

SMALL TOWN, BIG PROMISE

Highlighting the Significance of Proper Funding for Rural Emergency Managers



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About this Report

This report is one of seven reports produced as part of a semester-long, innovative problem solving engagement between FEMA Region 8 and North Dakota State University's Emergency Management Academic Program. Each report in this series addresses a specific problem statement presented by FEMA Region 8 problem sponsors. These problem statements represent challenges that have been identified across the emergency management practice spectrum.



NDSU offered the model interdisciplinary course focused on innovative problem solving for FEMA in partnership with Daniel Green, Resilience Analyst in National Preparedness from FEMA Region 8. The goal was to bring the perspectives and insights of next generation leaders to current challenges facing emergency management practice from a federal perspective. Student teams worked with their problem sponsors and subject matter experts to understand and contextualize the problems. The data collected from interviews, coupled with an understanding of the existing literature, allowed the teams to develop and test solutions within a systems thinking framework, and offer specific insights and recommendations.


The teams approached problem solving from a research and development approach, similar to the approach used by the Pentagon's Defense Advanced Research Projects Agency (DARPA). Using a Pasteur's Quadrant perspective (a use-inspired basic research approach) allowed the teams to seek a fundamental understanding of the problems they were addressing with a focus on dynamic solutions. This approach required a grounded understanding of the problem, and the context and systems within which it exists. The solutions offered often pushed beyond existing programs and workflows.

NDSU's evaluation of this model course's development and delivery is supported, in part, by a research award from FEMA's Higher Education Program. NDSU faculty, Drs. Carol Cwiak and Caroline Hackerott, will supply the entirety of the materials used in the model course as part of the evaluation to encourage other emergency management higher education institutions to engage in similar partnerships. It is envisioned that this model course can be used with partners at all government levels and across a variety of sectors to bring new perspectives to enduring challenges.

NDSU would like to thank the FEMA Region 8 problem sponsors, as well as all the emergency management and partner agency subject matter experts who graciously shared their time, energy, expertise, and guidance. In particular, the team thanks Daniel Green, who brought this opportunity to NDSU and fueled the faculty, students, and problem sponsors with a level of vision, commitment, and enthusiasm that set the tone for the entirety of the experience.




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Executive Summary



The Small Town, Big Promise problem statement focused on understanding ways in which administrative capabilities of rural communities can be supported to make them more competitive and capable in their pursuit of federal funding focused on advancing local mitigation and resilience goals. From interviews and research, three inextricably linked elements (i.e., the nature of rural areas, emergency management practice in rural communities, and federal mitigation and resilience goals) were identified. These elements were examined independently and then from a systems perspective to help inform solutions.

It became clear that the elements are in conflict within the system, and in some instances further exacerbating risk in rural areas. Capacity and capability issues were identified as the dynamic that weaves through all the elements to create challenges. The recommendations focus on developing emergency management capacity and capability in rural areas through federal funding, educational, and support initiatives. These recommendations will help reduce the vulnerability inherent in rural areas that cannot maintain an effective emergency management program.

Problem Statement

EMGT 491/690
INNOVATIVE PROBLEM SOLVING FOR FEMA

SMALL TOWN, BIG PROMISE

CHALLENGE

FEMA Region 8 needs a way to bolster the administrative capabilities of rural communities to make them more competitive and capable in their pursuit of federal funding that could build resilience and mitigate against local hazards.

BACKGROUND

FEMA and other federal agencies have grant money available to help state and local partners prepare for and mitigate against hazards. However, the process to successfully apply for the funding can be overwhelming and inaccessible for rural areas that do not have sufficient staff or capabilities to handle the task. In addition, some FEMA funding programs may have stipulations that disqualify rural areas. This has led to inequitable distribution of pre-disaster funding.



Problem Sponsors: Suzanne Malcolm, Program Analyst; Patricia “Patti” Pudwell, Small State and Rural Advocate
Senior Leader: Stephanie Poore, Technical Hazards & Analysis Branch Chief

Introduction

The Small Town, Big Promise problem statement seeks to understand ways in which administrative capabilities of rural communities can be supported to make them more competitive and capable in their pursuit of federal funding focused on advancing local mitigation and resilience goals. This problem statement is grounded in a recognition of an endemic problem in local emergency management in rural areas — a lack of capacity and capability to fulfill the breadth of the emergency management scope of responsibility. Capacity refers to the personnel, equipment, and resources necessary to accomplish the necessary tasks; and capability refers to the knowledge and skill needed to address these tasks proficiently (Cwiak & Butterfass, 2024).

