

Public Investment and Economic Growth

March 22, 2017



Economic Growth



What factors influence economic growth?

- **Human Capital**
 - **Education**
 - **Health**
 - **Livability**
- Physical Infrastructure
- Capital Infusion
- Technology
- Natural Resources
- Regulation
- Business and Cultural Climate



Public Funding Mandates: Health and Education



■ Health

- Reduce Hunger
- Reduce Child and Infant Mortality
- Increase life expectancy
- Combat serious illnesses
- Promote psychological security

■ Education

- Provide enough funding and resources to give all students a basic education (K to 12)
- Dropouts cost the Territory in lost wages and taxes, costs for social services and crime.



Health and Economic Growth



Public goods in the health sector impact growth through different mechanisms, some more direct than others. Among these are the following:

- Increase labor productivity.
- Promote savings in health expenditures and increase productivity in the sector.
- Increase in the attractiveness of investment in human resources, worker longevity, and capital investments.
- Promote technological innovation.
- Improve the environment for investment and market expansion



Education and Economic Growth



- The recession had the greatest impact on individuals with lower levels of education attainment.
- **Unemployment rates were 80 percent higher** on average than expected in cities with low levels of high school and college graduates.
- High school **dropouts** are more than **twice as likely to be unemployed** than people who have attended college.
- High school **dropouts were three times more likely to receive income from public assistance** than high school graduates who did not go on to college – 17 percent versus 6 percent.
- The personal benefits of having a good, stable job create broader social and economic benefits.
- Government support for public education is thus crucial for individual employment, the broad creation of human capital, and overall economic growth.



Two Ideologies of Public Investments



- **Transparency** – Where and how are the tax payers' dollars being invested?
- **Accountability** - How are we performing?
Are we holding our agencies to standards and showing improvements in services provided over time?



