Native Hawaiian Education Data Systems Mapping Project

Project Report

January 2018

Submitted to:

Native Hawaiian Education Council

735 Bishop St #224

Honolulu, HI 96813

Prepared by:

McREL International

1003 Bishop Street, Suite 2200

Honolulu, HI 96813

McREL International is a nonprofit education research and development organization, established in 1966 and headquartered in Denver, Colorado, with offices in Honolulu, Hawai'i and Charleston, West Virginia. McREL has over 50 years of experience conducting research and evaluation; developing resources and tools; and providing technical assistance, professional development, and consultation. McREL also helps to build the capacity of a wide variety of stakeholders in the Pacific region to use research, data and evidence to drive educational improvement as part of their work on the Regional Educational Laboratory (REL) Pacific. McREL's strong relationships with Pacific stakeholders and partners have helped Pacific educators, leaders, and policymakers become increasingly more effective and responsive in addressing their own needs. Additionally, McREL's staff brings experience and experiences that includes work in many Pacific Island contexts. Learn more at www.mcrel.org.

The following individuals contributed to this report:

Hsiang-Yeh Ho, Ph.D.

Ashli Knotts, M.S.

Daisy Carreon, Ph.D.

Katie Gao, Ph.D.

Phillip Herman, Ph.D.

Recommended Citation: Native Hawaiian Education Council. (2018). *Native Hawaiian Education Data Systems Mapping Project* (Rep.). Honolulu: HI: Native Hawaiian Education Council.

This report was developed under a grant from the U.S. Department of Education, Office of Elementary and Secondary Education, Native Hawaiian Education Program. The contents of the report do not necessarily represent the positions or policies of the U.S. Department of Education. Neither the U.S. Department of Education nor any of its components are responsible for or officially endorse the contents of this report.

Native Hawaiian Education Data Systems Mapping Project

Executive Summary

January 2018

Established in 1994 under the Native Hawaiian Education Act, the statutory responsibilities of the Native Hawaiian Education Council are to coordinate, assess, and report and make recommendations on the effectiveness of existing education programs for Native Hawaiians, the state of present Native Hawaiian education efforts, and improvements that may be made to existing programs, policies and procedures to improve the educational attainment of Native Hawaiians.

The findings of the *Native Hawaiian Education Data Systems Mapping Project* are intended to support NHEC in its efforts to advance a research and development strategy focused on understanding how data might be better used for the benefit of families and communities.

The overarching goal of this project is to help stakeholders understand the breadth and depth of data about Native Hawaiian communities. In particular, this report presents a comprehensive inventory of databases, data systems, and data elements that may be useful in understanding the impact of Native Hawaiian education programming on individuals and communities in Hawai'i. Through the voices and recommendations of community stakeholders, this project also describes next steps that could help make data more useful for the benefit of families and communities.

Why focus on data?

The right data can be powerful in telling stories to inform practice and policy. However, routinely collecting and accessing these data is difficult. Through this project, the NHEC is working to make visible the current state of data about Native Hawaiian communities.

Project Goals

1. Provide a comprehensive resource that lists and describes data systems and data elements relating to Native Hawaiian communities' well-being.
2. Hear from stakeholders about ways in which important stories about Native Hawaiians' well-being are unable to be told given existing data and data systems.
3. Provide recommendations to NHEC for points of advocacy around data and data systems.
4. Inform NHEC's data strategy and research and development agenda.

Methods Highlights

- Defined well-being data domains as it relates to the education of Native Hawaiians.
- Identified databases and data repositories both at the state and federal levels that might include information about Native Hawaiians.
- Reviewed and mapped data elements across databases and repositories with demographic categories that include Native Hawaiians.

- Facilitated a stakeholder convening to discuss stories about Native Hawaiian communities that can or cannot be told with available data
- Conducted follow-up interviews to learn more about organizational concerns about data availability

Key Findings

This report inventoried **87** databases across **38** data systems and repositories that include information about Native Hawaiians.

In these 87 databases, **135** separate data elements were identified within eight domains of well-being.

Of the identified databases, **33%** used Native Hawaiian as a standalone ethnic identity category.

The Hawai'i Department of Education provides access to **10** sources of data that can be used for reporting on the Government Performance Results Act (GPRA) for the Native Hawaiian Education Program.

Systematic data about program implementation, such as which students participated in which programs, is particularly lacking and noted as a high priority challenge by community stakeholders.

This report identifies eight domains related to the well-being of Native Hawaiian communities:

(1) education

(2) family context and environment

(3) employment and career development

(4) physical environment and safety

(5) physical health and behaviors

(6) health care

(7) social-emotional and behavioral development

(8) community engagement and relations

Stakeholders raised the concern that without better data that cuts across these domains, the stories of NH communities will be largely told based on a few discrete data points like standardized test scores.

Data about key issues in the revitalization of 'ike Hawai'i and 'Ōlelo Hawai'i are not available. For example, demographics about Hawaiian language speakers, fluency levels, and contexts of use remain unclear.

Recommendations

Collaborate with Native Hawaiian organizations and stakeholders of Native Hawaiian data and data systems to agree on ways to increase access to available data, decrease redundancies in data collection, and take first steps toward shared data across organizations. A variety of organizations are already working to understand the available data, but often organizations work solely within their own areas of expertise. One approach could be to develop MOUs or other agreements to promote cross-organizational data collection, use, and analysis.

Support collaborative research and evaluation across different organizations serving Native Hawaiian communities that use data from multiple domains identified in this report to understand the value and impact of NH education programming. A collaborative research effort would allow stakeholders to tell more compelling and complete stories related to the well-being of Native Hawaiian communities.

Work with community stakeholders to develop shared definitions of success that could inform a research and development and policy agenda. Stakeholders voiced concerned about college enrollment and completion as the main indicators of success and argued for more Native Hawaiian community-relevant indicators of success. Defining multiple pathways toward success could help strengthen Native Hawaiian education programming by focusing efforts on pathways that individuals and communities have affirmed.

Support projects that focus on developing and generating high-quality implementation data rather than only outcome data. Native Hawaiians often participate in multiple programs simultaneously, and disentangling impacts is challenging without strong implementation data. Without better process data, it will remain unclear which programs or which program components are successful. Additionally, implementation data allows for the redesign and scale of programs to increase their impact.

Advocate for better integration of individual, family, and community data. NHEC's data strategy might address ways that stakeholders could use, connect, and analyze data at these varying levels of description to better understand how Native Hawaiian communities are faring.

Serve as a repository of information about available data relating to the well-being of Native Hawaiian communities. Building on this *Data Mapping Project*, NHEC may choose to serve as a central resource of information about data systems, data elements, and processes for accessing data, which could help increase awareness about available data. Making this information accessible in one place may be a practical way to begin to support more collaborative action across organizations focused on the well-being of Native Hawaiian communities.

Table of Contents

List of Tables

List of Figures

Native Hawaiian Education Data Systems Mapping Project

Project Report

January 2018

Introduction

The Native Hawaiian Education Data Systems Mapping Project was funded by the Native Hawaiian Education Council (NHEC) to address Phase I of NHEC's Native Hawaiian Education Data Strategy. As shown in Figure 1, Phase I of the Native Hawaiian Education Data Mapping project focuses on addressing the need to document the data on education outcomes and overall well-being of Native Hawaiians that stakeholders can currently access. The goal of the work is to assist the Council in moving forward with a multi-year agenda to more definitively understand the educational, cultural, social, and economic contexts of Native Hawaiian and families and communities.

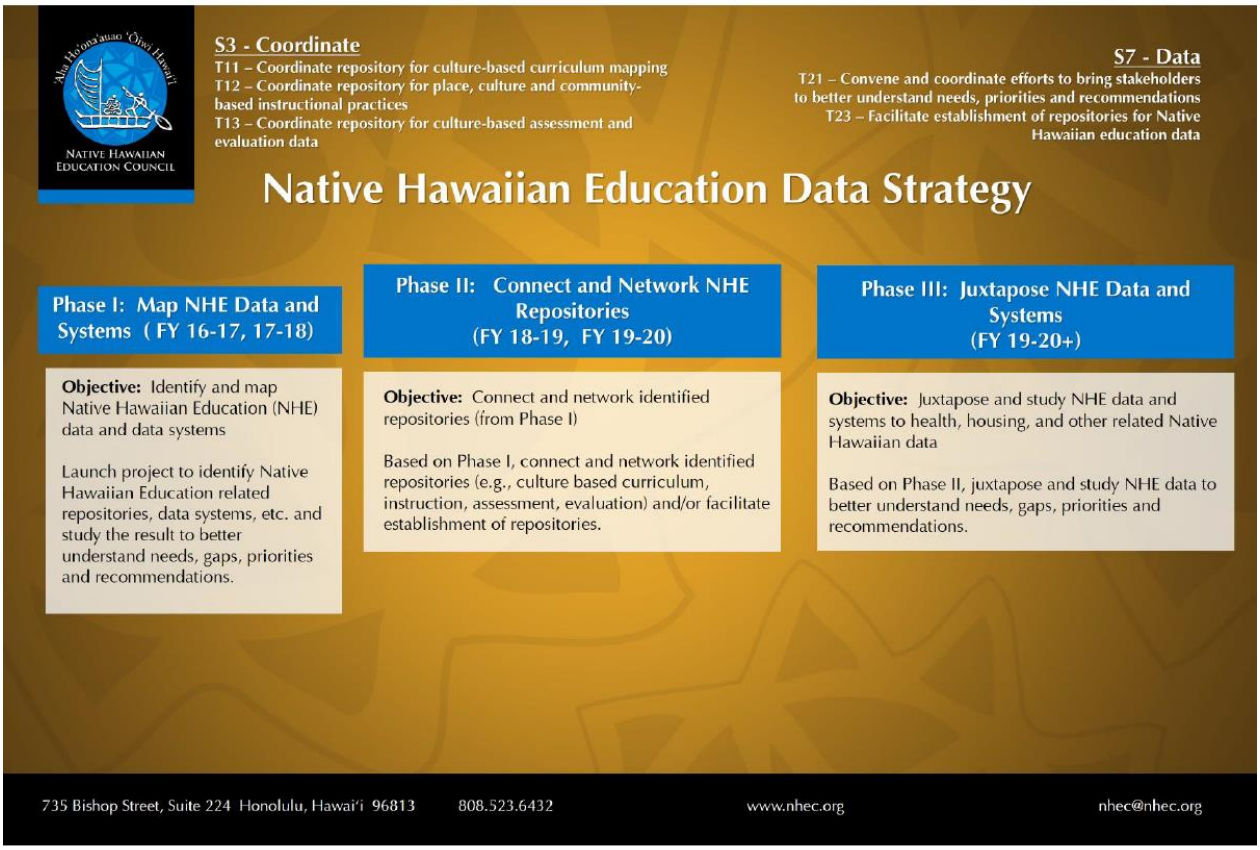

Figure 1. Native Hawaiian Education Data Strategy, provided by NHEC

McREL International (McREL) was contracted by NHEC to carry out the project. To address the goal, McREL conducted the following tasks:

Task 1: Created a comprehensive inventory of data systems and repositories that collect and/or hold data about Native Hawaiian students, family and community.

Task 2: Identified databases within the data systems and repositories that specifically provide information pertaining to the education and well-being of Native Hawaiian students, family and community.

Task 3: Mapped data elements across identified databases to understand data gaps.

Task 4: Facilitated a stakeholder convening followed by targeted interviews to understand data needs/challenges and identify opportunities for cross-system collaboration and data sharing

The inventory of data systems and repositories, and the databases within them, is intended to provide an overview of information on possible data sources that could be used to tell the stories of Native Hawaiian students, families, and the community. Most important, the mapping of databases—cross-walking common data elements across databases—will provide essential information regarding data gaps. Findings from the Stakeholder Convening and later interviews with data experts provide insights about Native Hawaiian education data systems regarding the data required to tell the stories of Native Hawaiians, and identify opportunities for cross-system collaboration and data sharing to support the goal of the Council to advance the education and well-being of Native Hawaiians.

This report is organized into three chapters. Each of these chapters is described in the bullets below:

1. Inventory and Data Mapping Methods and Processes. This chapter describes the methods and processes used to identify data systems and repositories (Task 1) and the databases within them that provide information about Native Hawaiians' education and well-being (Task 2).

2. Database Mapping Results and Findings. This chapter presents findings from the data mapping (Task 3), focusing on issues related to data availability and gaps and variety across databases. Databases that can be used to inform the Native Hawaiian Education Program's Government Performance and Results Act (NHEP's GPRA)[1] measures are also discussed along with the limitations of the database inventory.

3. Stakeholder Input. This chapter describes the findings from the Stakeholder convening on November 15, 2017, and follow-up interviews (Task 4).

4. Summary and Recommendations. This chapter provides recommendations for the Council to plan for the next step.

[1] The Government and Performance Results Act (GRPA) requires NHEP grantees to report on applicable performance measures developed by the US Department of Education.

1. Inventory and Data Mapping Methods and Processes

This chapter describes the methods and processes used to identify data systems, repositories and databases, and the mapping methods to cross-walk data elements across databases.

- A data system refers to an organization, often the sponsor or administrator of a database, that collects data (i.e., National Center for Education Statistics).
- A data repository refers to an organization that serves as a data bank to hold data that are collected by other organizations (i.e., Child Care and Early Education Connection, Data.gov).
- A database is used to refer to a set of data collected from a survey, program reporting system, or registry.
- Data gap analysis is the process of analyzing databases to determine which data elements are not available or limited.
- A domain is the classification of data.
- Data mapping involves comparing data elements across two or more different databases to determine unique and redundant data elements.

Inventory Methods and Processes

A primary goal of this project was to inventory data systems and repositories and the databases within them to provide information on a wide variety of data sources that are available to address education and well-being issues for Native Hawaiians. Time and resource limitations prevented coverage of the entire universe of data sources; therefore, this inventory is not meant to be an exhaustive listing of all data available on Native Hawaiians. Instead, it provides broad coverage of Native Hawaiian education and well-being data that are associated with education outcomes. Figure 2 provides a flow chart of the inventory processes and results.

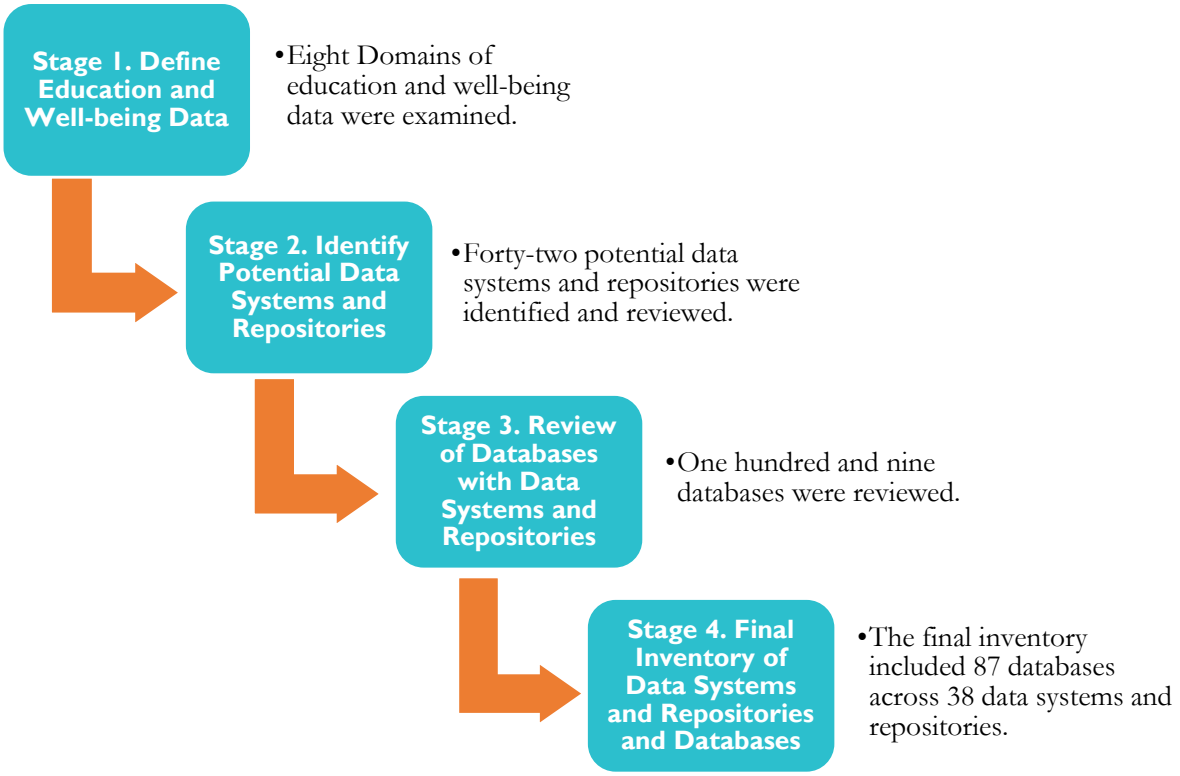

Figure 2. Flow Chart of Inventory Processes and Results

Stage 1: Define Education and Well-being Data

The primary purpose of developing an inventory of data systems and repositories and the databases within them was to understand what data are available to advance our understanding of the education and well-being of the Native Hawaiian population. Before starting the inventory process, McREL conducted a literature review to identify domains and measures of education and well-being to guide the focus and identification of data systems and data repositories.