From interviews and research, the NDSU team learned that many emergency managers in rural areas in Region 8 struggle with the lack of time they have to devote to emergency management responsibilities, inadequate resources to participate in federal funding opportunities, time to filter through information that is shared by state and federal emergency management partners, and funding deficiencies. Paradoxically, while federal funding would help address the level of inundation emergency managers in rural areas are experiencing, these emergency managers are unable to develop the capabilities necessary to apply, manage, and implement grants effectively and efficiently within their current capacities. Hence, federal efforts fail as they meet the circular reality of rural areas.

This leaves rural areas behind and increasingly more vulnerable given the increase in frequency and severity of disasters. This is a problem of significance in the United States and specifically in Region 8. This region is comprised of six states and 29 federally-recognized tribes that are primarily rural. Without focused, effective strategies to enhance capacity and develop capability in these areas, federal efforts to advance mitigation and resilience are futile.

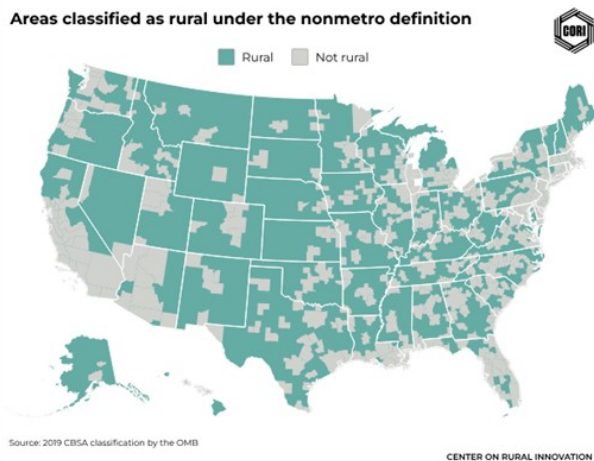
This report examines linked elements inherent in this problem to understand them in isolation and as they interact. Being able to contextualize this interaction is necessary to inform effective solutions. This process of understanding and contextualizing the problem provides insight into iterative loops that are frustrating federal efforts to provide the types of support rural areas need.

Understanding and Contextualizing the Problem

Three elements that are inextricably linked need to be understood to inform solutions to this problem: 1) the nature of rural areas; 2) emergency management practice in rural communities; and, 3) federal mitigation and resilience goals. These elements will be addressed individually to build the foundation for contextualizing the dynamic from a systems perspective. Understanding that dynamic helps to inform effective solutions.

The Nature of Rural Areas

Rural areas are defined differently by federal and state agencies, but the Office of Management and Budget's definition of "nonmetro" is the definition utilized by the Center on Rural Innovation (2022) and is viewed as being best aligned with emergency management practice (Cwiak & Butterfass, 2024), and is used here for those reasons. The rural population based on the nonmetro definition encompasses approximately 46 million people. As can be seen on the map (Center on Rural Innovation, 2022) that distribution is spread across the United States, but is dramatically represented in Region 8 where the vast majority of the areas are designated as rural. This primarily rural identity is a defining feature for engagement on all levels in Region 8.



The challenges facing rural areas are well-documented in government, organizational, and academic literature. These challenges range from geographic characteristics (i.e., remoteness, access challenges) to individual and community demographics (i.e., lower income households, a higher percentage of elderly and disabled residents, agricultural and livestock concerns, declining populations, economies that are less diversified and robust, lack of health care and government services infrastructure, etc.), and in combination greatly enhance the vulnerability of these areas (Cwiak & Butterfass, 2024). The nature of these rural areas — fewer people with fewer resources to meet the needs of distributed populations with varying levels of vulnerability — has focused attention on the measurement of capacity.

Headwaters Economics created the Rural Capacity Index to illustrate the limited capacity that exists in these rural areas. "The Index is based on 12 variables that can function as proxies for community capacity. The variables incorporate metrics related

capacity, economic opportunity, and education and engagement” (Headwaters Economic, 2024).