Transparency



The Money Trail

■ The Budget

- Funding Sources
- Spending Patterns

■ The Employees

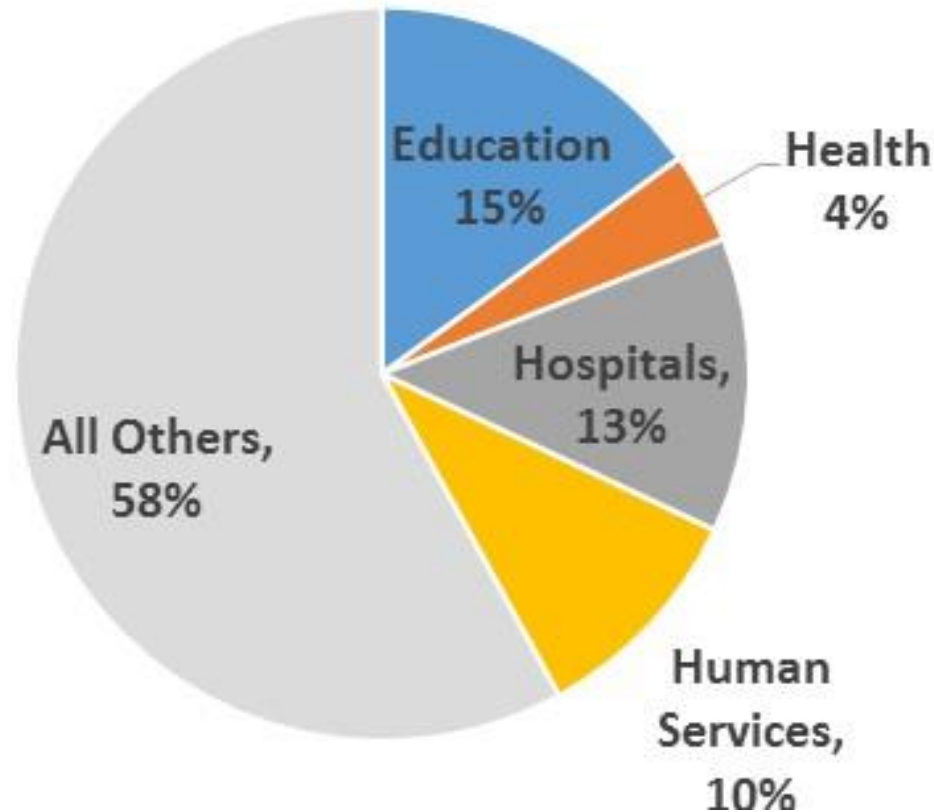
- Jobs Created
- Employee Spending

■ Indirect Impacts

- Additional Jobs
- Additional Income



USVI Government Spending by Function, FY 2014-2017

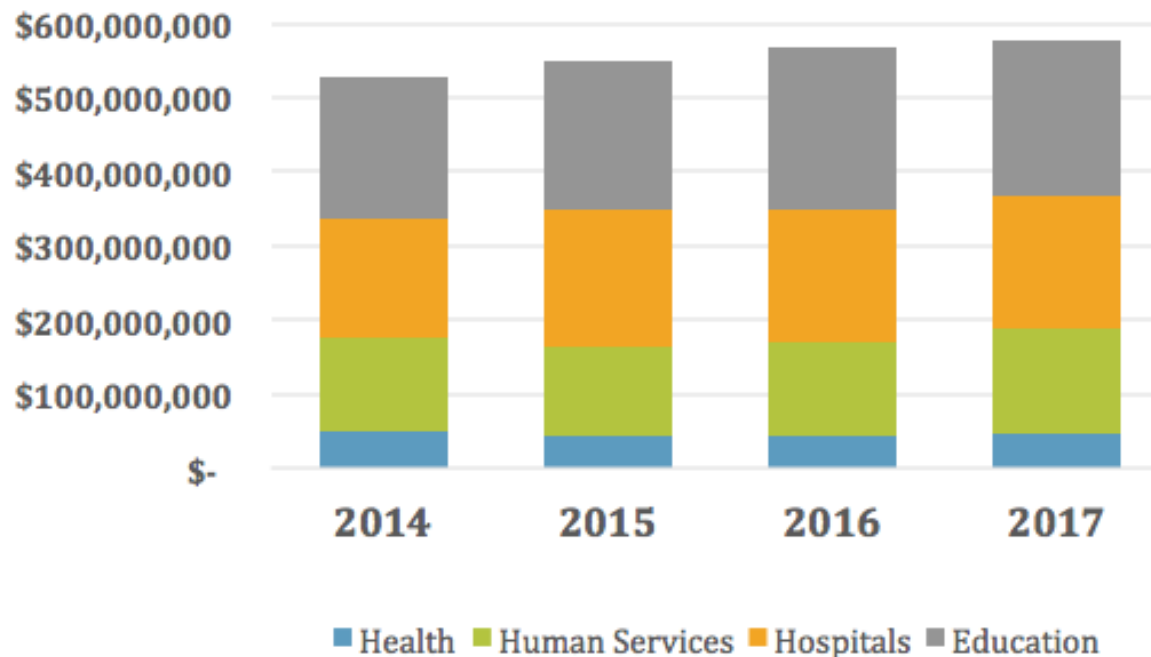




Trends in Government Spending



Figure 1.1. Trends in Government Spending for Selected Categories, FY 2014-2017



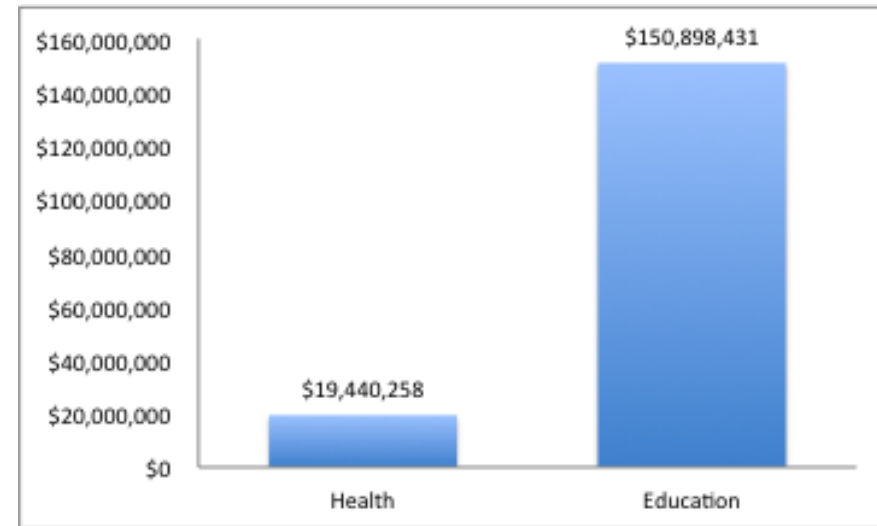
