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# INTRODUCTION

The Office of the Superintendent of Public Instruction is charged with the responsibility of ensuring that all students in Washington State receive a high-quality education. The Office of the Superintendent of Public Instruction is committed to ensuring that all students have access to a well-rounded education that prepares them for success in college and career. The Office of the Superintendent of Public Instruction is also responsible for monitoring and evaluating the performance of schools and districts across the state.



# REPORT STRUCTURE

> The main themes emerged from 13 critical focus areas employed in the analysis. These themes include:

- The theme of family and community support.
- The theme of student engagement and motivation.
- The theme of academic achievement and success.
- The theme of career development and preparation.
- The theme of financial stability and resources.
- The theme of physical health and well-being.
- The theme of mental health and emotional well-being.
- The theme of social connections and belonging.
- The theme of personal growth and development.
- The theme of professional development and advancement.
- The theme of leadership and influence.
- The theme of innovation and creativity.
- The theme of diversity and inclusion.

From the analysis, it was found that the most prominent theme was family and community support, which was identified in all 13 critical focus areas. This theme was closely linked to student engagement and motivation, academic achievement, and career development. The theme of financial stability and resources was also a key factor in student success, particularly for low-income students. The theme of physical health and well-being was also identified as a critical factor in student success, particularly for students with disabilities or chronic illnesses. The theme of mental health and emotional well-being was also identified as a critical factor in student success, particularly for students who experienced trauma or abuse. The theme of social connections and belonging was also identified as a critical factor in student success, particularly for students from diverse backgrounds. The theme of personal growth and development was also identified as a critical factor in student success, particularly for students who were interested in pursuing higher education or professional careers. The theme of professional development and advancement was also identified as a critical factor in student success, particularly for students who were interested in pursuing careers in STEM fields. The theme of leadership and influence was also identified as a critical factor in student success, particularly for students who were interested in pursuing careers in politics or business. The theme of innovation and creativity was also identified as a critical factor in student success, particularly for students who were interested in pursuing careers in technology or arts. The theme of diversity and inclusion was also identified as a critical factor in student success, particularly for students from diverse backgrounds who were interested in pursuing careers in fields that value diversity and inclusion.

## Summary of Themes and Critical Focus Areas

The main themes and critical focus areas emerged from the analysis:

- Advising and mentoring systems are haphazard in focus and goals, and lack alignment with student needs
- Non-academic support systems focused on family and community are key for equitable STEM success, yet severely underdeveloped
- Student engagement and motivation are critical for academic achievement and success
- Career development and preparation are essential for future success and opportunities
- Financial stability and resources are fundamental for educational success and well-being
- Physical health and well-being are interconnected with academic performance and overall quality of life
- Mental health and emotional well-being are crucial for student success and resilience
- Social connections and belonging are vital for student engagement and motivation
- Personal growth and development are key factors in student success and future opportunities
- Professional development and advancement are important for career success and fulfillment
- Leadership and influence are critical for student success and future opportunities
- Innovation and creativity are essential for future success and opportunities
- Diversity and inclusion are fundamental for educational success and well-being

7. Culturally Responsive Practices (CRPs), known to enable and sustain academic interest and access for the students HSIs aim to serve, are inconsistently understood and practiced at HSIs

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9. CRPs are commonly viewed as tangential to the core academic mission

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11. Resources at Research 1 (R1) HSIs are mostly inward-facing and not purposefully shared among co-located institutions and communities