As can be seen in the capacity table below, the Midwest and West, where Region 8 states and tribes are located, have the lowest capacity across the community, county subdivision, and county level (Headwaters Economics, 2024). Capacity as measured in this table is defined as the staffing, resources, and expertise, particularly as it related to pursuing federal funding, meeting reporting requirements, and the design, development, and maintenance of funded projects (Headwaters Economics, 2024).

	Communities with Low Capacity	County Subdivisions with Low Capacity	Counties with Low Capacity
Midwest	72% (4,090)	75% (7,566)	65% (411)
West	58% (1,607)	44% (442)	60% (168)
Gulf Coast	56% (2,364)	51% (1,312)	57% (305)
Southeast	52% (2,120)	45% (1,815)	51% (358)
Great Lakes	46% (2,810)	44% (4,658)	35% (184)
Pacific Coast	44% (1,365)	24% (223)	43% (72)
Northeast	25% (1,353)	26% (1,593)	17% (43)

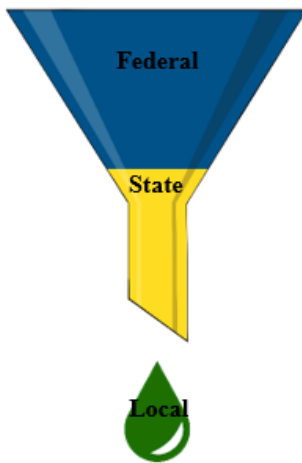
Rural Capacity

This capacity measurement varies from the definition used by the NDSU team in that it includes expertise, which is viewed as capability in this report’s capacity and capability framing. In that sense, this table captures both low capacity and capability. These measurements illustrate two things: first, the reality of rural areas; and second, the extent of the challenge faced in rural areas across the United States. This report is specifically focused on the states and tribal lands in Region 8, but it is noted that across the country, rural areas are likewise challenged, and the findings in this effort are quite likely applicable to other areas.

Emergency Management Practice in Rural Communities

As established above, capacity and capability in rural areas is low. As a result, rural areas have “fewer dedicated government positions, equipment, and resources to rely on for their whole of government effort” (Cwiak & Butterfass). The emergency management function in rural areas is commonly not a full-time position solely dedicated to emergency management efforts. Instead, emergency managers in rural areas typically wear many hats and are tasked with duties from a number of positions cobbled together to arrive at one full-time position (Cwiak & Butterfass, 2024). Jurisdictions without requisite funding needed to support essential services, particularly emergency

management services, are in harm's way. "The local level emergency management practitioner handles all the emergency management duties and responsibilities across the spectrum of practice and is expected to have both the capacity and necessary capabilities to perform these duties" (Cwiak & Butterfass, 2024). These duties include: establishing and maintaining partnerships; plan writing and maintenance; training; exercise development and facilitation; program documentation and reports; response operations; recovery efforts; local leadership engagement; grant writing and management; stakeholder collaboration; public outreach and education; policy development and compliance; resource management; fiscal reporting; public information; continuity of government and operations; state level engagement; federal level engagement; and continuing education (Cwiak & Butterfass, 2024).



This is in stark contrast to state and federal capacity and capability. Capacity and capability at these levels are managed by assignment of specific responsibility areas; these areas are segmented based on the size of the entity and add positions as needed. The capacity disparity, like the filling of the funnel image shown here, illustrates "the disproportionate quantity of material, engagements, and expectations delivered to a one-person emergency management office that lacks the capacity to develop further capabilities" (Cwiak & Butterfass, 2024; Hast, 2015). This capacity disparity is magnified in rural areas where a county or tribal emergency management office has a half-time or full-time emergency manager. The amount of work entailed in the local scope of practice is simply not feasible with the current capacity that exists.

Further, emergency management jobs that have non-emergency management duties included in the position to get to a full-time position, or that are full-time emergency management positions but have low pay, are rarely going to be filled with individuals who have experience or a college degree in the field. Filling positions with individuals who lack emergency management experience or education is a perilous decision. Learning on the job, when your job is disasters and residents' lives, livelihoods, and quality of life are at stake, is not ideal for the community or the inexperienced emergency manager.