Source: Department of Finance
FY 2014-15 actuals, FY 2016 approved, and FY 2017 recommended expenditures



Spending as a percent of GDP

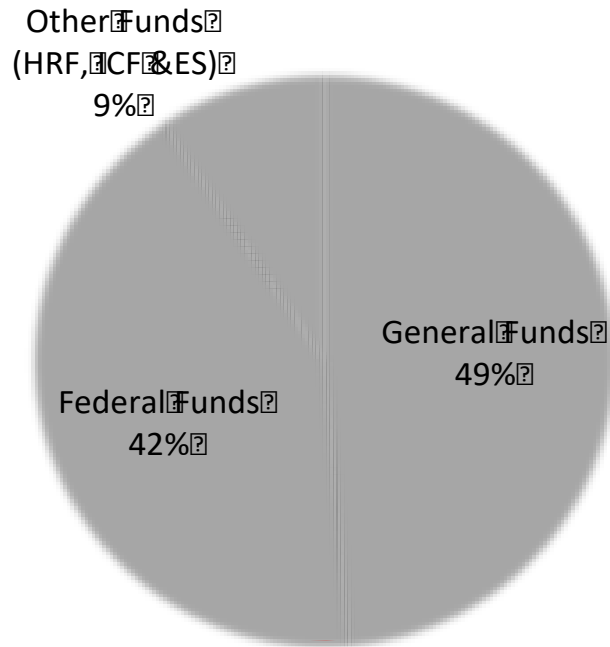


- The USVI real GDP is an estimated \$3.1 billion (US Bureau of Economic Analysis, 2015).
- Education spending as a percentage of GDP is about 7%. Comparatively, 6% of US GDP is spent on education.
- Health spending as a percentage of GDP is just over 1%. Comparatively, 8% of US GDP is spent on health.



