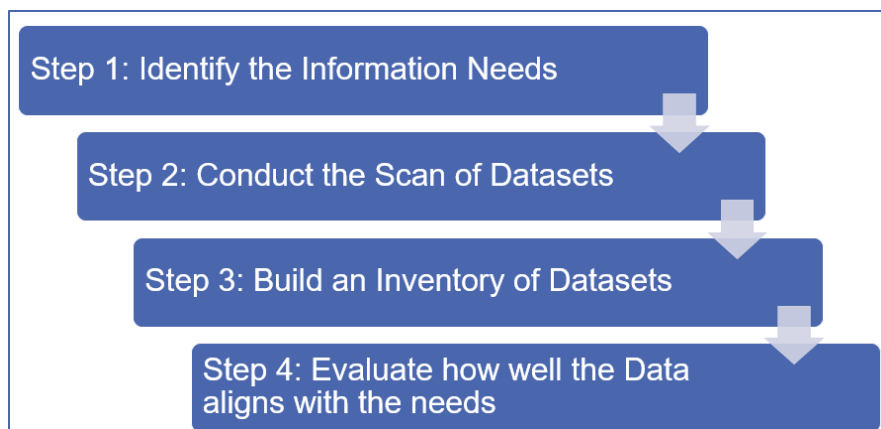
It is important to understand that narrowing the focus to a “study target market” in no way suggests that SBA is narrowing its definition of eligible investments for SBICs. The focus on primary institutional investment targets is meant to avoid overestimating the true size of the market. Note that SBICs are still required to invest at least 25 percent of their funds in “smaller enterprises.”

SECTION 4 – ENVIRONMENTAL SCAN

For the environmental scan, SBA specified five research questions that are included in this section along with a discussion of our findings for each.

Using the “study target market” criteria discussed in Figure 3, we designed a four-step process for conducting the environmental scan and addressing the five research questions. The four-step process is shown in Figure 4 and described in detail below.

Figure 4



Step 1: Identify the Information Needs. This first step involved identifying and establishing the information needs from the datasets that would be explored in our environmental scan. This was important to identify upfront as it allowed for a uniform approach in our scanning process. The series of data fields that we sought from each dataset included the following variables:

- Type of data collector (nonprofit, Government, commercial).
- Geographic unit indicator (county, ZIP Code, etc.).
- Time periodicity (annual, monthly, etc.).
- Any underlying information for identifying “supply” or “demand” of investment capital
- If investment type is disclosed (debt, equity, etc.).
- Use of funds (acquisition, working capital, etc.).
- Industry type (NAICS or SIC code).
- Method of data collection (survey, interviews, anecdotal, etc.).

Step 2: Conduct the Scan of Datasets. Once we identified the information needs, we conducted a scan of the data. We categorized the dataset producers into seven sources.

Figure 5

#	Data Source	Summary of findings
1	<p>Federal Government (Outside of SBA).</p> <p>We started with lists of agencies and their datasets on Data.gov, including the U.S. Census Bureau, U.S. Bureau of Labor Statistics (BLS), Bureau of Economic Analysis, Federal Reserve Board (FRB), etc., and expanded into Google searches on “*.gov”.</p>	<ul style="list-style-type: none"> • We found 9 agencies with 29 datasets that provide data useful in the small business investment metrics. • We found several indicators for estimating “demand of capital,” such as “number of existing businesses” or “aggregated revenue.” However, there is direct tradeoff in collection frequency and geographic specificity. Sources that are updated monthly generally provide the less geographic granularity than annually updated reports.
2	<p>State and Local Government.</p> <p>We went through lists of State economic authorities but found that only the largest States (see Appendix A) had public datasets, and none had comprehensive small business investment datasets.</p>	<ul style="list-style-type: none"> • Some States publish aggregated county-level data on an annual basis, but such data generally are duplicated in Federal sources. About a quarter of States publish such aggregated data; none that we found had sufficient investment characteristic data to add value to Federal and private data sources. • Many States publish specialized studies of interest to their economies (along the lines of “Export Activity in State X”); these studies contain suggestive or anecdotal information
3	<p>Academic Literature.</p> <p>We searched on JSTOR, Google Scholar, EBSCO, and other hosts for academic literature. The main dataset search method could be described as “follow the footnotes,” where each footnote and bibliography in an article were reviewed to see if they cited a specialized database that might be of use.</p>	<ul style="list-style-type: none"> • In general, we found that academic articles either referred to the large, well-known Government datasets (e.g., Census, BLS) or employed small surveys of limited statistical value.
4	<p>Commercial Datasets.</p> <p>We found that most commercial datasets are hosted behind a paywall. We only had temporary access.</p>	<ul style="list-style-type: none"> • Data are only collected on a voluntary basis; many business investments are not reported. • Even where companies report investments, there are high levels of missing values in data fields related to revenues, use of funds, and the terms and conditions of the investments.