Rural emergency management offices also face equipment limitations (i.e., lack of interoperable communications, inadequate community warning systems, and limited items to support a basic Emergency Operations Center); and resource limitations (i.e., administrative support, and planning or grant writing assistance) (Cwiak & Butterfass, 2024). In addition, the distribution of population in rural areas requires a greater travel time commitment for emergency managers and partners and makes public outreach, training, exercises, and other engagements. The extent of geographic distribution also potentially impacts response time, trauma-level healthcare access, designation of easily accessible service sites in recovery, and broadband access (Cwiak & Butterfass, 2024; Legal Aid Disaster Resource Center, 2023; Valentín-Sívico, et al., 2023).

The nature of rural areas changes the construct of emergency management practice (Cwiak & Butterfass, 2024; Helpap, 2023; Kearley, Hill & Perkins, 2023). This is important because it shapes expectations and needs (to include training, funding, and

the same as their urban counterparts. To do so would further disenfranchise these rural areas' ability to create and sustain emergency management programs that meet local, state, and federal goals to promote effective practice and advance key risk reduction efforts.

Federal Mitigation and Resilience Goals

The federal government, in particular, FEMA, has dedicated a tremendous amount of investment, via personnel time, funding, and organizational capital, into facilitating the advancement of mitigation and resilience goals across the United States. Efforts have been undertaken to enable and empower mitigation efforts that contribute to community resilience. These efforts can be seen in: products that shift the collective emergency mindset (i.e., FEMA training courses, documents, funded research, etc.); agency focus (i.e., 2022-2026 FEMA Strategic Plan); and funding initiatives focused specifically on mitigation and resilience (i.e., Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities (BRIC), Safeguarding Tomorrow Revolving Loan Fund Program) (FEMA, 2024).

The furtherance of mitigation and resilience efforts at the local level, particularly in rural areas that lack depth in governmental and other services, is essential to FEMA's mission to help create a prepared nation. These efforts are falling flat in rural areas where emergency management capacity and capability deficiencies are present (Cwiak & Butterfass, 2024). This places millions of Americans at potentially greater risk for injury, loss of property, and other devastating social, physical, mental, and economic impacts; it also increases the likelihood that state and federal expenditures will be higher in the aftermath of a disaster. As is well-understood from the literature on mitigation, potential cost savings involved in mitigation are typically \$6 saved in disaster costs for every dollar spent (Abramovitz, 2001; FEMA, 2018). This makes federally funded mitigation efforts, more than just an important effort to reduce or eliminate risk; it makes them sound federal fiscal policy.

Discussion and Recommendations

In examining the nature of rural areas, emergency management practice in rural communities, and federal mitigation and resilience goals as they interact from a systems perspective, it is clear that these elements are in conflict, and in some instances further exacerbating risk in rural areas. The dynamic that is most clearly creating challenges is the capacity and capability issue that weaves through the nature of rural communities, emergency management practice in rural areas, and inability to actualize federal risk reduction initiatives. This issue is where the NDSU team has focused its recommendations. It is the team's belief that successfully addressing this can fundamentally change the level of vulnerability rural areas face, reduce disaster costs, and enhance resilience.

The recommendations are couched under two headings—capacity and capability. There are some instances where the development of these two areas individually may have crossover benefits to the other area. However, they are addressed individually to further emphasize the differences between them and the importance of conscientiously developing both.

Addressing Capacity

Capacity, as noted previously, is focused on the personnel, equipment, and resources “needed to meet the level of capability required to accomplish the necessary tasks within the breadth of the emergency management scope of responsibility” (Cwiak & Butterfass, 2024). This includes not only the emergency management workforce, but also the requisite equipment needed to perform emergency management tasks (i.e., mass communication systems; incident management software; warning systems; EOC technology needs; etc.) and resources that are necessary to complete these tasks effectively in a time-efficient manner (i.e., administrative assistance, materials and supplies necessary for operations, public outreach, and planning efforts; etc.). It is not enough to just create a position that is paid a wage comparable to national standards, the position must be supported by the basic infrastructure needed to do the job effectively.