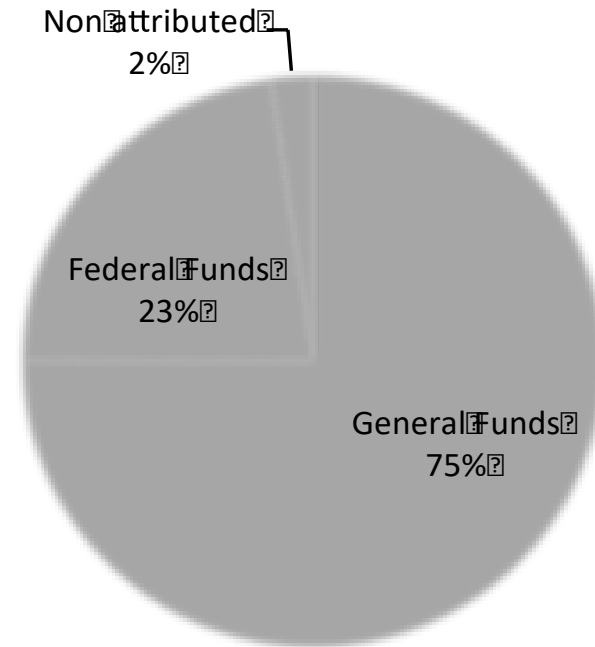
+ 2015 Funding Sources

Health



Funding Ratio 1: 1

Education



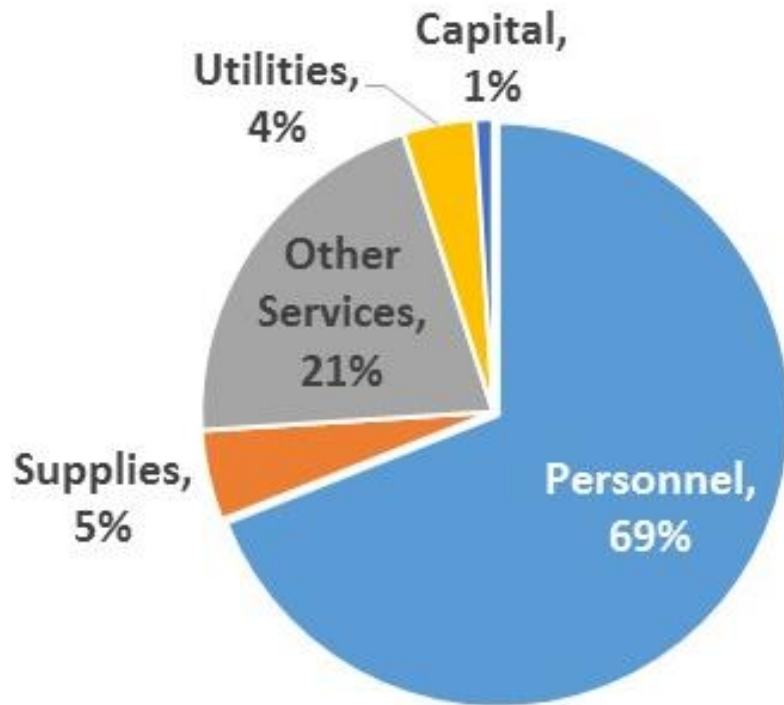
Funding Ratio 1: 0.31



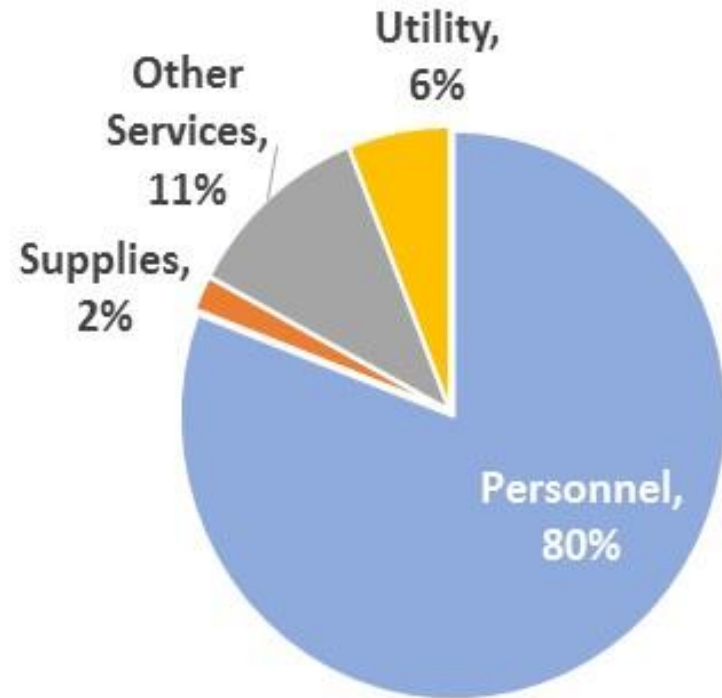
Spending Categories as a Share of Total Spending, 2015