According to the Federal Interagency Forum on Child and Family Statistics (FIFCFS), there are seven major domains that characterize the well-being of a child: (1) education (2) family and social environment, (3) economic circumstance, (4) health care, (5) physical environment and safety, (6) behavior, and (7) health (FIFCFS, 2017). Additionally, accordingly to Native Hawaiian education literature, culture-based education within school settings and community engagement and participation outside of the school context are important attributes of the education and well-being of Native Hawaiian youth and family (Kamehameha Schools, 2008; Kamehameha Schools, 2014; Kanaʻiaupuni, Ledward, & Jensen, 2010; Kanaʻiaupuni, 2007; Kanaʻiaupuni, 2011; Kanaʻiaupuni, Ledward & Keohokalole, 2011; Ledward & Hirata, 2011; Office of Hawaiian Affairs, 2017; Pacific Policy Research Center, 2011).

Guided by the literature, McREL identified eight relevant domains of well-being, including (1) education, (2) family contexts and environment, (3) employment and career development, (4) physical environment and safety, (5) physical health and behaviors, (6) health care, (7) social-

emotional and behavioral development, and (8) community engagement and relations. Because the intent of this project is to understand the types of data available to advance our understanding of Native Hawaiians, any data that are relevant to these eight domains were included in the inventory and review process.

Stage 2: Identify Potential Data Systems and Repositories

During Stage 2, McREL explored a list of potential resources to identify appropriate data systems and repositories that may collect relevant data across the eight domains of education and well-being, as identified during Stage 1. The list included:

- Websites of data systems and repositories identified in NHEC's Request for Proposals, which include Civil Rights Data Collection, Hawaii Department of Business, Development and Tourism, Hawaii Health Data Warehouse, Juvenile Information Center, National Center for Education Statistics, U.S. Department of Education (ED), U.S. Census Bureau, and Data.gov.
- Websites of all Federal departments that were not listed in the RFP but which contain information on publicly available data and administrative data that could be made available to data users. These departments include Centers for Disease Control and Prevention (CDC), Department of Justice, U.S. Department of Agriculture (USDA), U.S. Department of Health and Human Services (DHHS), U.S. Department of Housing and Urban Development (DHU), and U.S. Department of Labor (DOL).
- Websites of major education data and information warehouse and repositories[2], including Child Trends, Early Care and Early Education Research Connections, Inter-university Consortium for Political and Social Research (ICPSR), KIDS COUNT, EDFacts, and ED Data Inventory.

While reviewing these websites, McREL searched for citations and references to other data systems and repositories that might include data related to the identified domains. McREL also conducted an internet search to identify other potential data systems and repositories, using a wide variety of combination of keywords such as: data use, data repositories, data systems, database, Native Hawaiian education data, data warehouse, and data collaborative initiative. Potential data sources were added to the review list as they were discovered throughout the duration of the project. As a result of the search, a total of 42 data systems and repositories that collect and/or store data about education and well-being were identified during Stage 2.

During this search, McREL identified organizations that do not collect or store data per se, but use data collected from other organizations, such as ED, the CDC, and the Census Bureau, to generate reports and policy briefs to support their organizations' missions. Some of these organizations have developed data tools or portals that allow data users to generate reports easily using public use data collected from federal agencies. In this report, these types of organizations are categorized as an information repository. Although they are not data systems or repositories per se, they contribute to the public's understanding and knowledge about data and facilitate data use. When these types of

[2] McREL focused the search for data systems, repositories, and database on education data and well-being data related to Native Hawaiians' experiences.

organizations were found, McREL explored their websites to track down the original data sources to expand the inventory of data systems and repositories for this project.

Additionally, because the purpose of this project is to identify information and data that can increase our understanding about Native Hawaiian students, families, and the community, organizations that create and/or collect reports and information using data collected from other organizations to increase the public's understanding about Native Hawaiians are also categorized as information repositories. A total of 23 information repositories were found during the inventory process.

Stage 3: Review of Databases

After identifying the list of potential data systems and repositories that collect and/or store education and well-being data, the McREL team conducted a detailed review to identify specific databases within them that can contribute to our understanding of the education and well-being of Native Hawaiians. To that end, McREL established the following selection criteria for the database review process:

- Data that are reported at the individual level must provide information about Native Hawaiians.[3, 4]
- Data that are reported at the program level (e.g., classroom, school, or program) or aggregated level (e.g., zip code, county, state) must provide information about Native Hawaiians.[2, 3]
- Data must be available to users, or must provide extensive published tables or reports.

It is important to note that an examination of the data to assess data quality, strengths, and/or limitations was beyond the scope of this project. Users should make their own assessments of the quality of the data from these sources.

McREL's detailed review process indicated that four of the 42 potential data systems and repositories did not include databases that can directly contribute to our understanding of education and well-being of Native Hawaiians, per the selection criteria described above.

Of the total of 109 possible databases reviewed, 87 met the selection criteria and were included in the database inventory.

Information gathered from this inventory process is organized in the appendices as follows:

- Appendix A: Inventory of Data Systems and Repositories
- Appendix B: Information Repositories
- Appendix C: Inventory of Data on Education and Well-being of Native Hawaiians
- Appendix D: Other Databases

---

[3] Databases that combine Native Hawaiian with other racial and ethnic groups (e.g., Asian, Other Pacific Islanders) are included; databases that do not specify Native Hawaiian but combine Asian and Other Pacific Islander as one group are also included.

[4] Race categories used in data collection may change over time. For this project, we used the most recent instruments and documentations that were available on the websites to determine the race categories used in data collection.

Appendix A provides information about all data systems and repositories that were identified and reviewed during the inventory process. The data systems and repositories that collect and/or store data that can contribute to our understanding of the education and well-being of Native Hawaiians are reviewed first (see Appendix A, Table A1–Federal and Table A2–State) followed by the data systems and repositories that do not provide the types of data that can directly contribute to this project (see Appendix A, Table A3).

Appendix B provides an overview of information repositories that do not collect and/or store data but provide valuable information to help us understand the education and well-being of Native Hawaiians.

Appendix C provide an inventory of databases that can contribute to our understanding of the education and well-being of Native Hawaiians. All databases included in Appendix C were included in the data mapping process (see the Mapping Methods and Process section for details).

Appendix D includes the list of databases that were reviewed but which do not provide the data that can help us understand the education and well-being of Native Hawaiians. Profiles for these databases were created, but data from these databases were not included in the data mapping.

Mapping Methods and Processes

To understand what data are available to advance our understanding of the education and well-being of Native Hawaiians, McREL conducted a detailed review of relevant materials of each database that is identified in Appendix C (n = 87) to identify the key data elements that were collected within each database across the eight education and well-being domains. The relevant materials may include data user manuals, data dictionaries, surveys/questionnaires, and/or reports, depending on availability. This process ensured that the mapping process was not restricted to the indicators that were commonly measured or cited in the literature, but could uncover other important measures and indicators that might have been overlooked. Because the ways in which data are collected and/or the types of questions being asked are different across databases, McREL grouped similar types of data together, and provide examples of indicators for each data element. In addition to identifying data elements across domain areas, across databases, demographic data that were collected across databases were also identified, as this type of data can enhance our understanding of between-group differences. The final list of data elements, with data examples by domain, are presented in Appendix E.

2. Database Mapping Results and Findings

McREL reviewed relevant materials from the 87 databases that met the selection criteria to identify key data elements collected by each database, and mapped these elements across all 87 databases. This chapter summarizes the results and findings from the review and the mapping. Findings are organized in five sections.

The first section provides an overview of the database inventory and the types of demographic data collected by the databases. The second section summarizes the overall findings from the mapping, focusing on the issues related to data availability and gaps. The third section provides information regarding the variety of data elements contained by each database. Potential data users can use the information to identify appropriate databases for their own research questions about Native Hawaiians' education and well-being. The third section highlights the databases that can potentially be used to inform the Government Performance and Results Act (GPRA) measures. The last section presents the limitations of the mapping results and findings.

Inventory of Data on Education and Well-being of Native Hawaiians

As shown in Table 1, the inventory of the databases includes the database acronym and database identification number (DBID). This information is intended to provide readers with a quick reference for locating the profile for the database of interest. Table 1 also includes information about the types of demographic data available in each database. Readers can use this information to determine the types of subgroup analyses that can potentially be conducted across databases.

Table 1. Inventory of Data on Education and Well-being of Native Hawaiians

Database	Acronym	DBID	Age	Grade level	Gender	Race / Ethnicity	Disability	Citizenship & Migration History	Veteran / Military	Sexual Orientation
Aging Integrated Database	AGID	1	●		●	●	●			
Adoption and Foster Care Analysis and Reporting System	AFCARS	2	●		●	●				
American Community Survey	ACS	3	●		●	●	●	●	●	
American Housing Survey	AHS	4	●		●	●	●	●	●	
American Time Use Survey	ATUS	5								
Annual Survey of Jails	ASJ	6				●				
Baccalaureate and Beyond	B&B	7	●		●	●	●	●		
Beginning Postsecondary Students Longitudinal Study	BPS	8	●		●	●	●	●	●	
Behavioral Risk Factor Surveillance System	BRFSS	9	●		●	●	●	●		
Census by Decades	Census	10	●		●	●				
Child Care and Development Fund	CCDF	11	●		●	●	●		●	
Civil Rights Data Collection	CRD	12				●				
Community College Survey of Student Engagement	CCSSE	13	●		●	●		●		
Common Core of Data	CCD	14				●				
Current Population Survey	CPS	15	●		●	●	●			
Early Childhood Longitudinal Study, Birth Cohort	ECLS-B	16	●	●	●	●	●	●		
Early Childhood Longitudinal Study, Kindergarten Class of 1998-99	ECLS-K	17	●	●	●	●	●	●		
Early Childhood Longitudinal Study, Kindergarten Class of 2010–11	ECLS-K:2011	18	●	●	●	●	●	●		
Early Head Start Family and Child Experiences Study, 2007–2014	Baby FACES	19	●		●	●	●	●		
ED School Climate Survey Benchmark Study	EDSCLS	20		●	●	●				
Educational Longitudinal Study of 2002	ELS:2002	21	●	●	●	●	●	●	●	
Family and Child Experiences Study, 1997–2018	FACES	22	●	●	●	●	●			
Hawaii Census Data Center*	HCDC	23	●		●	●	●	●	●	
Hawaii Community College Office of Institutional Research*	HAWCC-OIR	24	●		●	●		●		
Hawaii's Healthcare Data Center*	HHDC	25	●		●	●				
Hawaii Health Survey*	HHS	26	●		●	●		●	●	

Database	Acronym	DBID	Age	Grade level	Gender	Race / Ethnicity	Disability	Citizenship & Migration History	Veteran / Military	Sexual Orientation
Hawaii State Department of Education Data Systems*	HIDOE	27	●	●	●	●	●			
Hawaii State Department of Human Services Data System*	HI-DHS	28	●		●	●	●	●	●	
Hawaii State Longitudinal Data System—College & Career Readiness Indicators*	HI-SLD CCRI	29		●	●	●				
Hawaii State Longitudinal Data System—Transition Metrics*	HI-SLD Transition	30		●	●	●	●			
Hawaii State Juvenile Justice Information System*	HI-JJIS	31	●		●	●				
Hawaii State Pregnancy Risk Assessment Monitoring System*	HI-PRAMS	32	●		●	●				
Hawaii State Vital Statistics Database*	HI-VSD	33	●		●	●			●	
Hawaii State Youth Tobacco Survey**	HI-YTS	34	●		●	●		●		
Head Start Impact Study	HSIS	35	●		●	●	●			
Head Start Program Information Report	Head Start PIR	36				●				
Health Behavior in School-aged Children	HBSC	37	●	●	●	●				
High School and Beyond	HS&B	38	●		●	●	●			
High School Longitudinal Study of 2009	HSLS:09	39	●		●	●	●			
Homeless Management Information System	HMIS	40	●		●	●	●		●	●
Integrated Postsecondary Education Data System	IPEDS	41				●				
Medicaid and CHIP Enrollment Data	Medicaid/CHIP	42	●		●	●	●	●		
Medical Expenditure Panel Survey	MEPS	43	●		●	●				
National Assessment of Adult Literacy	NAAL	44	●		●	●	●			
National Assessment of Educational Progress: Long-term Trend Assessments	NAEP-LTT	45	●		●	●	●	●		
National Assessment of Educational Progress Assessments	NAEP	46	●		●	●	●	●		
National Asthma Survey	NAS	47	●		●	●				
National Child Abuse and Neglect Data System	NCANDS	48	●		●	●	●			
National Community College Benchmark Project	NCCBP	49	●		●	●		●		
National Crime Victimization Survey	NCVS	50	●		●	●	●			
National Education Longitudinal Study of 1988	NELS:88	51	●	●	●	●				

Database	Acronym	DBID	Age	Grade level	Gender	Race / Ethnicity	Disability	Citizenship & Migration History	Veteran / Military	Sexual Orientation
National Evaluation of Welfare-to-Work Strategies Evaluation Database	NEWWSE	52	●		●	●	●			
National Health and Nutrition Examination Survey & National Youth Fitness Survey	NHANES & NNYFS	53	●		●	●	●	●		
National Health Interview Survey (NHIS) & NHIS-Native Hawaiian and Pacific Islander*	NHIS & NHIS-NHPI	54	●		●	●	●		●	●
National Household Education Surveys Program	NHES	55	●	●	●	●	●	●	●	
National Incidence Study of Child Abuse and Neglect	NIS-4	56	●		●	●	●			
National Longitudinal Surveys	NLS	57	●	●	●	●	●	●	●	
National Longitudinal Transition Study-2	NLTS2	58			●	●	●			
National Institute of Child Health and Human Development Study of Early Child Care and Youth Development	NICHD-SECCYD	59	●	●	●	●	●			
National Maternal and Infant Health Survey	NMIHS	60	●		●	●		●		
National Mortality Followback Survey	NMFS	61	●		●	●		●		
National Postsecondary Student Aid Study	NPSAS	62	●		●	●		●	●	
National Survey of Child and Adolescent Well-being	NSCAW	63	●		●	●	●			
National Survey of Children's Health	NSCH	64	●		●	●	●	●		
National Survey of Children with Special Health Care Needs	NS-CSHCN	65	●		●	●	●	●		
National Survey of College Graduates	NSCG	66	●		●	●	●	●		
National Survey of Early Childhood Health	NSECH	67	●		●	●				
National Survey of Family Growth	NSFG	68	●		●	●		●		
National Survey on Drug Use and Health	NSDUH	69	●		●	●		●	●	●
National Study of Postsecondary Faculty	NSOPF	70	●		●	●	●	●		
National Vital Statistics System	NVSS	71	●		●	●		●		
National Youth in Transition Database	NYTD	72	●		●	●				
National Youth Physical Activity and Nutrition Study	NYPANS	73	●	●	●	●				
Panel Study of Income Dynamics	PSID	74	●		●	●	●	●	●	
Pre-elementary Education Longitudinal Study	PEELS	75	●	●	●	●	●			

Database	Acronym	DBID	Age	Grade level	Gender	Race / Ethnicity	Disability	Citizenship & Migration History	Veteran / Military	Sexual Orientation
Private School Universe Survey	PSS	76				●				
Program for International Student Assessment	PISA	77	●	●	●	●		●		
Progress for the International Assessment of Adult Competencies	PIACC	78	●		●	●	●	●	●	
Progress In International Reading Literacy Study	PIRLS	79	●	●	●	●		●		
Public Needs for Library and Museum Services Survey	PNLMS	80	●	●	●	●		●		
Survey of Income and Program Participation	SIPP	81	●		●	●		●	●	
Survey of Pathways to Diagnosis and Services	SPDS	82	●		●	●	●			
Survey of Program Dynamics	SPDS	83	●	●	●	●	●	●	●	
Temporary Assistance for Needy Families	TANF	84				●				
Trends in International Mathematics and Science Study & TIMSS Advanced	TIMSS & TIMSS Advanced	85	●	●	●	●		●		
Youth Risk Behavior Surveillance System**	YRBSS	86	●	●	●	●				●
University of Hawai‘i Institutional Research and Analysis Office*	UH-IRAO	87	●		●	●		●		
Total Number of Databases			75	22	79	86	46	42	19	4

* Hawai‘i-based database

** HI-YTS and YRBS are established by CDC. The Hawai‘i State Department of Health is responsible for conducting the survey in Hawai‘i.