The Emergency Management Performance Grant (EMPG) provides funds for emergency practice at the state, local, tribal, and territorial (SLTT) levels. This funding is distributed differently from jurisdiction to jurisdiction regarding the share that is distributed to local emergency management offices, and it sometimes comes with strings (i.e., specific performance requirements) (Cwiak & Butterfass, 2024; Gerber-Chavez, et al., 2023). EMPG funds that make it to the local level are not sufficient to fund a full-time emergency management position. Typically, the funds are used to augment the

funding for an existing position where emergency management duties are then added to the position responsibilities. This is not the highest use for this funding.

A series of recommendations regarding EMPG funding to rural areas were recently offered in a white paper by Cwiak and Butterfass (2024). The recommendations offered in the white paper sought to expand both capacity and capability in rural areas from a FEMA-centric funding and engagement model. The NDSU team endorses the recommendations in that report associated with EMPG funding but does not believe they sufficiently address the full scope of the problem identified in this present research effort. Hence, the EMPG recommendations are offered here for the purposes of addressing, in part, basic capacity and capability enhancement in rural areas.

-Increase the funding to EMPG nationally to represent the overall need for enhanced capacity and capability at the local level of emergency management and adjust annually for inflation.

-Utilize the nonmetro rural definition to designate rural areas for the purposes of rural specific initiatives.

-Mandate 100% allocation of EMPG grant awards to areas designated as rural without any indirect deductions.

-Increase the EMPG funding equation to rural areas to a flat figure that equates with 75% of the national median wage estimate for emergency management directors (\$79,180 in 2022 per the U.S. Bureau of Labor Statistics, 2023).

-Add constraints and requirements designed to further capacity and capability development goals, to include:

-Rural areas must match the 75% EMPG funding with a 25% local match and must fill a full-time emergency management position to receive the rural EMPG funding.

-Emergency management personnel who are funded by rural EMPG funding must meet current national EMPG training expectations, plus additional requirements that include:

The completion of the National Emergency Management Basic Academy offered by the Emergency Management Professional Program within 24 months of hiring; and,

Completion of four emergency management courses annually that advance and expand the individual's capability, with one necessarily being either regionally offered or offered at EMI or CDP and the remaining being a combination of FEMA independent study coursework or SLTT level offerings. (Cwiak & Butterfass, 2024).

These recommendations focus on securing sufficient funding to support a full-time emergency management position that is paid at a rate comparable to the national standard and to ensure the hired individual has a basic understanding of emergency

management practice. In addition to these EMPG-focused recommendations, the NDSU team offers the following recommendations focused on capacity with a reminder that these investments, like mitigation expenditures, will reap benefits that far exceed their cost. While the below initiatives would be best housed within FEMA’s purview, the NDSU team recognizes there are other potential federal agencies that could either partner with FEMA on these items or fully support them within their agencies (e.g., USDA Rural Development, U.S. Department of the Interior).

- **Create a non-competitive, no-match funding initiative specific to rural areas that supplies start-up funding to emergency management offices to meet basic equipment and resource needs.**

This initiative is designed to provide emergency managers in rural areas with the other basic capacity needs that are essential to doing their job. The start-up funds can be used for any of the ways detailed in the initiative (which will necessitate a detailed list of the type of capacity items that are approved for funding). This will allow emergency managers to prioritize capacity needs based on their jurisdiction’s identity and priorities.

- **Create a competitive funding initiative, 15% local match specific to rural areas that allows emergency management offices to request additional funding for equipment and resource needs.**

This initiative is designed to provide an avenue for the federal government to support additional needs in rural areas as documented and warranted. It requires both justification and jurisdictional buy-in (the match). The intent of this initiative is to leave room for capacity enhancement that may exceed the start-up funding and the jurisdiction’s ability to fully actualize the capacity.

Addressing Capability

Capability is “the knowledge and skill required to accomplish the necessary tasks within the breadth of the emergency management scope of responsibility” (Cwiak & Butterfass). This is an area that requires capacity to advance, in that capability development takes time. The Cwiak and Butterfass recommendations shared above, while addressing capacity, included capability development through the National Emergency Management Basic Academy (NEMBA) and continuing coursework (2024). Again, the NDSU team does not feel that this recommendation addresses the full scope of the problem.

- **Create a Rural Emergency Management Training Certificate Program.**

It is not enough to send emergency managers from rural areas to the NEMBA. The rural emergency management construct is different and requires training consistent with the challenges rural emergency managers face. The development of a rural emergency management training certificate program delivered both at the Emergency Management Institute (EMI) and at the regional and state level is needed.