#	Data Source	Summary of findings
5	<p>Trade Groups/Professional Associations. We focused on directory entries for entities involved in private equity capital, small business, and rural development.</p>	<ul style="list-style-type: none"> • Most of the trade group datasets are either aggregated or statistically constrained. The published data are generally at the State level. • It is unclear how much nonpublic data the groups may possess or are willing to share with SBA. • Reports and analysis are also heavily reliant on voluntary or limited population surveys rather than comprehensive sweeps of all industry activity.
6	<p>Private Research Institutes. This includes quasi-academic sources of data such as think tanks, university-related research institutes, and research-oriented consulting firms that publish reports. These groups included the Pepperdine Center for Small Business Investment and the Urban Institute.</p>	<ul style="list-style-type: none"> • We found that their reports generally contain extensive bibliographies and footnotes that we utilized to point to possible datasets. • For the most part, they do not publish raw datasets but rely on third-party data sources to create secondary-source analytics tables, charts, and analysis.
7	<p>SBA SBIC Program Data. SBA program data comprises the SBIC database, which includes information self-reported by SBICs on SBA Form 1031, Portfolio Financing Report.</p>	<ul style="list-style-type: none"> • SBA program data are useful for identifying the supply of investment capital to businesses located in rural areas, but they are limited only to the SBIC program. • Utilizing any part of this dataset for analyses by anyone outside of SBA would be problematic, as it would need to be assembled and formatted appropriately to protect against disclosure of proprietary and sensitive financial information and personally identifiable information.

Step 3. Build an Inventory of Datasets. Once we identified the various dataset sources, we established a Microsoft Excel-based database capturing the relevant characteristics for each dataset that would enable a comparison and ranking of the various sources. Appendix A contains the result of this effort.

Step 4. Evaluate How Well the Data Align With the Needs. By “needs of the research questions,” we focused on two factors: (1) the ability to geographically distinguish rural from urban investments in the data, and (2) the statistical strength of the analysis possible with a given dataset. We encountered a number of challenges when identifying and evaluating the datasets against the needs, including:

- **Lack of data necessary to filter for submarkets.** We found that the candidate datasets were limited when trying to filter for the “study target market.”
- **Recency.** We found that potential academic articles of interest were dated in their use of data and therefore are no longer relevant to the current private equity environment.

- **Geographic ambiguities.** Some datasets with company address fields may show an establishment’s headquarters address that may be different from the establishment’s operational address. Similarly, there are ambiguities for investments in subsidiaries and affiliates in multiple locations.

FINDINGS OF ENVIRONMENTAL SCAN

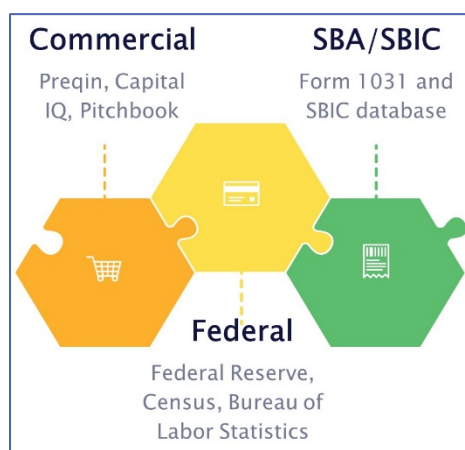
RESEARCH QUESTION #1

1.1 The environmental scan should provide geographic detail about where such investment capital is and is not being invested in the United States.

1.1a Data on “is invested” are available. By joining the datasets from commercial, Federal, and SBA sources, it is possible to address where the investment capital is being invested, as shown in Figure 6. Commercial datasets provide investment information at the company level. These datasets are targeted to institutional investors and reflect the data that industry participants are willing to share voluntarily. As discussed in Figure 5, the voluntary nature of the data does put limitations on the datasets.

A cursory review of these data reveals that the number of investments in small businesses located in rural areas is not large. We found that investments sought by institutional private equity managers are typically clustered in a handful of high-tech urban areas; according to one study, 70 percent of private equity investments to small businesses are made in five metropolitan areas (San Francisco, CA; San Jose, CA; New York, NY; Boston, MA; and Los Angeles, CA).² The commercial datasets list institutional private equity in fewer than 1,000 companies in rural counties. We found that these datasets reflect transaction-oriented information such as date and amount of investment, associated industry, and company headquarters address. The specific terms and conditions of the investment, such as use of funds, exit strategy, and ownership interest, are typically not disclosed in commercial datasets.

Figure 6



² Source: “Venture Capital Remains Highly Concentrated in Just a Few Cities”, CityLab, Martin Prosperity Institute, 2017, <https://www.citylab.com/life/2017/10/venture-capital-concentration/539775/>. Quote from article: “Today, just the top five metros—San Francisco, San Jose, New York, Boston and LA—account for more than 70 percent of venture capital investment across the United States.”

The Federal datasets from sources such as U.S. Census Bureau (County Business Patterns (CBP) and BLS Business Employment Dynamics provide aggregated data on investment capital. Generally, the data are available at the county level for quarterly and annual data series and sometimes at a more detailed level for infrequent data series. However, these datasets do not disaggregate information at the company level. In fact, any geographic data that might uniquely identify a company is obscured based on, among other things, Privacy Act concerns. Other datasets from industry associations and academic literature similarly focus on aggregated data. Presumably, access to their raw data sources might yield location data, such as establishment's addresses. From there one might be able to match street addresses to ZIP Codes and aggregate them to other geographic units. For purposes of this environmental scan, we assumed that "available data" do not include nonpublic, proprietary collections that would require negotiating rights and additional data manipulation.

Finally, we found that SBA's internal database of SBIC investments can support an analysis of the SBIC components of the private equity market. At least for the past several years, there appears to be sufficient transactional data and geographic detail.

1.1b Data on "is not invested" are not available. We found that it is not directly possible to create a dataset of investments that were not made. Most investment "rejections" are not formal decisions, but rather the application of investment criteria to lists of potential candidates. An SBIC may, for example, undertake a search for companies that meet a series of criteria regarding industry, cashflow, and business model. If only three companies are identified as meeting that criteria, that implies that every other company in the country was "rejected."