The analysis of the 87 databases shows that:

- 99% (*n* = 86) of the databases collected data on race/ethnicity[5]
- 91% (*n* = 79) of the databases collected data on gender
- 86% (*n* = 75) of the databases collected data on age
- 53% (*n* = 46) of the databases collected data on disability status
- 48% (*n* = 42) of the databases collected data on citizenship and migration history
- 25% (*n* = 22) of the databases collected data on grade level
- 22% (*n* = 19) of the databases collected data on veteran and military status
- 5% (*n* = 4) of the databases collected data on sexual orientation

Across different databases, the response categories of race/ethnicity are different. Table 2 summarizes these findings. Of the 86 databases that collected data on race/ethnicity, 47 databases (55%) combined Native Hawaiian with Other Pacific Islander; 28 databases (33%) used Native Hawaiian as a standalone response category; and eight databases (9%) combined Native Hawaiian and Other Pacific Islander with Asian. Additionally, seven databases (8%) collected data at the aggregated level (e.g., program, institution, school, and state, etc.), using Native Hawaiian and Other Pacific Islander as the grouping. The total number of databases for these four different scenarios is 90, greater than the total number of databases reviewed (n = 86), because some databases used two different type of response categories across different instruments.

Table 2a. Racial/Ethnic Response Categories that Include Native Hawaiians

Response Category	# of Databases (%)
Native Hawaiian and Other Pacific Islander are collapsed into a single response category	47 (54.7%)
Native Hawaiian is a standalone response category	28 (32.6%)
Asian, Native Hawaiian and Other Pacific Islander are collapsed into a single response category	8 (9.3%)
Native Hawaiian and Other Pacific Islander are collapsed into a single response category (aggregated-level)	7 (8.1%)

Of the databases that use Native Hawaiian as a standalone response category (n=28), 15 (54%) are national-level databases, and 13 (46%) are Hawai'i-based databases. Additionally, the majority of these data bases collected data across multiple domain areas (see Table 2b).

[5] The ATUS doesn't collect data on race. However, ATUS can be linked with the Current Population Survey (CPS) which collects data on race. More information about the linkage can be found at https://www.atusdata.org/atus/linking_atus_cps.shtml.

Table 2b. Databases with Native Hawaiian as a Standalone Ethnic Response Category

Database	DBID	Education	Family Context and Social Environment	Employment and Career	Physical Environment and	Physical Health and Behaviors	Health Care	Social-emotional and Behavioral Development	Community Engagement and Relations	Number of Domains Covered
National-level Databases										
Census	1		●							1
ACS	3	●	●	●			●		●	5
BRFSS	9		●		●	●	●	●		5
ECLS-B	16	●	●	●	●	●	●	●	●	8
Baby FACES	19	●	●	●	●	●		●	●	7
FACES	22	●	●	●	●	●	●	●	●	8
HSIS	35	●	●	●	●	●	●	●	●	8
NAS	47		●			●	●			3
NHIS & NHIS-NHPI	54	●	●	●	●	●	●	●	●	8
NSCH	64	●	●	●	●	●	●	●	●	8
NS-CSHCN	65	●	●			●	●	●		5
NSECH	67	●	●		●	●	●	●		6
NSFG	68		●	●		●	●		●	5
NSDUH	69	●	●	●		●	●	●	●	7
SPDS	82	●			●	●	●	●		5
Hawaii-based Databases										
HI-SLD Transition	3	●	●	●						3
HCDC	23	●	●	●			●			4
HHDC	25		●		●	●	●			4
HHS	26	●	●	●	●	●	●	●	●	8
HI-DoE	27	●	●	●				●	●	5
HI-DHS	28		●	●	●	●		●		5
HI-SLD CCRI	29	●	●							2
HI-JJIS	31							●		1
HI-PRAMS	32		●		●	●	●	●		5
HI-VSD	33		●			●				2
HI-YTS*	34	●			●	●			●	4
YRBSS*	86	●	●		●	●		●	●	6
UH-IRAO	87	●		●						2

*HI-YTS and YRBS are established by CDC. The Hawai'i State Department of Health is responsible for conducting the survey in Hawai'i.

Data Availability and Gaps

This section discusses data availability and gaps, based on the analysis of the 87 databases identified using the selection criteria set forth by McREL during the inventory process (see 1. Inventory and Data Mapping Methods and Processes for more detail).

To discuss the state of data availability and gaps (SDAG), the following criteria were used. These criteria were set with the potential limitations of the 87 databases in mind. See the Limitations section in the later part of this chapter for detail.

State of Data Availability and Gaps (SDAG)	*Number of Database Meeting the Criterion*
Potential Gap (PG)	$n \leq 5$
Potentially Limited (PL)	$6 \leq n \leq 10$
Sufficient (S)	$11 \leq n \leq 50$
Extensive (E)	$n \geq 51$

Table 3 shows the SDAG across eight education and well-being domains. The sequence is sorted by the SDAG. Overall, there are a *sufficient* number of databases available for the domains of (1) physical environment and safety, (2) health care, (3) community engagement and relations, and (4) social-emotional and behavioral development. There are an *extensive* number of databases available for the domains of (1) physical health and behaviors, (2) employment and career development, (3) education, and (4) family context and social environment.

Table 3. State of Data Availability and Gaps by Education and Well-being Domain

Domain	Number of Databases (%)	SDAG			
		PG	PL	S	E
Physical Environment and Safety	25 (28.7%)			•	
Health Care	35 (40.2%)			•	
Community Engagement and Relations	36 (41.4%)			•	
Social-emotional and Behavioral Development	46 (52.9%)			•	
Physical Health and Behaviors	51 (58.6%)				•
Employment and Career Development	53 (60.9%)				•
Education	65 (74.7%)				•
Family Context and Social Environment	77 (88.5%)				•
Number of Domains		**0**	**0**	**4**	**4**

It is important to note that this inventory of databases is not exhaustive; there might be other databases that collect education and well-being data about Native Hawaiians but which were not

included in the inventory, especially in the non-education domains.[6] In the following sections, the SDAG for each education and well-being domain is examined and discussed.

Additionally, previous literature suggests that culture-based education and practice (e.g., second language instruction, language immersion programs), family culture practice, and engagement and participation in the community are important attributes of the education and well-being of Native Hawaiians (Kamehameha Schools, 2008; Kanaʻiaupuni, Ledward, & Jensen, 2010; Kanaʻiaupuni, 2007; Kanaʻiaupuni, 2011; Kanaʻiaupuni, Ledward & Keohokalole, 2011; Ledward & Hirata, 2011; Office of Hawaiian Affairs, 2017; Pacific Policy Research Center, 2011). Following the findings about each education and well-being domain, a subsection addresses the data availability and gaps for these types of data.

Education Data

Across the 87 databases, a total of 44 data elements were identified under the education domain. These data elements were further organized into eight common education topic areas. Table 4 shows the SDAG across the specified education topic areas. The sequence is sorted by the SDAG. Overall, there are a *sufficient* number of databases across all topic areas except one. That is, the number of databases is *potentially limited* on the data related to students in special education.

Table 4. State of Data Availability and Gaps by Education Topic Area

Education Topic	# of Databases (%)	SDAG			
		PG	PL	S	E
Students in special education	7 (8.0%)		•		
Home-school relations	15 (17.2%)			•	
K–12 educator characteristics, beliefs and practices	16 (18.4%)			•	
Early care and education (ECE) experiences	27 (31.0%)			•	
Postsecondary education experiences and outcomes	29 (33.3%)			•	
Education programs provided to children and families	31 (35.6%)			•	
K–12 education experiences	40 (46.0%)			•	
Student K–12 school experiences and outcomes	44 (50.6%)			•	
Number of Topic Areas		**0**	**1**	**7**	**0**

When analyzing the SDAG at the data element level, the number of databases available to examine certain data elements is reduced (see Table 5). The sequence is sorted by the SDAG. Specifically, there are *potential gaps* on 10 data elements, particularly on data related to students' experiences during the transition from middle school to high school (n = 1), and teacher collaboration practices between general education teachers and special education teachers (n = 2). There are *potentially limited*

[6] McREL focused the search for data systems, repositories, and database on education data and well-being data related to Native Hawaiians' experiences.

data on 12 data elements, such as classroom language and instructional language (n = 6) and parent satisfaction with special education and services (n = 6).

Table 5. State of Data Availability and Gaps by Education Data Element

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Early Care and Education (ECE) experiences					
Child care/ECE classroom language use*	5 (5.7%)	•			
Child care/ECE/preschool classroom context, practice and quality	7 (8.0%)		•		
Early Head Start/Head Start program participation and services for families	8 (9.2%)		•		
Child care arrangements and characteristics	19 (21.8%)			•	
ECE/preschool attainment and program characteristics	20 (23.0%)			•	
K-12 education experiences					
Classroom language and instructional language*	6 (6.9%)		•		
K–12 classroom characteristics	9 (10.3%)		•		
School policies and management	10 (11.5%)		•		
K–12 classroom instructional activities	13 (14.9%)			•	
School climate	18 (20.7%)			•	
K–12 school characteristics and background	23 (26.4%)			•	
School enrollment	29 (33.3%)			•	
K–12 educator characteristics, beliefs and practices					
Teacher beliefs, attitudes and practices	11 (12.6%)			•	
K–12 educator background and characteristics	15 (17.2%)			•	
Home-school relations					
Parent school selection practice/school choice	5 (5.7%)	•			
School practice to smooth transition to kindergarten	5 (5.7%)	•			
Parent satisfaction with school/education	7 (8.0%)		•		
School practices to involve and support families	15 (17.2%)			•	
Education programs provided to children and families					
Other programs	5 (5.7%)	•			
Gifted and talented programs	6 (6.9%)		•		
Programs that support college and career readiness	7 (8.0%)		•		
English as a second language (ESL)/bilingual education programs/dual-language education*	13 (14.9%)			•	
Special education and services received	30 (23.3%)			•	
Student K–12 school experiences and outcomes					
Transition from middle school to high school	1 (1.1%)	•			

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Dropouts	5 (5.7%)	•			
Homework activities, efforts and time spent	10 (11.5%)		•		
Peer influence/friendships	10 (11.5%)		•		
Cognitive development and approach to learning	13 (14.9%)			•	
Self-educational aspiration	16 (18.4%)			•	
College and career readiness	17 (19.5%)			•	
High school credential	17 (19.5%)			•	
Attendance/absenteeism	18 (20.7%)			•	
Student academic qualities/strengths and risk factors	18 (20.7%)			•	
Repeated a grade/retention	19 (21.8%)			•	
Academic records and performance	30 (34.5%)			•	
Postsecondary education experiences and outcomes					
Post-baccalaureate education	5 (5.7%)	•			
Postsecondary institution characteristics	10 (11.5%)		•		
Education costs, student loan, and other sources of support	14 (16.1%)			•	
Postsecondary academic records, performance, and degree awarded	22 (25.3%)			•	
Postsecondary education enrollment and persistence	24 (27.6%)			•	
Students in special education					
Collaboration between general education teachers and special education teachers	2 (2.3%)	•			
Education progress	3 (3.4%)	•			
Education settings	5 (5.7%)	•			
Parent satisfaction with special education and services	6 (6.9%)		•		
Number of Data Elements		**10**	**12**	**22**	**0**

* Racial/ethnic and cultural attributes of well-being

Family Contexts and Environment Data

Forty-one data elements were identified under the family contexts and environment domain. These data elements were further organized into six topic areas. Table 6 shows the SDAG across the specified topic areas. The sequence is sorted by the SDAG. Overall, there are a *sufficient* number of databases on three topic areas (i.e., welfare and public assistance; home context, parenthood, and parenting; other) and an *extensive* number of databases on two topic areas (i.e., family socio-economic status, family relationships and support). The number of databases is *potentially limited* on the topic related to children who are involved in these systems (i.e., foster care and adaption, child maltreatment).

Table 6. State of Data Availability and Gaps by Family Contexts and Environment Topic Area

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Children involved in systems	10 (11.5%)		•		
Other—time use	21 (24.1%)			•	
Welfare and public assistance	36 (41.4%)			•	
Home context, parenthood, and parenting	49 (56.3%)			•	
Family relationships and support	57 (65.5%)				•
Family socio-economic status	67 (77.0%)				•
Number of Topic Areas		**0**	**1**	**5**	**2**

The SDAG of family contexts and environment data at data element level is presented in Table 7. The sequence is sorted by the SDAG. There are *potential gaps* on nine data elements, particularly on data related to aid provided to aged, blind and disabled individuals (n = 2). There are *potentially limited* data on seven data elements, such as data related to certain types of welfare and public assistance (e.g., Aid to Families with Dependent Children [AFDC], energy assistance, etc.).

Table 7. State of Data Availability and Gaps by Family Contexts and Environment Data Element

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Family socio-economic status					
Homelessness	5 (5.7%)	•			
Family expenditure	10 (11.5%)		•		
Food security/insecurity	13 (14.9%)			•	
Family mobility	13 (14.9%)			•	
Parental employment and occupation	18 (20.7%)			•	
Poverty	25 (28.7%)			•	
Housing quality	30 (34.5%)			•	
Family income (including wage, assets, benefits, savings, retirement investment, and net worth)	45 (51.7%)			•	
Education background	52 (59.8%)				•
Welfare and public assistance					
Aid to Aged, Blind, Disabled (AABD)	2 (2.3%)	•			
Public assistance in health care	4 (4.6%)	•			
Social security benefits	4 (4.6%)	•			
General Assistance (GA)	4 (4.6%)	•			
Breakfast offered at school	5 (5.7%)	•			
Child care assistance	5 (5.7%)	•			

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Aid to Families with Dependent Children (AFDC)	8 (9.2%)		•		
Energy assistance	8 (9.2%)		•		
Unemployment insurance and compensation	8 (9.2%)		•		
Other	9 (10.3%)		•		
Housing assistance/public housing	10 (11.5%)		•		
Receipt of welfare or public assistance in general	13 (14.9%)			•	
Temporary Assistance for Needy Families (TANF) /Temporary Assistance for Other Needy Families (TAONF)	13 (14.9%)			•	
Free/reduced price lunch at school	13 (14.9%)			•	
Supplemental Security Income (SSI)	17 (19.5%)			•	
Women, Infants, and Children (WIC)	18 (20.7%)			•	
Food stamps/SNAP	23 (26.4%)			•	
Family relationships and support					
Family support, resources, and family ties	17 (19.5%)			•	
Marital history, status and relationship	38 (43.7%)			•	
Family structure/composition	48 (55.2%)			•	
Home context, parenthood, and parenting					
Family cultural practice*	5 (5.7%)	•			
Parental education/career aspiration	11 (12.6%)			•	
Parental involvement in child's schooling	13 (14.9%)			•	
Household use of technology and access to information	17 (19.5%)			•	
Enrichment and extracurricular (school-sponsored or not)	18 (20.7%)			•	
Home learning environment	20 (23.0%)			•	
Parental beliefs, attitudes, and practices	21 (24.1%)			•	
Parental involvement at home and in community	23 (26.4%)			•	
Language environment in home*	39 (44.8%)			•	
Children involved in systems					
Child maltreatment	5 (5.7%)	•			
Foster care and adaption	8 (9.2%)		•		
Other					
Time use	21 (24.1%)			•	
Number of Data Elements		**9**	**7**	**24**	**1**

* Racial/ethnic and cultural attributes of well-being

Employment and Career Development Data

A total of 13 data elements were identified under the employment and career development domain (see Table 8). The sequence is sorted by the SDAG. Findings revealed that there are *sufficient* data on personal employment status, activities, and history (n = 49) as well as education and training experiences beyond formal education (n = 11). However, there are *potential gaps* on six data elements, particularly about data related to job accommodations for individuals with disability (n = 1), apprenticeship program (n = 2), and opportunity cost (n = 2). There are *potentially limited* data on five data elements, such as satisfaction with current career path and jobs (n = 6) and career planning and occupational aspiration (n = 7).