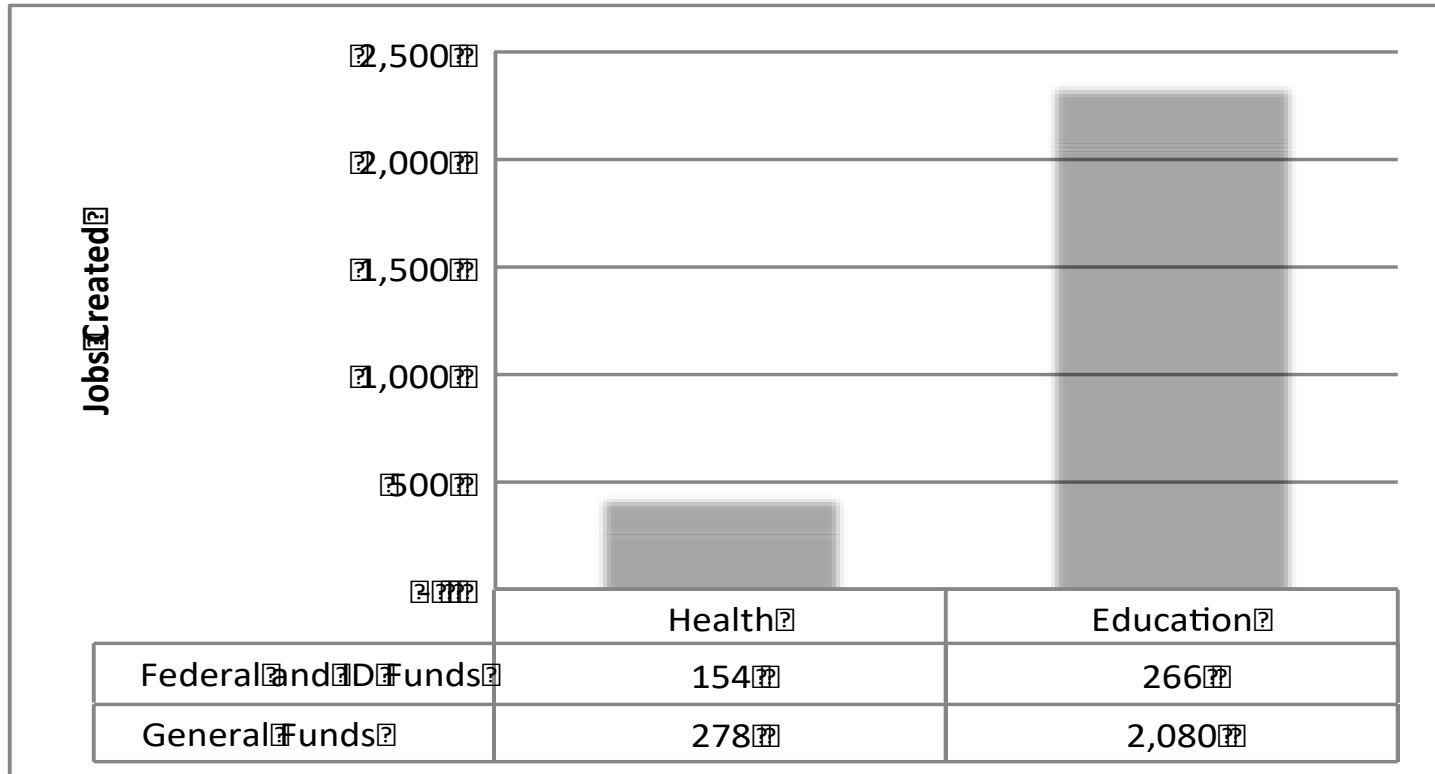
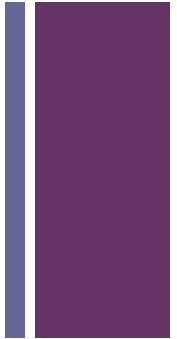
Health