It may be possible to develop rough estimates of qualification rates by collecting data on the number of eligible businesses in a geographic area and comparing them to the number of investments made in that area. For instance, CBP can be used to identify a list of small businesses at the county level, which can then be compared to investments data using the commercial data sources. However, this estimation is theoretical, and it may be different from economic "demand" for investment capital. It is possible that many of the small businesses that appear on the CBP list may not be looking for private equity capital or may not be suitable for private equity investments.

Another possible estimation method might be quantifying the trends in committed but uninvested funds. This approach would itself be limited by the investment criteria imposed by both investors and small businesses. In any event, proving a negative can be difficult, regardless of the data available.

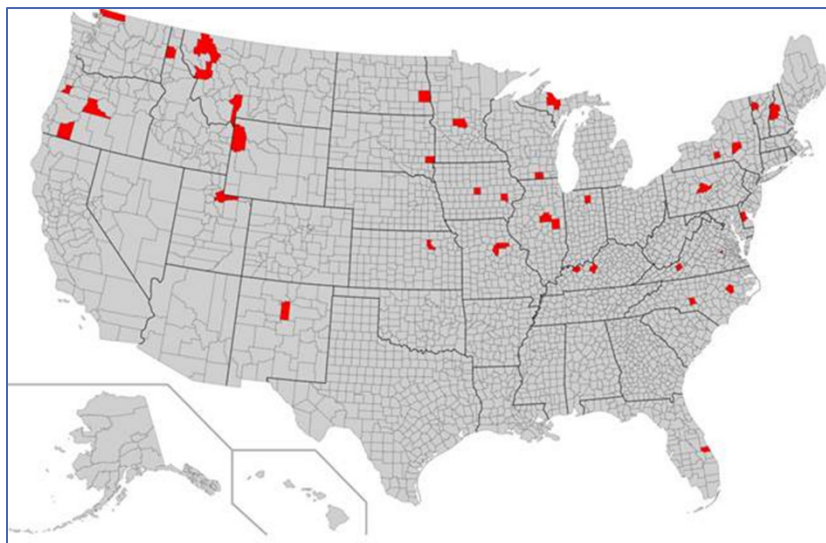
1.1c Tradeoff between desired geographic granularity and comprehensiveness. We found that in general, investment data are less available for small geographies. For example, market information is collected and aggregated at the State level and is typically not available at the ZIP Code level. Given this tradeoff, we found that the county level served to be the optimal geographic area for balancing geographic granularity with breadth of information coverage while distinguishing between rural and urban areas.

RESEARCH QUESTION #2

1.2 The environmental scan should highlight rural versus non-rural investment activity.

1.2a Data on rural investment activity are available. Using commercial data sources, we found it is possible to highlight rural investment activity. For example, we used Prequin to identify a list of investments made in approximately 2,000 rural counties (as defined under Section 2 of this report). Similar data can be obtained from other commercial datasets, but there are limitations in using this voluntarily reported data. For instance, geolocation fields may be capturing a company's headquarters mailing address, which may be different from the company's establishment address.³ Company data such as revenue, cashflow, and number of employees are missing from the time of investment. In general, geolocation information for specific investment transactions is available, but the number of rural investments is too sparse. As illustrated in Figure 7, this dataset identified 40 rural counties (using the RUCC definition) where investments took place when using the "subject target market" criteria. Specifically, this search identified investments in small businesses with annual revenues greater than \$5 million that took place between 2010 and 2018. The universe of eligible companies targeted by the SBIC program is much larger, but this exercise illustrates that this particular dataset would identify a relatively small investment population in rural areas.

Figure 7



An additional data source for rural investment activity is SBA internal data (SBA Form 1031, which provides information on an SBIC's portfolio investments.). The SBA data source is more comprehensive as it identifies the business address, use of funds, and investment terms and conditions, but it would require addressing any missing values in the data as well as aggregation to be used for such an analysis.

³ The establishment address is typically the site of the factory or worksite employing most of the workforce.

1.2b Investment activity in rural areas is sparse. Private equity investment across the United States is predominantly clustered around urban areas. The cost of time related to transportation has a significant impact on attracting investors, whether inside or outside a metro area. Higher population centers also naturally offer greater access to a skilled workforce to support small business growth that leads to potential for investment opportunities. By extension, those skilled workers may be commuting from rural areas, where fewer opportunities for quality jobs with specific skill sets exist. Another reason why small business private equity investment in rural areas is sparse is a predominance of agriculture-related businesses that largely support rural farming communities. Investment opportunities exist in rural areas, but they are generally less attractive to a typical investor the further they are from an urban center.

RESEARCH QUESTION #3

1.3 The environmental scan should provide changes in private equity investment by geography over time.

1.3a Longitudinal data on private equity investments are minimal. SBA data along with commercial datasets can be analyzed at the company level, such that a longitudinal series can be constructed. However, the sample sizes would be small, and therefore attributing any trends to a geographic area would be difficult. We found that most of the Federal Government data sources provide a series of period-end values that are not conducive to longitudinal tracking of companies and investments. While there are statistical techniques for getting some trend use out of end-of-period series, there will be large net effects that cannot be known. We found that across all dataset types, it is not possible to decompose *reasons* for changes in investment or for denials of follow-on capital funding rounds.

1.3b Geographic granularity for longitudinal tracking is challenging. Most of the geographically detailed data about companies and investments are either annual or single point in time. The more specific the geography, the longer the time between data collections. For example, the most complete and detailed dataset is the decennial census. These types of data quality challenges suggest that estimation techniques may be the best approach for identifying investment activity over time.