Table 8. State of Data Availability and Gaps of Employment and Career Development Data Element

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Job accommodations for individuals with disabilities	1 (1.1%)	•			
Apprenticeship program	2 (2.3%)	•			
Opportunity cost	2 (2.3%)	•			
Relationship of jobs to education and training	3 (3.4%)	•			
Employment outlook after postsecondary education	4 (4.6%)	•			
Commuting and place of work	4 (4.6%)	•			
Satisfaction with current career path and jobs	6 (6.9%)		•		
Own professional certification or licenses	7 (8.0%)		•		
Career planning and occupational aspiration	7 (8.0%)		•		
Attitude and beliefs associated with employment and career decisions	8 (9.2%)		•		
Impact of childbirth, child care and caregiving on career development and employment decision	8 (9.2%)		•		
Education and training beyond formal education	11 (12.6%)			•	
Personal employment status, activities, and history	49 (56.3%)			•	
Number of Data Elements		**6**	**5**	**2**	**0**

Physical Environment and Safety Data

Five data elements were identified under the physical environment and safety domain (see Table 9). The sequence is sorted by the SDAG. Overall, the analysis of SDAG revealed that data on physical environment and safety seemed to be limited (i.e., there is a *potential gap* on crime victim data; data on healthy/unhealthy household; safe/unsafe household; abuse, neglect and domestic violence seemed to be *potentially limited*) except data related to injury incidents (i.e., there are 17 databases collecting data on injury related data).

Table 9. State of Data Availability and Gaps of Physical Environment and Safety Data Element

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Crime victim	5 (5.7%)	•			
Healthy/unhealthy household	9 (10.3%)		•		
Safe/unsafe household	9 (10.3%)		•		
Abuse, neglect and domestic violence	10 (11.5%)		•		
Injury incidents	17 (19.5%)			•	
Number of Data Elements		**1**	**3**	**1**	**0**

Physical Health and Behaviors Data

Twelve data elements were identified under the physical health and behaviors domain. These data elements were organized into two broader topic areas: physical health and physical behaviors (see Table 10). The sequence is sorted by the SDAG. Overall, there are a *sufficient* number of databases collecting data on both topic areas.

Table 10. State of Data Availability and Gaps by Physical Health and Behaviors Topics

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Health Behaviors	35 (40.2%)			•	
Physical Health	45 (51.7%)			•	
Number of Topic Areas		**0**	**0**	**2**	**0**

As shown in Table 11, the results of SDAG at the data element level revealed that there are *potential gaps* on death data and preventive care data, and *potentially limited* data on sleep habits/disorders and sexual activities and risky sexual behaviors. There are *sufficient* data on all other data elements identified under the physical health and behaviors domain.

Table 11. State of Data Availability and Gaps by Physical Health and Behaviors Data Element

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Physical Health					
Death data	5 (5.7%)	•			
Fertility, pregnancy and prenatal care	15 (17.2%)			•	
Limited activities (e.g., miss school, miss work) due to health issue	21 (24.1%)			•	
Personal, child, family health status, diagnosis, and treatment	44 (50.6%)			•	

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Health Behaviors					
Preventive care	4 (4.6%)	•			
Sexual activities and risky sexual behaviors	7 (8.0%)		•		
Sleep habits/disorders	8 (9.2%)		•		
Physical activity	15 (17.2%)			•	
Nutrition, diet attitude and diet behaviors	18 (20.7%)			•	
Drug use/abuse	19 (21.8%)			•	
Tobacco use	20 (23.0%)			•	
Alcohol use	24 (27.6%)			•	
Number of Data Elements		2	2	8	0

Health Care Data

Three data elements were identified under the health care domain (see Table 12). The sequence is sorted by the SDAG. Overall, the analysis of SDAG revealed that data on health care coverage, access, utilization and quality, as well as health care expenses and affordability, are *sufficient*. However, there is a *potential gap* on data related to individual satisfaction with health care/services provided by health care providers (n = 3).

Table 12. State of Data Availability and Gaps by Health Care Data Element

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Satisfaction with health care/services provided by health care provider	3 (3.4%)	•			
Heath care expenses and affordability	11 (12.6%)			•	
Health care coverage, access, utilization and quality	35 (40.2%)			•	
Number of Data Elements		1	0	2	0

Social-Emotional and Behavioral Development Data

Ten data elements were identified under the social-emotional and behavioral development domain (see Table 13). The sequence is sorted by the SDAG. Overall, the analysis of SDAG revealed that there are *potential gaps* on three data elements (i.e., self-concept/perception about self, life satisfaction and quality of life, bullied others), and there are *potentially limited* data on social-emotional support from non-family members, physical fighting, and weapon carrying data.

Table 13. State of Data Availability and Gaps by Social-Emotional and Behavioral Development Data Element

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Bullied others	3 (3.4%)	•			
Life satisfaction and quality of life	4 (4.6%)	•			
Self-concept/perception about self	5 (5.7%)	•			
Physical fighting	6 (6.9%)		•		
Weapon carrying	6 (6.9%)		•		
Social-emotional support from non-family members	10 (11.5%)		•		
Bullied	11 (12.6%)			•	
Criminal behavior/Involved in juvenile justice system/criminal justice system	15 (17.2%)			•	
Social-emotional development and behavioral problems	25 (28.7%)			•	
Mental health	27 (31.0%)			•	
Number of Data Elements		3	3	4	0

Community Engagement and Relations Data

Seven data elements were identified under the community engagement and relations domain (see Table 14). The sequence is sorted by the SDAG. Overall, the analysis of SDAG revealed that there are *potentially limited* data on the community population and the use of library resources/museum.

Table 14. State of Data Availability and Gaps by Community Engagement and Relations Data Element

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Use of library resources/museum	7 (8.0%)		•		
Community population	8 (9.2%)		•		
Tribal, cultural, and religious activities and engagement in community*	12 (13.8%)			•	
Neighborhood environment and quality	14 (16.1%)			•	
Community crime and violence	15 (17.2%)			•	
Community social support and resources	15 (17.2%)			•	
Civic engagement in community	16 (18.4%)			•	
Number of Data Elements		0	2	5	0

* Racial/ethnic and cultural attributes of Native Hawaiians' education and well-being.

Data on Racial/Ethnic and Cultural Attributes of Education and Well-being

Six data elements assessing racial/ethnic and cultural attributes were identified (see Table 15). The sequence is sorted by the SDAG. The analysis of SDAG revealed that there are *sufficient* data on English as a second language education/bilingual education/dual-language education; language environment at home; and tribal, cultural, and religious activities and engagement in community. However, there were *potential gaps* on data related to child care/ECE classroom language use (n = 5) and family cultural practice (n = 5). There are *potentially limited* data on classroom language and instructional language (n = 6).

Table 15. State of Data Availability and Gaps by Racial/Ethnic and Cultural Attributes

Data Elements	# of Databases (%)	SDAG			
		PG	PL	S	E
Child care/ECE classroom language use	5 (5.7%)	•			
Family cultural practice	5 (5.7%)	•			
Classroom language and instructional language	6 (6.9%)		•		
Tribal, cultural, and religious activities and engagement in community	12 (13.8%)			•	
English as a second language (ESL)/bilingual education programs/dual-language education	13 (14.9%)			•	
Language environment in home	39 (44.8%)			•	
Number of Data Elements		**2**	**1**	**3**	**0**

Databases that collected these six data elements are summarized in Table 16. The sequence of databases is sorted by the number of racial/ethnic and cultural data elements collected by each database, from the largest to the smallest. Individuals who are interested in exploring these racial/ethnic and cultural attributes with Native Hawaiian samples may consider starting with the following databases:

- Early Childhood Longitudinal Study-Birth Cohort (ECLS-B)
- National Household Education Surveys (NHES)
- Early Childhood Longitudinal Study-Kindergarten Class of 1998:99 (ECLS-K)
- Early Childhood Longitudinal Study-Kindergarten Class of 2011 (ECLS-K:2011)
- Family and Child Experiences Survey (FACES)
- National Education Longitudinal Study of 1988 (NELS:88)

Table 16. Databases Collecting data on Racial/Ethnic and Cultural Attributes of Native Hawaiian's Education and Well-being

Topics	DBID	Child care/ECE classroom language use	Classroom language and instructional language	English as a second language (ESL)/ bilingual education programs/Dual-language education	Family cultural practice	Language environment in home	Tribal, cultural, and religious activities and engagement in the community	# of Data Elements
ECLS-B	16	●	●		●	●	●	5
NHES	55	●		●	●	●	●	5
ECLS-K	17		●	●	●	●		4
ECLS-K:2011	18		●	●	●	●		4
FACES	22	●	●	●		●		4
NELS:88	51		●	●		●	●	4
HHS	26				●	●	●	3
HSIS	35	●	●			●		3
Baby FACES	19	●				●		2
HIDOE	27			●		●		2
HS&B	38					●	●	2
NAEP-LTT	45			●		●		2
NAEP	46			●		●		2
NSDUH	69					●	●	2
PIACC	78			●		●		2
PIRLS	79			●		●		2
SPD	83					●	●	2
ACS	3					●		1
AHS	4						●	1
BPS	8					●		1
CCDF	11					●		1
CRD	12			●				1
CCSSE	13					●		1
ELS:2002	21					●		1
HCDC	23					●		1
HHDC	25					●		1

Topics	DBID	Child care/ECE classroom language use	Classroom language and instructional language	English as a second language (ESL)/ bilingual education programs/Dual-language education	Family cultural practice	Language environment in home	Tribal, cultural, and religious activities and engagement in the community	# of Data Elements
HI-DHS	28					●		1
HI-SLD Transition Metrics	30			●				1
HSLS:09	39					●		1
CHIP	42					●		1
NAAL	44					●		1
NEWWSE	52			●				1
NHANES & NNYFS	53					●		1
NHIS & NHIS-NHPI	54					●		1
NLS	57						●	1
NICHD-SECCYD	59						●	1
NPSAS	62					●		1
NSCAW	63						●	1
NS-CSHCN	65					●		1
NSECH	67					●		1
NSFG	68						●	1
PSID	74					●		1
PEELS	75					●		1
PISA	77					●		1
PNLMS	80					●		1
SIPP	81					●		1
TIMSS & TIMSS Advanced	85					●		1

Data Variety Across Databases

This section discusses the variety of data collected across the 87 databases. To understand the extent to which each database covers a wide variety of data, a data variety (DV) index score was calculated. The formula to calculate the DV index score is presented below.

Data Level		Formula
Domain	=	Number of domains covered/largest number of domains possible within the domain (N = 8)
Topic	=	Number of topics covered/largest number of topic areas possible within the domain (N ranges from 2 to 8)
Data Element	=	Number of data elements covered/largest number of data elements possible within the topic area or domain (N ranges from 1 to 17)

It should be noted that the DV index score does not provide information regarding the depth of data across the education and well-being domains; instead, it is an indicator of data variety. It is possible that a database that has a DV index score of 100% may have rich data on some domains but less data on others (e.g., one or two relevant questions). The following guideline is used to determine the level of data variety.

Level of Data Variety	Value
Very high	DV ≥ 80.0%
High	60.0% ≤ DV ≤ 79.9%
Medium	40.0% ≤ DV ≤ 59.9%
Low	20.0% ≤ DV ≤ 39.9%
Very low	DV ≤19.9%

Tables 17–25 present the DV index at domain, topic, and data element levels. These tables are intended to provide general guidance for potential data users to narrow down the number of databases for further investigation, depending on their own data of interest. For instance, individuals who are interested in a wider variety of education and well-being data would start with the databases with higher DV index scores. Individuals who are interested in a specific domain of data would start with the databases with lower DV index scores because the types of databases that collect data on a specific domain, topic, or data element tend to collect more in-depth information regarding the domain, topic, or data element. The mapping of the databases, with detailed information regarding the data elements by domain and topic areas across databases, is presented in Appendix F.

Table 17 presents the DV index for each database across eight education and well-being domains (i.e., a higher DV means a greater number of education and well-being domains was covered). The sequence of databases is sorted by the DV index score, from the largest to the smallest.

Table 17. Data Variety Across the Well-being Domains

Database	DBID	Education and Well-being
ECLS-B	16	100.0%
FACES	22	100.0%
HHS	26	100.0%
HSIS	35	100.0%
NHIS & NHIS-NHPI	54	100.0%
NHES	55	100.0%
NICHD-SECCYD	59	100.0%
NSCH	64	100.0%
ECLS-K	17	87.5%
ECLS-K:2011	18	87.5%
Baby FACES	19	87.5%
HS&B	38	87.5%
HMIS	40	87.5%
NCVS	50	87.5%
NELS:88	51	87.5%
NEWWSE	52	87.5%
NLS	57	87.5%
NMFS	61	87.5%
NSDUH	69	87.5%
PSID	74	87.5%
PIACC	78	87.5%
SPD	83	87.5%
ATUS	5	75.0%
HBSC	37	75.0%
NMIHS	60	75.0%
NSCAW	63	75.0%
NSECH	67	75.0%
NYTD	72	75.0%
PISA	77	75.0%
YRBSS	86	75.0%
ACS	3	62.5%
AHS	4	62.5%
BRFSS	9	62.5%
CPS	15	62.5%
ELS:2002	21	62.5%
HIDOE	27	62.5%
HI-DHS	28	62.5%
HI-PRAMS	32	62.5%
MEPS	43	62.5%
NAEP-LTT	45	62.5%
NLTS2	58	62.5%
NS-CSHCN	65	62.5%
NSFG	68	62.5%
SPDS	82	62.5%
TIMSS & TIMSS Advanced	85	62.5%
BPS	8	50.0%
HCDC	23	50.0%
HHDC	25	50.0%
HI-YTS	34	50.0%
CHIP	42	50.0%
PEELS	75	50.0%
PNLMS	80	50.0%
AGID	1	37.5%
B&B	7	37.5%
CRD	12	37.5%
HAWCC-OIR	24	37.5%
HI-SLD Transition	30	37.5%
HSLS:09	39	37.5%
NAS	47	37.5%
NCCBP	49	37.5%
NHANES & NNYFS	53	37.5%
NPSAS	62	37.5%
NSCG	66	37.5%
NSOPF	70	37.5%
SIPP	81	37.5%
CCDF	11	25.0%
CCSSE	13	25.0%
CCD	14	25.0%
EDSCLS	20	25.0%
HI-SLD CCRI	29	25.0%
HI-VSD	33	25.0%
NAAL	44	25.0%
NAEP	46	25.0%
NCANDS	48	25.0%
NIS-4	56	25.0%
NVSS	71	25.0%
NYPANS	73	25.0%
PIRLS	79	25.0%
UH-IRAO	87	25.0%
AFCARS	2	12.5%
ASJ	6	12.5%
Census	10	12.5%
HI-JJIS	31	12.5%
Head Start PIR	36	12.5%
IPEDS	41	12.5%
PSS	76	12.5%
TANF	84	12.5%

Note. Twenty-two databases have *very high* data variety; 23 databases have *high* data variety; 7 databases have *medium* data variety; 27 databases have *low* data variety; and 8 databases have *very low* data variety.

Data variety for each education and well-being domain are addressed as follows:

Education Data Variety. Eight education topic areas were created to organize the wide array of data elements within the domain: (1) early care and education experiences, (2) K–12 education experiences, (3) K–12 educator characteristics, beliefs and practices, (4) home-school relations, (5) education programs provided to children and families, (6) student K–12 school experiences and outcomes, (7) postsecondary education experiences and outcomes, and (8) students in special education. Table 18 presents a DV index for each database across education topic areas and within each topic area (a higher DV means a greater number of education topics was covered). The sequence of databases is sorted by the Overall Education Topics DV index score, from the largest to the smallest.

Family Contexts and Environment Data Variety. Six family contexts and environment topic areas were created to organize the wide array of data elements within the domain: (1) family socio-economic status, (2) welfare and public assistance, (3) family relationships and support, (4) home context, parenthood, and parenting, (5) children involved in systems, and (6) other—time use. Table 19 presents a DV index for each database across family contexts and environment topic areas and within each topic area (a higher DV means a greater number of family contexts and environment topics or data elements was covered). The sequence of databases is sorted by the Overall Family Contexts and Environment DV index score, from the largest to the smallest.

Employment and Career Development Data Variety. Table 20 presents a DV index for each database within the employment and career development domain (a higher DV means a greater number of employment and career development data elements was covered). The sequence of databases is sorted by the Employment and Career Development DV index score, from the largest to the smallest. Overall, data variety were between medium and very low across databases. In other words, the 87 databases identified in this project tend to focus on certain types of data elements rather than a wider array of employment and career development data.

Physical Environment and Safety Data Variety. Table 21 presents a DV index for each database within the physical environment and safety domain (a higher DV means a greater number of physical environment and safety data elements was covered). The sequence of databases is sorted by the Physical Environment and Safety DV index score, from the largest to the smallest.

Physical Health and Behaviors Data Variety. Two physical health and behaviors topic areas were created to organize the wide array of data elements within the domain: (1) physical health and (2) health behaviors. Table 22 presents a DV index for each database across physical health and behaviors topic areas and within each topic area (a higher DV means a greater number of physical health and behaviors topics or data elements was covered). The sequence of databases is sorted by the Overall Physical Health and Behaviors DV index score, from the largest to the smallest.