Education



+ Direct Jobs Created

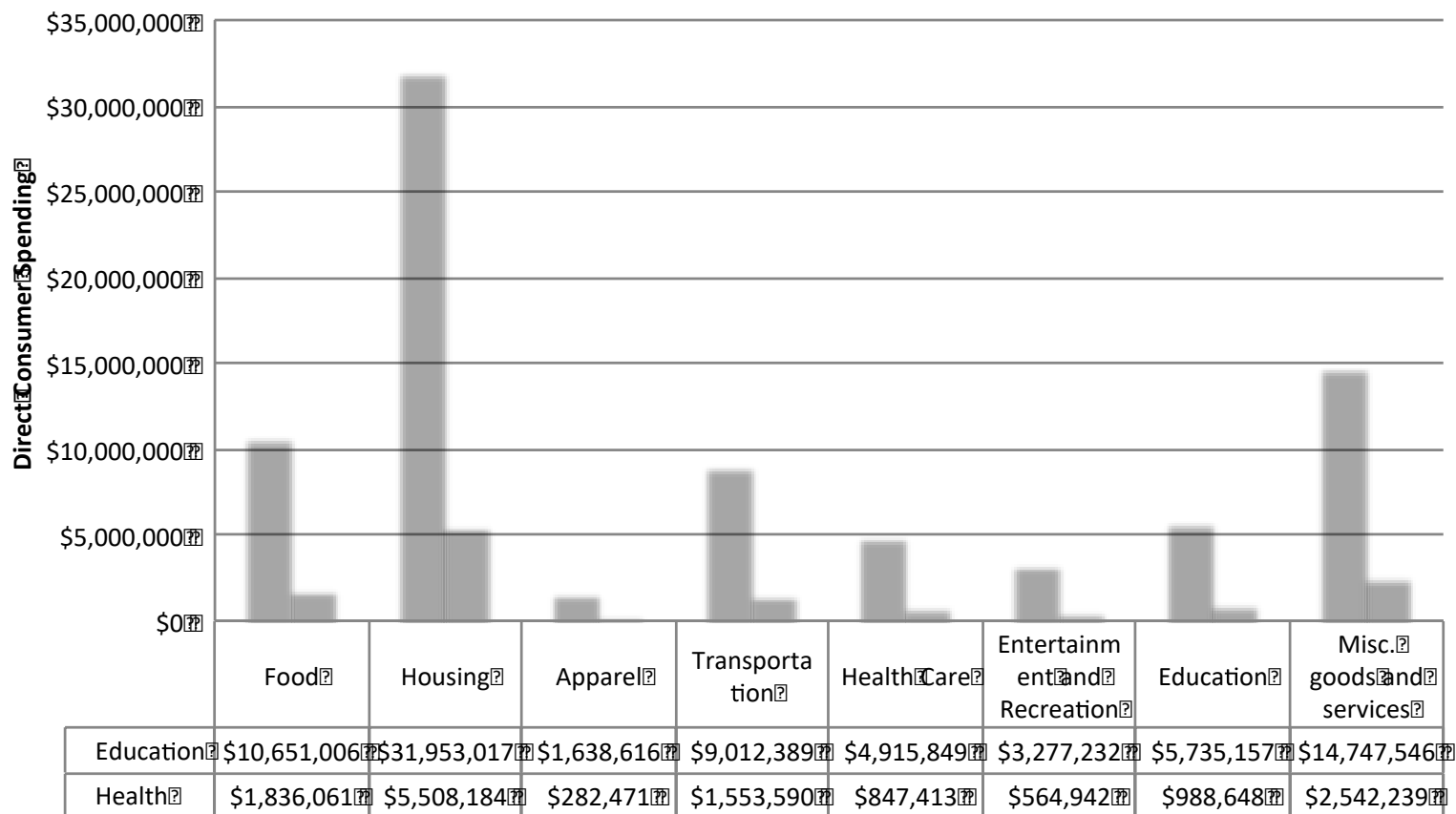


Funding to Job Ratio

Health: One job is generated for every \$45,000 in General Funds

Education: One job is generated for every \$64,320 in General Funds

+ Direct Consumer Spending





Indirect Impact

	Employment	Labor Income	Total Value Added
Health	50	\$1,935,253	\$4,781,360
Education	298	\$11,470,500	\$28,339,767