RESEARCH QUESTION #4

1.4 The environmental scan should provide differences in characteristics of rural versus urban private equity investing.

1.4a Data on investment *type* are available but are nonstandard. To be useful for an investment coverage analysis, it is necessary to associate individual investments with certain characteristics, such as investment type (debt/equity/mezzanine). Most commercial datasets allow filters on “private equity” and “mezzanine” financing, but investment *type* definitions are nonstandard. Defining the continuum between equity and debt depends on complex legal structures that vary from investment to investment. The terms and details of investment instruments are hard to collect for reasons of competitiveness and privacy. SBIC internal data may be the most comprehensive source for investment *type* in rural versus urban areas.

1.4b Data on investment *characteristics* are scarce. Datasets do not provide information on terms of financing, use of funds, exit strategy, or underwriting criteria. As shown in Appendix A, datasets have varying completeness related to “characteristics” of private equity investing. Figure 8 summarizes the data available for the investment characteristics.

Figure 8

Investment Characteristics	Data Available
Industry or Product	NAICS or SIC equivalents are available. Aggregated datasets tend to use a short list of industry codes that are nonstandard but can be converted with little loss to two-digit NAICS codes.
Use of Funds	Information on use of funds is rarely available, outside of SBA’s internal database.
Terms of Financing	Information on terms of financing is rarely available, outside of SBA’s internal database. Occasionally trade associations publish charts and tables on fund usage, but geographic information is usually provided at the State level.
Exit Strategy	Information on disposition is not available. Some tables of IPOs and mergers and acquisitions activity provide aggregated information but are not useful for geographic granularity.
Underwriting Criteria	Information is rarely available and is mostly anecdotal and aggregated.
Investment Type	Data on investment type outside of generic “debt” and “equity” is nonstandard. Attempts to identify “mezzanine” debt is difficult and depends on identifying the investment tranche, as well as the underlying legal documents.

RESEARCH QUESTION #5

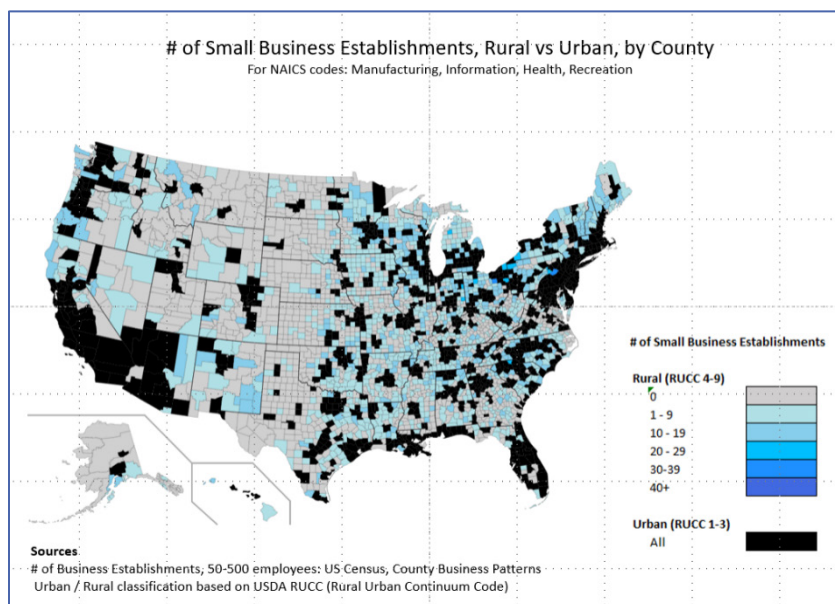
1.5 The environmental scan should provide a market opportunity analysis to identify the size of the market of mature cash-flowing businesses that would be appropriate for private equity and SBIC financing, considering the types of investments typically targeted by SBICs and private equity funds.

1.5a Data sources can identify the size of the market by “Number of Establishments.” As shown in Figure 9, Federal data sources such as the Census Bureau, Federal Reserve, and BLS can be used to identify the number of firms (that meet the industry criterion in Section 3) with greater than \$5 million in annual revenues, by geographic areas. The black-shaded counties in this map represent urban areas. Rural areas are represented in this map by blue-shaded counties and grey-shaded counties. The gradation of blue shows the number of business establishments in that rural area – the darker blue represents larger number of business establishments. Rural areas that are shaded in grey are those where the data show no establishments that meet the “study target market” criteria⁴. While these data are helpful in estimating the market size by number of business

⁴ For Figure 9 we used assumptions to reasonably estimate revenues based on employee counts, in order to determine the number of business establishments that meet the "study target market" criteria."

establishments (physical footprint), it is not necessarily reflective of the economic size (dollar impact).

Figure 9



A full-market opportunity analysis would need to go beyond the presence of companies that meet comparable size and maturity filters. It would need data on growth rates, return on investment projections, costs of investment acquisition, and other factors that affect the willingness and ability of private equity investors to enter a market.