Health Care Data Variety. Table 23 presents a DV index for each database within the health care domain (a higher DV means a greater number of health care data elements was covered). The sequence of databases is sorted by the Health Care DV index score, from the largest to the smallest.

Social-emotional and Behavioral Development Data Variety. Table 24 presents a DV index for each database within the social-emotional and behavioral development domain (a higher DV means a greater number of social-emotional and behavioral development data elements was covered). The sequence of databases is sorted by the Social-emotional and Behavioral Development DV index score from the largest to the smallest.

Community Engagement and Relations Data Variety. Table 25 presents a DV index for each database with the community engagement and relations domain (a higher DV means a greater number of community engagement and relations data elements was covered). The sequence of databases is sorted by the Community Engagement and Relations DV index score, from the largest to the smallest.

Table 18. Data Variety at Topic and Data Element Levels Within the Education Domain

Database	DBID	Overall Education Topics	Education Topic Areas							
			Early care and education (ECE) experiences	K–12 education experiences	K–12 educator characteristics, beliefs and practices	Home-school relations	Education programs provided to children and families	Student K–12 school experiences and outcomes	Postsecondary education experiences and outcomes	Students in special education
FACES	22	100.0%	100.0%	71.4%	100.0%	75.0%	60.0%	41.7%	20.0%	25.0%
ECLS-K	17	87.5%	40.0%	100.0%	100.0%	100.0%	80.0%	75.0%		100.0%
ECLS-K:2011	18	87.5%	40.0%	100.0%	100.0%	100.0%	80.0%	66.7%		100.0%
NHES	55	87.5%	100.0%	57.1%		75.0%	60.0%	83.3%	100.0%	25.0%
HIDOE	27	87.5%	20.0%	42.9%	50.0%		80.0%	50.0%	20.0%	25.0%
NELS:88	51	87.5%	40.0%	100.0%	50.0%	25.0%	100.0%	91.7%	80.0%	
ELS:2002	21	87.5%	20.0%	57.1%	100.0%	50.0%	40.0%	83.3%	40.0%	
ECLS-B	16	87.5%	80.0%	71.4%	100.0%	75.0%	20.0%	33.3%	20.0%	
NICHD-SECCYD	59	75.0%	60.0%	71.4%	100.0%	25.0%	20.0%	75.0%		
HSIS	35	75.0%	80.0%	85.7%	50.0%	75.0%	20.0%	33.3%		
PEELS	75	62.5%	20.0%	28.6%			20.0%	16.7%		75.0%
PSID	74	62.5%	60.0%	28.6%			20.0%	41.7%	60.0%	
SPD	83	62.5%	60.0%	28.6%			20.0%	33.3%	40.0%	
CRD	12	62.5%	20.0%	14.3%	50.0%		40.0%	41.7%		
NAEP	46	62.5%		71.4%	100.0%	50.0%	20.0%	41.7%		
PIRLS	79	62.5%		57.1%	100.0%	25.0%	20.0%	25.0%		
Baby FACES	19	62.5%	100.0%	28.6%		50.0%	20.0%	8.3%		
HS&B	38	50.0%		14.3%			20.0%	50.0%	100.0%	
NLS	57	50.0%	40.0%	28.6%				16.7%	80.0%	
HSLS:09	39	50.0%		42.9%			20.0%	50.0%	60.0%	
NEWWSE	52	50.0%	40.0%				40.0%	33.3%	40.0%	
TIMSS & TIMSS Advanced	85	50.0%		71.4%	100.0%		20.0%	58.3%		
NSCAW	63	50.0%		14.3%		25.0%	20.0%	50.0%		
NAEP-LTT	45	50.0%	40.0%	57.1%			20.0%	50.0%		
PISA	77	50.0%		71.4%	100.0%	25.0%		33.3%		
HHS	26	50.0%	20.0%	14.3%			20.0%	16.7%		
NSCH	64	50.0%	20.0%	14.3%			20.0%	16.7%		
CCD	14	50.0%	20.0%	14.3%	50.0%			8.3%		
SPDS	82	37.5%		14.3%			20.0%			50.0%

Database	DBID	Overall Education Topics	Education Topic Areas							
			Early care and education (ECE) experiences	K–12 education experiences	K–12 educator characteristics, beliefs and practices	Home-school relations	Education programs provided to children and families	Student K–12 school experiences and outcomes	Postsecondary education experiences and outcomes	Students in special education
B&B	7	37.5%		14.3%				16.7%	80.0%	
NLTS2	58	37.5%					20.0%	16.7%	60.0%	
PIACC	78	37.5%					20.0%	8.3%	40.0%	
HI-SLD CCRI	29	37.5%					20.0%	16.7%	20.0%	
HI-SLD Transition	30	37.5%					20.0%	16.7%	20.0%	
BPS	8	25.0%						25.0%	100.0%	
HAWCC-OIR	24	25.0%						8.3%	80.0%	
NPSAS	62	25.0%						8.3%	80.0%	
NSCG	66	25.0%						8.3%	60.0%	
UH-IRAO	87	25.0%						8.3%	60.0%	
ACS	3	25.0%		14.3%					20.0%	
HCDC	23	25.0%		14.3%					20.0%	
NSDUH	69	25.0%		14.3%				33.3%		
YRBSS	86	25.0%		14.3%				25.0%		
HBSC	37	25.0%		14.3%				8.3%		
EDSCLS	20	25.0%		14.3%	50.0%					
PNLMS	80	25.0%	20.0%	14.3%						
NCCBP	49	12.5%							100.0%	
CCSSE	13	12.5%							40.0%	
ATUS	5	12.5%							20.0%	
IPEDS	41	12.5%							20.0%	
NSOPF	70	12.5%							20.0%	
HI-YTS	34	12.5%						8.3%		
NAAL	44	12.5%						8.3%		
NYTD	72	12.5%						8.3%		
NS-CSHCN	65	12.5%					20.0%			
SIPP	81	12.5%				25.0%				
HMIS	40	12.5%		14.3%						
NIS-4	56	12.5%		14.3%						
NMFS	61	12.5%		14.3%						
PSS	76	12.5%		14.3%						
CCDF	11	12.5%	60.0%							

Database	DBID	Overall Education Topics	Education Topic Areas							
			Early care and education (ECE) experiences	K–12 education experiences	K–12 educator characteristics, beliefs and practices	Home-school relations	Education programs provided to children and families	Student K–12 school experiences and outcomes	Postsecondary education experiences and outcomes	Students in special education
Head Start PIR	36	12.5%	20.0%							
NHIS & NHIS-NHPI	54	12.5%	20.0%							
NMIHS	60	12.5%	20.0%							
NSECH	67	12.5%	20.0%							

Table 19. Data Variety at Topic and Data Element Levels Within the Family Contexts and Environment Domain

Database	DBID	Overall	Family Contexts and Environment Topic Areas					
			Family socio-economic status	Welfare and public assistance	Family relationships and support	Home context, parenthood, and parenting	Children involved in systems	Other—Time use
ECLS-K	17	83.3%	77.8%	35.3%	100.0%	100.0%		100.0%
ECLS-K:2011	18	83.3%	77.8%	35.3%	100.0%	100.0%		100.0%
ELS:2002	21	83.3%	66.7%	11.8%	66.7%	77.8%		100.0%
NICHD-SECCYD	59	83.3%	77.8%	47.1%	100.0%	66.7%		100.0%
FACES	22	83.3%	44.4%	35.3%	100.0%	66.7%		100.0%
PSID	74	83.3%	88.9%	47.1%	100.0%	55.6%		100.0%
NAEP-LTT	45	83.3%	22.2%	5.9%	33.3%	55.6%		100.0%
NSCH	64	83.3%	66.7%	29.4%	100.0%	44.4%		100.0%
NSECH	67	83.3%	44.4%	5.9%	100.0%	33.3%		100.0%
NLS	57	83.3%	33.3%	52.9%	66.7%	11.1%		100.0%
HI-DHS	28	83.3%	44.4%	58.8%	66.7%	11.1%	100.0%	
ECLS-B	16	83.3%	55.6%	41.2%	100.0%	77.8%	50.0%	
NS-CSHCN	65	83.3%	33.3%	11.8%	66.7%	11.1%	50.0%	
NHES	55	66.7%	55.6%		66.7%	100.0%		100.0%
NELS:88	51	66.7%	55.6%		100.0%	88.9%		100.0%
HS&B	38	66.7%	55.6%		66.7%	66.7%		100.0%
TIMSS & TIMSS Advanced	85	66.7%	33.3%		33.3%	55.6%		100.0%
PIRLS	79	66.7%	22.2%		33.3%	55.6%		100.0%
NAEP	46	66.7%	22.2%	5.9%		55.6%		100.0%
PNLMS	80	66.7%	22.2%		66.7%	33.3%		100.0%
NSCAW	63	66.7%	22.2%		66.7%	55.6%	100.0%	
HBSC	37	66.7%	33.3%		66.7%	11.1%	50.0%	
NIS-4	56	66.7%	44.4%	5.9%	66.7%		50.0%	
SPD	83	66.7%	55.6%	70.6%	100.0%	55.6%		
HSIS	35	66.7%	55.6%	35.3%	100.0%	55.6%		
Baby FACES	19	66.7%	66.7%	35.3%	66.7%	55.6%		
NSDUH	69	66.7%	22.2%	29.4%	33.3%	44.4%		
NEWWSE	52	66.7%	22.2%	35.3%	100.0%	33.3%		
HHS	26	66.7%	55.6%	41.2%	66.7%	22.2%		

Database	DBID	Overall	Family Contexts and Environment Topic Areas					
			Family socio-economic status	Welfare and public assistance	Family relationships and support	Home context, parenthood, and parenting	Children involved in systems	Other—Time use
NHIS & NHIS-NHPI	54	66.7%	44.4%	29.4%	66.7%	22.2%		
ACS	3	66.7%	44.4%	5.9%	33.3%	22.2%		
HCDC	23	66.7%	44.4%	5.9%	33.3%	22.2%		
SIPP	81	66.7%	33.3%	64.7%	66.7%	11.1%		
NCVS	50	66.7%	44.4%	5.9%	66.7%	11.1%		
BPS	8	66.7%	33.3%	35.3%	33.3%	11.1%		
PISA	77	50.0%	22.2%			44.4%		100.0%
YRBSS	86	50.0%	11.1%		33.3%			100.0%
HMIS	40	50.0%	33.3%	5.9%			50.0%	
PIACC	78	50.0%	22.2%		66.7%	22.2%		
PEELS	75	50.0%	33.3%		33.3%	22.2%		
HSLS:09	39	50.0%	44.4%		33.3%	11.1%		
CHIP	42	50.0%	33.3%		33.3%	11.1%		
NPSAS	62	50.0%	22.2%		33.3%	11.1%		
NSFG	68	50.0%	11.1%		33.3%	11.1%		
NHANES & NNYFS	53	50.0%	66.7%	23.5%		11.1%		
NMIHS	60	50.0%	44.4%	41.2%	66.7%			
AGID	1	50.0%	11.1%	29.4%	66.7%			
AHS	4	50.0%	55.6%	17.6%	33.3%			
HI-PRAMS	32	50.0%	22.2%	5.9%	33.3%			
ATUS	5	33.3%				33.3%		100.0%
NYPANS	73	33.3%				11.1%		100.0%
NCANDS	48	33.3%		5.9%			100.0%	
NYTD	72	33.3%	11.1%				50.0%	
HIDOE	27	33.3%	11.1%			22.2%		
CCDF	11	33.3%	11.1%			11.1%		
CCSSE	13	33.3%	11.1%			11.1%		
NAAL	44	33.3%	11.1%			11.1%		
NLTS2	58	33.3%	33.3%		66.7%			
CPS	15	33.3%	33.3%		66.7%			
MEPS	43	33.3%	33.3%		66.7%			

Database	DBID	Overall	Family Contexts and Environment Topic Areas					
			Family socio-economic status	Welfare and public assistance	Family relationships and support	Home context, parenthood, and parenting	Children involved in systems	Other—Time use
NSCG	66	33.3%	11.1%		66.7%			
B&B	7	33.3%	22.2%		33.3%			
NMFS	61	33.3%	22.2%		33.3%			
NSOPF	70	33.3%	11.1%		33.3%			
NAS	47	33.3%	11.1%		33.3%			
HI-VSD	33	33.3%	11.1%		33.3%			
AFCARS	2	16.7%					50.0%	
HHDC	25	16.7%				11.1%		
BRFSS	9	16.7%			33.3%			
NVSS	71	16.7%			33.3%			
Census	10	16.7%			33.3%			
CRD	12	16.7%		5.9%				
TANF	84	16.7%		5.9%				
HI-SLD Transition	30	16.7%	11.1%					
HI-SLD CCRI	29	16.7%	11.1%					
HAWCC-OIR	24	16.7%	11.1%					
NCCBP	49	16.7%	11.1%					

Table 20. Data Variety at Data Element Level Within the Employment and Career Development Domain

Database	DBID	Employment and Career Development
HS&B	38	53.8%
PIACC	78	53.8%
NELS:88	51	46.2%
PSID	74	46.2%
NICHD-SECCYD	59	38.5%
NEWWSE	52	38.5%
NHES	55	30.8%
ELS:2002	21	30.8%
BPS	8	30.8%
NSCG	66	30.8%
ECLS-B	16	23.1%
SPD	83	23.1%
TIMSS & TIMSS Advanced	85	23.1%
NLTS2	58	23.1%
ECLS-K	17	15.4%
ECLS-K:2011	18	15.4%
NSCH	64	15.4%
NLS	57	15.4%
HSLS:09	39	15.4%
ACS	3	15.4%
HCDC	23	15.4%
HAWCC-OIR	24	15.4%
SIPP	81	15.4%
FACES	22	7.7%
HIDOE	27	7.7%
HSIS	35	7.7%
Baby FACES	19	7.7%
HHS	26	7.7%
PISA	77	7.7%
NAEP-LTT	45	7.7%
B&B	7	7.7%
HI-SLD Transition	30	7.7%
NSDUH	69	7.7%
HBSC	37	7.7%
PNLMS	80	7.7%
NPSAS	62	7.7%
UH-IRAO	87	7.7%
NHIS & NHIS-NHPI	54	7.7%
HMIS	40	7.7%
NMFS	61	7.7%
ATUS	5	7.7%
NMIHS	60	7.7%
NYTD	72	7.7%
NCCBP	49	7.7%
NSOPF	70	7.7%
NCVS	50	7.7%
AHS	4	7.7%
CPS	15	7.7%
HI-DHS	28	7.7%
MEPS	43	7.7%
NSFG	68	7.7%
AGID	1	7.7%
NHANES & NNYFS	53	7.7%

Table 21. Data Variety at Data Element Level Within the Physical Environment and Safety Domain

Database	DBID	Physical Environment and Safety Development
ECLS-B	16	80.0%
FACES	22	60.0%
NELS:88	51	60.0%
Baby FACES	19	60.0%
NSCH	64	60.0%
NSCAW	63	60.0%
YRBSS	86	60.0%
HSIS	35	40.0%
NICHD-SECCYD	59	40.0%
HHS	26	40.0%
SPDS	82	40.0%
HMIS	40	40.0%
NSECH	67	40.0%

Database	DBID	Physical Environment and Safety Development
NCVS	50	40.0%
AHS	4	40.0%
BRFSS	9	40.0%
HI-PRAMS	32	40.0%
NHES	55	20.0%
HS&B	38	20.0%
HBSC	37	20.0%
NHIS & NHIS-NHPI	54	20.0%
NMFS	61	20.0%
HI-YTS	34	20.0%
HI-DHS	28	20.0%
HHDC	25	20.0%

Table 22. Data Variety at Topic and Data Element Levels Within the Physical Health and Behaviors Domain