12. Extramurally funded STEM programs are underutilized by the students HSIs seek to serve

13. Retention, persistence, and success are core charges of HSIs and their faculties, not just student responsibilities

## Relevant Terms and Usage

'<sup>2</sup> th<sup>s</sup> sect<sup>¶</sup> nö e descüb<sup>e</sup> ¶uÚusage ¶%œoeñ<sup>ñ</sup> teúms & th<sup>s</sup> lëp¶ùÉH e Ùec¶lg<sup>2</sup> ¶e s¶me ¶%these teúms maø be used d¶m¶l<sup>2</sup> tØ C¶g¶m¶l<sup>2</sup> b¶l<sup>2</sup> ad¶E ¶ theÚc¶<sup>2</sup> te÷tsna<sup>2</sup> d that lëadel<sup>2</sup> maø be %m¶l<sup>2</sup> Uo th a¶el<sup>2</sup> ate deS<sup>2</sup> ¶¶<sup>2</sup> s<sup>2</sup> H e d¶<sup>2</sup> ¶t aØn t¶ pléc<sup>2</sup> se<sup>2</sup> deS<sup>2</sup> e teúms & ge<sup>2</sup> el<sup>2</sup> aØt¶l<sup>2</sup> uest¶<sup>2</sup> a¶el<sup>2</sup> ate deS<sup>2</sup> ¶¶<sup>2</sup> snbut t¶ ¶peñ<sup>2</sup> t¶ aØ<sup>2</sup> descüb<sup>e</sup> theÚusage & the c¶<sup>2</sup> te÷t ¶%the lëp¶ùt t¶ stl<sup>2</sup> am¶e lëadab¶E he<sup>2</sup> eoeÙapp¶ùp<sup>2</sup> atenö e & c¶de m¶l<sup>2</sup> spec¶c<sup>2</sup> ¶tes lëgal¶l<sup>2</sup> g c¶mm¶<sup>2</sup> a<sup>2</sup> d plése<sup>2</sup> t usenø e@as p¶te<sup>2</sup> tØC¶ teúsect<sup>2</sup> aØt ¶%teÚmsnas app¶ùp<sup>2</sup> atE

## **Advising, Mentoring, and Non-Academic Support Systems**

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## 2. Non-academic support systems focused on family and community are key for equitable STEM success yet severely underdeveloped.

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### ESTABLISH FAMILY-BASED SUPPORT SYSTEMS

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### DEVELOP COMMUNITY-BASED STEM IDENTITIES

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## STEM Academic Structure and Related Support Systems

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## Evidence Based Pedagogies

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**6. Where diverse EBPs are deployed in good numbers, scalability is behind.** Opportunities exist at the academic level to coordinate and support faculty and students in scaling up existing EBPs across disciplines and across the institution. This can be done through the development of a central clearinghouse that collects and disseminates information on successful EBPs, provides resources for implementation, and facilitates collaboration between faculty and students from different disciplines. This approach can help ensure that EBPs are adopted and scaled up in a systematic and effective manner.

## RECOMMENDATIONS

### ELEVATE KNOWLEDGE ABOUT LOCALLY AVAILABLE EBP-BASED INITIATIVES AMONG FACULTY AND STUDENTS

At the institutional level, there is a significant opportunity to elevate knowledge about locally available EBP-based initiatives among faculty and students. This can be achieved by creating a central clearinghouse that collects and disseminates information on successful EBPs across disciplines and across the institution. This clearinghouse can provide resources for implementation, facilitate collaboration between faculty and students from different disciplines, and help ensure that EBPs are adopted and scaled up in a systematic and effective manner. This approach can help ensure that EBPs are adopted and scaled up in a systematic and effective manner.

### SCALE EBPs ACROSS AND WITHIN DISCIPLINES

There are many opportunities to scale up existing EBPs across disciplines and across the institution. One way to do this is to identify successful EBPs in one discipline and work with faculty and students in other disciplines to adapt and implement them. This can be done through the development of a central clearinghouse that collects and disseminates information on successful EBPs across disciplines and across the institution. This clearinghouse can provide resources for implementation, facilitate collaboration between faculty and students from different disciplines, and help ensure that EBPs are adopted and scaled up in a systematic and effective manner. This approach can help ensure that EBPs are adopted and scaled up in a systematic and effective manner.

### DEEPEN KNOWLEDGE ABOUT SYSTEMIC IMPACT OF EBPs AT HSIs

There are many opportunities to deepen knowledge about the systemic impact of EBPs at HSIs. One way to do this is to conduct research on the effectiveness of EBPs in different contexts and settings. This can be done through the development of a central clearinghouse that collects and disseminates information on successful EBPs across disciplines and across the institution. This clearinghouse can provide resources for implementation, facilitate collaboration between faculty and students from different disciplines, and help ensure that EBPs are adopted and scaled up in a systematic and effective manner. This approach can help ensure that EBPs are adopted and scaled up in a systematic and effective manner.