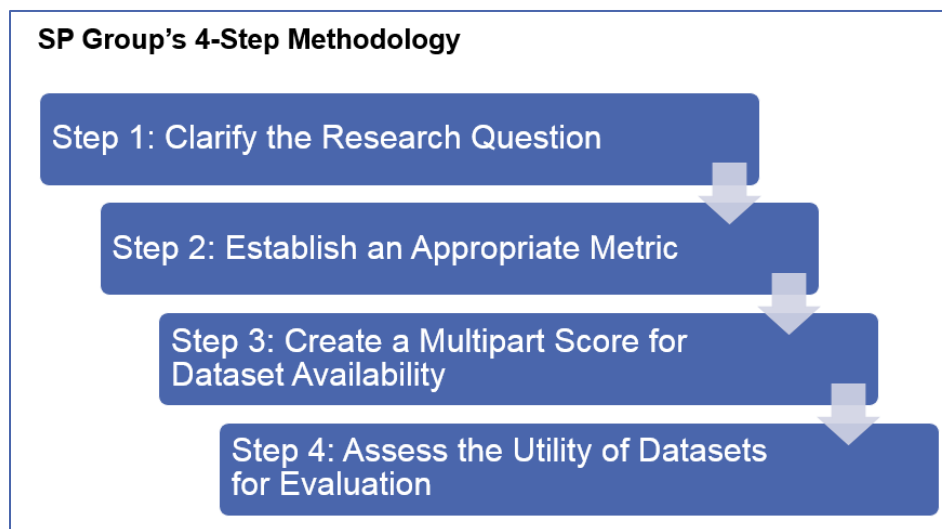
1.5b Data sources are unable to directly identify economic size of market. Data on economic size (i.e., the “demand” for capital) is a quantity that must be estimated; it is not a number that will appear directly in datasets (e.g., estimation is required for matters such as “How much money would a company take if it were offered? On what terms?”). Estimates of demand require a broader theoretical estimation method, and will be much less certain, than characteristics that can be directly measured.

SECTION 5 – EVALUABILITY ASSESSMENT

For the evaluability assessment, SBA specified three research questions that are included in this section along with a discussion of our findings for each one of them.

Once we assembled the dataset inventory (Appendix A), we followed a four-step process (Figure 10) to conduct an evaluability assessment, which involved reviewing the suitability of the datasets to address the research questions.

Figure 10



Step 1: Clarify the Research Question. This first step involved clarifying some of the critical terms embedded in the research questions. One such term is “*geographic gaps*” in private equity. For the purposes of our evaluability assessment, we defined *geographic gap* as a phenomenon when a small business in a rural county meets the “study target market” criteria and cannot receive institutional investment that it would have received if it were located in an urban county. This definition of *geographic gap* covers structural impediments of rural locations. There may be economic reasons for forgone investment (i.e., capital that a small business would have liked to receive is forgone) because it was too expensive or otherwise not feasible to accept.

Step 2. Establish an Appropriate Metric. The second step involved establishing an appropriate metric for addressing the research questions. We adopted a basic metric for measuring “investment coverage” (Figure 11). This metric describes the coverage as a ratio of capital supplied divided by capital demanded. This ratio will be between 0 and 1, with 0 being no capital supplied to an area, and 1 being 100-percent coverage of needs. This ratio can also be viewed as a yes/no answer; that is, if the capital supplied to an area is greater than one, there is no gap, but if it is less than one, there is a *geographic gap*. The components of the ratio are described below.

Figure 11



- *Equity Supplied*: This is the capital supplied by both SBA’s SBIC program, other investment programs, and institutional private equity capital. The term “supplied” captures actual investments reported as opposed to capital theoretically “offered.” A private equity investor may offer funds to an industry or geographic area, but if the terms are more stringent than is acceptable to the small business, we do not count this as capital supplied. We found that commercial datasets provide lists of investments, but these are subject to the voluntary nature of the collection methods and privacy protections that exist for information such as revenues and expansion intentions.
- *Rural Small Business Demand*: This is defined as quantity of capital demanded by eligible small businesses located in the rural areas. As discussed earlier, “demand” can have two fundamental definitions: (a) physical count of companies, and (b) economic measure of capital desired by small businesses (which is a function of costs, terms, and conditions offered by investors).

Step 3. Create a Multipart Score for Dataset Availability. To evaluate the dataset inventory in Appendix A, we created a multipart scoring methodology. We focused on two primary factors: geographical granularity and statistical robustness.

Figure 12

Score	Measure #1: Geographic Granularity Score	Score	Measure #2: Data Collection Approach Score
1	National	1	Interviews (anecdotal)
2	State	2	Non-statistical surveys
3	County	3	Statistical surveys
4	Local Boundaries	4	Regular polling
5	Zip Code	5	Commercial publisher
6	Census Tract	6	Census-style form
7	Address	7	Reports to Regulators

The first measure scored each dataset on a scale of 1-7 for geographic granularity. A score of 1 indicates that the data existed only on a national level, while a score of 7 indicates that the data can be collected down to the address level. The second measure also scored each dataset on a scale of 1–7 for statistical robustness. Datasets based on anecdotes received the lowest score (1) while datasets that involved regulatory, statistically complete data collection efforts received a score of 7. Generally, academic and trade associations received lower scores on statistical robustness than the Federal Government data sources.

Step 4. Assess the Utility of Datasets for Evaluation. Once datasets were scored, we assessed the utility of datasets for evaluation purposes. Our evaluation findings were based on both the statistical characteristics of the dataset and a subjective assessment of how well the needs of the research questions were met by the dataset.

We found that most research questions required investment coverage on two dataset types: (1) demand side and (2) supply side. Figure 13 shows the utility of datasets based on geographic granularity and statistical rigor, for demand side and supply side of investment capital.