Database	DBID	Overall Physical Health and Behaviors Topics	Physical Health and Behaviors	
			Physical Health	Health Behaviors
BRFSS	9	100.0%	75.0%	62.5%
ECLS-B	16	100.0%	75.0%	62.5%
ECLS-K	17	100.0%	50.0%	50.0%
ECLS-K:2011	18	100.0%	50.0%	50.0%
Baby FACES	19	100.0%	50.0%	50.0%
FACES	22	100.0%	50.0%	62.5%
HHS	26	100.0%	50.0%	12.5%
HI-PRAMS	32	100.0%	50.0%	12.5%
HSIS	35	100.0%	25.0%	25.0%
HS&B	38	100.0%	75.0%	12.5%
NELS:88	51	100.0%	25.0%	50.0%
NEWWSE	52	100.0%	25.0%	25.0%
NHANES & NNYFS	53	100.0%	75.0%	87.5%
NHIS & NHIS-NHPI	54	100.0%	50.0%	62.5%
NHES	55	100.0%	50.0%	37.5%
NLS	57	100.0%	100.0%	87.5%
NICHD-SECCYD	59	100.0%	75.0%	75.0%
NMIHS	60	100.0%	50.0%	50.0%
NMFS	61	100.0%	50.0%	50.0%
NSCAW	63	100.0%	75.0%	62.5%
NSCH	64	100.0%	50.0%	25.0%
NSECH	67	100.0%	50.0%	12.5%
NSFG	68	100.0%	50.0%	12.5%
NSDUH	69	100.0%	50.0%	37.5%
NYPANS	73	100.0%	25.0%	37.5%
PSID	74	100.0%	75.0%	50.0%
PIACC	78	100.0%	25.0%	12.5%
SPD	83	100.0%	50.0%	25.0%
YRBSS	86	100.0%	25.0%	87.5%
AGID	1	50.0%	25.0%	
AHS	4	50.0%	25.0%	
ATUS	5	50.0%		12.5%
CPS	15	50.0%	25.0%	
EDSCLS	20	50.0%	25.0%	
HHDC	25	50.0%	25.0%	

Database	DBID	Overall Physical Health and Behaviors Topics	Physical Health and Behaviors	
			Physical Health	Health Behaviors
HI-DHS	28	50.0%	25.0%	
HI-VSD	33	50.0%	75.0%	
HI-YTS	34	50.0%		12.5%
HBSC	37	50.0%		62.5%
HMIS	40	50.0%	25.0%	
CHIP	42	50.0%	25.0%	
MEPS	43	50.0%	25.0%	
NAS	47	50.0%	25.0%	
NCVS	50	50.0%	25.0%	
NS-CSHCN	65	50.0%	75.0%	
NVSS	71	50.0%	75.0%	
NYTD	72	50.0%		37.5%
PEELS	75	50.0%	50.0%	
PISA	77	50.0%		12.5%
SPDS	82	50.0%	50.0%	
TIMSS & TIMSS Advanced	85	50.0%		12.5%

Table 23. Data Variety at Data Element Level Within the Health Care Domain

Database	DBID	Health Care
NHIS & NHIS-NHPI	54	100.0%
NSECH	67	100.0%
PSID	74	66.7%
SPD	83	66.7%
HHS	26	66.7%
NSCH	64	66.7%
NSDUH	69	66.7%
NMFS	61	66.7%
NS-CSHCN	65	66.7%
MEPS	43	66.7%
HHDC	25	66.7%
CHIP	42	66.7%
FACES	22	33.3%
ECLS-B	16	33.3%
NHES	55	33.3%
ECLS-K	17	33.3%
ECLS-K:2011	18	33.3%
HSIS	35	33.3%

Database	DBID	Health Care
NICHD-SECCYD	59	33.3%
NEWWSE	52	33.3%
NLS	57	33.3%
PIACC	78	33.3%
SPDS	82	33.3%
ACS	3	33.3%
BPS	8	33.3%
HCDC	23	33.3%
HMIS	40	33.3%
NMIHS	60	33.3%
NYTD	72	33.3%
NCVS	50	33.3%
BRFSS	9	33.3%
CPS	15	33.3%
HI-PRAMS	32	33.3%
NSFG	68	33.3%
NAS	47	33.3%
	59	33.3%

Table 24. Data Variety at Data Element Level Within the Social-emotional and Behavioral Development Domain

Database	DBID	Social-emotional and Behavioral Development
NICHD-SECCYD	59	90.00%
NELS:88	51	50.00%
HSIS	35	50.00%
PSID	74	50.00%
NLS	57	50.00%
YRBSS	86	50.00%
HS&B	38	40.00%
NLTS2	58	40.00%
HBSC	37	40.00%
NHES	55	30.00%
ECLS-K	17	30.00%
ECLS-K:2011	18	30.00%
Baby FACES	19	30.00%
SPD	83	30.00%
NSCAW	63	30.00%
NSDUH	69	30.00%
NSECH	67	30.00%
FACES	22	20.00%
ECLS-B	16	20.00%
ELS:2002	21	20.00%
HIDOE	27	20.00%
NSCH	64	20.00%
NEWWSE	52	20.00%
PISA	77	20.00%
NHIS & NHIS-NHPI	54	20.00%
HMIS	40	20.00%
NYTD	72	20.00%
NS-CSHCN	65	20.00%
NCVS	50	20.00%
NCANDS	48	20.00%
PEELS	75	10.00%
CRD	12	10.00%
HHS	26	10.00%
NAEP-LTT	45	10.00%
PIACC	78	10.00%
SPDS	82	10.00%
NMFS	61	10.00%
ATUS	5	10.00%
NMIHS	60	10.00%
BRFSS	9	10.00%
HI-DHS	28	10.00%
HI-PRAMS	32	10.00%
MEPS	43	10.00%
CHIP	42	10.00%
ASJ	6	10.00%
HI-JJIS	31	10.00%

Table 25. Data Variety at Data Element Level Within the Community Engagement and Relations Domain

Database	DBID	Community Engagement and Relations
NICHD-SECCYD	59	85.70%
ECLS-B	16	71.40%
NHES	55	71.40%
PSID	74	71.40%
HHS	26	71.40%
ECLS-K	17	57.10%
ECLS-K:2011	18	57.10%
ELS:2002	21	57.10%
NSCAW	63	57.10%
AHS	4	57.10%
FACES	22	42.90%
NELS:88	51	42.90%
NSCH	64	42.90%
HS&B	38	42.90%
SPD	83	28.60%
NEWWSE	52	28.60%
NLS	57	28.60%
NSDUH	69	28.60%

Database	DBID	Community Engagement and Relations
PNLMS	80	28.60%
NHIS & NHIS-NHPI	54	28.60%
HI-YTS	34	28.60%
HIDOE	27	14.30%
HSIS	35	14.30%
Baby FACES	19	14.30%
PISA	77	14.30%
NAEP-LTT	45	14.30%
TIMSS & TIMSS Advanced	85	14.30%
CCD	14	14.30%
PIACC	78	14.30%
NLTS2	58	14.30%
YRBSS	86	14.30%
ACS	3	14.30%
ATUS	5	14.30%
NCVS	50	14.30%
CPS	15	14.30%
NSFG	68	14.30%

Databases that Inform NHEP's GPRA Measures

This section discusses the databases that can potentially be used to inform NHEP's GPRA Measures, as specified below:

> **Measure One:** The percentage of Native Hawaiian students in schools served by the program who meet or exceed proficiency standards for reading, mathematics, and science on the state assessments.
>
> **Measure Two:** The percentage of Native Hawaiian children participating in early education programs who consistently demonstrate school readiness in literacy as measured by the Hawaii School Readiness Assessment (HSRA).
>
> **Measure Three:** The percentage of students in schools served by the program who graduate from high school with a high school diploma in four years.
>
> **Measure Four:** The percentage of students participating in a Hawaiian language program conducted under the Native Hawaiian Education Program who meet or exceed proficiency standards in reading on a test of the Hawaiian language.
>
> **Other:** Measuring the Strength of the Native Hawaiian Community.

Measures One, Two, Three and Four require data that is collected on students from schools and programs serving Native Hawaiian students. For students who reside in the state of Hawai'i, data is collected by the Hawai'i State Department of Education (HIDOE) under the Data Governance and Analysis Branch, Innovation and Performance, Office of Strategy. For students who reside outside of Hawai'i, data are collected by the each of the state's Department of Education in which they reside.

For this project, the Hawaii State Department of Education (HIDOE) website was reviewed as it serves the majority of Native Hawaiian students within the U.S. education system.[7] Specifically, Table 26 summarizes the types of data collected by HIDOE that can be used to inform each type of GPRA measure. Each type of assessment data is briefly described, as follows. More information can be found at http://alohahsap.org/.

- Smarter Balanced Assessment (SBA) for English language arts/literacy and math: The SBA in mathematics and English language arts/literacy (ELA) is aligned to the Hawai'i Common Core Standards, and designed to measure whether students are "on track" for readiness in college and/or career. These are mandatory assessments given to students in grades 3–8 and 11.
- Hawaii State Assessment (HAS) in Science: The HAS in Science is administered to students in grades 4 and 8. It is a mandatory assessment that measures science proficiency as part of the Strive HI Performance System for schools.
- National Assessment of Educational Progress (NAEP): NAEP is a congressionally authorized project sponsored by the U.S. Department of Education. It is an assessment of a

[7] According to the 2010 US Census, there were more than 525,000 Native Hawaiians in the United States, with 290,000 (about 55 percent) living in Hawai'i (Kamehameha Schools, 2014).

representative sample of 4th and 8th graders (about 2,300 students) in reading and math that is given every two years.

- Hawaii School Readiness Assessment (HSRA): The school, complex areas, and state reports provide information on kindergarten children's readiness to succeed in school and on the schools' readiness to support their learning. The assessment instruments were developed by the School Readiness Task Force, in partnership with the Department of Education, Kamehameha Schools and Good Beginnings Alliance. School results, especially those of Title I schools, will be useful for school improvement plans and for school transition plans for entering kindergartners.
- Kaiapuni Assessment of Educational Outcomes (KĀʻEO): The KĀʻEO in language arts, mathematics and science is administered in the Hawaiian language. The language arts and mathematics assessments are administered to grades 3 and 4 students in the Hawaiian Language Immersion Program. The science assessment is administered to grade 4 students in the program.
- End-of-Course (EOC) Exam: EOC Exams are used to measure student proficiency in course content standards, inform instruction and standardize course expectations in Algebra I, Algebra II, Biology I, and U.S. History. They are administered online at the end of instruction during the last three weeks of the course. Students can take the test once within the three-week testing window (a second opportunity is allowed on a case-by-case basis). Only the Biology I EOC is required—it is a measure of high-school-level proficiency in science as part of the Strive HI System. EOC exams in Algebra I, Algebra II and U.S. History are optional. (Additionally, U.S. History EOC may be changed, pending educator input.)
- Hawaii State Assessment-Alternative Assessment (HAS-Alt): The HSA-Alt in English language arts/literacy, mathematics and science is administered to students in grades 4, 8 and 11 to promote, improve access to, and measure the attainment of standards by setting high expectations for students with significant cognitive disabilities.
- ACCESS for ELLs Online 2.0: The ACCESS for ELLs 2.0 is an English language proficiency assessment administered to all English learners in kindergarten through 12th grade to monitor students' progress and proficiency in acquiring academic English.
- ACT: ACT, including writing test, is an optional examine in the state of Hawaiʻi. It is available for 11th grade students to measure student progress toward and readiness for post-secondary plans.
- Graduation status: HIDOE collects data on four-year graduation status and dropout status. HIDOE also collects data on high school completers who received a special education certificate of completion in lieu of a diploma and students who are still attending school and did not graduate within the four-year time frame.

Table 26. HIDOE Data for GPRA Measures One to Four

Assessment Data	Measure One	Measure Two	Measure Three	Measure Four
Smarter Balanced Assessment (SBA) for English language arts/literacy and math	●			
Hawaii State Assessment (HAS) in Science	●			
National Assessment of Educational Progress (NAEP)	●			
Hawaii School Readiness Assessment (HSRA)		●		
Kaiapuni Assessment of Educational Outcomes (KĀʻEO)				●
End-of-Course (EOC) Exam	●			
Hawaii State Assessment-Alternative Assessment (HSA-Alt)	●			
ACCESS for ELLs Online 2.0	●			
ACT (optional)	●			
Graduation status			●	

The databases that can potentially be used to inform the Other measures that assess the strength of the Native Hawaiian community are summarized in Table 27. Kamehameha School's 2014 report, titled *Ka Huakaʻi: 2014 Native Hawaiian Educational Assessment*, is used as the primary source and cites the Native Hawaiian community's areas of strength. The Native Hawaiian community's strength areas, as identified in the *Ka Huakaʻi: 2014 Native Hawaiian Educational Assessment report*, are summarized below.

- Native Hawaiians are more likely to live in family households than are non-Hawaiians and to have grandparents in the household who take an active role in their grandchildren's upbringing (Data Element: Family structure/composition).
- Native Hawaiians are more likely to report that life has improved over the last five years and that they are optimistic about the future than are non-Hawaiians (Data Element: Life satisfaction and quality of life).
- Native Hawaiian youth are more likely than their non-Hawaiian peers to have an adult with whom they can talk about their challenges (Data Element: Community social support and resources; family support, resources, and family ties).
- Compared with non-Hawaiians, Native Hawaiian youth are more likely to be physically active, and more Native Hawaiian adults engage in muscle-strengthening activities on a regular basis (Data Element: Physical activity).
- Native Hawaiian adults are more likely than non-Hawaiians to belong to a religious organization and to rely on family for support in times of need (Data Element: Tribal, cultural, and religious activities).

As shown in Table 27, 56 databases contain data that can potentially contribute to our understanding of the strength of the Native Hawaiian community. Across all strength areas, there are a *sufficient* number of databases collecting data on community social support and resources (n = 15); family support, resources and family ties (n = 17); tribal, cultural, and religious activities and engagement in community (n = 12); family structure and composition (n = 48); and physical activity

(n = 15). However, there are *potential gaps* on data related to life satisfaction and quality of life (n = 4). Individuals who are interested in examining a wider array of data related to the specified strength areas are encouraged to start with the databases with higher DV index scores, such as the Early Childhood Longitudinal Study-Birth Cohort (ECLS-B), National Institute of Child Health and Human Development Study of Early Child Care and Youth Development (NICHD-SECCYD), and the Panel Study of Income Dynamics (PSID).

Table 27. Databases for Other Measures Assessing the Strength of the Native Hawaiian Community

Database	DBID	Community social support and resources	Family support, resources, and family ties	Tribal, cultural, and religious activities and engagement in community	Family structure /composition	Life satisfaction and quality of life	Physical activity	DV Index
ECLS-B	16	●	●	●	●		●	83.3%
NICHD-SECCYD	59	●	●	●	●		●	83.3%
PSID	74	●	●		●	●	●	83.3%
FACES	22	●	●		●		●	66.7%
NLS	57			●	●	●	●	66.7%
NSCAW	63	●	●	●	●			66.7%
NSCH	64	●	●		●		●	66.7%
ECLS-K	17		●		●		●	50.0%
ECLS-K:2011	18		●		●		●	50.0%
HHS	26	●		●	●			50.0%
HSIS	35		●		●	●		50.0%
NELS:88	51		●	●	●			50.0%
NHIS & NHIS-NHPI	54	●			●		●	50.0%
NHES	55	●		●	●			50.0%
NSDUH	69	●		●	●			50.0%
PISA	77	●				●	●	50.0%
SPD	83		●	●	●			50.0%
YRBSS	86	●	●				●	50.0%
AGID	1		●		●			33.3%
AHS	4			●	●			33.3%
Baby FACES	19		●		●			33.3%
ELS:2002	21	●			●			33.3%
HBSC	37		●		●			33.3%
HS&B	38			●	●			33.3%
NEWWSE	52		●		●			33.3%
NSECH	67		●		●			33.3%
TIMSS & TIMSS Advanced	85	●			●			33.3%
ACS	3				●			16.7%
ATUS	5						●	16.7%
BPS	8				●			16.7%
BRFSS	9				●			16.7%
Census	10				●			16.7%

Database	DBID	Community social support and resources	Family support, resources, and family ties	Tribal, cultural, and religious activities and engagement in community	Family structure /composition	Life satisfaction and quality of life	Physical activity	DV Index
CPS	15				●			16.7%
HCDC	23				●			16.7%
HI-DHS	28				●			16.7%
HI-YTS	34	●						16.7%
HSLS:09	39				●			16.7%
CHIP	42				●			16.7%
MEPS	43				●			16.7%
NAEP-LTT	45				●			16.7%
NAS	47				●			16.7%
NCVS	50				●			16.7%
NHANES & NNYFS	53						●	16.7%
NIS-4	56				●			16.7%
NLTS2	58				●			16.7%
NMIHS	60				●			16.7%
NMFS	61						●	16.7%
NS-CSHCN	65				●			16.7%
NSCG	66				●			16.7%
NSFG	68			●				16.7%
NYPANS	73						●	16.7%
PEELS	75				●			16.7%
PIACC	78				●			16.7%
PIRLS	79				●			16.7%
PNLMS	80				●			16.7%
SIPP	81				●			16.7%
Total		15	17	12	48	4	15	

Limitations

The main purpose of data mapping is to identify the types of data available at the national and state levels that can be used to enhance our understanding of the education and well-being of Native Hawaiians. McREL focused on identifying as many data systems and repositories as possible; reviewed education and well-being related databases within them to identify the relevant data elements; and cross-walked the identified databases across data elements. The results of the mapping provide information regarding data availability and gaps, data variety across databases, and databases that can be used to inform NHEP's GPRA measures as discussed in this chapter. However, readers should also be aware of several limitations when using the findings presented in this report.