Direct to Indirect Job Ratio is approximately 7 to 1

Top Ten Sectors Impacted

Full-service restaurants

Limited-service restaurants

Retail - Food and beverage stores

Retail - General merchandise stores

Real estate

Offices of physicians

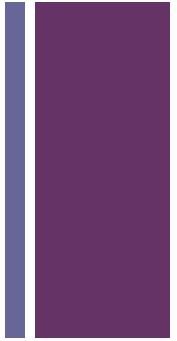
Retail - Motor vehicle and parts dealers

Wholesale trade

Retail - Building material and garden equipment and supplies stores

Labor and civic organizations

+ Impacts in a Nutshell



Direct General Fund Impact	Department of Health	Department of Education
General Fund share of Entire Budget	58%	77%
General Fund revenue spent on Personnel Costs (salary and fringe)	80%	80%
Ratio of General Funds to Additional Funding	1:1	1:0.31
Job Creation on General Funds	278	2,080
Additional Jobs not attributed to General Funds	153	266
Job Generation Ratio (General Funds required to generate 1 job)	\$45,000	\$64,320
Additional Indirect Impact		
Employment	50	298
Labor Income	\$1,935,253	\$11,470,500
Total Value Added	\$4,781,360	\$28,339,767



Accountability

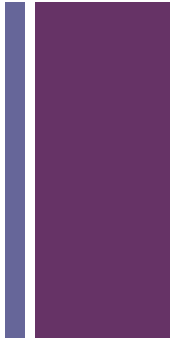


Performance Measures

- *Relevance and impact* – Is the indicator associated with one or more **issues which people care about** and which have **meaningful policy impacts**?
- *Validity and availability* – Are the **measures objective**, statistically defensible and credible? Are the **data verifiable** and easily and **affordably reproducible** for future reports?
- *Simplicity* – Are the measures appealing and **understandable to the general public** and to policy makers?
- *Ability to aggregate information* – Does the measure contribute to the understanding of the **important or broader issue** expressed by the indicator?
- *Ability to reflect trends* – In order to understand and determine long-term impacts, can the data **reflect trends over time**?



Examples from the Department of Health



Key Performance Indicators	FY 14 Actual	FY 15 Actual	FY 15 Target	FY 15 Target Met
Percentage of registered births reported	97%	97%	97%	Ö
Percentage of registered deaths reported	100%	100%	100%	Ö
Percentage of incidences of cancer reported as primary or secondary cause of death	97%	97%	97%	Ö
Certificate of Need (CON) applications completed within 90 days	70%	75%	75%	Ö
Allied Health Applications completed within 15 business days	82%	80%	75%	Ö
Licenses (Institutional, Documentenens) processed within five (5) business days	85%	95%	90%	Ö