Figure 13

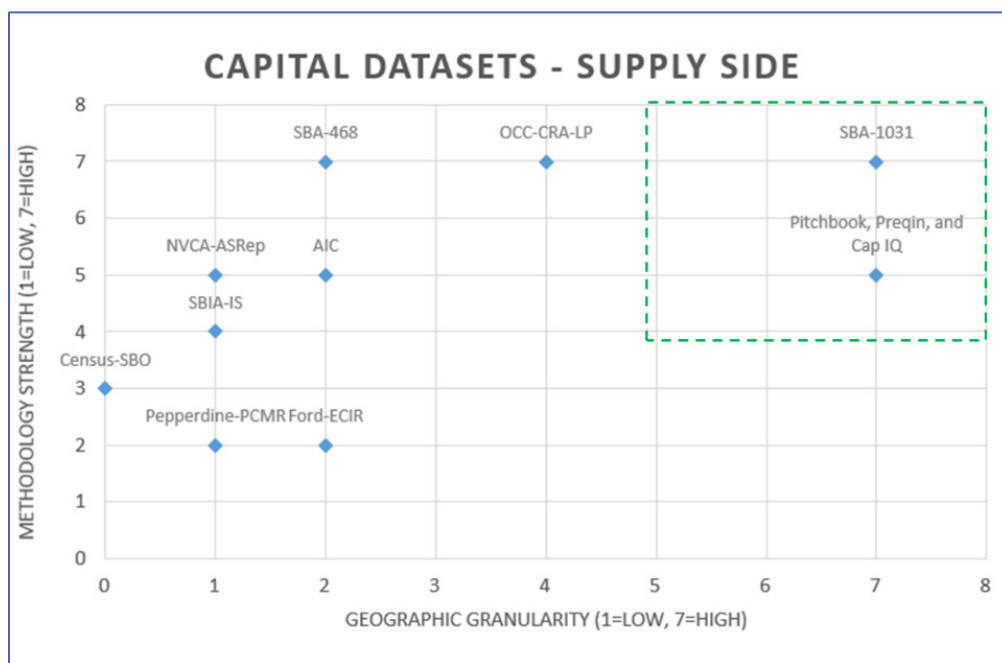
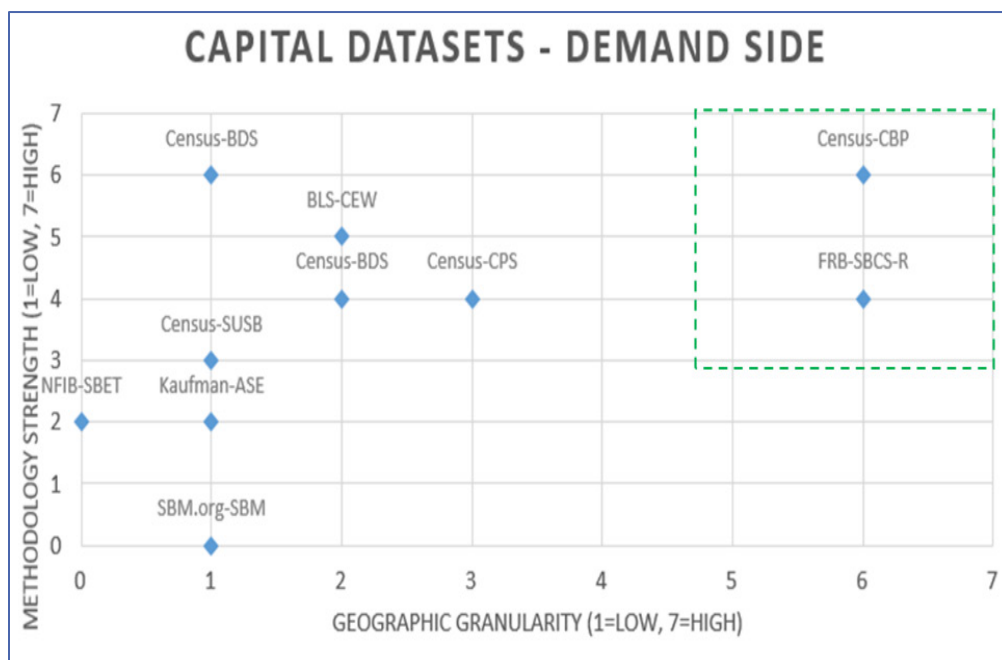


Figure 13 (cont.)



We found that datasets that ranked in the upper northeast quadrant provided the highest level of geographic granularity and statistical rigor. However, the periodicity of some of these datasets (such as census and FRB) is generally limited, making them undesirable for longitudinal tracking. Commercial data sources are more frequently updated but generally lack comprehensiveness because they rely on self-reported data.

FINDINGS OF EVALUABILITY ASSESSMENT

RESEARCH QUESTION #6

1.6 Where are the geographic gaps in private equity investing in the United States? What are the common characteristics of these locations?

This research question seeks to find where small businesses (1) want investment and (2) qualify for investment, but are not successful in getting investments because of some disadvantage of being located in a rural area (e.g., cost, transportation). The question also asks for characteristics of the gap areas.

1.6a Datasets available to assess geographic gaps. One way to determine geographic gaps would be to map the economic state of target geographies against investment data. More specifically, some datasets available can identify, at the county level, areas that are undergoing disinvestment and/or areas that are experiencing growth (i.e., number of establishments that are greater than 50 and fewer than 500 have increased). These areas can be mapped against SBIC investment data and commercial private equity investment data to identify growing counties with no investment or relatively distressed counties with investment. This analysis would be subject, of course, to any limitations created by the possibility of data missing from small businesses that decline to supply data.

1.6b No data sources exist regarding *economic* “demand” for private equity. Geographic gap implies not only an existence of qualified businesses in rural areas but also businesses that have a need for private equity capital. We did not find any data sources that provide direct estimates of *economic* “demand” for private equity capital. As noted earlier, estimates of demand require a broader theoretical estimation method and will be much less certain than characteristics that can be directly measured.

1.6c Data on location characteristics are available. We found that data on socioeconomic characteristics of various locations at the county level are readily available through various Federal datasets, as Figure 14 shows.