Limitation 1: Information on the sample sizes of Native Hawaiians were not examined in the databases; therefore, it is unknown how many databases out of the 87 databases that were reviewed have a large enough sample size to allow data users to conduct meaningful analysis for the Native Hawaiians.

Limitation 2: Data quality, and limitations of the databases were not examined; users should examine the documentation and data from the databases of interest to make their own assessments of the quality of the data.

Limitation 3: To keep the number of data elements manageable for the mapping, McREL made a professional judgment to group similar types of data together. Hence, the way data were collected (e.g., self-report, registry data) and the types of questions asked across datasets are likely to be different across different databases and comparisons between datasets may be limited.

Limitation 4: Some databases included in the database inventory are outdated, but are included in the inventory nonetheless, as these types of databases provide an opportunity for users to examine longitudinal trends.

Limitation 5: This inventory of databases is not exhaustive, but it includes a wide variety of data sources that can address education and well-being issues for Native Hawaiians. During the search process, McREL dedicated more time to education-related data systems and repositories; hence, there might be other databases collecting education and well-being data on Native Hawaiians that were not included in the inventory, especially in non-education areas.

3. Stakeholder Input

In November and December 2017, McREL facilitated a Stakeholder Convening hosted by NHEC and conducted follow-up interviews to gather stakeholders' input on how data can be used to understand and communicate the well-being of Native Hawaiian communities. As part of the interviews, McREL asked stakeholders to identify the kinds of data about Native Hawaiian communities that may be missing from current research and development efforts that might be helpful to collect in the future. Findings from the convening and the stakeholder interviews are summarized in this chapter.

Stakeholder Convening

Meeting Overview

NHEC convened a meeting on November 15, 2017, focusing on the kinds of data-informed stories stakeholders are able to tell about the well-being of Native Hawaiian communities. Stakeholders were also asked to reflect on data that may not be currently available but might be critical to telling more complete stories about Native Hawaiian communities that could influence practice and policy moving forward. Finally, the convening was an opportunity for stakeholders to advise NHEC about advocacy and collaborative efforts they might engage in around data related to the well-being of Native Hawaiian communities.

To co-develop the agenda for the meeting, McREL met with Dr. Sylvia Hussey from NHEC, Dr. Jean Osumi from the Hawai'i Data eXchange Partnership (Hawai'i DXP), and Dr. Walter Kahumoku III from the University of Hawai'i–West O'ahu. The convening agenda is provided in Appendix G.

The convening was held at the Mānoa Innovation Center conference room from 9 a.m.–3 p.m. on November 15. A total of 10 stakeholders from various communities and organizations participated in the convening (Table 28).

Table 28. Stakeholder Convening Participants

Organization	Participants
Host	
Native Hawaiian Education Council	Sylvia Hussey
Native Hawaiian Education Council	Erika Vincent
Facilitator	
McREL International	Phillip Herman
McREL International	Daisy Carreon
McREL International	Katie Gao
McREL International	Johanna Carillo
Stakeholder	
Auriga WPS Consulting	Nolan Malone
Hawai'i Department of Education	Jan Fukada
Hawai'i Data eXchange Partnership	Jean Osumi
Hawai'i Department of Education	Tom Saka

Organization	Participants
Kamehameha Schools	Wendy Kekahio
Kamehameha Schools	Waialeale Sarsona
Kamehameha Schools	Ka‘ano‘i Walk
Papa Ola Lōkahi	Tercia Ku
SMS Research and Marketing Services, Inc.	Daniel Nāho‘opi‘i
University of Hawai‘i–West O‘ahu	Walter Kahumoku III

Key Takeaways

A need for broader definitions and measures of Native Hawaiian success. Some participants commented that success in Native Hawaiian communities may not only be defined as postsecondary and workforce success, but is often much broader. Participants noted that definitions of success and definitions of leadership may have different meanings within Native Hawaiian communities. For example, leadership might mean taking the lead in your community or family, and might not necessarily be defined as being a manager or the president of an organization. Participants discussed the need to think more deeply about the various definitions of success and how indicators of success can be very different for individuals, families, and communities. Participants commented that stakeholders need to capture the different ways that Native Hawaiians define success and that this could influence which data to collect to better capture the well-being of Native Hawaiian communities and thereby inform policy.

One participant mentioned that the Ka Papahana Kaiapuni (KPK) program (HIDOE Hawaiian language immersion program) has begun conversations about what success means to students who are in the kaiapuni schools and is currently working on additional ways to measure success.

“There are a lot of competing definitions of success and what people want for their kids in the future and what is important to them.”

Native Hawaiian stakeholder

Currently, summative tests scores are the most common data that are routinely collected to measure success in education, so these scores have become widely used to measure and understand progress. Participants noted that this focus on these scores may not be appropriate for Native Hawaiian communities because it does not present a holistic picture of progress. Participants noted that to be able to tell better stories, they need better measures beyond test scores. Key questions that participants felt needed to be considered include:

- How can we better understand the connection between a policy, like the Na Hopena A‘o effort, and its impact on our community?
- What are the set of success indicators that can tell a compelling story about where Native Hawaiian students stand in terms of education, health, and overall well-being?
- What other kinds of assessments can we include as we look more holistically at our students?

A need for more implementation data on Native Hawaiian education programs. When implementation data are available, they can provide insights into how programs work, which

components of the programs were responsible for any associated outcomes, and provide some insight into why programs succeeded or failed, particularly with identified subgroups of students or in certain geographic communities. Participants expressed some concern about not knowing which Native Hawaiian programming produced the outcomes measured. One participant commented that "*we don't have the information available about what is and isn't successful.*" Another participant stressed the need to better understand which programs are effective for particular students so that the community can better allocate resources: "*We need a team of researchers working to better understand how our programs are doing, so we know where to focus our resources.*" Although participants were able to provide several examples of programs geared toward helping Native Hawaiian students advance their education, they also noted that student performance has remained flat for the past 20 years. They shared that the community knows little about the extent to which these programs are meeting the needs of Native Hawaiian students because implementation data are often overlooked when the only thing that seems to matter is the outcome data. For example, a participant commented that while they have a lot of outcome measures for college and career readiness, including the percent of students who are remediated in college, they do not currently collect data that could help them understand which of the many programs they currently offer are most effective in changing these outcomes for their students.

A need to build on stories of resilience and strength in Native Hawaiian communities; looking for variance within Native Hawaiian communities. Participants noted that there is a tendency for researchers to compare Native Hawaiians to other ethnic groups. In some cases, when compared to other groups, Native Hawaiians have worse outcomes. Participants are concerned that this is the story that is being perpetuated in their communities. A participant commented that "*we know students from our schools are becoming teachers, but they are also becoming doctors and lawyers. We are not capturing those kinds of stories. I would love to hear those kinds of stories.*" This participant went on to say that "*the story being told to our Native Hawaiian kids is that if you live on the homestead, then no can. We need to try to break that story that is being perpetuated in our community and tell more positive stories*." Participants urged researchers to identify positive outcomes *within* Native Hawaiian communities and work to understand the programs, supports, or environments that helped foster that success. Such an approach may provide more of a roadmap of what to do than more studies that simply measure and highlight differences among groups.

A need to build more connections between data systems and data repositories that collect, manage, and use data related to Native Hawaiian education and well-being. One participant proposed a scenario in which, if a student were to miss school, a teacher could use a database to determine why the student missed school that day. This database might include a variety of data about the student including information about: health care systems, families, schools, and so on. In the United States, this type of data integration and sharing is challenging, due to privacy, funding, and other concerns. Yet, it is difficult to understand what is happening to a child without knowing what is going on with the rest of his/her family. Participants wanted to know if it is possible to add more data to the DXP system, or if NHEC could advocate for a version of a P–20 data system that

would be more focused on Native Hawaiian communities. Participants also discussed the possibilities of different agencies sharing data, perhaps through a federated model[8]

There are fundamental questions that are still unanswered, but are important for Native Hawaiian communities to understand and include in their storytelling. Participants noted that even such fundamental question as language use, such as how many Hawaiians speak Hawaiian, in which contexts, and with which degree of fluency, is still largely unknown. The anecdotal evidence is that 30,000 Native Hawaiians are using Hawaiian language as their daily language, but it is not clear where these data come from. Participants also felt the need to better understand how Native Hawaiian Education is impacting the keiki and their 'ohana. They posed questions such as: What are the benefits of learning Hawaiian? Does it lead to increased cultural pride and identity? Is it linked to academic achievement or literacy? Are students more engaged in their families, schools, and community? One participant noted that Hawaiian language immersion schools have lower absenteeism and fewer disciplinary actions. But when asked for data by another participant, she was not positive she had access to the necessary data. Participants postulated that if there was a database that could show the impact of NHE on keiki, then the public schools might start teaching Hawaiian language to everyone. Lastly, a participant shared that he would like to know that, if stakeholders advance 'ike Hawaii, will that also advance their ability to be a sustainable society? In other words, would Hawaiians be more able to sustain their populations with just the resources they have on the islands if 'ike Hawaii were to proliferate?

As the discussion continued, participants took the conversation in a different direction. Participants felt that in order to determine which stories needed to be told, they would need to have more clarity around the goals of Native Hawaiian education.

A need for a shared understanding of Native Hawaiian Education in order to determine which stories we need to tell. In order to generate a list of powerful and important stories about Native Hawaiians' experiences, participants felt the need for more clarity on what is meant by Native Hawaiian Education. A participant suggested *"as a first part of our discussion in trying to identify some of the critical questions that are out there, we need to define what it is we are talking about, what are the boundaries, and map all the different perspectives. Define what this looks like in Hawai'i."* This led to the creation of a Venn diagram that has three overlapping spheres: Native Hawaiian Education, Education of Native Hawaiians, and Education of Hawaii (Figure 3). The following section summarizes the participants' discussion on the Venn diagram.

---

[8] A federated model is a decentralized database management system that interconnects and maps multiple autonomous and self-sustaining databases through a network. In a federated model, each group stores its own data but agrees to share particular data elements.

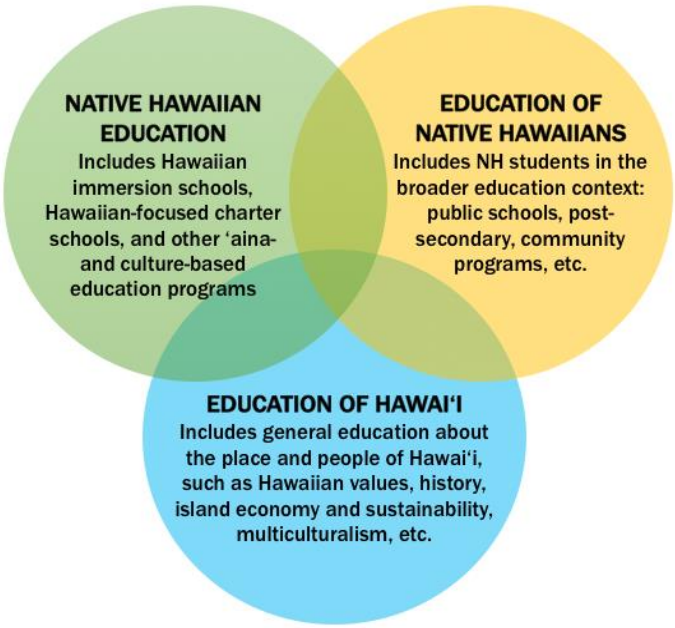

Figure 3: Venn Diagram of Native Hawaiian Education

Native Hawaiian Education (NHE), as defined by the convening participants, includes Hawaiian language immersion schools, Hawaiian-focused charter schools, and other schools that focus on supporting ʻike Hawaiʻi and renormalizing ʻŌlelo Hawaiʻi. Participants noted that the percentage of Native Hawaiian students that fall into the NHE sphere is relatively small, as most Native Hawaiian students are included in the Education of Native Hawaiians sphere, which includes non-Hawaiian-focused public schools and post-secondary programs. The final sphere, Education of Hawaiʻi, was described by the group as the output of the two previous spheres, in that the general education about the place and culture of Hawaiʻi not only includes education about Native Hawaiian cultural values but also about Hawaiʻi's history as a place and people that has resulted in the unique context of the islands today.

Regarding the overlap of the spheres, participants suggested that the center of the three spheres is the Nā Hopena Aʻo (HĀ) framework, which binds these audiences and education environments together with a common purpose. They raised questions about the kind of data that should be prioritized within the spheres and across the spheres at their intersections.

Stakeholder Interviews

Following the convening, McREL conducted interviews with four organizations that collect Native Hawaiian Education data in the state of Hawaiʻi to understand the gaps within current data systems and identify opportunities for collaboration to fill the gaps to improve our understanding of Native Hawaiians and their experiences. Representatives from the following organizations were interviewed:

- Center on the Family at the University of Hawaiʻi at Mānoa (UHM) (1 interviewee)
- Kamehameha Schools (KS) (1 interviewee)
- Office of Hawaiian Affairs (OHA) (1 interviewee)

- Papa Ola Lōkahi (POL) (2 interviewees)

To help facilitate the discussion, interviewees were asked to complete a data mapping form before the interview. Interview protocols are included in Appendix H. The semi-structured interview aimed to capture feedback from each organization related to the education and well-being of Native Hawaiians, including essential data elements, data collected by their organizations, data gaps, and cross-system collaboration efforts. Further, interviewees were asked to discuss the specific role(s) the Native Hawaiian Education Council could play in supporting better access and connections to data on Native Hawaiian students and their experiences. Each individual interview lasted approximately 30 to 60 minutes.

Findings

Interview findings are summarized in four sections. First, the findings regarding essential data and data gaps are discussed. Second, findings regarding the current effort to address data gaps are summarized. Third, findings related to cross-system collaboration to improve understanding of Native Hawaiians and their experiences are addressed. Finally, stakeholders' perceptions of NHEC's role in supporting access and connections to data about Native Hawaiians and their experiences are examined. The interview findings show that the challenges and concerns relating to the use of data to tell the stories of Native Hawaiian communities is consistent with the collective discussion at the Nov. 15 Stakeholder convening. While the interview findings are summarized below, Chapter 4 presents overall recommendations for NHEC based on the data mapping process, convening, and interviews combined.

Essential data and data gaps. To better understand potential gaps in data, individuals were first asked to identify data that are essential to understanding the education and well-being of Native Hawaiians. Each interviewee provided their unique insight regarding essential data and data gaps, reflecting the type of work in which they are involved. Findings from the interviews[9] are summarized in Table 29.

Table 29. Perception of Essential Data and Data Gaps by Stakeholder Organization

Kamehameha Schools
When asked to identify the types of data that are essential to the education and well-being of Native Hawaiians, the Kamehameha Schools (KS) interviewee identified four data topics to explore, including culture connectedness and revitalization, social/emotional development, environment, and out migration. Culture connectedness and revitalization were said to show the holistic well-being of Native Hawaiians to tell the story of their knowledge, engagement, and identity in Hawaiian culture. The interviewee added that KS collects academic data but could benefit from additional data on social and emotional development of Native Hawaiian students. Further, data on the environment depict the conditions in which Native Hawaiians live (e.g., housing, economic system, juvenile justice system, etc.) and can support deeper understanding of their education and well-being. "In some ways, it is about Native Hawaiians but it is more about the larger systems that are in play that affect the well-being of Native Hawaiians," added the KS

[9] The opinions expressed in the interviews do not necessarily reflect the position of the larger organizations.

interviewee. Lastly, the KS interviewee shared that out migration of Native Hawaiians is important, as "estimates are that 50 percent of Native Hawaiians do not live in Hawai'i." However, the data about those who live outside of the state seem limited. Overall, the KS interviewee indicated that these types of data are limited and "spotty" in the KS data system.

Office of Hawaiian Affairs

The Office of Hawaiian Affairs (OHA) interviewee identified a list of essential data, including bullying, homeschool education, parent satisfaction, transition to kindergarten, school practices to involve and support families, and home context (e.g., parenting). Home environment and parenting in particular are important, as these data can enhance the understanding of parent involvement in children's education, home and community upbringing, and access to language and technology. These factors, along with the resiliency that families or children exhibit, were said to be key in understanding students' environment beyond their economic status (as defined by their eligibility for free- and reduced-price lunch). Additionally, the OHA interviewee added that organizations should continue conversations on data gaps and consider ways to incorporate community-level measures and resiliency-oriented measures. According to the OHA interviewee, these types of data were available from federal agencies, such as U.S. Department of Education (ED), the U.S. Census Bureau, and the Centers for Disease Control and Prevention (CDC), etc.