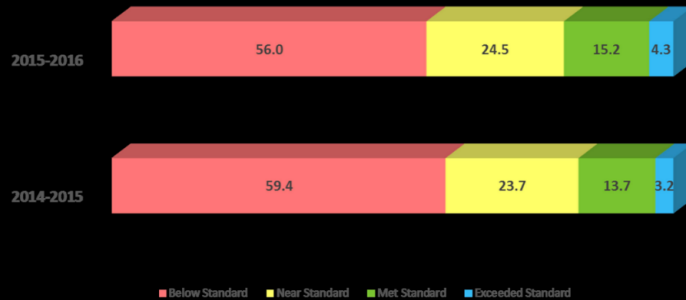


Examples from the Department of Education



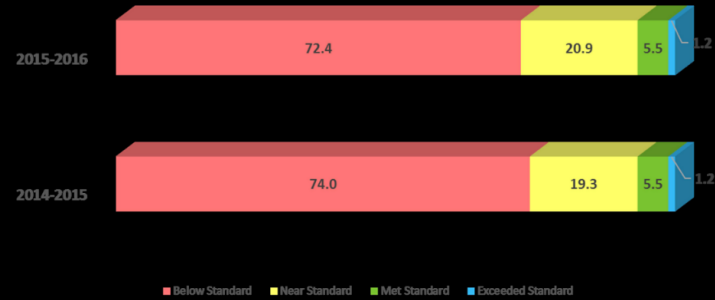
English Language Arts/Literacy

Percent of students in each performance level, grades 3-8 and 11



Mathematics

Percent of students in each performance level, grades 3-8 and 11





An Example

Michigan Health and Wellness Dashboard

<http://www.michigan.gov/mihealthandwellnessdashboard>

Access to Health Care			
	Prior	Current	Progress
Uninsured adults	11.2%	9.7%	
Primary care physicians	122.2	124.1	
Veterans enrolled in VA healthcare	22.2%	22.8%	

Health Indicators			
	Prior	Current	Progress
Average life expectancy at birth	77.9	78.0	
Preventable hospital stays (per 1,000 Medicare enrollees)	64.5	59.1	
Infant mortality (per 1,000 births)	7.0	6.8	
Attempted suicide and self-inflicted injury	4,881	4,343	

Healthy Communities			
	Prior	Current	Progress
Percentage of schools not selling unhealthy foods and beverages	33.4%	34.5%	
Food stamp sales at Michigan's farmers markets	\$1.7M	\$1.6M	



Performance improving



Performance staying about the same



Performance declining

[Michigan county health rankings](#)

Revision 09/13/2011



Health Behaviors			
	Prior	Current	Progress
Obesity in the population (adults)	31.5%	30.7%	
Obesity in the population (high schoolers)	12.1%	13%	
Adult physical activity	19.7%	19.5%	
Adequate daily consumption of fruits and vegetables	21.3%	22.6%	---
Routine checkups in past year	69.9%	71.8%	
Recent dental visits	68%	68.6%	
Childhood immunizations	70.5%	70%	
Teen birth rate	26.3	23.6	
Adult cigarette smokers	21.4%	21.2%	
Excessive alcohol	6.2%	6.8%	
Sexually transmitted disease – chlamydia	493.2	490.7	



Michigan Education Dashboard

<https://midashboard.michigan.gov/education>

Student Outcomes

	Prior	Current	Progress
Third grade reading proficiency	70%	50.1%	
Student academic growth, year-to-year progression, grades 3-8	14.4%	14.3%	
SAT college readiness benchmarks	N/A	34.9%	----

Schools Accountability

	Prior	Current	Progress
School meeting federal adequate yearly progress (AYP)	79.3%	81.9%	

Culture of Learning

	Prior	Current	Progress
Self-reported bullying on school property	22.7%	25.3%	
Free/reduced lunch participation for eligible students	68.32%	68.09%	

Value for Money

	Prior	Current	Progress
Number of districts with ongoing deficits for three consecutive years	29	27	



Performance improving



Performance staying about the same



Performance declining



Post-secondary Education

	Prior	Current	Progress
Cost as a percentage of median family income			
Universities	17.8%	18.1%	
Community College	4.4%	4.7%	
Community college students who require developmental courses	61%	59%	
Community college retention rate	72%	70%	
University first-year retention rate	81.8%	79.8%	
Community college completion/graduation/transfer rate	53%	54%	
University six-year graduation rate	60.5%	60.3%	
Population with associates degree or higher	35.8%	36.6%	



Web Resources



- <https://midashboard.michigan.gov/>
- <https://midashboard.michigan.gov/education>
- <https://midashboard.michigan.gov/health-and-wellness>
- <https://transparency.michigan.gov/>

- <http://www.cityofboston.gov/bar/scorecard/reader.html>