Figure 14

Potential Target Data Types	Data Availability
1. Demographic	Yes (Census, FRB)
2. Income	Yes (Census, FRB)
3. Economic or Industry Base	Yes (Census, BLS, FRB)
4. Business Indicators	Yes (FRB, Treasury)
5. Economic “distress”	Yes (Census)

RESEARCH QUESTION #7

1.7 Does the SBIC program fill geographic gaps in private equity investing not covered by other investors or investment programs?

This question is related to Research Question 6 but broaches an important question: To what extent does the SBIC program add to, complement, or compete with, the private equity industry?

1.7a Data exist for a subset of counties. Using the RUCCs, as previously discussed, it is possible to create a map of “rural counties with no SBIC investments” and then compare it to the “number/size of eligible businesses” in those areas (this can use either the “study target market” criteria, the full eligible population, or some other measure as appropriate to study design objectives). Furthermore, these data can be enhanced with time-series data to compare SBIC investing to commercial private equity investing data. This comparison can give clues on whether SBIC and private equity investments move together in sync or if they are countervailing, particularly in rural areas. Possible secondary data sources include commercial data. SBA’s 1031 data (over time) could also be useful for this analysis.

1.7b Interpretation of the results is limited. The fundamental question when faced with a geographic gap is, “Why?” Datasets would not answer why an investor did not make a particular investment, why a small business did not accept an investment offer, or why an SBIC was selected instead of a different source of private capital investment. Secondary data sources do not address these kind of questions, which are more appropriate for customized surveys and interviews.

A geographic gap does not always imply a need for institutional financing or Federal program. Small businesses may prefer to obtain financing from other sources than those tracked by Federal or commercial data providers. Business owners with small businesses poised for growth may also prefer to rely on retained earnings, asset-backed debt, or personal funds instead of seeking private equity capital.

RESEARCH QUESTION #8

1.8 How can the SBA better supplement investment capital to small businesses located in areas that do not have an adequate supply of investment capital?

There are many surveys and State-specific studies that may be used to suggest possible policy improvements to the SBIC program.

1.8a Improvements appear to be evaluable. We found investor survey datasets (mostly from trade groups and academia) that identify types of investor needs not being met. These datasets could possibly be used to identify policy proposals for the SBIC program.

Possible data sources include:

1. Investor survey data available through the National Venture Capital Association and Pepperdine (these surveys capture “business needs” for small businesses, but geographic level of detail is limited to the State level).
2. Federal Reserve Bank topical and regional studies could also be helpful, as they often supplement statistical releases with commentary.
3. SBIC database with 1031 dataset that can be mined to identify if there are differences in investments provided to rural vs. urban businesses.

It is important to note that each dataset has certain weaknesses that would need to be addressed if used in a subsequent market study.

1.8a Limited number of policy options. SBA has few policy options for program improvements in this area. Some of these options may be permissible under current statute, while others may require new legislation as well as congressional appropriations.

APPENDIX A – INVENTORY OF DATA SOURCES

Appendix A is a table that describes the characteristics of a dataset that was reviewed under this study. Below is the data dictionary for the columns of the table. Each row of the table describes the characteristics of a different dataset.

DATA DICTIONARY FOR APPENDIX A

#	Column Name	Description
1	ID	Sequential unique index number.
2	Sponsor	The organization that produced the dataset.
3	Sponsor type	One of seven set categories of the sponsor (Government, commercial, etc.).
4	Dataset	Name of the dataset.
5	Dataset URL	Website of the dataset.
6	Sponsor Website "D" if URL is "direct" "T" if URL is "top-level" of Sponsor website	Where possible, the URL is a direct link to the dataset. "T" is entered in the column if the URL is a "top-level" link to the sponsor's website for when the dataset is embedded in a document, or reachable only by navigating through forms, or behind a paywall, or an online address could not be found for a dataset described in a citation or reference.