That specific studies have been conducted to evaluate the impact of EBPs on student outcomes and to inform best practices for implementation. These studies have shown that EBPs can be effective in improving student outcomes, particularly for underrepresented groups. However, more research is needed to fully understand the systemic impact of EBPs across different contexts and settings.

## Equity, Diversity, and Culturally Responsive Practices

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the spectrum of competitive and non-competitive students may be divided into academic and non-academic categories. The academic category includes students who are interested in pursuing higher education and professional careers, while the non-academic category includes students who are interested in pursuing vocational training or other forms of post-secondary education.

## ESTABLISH NON-ACADEMIC CRP-BASED SUPPORT SYSTEMS FOR STEM STUDENTS

Non-academic CRPs suggest that the academic mission of the university should be expanded to include support for students in fields such as engineering, technology, and science. This would involve establishing new support systems for these students, such as dedicated academic advisors, specialized courses, and research opportunities. It would also involve providing financial aid and scholarships to students in these fields.

**9. CRPs are commonly viewed as tangential to the core academic mission.** Opponents often argue that CRPs are not essential to the academic mission of the university. They believe that the university's primary focus should be on teaching and research, and that CRPs are a distraction from these core activities. However, supporters of CRPs argue that they are integral to the university's mission and that they help to ensure that all students have access to the resources and support they need to succeed.

## RECOMMENDATIONS

### LINK CRPs TO CORE ACADEMIC MISSIONS

The absence of a clear link between CRPs and the core academic mission can lead to confusion and skepticism about their value. To address this issue, it is recommended that CRPs be clearly defined and linked to specific academic goals. For example, if a CRP aims to increase student retention rates, it should be tied to specific academic outcomes, such as improved performance in first-year courses or higher graduation rates. This will help to demonstrate the relevance and importance of CRPs to the university's overall mission.

bridge current gaps between the classroom and the real world by providing practical skills and knowledge that are relevant to students' future careers. This can be achieved through the development of interdisciplinary programs, internships, and research projects that allow students to apply what they have learned in the classroom to real-world situations. It is also important to provide students with opportunities to engage in community service and volunteer work, which can help them develop important skills and values that are not always taught in the classroom.

### SCALE CRPs WITHIN AND ACROSS INSTITUTIONS

Scaling CRPs across different institutions can be challenging, but it is essential for ensuring consistency and quality. One way to achieve this is by developing a shared set of standards and guidelines for CRPs. These standards should be based on best practices and should be regularly updated to reflect changes in the academic and professional landscape. Another approach is to establish partnerships between different institutions, such as through joint programs or shared resources. This can help to pool expertise and resources, and to create a more cohesive and supportive environment for students.

Finally, it is important to recognize that scaling CRPs requires significant resources and commitment. This may involve investing in new facilities, hiring additional staff, and providing additional funding. However, the benefits of scaling CRPs can be substantial, including improved student outcomes, increased enrollment, and enhanced reputation. By prioritizing CRPs and investing in their development, universities can help to ensure that all students have the opportunity to succeed and reach their full potential.



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## Serving Hispanic Students at HSIs

With the goal of ~~giving~~ ~~the~~ ~~best~~ ~~possible~~ ~~education~~ ~~to~~ ~~Hispanic~~ ~~students~~ ~~at~~ ~~HSIs~~, ~~the~~ ~~University~~ ~~of~~ ~~Florida~~ ~~has~~ ~~dedicated~~ ~~resources~~ ~~and~~ ~~support~~ ~~to~~ ~~them~~ ~~in~~ ~~order~~ ~~to~~ ~~improve~~ ~~their~~ ~~experience~~ ~~and~~ ~~success~~. ~~The~~ ~~University~~ ~~has~~ ~~also~~ ~~partnered~~ ~~with~~ ~~local~~ ~~Hispanic~~ ~~organizations~~ ~~and~~ ~~communities~~ ~~to~~ ~~provide~~ ~~additional~~ ~~resources~~ ~~and~~ ~~support~~ ~~for~~ ~~Hispanic~~ ~~students~~.

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# The Southwest Conference on Transforming STEM Education in Hispanic Serving Institutions

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