Papa Ola Lōkahi

Two staff members from Papa Ola Lōkahi (POL) were interviewed separately. One interviewee identified several essential data types that he/she thinks are essential to know about their clients, including basic demographic data, health data, homelessness status, access to and utilization of POL programs, and barriers to accessing or utilizing the POL programs. The other staff member expanded on this, noting the importance of reporting and comparing data across racial/ethnic groups and including data across different types of schools, including charter schools, language immersion schools, public schools, and private schools. "I think all of that is really important to understanding where our Native Hawaiian population is currently as compared to the state, the country, as well as other ethnic groups," said one POL interviewee. POL interviewees shared that they routinely use data collected from the Department of Health, the U.S. Census Bureau, and the American Community Survey to explore the data of interest. However, the challenge with these datasets is not the lack of data, but concerns about how the racial/ethnic groups were identified and the availability of sufficient sample sizes that allow for the analysis with Native Hawaiian sample.

> *"I think when we look at what is available, whether it is state and federal data, what we are missing is the opportunity for us to just aggregate the data for Native Hawaiians specifically. It is not that the data is not there, it is. Is there an ability for us to just look at Native Hawaiians versus looking at our Asian-American data points, Pacific Islander group? Because that is usually how we are grouped for state and federal data."*
>
> *Papa Ola Lōkahi interviewee*

When asking about data gaps, one POL representative shared that there is a resurgence of traditional Native Hawaiian practices (e.g., Hula [traditional dance], Lua [traditional form of martial arts]); however, collecting data around the learning, emotional well-being and physical health from these traditional practices is challenging because it is difficult to quantify these types of practices and these traditions may not be understood. "But we do know that people are using

other methods of healing, for wellness, and even for education," shared a POL interviewee. The other interviewee added that they lack data around what children or young adults are doing if they are not enrolled in college. The interviewee stated,

> *I do not know that we do a good enough job of tracking kids who are no longer in the system, who have failed to complete their education at least at the primary or secondary levels…I think we just lose them to some place. I have never understood, or I do not think I have seen anything that really captures what has happened.*

Center on the Family at the UHM

> *"Even different programs within our State Department of Health and Human Services may have limited ability to actually cross and share their data but that is a potential gold mine of importance."*
>
> *Center on the Family Staff*

The interviewee from the Center on the Family shared that psychological and social processes are valuable to understand, which could include mental health, degree of optimism, personal reports of well-being, and information on their belief systems. These data were said to complement demographic social indicators by capturing social and emotional support, knowledge of community resources, personal feelings of efficacy and resiliency, knowledge of child development, and the parent-child relationship. Additionally, the interviewee felt that parental education and career aspirations are important areas for which the Center should identify partners who can "report that as an enrichment to the more typical social indicators."

When asked about the data gap, the Center staff indicated that organizations could do a better job of addressing data on psychological and social processes. For instance, the staff mentioned that KS may be attempting to fill this data gap with the cultural identify survey for their students.

Efforts to address data gaps. All interviewees were asked to share if they are aware of or involved in any efforts, internally or externally, that are intended to address the data gap. Findings are summarized as follows.

- KS is collaborating with the Office of Hawaiian Affairs, an organization that serves Native Hawaiians, to leverage resources and create a strategic plan for more collective data on Native Hawaiian well-being.
- KS is working with the Liliuokalani Trust and their newly created research division to discuss available data, interest areas, and plans for future implementation.
- KS is in communication with the Hawai'i Data eXchange Partnership (DXP) in an attempt to build a data-sharing agreement. KS does not presently and has not historically shared data with other organizations, but they have discussed creating a data center with other organizations (e.g., OHA and Liliuokalani Trust) to establish a place for Native Hawaiian data to be housed. Hawai'i state is working on a new data system for the State Department of Health (DOH) and State Department of Human Services (DHS) that aims to replace the free-standing data systems from each department and the programs within the departments to create a central platform. However, the extent of data sharing is unclear given specific programs' guidelines or rules for circulating the data collected.

- The SMS Research is contracted with the Department of Health to administer a Hawaii Health Survey. SMS Research invites organizations to become a partner in the survey and, as a partner, organizations can access previous data and add six closed-ended questions. KS was a former partner and recently applied to become a partner again in 2018; the Office of Hawaiian Affairs also signed on to be a partner. "That is a more concrete way for us to think about data for well-being because we do have this chance to add on questions around what we think might be missing from the current survey and data we want to collect," reported the KS staff member.
- Liliuokalani Trust convened a two-day summit (Kukulu Kumuhana) to bring together educators, researchers, community members, program directors/staff, and other interested executives to discuss the data needed to "tell stories around Native Hawaiians." The KS and OHA interviewees reported that the attendees explored the definition of well-being and discussed Hawaiian mottos and components of well-being, with the goal of identifying data gaps and establish a network for ongoing communication.
- OHA is involved in internal and external discussions to address data gaps. The work revealed that there are data gaps on "qualitative kind[s] of narrative[s] for families or students or even communities." OHA has been a part of discussions at the Culturally Responsive Evaluation and Assessment (REA, Hawaii Chapter) to establish better methods for such data collection. Specifically, this group has worked to develop culturally relevant measures and assessments while considering methodologies that incorporate qualitative data. Discussions focus on what "the schools are doing that collectively create these environments for kids to grow, learn, feel safe, and move forward, and succeed." The group also collaborates on students' college, career, and community readiness to determine the best approach to measure success and evaluate students' pathways into adulthood. The Hawaiian-Focused Charter Schools group is in the process of validating culturally relevant assessments.
- POL also attempts to provide more qualitative needs assessments on individuals' access to and utilization of healthcare (e.g., traditional Hawaiian medicine, Chinese herbal medicine, holistic healing, etc.). This allows the community to explain the practices in which they participate. The organization established two groups to achieve this goal, one of which is a data governance group that works with Native Hawaiian-serving organizations. At the time of this report, the POL taskforce was writing a chapter about the lack of any data repositories specific to Native Hawaiians and their health.

Cross-system collaboration to improve understanding of Native Hawaiians and their experiences. Interviewees were asked if their organization is currently involved in any efforts regarding cross-system collaboration to improve our understanding of Native Hawaiians and their experiences. Findings are summarized as follows.

- OHA works with KS in a consortium to advance goals established at the Native Hawaiian Education Summit, identify strategies to get the community more involved, learn more about the discussions among organizations and departments, and examine the education system to promote healthy communities.

- POL works with organizations and institutions, such as the University of Hawai'i, Ali'i Trusts, Lunalilo Homes, community colleges, state profits, and non-profit organizations, to cover the community across a person's lifespan (i.e., from youth to geriatrics).

Interviewees were also asked to share notable successes from the cross-system collaborations, including financial and resource assistance, program impact, support for achieving one another's missions, and increased access to data and experts in the field. Specifically, OHA has supported legislative change in the Department of Education to strengthen the Hawaiian Language Immersion Program. Organizations have also led groups in moving Native Hawaiian education forward by offering financial support and resources, and collaborations have occasionally enhanced organizations' reputation to rebuild relationships and increase access to data.

With regard to challenges, limited time, finances, commitment, and work-related connections are the most common issues highlighted by the interviewees. For instance, working across organizations can pose challenges during planning and implementation phases, even for tasks as simple as scheduling a convenient meeting time for all parties. Additionally, organizations may operate on differing schedules when coordinating the details around the vision for and implementation of joint data collection. For example, some organizations may be ready to launch a project whereas others do not have the capacity to begin. Lastly, organizations must determine the funding and personnel resources that each must invest in the project, and they must determine who owns the data or research throughout or after the study. Some interviewees also experienced challenges when connecting the work to their mission and sharing the work with appropriate audiences, as organizations may have various approaches or goals. Perhaps the most important barrier of all to address is the organizations' willingness and commitment to communicate with one another to support and achieve their common goal[s]. An interviewee shared,

> *We are all at a point where we are seeing that we need to partner so that there is a clearer direction within organizations around vision. Even though our organizations are focused on different things, like at the core we are an education organization, someone else is more about family, or land, or different main focuses. We all see clearly now current and perhaps future strategic plans that we share that common goal. We share that common vision around improving native Hawaiian well-being.*

Role of NHEC in supporting better access and connections to data about Native Hawaiians and their experiences. Interviewees were asked to identify ways that NHEC can support better access and connections to data on Native Hawaiians. Interviewees suggested that the Council could:

- Optimize the Council's connections with numerous programs and partners to consider ways to aggregate or conduct a meta-analysis of data available. This effort would provide a collective, collaborative lens to better understand or address gaps in the data on Native Hawaiians;
- Create a data repository across the federal mandate to include housing, health, and education issues relevant to Native Hawaiian populations;
- Develop a resource repository containing information regarding measures, instruments, tools, and data sources that one can use to locate the data, specific to Native Hawaiian data, of interest;

- Take the lead on exploring state agencies' reporting styles and assessing what is happening in the community, such as identifying the extent to which public reporting is disaggregated by ethnicity and ultimately enhance reporting at that level;
- Advocate for agencies to highlight strengths, protective factors, and positive outcomes of the Native Hawaiian community; and
- Facilitate communications across agencies to share their experiences in addressing issues related to Native Hawaiian data use, data access, and data collection challenges.

4. Summary and Recommendations

This report provided a detailed examination of numerous existing data systems, data repositories, and databases, which included federal, state, local, research, and administrative data that contain information related to the education and well-being of the Native Hawaiian community. An inventory of these databases was created to provide detailed information regarding data elements collected across databases. Furthermore, to identify issues related to gaps in our understanding of the data, and to identify opportunities and make recommendations to fill the gaps, McREL staff hosted a stakeholder convening on November 15, 2017 and conducted follow-up interviews with Native Hawaiian stakeholders who shared information about their work and their knowledge of Native Hawaiian education and well-being. Findings from the interviews were consistent with the findings from the mapping when examining data gaps.

The following recommendations, guided by the project findings, are offered to NHEC for consideration when planning next steps:

- Collaborate with Native Hawaiian organizations and stakeholders of Native Hawaiian data and data systems to agree on ways to increase access to available data, decrease redundancies in data collection, and take first steps toward sharing data across organizations. A variety of organizations are already working to understand the available data, but often organizations work solely within their own areas of expertise. One approach could be to develop MOUs or other agreements to promote cross-organizational data collection, use, and analysis.
- Support collaborative research and evaluation across different organizations serving Native Hawaiian communities that use data from the multiple domains identified in this report to understand the value and impact of Native Hawaiian education programming. A collaborative research effort would allow stakeholders to tell more compelling and complete stories related to the well-being of Native Hawaiian communities.
- Work with community stakeholders to develop shared definitions of success that could inform a research and development and policy agenda. Stakeholders voiced concerned about college enrollment and completion as the main indicators of success and argued for more Native Hawaiian community-relevant indicators of success. Defining multiple pathways toward success could help strengthen Native Hawaiian education programming by focusing efforts on pathways that have been identified and affirmed by individual stakeholders and the community at large.
- Support projects that focus on developing and generating high-quality implementation data rather than only outcome data. Native Hawaiians often participate in multiple programs simultaneously, and disentangling impacts is challenging without strong implementation data. Without better process data, it will remain unclear which programs or which program components are successful. Additionally, implementation data allows for the redesign and scale of programs to increase their impact.
- Advocate for better integration of individual, family, and community data. NHEC's data strategy might address ways that stakeholders could use, connect, and analyze data at these varying levels to better understand how Native Hawaiian communities are faring.

- Serve as a repository of information about available data relating to the well-being of Native Hawaiian communities. Building on this *Data Mapping Project*, NHEC may choose to serve as a central resource of information about data systems, data elements, and processes for accessing data, which could help increase awareness about available data. Making this information accessible in one place may be a practical way to begin to support more collaborative action across organizations focused on the well-being of Native Hawaiian communities.

References

Federal Interagency Forum on Child and Family Statistics (2017). *America's Children: Key National Indicators of Well-Being, 2017*. Washington, DC: U.S. Government Printing Office. Retrieved from https://www.childstats.gov/pdf/ac2017/ac_17.pdf.

Kamehameha Schools (2008). *An Introduction to the 'Ōpio Project*. Information Brief Series. Honolulu, HI: Kamehameha Schools, Research & Evaluation. Retrieved from http://www.ksbe.edu/_assets/spi/pdfs/reports/k-12/opio_introbrief_2008.pdf.

Kamehameha Schools (2014). *Ka Huaka'i: 2014 Native Hawaiian Educational Assessment*. Honolulu, HI: Kamehameha Publishing. Retrieved from http://www.ksbe.edu/_assets/spi/pdfs/kh/Ka_Huakai_2014.pdf.

Kana'iaupuni, S. (2007). *A Brief Overview of Culture-based Education and Annotated Bibliography*. Honolulu, HI: Kamehameha Schools, Research & Evaluation. Retrieved from http://www.ksbe.edu/_assets/spi/pdfs/reports/cbe/A_Brief_Overview_of_Culture-Based_Education_v3.pdf.

Kana'iaupuni, S. M. (2011). Lots of aloha, little data: Data and research on Native Hawaiian and Pacific Islanders. *Asian Americans & Pacific Islanders Policy, Practice and Community, 9* (1&2), p. 207-211.Kana'iaupuni, S., Ledward, B. & Jensen, U. (2010). *Culture-Based Education and Its Relationship to Student Outcomes*. Honolulu, HI: Kamehameha Schools, Research & Evaluation. Retrieved from http://www.ksbe.edu/_assets/spi/pdfs/CBE_relationship_to_student_outcomes.pdf.

Kana'iaupuni, S. M., Ledward, B., & Keohokalole, K. (2011). New research on the impact of cultural influences in education on Native Hawaiian student outcomes. *Asian Americans & Pacific Islanders Policy, Practice and Community, 9* (1&2), p. 221-229.

Ledward, B. C., & Hirata, D. (2011). *An overview of 21st century skills, Summary of 21st Century Skills for Students and Teachers,* by Pacific Policy Research Center. Honolulu, HI: Kamehameha Schools–Research & Evaluation. Retrieved from http://www.ksbe.edu/_assets/spi/pdfs/21st_Century_Skills_Brief.pdf.

National Research Council. (2004). *Eliminating Health Disparities: Measurement and Data Needs*. Panel on DHHS Collection of Race and Ethnicity Data, Michele Ver Ploeg and Edward Perrin, Editors. Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK215751/pdf/Bookshelf_NBK215751.pdf.

National Forum on Education Statistics. (2016). *Forum Guide to Collecting and Using Disaggregated Data on Racial/Ethnic Subgroups*. (NFES 2017-017). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2017/NFES2017017.pdf.

Office of Hawaiian Affair (2017). A Native Hawaiian focus on the Hawai'i Public School System, SY2015. *Ho'ona'auao (Education) Fact Sheet, 2017*(1), p.1-20.

Pacific Policy Research Center (2011). *Comprehensive/Complementary Education Systems: A Literary Review*. Honolulu, HI: Kamehameha Schools, Research & Evaluation. Retrieved from http://www.ksbe.edu/_assets/spi/pdfs/literature_reviews/CC_ED_Full.pdf.

U.S. Department of Health and Human Services (1999). *Improving the Collection and Use of Racial and Ethnic Data in HHS*. A joint report of the HHS Data Council Working Group on Racial and Ethnic Data & Data Work Group of the HHS Initiative to Eliminate Racial and Ethnic Disparities in Health. Washington, DC: U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning and Evaluation. Retrieved from https://aspe.hhs.gov/report/improving-collection-and-use-racial-and-ethnic-data-hhs.

U.S. Department of Health and Human Services (2006). *Data on Health and Well-being of American Indians, Alaska Natives, and Other Native Americans*. Washington, DC: U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning and Evaluation. Retrieved from https://aspe.hhs.gov/system/files/pdf/74926/report.pdf.

U.S. Department of Health and Human Services (2007). *Gaps and strategies for improving AI/AN/NA Data: Final Report*. Washington, DC: U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning and Evaluation. Retrieved from https://crihb.org/wp-content/uploads/2017/03/1_AIAN_CMS_Data_Report2007.pdf.

Waksberg, J., Levine, D., & Marker, D. (2000). *Assessment of Major Federal Data Sets for Analysis of Hispanic and Asian or Pacific Islander Subgroups and Native Americans: Inventory of Selected Existing Federal Databases*. Washington, DC: U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning and Evaluation. Retrieved from https://aspe.hhs.gov/report/assessment-major-federal-data-sets-analyses-hispanic-and-asian-or-pacific-islander-subgroups-and-native-americans-inventory-selected-existing-federal-databases.