The certificate program could include some materials from existing EMI course work, materials from rural partnership guides (e.g., *A Guide to Supporting Engagement and Resiliency in Rural Communities*, FEMA, 2020, *Potential Challenges and Opportunities in Rural Communities*, National Academies Press, 2018), and newly developed course content. Content should provide more applicable foundation material specifically for local emergency managers in rural areas. This material can also include information about federal programs available, demystifying grant applications, rural best practices, and other salient topics.

- **Remove existing barriers to grant funding for rural communities.**


This can include everything from lowering the amount of time, effort, and complexity involved in the application process, to removing population and other designations that exclude rural areas, to lowering the required match. The removal of these barriers reduces both the capacity and capability necessary to apply. FEMA has made efforts to make the grant application process more accessible and seamless for rural areas, yet a disconnect endures based in part on enduring capacity issues that complicate grant engagement.

- **Provide support for technical assistance to rural communities.**

Technical assistance “plays a pivotal role in the success of an emergency manager, particularly in rural areas” (FEMA, 2020). Enhancing capability at the rural level does not always mean within the emergency manager. Providing support for technical assistance to rural areas creates more equitable access to opportunities. Grant opportunities that support emergency management in rural areas may come from varying agencies. Hence, it is recommended that this support be provided across federal granting agencies. A dedicated cadre of technical assistance providers should be specifically trained to assist local emergency managers in rural areas. This illustrates the federal government’s understanding of two things, 1) the rural emergency management construct is different, and 2) the level of support needed may be impacted by capacity and capability deficiencies.



Summary



Through interviews and research, the NDSU team realized that the rural emergency management practice construct exacerbates the longstanding endemic issue of lack of capacity and capability. Due to this lack of capacity of capability at the local level in rural areas, grant funding that could increase emergency management capacity is not being sought. This circular loop is making it difficult to strengthen local emergency management practice and advance federal emergency management initiatives focused on local mitigation and resilience.

The NDSU team focused its recommendations on developing capacity and capability. Part of the recommendations from the Cwiak and Butterfass white paper (2024) were incorporated, but the team felt they did not address the full scope of the problem as realized in the present research effort. Five additional recommendations were offered, two focused on enhancing capacity and three focused on enhancing capability.

These recommendations, in total, are focused on supplying local emergency managers in rural areas with the level of support required to adequately accomplish the necessary tasks within the breadth of the emergency management scope of responsibility. This will help reduce the vulnerability inherent in rural areas that cannot maintain an effective emergency management program.

References

- Abramovitz, J. N. (2001). Averting unnatural disasters. *State of the World*, 123-142.
- Center on Rural Innovation (2022, July 20). *Defining rural America: The consequences of how we count*.
- Cwiak, C., & Butterfass, M. (2024). *The point-of-failure that continues to stymie emergency management efforts at the federal level: addressing rural capacity and capability*.
- Federal Emergency Management Agency (FEMA). (2020). *A guide to supporting engagement and resiliency in rural communities*.
- Federal Emergency Management Agency (FEMA). (2023a, February 27). *Emergency management performance grant*.
- Federal Emergency Management Agency (FEMA). (2024). *Grants/mitigation*.
- Federal Emergency Management Agency (FEMA). (2018). *Natural hazard mitigation saves interim report*.
- Gerber-Chavez, L., Montano, S., Savitt, A., Corbin, T. B., & Downey, D. C. (2023, May 12). *Emergency management performance grant (EMPG) funding allocations and relevance for US disaster policy*.
- Hast, L. (2015, September 11). *Emergency management is not a part-time job*. Government Technology.
- Headwaters Economics (2024). *Rural capacity map*.
- Helpap, D. J. (2023). Assessing and addressing the challenges of rural local governments. *State and Local Government Review*, 55(4), 322-332.
- Kearley, MPH, J., Hill, RN, K., & Perkins, CPC, J. (2023). Emergency preparedness in rural communities. *National Rural Health Association*.
- Legal Aid Disaster Resource Center. (2023, April 19). *Disaster relief and recovery in rural areas*.
- National Academies Press (US). (2018, March 14). Potential challenges and opportunities in rural communities. *Achieving Rural Health Equity and Well-Being - NCBI Bookshelf*.