Appendix A - Inventory of Data Sources

ID	Sponsor	Sponsor Type	Dataset	Dataset URL (See Note)	"T" if URL is "top-level" of Sponsor website, "D" if URL is "direct"
1	Pitchbook Data	Commercial	Pitchbook Platform - Company Data Database	https://pitchbook.com/platform-data/companies	D
2	Dun & Bradstreet	Commercial	Business-to-Business Data Reports	https://www.dnb.com/solutions/small-business.html	D
3	Dun & Bradstreet	Commercial	US Business Trends	https://www.dnb.com/perspectives/analytics/us-business-economic-trends.html	D
4	McGraw Hill / S&P	Commercial	Capital IQ Compustat	https://www.spglobal.com/marketintelligence/en/solutions/sp-capital-ig-platform	D
5	ThompsonReuters	Commercial	VentureExpert	https://www.citylab.com/life/2016/02/the-spiky-geography-of-venture-capital-in-the-us/470208/	D
6	Dow Jones	Commercial	VentureSource	https://www.dowjones.com/products/pevc/	D
7	Preqin	Commercial	Preqin Data Source Platform	https://www.preqin.com/	T
8	State of MD	State	Neighborhood Business Works	https://dhcd.maryland.gov/Business/Pages/SmallBusinesses.aspx	D
9	State of NM	State	State Investment Fund - Private Equity	https://www.sic.state.nm.us/uploads/FileLinks/c37f1f419e094c3ea5d1db24800aefeb/NM_SIC_National_Q1_2019_Performance_Update_Public_Version.pdf	D
10	Urban Institute	ThinkTank	Federal/State SB Program Duplication Report	https://www.urban.org/	T
11	Ford Foundation	ThinkTank	Equity Capital Investment in Rural US Survey	https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/report-scruggs-et-al.pdf	D
12	Kaufman Found.	ThinkTank	Annual Survey of Entrepreneurs	https://www.census.gov/programs-surveys/ase.html	D
13	Pepperdine	ThinkTank	Private Capital Markets Report	https://digitalcommons.pepperdine.edu/gsbm_pcm_pcmr/12/	D
14	Pepperdine	ThinkTank	Private Capital Access Index	https://bschool.pepperdine.edu/institutes-centers/centers/applied-research/research/pcmsurvey/	D
15	AIC	Trade Grp	American Investment Council	https://thisprivateequity.com/wp-content/uploads/2019/10/EY-AIC-PE-economic-contribution-report-10-16-2019.pdf	D
16	NVCA	Trade Grp	Annual Statistical Report (data from Pitchbook)	https://nvca.org/research/nvca-yearbook/	T
17	SBIA	Trade Grp	SBIC Investments by State	https://www.sbia.org/	T
18	SBIA	Trade Grp	BDC Investments by State	https://www.sbia.org/	T
19	SBM.org	Trade Grp	Small Business Majority survey of small bus	https://smallbusinessmajority.org/	T
20	NFIB	Trade Grp	Small Business Economic Trends	https://www.nfib.com/surveys/small-business-economic-trends/	D
21	BLS	US Gov	Local Area Unemployment Statistics	https://www.bls.gov/lau/	T
22	BLS	US Gov	Local Area Personal Income and Employment	https://www.bea.gov/data/income-saving/personal-income-county-metro-and-other-areas	D
23	BLS	US Gov	Covered Employment and Wage	https://www.bls.gov/cew/	T
24	BLS	US Gov	Quarterly Census of Employment and Wages	https://www.bls.gov/bdm/	T
25	BLS	US Gov	Business Employment Dynamics	https://www.bls.gov/bdm/	T
26	BLS/US Census	US Gov	Current Population Survey	https://www.bls.gov/cps/	T
27	FDIC / FFEIC	US Gov	Call Reports (Used by SBA OA "SB Lending in US")	https://www.fdic.gov/regulations/resources/call/calldataubr.html	D
28	Federal Reserve	US Gov	Small Business Credit Survey - Rural Employers	https://www.fedsmallbusiness.org/survey	D
29	Federal Reserve	US Gov	Small Business Credit Survey - Employer Firms	https://www.newyorkfed.org/medialibrary/media/smallbusiness/2016/SBCS-Report-EmployerFirms-2016.pdf	D
30	Federal Reserve	US Gov	Small Business Lending in the Fifth District	https://www.richmondfed.org/-/media/richmondfedorg/publications/community_development/5th_district_footprint/2016/footprint_201611.pdf	D
31	Federal Reserve	US Gov	Senior Loan Officers Opinion Survey	https://www.federalreserve.gov/data/sloos/sloos-201907.htm	D
32	HUD/US Census	US Gov	American Housing Survey	https://www.census.gov/programs-surveys/ahs.html	D
33	OCC	US Gov	CRA Lending Patterns	https://www.occ.treas.gov/topics/consumers-and-communities/cra/index-cra.html	D
34	SBA	US Gov	SBA Form 1031 Filings	https://www.sba.gov/document/sba-form-1031-portfolio-financing-report	D
35	SBA	US Gov	SBA Form 468 Filings	https://www.sba.gov/managing-business/forms/lending-forms/sba-form-468-sbic-financial-report	D
36	SBA	US Gov	Annual Report	https://www.sba.gov/document/report-agency-financial-report	D
37	US Census	US Gov	County Business Patterns / ZIP Business Patterns	https://www.census.gov/programs-surveys/cbp.html	T
38	US Census	US Gov	US Decennial Census	https://www.census.gov/programs-surveys/decennial-census/data.html	T
39	US Census	US Gov	American Community Survey	https://www.census.gov/programs-surveys/acs	T
40	US Census	US Gov	Population Estimates	https://www.census.gov/programs-surveys/popest.html	T
41	US Census	US Gov	Building Permits Survey	https://www.census.gov/construction/bps/	T
42	US Census	US Gov	Business Dynamics Statistics	https://www.census.gov/programs-surveys/bds.html	D
43	US Census	US Gov	Census Business Dynamics Statistics (BDS)	https://www.census.gov/data/datasets/bds/data/data-tables/2016-firm-and-estab-release-tables.html	D
44	US Census	US Gov	Statistics of US Businesses (SUSB)	https://www.census.gov/data/datasets/2016/econ/susb/2016-susb.html	D
45	US Census	US Gov	Survey of Business Owners	https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SBO_2012_00CSCB30&prodType=table	D
46	US Treasury	US Gov	State Small Business Credit Initiative	https://www.treasury.gov/resource-center/sb-programs/Pages/ssbci.aspx	D
47	USDA	US Gov	Atlas of Rural and Small Town America	https://data.nal.usda.gov/dataset/atlas-rural-and-small-town-america	D
48	USDA	US Gov	Rural Area Continuum Codes	https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx	D
49	USDA	US Gov	Urban Influence Codes	https://www.ers.usda.gov/data-products/urban-influence-codes.aspx	D
50	USDA	US Gov	County Typologies	https://www.ers.usda.gov/data-products/county-typology-codes/	D

Note:

Where possible, the URL is a direct link to the dataset. "T" is entered in the next column if the URL is a "top-level" link to the sponsor's website for when the dataset is embedded in a document, or reachable only by navigating through forms, or behind a paywall, or an online address could not be found for a dataset described in a citation or reference.

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